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Paul P. Davis, President & CEO

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- GSA Contract Number: GS-06F-0043M
- Business Size Classification: Small Business for Federal Government Supplies Procurement

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Sincerely,

Paul P. Davis
President & CEO

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(1) 1/4 CIC 200 Pro Drill (97116)
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GSA Contract Number: GS-06F-0043M

GSA Schedule
Contract GS-06F-0043M

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GSA Fax Line: *1-877-233-3377*
GSA Email: *GSAsupport@chromate.com*

SCHEDULE TITLE	***FSC Group 51, Part V, Hardware SuperStore, Department 3, Hardware Store***
TABLE OF AWARDED SPECIAL ITEM NUMBERS (SIN'S)	***105-002***
CAGE CODE	***4N632***
DUNS	***061955621***
MAXIMUM ORDER	***$300,000 per order***
MINIMUM ORDER	***$50.00 per order***
GEOGRAPHIC COVERAGE	***United States 48 contiguous states and Washington DC***
PRODUCTION	***Solon, Ohio USA Multiple Warehouses throughout U.S.***
DISCOUNTS	***28%-66% off List Price (Depending on product)***
QTY DISCOUNT SCHEDULE	***Prices as listed***
PAYMENT TERMS	***Net 30 Days***
TYPES OF GOVERNMENT PURCHASING CARDS	***All Accepted***
TIME OF DELIVERY	***5-7 days contingent upon stock, F.O.B. Destination***
ORDERING ADDRESS	***Chromate Industrial Corporation 100 DaVinci Drive Bohemia, New York 11716***
PAYMENT ADDRESS	***P.O. Box 714905 Columbus, OH 43271-4905***
WARRANTY PROVISION	***100% satisfaction from date of purchase***
FEDSTRIP / MILSTRIP ORDERING ACCESS	***Yes / Contact us for processing***
GSA ADVANTAGE ORDERING ACCESS	***Yes***
CCR REGISTERED	***Yes***
CONTRACT TERM	***4/15/12 – 4/14/17***

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B	2	O	30
C	3	P	35
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E	5	R	50
F	6	S	55
G	8	T	100
H	9	U	200
I	10	V	300
J	12	W	500
K	15	X	1000
L	20	Y	5000
M	24		

NOTE: Lowercase Letters = No Split

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- Easy-To-Read **BIN LABELS** ... identifies stock and saves time looking for parts.
- **NO OVERSTOCK! NO UNDERSTOCK!**
  Checking your bins regularly will insure a properly balanced stock.

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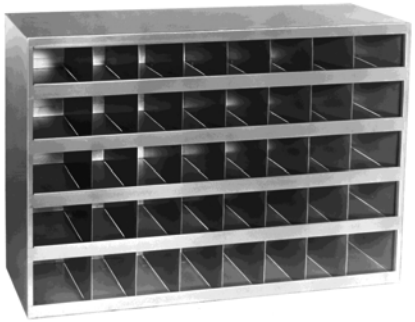
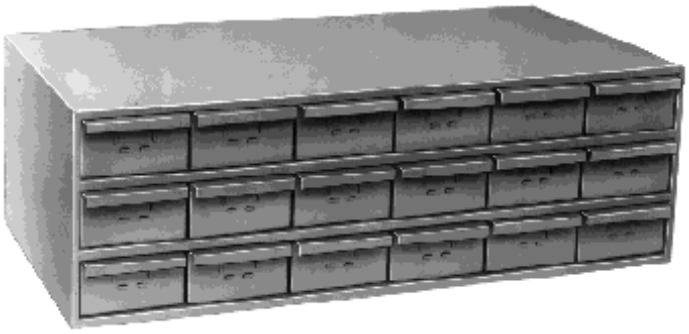


40 COMPARTMENT BIN

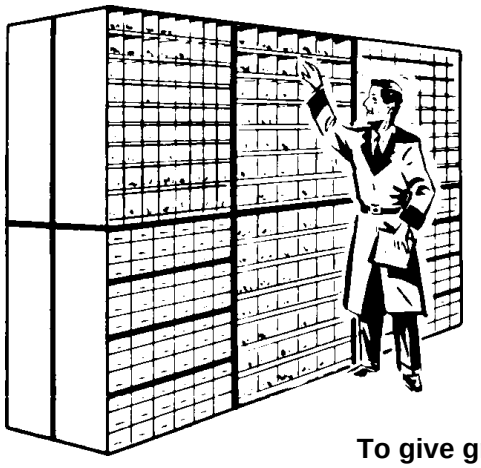
Storage Cabinets



18 DRAWER CABINET

CHROMATE INVENTORY CONTROL PROGRAM

NEAT, ORGANIZED INVENTORY



To give greater flexibility, assortments such as this one can be combined to make up installations of two, three, four or more units.

TYPICAL INSTALLATION

Shop Assortment Programs to Help Organize Your Shop...

- THE RIGHT PART WHEN YOU NEED IT
- SAVE TIME, MONEY, LABOR AND MESS
- REDUCE SEARCH TIME
- MINIMIZE PARTS LOSS

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- INSTITUTIONS
- FARMS
- CONTRACTORS
- MINING
- TRUCKING
- GOVERNMENT
- RECREATIONAL
- COMMERCIAL

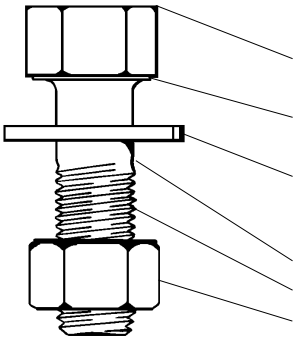
WE WILL:

- STRAIGHTEN YOUR INVENTORY FOR YOU
- RECOMMEND SIZES AS NEEDED
- SERVICE YOU ON A MONTHLY BASIS

ALLOY 200 BALANCED ASSEMBLY SYSTEM

PRODUCT OF EXCELLENCE

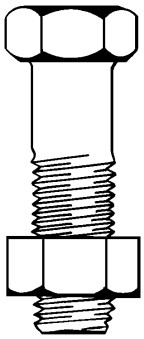
The leader of the Chromate line is the ALLOY 200 system. This system incorporates the Chromate ALLLOY 200 Cap Screw, Nut and Washer in matched assembly to provide maximum tensile strength and holding power. Bolt heads and nuts exceed SAE height standards by 30%. Washers provide smooth, uniform bearing surfaces. Each bolt, nut and washer has a special Chromate finish which exceeds Military plating requirements (QQZ-325, Type II, Class 3). This controlled finish and plating insures easy tightening of bolts and uniform torque. The Chromate ALLOY 200 system is rated 180,000 PSI minimum tensile strength. The charts below show a comparison of SAE grade 2, 5 and 8, and the ALLOY 200 Cap Screw, Nut and Washer.



ALLOY 200 SYSTEM

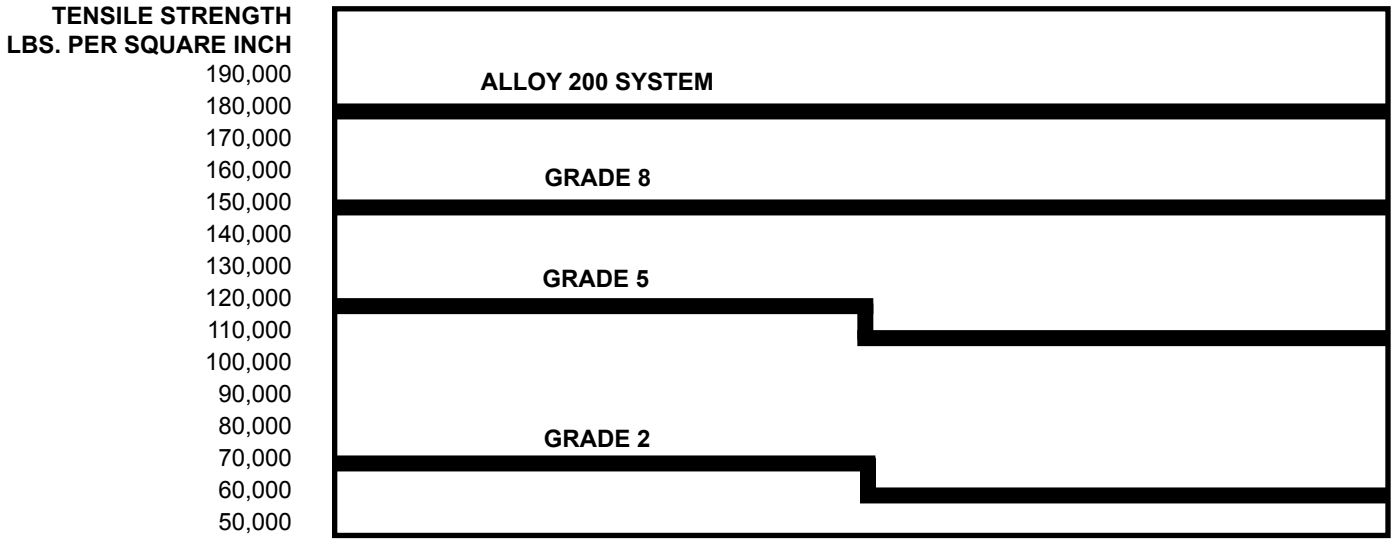
THE CHROMATE COMPARISON

1. **Head exceeds SAE height standard by 30% for improved abrasion resistance and non-slip wrenching.**
2. **Improved fillet for extra fatigue resistance and head strength.**
3. **High strength washer insures uniform bearing surfaces and load distribution (no dishing or cupping).**
4. **Full bodied shanks for better fit.**
5. **Rolled threads to Class 2A standards.**
6. **Nuts are 30% higher than SAE standards with a matched proof-load which provides the optimum in performance and reliability.**



GRADE 8 / GRADE 5 / GRADE 2

COMPARATIVE STRENGTH



CHROMATE INVENTORY CONTROL – Suitable steel bins and cabinets are furnished to our customers at no cost, to store fasteners, anchors and related items. Bins and cabinets are set up and labeled. A balanced inventory is kept at all times. With this service customers have the parts when they need them, in the quantities required. If at any time, any standard item purchased from Chromate Industrial becomes surplus or obsolete, this merchandise may be returned for full credit.

TORQUE CHART

NUT AND BOLT FASTENER ASSEMBLY

Recommended torque foot-pounds for lubricated fastener assembly (waxed nuts, anti-seize lubricants, etc.)

DIA. inch	GRADE 5		CIC 150		ALLOY 200	
	COARSE	FINE	COARSE	FINE	COARSE	FINE
1/4	5	6	7	8	10	12
5/16	10	12	14	15	20	22
3/8	19	21	24	27	36	41
7/16	30	33	38	43	58	65
1/2	45	51	59	66	87	100
9/16	66	72	84	96	125	140
5/8	90	100	120	135	175	200
3/4	160	180	200	220	310	345
7/8	260	285	—	—	500	590
1	390	435	—	—	750	810
1-1/8	480	540	—	—	1050	1170
1-1/4	670	745	—	—	1500	1650
1-3/8	880	1000	—	—	1950	2220
1-1/2	1170	1320	—	—	2600	2900

Recommended torque foot-pounds for clean, dry, unlubricated fastener assembly.

DIA. inch	GRADE 5		CIC 150		ALLOY 200	
	COARSE	FINE	COARSE	FINE	COARSE	FINE
1/4	9	10	11	13	17	19
5/16	17	20	23	25	34	37
3/8	31	35	40	45	60	68
7/16	50	56	64	72	96	108
1/2	75	85	98	110	145	165
9/16	110	120	140	160	210	235
5/8	150	170	195	220	290	330
3/4	265	300	330	365	515	575
7/8	430	475	—	—	830	980
1	645	720	—	—	1250	1350
1-1/8	800	900	—	—	1750	1950
1-1/4	1120	1240	—	—	2500	2750
1-3/8	1470	1670	—	—	3250	3700
1-1/2	1950	2200	—	—	4350	4850

Recommended torque foot-pounds for lubricated fastener assembly (waxed nuts, anti-seize lubricants, etc.)

DIA. inch	PREVAILING TORQUE NUTS		DIA. inch	PREVAILING TORQUE NUTS	
	CIC 150	ALLOY 200		CIC 150	ALLOY 200
1/4	6 (72 in-lbs)	8 (96 in-lbs)	3/4	188	260
5/16	12 (144 in-lbs)	17 (205 in-lbs)	7/8	303	415
3/8	22 (265 in-lbs)	30 (360 in-lbs)	1	455	620
7/16	35 (420 in-lbs)	48 (575 in-lbs)	1-1/8	644	885
1/2	53 (635 in-lbs)	74	1-1/4	908	1250
9/16	77	106	1-3/8	1190	1640
5/8	106	147	1-1/2	1580	2175

Torque values are for both coarse and fine thread pitch as torque-tension tests proved little clamp load differences because of the lubricant. Inch-pound torque values are listed in parenthesis.

CIC 150 AND ALLOY 200 ARE: ALL AMERICAN STANDARDS

MADE IN AMERICA, FOR AMERICANS, BY AMERICANS!

Warnings on Faulty Imported Fasteners Begin to Draw Congressional Attention

BY EDUARDO LACHICA
Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON — For more than five years C.T. "Tommy" Grand has warned the federal bureaucracy and private industry of the dangers posed by failure-prone imported bolts and screws. Now he is being taken seriously.

Relentless nagging by Mr. Grant, a Houston distributor of industrial fasteners, spurred a Pentagon inspection of military stocks and an investigation of possibly faulty bolts installed in Army armored vehicles.

The U.S. Office of Consumer Affairs, after getting warnings from Mr. Grant, likewise has urged General Motors Corp., Ford Motor Co. and Chrysler Corp. to check their inventories to ensure that sub-standard fasteners — many of which Mr. Grant contends are low-quality foreign imitations of U.S. fasteners — don't get into their cars.

Joseph Dawson, information director of the Reagan administration's attention. "It's obvious that Mr. Grant began the process, but it was the IFI research that showed the validity of his warnings," Mr. Dawson says.

Based on a study designed to focus on imported bolts, the Cleveland-based institute concluded that many bolts believed to be imports are improperly marked to suggest that they meet certain U.S. strength standards. "Millions of improperly marked bolts have been installed in a broad variety of applications in the U.S.," the institute's study stated. "The danger of failure at elevated temperatures of these bolts is real and may contribute to equipment failure or possibly even loss of life or limb."

Hearings Set Today

The fastener flap has drawn the attention of Rep. John Dingell (D. Mich.), chairman of the House Energy and Commerce Committee. At a hearing scheduled today, Mr. Dingell plans to press Commerce Secretary Malcolm Baldrige for more action to stop counterfeit fasteners from entering the U.S.

About 7.8 billion of fasteners are sold in the U.S. annually for use in products ranging from nuclear-reactor containers to children's roller skates.

Mr. Grant blames bolt failures for two fatal Marine Corps helicopter crashes in the West Coast and the 1982 collapse of a Houston television tower that resulted in $65 million in settlements to property owners and the families of five ironworkers killed in the accident.

The furor is mostly about imports that are marked as highly heat-resistant — so-called Grade 8 bolts — but are actually Grade 8.2 bolts, which are less durable at high temperatures. Grade 8s make up almost 20% of the entire fastener trade.

Documents Are Cited

According to documents obtained by the Dingell committee, the Japanese Screw Industry Association admits that, in the past, some of its members shipped wrongly marked products to the U.S. but insists the practice has stopped.

Japanese makers say they marked their fasteners improperly "at the insistence of their American customers," according to the documents. Grade 8s are more expensive than Grade 8.2s.

Some importers dismiss the problem. But U.S. fastener makers aren't unhappy about the alarm Mr. Grant has raised. Concerns about fastener safety could cause some U.S. users to switch to known domestic products from the cheaper imports.

The Pentagon, the industry's largest federal customer, is still trying to assess the extent of the problem. And some contractors already are reacting to the Pentagon alert.

A Ford Motor spokeswoman says that auto maker is free of fastener trouble because its products are made to its specifications by known producers. But the administration's Mr. Dawson frets that counterfeit fasteners still could get into cars during repairs at service stations.

REPRINT FROM NEWSDAY — 7/14/86

CIC 150 AND ALLOY 200 ARE:
AMERICAN MADE
AMERICAN STEEL
AMERICAN STANDARDS

Fake Steel Bolts Threaten Our Safety

Why would anyone counterfeit steel bolts? The same reason someone counterfeits $100 bills: to make money by passing them off as the real thing.

Granted, you don't make as much illicit profit from a phony $100 bill, but the counterfeit bolt is a lot harder to detect. In fact, it costs about $200 — real dollars, that is — to determine the exact metallic content of a single bolt. For this reason, few tests are done unless a bolt fails, and then it's too late.

JACK ANDERSON

Why should you care whether a steel bolt isn't what it's supposed to be? Consider that there are about 3,000 bolts in the car you drive, 7,000 in every Army tank your taxes pay for and 3 million in some jet aircraft.

Consider also that the required alloy-steel bolts are reliable to 800 degrees Fahrenheit, while chaper boron-steel bolts turn to putty at 500 degrees. Recent bolt failures in nuclear plants and military equipment suggest that fraudulent fasteners may already be screwed into America's vitals.

A recent study by the Industrial Fastener Institute concluded that 80 percent of Grade 8 bolts — supposedly the hardest and most durable on the market — were counterfeit. Some Japanese exporters have admitted using cheaper, boron steel on their Grade 8 bolts instead of the specified alloy steel.

Some U.S. importers appear to be cooperating with the Japanese bolt counterfeiters — or even instigating the fraud. Our reporter Jim Lynch was slipped a letter to an American importer from a major Japanese fastener manufacturer. It suggests that the Japanese firm was well aware of the U.S. alloy-steel requirement, "but that regarding the present orders we will ship Grade 8 boron ... using 60-degree equally spaced headmarking." That marking is the official identification of Grade 8 alloy-steel bolts.

Some Japanese bolt manufacturers have apologized for the mismarkings when caught, but claimed that the U.S. importers requested them.

"I wouldn't put a kids' swing set together with some of the junk I get in here!" griped an angry distributor in Houston.

Unfortunately, more than swing sets fail because of faulty bolts. Here are some examples of what some industry insiders call "The Junking of America":

• Two military helicopters crashed in separate accidents on the West Coast last spring, killing six occupants. Both creashes were traced to faulty fasteners.

• A neighborhood in Texas had to be evacuated in 1984 when a bolt broke and 5,000 pounds of deadly phosgene gas spewed out of a petrochemical plant.

• Five ironworkers died when a television / radio antenna tower in Houston collapsed in 1982 because of a bolt failure.

• A 1984 study, costing $2 million, estimated that almost half of the 67,000 bolts in a Midland, Mich., nuclear plant did not meet specifications. The failure of three main bolts anchoring two reactors had prompted the study. The plant is not in operation.

Many foreign manufacturers now sell "generic" bolts, without identifying factory marks. This makes tracing counterfeits virtually impossible.

So why not simply "Buy American"? Because almost half our fastener manufacturers have shut down in the past 10 years due to foreign competition. A 1982 Commerce Department study found that domestic fastener-makers could supply only 45 percent of the military's emergency needs, but ruled that this did not threaten national security.

CIC 150 AND ALLOY 200 ARE:
AMERICAN MADE
AMERICAN STEEL
AMERICAN STANDARDS

Bolts Imported From Asia Fail Under Stress

Many of the millions of steel bolts that hold America's bridges and skyscrapers together may be dangerously brittle or stretching loose because they are counterfeits made by Asian manufacturers.

The counterfeits are substandard steel and alloy bolts made to look like the genuine article, right down to the head markings used by the industry to identify the various grades. Engineers and federal investigators have discovered several cases of below-par bolts in construction projects across the country since the scam was discovered last summer.

JACK ANDERSON

The workhorse of industrial fasteners is the A325, a high-quality bolt that has been coun terfeited by factories in Japan, Taiwan and South Korea. Our associate Stewart Harris has documented four instances of substandard A325s:

• Imported bolts on a highway guard rail broke when a car slammed into it, according to Bill Windt, president of Texas Bolt, a Houston company that is one of the largest domestic manufacturers of A325s. Testing in Texas Bolt's laboratory found that the imported bolts weakened when dipped into molten galvanizing solution — a standard weatherproofing process that involves subjecting the bolts to temperatures of 840-860 degrees. The dipping will turn a bogus low-carbon boron bolt brittle on the outside and soft on the inside, and it'll stretch and break under stress.

• A drawbridge over the Intercoastal Waterway in West Palm Beach, Fla., made strange noises when it was raised and lowered. In tests of two bolts on the 7-year-old bridge, one was found to contain only about half as much carbon as required by the industry standard.

• A Texas company building an offshore oil rig in Japan had to replace Japanese-made A325s that failed during a test erection of the platform. Donald Branham, president of the company, told the Engineering News Record the bolts were replaced with American-made A325s.

• About 4,000 bolts on a steel-framed garage being built for the town of Beachwood, Ohio, had to be replaced because they were stretching when workers tightened them to specifications. Laboratory tests showed that four out of five bolts failed to meet the tensile-strength standard for A325s.

The reason for making inferior steel bolts is to cut costs. Not only is the harder bolt expensive, but the wear and tear on the manufacturer's machine tools is obviously less severe when they're cutting softer steel. In addition, the tempering process for lower-quality bolts costs less.

Competition from Asian counterfeiters has forced many U.S. bolt makers and distributors out of business. Those that have survived are hoping for a federal crackdown on the substandard imports.

Last summer, Tommy Grant, a Houston-based distributor, and the Industrial Fastener Institute in Cleveland alerted federal officials to the presence of counter-feit bolts in government supply channels. Rep. John Dingell (D-Mich.) has been investigating the fraud, and the Nuclear Regulatory Commission is checking power plants for counterfeit bolts that could fail.

CHROMATE FASTENING SYSTEMS

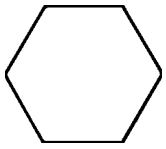
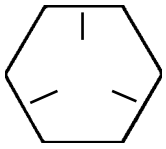
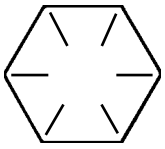
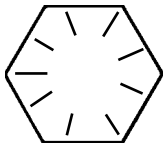
The Choice Should Be Yours!

WHEN SHOULD YOU USE HIGH STRENGTH ASSEMBLIES?

WHEN WOULD A LOWER STRENGTH CAP SCREW BE O.K.?

GRADES OF CAP SCREWS ARE SIMPLE TO UNDERSTAND
WE CAN HELP YOU MAKE THE BEST CHOICE.

WHICH ONE?

GRADE	 GRADE 2	 GRADE 5	 GRADE 8	 ALLOY 200 20% higher head
P.S.I. TENSILE STRENGTH*	60-80,000	120,000	150,000	180,000

*POUNDS PER SQUARE INCH OF HOLDING POWER

There is No Substitute for Quality!

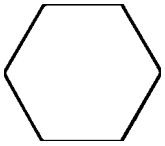
HOWEVER ... HIGHER QUALITY THAN NEEDED
CAN BE A WASTE OF MONEY – LET ME EXPLAIN...

SUGGESTED APPLICATIONS FOR CAP SCREWS

At Chromate we do not sell Grade 2 cap screws. We feel they do not have a place in industry as their failure rate is far too high. **We do, however, offer Grade 5's which, compared to Grade 2's in price, are almost identical – with far greater holding power.**

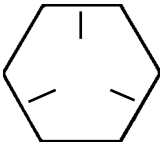
For that extra margin of safety in holding power, plus greater resistance to vibration and fatigue failure, we also offer the Grade 8 and ALLOY 200 "Alloy Balanced Fastener Systems".

We want to help you make the right choice. We will sell you only what you need and require – nothing more! Fasteners are a major part of our business. If you have problems or questions we want to help.



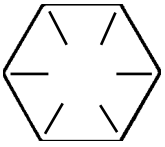
GRADE 2
60-80,000 PSI
No Head Mark

Low holding requirements such as static applications in sheet metal and wood.



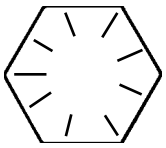
GRADE 5
120,000 PSI
3 Radial Marks

The most widely used cap screw by industry, contractors and fleets today. 70% of the cap screws used on cars, trucks and machinery are Grade 5's.



GRADE 8
150,000 PSI
6 Radial Marks

This is used as standard equipment on cars, trucks and machinery for critical applications such as holding steering boxes, head bolts, pinion mounts and motor mounts. Grade 8 must meet 150,000 psi minimum.



ALLOY 200
180,000 PSI
9 Radial Marks

This is the ultimate in holding power. It replaces Grade 8 for severe vibration and dynamic applications. Most cap screws marked as Grade 9 provide 165,000-180,000 psi. ALLOY 200's are 180,000 psi minimum. We feel that any greater psi will not provide enough elasticity for proper clamping force, therefore, we have limited our hardening to the maximum of 180,000-185,000 psi. This cap screw will handle any and all severe holding problems.

BOLT/NUT — WRENCH SIZES

BOLT SIZE	THREAD		CAP SCREW	FINISHED HEX NUT	2H HEAVY HEX NUT
	USS	SAE			
1/4	20	28	7/16	7/16	1/2
5/16	18	24	1/2	1/2	9/16
3/8	16	24	9/16	9/16	11/16
7/16	14	20	5/8	11/16	3/4
7/16 (OLD STYLE)	14	20	5/8	5/8	3/4
1/2	13	20	3/4	3/4	7/8
9/16	12	18	13/16	7/8	15/16
5/8	11	18	15/16	15/16	1-1/16
3/4	10	16	1-1/8	1-1/8	1-1/4
7/8	9	14	1-5/16	1-5/16	1-7/16
1	8	14	1-1/2	1-1/2	1-5/8
1-1/8	7	12	1-11/16	1-11/16	1-13/16
1-1/4	7	12	1-7/8	1-7/8	2
1-1/2	6	12	2-1/4	2-1/4	2-3/8

FLAT WASHER DIMENSIONS

WASHER SIZE	USS — WIDE BAND		SAE NARROW BAND	
	I.D.	O.D.	I.D.	O.D.
#6	—	—	5/32	3/8
#8	—	—	3/16	7/16
#10	—	—	7/32	1/2
#12	—	—	1/4	9/16
3/16	1/4	9/16	—	—
1/4	5/16	3/4	9/32	5/8
5/16	3/8	7/8	11/32	11/16
3/8	7/16	1	13/32	13/16
7/16	1/2	1-1/4	15/32	59/64
1/2	9/16	1-3/8	17/32	1-1/16
9/16	5/8	1-1/2	19/32	1-3/16
5/8	11/16	1-3/4	21/32	1-5/16
3/4	13/16	2	13/16	1-1/2
7/8	15/16	2-1/4	15/16	1-3/4
1	1-1/16	2-1/2	1-1/16	2
1-1/8	1-1/4	2-3/4	1-3/16	2-1/4
1-1/4	1-3/8	3	1-5/16	2-1/2
1-3/8	1-1/2	3-1/4	1-7/16	2-3/4
1-1/2	1-5/8	3-1/2	1-9/16	3

ASSORTMENTS

- **Quality Maintenance and Repair Supplies**
- **A Vast Selection of Assortments Comprising the Most Popular and Frequently Used Sizes and Styles**
- **Compactly Stored in Durable Trays, Bins, Cabinets and Racks**
- **Make Parts Retrieval Fast and Easy**
- **Simplify Your Inventory**
- **Save Time, Money and Labor**

CHROMATE ASSORTMENTS PROVIDE FAST AND EASY ACCESS TO ALL YOUR MAINTENANCE AND REPAIR SUPPLIES.
They will organize your shop, reduce down time and make your operation more efficient.

ASSORTMENTS – Alphabetical Listing

TRAY ASSORTMENTS

P/N	DESCRIPTION
	ABRASIVES
17850	Bristle Brushes
17694	Bristle Brushes]
17666	Flap Discs, Type 27, Z3 - 4-1/2" x 7/8"
17667	Flap Discs, Type 29, Z3 - 4-1/2" x 7/8"
17668	Flap Discs, Type 27 XL, Z3 - 4-1/2" x 7/8"
17669	Flap Discs, Type 29 XL, Z3 - 4-1/2" x 7/8"
17738	Quick-Lok™ Abrasive Discs (2" & 3" Dia.)
17739	Quick-Lok™ Abrasive Discs (4" Dia.)
17954	Quick-Lok™ Abrasive Discs
17921	Quick-Lok™ Mini Flap Discs
17076	Quick-Lok™ Abrasive Discs (2" & 3" Dia.)
17740	Quick-Lok™ Abrasive Discs (2" & 3" Dia.)
17741	Quick-Lok™ Abrasive Discs (4" Dia.)
17078	3M Roloc™ Abrasive Discs (2" Dia.)
17079	3M Roloc™ Abrasive Discs (3" Dia.)
17080	3M Roloc™ Abrasive Discs (2" & 3" Dia.)
17776	Trim-Kut™ Sanding Discs
	ANCHORS
17664	Multi-Toggle Anchors
17777	Drop-Tite™
17901	Cement Bolt
7790	Cement (Hex Washer & Flat Head)
17021	Cement Screw and Drill Assortment
17732	Epoxy-Lock™ Stud and Driver
17871	Hammer Drive Stud
17750	Hammer-Lock
7735	Hollow Wall (with Tool)
17948	Hollow Wall Anchors
17688	Nylon Flanged Anchors with Drills
17707	Superfast™ Anchors
7718	Super Hold™
17915	Suspend-It Fasteners
17953	Taper Bolt Anchors
7741	Toggle
17775	Toggle Bolt Combo Phillips/Slotted
17699	Triple-Grip™ Anchors
17929	Turbo-Drive™ Anchors
7734	Vinyl (with Slotted Metal Screws)
	AUTO A/C SERVICE
17001	Domestic A/C O-Rings, Assortment 1
17002	Domestic A/C O-Rings, Assortment 2
17003	European A/C O-Rings
17004	Import A/C O-Rings
17005	A/C Orifice Tubes
17006	Retro-Fit A/C Adapters
17007	A/C Cap and Valve Cores
17008	A/C Metal Gaskets
17009	A/C Sealing Washers
	BITS (DRIVER)
17893	Driver
17758	Insert and Power
17965	Power Bits
17964	Security Bits
	BURS
17680	TiN Carbide Burs
17681	TiN Carbide Burs
	CAP SCREWS
17787	CIC 200™ Button Head Socket (4-40 to 10-32)
17788	CIC 200™ Button Head Socket (1/4-20 to 1/2-13)
17809	CIC 200™ Low Head Socket
17826	CIC 150™ Button Head Socket (4-40 to 10-32)
17827	CIC 150™ Button Head Socket (1/4-20 to 1/2-13)
17824	CIC 150™ Flat Head Socket (4-40 to 10-32)
17825	CIC 150™ Flat Head Socket (1/4-20 to 1/2-13)
17812	CIC 150™ Metric Button Hd Socket (3mm x 6mm to 6mm x 30mm)
17813	CIC 150™ Metric Button Hd Socket (8mm x 10mm to 12mm x 40mm)
17817	CIC 150™ Metric Socket Head
17830	CIC 150™ Socket Head Cap Screw
17808	Grade 5 (USS)
17855	Grade 5 (SAE)

P/N	DESCRIPTION
	CAP SCREWS (Continued)
17795	Grade 8 (USS)
17984	Grade 8 (SAE)
7700	Hex Socket
7761	Hex Socket (Stainless Steel)
17745	Hex Socket (6-32 to 3/8-16)
17831	Metric 8.8 Zinc Coarse Thread HH
17834	Metric 8.8 Zinc Fine Thread Hex Hd
17865	Metric Hex Head
17789	Metric Socket Head
17956	Metric Flat Head Socket (3mm x 6mm to 6mm x 30mm)
17957	Metric Flat Head Socket (8mm x 12mm to 12mm x 40mm)
17950	Pro-Shield Cap Screws
17806	S/S Button Head Socket (4-40 to 10-32)
17807	S/S Button Head Socket (1/4-20 to 1/2-13)
17804	S/S Flat Hd Socket (4-40 to 10-32)
17805	S/S Flat Head Socket (1/4-20 to 1/2-13)
17814	S/S Metric Button Head Socket (3mm x 6mm to 8mm x 30mm)
17819	S/S Metric Flat Head Socket
17944	S/S Metric Hex Head
17818	S/S Metric Socket Head
17802	S/S Socket Head (4-40 to 10-32)
17803	S/S Socket Head (1/4-20 to 1/2-13)
17917	Stainless Steel Cap Screws
	CARRIAGE BOLTS
17919	Carriage Bolts
	CLAMPS
17999	2-Ear Clamps - Zinc Plated
17679	Constant Pressure Clamps, Small
17678	Constant Pressure Clamps, Medium
17677	Constant Pressure Clamps, Large
17017	EPDM Covered Cable Clamps
	DRILLS
17946	Forstner Bits
17730	Wood Spade Bits – Razor-Back™
17065	SDS Max Hammer Bits, 1/2" to 1-1/8"
17066	Spline Shank Hammer Bits - Single Point - 1/2" to 3/4"
17067	Spline Shank Hammer Bits - Single Point - 1" to 1-1/2"
17068	Spline Shank Hammer Bits - Quad Point - 5/8" to 3/4"
17069	Spline Shank Hammer Bits - Quad Point - 7/8" to 1-1/4"
	DRILL & TAPS
17682	TiN Spiral Point Taps
17683	TiN Spiral Point Taps
17684	TiN Combo Drill & Taps
17685	TiN Combo Drill & Taps
	FITTINGS
17844	Brass
17992	Composite Fittings – Fractional
17993	Composite Fittings – Metric
7745	Compression Tube (Brass)
17998	D.O.T. Fittings
17018	D.O.T. Air Brake Brass Push-in Fittings
17034	D.O.T. Air Brake Brass Push-in Fittings
17779	Garden Hose
7750	Grease
17866	Grease – Metric
17778	Hose Barb
7770	Instant
17856	Instant – Metric (4mm - 8mm)
17857	Instant – Metric (10mm - 12mm)
7701	Instant (Pro Assort. I) 1/8" to 1/4"
7711	Instant (Pro Assort. II) 3/8" to 1/2"
7751	Inverted Flare (Brass)
7753	NTA Air Brake (Brass)
7752	Pipe (Brass)
7754	Poly Tite® (Brass)
17050	Press Fittings (Copper)
17051	Push Fittings (Copper)
17052	Removable Fittings (Copper)

P/N	DESCRIPTION
	FITTINGS (Continued)
7746	SAE 45° Flare (Brass)
7731	Vacuum/Low Pressure
17689	Tapered Poly Caps and Plugs, Red
	FUSES AND BULBS
17843	Automotive/Blade Fuses
17853	Automotive Bulb and Flasher
17963	Blow Alert Fuses
17737	Glass Tube & Blade Fuses
17760	Time Delay Fuses
525515A	Military Vehicle 24V Bulb Assortment
	HMMWV
17015	HMMWV Aluminum Pull Rivets
17014	HMMWV Electrical Maintenance
17013	HMMWV Weather Resistant Thermo Ties
17010	HMMWV Weatherpak/Electrical Kit
17933	HMMWV Brake, Power Steering and Alternator Repair
17969	HMMWV Uparmor Kit
	HOLE CUTTERS / HOLE SAWS
17962	Hole Cutters - Carbide Tipped, RazorQwik™
17982	Hole Cutters - Carbide Tipped, RazorQwik™ Stubby
17686	Hole Cutters - Sheet Metal, Fractional
17072	Diamond Hole Cutters - 3/4" to 2-1/4"
17073	Diamond Hole Cutters - 2-1/2" to 4"
17712	Hole Saws - Bi-Metal 5/8" to 2"
17714	Hole Saws - Bi-Metal 2-1/8" to 4"
17715	Hole Saws - LENOX® Speed Slot™ Bi-Metal, 5/8" to 2"
17716	Hole Saws - LENOX® Speed Slot™ Bi-Metal, 2-1/8" to 4"
	INSERTS
17980	Coilserts
17981	Coilserts – Metric
17985	Coilserts with Taps
17828	Knurled Threaded Inserts
17920	Metric Permaserts™
17785	Self-Tapping Threaded Inserts
7736	Thread Repair Inserts
17735	Thread Repair (Metal) Permasert™
7742	Thread Repair (Wood)
17942	Thread Repair (Wood)
	KEYSTOCK
17800	Plated
17797	Stainless Steel
17799	Stainless Steel Square
17801	Unplated
	MOUNTED POINTS
17702	1/4" Shank
17707	1/8" Shank
	MISCELLANEOUS
17756	Adhesives – Red Lion
17862	Air Hose Repair Kit
17906	Batteries
17752	Battery 4GA to 4/0
17936	Battery Terminal Repair
17864	Blades – Utility
17967	Brushes – Crimped End
17880	Brushes – Disposable Paint/Chip
17878	Brushes – Utility
17945	Bumpers
17974	Cable Clamps – Nylon
17743	Chain Link – #35 to #80 Connecting and Offset Links
17882	Conduit/Pipe Hangers
17727	Cut-Off Wheels – Rapid Cut™
17040	Double/Bubble® Epoxy
17074	Double/Bubble® Epoxy & Urethane
7725	"E" Rings
17054	Extractors, Bolt
17053	Extractors, Hex Head Multi-Spline
17934	Extractors, Screw, Double Edge/Spiral
17928	E-Z Poxy Sticks
7798	Files – Rapid Cut
17922	Files – Black Maxi Hand Files

ASSORTMENTS – Alphabetical Listing

TRAY ASSORTMENTS

P/N	DESCRIPTION
	MISCELLANEOUS ASSORTMENTS
17841T	Files – Black Maxi Hand Files *(Replaces Roll Pouch #17841)*
17794	Grommets – Rubber
17923	Hanger Bolts
17854	Hardware Security Picture Hanging
17868	Hardware Wall Hangers Porta-Pak
17914	Headlight/Tail Light/Mirror Repair
17861	Hi-Torquer Tool & Conversion Kit
17947	Oil Pan Drain Plugs
17951	Oil Pan Drain Plugs – Metric
17904	Paint Sticks
17977	Quick-Cut Die & Handle
17978	Quick-Cut Die & Handle – Metric
17976	Reamers
17747	Screw Eye & "S" Hooks
17852	Strain Relief
17851	Strain Relief – Pigtail
17932	Thread Treatments
17952	Thread Treatments Loctite Quickstix
17744	Thumb Screw Knob
17759	Tubing / Hose Clamp
17016	Weatherpak Assortment
17913	Windshield Repair System
7744	Woodruff Keys
17796	Woodruff Keys – Stainless
17837	Wrenches – CIC 200™ Hex Socket
	NUTSERTS AND THINSERTS
17927	Nutserts
7781	Nutserts and Thinserts with Tool
17829	Quik Tool and Adapter/Mandrel
17700	Starter Assortment
17935	Thinsert / Nutsert
	NUTS, LOCKWASHER, FLATWASHERS
7726	Nuts, Lock Washers, Flat Washers
17966	Metric Nuts, Lock Washers, Flat Washers
17768	Metric Stainless Steel
17840	Stainless Steel
17833	Stainless Steel Micro Hex Nut, Lock Washers and Flat Washers
	NUTS
17919PS	Free Spinning Lock Nuts
17780	Hex Jam Nuts
17798	Hex Jam Nuts - Metric
17823	Hex Jam Nuts - S/S
17693	Hex, Slotted Grade 5, Coarse Thread
17692	Hex, Slotted Grade 5, Fine Thread
17786	Nylon Insert Lock Nuts
17955	Nylon Insert Lock Nuts – Grade 8 Zinc Yellow
17939	Nylon Insert Lock Nuts – Metric
17937	Nylon Insert Lock Nuts – S/S
17736	Small Nuts
17916	Square Nuts
7716	Steel Spring
7747	Taper Lock (Alloy 200)
17838	Wing Nuts and Cap Nuts – S/S
	O-RINGS
7743	Buna-N
17820	Buna-N (1/16" Cross Section)
17821	Buna-N (3/32" Cross Section)
17822	Buna-N (1/8" Cross Section)
17970	2mm Metric
17971	2.5mm Metric
17972	3mm Metric
17724	Metric
17939	Plumbers
17754	Viton

P/N	DESCRIPTION
	PINS
17835	CIC 200™ Dowel Pins
17719	Clevis Pin and Hair Pin Cotter 3/16 to 5/16
17720	Clevis Pin & Hair Pin Cotter 3/8 - 3/4
7719	Cotter Pins
17938	Cotter Pins – Stainless Steel
17872	Cotter Pins Hammerlock
17791	Hair Pin Cotters
17990	Hair Pin Cotters 22GA to 13GA
17991	Hair Pin Cotters 11GA to 0GA
17810	Metric Dowel Pins
17731	Metric Spring Pins
7720	Spring Pins
17815	Spring Pins – Stainless Steel
17757	Taper Pins
	RECIPROCATING SAW BLADES
17660	Bi-Metal 1/2" Shank, Metal Cutting
17661	Bi-Metal 1/2" Shank, Wood Cutting
17662	Bi-Metal 1/2" Shank, Stud/Metal Cutting
`17713	Bi-Metal 1/2" Shank
17770	Hacksaw / Rod Saws
17961	Metal Cutting Recip Saw Blades
17771	Sabre / Jig Saw
17973	Specialty Blades II
	RETAINERS
17717	Universal Nylon
17718	Ergo Tufloks Nylon Push-Type
	RETAINING RINGS
17811	Metric "E"
17726	Metric – External
17728	Metric – Internal
	RIVETS – PULL
7739	Aluminum/Aluminum
7737	Aluminum/Steel
7740	Multi-Grip
7797	Stainless Steel
7738	Steel/Steel
17940	Tri-Clamp Rivets & Finishing Caps
	SCREWS – MACHINE
17670	Button Head TORX® S/S Machine Screws
17671	Flat Head TORX® S/S Machine Screws
7771	Pan Head Phillips
7705	Binding Head Slotted
7776	Flat Head Phillips
17767	Flat Head Phillips S/S
7706	Flat Head Slotted
7755	Flat Head Slotted Brass
7758	Flat Head Slotted S/S
17733	Hex-Lock™ Security
17907	Indented Hex Head
17774	Metric Flat Head Phillips
17773	Metric Pan Head Phillips
7769	Metric Pan Head Slotted
17874	Nylon Hex Cap
7795	Oval Head Phillips S/S
7789	Pan Head Phillips S/S
17986	Pan Head Phillips S/S Metric
7757	Pan Head Slotted S/S
7756	Round Head Slotted Brass
17873	Round Head Slotted Nylon
17832	Stainless Steel Micro Slotted
17722	Super (6-32, 8-32 and 10-32)
17723	Super (10-24 and 1/4-20)

P/N	DESCRIPTION
	SCREWS – METAL
17748	Combination Phillips/Slotted
17892	Combination Slotted/Phillips
7767	Binding Head Phillips
7712	Binding Head Slotted
7775	Black Phosphate
17672	Button Head TORX® S/S Sheet Metal Screws
17673	Flat Head TORX® S/S Sheet Metal Screws
17763	Drill & Tap Hex Washer Head S/S
7766	Flat Head Phillips
17877	Flat Head Phillips Self-Drilling
17734	Hex-Lock™ Security
7710	Hex Washer Head Self-Drilling
7714	Hex Washer Head Slotted
7765	Oval Head Phillips
7784	Oval Head Phillips S/S
7785	Pan Head Phillips S/S
7709	Pan Head Phillips Self-Drilling
17858	Pan Head Phillips Self-Drilling
17975	Pan Head Phillips Self-Drilling S/S
7762	Pan Head Slotted S/S
17708	Sur-Drive™ Pan Head Square
7773	Sur-Grip™ Hex Washer AB Point
7772	Sur-Grip™ Hex Washer Drill Point
	SCREWS – MISCELLANEOUS
7715	Bi-Cut
17839	CIC 200™ Shoulder Screws
17879	Drywall
17876	Mad-Max
17884	Thread Cutting
17918	Thumb Screws - Stainless Steel
	SCREWS – SECURITY
17670	Button Head TORX® S/S Machine Screws
17671	Flat Head TORX® S/S Machine Screws
17672	Button Head TORX® S/S Sheet Metal Screws
17673	Flat Head TORX® S/S Sheet Metal Screws
17674	Pan Head TORX® 410 S/S Self Drilling Screws
	SCREWS – SOCKET SET
17987	CIC 150™
7704	CIC 200™
7768	Metric (4mmx6mm to 10mmx30mm)
17900	Metric (3mmx3mm to 10mmx30mm)
7760	Stainless Steel
17816	Stainless Steel Metric
	SCREWS – WOOD
17746	Brass Phillips Flat Head
7717	Flat Head Slotted
17912	Lag Screw Assortment
17762	Sur-Drive™ Deck Screws
17705	Sur-Drive™ Flat Head Sq. Drive
7782	Sur-Fast™ Flat Head Phillips
	SHAFT COLLARS
17782	Clamp Type
17911	Double Split Clamp Type
17781	Set Screw Type
17910	Stainless Steel Set Screw Type
	SHRINK TUBING
17989	Cold Shrink
17032	Heavy Duty/Direct Bury
17925	Sur-Seal™ Clear
17725	Sur-Seal™ Color
17753	Thick Wall

ASSORTMENTS – Alphabetical Listing

TRAY ASSORTMENTS

P/N	DESCRIPTION
	SNAP RINGS
7723	(Assortment I) 1/4" to 13/16"
7724	(Assortment II) 13/16" to 1-3/8"
7722	External
7721	Internal
	TAPE
17077	3M Professional Grade Electrical Tape
17772	Electrical
17949	PTFE Pipe and Anti-Seize Tapes
	TERMINALS (ELECTRICAL)
17035	Battery Maintenance Kit
17846	Blue 16-14
17886	Brazed Seam Rings
17075	Butt Connectors
17891	Clips – Alligator/Test
17890	Compression Lugs & Butt Connect.
17909	CSS Terminals (Crimp-Solder-Seal)
17042	Fusion Seal Electrical Wrap
17997	Heat Shrink Connectors and Tubing
7730	Hi-Temp
17960	Humvee Electrical Terminals
17036	Magna Lug Starter/Ground
	UG Battery Terminals
17887	Non-Insulated (22-18)
17888	Non-Insulated (16-14)
17889	Non-Insulated (12-10)
7728	Nylon Double Grip (Assortment I) - 22-18 to 12-10
7729	Nylon Double Grip (Asst. II) 16-14
17903	Nylon Double Grip (22-18 to 12-10)
17710	Nylon Insulated Double Grip Solderless Terminals
17019	Nylon Insulated Double Grip Solderless Terminals with Strip & Crimp Tool
17863	Posi-Lock™
7727	PVC
17847	Red 22-18
17751	Solder Link™ Slugs
7777	Sur-Seal™
17729	Sur-Seal™ Solder Link™
17721	Waterproof Connectors
17845	Yellow 12-10
	WASHERS
17924	Fender Washers S/S
17742	Oversize Fender - 3/16" to 1/2"
17836	Star Washers – Internal & External
7703	Vi-Lock
17790	XT™ Flat Washers
	WELDING ELECTRODES (AURALLOY)
17764	All Steels, Cast Iron
17765	Hi-Performance MRO
	WIRE NUTS
7764	Pozi-Lok™
17908	Push-Con/Snap-Con/Spring-Con Wire Connectors
	WIRE AND CABLE TIES
7732	CIC 200™ (with Tensioning Tool)
7799	Fluorescent
17041	Grip Ties
17755	Met-Tab™
17663	Mountable Cable Ties
17968	Releasable Wire Ties
7733	Thermo (with Tool)

ASSORTMENTS – Alphabetical Listing

PORTA PAK TRAY ASSORTMENTS

P/N	DESCRIPTION
	ANCHORS
17690	Nylon Flanged Anchors with Drills
17695	Triple-Grip™ #6 - Beige
17696	Triple-Grip™ #8 - Grey
17697	Triple-Grip™ #10 - Blue
17698	Triple-Grip™ #12 - Green
17848	Nylon Flanged Anchors
17849	Super Hold™ Anchors
17859	Superfast™ Anchors
17867	Plastic Anchors
17868	Wall Hangers
17930	Turbo-Drive Anchors
19515	Superfast™ Anchors
19525	Alligator Anchors
	MISCELLANEOUS
19510	Brass Fitting
19523	Driver Bit
19527	One-Way Screw Remover/Installer
19531	Magnetic Nutsetters
19533	HD Lobular Magnetic Nutsetters

P/N	DESCRIPTION
	O-RINGS
19501	1/16 O-Ring
19502	3/32 O-Ring
19506	1/8 O-Ring
19507	Metric Buna-N O-Ring
	SAW BLADES
8808	Diamond Hole Saws
17894	Bosch Sabre Saw Blades
17895	Jig/Sabre Saw Blades
17896	Coarse Recip. Saw Blades
17897	Fine Recip. Saw Blades
17898	4" Recip. Saw Blades
19511	Reciprocating Saw Handle

P/N	DESCRIPTION
	TERMINALS - WIRE NUTS
17703	Super-Clear Shrink Tubing & Window-View Butt Connectors
17704	Window-View Butt Connectors
17706	Cool Seal Butt Connectors
17766	Cool Connect Electrical
17988	CSS Butt Connectors
17860	Twist-Lok Wire Nuts
17885	Hollow Pin Connectors
19500	Push-Con/Snap-Con
19514	Posi-Lock™ Connectors
19516	ATM Blow Alert Fuse
19519	ATC Blow Alert Fuse
19521	Maxi Blow Alert Fuse
19524	22-24GA Sur-Seal Link Terminal

BIN ASSORTMENTS

P/N	DESCRIPTION
	ABRASIVES
17665	Flap Discs, Type 27 & Type 29 Z3 - 4-1/2" x 7/8"
	ANCHORS
17061	CIC 200™ Sleeve Anka Bolts (10/24) 1/4"-1/2"
17062	CIC 200™ Sleeve Anka Bolts (16/24) 1/4"-3/4"
17063	CIC 200™ Stud Anka Bolts (14/24) 1/4"-1/2"
17064	CIC 200™ Stud Anka Bolts (21/24) 1/4"-3/4"
	CAP SCREWS
7801	Alloy 200 - USS (70/80)
7816	Alloy 200 - USS (40/40)
7818	Alloy 200 - SAE (40/40)
7815	Alloy 200 - Custom (40/40)
7813	Alloy 200 - Custom (72/72)
7827	Carriage Bolts (40/40) USS 1/4"-1/2"
7831	CIC 150™ Hex Socket USS (40/40)
7839	Grade 2 Hex Tap (40/40) 1/4"-1/2"
7870	Grade 5 (40/40) USS 1/4"-1/2"
7871	Grade 5 (40/40) SAE 1/4"-1/2"
7878	Grade 5 (70/80) USS 1/4"-3/4"
7873	Grade 5 (70/80) SAE 1/4"-3/4"
7835	Grade 8 (70/80) USS 1/4"-3/4"
7836	Grade 8 (70/80) SAE 1/4"-3/4"
7837	Grade 8 (40/40) USS 1/4"-1/2"
7838	Grade 8 (40/40) SAE 1/4"-1/2"

P/N	DESCRIPTION
	CAP SCREWS
5790	Hex Socket (20/40) USS 1/4"-1/2"
7830	Hex Socket (40/40) USS 1/4"-5/8"
7860	Metric (40/40) 4mm-12mm
7875	Metric 8.8 Zinc (70/80) 6mm-20mm
7876	Metric 10.9 Zinc (70/80) 6mm-20mm
7877	Metric 10.9 Zinc (40/40) 6mm-16mm
7861	Metric Socket (40/40) 4mm-12mm
7879	Multi-Grade – Alloy 200 Grade 8, Grade 5 (70/80) 1/4-3/4
7881	Single-Row Nuts
7817	18-8 S/S (40/40) USS 1/4-1/2
7869	316 S/S (32/40) USS 1/4-1/2
7807PS	Pro-Shield™ (32/40) USS 1/4-1/2
7801PS	Pro-Shield™ (70/80) USS 1/4-3/4
	COLL-O-CRIMPS
7850	Coll-O-Crimp™ Starter Hose Assembly
7851	Coll-O-Crimp™ Mid-Size Hose Assembly

P/N	DESCRIPTION
	PIPE FITTINGS
7846	Black Iron Galvanizing (40/40)
7845	Black Malleable (40/40)
7849	Brass Pipe Fittings
7898	Copper Pipe Fittings
7844	NTA Brake Fittings
7847	304 Stainless Steel (40/40)
7848	316 Stainless Steel (40/40)
	THREADED RODS
17792	Carbon Steel (11 Items/18 Holes) 6-32 thru 3/4-10
17793	Threaded Rods – CIC 200 B7 Alloy (7 Items/18 Holes) 1/4-20 thru 3/4-10
17783	Wire - Cross Link (2 Bar Rack) 14GA
17784	Wire - Cross Link (4 Bar Rack) 14&16GA
7840	Welding Rod – Starter Assortment
	WHEEL WEIGHTS
7852	Lead Wheel Weights
7853	Zinc Wheel Weights

ASSORTMENTS – Alphabetical Listing

DRILL INDEXES / ORGANIZERS

P/N	DESCRIPTION
	DRILLS
61679	118 Degree Split Point (1/16 - 1/2 x 64ths)
61677	118 Degree Split Point Organizer (50 pcs)
61622	Carbide-Tipped Drills (1/8" - 1/2") - 7 Drills
61651	Carbide-Tipped Glass & Tile (1/8" -1/2")
61690	Cobalt Quad Point™ (1/16 - 1/2 x 16ths)
61692	Cobalt Quad Point™ (1/16 - 1/2 x 32nds)
61627	Cone Drills (3 piece set)
61642	Drill Caddy Jobber Length (1/16 to 1/2 x 64ths)
61643	Drill Caddy Mechanic's Length (1/16 to 1/2 x 64ths)
61629	Left-Hand Drill Index 1/8 to 7/16
61612	Masonry – Carbide Masonry 3/16 - 5/8
61611	Masonry – Carbide Masonry 1/8 - 3/4
61694	Metric Starter Index – 1.0mm - 10.0mm
61691	Metric (19-piece) – 1.0mm - 10.0mm
61693	Metric (25-piece) – 1.0mm - 13.0mm
17709	Metric Completer Pack (6-pieces) 10.5mm - 13.0mm
61632	Pro Index (1/16 - 1/4 x 64ths) - 13 Drills
61634	Pro Index (1/16 - 1/2 x 32nds) - 15 Drills
61636	Pro Index (1/16 - 3/8 x 64ths) - 21 Drills
61638	Pro Index (1/16 - 1/2 x 64ths) - 29 Drills
61680	Pro Index (3/8 Shank 1/16 - 1/2 x 32nds)
61685	Pro Index (3/8 Shank 1/16 - 1/2 x 64ths)
61689	Pro Organizer Completer Set (6-piece)
61699	Pro Organ. (1/16 - 1/2 x 64ths) 45 Drills
7783	Pro Organizer (61699 with Drill Motor)
61698	Quad Point Completer Kit (6 Fract. Drills)
61600	Quad Point Index (1/16 - 1/4 x 64ths)
61610	Quad Point Index (1/16 - 3/8 x 64ths)
61615	Quad Point Index (1/16 - 1/2 x 64ths)
61605	Quad Point Index (1/16 - 1/2 x 32nds)
61645	Quad Point Index – 1/4 Shank (1/16 - 3/8 x 64ths)
61640	Quad Point Index – 1/4 Shank (1/16 - 1/2 x 32nds)

P/N	DESCRIPTION
	DRILLS
61650	Quad Point Index – 1/4 Shank (1/16 - 1/2 x 64ths)
61678	Quad Point Index – 1/4 Stubby (1/16 - 1/2 x 64ths)
61648	Quad Point Index – 1/2 Shank (9/16 - 1 x 64ths)
61620	Quad Point Index (#1 to #60) - 60 Drills
61630	Quad Point Index (#61 to #80) - 20 Drills
61625	Quad Point Index (A to Z) - 26 Drills
61631	Quad Point Index (Left Hand) 1/8 to 5/16
61629	Quad Point Index (Left Hand) 1/8 to 7/16
61633	Quad Point Index (Left Hand) 1/16 to 1/2
61653	Quad Pt Master Drill Dispenser - Starter
61654	Quad Pt Master Drill Dispenser - Complete
61695	Quad Point Organizer (Fractional) (1/16-1/2 x 64ths) 50 Drills
7780	Quad Point Org. (61695 w/Tool Cool II)
7802	Quad Point Org. (61695 w/Hydro Cool)
61696	Quad Point Organizer (Metric) (1.0mm-13.0mm) 25 Drills
7800	Quad Point Organizer (Metric) (61696 w/Dremel Grinder)
61697	Quad Point Organ. (#3 - #44) 75 Drills
61673	Smooth Bore Index (1/8 - 1/2)
61672	Step Drill Index – 4 Drills
61652	Tri-Carb™ Index – 4 Drills
61563	Quad Point Plus Index - 13 Drills (1/16 - 1/4 x 64ths)
61564	Quad Point Plus Index - 15 Drills (1/16 - 1/2 x 32nds)
61566	Quad Point Plus Index - 21 Drills (1/16 - 3/8 x 64ths)
61567	Quad Point Plus Index - 29 Drills (1/16 - 1/2 x 64ths)
61568	Quad Point Plus Index - 29 Drills (1/16 - 1/2 x 64ths)
61569	Quad Point Plus Organizer - 50 Drills (1/16 - 1/2 x 64ths)

P/N	DESCRIPTION
	TAPS AND DRILLS
61603	Tap/Drill Org. (4-40 - 1/2-20) 26 T&D
7805	61603 with Ream Aligner
7786	Tap/Drill Org. – (6-32 - 1/2-13) 32 T&D
61601	Tap/Drill Index – (6-32 - 1/2-13) 18 T&D
61621	Tap/Drill Index – (6-32 - 1/2-13) 18 T&D
61684	Tap & Drill Index – Metric – (2.5mm to 12mm) 18 Taps & Drills
7788	Shooter Tap & Drill – Metric (2.5mm to 12mm)
61688	CIC 200 Shooter Tap & Drill Index – (4-40 to 12-24) 12 Taps & Drills
61687	Pro Shooter Tap & Drill Index – (4-40 to 12-24) 12 Taps & Drills
	POUCHES
61661	Razor-Back Wood Spade Bits Pouch
61662	Pro Combo Drill and Tap Pouch
61663	Metric Pro Combo Drill and Tap Pouch
61664	Carbide Masonry Drill Pouch
61665	Carbide Tipped Hard Steel Bit Pouch
	BIT KEEPER SETS
61686	Quad Point Bit Keeper Set
61682	Quick Change Drill Bit Keeper Set
61683	Electrician's Bit Keeper Set
61670	Self-Centering Drill Bit Keeper Set

MISCELLANEOUS

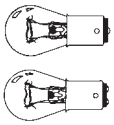
P/N	DESCRIPTION
	CARBIDE ROTARY FILES
61604	Index 1/4" Shank (8 pcs) Double Cut
61626	Index 1/4" Shank (8 pcs) Fast Mill Cut
61606	Index 1/8" Shank (7 pcs)
61608	Organizer (13 pcs)
7806	Organizer (61608 with Air Grinder)
	DIAMOND BLADES
8818	Diamond Core Bits
	MISCELLANEOUS
17037	Black Iron Pipe Nipple Assortment
17038	Brass Pipe Nipple Assortment
61676	Broken Stud Removal Kit (#1-#5) (10 pcs)
12050	Chisel & Punch Set (6 pieces)
61607	Countersink Index – 1/4 to 5/8 (4 pcs)
8834	Electrical Troubleshooting
8833	Electrical Wrap – Fusion Seal

P/N	DESCRIPTION
	MISCELLANEOUS
61649	Forster Bit Set (7 pieces)
17039	Galvanized Black Iron Pipe Nipple Assortment
8826	Hole Saws - Mechanics (7 pcs)
8829	Hole Saws - Industrial (13 pcs)
8831	Hole Saws - Large Industrial (19 pcs)
7794	Hose Clamps (Industry #4 thru #36)
7796	Hose Clamps (Industry #40 thru #72)
7793	Key Stock – Square
17711	Screen Bak Abrasives (80, 120, 180 grit)
	RECIP SAW BLADES - TUBES
17656	Bi-Metal 1/2" Shank, Wood Wizards
17657	Bi-Metal 1/2" Shank, Metal Magicians #1
17658	Bi-Metal 1/2" Shank, Metal Magicians #2
17659	Bi-Metal 1/2" Shank, HD Hybrids
	SCREW EXTRACTOR SETS
61617	Micro and Power-Out Complete
61616	Micro Drill Out (4-piece set)
61609	Power-Out™ Broken Bolt Kit (4 pcs)
61623	X-Out Screw Remover Kit (3-pcs)
61624	Double Edge Extractor Index (#1-#7)

P/N	DESCRIPTION
	SHRINK TUBING
17883	Six-2-One™ (Non-Adhesive Lined)
17842	Six-2-One™ (Adhesive Lined)
	SPRINGS
60200	1,000 Pieces
60400	400 Pieces
60460	250 Pieces
	TAPS & DIES
8822	Shooter Tap & Hex Die Set (41 pcs)
8821	Metric Shooter Tap & Hex Die Set (41 pieces)
7787	Taps Bottoming (6-32 to 1/2-13) 8 Taps
61602	Tap Set Index (1/4-20 to 1/2-20) 10 Tps

TRAY ASSORTMENTS – Numeric Listing

MILITARY VEHICLE 24V BULBS



- Single contact bulbs
- Double contact bulbs
- Index offset & bayonet inline prongs
- Double end cap & wedge base
- 12.8 - 28 volts / Dual filament lamps

P/N 525515A

CAP SCREWS — HEX SOCKET

- 24 Sizes
- 6-32 x 1/4 to 10-24 x 1-1/2

P/N 7700

FITTINGS — INSTANT (PRO ASSORTMENT I)

- 24 Sizes/Styles
- 1/8 to 1/4 Tube Size

P/N 7701

WASHERS — VI-LOCK

- 9 Sizes
- 3/16 to 3/4

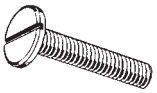
P/N 7703

SCREWS — CIC 200™ SOCKET SET

- 32 Sizes
- 4-40 x 1/8 to 1/2-13 x 1

P/N 7704

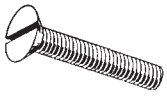
SCREWS — MACHINE (BINDING HEAD SLOTTED)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2

P/N 7705

SCREWS — MACHINE (FLAT HEAD SLOTTED)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2

P/N 7706

SCREWS — METAL (PAN HEAD SELF-DRILLING)

- 14 Sizes
- #6 x 3/8 to #10 x 1-1/4

P/N 7709

SCREWS — METAL (HEX WASH HEAD SELF-DRILL)

- 24 Sizes
- #8 x 1/2 to #14 x 1-1/4

P/N 7710

FITTINGS — INSTANT (PRO ASSORTMENT II)

- 24 Sizes/Styles
- 3/8 to 1/2 Tube Size
- Male Connectors, Elbows, Tees, Female Connectors, Unions and Union Tees

P/N 7711

SCREWS — METAL (BINDING HEAD SLOTTED)

- 24 Sizes
- #6 x 3/8 to #14 x 1-1/2

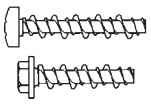
P/N 7712

SCREWS — METAL (HEX WASH HEAD SLOTTED)

- 24 Sizes
- #6 x 3/8 to #14 x 1-1/2

P/N 7714

SCREWS — BI-CUT



- 24 Sizes
- Phillips Binding and Hex Washer Head Styles
- #4 x 1/4 to #10 x 3/4

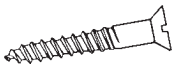
P/N 7715

NUTS — STEEL SPRING

- 20 Sizes
- Flat, "J" and "U" Types
- #6 to #10

P/N 7716

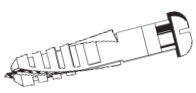
SCREWS — WOOD (FLAT HEAD SLOTTED)



- 24 Sizes
- #6 x 1/2 to #14 x 2

P/N 7717

ANCHORS — SUPER HOLD™



- 6 Sizes of Anchors 4-6 to 7/16-1/2
- 5 Sizes of Phillips Binding Head Metal Screws

P/N 7718

COTTER PINS

- 24 Sizes
- 1/16 x 1/2 to 1/4 x 3

P/N 7719

SPRING PINS

- 24 Sizes
- 1/16 x 1/4 to 1/4 x 3

P/N 7720

TRAY ASSORTMENTS – Numeric Listing

SNAP RINGS — INTERNAL

- 20 Sizes
- 1/4 to 1-3/8
- 2 Pliers

P/N 7721

SNAP RINGS — EXTERNAL

- 20 Sizes
- 1/4 to 1-5/16
- 2 Pliers

P/N 7722

SNAP RINGS — (ASSORTMENT I)

- 10 Sizes Internal Rings 1/4 to 13/16
- 10 Sizes External Rings 1/4 to 25/32
- 2 Pliers

P/N 7723

SNAP RINGS — (ASSORTMENT II)

- 10 Sizes Internal Rings 7/8 to 1-3/8
- 10 Sizes External Rings 13/16 to 1-5/16
- 2 Pliers

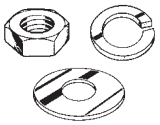
P/N 7724

"E" RINGS

- 20 Sizes
- 1/16 to 3/4

P/N 7725

NUTS, LOCK WASHERS, FLAT WASHERS



- 20 Different Hex Nuts, Kep Nuts, Flat Washers and Lock Washers
- #4 to 1/4-20

P/N 7726

TERMINALS — PVC

- 10 Sizes of Rings, Spades, Quick Slides and Butt Connectors
- 22-18 to 12-10

P/N 7727

TERMINALS — NYLON DOUBLE GRIP (ASSORT I)

- 20 Sizes of Rings, Quick Slides and Butt Connectors
- 22-18 to 12-10

P/N 7728

TERMINALS — NYLON DOUBLE GRIP (ASSORT II)

- 20 Sizes of Rings, Spades, Snap Spades, Multi-Rings, Quick Slides, T-Taps and Butt Connectors
- 16-14

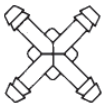
P/N 7729

TERMINALS — HI-TEMP

- 20 Sizes of Rings, Spades, Quick Slides and Butt Connectors
- 22-18 to 12-10

P/N 7730

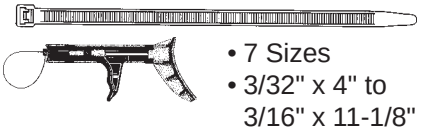
FITTINGS — VACUUM / LOW PRESSURE



- 20 Sizes of Straight, "T", "Y", "X" and Universal Connectors
- 1/8 to 5/16

P/N 7731

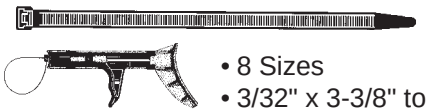
WIRE TIES — CIC 200™ (WITH TOOL)



- 7 Sizes
- 3/32" x 4" to 3/16" x 11-1/8"

P/N 7732

WIRE TIES — THERMO (WITH TOOL)



- 8 Sizes
- 3/32" x 3-3/8" to 3/16" x 12-1/8"

P/N 7733

ANCHORS — PLASTIC (W/SLOTTED METAL SCREWS)

- 9 Sizes of Vinyl 4-6 x 1 to 14 x 1-1/2
- 3 Sizes of Nylon Flanged
- 12 Sizes of Phillips Binding Head Metal Screws

P/N 7734

ANCHORS — HOLLOW WALL (WITH TOOL)

- 6 Sizes
- 1/8 Short to 1/4 Long
- With Quick Set Tool

P/N 7735

CIC 200™ THREAD REPAIR INSERTS

- 13 Sizes
- 6-32 to 1/2-13 USS and 10-32 to 1/2-20 SAE

P/N 7736

RIVETS — PULL (ALUMINUM / STEEL)

- 16 Sizes
- 3/32 Dia. x 1/8 Grip to 3/16 Dia. x 5/8 Grip

P/N 7737

RIVETS — PULL (STEEL / STEEL)

- 16 Sizes
- 3/32 Dia. x 1/8 Grip to 3/16 Dia. x 5/8 Grip

P/N 7738

TRAY ASSORTMENTS – Numeric Listing

RIVETS — PULL (ALUMINUM / ALUMINUM)

- 16 Sizes
- 3/32 Dia. x 1/8 Grip to 3/16 Dia. x 5/8 Grip

P/N 7739

RIVETS — PULL (MULTI-GRIP)

- 10 Sizes
- 1/8 Dia. x 3/16 Grip to 3/16 Dia. x 25/32 Grip

P/N 7740

ANCHORS — TOGGLE

- 13 Sizes/Styles
- Butterfly, Picture Hook, Wire Harness and Multi-Toggle

P/N 7741

INSERTS — THREAD REPAIR (WOOD)

- 7 Sizes
- 6-32 to 3/8-16

P/N 7742

O-RINGS

- 24 Sizes
- 1/8 ID x 1/16 Thick to 1-3/4 ID x 3/16 Thick

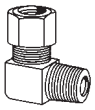
P/N 7743

WOODRUFF KEYS

- 24 Sizes
- 3/32 x 1/2 to 3/8 x 1-1/4

P/N 7744

FITTINGS — COMPRESSION TUBE (BRASS)



- 25 Sizes/Styles
- 1/8 to 3/8 Tube
- Male Elbows, Male Connectors, Unions, Nuts and Sleeves

P/N 7745

FITTINGS — SAE 45° FLARE (BRASS)

- 16 Sizes/Styles
- 3/16 to 3/8 Tube
- Female Connectors, Male Elbows, Male Connectors, Unions and Long Nuts

P/N 7746

NUTS — TAPER LOCK (ALLOY 200)

- 16 Sizes
- 1/4-20 to 3/4-10 USS
- 1/4-28 to 3/4-16 SAE

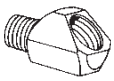
P/N 7747

FITTINGS — GREASE

- 20 Sizes/Styles
- Straight, 38°, 45°, 65°, 67° and 90°

P/N 7750

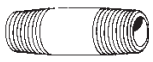
FITTINGS — INVERTED FLARE (BRASS)



- 24 Sizes/Styles
- 3/16 to 3/8 Tube
- Nuts, Male Connectors, Unions, Male Elbows, and Plugs

P/N 7751

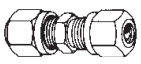
FITTINGS — PIPE (BRASS)



- 20 Sizes/Styles
- 1/8 to 3/8 Pipe
- Couplings, Nipples, Plugs, Bushings and Drain Cocks

P/N 7752

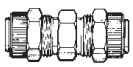
FITTINGS — NTA AIR BRAKE (BRASS)



- 21 Sizes/Styles
- 1/4 to 5/8 Tube
- Unions, Male Elbows, Male Connectors, Tube Inserts and Sleeves

P/N 7753

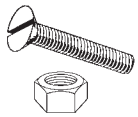
FITTINGS — POLY TITE® (BRASS)



- 21 Sizes/Styles
- 1/4 to 1/2 Tube
- Male Elbows, Male Connectors, Unions, Union "T"s, Nuts and Sleeves

P/N 7754

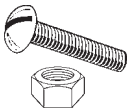
SCREWS — MACHINE (FLAT HEAD SLOTTED BRASS)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2
- Machine Screws and Nuts

P/N 7755

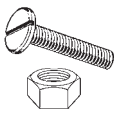
SCREWS — MACHINE (ROUND HEAD SLOTTED BRASS)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2
- Machine Screws and Nuts

P/N 7756

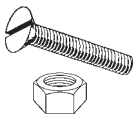
SCREWS — MACHINE (PAN HEAD SLOTTED S/S)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2
- Machine Screws and Nuts

P/N 7757

SCREWS — MACHINE (FLAT HEAD SLOTTED S/S)



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 1-1/2
- Machine Screws and Nuts

P/N 7758

TRAY ASSORTMENTS – Numeric Listing

SCREWS — SOCKET SET (STAINLESS STEEL)

- 24 Sizes
- 6-32 x 1/8 to 1/2-13 x 1/2

P/N 7760

CAP SCREWS — HEX SOCKET (S/S)

- 24 Sizes
- 6-32 x 1/4 to 10-24 x 1-1/2

P/N 7761

SCREWS — METAL (PAN HEAD SLOTTED S/S)

- 24 Sizes
- #6 x 3/8 to #14 x 1-1/2

P/N 7762

WIRE NUTS — POZI-LOK™

- 5 Sizes
- 22-16 to 14-6
- Spin Twist Wire Connector
- 2 Rolls Linerless Tape

P/N 7764

SCREWS — METAL (OVAL HEAD PHILLIPS)

- 24 Sizes
- #6 x 1/2 to #12 x 2

P/N 7765

SCREWS — METAL (FLAT HEAD PHILLIPS)

- 24 Sizes
- #6 x 3/8 to #14 x 1-1/2

P/N 7766

SCREWS — METAL (BINDING HEAD PHILLIPS)

- 24 Sizes
- #6 x 3/8 to #14 x 1-1/2

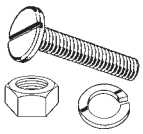
P/N 7767

SCREWS — SET (METRIC)

- 20 Sizes
- 4mm x 10mm to 10mm x 30mm
- 5 Hex Keys for 4, 5, 6, 8 and 10mm screws

P/N 7768

SCREWS — MACHINE (METRIC PAN HEAD SLOTTED)



- 16 Sizes
- 3mm x 8mm to 6mm x 40mm
- 40 Sizes Hex Nuts
- 4 Sizes Lock Washers

P/N 7769

FITTINGS INSTANT (DOT)

- 1/4 to 3/8 Tube
- Male Connectors, Elbows, Unions, Union Tees and Female Connectors

P/N 7770

SCREWS — MACHINE (PAN HEAD PHILLIPS)

- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 2

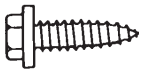
P/N 7771

SCREWS - METAL (SUR-GRIP™ HEX WASHER DRILL POINT)

- 16 Sizes
- 8-18 x 1/2 to 1/4-14 x 1-1/2

P/N 7772

SCREWS - METAL (SUR-GRIP™ HEX WASHER AB POINT)



- 16 Sizes
- 8-18 x 1/2 to 1/4-14 x 1-1/2

P/N 7773

SCREWS — METAL (BLACK PHOSPHATE)

- 22 Sizes
- #6 x 5/8 to #10 x 2
- Oval and Binding Washer Heads

P/N 7775

SCREWS — MACHINE (FLAT HEAD PHILLIPS)

- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 2

P/N 7776

TERMINALS — SUR-SEAL™

- 23 Sizes
- 22-18 to 12-10
- Rings, Spades, Butts and Quick Slides

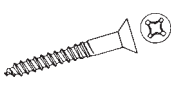
P/N 7777

NUTSERTS AND THINSERTS (WITH TOOL)

- 6 Sizes of Thinserts 6-32 to 5/16-18
- 3 Sizes of Nutserts 10-24 to 5/16-18
- 6 Adapters 6-32 to 5/16-18
- Quicksert Tool

P/N 7781

SCREWS — WOOD (SUR-FAST™ FLAT HEAD PHIL.)



- 24 Sizes
- #6 x 1/2 to #10 x 2-1/2

P/N 7782

TRAY ASSORTMENTS – Numeric Listing

SCREWS — METAL (OVAL HEAD PHILLIPS S/S)

- 24 Sizes
- #6 x 1/2 to #14 x 1-1/2

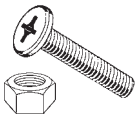
P/N 7784

SCREWS — METAL (PAN HEAD PHILLIPS S/S)

- 24 Sizes
- #6 x 3/8" to #14 x 1-1/2

P/N 7785

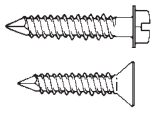
SCREWS — MACHINE (PAN HEAD PHILLIPS S/S)



- 19 Sizes of Screws 6-32 x 1/2 to 1/4-20 x 1-1/2
- 5 Sizes of Nuts 6-32 to 1/4-20

P/N 7789

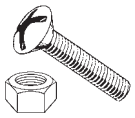
SCREWS — CEMENT (HEX WASH AND FLAT HEAD)



- 10 Sizes
- 3/16 x 1-1/4 to 1/4 x 2-3/4
- Slotted Hex Washer and Phillips Flat Head

P/N 7790

SCREWS — MACHINE (OVAL HEAD PHILLIPS S/S)



- 19 Sizes of Screws 6-32 x 1/2 to 1/4-20 x 1-1/2
- 5 Sizes of Nuts 6-32 to 1/4-20

P/N 7795

RIVETS — PULL (STAINLESS STEEL)

- 8 Sizes
- 1/8 Dia. x 1/8 Grip to 3/16 Dia. x 1/2 Grip

P/N 7797

FILES — RAPID CUT

- 24 Files with 6, 8 and 10 Inch Lengths
- Mill, Flat, Round, Square Bastards, Chain Saw and Plastic Handles

P/N 7798

WIRE TIES — FLUORESCENT

- 5 Colors: Fluorescent Pink, Green, Orange, Yellow and White
- 1/8 x 8" Long

P/N 7799

BI-METAL RECIP SAW BLADES – METAL CUTTING

P/N 17660

BI-METAL RECIP SAW BLADES – WOOD CUTTING

P/N 17661

BI-METAL RECIP SAW BLADES STUD/METAL CUTTING

P/N 17662

MOUNTABLE CABLE TIES

- 8", 11", 14" L
- 3/8" W
- Bundle, mount and hang cords, ropes, hoses, cables, wire, etc.
- 90 pound tensile strength

P/N 17663

MULTI-TOGGLE ANCHORS

- Quick installation
- Reusable in same hole
- Won't lose anchor behind wall
- Steel zinc plated screws
- 3/16 (10-24) & 1/4-20

P/N 17664

FLAP DISCS – TYPE 27 Z3-ZIRCONIA ALUMINA

- 40, 60, 80, and 120 Grits
- For aggressive use and heavy duty applications
- For flat grinding surfaces
- For smooth finishing

P/N 17666

FLAP DISCS – TYPE 29 Z3-ZIRCONIA ALUMINA

- 40, 60, 80, and 120 Grits
- For aggressive use and heavy duty applications
- For working on contoured and edge work

P/N 17667

FLAP DISCS – TYPE 27 XL Z3-ZIRCONIA ALUMINA

- 40, 60, 80, and 120 Grits
- For aggressive use and heavy duty applications
- For flat grinding surfaces
- For smooth finishing

P/N 17668

FLAP DISCS – TYPE 29 XL Z3-ZIRCONIA ALUMINA

- 40, 60, 80, and 120 Grits
- For aggressive use and heavy duty applications
- For working on contoured and edge work

P/N 17669

BUTTON HEAD TORX® S/S MACHINE SCREWS

- Uniformly threaded screws designed to be threaded into nuts or holes
- Sizes 6-32 thru 1/4-20
- Insert Bits T10 thru T27

P/N 17670

TRAY ASSORTMENTS – Numeric Listing

FLAT HEAD TORX® S/S MACHINE SCREWS

- Uniformly threaded screws designed to be threaded into nuts or holes
- Sizes 8-32 thru 1/4-20
- Insert Bits T20 thru T30

P/N 17671

BUTTON HEAD TORX® S/S SHEET METAL SCREWS

- Designed to join thin pieces of metal to wood, fiberglass or metal
- For general repair
- Sizes 6 thru 14
- Insert Bits T10 thru T27

P/N 17672

FLAT HEAD TORX® S/S SHEET METAL SCREWS

- Designed to join thin pieces of metal to wood, fiberglass or metal
- For general repair
- Sizes 6 thru 14
- Insert Bits T15 thru T30

P/N 17673

PAN HEAD TORX® 410 S/S SELF DRILLING SCREWS

- Eliminates separate drilling and tapping operations
- Provides sharp, clean and consistent drill point, excellent thread engagement and holding power
- Sizes 8-18 and 10-16
- Insert Bits T20 and T25

P/N 17674

CONSTANT PRESSURE CLAMPS

- **Large Sizes**
- 2-13/16" to 5-13/16"
- Maintains constant steady pressure 360 degrees around the connection

P/N 17677

CONSTANT PRESSURE CLAMPS

- **Medium Sizes**
- 2-3/16" to 4-1/16"
- Maintains constant steady pressure 360 degrees around the connection

P/N 17678

CONSTANT PRESSURE CLAMPS

- **Small Sizes**
- 13/16" to 3-1/16"
- Maintains constant steady pressure 360 degrees around the connection

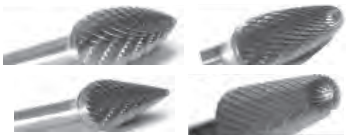
P/N 17679

TIN CARBIDE BURS

- SA
- SC
- SD
- SE

P/N 17680

TIN CARBIDE BURS



- SF
- SG
- SL
- SM

P/N 17681

TIN SPIRAL POINT TAPS

- 4-40 to 1/4-28

P/N 17682

TIN SPIRAL POINT TAPS

- 5/16-18 to 3/4-16

P/N 17683

TIN COMBO DRILL & TAPS

- 4-40 to 12-28

P/N 17684

TIN COMBO DRILL & TAPS

- 1/4-20 to 1/2-20

P/N 17685

SHEET METAL HOLE CUTTERS (FRACTIONAL)

- 13 sizes: 5/16" to 1-1/2"
- Clean accurate burr-free holes
- Use in sheet metal, plate, tube stock & plastic up to 1/2" thick

P/N 17686

NYLON FLANGED ANCHORS WITH DRILLS

- Notched wings with 2 expansion points to prevent rotation of anchor as scew is inserted
- Easy to install, screws & drills included
- Sizes 6-8 x 1 to 12-14 x 1-1/2

P/N 17688

TAPERED POLY CAPS AND PLUGS

- 18 Sizes / Color: Red
- Use as a cap or plug
- Fits snugly, yet removable
- For SAE Tube/Fittings, MIL Std. and Threaded NPT Fittings

P/N 17689

SLOTTED HEX NUTS GRADE 5 / SAE THREADS

- Opposed slots cut into top of nut
- Slots allow insertion of cotter pin
- Zinc clear finish on hex nuts
- Slotted Hex Nuts: 1/4-28 to 1-14
- Hammerlock Cotter Pins: 1/16" x 1-1/2" to 3/16" x 3"

P/N 17692

SLOTTED HEX NUTS GRADE 5 / USS THREADS

- Opposed slots cut into top of nut
- Slots allow insertion of cotter pin
- Zinc clear finish on hex nuts
- Slotted Hex Nuts: 1/4-20 to 1-8
- Hammerlock Cotter Pins: 1/16" x 1-1/2" to 3/16" x 3"

P/N 17693

TRAY ASSORTMENTS – Numeric Listing

BRISTLE BRUSHES

- Ideal for cleaning, finishing, blending, deburring
- Use on corners, welds, and other areas
- 50X Grade/Green
- 80X Grade/Yellow

P/N 17694

TRIPLE-GRIP™ ANCHORS

- Easy to install (#6, #8, #10, #12)
- Superior holding power
- Expandable wings grip tightly behind drywall
- Lateral wings hold anchor in place
- Cam action expands inside drywall
- For drywall, plaster, brick, concrete, ceramic tile
- screws included

P/N 17699

NUTSERTS AND THINSERTS (STARTER ASSORTMENT)

- 2 Sizes
- 6-32 to 5/16-18
- Nutsert Tool

P/N 17700

SUPERFAST™ ANCHOR ASSORTMENT

- No pre-drilling
- Removable
- Extra deep #2 phillips drive
- Works in 3/8" to 5/8" drywall

P/N 17701

MOUNTED POINTS 1/4" SHANK

- 16 Sizes
- 3/4 x 2-1/2 to 1-1/2 x 1/2

P/N 17702

SCREWS — WOOD (SUR-DRIVE™ FLAT HEAD)

- 21 Sizes
- #6 x 1/2 to #10 x 3-1/2
- 2 Drivers #6 and #8/#10

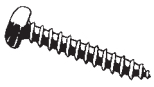
P/N 17705

MOUNTED POINTS 1/8" SHANK

- 9 Sizes
- 7/32 x 3/8 to 3/4 x 1/8

P/N 17707

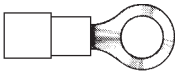
SCREWS — METAL (SUR-DRIVE™ PAN HEAD)



- 19 Sizes
- #6 x 1/2 to #12 x 1-1/2
- 3 Drivers: #6, #8 / #10 and #12/#14

P/N 17708

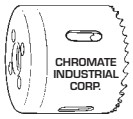
NYLON INSULATED DOUBLE GRIP SOLDERLESS TERMINALS



- 4 Sizes of Rings
- 3 Sizes of Quick Slides
- 3 Sizes of Butts
- 22-18 to 12-10

P/N 17710

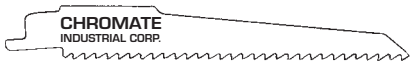
HOLE SAWS — BI-METAL 5/8" TO 2"



- 11 Sizes
- 5/8 to 2
- 1/4 Pilot Drill

P/N 17712

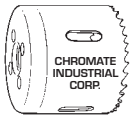
RECIPROCATING SAWS BI-METAL - 1/2" SHANK



- 10 Sizes
- 3 x 18 to 12 x 6 TPI

P/N 17713

HOLE SAWS — BI-METAL 2-1/8" TO 4"



- 6 Sizes
- 2-1/8 to 4
- 1/4" Pilot Drill

P/N 17714

LENOX® SPEED SLOT™ BI-METAL HOLE SAWS

- **5/8" to 2"**
- Long lasting
- Fast cutting/versatile
- Snap-Back™ Arbors & Pilot Drills included

P/N 17715

LENOX® SPEED SLOT™ BI-METAL HOLE SAWS

- **2-1/8" to 4"**
- Long lasting
- Fast cutting/versatile
- Snap-Back™ Arbors & Pilot Drills included

P/N 17716

UNIVERSAL NYLON RETAINERS

- Covers 2.5 mm to 10 mm hole sizes
- Nylon Shield
- Weatherstrip
- Dash Panel
- Rear Hood Seal
- Bumper Filler
- Fascia Panel
- Head Panel
- Trim Panel
- Radiator Panel
- Fascia Bumper

P/N 17717

ERGO TUFLOKS NYLON PUSH-TYPE RETAINERS

- Hole Sizes: 6.5 mm to 10 mm
- Flange Sizes: 14 mm to 25 mm
- Panel Rages: 2 mm to 10 mm

P/N 17718

CLEVIS PIN & HAIR PIN COTTER 3/16 TO 5/16

- 8 Clevis Pin Sizes 3/16 x 1 to 5/16 x 3
- 4 Cotter Pin Sizes 14 ga. x 1-9/16 to 13 ga. x 2-1/2

P/N 17719

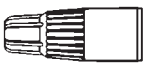
CLEVIS PIN & HAIR PIN COTTER 3/8 TO 3/4

- 9 Clevis Pin Sizes 3/8 x 1 to 3/4 x 2
- 3 Cotter Pin Sizes 11 ga. x 1-3/4 to 9 ga. 2-15/16

P/N 17720

TRAY ASSORTMENTS – Numeric Listing

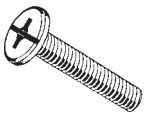
"TERMINALS" WATERPROOF CONNECTORS



- 7 Sizes
- #1 Gray, #2 Blue, #3 Orange, #4 Yellow, #5 Red, #6 Blue and #9 Blue

P/N 17721

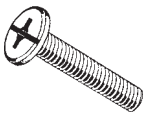
SCREWS - SUPER MACHINE™ (6-32, 8-32 AND 10-32)



- 21 Sizes of Screws 6-32 x 1/4 to 10-32 x 1-1/2
- 2 Sizes of Hex Nuts 6-32 and 8-32

P/N 17722

SCREWS - SUPER MACHINE™ (10-24 AND 1/4-20)



- 19 Sizes of Screws 10-24 x 3/8 to 1/4-20 x 3
- 2 Sizes of Hex Nuts 10-24 and 1/4-20
- 3 Sizes of Flat Washers #10, 3/16 and 1/4 Unifit

P/N 17723

O-RINGS — METRIC

- 32 Sizes
- 2mm x 3 x 7 to 4mm x 44 x 52

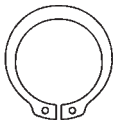
P/N 17724

HEAT SHRINK TUBING (SUR-SEAL™ COLOR)

- 7 Sizes
- 1/8" Brown, 3/16" Gray, 1/4" White, 3/8" Red, 1/2" Blue, 3/4" Yellow and 1" Black
- 12" Lengths

P/N 17725

RETAINING RINGS METRIC — EXTERNAL



- 20 Sizes
- 4mm to 42mm
- Adjustable External Retaining Ring Pliers

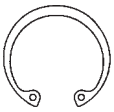
P/N 17726

CUT-OFF WHEELS (RAPID-CUT™)

- 18 Sizes
- 1 x 1/32 to 4 x 1/16
- Flush Mandrel Set
- Nut Mandrel

P/N 17727

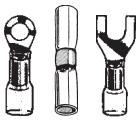
RETAINING RINGS METRIC — INTERNAL



- 20 Sizes
- 10mm to 42mm
- Adjustable Internal Retaining Ring Pliers

P/N 17728

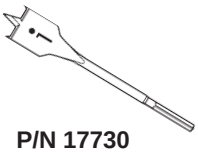
TERMINALS — SUR-SEAL™ SOLDER LINK



- 3 Sizes of Butts: 18-20 Red, 14-16 Blue and 10-12 Yellow
- 12 Sizes of Rings: #6, #8, #10, 1/4 Red #8, #10, 1/4, 3/8 and #10 Blue #10, 1/4, 3/8 1/2 and #10 Yellow
- 3 Sizes of Spades: #10 Red, #10 Blue and #10 Yellow

P/N 17729

WOOD SPADE BITS (RAZOR-BACK™)



- 14 Sizes
- 1/4 to 1-1/2
- 12" Extension

P/N 17730

SPRING PINS — METRIC

- 32 Sizes
- 1 x 10mm to 5 x 60mm

P/N 17731

EPOXY-LOCK™ STUD ANCHORS

- 4 Sizes of Studs 3/8, 1/2, 5/8 and 3/4

P/N 17732

SECURITY SCREWS (HEX-LOCK™) MACHINE

- 15 Sizes
- 6-32 x 3/8 to 1/4-20 x 1-1/2
- 2 Hex Lock Keys 1/8 and 5/32

P/N 17733

SECURITY SCREWS (HEX-LOCK™) METAL

- 16 Sizes
- #6 x 3/8 to #10 x 2
- 2 Hex-Lock Keys 1/8 and 5/32

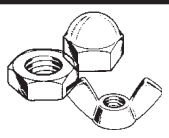
P/N 17734

PERMASERT™ THREAD REPAIR INSERTS (METAL)

- 5 Sizes in both USS and SAE thread
- 5 Installation Tools

P/N 17735

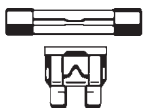
SMALL NUTS



- 24 Sizes
- Cap Nuts, Nylon Lock Nuts, Kep Nuts, Hex Machine Nuts and Wing Nuts
- 6-32 to 1/4-20

P/N 17736

GLASS TUBE AND BLADE FUSE



- 16 Sizes Glass Tubes
- 6 Sizes Blade Fuses
- 1 to 30 Amp AGC, ATC and SFE
- 2 Fuse Clip Adapters

P/N 17737

ABRASIVES — QUICK-LOK™ DISCS (2" AND 3" DIA.)

- Back-Up Pads
- 36, 60 and 120 Grit Alum. Oxide Discs
- 1/4" Threaded Shafts

P/N 17738

TRAY ASSORTMENTS – Numeric Listing

ABRASIVES — QUICK-LOK™ ABRASIVE DISCS (4" DIA.)

- Back-Up Pads
- 36, 60 and 120 Grit Alum. Oxide Discs
- 1/4" Threaded Shafts

P/N 17739

ABRASIVES — QUICK-LOK™ SURF. COND. DISCS (2" & 3")

- Back-Up Pads
- Medium and Coarse
- 1/4" Threaded Shafts

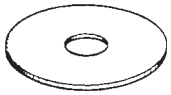
P/N 17740

ABRASIVES — QUICK-LOK™ SURF. COND. DISCS (4" DIA.)

- Back-Up Pads
- Medium and Coarse Alum. Oxide Discs
- 1/4" Thread Shafts

P/N 17741

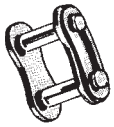
WASHERS — OVERSIZE FENDER 3/16" TO 1/2"



- 11 Sizes
- 3/16 x 1 to 1/2 x 2

P/N 17742

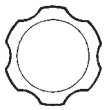
CHAIN LINK — #35 TO #80 CONNECTING & OFFSET



- 12 Sizes
- #35 to #80 Offset and Connecting

P/N 17743

THUMB SCREW KNOB



- 24 Sizes
- "L", Tee, Knurled and Rosette
- #10 to 3/8
- Black and Red

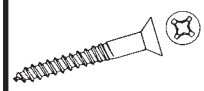
P/N 17744

CAP SCREWS - HEX SOCKET 6-32 TO 3/8-16

- 24 Sizes
- 6-32 x 3/8 to 3/8-16 x 1-1/2

P/N 17745

SCREWS — WOOD BRASS PHILLIPS FLAT HEAD



- 15 Sizes
- 6 x 1 to 12 x 2
- Skil Screw Gun, Battery and Charger

P/N 17746

SCREW EYE AND "S" HOOK

- 6 Sizes of "S" Hooks
- 11 Sizes of Screw Eyes
- 6 Sizes of Turned Eyebolts

P/N 17747

SCREWS — METAL COMBO PHILLIPS/SLOTTED

- 20 Sizes
- 6 x 3/8 to 12 x 2 Phillips or Slotted
- Skil Screw Gun, Battery and Charger

P/N 17748

ANCHORS HAMMER-LOCK

- 16 Sizes
- 3/16 to 3/8
- Round Head, Tie Wire, Rod Coupling and Forming

P/N 17750

SOLDER-LINK™ SLUG

- 7 Sizes
- 4 GA to 4/0
- Solder-Link™ Flux

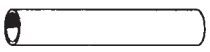
P/N 17751

BATTERY TERMINAL 4GA TO 4/0

- 12 Sizes
- 4 GA to 4/0
- Straight Neg., Straight Pos. and Straight Univ.

P/N 17752

THICK WALL SHRINK TUBING



- 5 Sizes
- Heavy Wall Red / Black
- Tubing/Hose Cutter

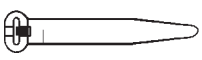
P/N 17753

VITON O-RINGS

- 24 Sizes
- 1/16 Thick x 1/4 OD to 3/16 Thick x 2-1/8 OD

P/N 17754

WIRE TIES — MET-TAB™



- 9 Sizes
- 3/32 x 3-5/8 to 17/64 x 13-3/8
- Standard and Black

P/N 17755

ADHESIVES & SEALANTS RED LION™

- E-Z Poxies, Teflon Pipe Sealant, Stud Lock & Bearing Mount, Threadlocker, Instant Adhesive, Thread Sealant and Super Adhesive Sealant

P/N 17756

CIC 200™ TAPER PINS

- 20 Sizes
- #0 x 3/4" to #4 x 2"

P/N 17757

TRAY ASSORTMENTS – Numeric Listing

DRIVER BITS AND SCREW GUN

- Phillips Power Bits
- Phillips Insert Bit
- Torx® Insert Bits
- Square Drive Power Bits
- Magnetic Nutsetters
- Slotted Power Bit w/Finder

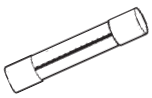
P/N 17758

VINYL COATED TUBE AND HOSE CLAMPS

- 8 Sizes
- 1/4" to 1-1/2"

P/N 17759

TIME DELAY FUSES 1/4 TO 30 AMP



- MDL 1/4 to MDL 30
- Glass Fuse Clip Adapter
- Fuse Holder
- Fuse Puller

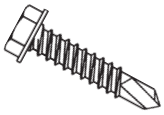
P/N 17760

CIC 200™ SUR-DRIVE™ DECK SCREWS

- 6 Sizes
- 8 x 2 to 10 x 4
- #2 x 2 and #2 x 3 Power Bits

P/N 17762

S/S DRILL & TAP SCREWS HEX WASHER HEAD



- 24 Sizes
- 6 x 3/8 to 14 x 2

P/N 17763

WELDING ELECTRODES ALL STEELS, CAST IRON

- Auralloy 900, 300, 250, 225, 220 and 210

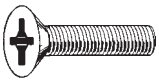
P/N 17764

WELDING ELECTRODES HIGH PERFORMANCE MRO

- Auralloy 600, 400, 310, 225, 225-V and 225

P/N 17765

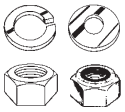
MACHINE SCREWS S/S PHILLIPS FLAT HEAD



- 24 Sizes
- 6-32 x 1/2 to 1/4-20 x 2

P/N 17767

METRIC S/S NUTS, FLAT AND LOCK WASHERS



- 6 Sizes of each
- 3mm to 10mm Lock Washers
- 3mm to 10mm Flat Washers
- 3mm x 0.50 to 10mm x 1.50 Hex Nuts
- 3mm x 0.50 to 10mm x 1.50 Nylon Insert Lock Nuts

P/N 17768

HACKSAW / ROD SAW BLADES

- 6 Sizes
- 3 Bi-Metal Hacksaw Blade
- Tungsten Carbide Grit Rod Saw and Hacksaw Blades
- Bastard File
- Plastic File Handle

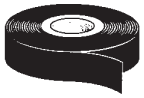
P/N 17770

SABRE / JIG SAW BLADES

- 8 Sizes
- Bi-Metal and Standard
- Medium Carbide Grit

P/N 17771

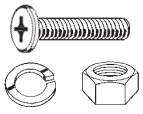
ELECTRICAL TAPE



- 9 Colors Electrical Tape: Blue, Green, White, Brown, Orange, Yellow, Gray, Red and Black
- Linerless Splicing Tape
- Fusion Seal Elec. Wrap

P/N 17772

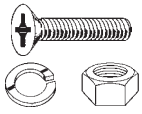
MACHINE SCREWS METRIC PHILLIPS PAN HEAD



- 16 Sizes
- 3mm x 8mm to 6mm x 40mm
- 3mm to 6mm Lock Washers and Hex Nuts

P/N 17773

MACHINE SCREWS METRIC PHILLIPS FLAT HEAD



- 16 Sizes
- 3mm x 8mm to 6mm x 40 mm
- 3mm to 6mm Lock Washers and Hex Nuts

P/N 17774

TOGGLE BOLT ANCHORS COMBO PHILLIPS/SLOTTED

- 11 Sizes
- 1/8 x 3 to 3/8 x 4
- Phillips/Slotted Combo Round Head

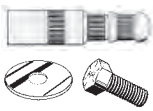
P/N 17775

TRIM-KUT™ SANDING DISCS

- 6 Sizes
- 3" x 36 grit to 3" x 120 grit
- 5" x 36 grit to 5" x 120 grit
- Mandrell with Shank
- Mandrell with Thread Arbor

P/N 17776

DROP-TITE™ ANCHORS



- 5 Sizes
- 5/16 x 1-9/16 to 7/8 x 5-3/4
- 10 sizes of CIC 150 Cap Screws and Unifit Washers

P/N 17777

HOSE BARB FITTINGS

- 24 Sizes
- Male and Female Fittings
- Male 90° Elbows
- Male 45° Elbows
- Tees
- I.D. Brass Hose Menders

P/N 17778

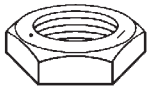
TRAY ASSORTMENTS – Numeric Listing

GARDEN HOSE FITTINGS

- 24 Sizes
- Male and Female Fittings
- Female Swivel
- Hose Caps and Plastic Washers

P/N 17779

JAM NUTS



- 9 Sizes of 1/4-20 to 1/8 USS
- 9 Sizes of 1/4-28 to 1-14 SAE

P/N 17780

SHAFT COLLARS — SET SCREW TYPE

- 10 Sizes
- 1/8" to 1"
- 5 Hex Keys: 1/16" to 5/32"

P/N 17781

SHAFT COLLARS — CLAMP TYPE SHAFT

- 8 Sizes
- 3/16" to 1"
- 5 Hex Keys: 3/32" to 3/16"

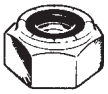
P/N 17782

INSERTS — SELF-TAPPING THREADED

- 11 Sizes
- 4-40 to 5/8-11

P/N 17785

NUTS — NYLON INSERT LOCK NUTS



- 16 Sizes
- USS 1/4-20 to 3/4-10
- SAE 1/4-28 to 3/4-16

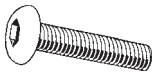
P/N 17786

CAP SCREWS – CIC 200™ BUTTON HEAD SOCKET

- 24 Sizes
- 4-40 x 1/4 to 10-32 x 1

P/N 17787

CAP SCREWS – CIC 200™ BUTTON HEAD SOCKET



- 19 Sizes
- 1/4-20 x 3/8 to 1/2-13 x 2

P/N 17788

CAP SCREWS – METRIC SOCKET HEAD

- 24 Sizes
- 4mm x 8mm to 8mm x 40mm

P/N 17789

WASHERS — ALLOY 200 XT™ FLAT WASHERS

- 9 Sizes
- 1/4 to 1"

P/N 17790

HAIR PIN COTTERS

- 10 Sizes
- 14 GA x 1-9/16 to 3 GA x 4"

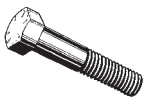
P/N 17791

RUBBER GROMMETS

- 12 Sizes
- 5/32 x 3/8 to 1" x 1-3/4

P/N 17794

CAP SCREWS — GRADE 8 (USS)



- 15 Sizes: 1/4-20 x 1/2 to 3/8-16 x 2
- 1/4 to 3/8 Lock Washers and UniFit™ Flat Washers Sizes: 1/4 to 3/8
- 3 Hex Nut Sizes: 1/4-20 to 3/8-16

P/N 17795

STAINLESS STEEL WOODRUFF KEYS

- 13 Sizes
- 1/16 x 1/2 to 1/4 x 1

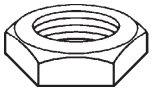
P/N 17796

STAINLESS STEEL KEYSTOCK

- 6 Sizes
- 1/8" x 12" to 1/2" x 12"

P/N 17797

METRIC HEX JAM NUTS



- 15 Sizes
- 2mm x 0.40 to 24mm x 3.00

P/N 17798

PLATED KEYSTOCK

- 6 Sizes
- 1/8" x 12" to 1/2" x 12"

P/N 17800

UNPLATED KEYSTOCK

- 6 Sizes
- 1/8" x 12" to 1/2" x 12"

P/N 17801

TRAY ASSORTMENTS – Numeric Listing

CAP SCREWS – STAINLESS STEEL SOCKET HEAD

- 24 Sizes
- 4-40 x 1/4 to 10-32 x 1-1/2

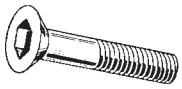
P/N 17802

CAP SCREWS – STAINLESS STEEL SOCKET HEAD

- 19 Sizes
- 1/4-20 x 3/8 to 1/2-13 x 2

P/N 17803

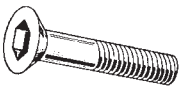
CAP SCREWS – STAINLESS FLAT SOCKET HEAD



- 23 Sizes
- 4-40 x 1/4 to 10-32 x 1

P/N 17804

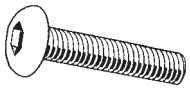
CAP SCREWS – STAINLESS FLAT SOCKET HEAD



- 19 Sizes
- 1/4-20 x 1/2 to 1/2-13 x 2

P/N 17805

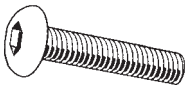
CAP SCREWS – STAINLESS BUTTON SOCKET HEAD



- 23 Sizes
- 4-40 x 1/4 to 10-32 x 1

P/N 17806

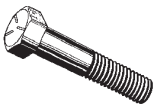
CAP SCREWS – STAINLESS BUTTON SOCKET HEAD



- 23 Sizes
- 1/4-20 x 1/2 to 1/2-13 x 2

P/N 17807

CAP SCREWS – GRADE 5 (USS)



- 15 Sizes: 1/4-20 x 1/2 to 3/8-16 x 2
- 1/4 to 3/8 Lock Washers and Flat Washers Sizes: 1/4 to 3/8
- 3 Hex Nut Sizes: 1/4-20 to 3/8-16

P/N 17808

CAP SCREWS – CIC 200™ LOW HEAD SOCKET

- 24 Sizes
- 8-32 x 3/8 to 3/8-16 x 1-1/2

P/N 17809

METRIC DOWEL PINS

- 24 Sizes
- 4mm x 12mm to 12mm x 50mm

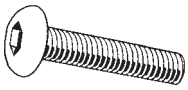
P/N 17810

METRIC "E" (RETAINING) RINGS

- 15 Sizes
- 1.2mm to 19mm

P/N 17811

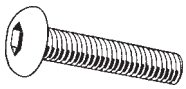
CAP SCREWS – CIC 150™ METRIC BUTTON HD SOCKET



- 20 Sizes
- 3mm x 6mm to 6mm x 30mm

P/N 17812

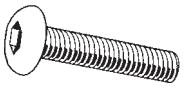
CAP SCREWS – CIC 150™ METRIC BUTTON HD SOCKET



- 20 Sizes
- 8mm x 10mm to 12mm x 40mm

P/N 17813

CAP SCREWS – STAINLESS METRIC BUTTON HD SOCKET



- 24 Sizes
- 3mm x 6mm to 8mm x 30mm

P/N 17814

STAINLESS STEEL SPRING PINS

- 24 Sizes
- 1/16 x 1/4 to 1/4 x 3

P/N 17815

SCREWS — SOCKET SET STAINLESS STEEL METRIC

- 32 Sizes
- 3mm x 4mm to 12mm x 30mm

P/N 17816

CAP SCREWS – CIC 150™ METRIC SOCKET HEAD

- 24 Sizes
- 4mm x 8mm to 8mm x 40mm

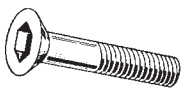
P/N 17817

CAP SCREWS – STAINLESS METRIC SOCKET HEAD

- 24 Sizes
- 4mm x 8mm to 8mm x 40mm

P/N 17818

CAP SCREWS – S/S METRIC FLAT SOCKET HEAD



- 24 Sizes
- 3mm x 6mm to 8mm x 30mm

P/N 17819

TRAY ASSORTMENTS – Numeric Listing

BUNA "N' COMPOUND (1/16" CROSS SECTION)

- 32 Sizes
- 1/8 x 1/4 to 2-1/2 x 2-5/8

P/N 17820

BUNA "N' COMPOUND (3/32" CROSS SECTION)

- 32 Sizes
- 1/4 x 7/16 to 2-3/16 x 2-3/8

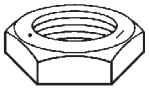
P/N 17821

BUNA "N' COMPOUND (1/8" CROSS SECTION)

- 32 Sizes
- 5/16 x 9/16 to 2 x 2-1/4

P/N 17822

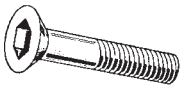
S/S HEX JAM NUTS



- 9 Sizes of 1/4-20 to 1-8 USS
- 9 Sizes of 1/4-28 to 1-14 SAE

P/N 17823

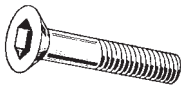
CAP SCREWS – CIC 150™ FLAT HEAD SOCKET



- 24 Sizes
- 4-40 x 1/4 to 10-32 x 1

P/N 17824

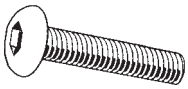
CAP SCREWS – CIC 150™ FLAT HEAD SOCKET



- 24 Sizes
- 1/4-20 x 1/2 to 1/2-13 x 2

P/N 17825

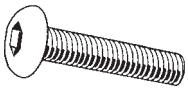
CAP SCREWS – CIC 150™ BUTTON HEAD SOCKET



- 24 Sizes
- 4-40 x 1/4 to 10-32 x 1

P/N 17826

CAP SCREWS – CIC 150™ BUTTON HEAD SOCKET



- 19 Sizes
- 1/4-20 x 3/8 to 1/2-13 x 2

P/N 17827

KNURLED THREADED INSERT

- 8 Sizes of Each
- 6-32 to 3/8-16 Thinserts
- 4-40 to 5/16-24 Nutserts

P/N 17828

QUIK TOOL AND ADAPTER/MANDREL

- 11 Sizes
- 4-40 to 3/8-24
- Includes Quik Tool

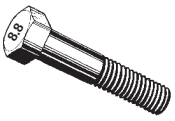
P/N 17829

CAP SCREWS – CIC 150™ SOCKET HEAD

- 32 Sizes
- 6-32 x 3/8 to 3/8-16 x 1-1/2

P/N 17830

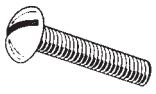
CAP SCREW – METRIC 8.8 ZINC COARSE THREAD HEX HEAD



- 8mm x 1.25 x 16mm to 12mm x 1.75 x 50mm
- 8mm x 1.25 to 12mm x 1.75 Hex Nuts
- 8mm to 12mm Lock and Flat Washers

P/N 17831

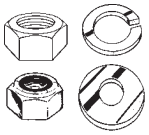
MACHINE SCREWS S/S MICRO SLOTTED



- 24 Sizes
- 0-80 x 1/8 RH to 3-48 x 1 RH
- 4-40 x 1/4 PH to 5-40 x 1 PH

P/N 17832

S/S MICRO HEX NUT, LOCK AND FLAT WASHERS



- 0-80 to 5-40 Hex Nuts
- 2-56 to 5-40 Nylon Lock Nuts
- #2 to #5 Lock Washers and Flat Washers

P/N 17833

CAP SCREWS – METRIC 8.8 ZINC FINE THREAD HEX HEAD

- 8mm x 1.00 x 16mm to 12mm x 1.50 x 50mm
- 8mm x 1.00 to 12mm x 1.0 Hex Nuts
- 8mm to 12mm Lock Washers and Flat Washers

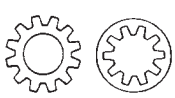
P/N 17834

CIC 200™ DOWEL PINS

- 24 Sizes
- 1/8 x 3/8 to 3/8 x 2

P/N 17835

STAR WASHERS – INTERNAL AND EXTERNAL



- 24 Sizes
- #6 to 3/4 Internal
- #6 to 3/4 External

P/N 17836

CIC 200™ HEX SOCKET WRENCH

- 9 Sizes
- 7/64 to 5/8

P/N 17837

TRAY ASSORTMENTS – Numeric Listing

STAINLESS STEEL WING NUTS AND CAP NUTS

- 16 Sizes
- 6-32 to 1/2-13 Wing Nuts
- 6-32 to 5/8-11 Cap Nuts

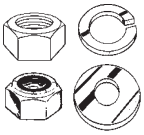
P/N 17838

CIC 200™ SHOULDER SCREWS

- 16 Sizes
- 1/4 x 3/8 to 3/8 x 2-1/2

P/N 17839

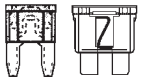
STAINLESS STEEL NUT, LOCK AND FLAT WASHER



- 24 Sizes
- #4 to 1/4 Lock Washer and Flat Washer
- 4-40 to 1/4-20 Hex Nuts
- 6-32 to 1/4-20 Lock Nuts

P/N 17840

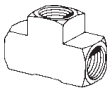
AUTOMOTIVE/BLADE FUSES



- 24 Sizes
- ATM 2 Amp to 30 Amp
- ATC 3 Amp to 30 Amp
- Maxi 20 to 60 Amp Fuse

P/N 17843

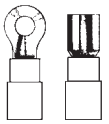
PIPE FITTINGS – BRASS



- 1/8 to 1/2 Elbow
- 1/8 to 1/2 45° Elbow
- 1/8 to 1/2 Street Elbow
- 1/8 to 1/2 45° Street Elbow
- 1/8 to 1/2 Tee

P/N 17844

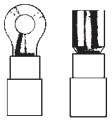
TERMINALS – YELLOW 12-10



- 24 Sizes of Double Grip Nylon Rings, Multi Rings, Spades, Hooks, Snap Spades, Female and Male Quick Slides, Butt Connectors and Flat Quick Slides

P/N 17845

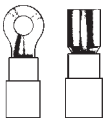
TERMINALS – BLUE 16-14



- 24 Sizes of Double Grip Nylon Rings, Hooks, Spades, Butt Connectors, Female and Male Quick Slides and Fully Insulated Quick Slides

P/N 17846

TERMINALS – RED 22-18



- 24 Sizes of Double Grip Nylon Rings, Hooks, Spades, Butt Connectors, Female and Male Quick Slides and Fully Insulated Quick Slides

P/N 17847

3M BRISTLE BRUSHES

- 1" x 50 to 3" x 50 Grade Green
- 1" x 80 to 3" x 80 Grade Yellow
- 1" to 3" Quick-Lok Disc Pads

P/N 17850

PIGTAIL STRAIN RELIEF

- 7 Sizes
- PG-7 to PG-16
- 1/2 NPT to 3/4 NPT

P/N 17851

STRAIN RELIEF

- 10 Sizes
- PG-7 to PG-29
- 1/2 NPT to 1 NPT

P/N 17852

AUTOMOTIVE BULB AND FLASHER

- #67 to #1895 Bulbs
- 5X Series / 2 and 3 Prong Flashers

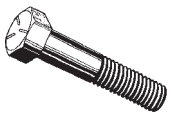
P/N 17853

SECURITY PICTURE HANGING HARDWARE

Secure-T-Screw, Slide-In Mounting Bracket, Security Slotted Bracket, Nylon Flanged Anchors and Phillips Slotted Metal Screws

P/N 17854

CAP SCREWS GRADE 5 SAE



- 15 Sizes
- 1/4-28 x 1/2 to 3/8-24 x 2
- 1/4 to 3/8 Lock Washers and Flat Washers

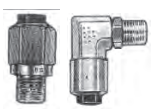
P/N 17855

METRIC INSTANT FITTINGS 4mm - 8mm

- Male Connectors, Swivel Elbows, Unions, Union Tees, Female Connectors and Swivel Branch Tees

P/N 17856

METRIC INSTANT FITTINGS 10mm - 12mm



- Male Connectors, Swivel Elbows, Male Swivel Run Tees, Unions, Union Elbows, Union Tees, Female Connectors and Swivel Branch Tees

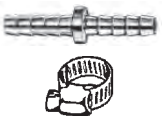
P/N 17857

HI-TORQUER TOOL AND CONVERSION KIT

- 5 Sizes
- 6-32 to 1/4-20

P/N 17861

AIR HOSE REPAIR KIT

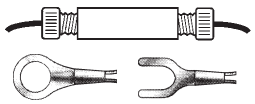


- Brass Coupler Body and Plugs, Male Hose Barbs, Mini Clamps, Hose Menders and Blow-Gun

P/N 17862

TRAY ASSORTMENTS – Numeric Listing

POSI-LOCK™ CONNECTORS AND TERMINALS



- 3 Sizes
- 18-24 AWG
  12-18 AWG
  08-10 AWG

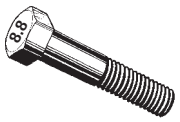
P/N 17863

UTILITY BLADE

- Scraper, Ergo-Knife, Single Edge Safety Blades, Straight/Hook Blades, Hook Blades and Straight Blades

P/N 17864

METRIC HEX HEAD CAP SCREW



- 15 Sizes
- 4mm x 12mm to 6mm x 30mm
- 4mm to 6mm Lock Washers, Flat Washers and Hex Nuts

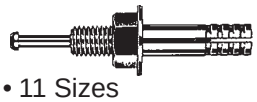
P/N 17865

METRIC GREASE FITTING

- 3 Sizes
- 6mm x 1.0 to 10mm x 1.0
- Straight, 45° and 90° Male Pipe Thread

P/N 17866

HAMMER DRIVE STUD ANCHOR



- 11 Sizes
- 1/4 x 1-3/4 to 1/2 x 6"

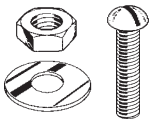
P/N 17871

HAMMERLOCK COTTER PINS

- 24 Sizes
- 1/16 x 1/2 to 1/4 x 3

P/N 17872

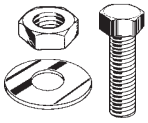
NYLON SLOTTED ROUND HEAD MACHINE SCREW



- 18 Sizes
- 6-32 x 1/4 to 10-32 x 2
- 6-32 to 10-32 Nylon Hex Nuts and #6 to #10 Flat Washers

P/N 17873

NYLON HEX CAP MACHINE SCREW



- 18 Sizes
- 1/4-20 x 1/2 to 3/8-16 x 2
- 1/4-20 to 3/8-16 Nylon Hex Nuts and 1/4 to 3/8 Nylon Flat Washers

P/N 17874

MAD-MAX SCREW

- 24 Sizes
- #6 x 1/2 to #14 x 3-1/2

P/N 17876

SCREWS – METAL SELF-DRILLING PHILLIPS

- 19 Sizes Phillips Flat Head
- #6 x 1/2 to #14 x 1-1/2
- 5 Sizes Modified Truss Hd
- #8 x 1/2 to #8 x 1-5/8

P/N 17877

UTILITY BRUSHES

- Tube Fitting Brushes, Small Scratch Brushes and Acid Swab Brushes

P/N 17878

DRYWALL SCREWS

- 8 Sizes
- 6 x 1 to 10 x 4
- Includes drywall screw setter

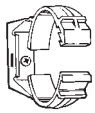
P/N 17879

BRUSHES DISPOSABLE PAINT/CHIP

- 4 Sizes
- 1" to 3" Varnish

P/N 17880

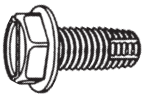
CONDUIT/PIPE HANGERS



- 11 Sizes
- .374-.465 (#10) to 1.555-1.713 (#40)

P/N 17882

THREAD CUTTING SCREWS



- 24 Sizes
- 6-32 x 1/4 to 1/4-20 x 2

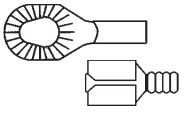
P/N 17884

TERMINALS – BRAZED SEAM RING

- 15 Sizes
- 4GA x 10 to 8GA x 1/2

P/N 17886

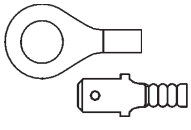
TERMINALS – NON-INSULATED (22-18)



- 22-18 Multi-Rings, Rings, Spades, Butt Connectors, and Female/Male Disconnects

P/N 17887

TERMINALS – NON-INSULATED (16-14)

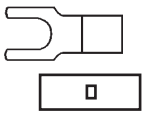


- 16-14 Multi-Rings, Rings, Spades, Butt Connectors, and Female/Male Disconnects

P/N 17888

TRAY ASSORTMENTS – Numeric Listing

TERMINALS – NON-INSULATED (12-10)



- 12-10 Multi-Rings, Rings, Spades, Butt Connectors, and Male Disconnects

P/N 17889

COMPRESSION LUGS & BUTT CONNECTORS

- 8GA x 10 to 4/0 x 1/2 Compression Lugs and 8GA to 4/0 Butt Connectors

P/N 17890

TEST / ALLIGATOR CLIPS

- Alligator, Mini-Alligator, Crocodile, General Purpose Clips and Insulators

P/N 17891

SCREWS – METAL COMBO SLOTTED/PHILLIPS

- 24 Sizes
- 6 x 3/8 to 14 x 2

P/N 17892

DRIVER BITS

- Phillips, Slotted, Torx, Square, Bit Holders, Nutsetters and Quick Change Chuck Adapter

P/N 17893

METRIC SOCKET SET SCREWS

- 24 sizes
- 3mm x 3mm to 10mm x 30mm

P/N 17900

CEMENT BOLT ANCHORS

- 10 Sizes
- 1/4 x 1-1/4 to 1/2 x 4

P/N 17901

DOUBLE GRIP NYLON TERMINALS

- 24 Sizes
- 22-18 to 12-10
- Rings, Spades, Butts and Quick Slides

P/N 17903

PAINT STICKS

- White, Yellow, Red and Black Paint Stick Markers and Valve Action Markers

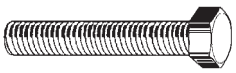
P/N 17904

BATTERIES

- D, C, 9V, AA and AAA Duracell Procell Alkaline Batteries

P/N 17906

MACHINE SCREWS – INDENTED HEX HEAD



- 24 Sizes
- 6-32 x 1/2 to 12-24 x 2

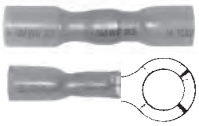
P/N 17907

PUSH-CON/SNAP-CON/SPRING-CON WIRE CONNECTORS

- 2-Conductor to 8-Conductor
- Insulated Tape
- Multi-Purpose Strip & Crimp Tool

P/N 17908

CSS TERMINALS (CRIMP - SOLDER - SEAL)



- Rings, Spades, Butt Connectors, Male and Female Quick Slides

P/N 17909

SHAFT COLLARS — S/S SET SCREW TYPE

- 10 Sizes
- 1/8" to 1"
- 5 Hex Keys: 1/16" to 5/32"

P/N 17910

SHAFT COLLARS — DOUBLE SPLIT TYPE

- 9 Sizes
- 3/16" to 1-1/2"
- 5 Hex Keys: 3/32" to 3/16"

P/N 17911

LAG SCREWS

- 4 Sizes
- 1/4", 5/16", 3/8"
- Corresponding lag screw expansion shields

P/N 17912

WINDSHIELD REPAIR SYSTEM

Adhesive Alignment Seals, Pedestal Resin Chambers, UV Quick Cure Resin, 30" Hose, Carbide Probe, Mylar Square Curing Film, Scraper, Flow Regulator, Cure Guard and Injector Assembly

P/N 17913

HEADLIGHT, TAIL LIGHT & MIRROR REPAIR

- Headlight and Backup Light Lens Repair Kit (Clear)
- All-Purpose Shears
- Tail Light Repair Kit (Red/Amber)
- Rear View Mirror Saver Kit

P/N 17914

TRAY ASSORTMENTS – Numeric Listing

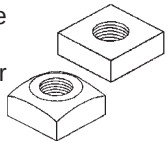
SUSPEND-IT FASTENERS

- 3/8 x 1/4-20 x 1" to 1/2 x 3/8 x 2-3/4
- Vertical Metal, Vertical Wood, Side Metal, Side Wood, Vertical Concrete and Concrete Socket Drivers

P/N 17915

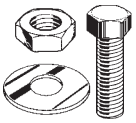
SQUARE NUTS

- 4-40 to 12-24 Square Machine Screw Nuts
- 1/4-20 to 1-8 Regular Square Nuts



P/N 17916

STAINLESS STEEL CAP SCREWS



- 15 Sizes
- 1/4-20 x 1/2 to 3/8-16 x 2
- 1/4-20 to 3/8-16 Hex Nuts, 1/4 to 3/8 Lock Washers and Flat Washers

P/N 17917

STAINLESS STEEL THUMB SCREWS

- 24 Sizes
- 8-32 x 1/2 to 3/8-16 x 2

P/N 17918

CARRIAGE BOLTS

Square Neck & Clean, Sharp USS Threads with Chromate Plating

P/N 17919

FREE SPINNING LOCK NUTS

- 4 Sizes
- 1/4-20 to 1/2-13

P/N 17919PS

METRIC PERMASERTS

- 5 sizes
- M5 x .8 to M12 x 1.75
- M5 to M12 x 1.75 Installation Tool

P/N 17920

QUICK-LOK™ MINI FLAP DISCS

- 6 Sizes
- 40, 80 and 120 Grit
- 2" and 3" Diameters
- 2" and 3" Backup Pads
- 1/4" Threaded Shaft

P/N 17921

BLACK MAXI HAND FILES

- 9 Files with 7 and 10 Inch Lengths
- Mill, Flat, Round, Half-Round and Square Bastards, All-Purpose, Flat Multi-Kut, Slim Taper & Hobby Rasp, Handles & File Card

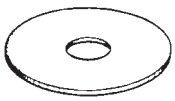
P/N 17922

HANGER BOLTS

- 16 sizes
- 10-24 x 1-1/2 to 3/8-16 x 4

P/N 17923

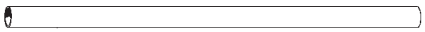
STAINLESS STEEL FENDER WASHERS



- 9 Sizes
- 3/16 x 1 to 1/2 x 2

P/N 17924

CLEAR SHRINK TUBING



- 7 Sizes
- 1/8" x 12" to 1" x 12"

P/N 17925

NUTSERTS

- 6-32 to 1/4-20 Adapters for Quik Tool
- 6-32 to 1/4-20 Star Flange Thinserts
- 6-32 x 1/2 to 1/4-20 x 1 Phillips Flat Head MS

P/N 17927

E-Z POXY STICKS

E-Z Poxy 200, E-Z Poxy Aqua Repair, E-Z Poxy Wood, E-Z Copper, E-Z Poxy Plastic, E-Z Poxy Aluminum and E-Z Poxy Concrete

P/N 17928

TURBO-DRIVE™ ANCHORS

- Pan Head and Oval Head Chrome, Pan Head and Oval Head White
- 3/16 x 3-1/2 x 3/16 and 3/16 x 6 x 3/16 Black Beauty Drills
- 1-15/16 and 2-3/4 Phillips Power Bits

P/N 17929

THREAD TREATMENTS

- Red Lion™ Thread Treatment Liquids work best on small parts and large volume jobs
- Loctite® Thread Treatment Sticks are convenient, fast & easy to apply

P/N 17932

HUMVEE BRAKE, POWER STEERING & ALTERNATOR

- Metric Cap Screws, Grade 8 Cap Screws, Locknuts, Flat Washers, Lock Washers, Free Spinning Flange Locknuts and Hex Flange Bolts

P/N 17933

DOUBLE EDGE / SPIRAL SCREW EXTRACTORS

- 5 Sizes
- #1 to #5 Double Edge / Spiral Screw Extractors
- 1/8 to 7/16 Left Hand Drills

P/N 17934

TRAY ASSORTMENTS – Numeric Listing

THINSERT / NUTSERT

- 6-32 to 5/16-18 Star Flange Thinserts
- 5-32 to 5/16-18 Adapters for Quik Tool
- 6-32 to 5/16-18 Starsert Threaded Nutserts

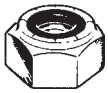
P/N 17935

BATTERY TERMINAL REPAIR

Includes Heat Shrink Tubing, Battery Connectors, Sur-Seal™ Butt Connectors, Fusion Seal™ Electrical Wrap, Lectro™ Seal Insulation

P/N 17936

STAINLESS STEEL NYLON INSERT LOCK NUTS



- 16 Sizes
- USS 1/4-20 to 3/4-10
- SAE 1/4-28 to 3/4-16

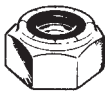
P/N 17937

STAINLESS STEEL COTTER PINS

- 24 Sizes
- 1/16 x 1/2 to 1/4 x 3

P/N 17938

METRIC NYLON INSERT LOCK NUTS



- 12 Sizes
- 2.5mm x 0.45 to 24mm x 3.00

P/N 17939

TRI-CLAMP RIVETS AND FINISHING CAPS

- 5 Rivets and 4 Finishing Caps
- 5/32 Dia. x 1/8 Grip to 3/16 Dia. x 15/32 Grip Rivets
- 5/32 Dia. to 3/16 Dia. Finishing Caps

P/N 17940

WOOD THREAD REPAIR INSERTS

- 4 Sizes: 8-32 to 3/8-16
- Installation Tools
- 8-32 x 3/4 to 3/8-16 x 3/4 Phillips FH Machine Screws
- 1/4 to 1/2 CIC Quad Pt. Drills – Stubby

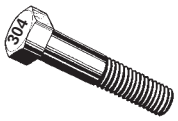
P/N 17942

PLUMBER'S O'RINGS

- 16 Sizes
- 11/16 ID x 1/16 Thick to 1-3/8 ID x 1/8 Thick

P/N 17943

STAINLESS STEEL METRIC HEX HEAD CAP SCREWS



- 15 Sizes
- 6mm x 10mm to 10mm x 50mm
- 6mm to 10mm Lock Washers, Flat Washers and Hex Nuts

P/N 17944

BUMPERS

- Clear and Black
- Easy "peel off" backing
- Cylindrical, Square and Circle Recessed

P/N 17945

FORSTNER BITS

- 13 Sizes
- 1/4 to 1-3/4

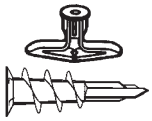
P/N 17946

OIL PAN DRAIN PLUGS

Standard, Oversized, Double Oversized, Triple Oversized, Oversized Piggyback, Double Oversized Piggyback, Nylon and Fiber Gaskets

P/N 17947

HOLLOW WALL ANCHORS



Superfast Anchors, Butterfly Toggles, Nylon Flanged Anchors, Turbo-Drive Anchors and Phillips Binding Head Metal Screws

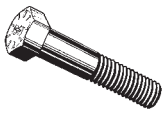
P/N 17948

PTFE AND ANTI-SEIZE TAPES

- White/Standard, White/High Density, Pink/Plumbers, Yellow/Gas Line and Green/Oxygen PTFE Tape
- Copper, Nickel and Ceramic Anti-Seize Tapes

P/N 17949

PRO-SHIELD CAP SCREWS (USS)



- 15 Sizes: 1/4-20 x 1/2 to 3/8-16 x 2
- 1/4 to 3/8 Lock Washers and UniFit™ Flat Washers Sizes: 1/4 to 3/8
- 3 Hex Nut Sizes: 1/4-20 to 3/8-16

P/N 17950

METRIC OIL PAN DRAIN PLUGS

- 12mm x 1.25mm to 20mm x 1.50mm Drain Plugs
- 12mm to 20mm Nylon Gaskets

P/N 17951

LOCTITE® QUICKSTIX THREAD TREATMENTS

- Loctite® Thread Treatment Sticks are convenient, fast & easy to apply
- Color-coded caps for easy application identification
- Solid formula is great for overhead use

P/N 17952

TAPER BOLT ANCHORS

- 8 Sizes
- 3/8 x 2-1/4 to 5/8 x 4-1/2
- 3/8 to 5/8 Nuts
- 3/8 x 6 x 3/8 to 5/8 x 6 x 3/8 Black Beauty Drills

P/N 17953

TRAY ASSORTMENTS – Numeric Listing

QUICK-LOK ABRASIVE DISCS

- 2" and 3" X-Coarse Removal Discs
- 2" and 3" x 80 Grit Flap Discs
- 2" and 3" Medium Disc Pads
- 1/4" Threaded Shaft

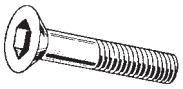
P/N 17954

GRADE 8 ZINC YELLOW NYLON LOCK NUTS

- 16 Sizes
- USS 1/4-20 to 3/4-10
- SAE 1/4-28 to 3/4-16

P/N 17955

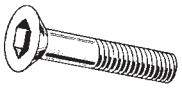
CAP SCREWS – METRIC FLAT HEAD SOCKET



- 20 Sizes
- 3mm x 6mm to 6mm x 30mm

P/N 17956

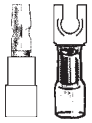
CAP SCREWS – METRIC FLAT HEAD SOCKET



- 20 Sizes
- 8mm x 12mm to 12mm x 40mm

P/N 17957

HUMVEE ELECTRICAL TERMINALS



- Snap Plugs, Receptacles and Connectors
- Sur Seal Ring Connectors, Snap Spades, Fully Insulated Male/Female Quick Slides and Butt Connectors

P/N 17960

METAL CUTTING RECIP. SAW BLADES

- 9 Sizes
- A variety of blades for wood and metal cutting

P/N 17961

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

- 12 Sizes
- 5/8 to 1-1/2"
- Pilot Drill and Hex Key

P/N 17962

BLOW ALERT FUSES

- ATM 3 to 30 Amp
- ATC 3 to 40 Amp
- Maxi 20 to 80 Amp

P/N 17963

SECURITY BITS

- 5 Different Styles
- Spanner Insert Bits
- Torx® Security Insert Bits
- Hex-Lock Driver Bits
- Tri-Wing Insert Bits
- Phillips Pin Head Insert Bits

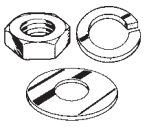
P/N 17964

POWER BITS

- 4 Different Styles
- Quick Change Chuck Adapter
- Slotted Power Bits
- Phillips Power Bits
- Magnetic Bit Holder Adapter

P/N 17965

METRIC NUT / LOCK WASHERS/FLAT WASHERS



- 3mm to 10mm Lock Washers
- 3mm to 10mm Flat Washers
- 3mm x 0.5 to 10mm x 1.50 Hex Nuts 8.8 Zinc
- 3mm x 0.5 to 10mm x 1.50 Nylon Insert Lock Nuts

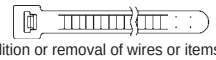
P/N 17966

CRIMPED END BRUSHES

- 6 Difference Styles
- Crimp End,Circular Flared End, Hollow End,Stem Mounted, S/S Small Scratch and S/S Shoe Handle Scratch Brushes

P/N 17967

RELEASABLE WIRE TIES



RELEASABLE WIRE TIES
- Temporary or permanent bundling allows for quick addition or removal of wires or items
- Strap finger release latch allows easy access but reduces snags compared to top latch type

SNAP-TIE WIRE TIES:
- Highly visible yellow color is made of durable nylon 6/6 and fully reusable
- Just one snap to tie and untie

P/N 17968

2MM METRIC O-RINGS

- 18 Sizes
- 2mm x 3 x 7 to 2mm x 28 x 32

P/N 17970

2.5MM METRIC O-RINGS

- 16 Sizes
- 2.5mm x 8 x 13 to 2.5mm x 25 x 30

P/N 17971

3MM METRIC O-RINGS

- 19 Sizes
- 3mm x 9 x 15 to 3mm x 45 x 51

P/N 17972

SPECIALTY RECIP SAW BLADES 2

- Pruning and Plunge-N-Cut™ Blades
- Demolition Blades
- Coarse Carb Grit Recip Blades
- Scroll Carb Grit Recip Blades
- Plaster Board/Sheetrock Recip Blades

P/N 17973

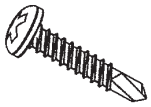
NYLON CABLE CLAMPS

- 20 Sizes
- 5/32 x 1/8 to 1/2 x 5/8 Black
- 1/2 x 1/8 to 1/2 x 1-1/2 White

P/N 17974

TRAY ASSORTMENTS – Numeric Listing

S/S SCREWS – METAL (PAN HEAD SELF-DRILLING)



- 16 Sizes
- 6 x 3/8 to 10 x 1-1/2

P/N 17975

REAMERS

- 8 Sizes
- 1/4 to 1"

P/N 17976

QUICK-CUT DIE & HANDLE

- 7 Sizes
- 6-32, 8-32, 10-24, 1/4-20, 5/16-18, 3/8-16 and 1/2-13

P/N 17977

METRIC QUICK-CUT DIE & HANDLE

- 7 Sizes
- 3mm x .050 to 12mm x 1.75

P/N 17978

COILSERTS

- 10 Sizes
- 1/4-20 to 1/2-20
- 6 Installation Tools

P/N 17980

METRIC COILERTS

- 5 Sizes
- M5 x .8 to M12 x 1.75
- 5 Installation Tools

P/N 17981

RAZORQWIK STUBBY HOLE CUTTERS

- 11 Sizes
- 5/8 to 1-3/8"
- Pilot Drill and Hex Key

P/N 17982

HEAT SHRINK CONNECTORS & TUBING

- Heat Shrink Multi Wire In-line Connectors
- Heat Shrink Multi Wire Closed End Connectors
- High Flow Adhesive Heat Shrink Tubing

P/N 17997

DOT FITTINGS

- 1/4" to 3/8" Thread and Tube Connectors and Unions

P/N 17998

ZINC PLATED 2-EAR CLAMPS

For Tubing Diameters
- 5/16" to 1-1/4" / 9 to 34 mm
- 2 Types of Pincers

P/N 17999

DOMESTIC A/C O-RINGS ASSORTMENT 1

P/N 17001

DOMESTIC A/C O-RINGS ASSORTMENT 2

P/N 17002

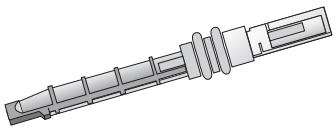
EUROPEAN A/C O-RINGS

P/N 17003

IMPORT A/C O-RINGS

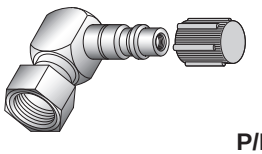
P/N 17004

A/C ORIFICE TUBES



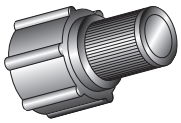
P/N 17005

RETRO-FIT A/C ADAPTERS



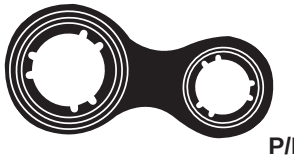
P/N 17006

A/C CAP AND VALVE CORES



P/N 17007

A/C METAL GASKETS



P/N 17008

TRAY ASSORTMENTS – Numeric Listing

A/C SEALING WASHERS

P/N 17009

HMMWV WEATHERPAK/ ELECTRICAL KIT

P/N 17010

HMMWV WIRE TIES

P/N 17013

HMMWV ELECTRICAL MAINTENANCE

P/N 17014

HMMWV ALUMINUM RIVETS

P/N 17015

WEATHERPAK ASSORTMENT

P/N 17016

EPDM COVERED CABLE CLAMPS

P/N 17017

D.O.T. AIR BRAKE BRASS PUSH-IN FITTINGS

P/N 17018

NYLON INSULATED DOUBLE GRIP SOLDERLESS TERMINALS WITH CRIMP & STRIP TOOL

P/N 17019

CIC 200™ CEMENT SCREW AND DRILL ASSORTMENT

P/N 17021

HEAVY DUTY/DIRECT BURY HEAT SHRINK TUBING

P/N 17032

D.O.T. AIR BRAKE BRASS PUSH-IN FITTINGS

- All brass body
- 5/8" connection

P/N 17034

BATTERY MAINTENANCE KIT

P/N 17035

MAGNA LUG ASSORTMENT

- 6 to 4/0 GA
- 1/4" to 1/2" Stud Size

P/N 17036

DOUBLE/BUBBLE® EPOXY

P/N 17040

GRIP TIES

- 6 x 1/2", 8" x 1/2", 11 x 1/2", 15" x 3/4"
- Low profile, one piece fastening devices
- Constructed of polyethylene hook and nylon loop, laminated back to back

P/N 17041

FUSION SEAL ELECTRICAL WRAP

- Long lasting electrode insulating wrap
- Form fitting
- Extremely flexible

P/N 17042

PRESS FITTINGS (COPPER/PRESS-FIT)

- For 1/2" to 4" diameter potable water systems
- Combines all the known advantages of copper with clean, rapid, heat-free joining technology

P/N 17050

TRAY ASSORTMENTS – Numeric Listing

PUSH FITTINGS (COPPER/PUSH-IN)

- For 1/2" to 1" diameter potable water systems
- Provide plumbing system design flexibility by allowing you to join Copper, CPVC or PEX lines with just one fitting

P/N 17051

REMOVABLE FITTINGS (COPPER/PUSH-IN)

- For 1/2" to 1" diameter potable water systems
- Heat free method for joining Copper, CPVC or PEX tube
- No torches or solder required

P/N 17052

HEX HEAD MULTI-SPLINE SCREW EXTRACTORS

- Designed to remove broken studs, bolts, socket screws and fittings for high torque applications
- Aggressive left hand spiral design for extra gripping power

P/N 17053

BOLT EXTRACTORS

- Reverse spiral flutes – maximum gripping power
- High carbon steel – longer life & great durability
- Universal lobular design fits all types of fasteners
- 3/8" & 1/2" square drive
- Use with hand/air ratchets & impact wrenches
- Hexagonal flats for use with flat wrench, pliers, adjustable wrench, sockets or IRWIN® VISE-GRIP® locking pliers

P/N 17054

SDS MAX HAMMER BITS 1/2'' TO 1-1/8''

- Innovative 4 cutter cross head design
- Unique carbide geometry & centering tips - Easy start up and drilling
- Use in concrete and hard masonry materials

P/N 17065

SPLINE SHANK HAMMER BITS 1/2'' TO 3/4''

- Splines held to very close tolerences assures perfect fit
- Use in concrete and hard masonry materials

P/N 17066

SPLINE SHANK HAMMER BITS 1'' TO 1-1/2''

- Splines held to very close tolerences assures perfect fit
- Use in concrete and hard masonry materials

P/N 17067

SPLINE SHANK HAMMER BITS QUAD POINT - 5/8'' TO 3/4''

- 50% inproved bit life
- Rounder more accurate holes
- resists rebar hits
- Use in concrete and hard masonry materials

P/N 17068

SPLINE SHANK HAMMER BITS QUAD POINT - 7/8'' TO 1-1/4''

- 50% inproved bit life
- Rounder more accurate holes
- resists rebar hits
- Use in concrete and hard masonry materials

P/N 17069

DIAMOND HOLE CUTTERS 3/4'' TO 2-1/4''

- Tough diamond grit
- Thin kerf segmented edges
- Fast, smooth hole-cutting
- Suitable for a wide range of users
- Arbors and pilot drills included

P/N 17072

DIAMOND HOLE CUTTERS 2-1/2'' TO 4''

- Tough diamond grit
- Thin kerf segmented edges
- Fast, smooth hole-cutting
- Suitable for a wide range of users
- Arbors and pilot drills included

P/N 17072

DOUBLE/BUBBLE® EPOXY AND URETHANE

P/N 17074

BUTT CONNECTORS

- Double crimp for superior strength
- Funnel design
- Deep "V" groove and long barrel
- Maximum current flow
- High temp nylon insulation

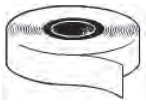
P/N 17075

ABRASIVES — QUICK-LOK™ SURF. COND. DISCS (2" & 3")

- Very Fine, Medium and Coarse
- Back-Up Pads
- 1/4" Threaded Shafts

P/N 17076

3M PROFESSIONAL GRADE ELECTRICAL TAPE



- 9 Colors Blue, Green, Violet, Brown, Orange, White, Gray, Red and Yellow
- Use in phase identification and color coding

P/N 17077

3M ROLOC™ ABRASIVE DISCS (2" DIAMETER)

- Ceramic closed coat abrasive grain
- 24, 60, 80, 120 Grades (Grits)
- Durable cloth backing

P/N 17078

3M ROLOC™ ABRASIVE DISCS (3" DIAMETER)

- Ceramic closed coat abrasive grain
- 24, 60, 80, 120 Grades (Grits)
- Durable cloth backing

P/N 17079

3M ROLOC™ ABRASIVE DISCS (2" & 3'' DIAMETER)

- Ceramic closed coat abrasive grain
- 24, 60, 80, 120 Grades (Grits)
- Durable cloth backing

P/N 17080

PORTA-PAK ASSORTMENTS – Numeric Listing

PORTA-PAK DIAMOND HOLE SAWS

- 3/16" to 1-3/8"
- Long lasting
- Fast, easy cutting
- Easy plug removal
- For porcelian, ceramic, slate, granite, marble, glass, etc.

P/N 8808

PORTA-PAK – NYLON FLANGED ANCHORS WITH DRILLS

- 3 Sizes of Each Anchor
  4-8 x 1", 8-12 x 1-1/4, 12-16 x 1-1/2"
- Phillips Binding Metal Screws
  6 x 1", 10 x 1-1/4", 14 x 1-1/2"
- Carbide Masonry Drills
  Diameters: 3/16", 1/4", 5/16"

P/N 17690

PORTA-PAK TRIPLE-GRIP ANCHORS #6

- Superior holding power
- Expandable wings grip tightly
- Lateral wings hold anchor in place
- Cam action expands inside drywall
- Screws included

P/N 17695

PORTA-PAK TRIPLE-GRIP ANCHORS #8

- Superior holding power
- Expandable wings grip tightly
- Lateral wings hold anchor in place
- Cam action expands inside drywall
- Screws included

P/N 17696

PORTA-PAK TRIPLE-GRIP ANCHORS #10

- Superior holding power
- Expandable wings grip tightly
- Lateral wings hold anchor in place
- Cam action expands inside drywall
- Screws included

P/N 17697

PORTA-PAK TRIPLE-GRIP ANCHORS #12

- Superior holding power
- Expandable wings grip tightly
- Lateral wings hold anchor in place
- Cam action expands inside drywall
- Screws included

P/N 17698

SUPER-CLEAR HEAT SHRINK TUBING /WINDOW-VIEW BUTT CONNECTORS

- Assures that wire is seated and being crimped properly
- Color-coded stripes identify wire gauge size to be used and guide the installer to the proper crimp position
- Seamless barrel butt connectors
- Wire gauge: 22-18, 16-14, 12-10
- Optimal clarity for visual inspection

P/N 17703

WINDOW-VIEW BUTT CONECTORS

- Assures that wire is seated and being crimped properly
- Color-coded stripes identify wire gauge size to be used and guide the installer to the proper crimp position
- Seamless barrel
- Wire gauge: 22-18, 16-14, 12-10

P/N 17704

COOL SEAL BUTT CONECTORS

- Ga: 22-18, 16-14, 12-10
- No heat necessary
- Anaerobic Technology
- Simply Strip and Crimp
- Nylon Insulation
- 99.9% ETP Copper Terminal

P/N 17706

COOL CONNECT ELECTRICAL CONNECTORS

- Cool Seal Butt Connectors
- Pigtail Butt Splicers
- In-line Tap / Tab T-Tap
- Male Quick Slide
- Clamps and Cable Ties

P/N 17766

PORTA-PAK NYLON FLANGED ANCHORS

- 3 Sizes of Each Anchor
  4-8 x 1", 8-12 x 1-1/4, 12-16 x 1-1/2"
- Phillips Binding Metal Screws
  6 x 1", 10 x 1-1/4", 14 x 1-1/2"

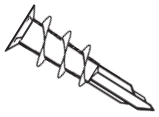
P/N 17848

PORTA-PAK SUPER HOLD ANCHORS

- 3 Sizes of Each
- 4-68 x 1 to 12-14 x 1-1/2 Super Flanged Anchors
- 6 x 1-1/4 to 14 x 1-3/4 Phillips Binding Metal Screws

P/N 17849

PORTA-PAK – SUPERFAST ANCHOR



- 2 Sizes
- 6 x 1 and 8 x 1-1/4 Phillips Binding Head Metal Screws

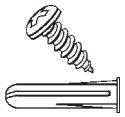
P/N 17859

PORTA-PAK TWIST-LOK WIRE NUTS

- 5 Sizes
- Max. 2 #14, Max. 4 #14 and 22-14 to 22-16
- Red, Yellow, Orange, Blue and Grey

P/N 17860

PORTA-PAK PLASTIC ANCHORS



- 6 Sizes
- 8-10 x 7/8, 10-12 x 1 and 14-16 x 1-3/8 Plastic Anchors
- 8 x 1, 12 x 1-1/4 and 14 x 1-1/2 Phillips Binding Metal Screws

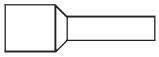
P/N 17867

PORTA-PAK WALL HANGERS

- 4 Sizes
- Holds 10, 20, 30 and 50 lbs.
- Conveniently packaged with hangers and nails

P/N 17868

PORTA-PAK HOLLOW PIN CONNECTORS



- 22GA Orange, 20GA White, 18GA Yellow, 16GA Red, 14GA Blue, 12GA Gray and 10GA Black

P/N 17885

PORTA-PAK BOSCH SABRE SAW BLADE

- 4 Sizes
- 3" x 14 TPI to 4" x 8 TPI

P/N 17894

PORTA-PAK ASSORTMENTS – Numeric Listing

PORTA-PAK JIG / SABRE SAW BLADE

- 4 Sizes
- 2-3/4" x 18 TPI to 3-5/8" x 14 TPI

P/N 17895

PORTA-PAK COARSE RECIP. SAW BLADE

- 3 Sizes
- 6" x 10 TPI to 6" x 5/8 TPI

P/N 17896

PORTA-PAK FINE RECIP. SAW BLADE

- 3 Sizes
- 6" x 14 TPI to 6" x 24 TPI

P/N 17897

PORTA-PAK 4" RECIP. SAW BLADE

- 3 Sizes
- 4" x 14 TPI to 4" x 24 TPI

P/N 17898

PORTA-PAK TURBO-DRIVE™ ANCHORS

- 3/16 x 1-1/4 Pan Head and Oval Head Chrome
- 3/16 x 1-1/4 Pan Head and Oval Head White
- 1-5/16 Phillips Power Bit

P/N 17930

PORTA-PAK CSS BUTT CONNECTORS

CLEAR	**22-24**
RED	**18-20**
BLUE	**14-16**
YELLOW	**10-12**

- Crimp – Solder – Seal

P/N 17988

PORTA-PAK PUSH-CON / SNAP-CON

- 2-Conductor to 6-Conductor Push-Cons
- Snap-Con Wire Connector

P/N 19500

PORTA-PAK 1/16 O-RINGS

- 4 Sizes
- 1/8 x 1/4 to 1/2 x 5/8

P/N 19501

PORTA-PAK 3/32 O-RINGS

- 4 Sizes
- 1/8 x 5/16 to 1/2 x 11/16

P/N 19502

PORTA-PAK 1/8 O-RINGS

- 4 Sizes
- 3/16 x 7/16 to 1/2 x 3/4

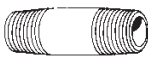
P/N 19506

PORTA-PAK METRIC BUNA-N O-RINGS

- 4 Sizes
- 2mm x 6 x 10 to 2mm x 12 x 16

P/N 19507

PORTA-PAK BRASS FITTINGS



- 1/8 to 3/8 Pipe
- Hex Head Plugs, Couplings and Reducing Couplings

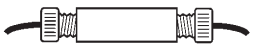
P/N 19510

PORTA-PAK RECIP. SAW HANDLE

- 4 Blades and Magnetic Bit Holder
- 6" x 6 TPI to 4" x 24 TPI

P/N 19511

PORTA-PAK POSI-LOCK CONNECTORS



- 4 Sizes
- 18-24, 12-18, 08-10 and 6-8AWG Connectors

P/N 19514

PORTA-PAK ATM BLOW ALERT FUSES

- 5 to 30 Amp ATM Mini

P/N 19516

PORTA-PAK ATC BLOW ALERT FUSES

- 5 to 30 Amp ATC Fuses

P/N 19519

PORTA-PAK MAXI BLOW ALERT FUSES

- 20 to 80 Amp MAXI Fuses

P/N 19521

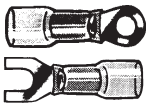
PORTA-PAK DRIVER BITS

- 9 Sizes
- Slotted Insert Bits, Phillips Insert Bits and Torx Insert Bits

P/N 19523

PORTA-PAK ASSORTMENTS – Numeric Listing

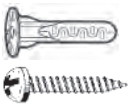
22-24GA SUR-SEAL SOLDER LINK TERMINALS



- 7 Sizes
- #2 to #6 Rings
- #2 to #6 Spades
- Butt Splice

P/N 19524

PORTA-PAK ALLIGATOR ANCHORS



- 3 Sizes
- 3/16 to 5/17
- #6 x 3/4 to #10 x 1-1/2 Phillips BH Metal Screws

P/N 19525

ONE-WAY SCREW REMOVER/INSTALLER

- Makes installation easy
- Allen set screw for adjustment of bit depth (hex keys included)

P/N 19527

MAGNETIC NUTSETTERS

- 1/4" Hex Shank x 2-9/16" Long
- Shock resistant tool steel
- Heat treated for maximum strength and hardness.

P/N 19531

HEAVY DUTY LOBULAR MAGNETIC NUTSETTERS

- Sizes: 3/16", 1/4", 5/16", 3/8", 7/16"
- Length: 2-9/16"
- Lobular hex bit design
- S2 Tool Steel, hardened with a proprietary coating
- 1/4" Hex Shank

P/N 19533

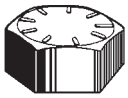
BIN ASSORTMENTS – Numeric Listing

CAP SCREW – HEX SOCKET USS (20 ITEMS – 40 HOLES)

- One 40-Hole Bin
- 20 Sizes
- 1/4 x 1/2 to 1/2 x 2-1/2

P/N 5790

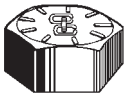
FASTENERS – ALLOY 200 USS (70 ITEMS – 80 HOLES)



- Two 40-Hole Bins
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 3/4 Dia.

P/N 7801

FASTENERS – PRO-SHIELD USS (70 ITEMS – 80 HOLES)



- Two 40-Hole Bins
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 3/4 Dia.

P/N 7801PS

FASTENERS – PRO-SHIELD USS (32 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 1/2 Dia.

P/N 7807PS

FASTENERS – CUSTOM 200 (72 ITEMS – 72 HOLES)

- One 32-Hole and One 40-Hole Bin
- Customer's Choice of ALLOY 200 Fasteners

P/N 7813

FASTENERS – CUSTOM 200 (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Customer's Choice of ALLOY 200 Fasteners

P/N 7815

FASTENERS – USS ALLOY 200 (40 HOLES)

- One 40-Hole Bin
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to1/2 Dia.

P/N 7816

FASTENERS – 18-8 S/S USS (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- S/S Cap Screws, S/S Nuts, S/S Flat Washers and S/S Lock Washers
- 1/4 to 1/2 Dia.

P/N 7817

FASTENERS – SAE ALLOY 200 (40 HOLES)

- One 40-Hole Bin
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to1/2 Dia.

P/N 7818

CARRIAGE BOLTS USS (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Carriage Bolts and Hex Nuts
- 1/4 to 1/2 Dia.

P/N 7827

CAP SCREW — HEX SOCKET USS (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Cap Screws and High Collar Lock Washers
- 1/4 to 5/8 Dia.

P/N 7830

CIC 150 HEX SOCKET CAP SCREW USS (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Cap Screws and High Collar Lock Washers
- 1/4 to 5/8 Dia.

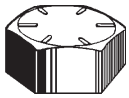
P/N 7831

FASTENERS – GRADE 8 USS (70 ITEMS – 80 HOLES)

- Two 40-Hole Bins
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 3/4 Dia.

P/N 7835

FASTENERS – GRADE 8 SAE (70 ITEMS – 80 HOLES)



- Two 40-Hole Bins
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 3/4 Dia.

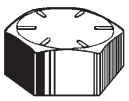
P/N 7836

FASTENERS – GRADE 8 USS (40 ITEMS – 40 HOLES)

- One 40-Hole Bin
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 1/2 Dia.

P/N 7837

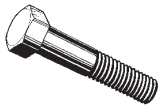
FASTENERS – GRADE 8 SAE (40 ITEMS – 40 HOLES)



- One 40-Hole Bin
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 1/2 Dia.

P/N 7838

FASTENERS – GR 2 HEX TAP (40 ITEMS – 40 HOLES)



- One 40-Hole Bin
- Hex Tap Bolts, Nuts, Flat Washers and Lock Washers
- 1/4" to 1/2" Dia.

P/N 7839

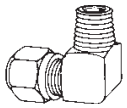
WELDING ROD (STARTER ASSORTMENT)

- One 6-Hole Bin
- 13 Lbs. of Auralloy Welding Rod
- Auralloy 210, 220, 225, 300 and 800

P/N 7840

BIN ASSORTMENTS – Numeric Listing

PIPE FITTINGS – NTA BRAKE



P/N 7844

- One 40-Hole Bin
- Sleeves, Nuts, Unions, Inserts, Male Connectors, Union Elbows, 90º Male Elbows and 45º Male Elbows

PIPE FITTINGS – BLACK MALLEABLE

P/N 7845

- One 40-Hole Bin
- Hex Bushings, Tees, Elbows, Street Elbows, Reducers, Couplings, Plugs, Close Nipples and Nipples

PIPE FITTINGS – BLACK IRON GALVANIZED

P/N 7846

- One 40-Hole Bin
- Hex Bushings, Tees, Elbows, Street Elbows, Reducers, Couplings, Plugs, Close Nipples and Nipples

PIPE FITTINGS – 3O4 S/S (40 ITEMS – 40 HOLES)

P/N 7847

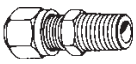
- One 40-Hole Bin
- Hex Bushings, Tees, Elbows, Street Elbows, Reducers, Couplings, Plugs, Close Nipples and Nipples

PIPE FITTINGS – 316 S/S (40 ITEMS – 40 HOLES)

P/N 7848

- One 40-Hole Bin
- Hex Bushings, Tees, Elbows, Street Elbows, Reducers, Couplings, Plugs, Close Nipples and Nipples

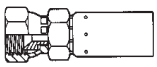
PIPE FITTINGS – BRASS (40 ITEMS – 40 HOLES)



P/N 7849

- One 40-Hole Bin
- Couplings, Bushings, Hex Head Plugs, Street Elbows, 45º Street Elbows, Close and Long Nipple, Reducing Adapters

PORTABLE COLL-O-CRIMP (36 ITEMS – 40 HOLES)

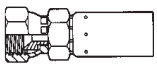


P/N 7850

STARTER HOSE ASSEMBLY SYSTEM

- One 40-Hole Bin
- Coll-O-Crimp Hose Ends

PORTABLE COLL-O-CRIMP (40 ITEMS – 40 HOLES)



P/N 7851

MID-SIZE HOSE ASSEMBLY SYSTEM

- One 40-Hole Bin
- Coll-O-Crimp Hose Ends

LEAD WHEEL WEIGHTS COATED

P/N 7852

- One 40-Compartment Bin
- Types P, FN, AW, IAW, MC

LEAD FREE ZINC WHEEL WEIGHTS – COATED

P/N 7853

- One 40-Compartment Bin
- Types P, MC, LH, IAW, FN

FASTENERS – METRIC (40 ITEMS – 40 HOLES)

P/N 7860

- One 40-Hole Bin
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 4mm to 12mm Dia.

CAP SCREWS – METRIC SOCKET (40 ITEMS – 40 HOLES)

P/N 7861

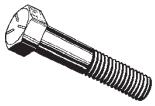
- One 40-Hole Bin
- Socket Cap Screws
- Hi-Collar Lock Washers
- 4mm to 12mm Dia.

FASTENERS – 316 S/S USS (32 ITEMS – 40 HOLES)

P/N 7869

- One 40-Hole Bin
- S/S Cap Screws, S/S Nuts, S/S Flat Washers and S/S Lock Washers
- 1/4 to 1/2 Dia.

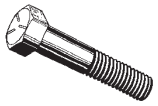
FASTENERS – GRADE 5 USS (40 ITEMS – 40 HOLES)



P/N 7870

- One 40-Hole Bin
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 1/4 to 1/2 Dia.

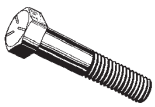
FASTENERS – GRADE 5 SAE (40 ITEMS – 40 HOLES)



P/N 7871

- One 40-Hole Bin
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 1/4 to 1/2 Dia.

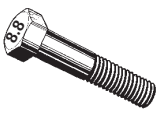
FASTENERS – GRADE 5 SAE (70 ITEMS – 80 HOLES)



P/N 7873

- Two 40-Hole Bins
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 1/4 to 3/4 Dia.

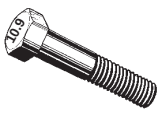
FASTENERS – METRIC 8.8 ZINC (70 ITEMS – 80 HOLES)



P/N 7875

- Two 40-Hole Bin
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 6mm to 20mm Dia.

FASTENERS – METRIC 10.9 ZINC (70 ITEMS – 80 HOLES)

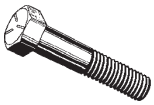


P/N 7876

- Two 40-Hole Bin
- Cap Screws, Nuts, Flat Washers and Lock Washers
- 6mm to 20mm Dia.

BIN ASSORTMENTS – Numeric Listing

FASTENERS – GRADE 5 USS (70 ITEMS – 80 HOLES)



- Two 40-Hole Bins
- Cap Screws, Nuts, Flat and Lock Washers
- 1/4 to 3/4 Dia.

P/N 7878

MULTI-GRADE USS (70 ITEMS – 80 HOLES)

- Two 40-Hole Bins
- Alloy 200, Grade 8, Grade 5 Cap Screws, Nuts, Flat Washers and Lock Washers
- 1/4 to 3/4 Dia.

P/N 7879

FLAP DISCS – TYPE 27 & 29 Z3-ZIRCONIA ALUMINA

- 40, 60, 80, and 120 Grits
- For aggressive use and heavy duty applications
- Type 27-For flat grinding surfaces, smooth finishing
- Type 29-For working on contoured and edge work

P/N 17665

WIRE – CROSS LINK (2 BAR RACK)

P/N 17783

- Contains 1 each of 14 gauge wire sizes: black (8123), white (8129), red (8130), green (8135), blue (8133) and yellow (8137)

WIRE – CROSS LINK (4 BAR RACK)

P/N 17784

- Contains 1 each of 16 & 14 gauge wire sizes: black (8123 & 8107), white (8129 & 8108), red (8130 & 8109), green (8135 & 8113), blue (8133 & 8110) and yellow (8137 & 8120)

THREADED ROD – CARBON STEEL (11 ITEMS – 18 HOLES)

- One 18-Compartment Bin
- 11 Sizes 3' Carbon Steel
- 6-32 through 3/4-10

P/N 17792

THREADED ROD – CIC 200 B7 ALLOY (11 ITEMS - 18 HOLES)

- One 18-Compartment Bin
- 11 Sizes of 3' B7 Alloy
- 1/4-20 through 3/4-10

P/N 17793

CIC 200™ SLEEVE ANKA BOLTS 1/4'' - 1/2'' (10 ITEMS - 24 HOLES)

The strongest most versatile anchoring device available for solid or hollow masonry materials.

P/N 17061

CIC 200™ SLEEVE ANKA BOLTS 1/4'' - 3/4'' (16 ITEMS - 24 HOLES)

The strongest most versatile anchoring device available for solid or hollow masonry materials.

P/N 17062

CIC 200™ STUD ANKA BOLTS 1/4'' - 1/2'' (14 ITEMS - 24 HOLES)

- Used for heavy duty fastening applications where high pullout values are required.
- Listed or aproved by: ICBO ES, COLA, DADE COUNTY

P/N 17063

CIC 200™ STUD ANKA BOLTS 1/4'' - 3/4'' (21 ITEMS - 24 HOLES)

- Used for heavy duty fastening applications where high pullout values are required.
- Listed or aproved by: ICBO ES, COLA, DADE COUNTY

P/N 17064

DRILL INDEXES (ORGANIZERS) – Numeric Listing

DRILLS – QUAD POINT™ ORGANIZER (W/TOOL COOL)

P/N 7780
50 DRILLS

- 3-Drawer Organizer
- 6 Cans Red Lion Tool Cool II
- 23 Sizes
- 1/16 to 1/2 by 64ths

DRILLS – PRO ORGANIZER

P/N 7783
45 DRILLS

- 3-Drawer Organizer
- 1/2 Drill Motor
- 23 Sizes
- 1/16 to 1/2 by 64ths

TAPS AND DRILLS SHOOTER

P/N 7786
32 DRILLS / TAPS

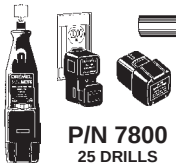
- 3-Drawer Organizer
- 32 Taps and Drills
- 8 Sizes
- 6-32 to 1/2-13 Taps
- #35 to 7/16 Drills

TAPS AND DRILLS SHOOTER – METRIC

P/N 7788
20 DRILLS / TAPS

- 3-Drawer Organizer
- 20 Taps and Drills
- 2.5mm x 0.45 to 12mm x 1.75 Taps
- 2.05mm to 10.2mm Drills

DRILLS – QUAD POINT™ ORG. METRIC (W/GRINDER)



P/N 7800
25 DRILLS

- 3-Drawer Organizer
- 25 of the most popular sizes
- 1mm to 13mm

DRILLS – QUAD POINT™ ORG. (W/HYDRO COOL)

P/N 7802
50 DRILLS

- 3-Drawer Organizer
- 6 Cans Red Lion Hydro Cool
- 23 Sizes
- 1/16 to 1/2 by 64ths

PRO SHOOTER TAP & DRILL ORG. (W/REAM ALIGNER)

P/N 7805
27 DRILLS / TAPS

- 3-Drawer Organizer
- 26 Taps and Drills
- 13 Sizes
- 4-40 to 1/2-20 Taps
- #43 to 29/64 Drills
- Tap/Ream Aligner

DRILLS – METRIC COMPLETER PACK (6-PC)

P/N 17709
6 DRILLS

- 6 Sizes
- 10.5mm to 13.0mm

DRILLS - QUAD POINT PLUS INDEX (1/16 - 1/4 x 64THS)

- Jobber Length
- With 3 Flats
- Metal Index

P/N 61563
13 DRILLS

DRILLS - QUAD POINT PLUS INDEX (1/16 - 1/2 x 32NDS)

- Jobber Length
- With 3 Flats
- Metal Index

P/N 61564
15 DRILLS

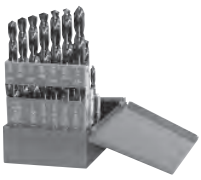
DRILLS - QUAD POINT PLUS INDEX (1/16 - 3/8 x 64THS)

- Jobber Length
- With 3 Flats
- Metal Index

P/N 61566
21 DRILLS

DRILLS - QUAD POINT PLUS INDEX (1/16 - 1/2 x 64THS)

- Jobber Length
- With 3 Flats
- Metal Index



P/N 61567
29 DRILLS

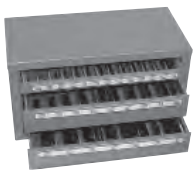
DRILLS - QUAD POINT PLUS CADDY (1/16 - 1/2 x 64THS)

- Jobber Length
- With 3 Flats
- Plastic Caddy

P/N 61568
29 DRILLS

DRILLS - QUAD POINT PLUS ORGANIZER (1/16 - 1/2 x 64THS)

- Jobber Length
- 23 Sizes
- With 3 Flats
- Metal Organizer



P/N 61569
50 DRILLS

DRILL INDEXES (ORGANIZERS) – Numeric Listing

DRILLS – QUAD POINT™ INDEX (1/16 - 1/4 x 64THS)

- Straight Shank
- Metal Index

P/N 61600
14 DRILLS

TAP & DRILL INDEX (6-32 TO 1/2-13)

- 9 Taps 6-32 to 1/2-13
- 9 Drills #35 to 7/16
- Metal Index

P/N 61601
18 DRILLS / TAPS

PRO SHOOTER TAP & DRILL ORG. (4-40 TO 1/2-20)

- 13 Pro Shooter Taps 4-40 to 1/2-20
- 13 Drills #43 to 29/64

P/N 61603
26 DRILLS / TAPS

DRILLS – QUAD POINT™ INDEX (1/16 - 1/2 x 32NDS)

- Straight Shank
- Metal Index

P/N 61605
15 DRILLS

DRILLS – QUAD POINT™ INDEX (1/16 - 3/8 x 64THS)

- Straight Shank
- Metal Index

P/N 61610
21 DRILLS

DRILLS – CARBIDE MASONRY

- 26 Drills
- 1/8 to 3/4
- Metal Index

P/N 61611
26 DRILLS

DRILLS – CARBIDE MASONRY

- 7 Drills
- 1/8 to 5/8
- Metal Index

P/N 61612
7 DRILLS

DRILLS – QUAD POINT™ INDEX (1/16 - 3/8 x 64THS)

- Straight Shank
- Metal Index

P/N 61615
29 DRILLS

DRILLS – QUAD POINT™ INDEX (#1 TO #60)

- Straight Shank
- Metal Index

P/N 61620
60 DRILLS

PRO SHOOTER TAP & DRILL INDEX (6-32 TO 1/2-13)

- 9 Taps 6-32 to 1/2-13
- 9 Drills #35 to 7/16
- Metal Index

P/N 61621
18 DRILLS / TAPS

DRILLS – CARBIDE TIPPED INDEX (1/8 TO 1/2)

- 1/8 to 1/2
- Metal Index

P/N 61622
7 DRILLS

DRILLS – QUAD POINT™ INDEX (A TO Z)

- Straight Shank
- Metal Index

P/N 61625
26 DRILLS

DRILLS – CONE INDEX (1/8 TO 5/8)

- Sizes:
  1/8 to 9/16 (3-14mm)
  1/4 to 13/16 (6-20mm)
  5/8 to 1-3/16 (16-30.5mm)
- Metal Index

P/N 61627 **3 DRILLS**

DRILLS – QUAD POINT™ INDEX (LEFT HAND)

- Straight Shank
- Sizes 1/8, 3/16, 1/4, 11/32 and 7/16
- Metal Index

P/N 61629
5 DRILLS

DRILLS – QUAD POINT™ INDEX (#61 TO #80)

- Straight Shank
- Metal Index

P/N 61630
20 DRILLS

DRILLS – QUAD POINT™ INDEX (LEFT HAND)

- Straight Shank
  Sizes 1/8, 3/16, 1/4 and 5/16
- Metal Index

P/N 61631
4 DRILLS

DRILLS – PRO INDEX (1/16 - 1/4 x 64THS)

- Mechanics Length
- Metal Index

P/N 61632
13 DRILLS

DRILLS – QUAD POINT™ INDEX (LEFT HAND)

- Straight Shank
- 1/16 to 1/2 x 32nds
- Metal Index

P/N 61633
15 DRILLS

DRILL INDEXES (ORGANIZERS) – Numeric Listing

DRILLS – PRO INDEX (1/16 - 1/2 x 32NDS)

- Mechanics Length
- Metal Index

P/N 61634
15 DRILLS

DRILLS – PRO INDEX (1/16 - 3/8 x 64THS)

- Mechanics Length
- Metal Index

P/N 61636
21 DRILLS

DRILLS – PRO INDEX (1/16 - 1/2 x 64THS)

- Mechanics Length
- Metal Index

P/N 61638
29 DRILLS

DRILLS – QUAD POINT™ INDEX (1/4 SHANK - 1/16 - 1/2)

- 1/4 Reduced Shank
- Metal Index

P/N 61640
15 DRILLS

DRILLS – QUAD POINT™ (JOBBER LENGTH)

- Plastic Caddy
- Jobber Length
- 1/16 to 1/2 by 64ths

P/N 61642
29 DRILLS

DRILLS — PRO (MECHANIC'S LENGTH)

- Plastic Caddy
- Mechanic's Length
- 1/16 to 1/2 by 64ths

P/N 61643
20 DRILLS

DRILLS – QUAD POINT™ INDEX (1/4 SHANK - 1/16 - 3/8)

- 1/4 Reduced Shank
- Metal Index

P/N 61645
21 DRILLS

DRILLS – QUAD POINT™ INDEX (1/2 SHANK - 9/16 - 1")

- 1/2 Reduced Shank
- Metal Index

P/N 61648
8 DRILLS

DRILLS – QUAD POINT™ INDEX (1/4 SHANK - 1/16 - 1/2)

- 1/4 Reduced Shank
- Metal Index

P/N 61650
29 DRILLS

CARBIDE TIPPED GLASS AND TILE INDEX (1/8 - 1/2)

- 1/8 to 1/2
- Metal Index

P/N 61651
6 DRILLS

DRILLS – TRI-CARB™ INDEX (1/8 - 5/16)

- 4 Sizes 1/8" to 5/16"
- Metal Index

P/N 61652
4 DRILLS

DRILLS – QUAD POINT™ MASTER DRILL DISPENSER

- 4-Drawer Metal Organizer

- Includes 50 fractional sizes:
  4 each: 1/8, 3/16 and 1/4
  3 each: 1/16, 5/64, 3/32 and 7/64
  2 each: 9/64, 5/32, 11/64, 13/64, 7/32, 15/64, 17/64, 9/32, 5/16 and 3/8
- 1 each: 21/64, 11/32, 25/64, 27/64, 7/16, 1/2

P/N 61653
STARTER – 50 DRILLS

DRILLS – QUAD POINT™ MASTER DRILL DISPENSER

- 4-Drawer Metal Organizer

- Complete Master Drill Dispenser includes 1 each 1/16" to 1/2" Fractional, #1 to #60 Number and A to Z Letter

P/N 61654
MASTER – 115 DRILLS

POUCH – RAZOR-BACK WOOD SPADE BIT

- 7 Wood Spade Bits with Roll Pouch
- 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1"

P/N 61661 **7 BITS**

POUCH – PRO COMBO DRILL AND TAP

- 8 Pro Combo Drill and Taps with Roll Pouch
- 8-32, 10-24, 10-32, 12-24, 1/4-20, 5/16-18, 3/8-16 and 1/2-13

P/N 61662
8 DRILLS

POUCH – METRIC PRO COMBO DRILL AND TAP

- 5 Drills/Taps with Roll Pouch
- 4mm x 0.7mm, 5mm x 0.8mm, 6mm x 1.0mm, 8mm x 1.25mm and 10mm x 1.5mm

P/N 61663
15 DRILLS

POUCH – CARBIDE MASONRY DRILLS

- 8 Masonry Drills with Roll Pouch
- 1/8 x 3 x 1/8, 3/16 x 6 x 3/16, 1/4 x 6 x 1/4, 5/16 x 6 x 5/16, 3/8 x 6 x 3/8, 7/16 x 6-1/4 x 3/8, 1/2 x 6-3/4 x 3/8 and 5/8 x 6 x 3/8

P/N 61664
18 DRILLS

POUCH – CARBIDE TIPPED HARD STEEL BITS

- 8 Bits with Roll Pouch
- 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8 and 1/2

P/N 61665 **8 BITS**

DRILL INDEXES (ORGANIZERS) – Numeric Listing

SELF-CENTERING BIT BIT KEEPER SET

P/N 61670
18 PIECES

- 1" Phillips and Slotted Insert Bits, 1-15/16" Phillips Power Bits, Carpenter's Pencil, Razor-Back Wood Spade Bits, Magnetic Bit Holder Adapter, Quick Change Chuck Adapter, Self Centering Drill Bit & Guide, Slotted Power Bit w/Finder
- Bucket Boss Pouch

DRILLS – STEP DRILL INDEX

P/N 61672
4 DRILLS

- 4 Sizes 1/16" to 7/8"
- Metal Index

DRILLS – SMOOTH BORE INDEX (1/8 - 1/2)

P/N 61673
7 DRILLS

- 7 Drills
- 1/8" to 1/2" by 16ths
- Metal Index

DRILLS – 118° SPLIT POINT (1/16 - 1/2 x 64THS)

P/N 61677
50 DRILLS

- 1/16 to 1/2 by 64ths
- 50 Piece Fractional Organizer

DRILLS – QUAD POINT™ INDEX (1/4 STUBBY - 1/16 - 1/2)

P/N 61678
29 DRILLS

- 1/16 to 1/2 x 64ths
- Metal Index

DRILLS – 118° SPLIT POINT (1/16 - 1/2 x 64THS)

P/N 61679
29 DRILLS

- 1/16 to 1/2 by 64ths
- Metal Index

TAP & DRILL INDEX (2.5mm to 12mm)

P/N 61680
18 DRILLS

- 3/8 Reduced Shank
- Metal Index

QUICK CHANGE DRILL BIT BIT KEEPER SET

P/N 61682
20 PIECES

- #8 Drill and Driver, 4-5/16" Screw Guide, Hex Shank Drill Bits, Power Groove Countersinks, 1-15/16 Phillips Power Bits, Quick Change Chuck Adapter, 1" Slotted and 1" Phillips Insert Bits
- Bucket Boss Pouch

ELECTRICIAN'S BIT KEEPER SET

P/N 61683
21 PIECES

- AC Sensor, Magnetic Bit Holder, Combo Drill & Taps, Carbide Masonry Drills, Mag Nutsetter, Phillips Power Bits, Slotted Power Bits w/Finder, Slotted Insert Bits and 1" Phillips Insert Bits
- Bucket Boss Pouch

TAP & DRILL INDEX (2.5mm to 12mm)

P/N 61684
18 DRILLS

- 9 Taps and 9 Drills
- Metal Index

DRILLS – PRO INDEX (1/16 - 1/2 x 64THS)

P/N 61685
29 DRILLS

- 3/8 Reduced Shank
- Metal Index

DRILLS – QUAD POINT™ BIT KEEPER SET

P/N 61686
25 DRILLS

- Quad Point Drills, Wood Spade Bits, Snappy Countersinks, Phillips Power Bits, Slotted Power Bits w/Finder, Phillips and Slotted Insert Bits, Mag Nutsetter & Hex Socket Key
- Bucket Boss Pouch

PRO SHOOTER TAP & DRILL INDEX (4-40 to 12-24)

P/N 61687
12 DRILLS

- 6 Taps and 6 Drills
- Metal Index

CIC 200 SHOOTER TAP & DRILL INDEX (4-40 to 12-24)

P/N 61688
12 DRILLS

- 6 Taps and 6 Drills
- Metal Index

DRILLS – PRO ORGANIZER COMPLETER SET (FRACTIONAL)

P/N 61689
6 DRILLS

- 6 Sizes
- 19/64 to 31/64

DRILLS – COBALT QUAD POINT™ (1/16 - 1/2 x 16THS)

P/N 61690
29 DRILLS

- Straight Shank
- Metal Index

DRILLS – METRIC (1.0mm - 10.0mm)

P/N 61691
19 DRILLS

- 1.0mm to 10.mm
- Metal Index Holds 19 Drills

DRILLS – COBALT QUAD POINT™ (1/16 - 1/2 x 32NDS)

P/N 61692
15 DRILLS

- Straight Shank
- Metal Index

DRILL INDEXES (ORGANIZERS) – Numeric Listing

DRILLS – METRIC (1.0mm - 13.0mm)

P/N 61693
25 DRILLS

- 1.0mm to 13.0mm
- Metal Index

DRILLS – METRIC STARTER INDEX (1.0mm - 10.0mm)

P/N 61694
19 DRILLS

- 1.0mm to 10.0mm
- Metal Index Holds 25 Drills (1.0mm to 13.0mm)

DRILLS – QUAD POINT™ ORGANIZER (FRACTIONAL)

P/N 61695
50 DRILLS

- 3-Drawer Metal Organizer
- 23 Sizes
- 1/16 to 1/2 by 64ths

DRILLS – QUAD POINT™ ORGANIZER (METRIC)

P/N 61696
25 DRILLS

- 3-Drawer Metal Organizer
- 25 Metric Sizes
- 1mm to 13mm

DRILLS – QUAD POINT™ ORGANIZER (NUMBER)

P/N 61697
75 DRILLS

- 5-Drawer Metal Organizer
- 25 Number Sizes
- #3 to #44

DRILLS – QUAD POINT™ COMPLETER KIT (FRACTIONAL)

P/N 61698
6 DRILLS

- Straight Shank
- 19/64 to 31/64

DRILLS – PRO ORGANIZER (FRACTIONAL)

P/N 61699
45 DRILLS

- 3-Drawer Metal Organizer
- 23 Sizes
- 1/16 to 1/2 by 64ths

MISC. ASSORTMENTS – Numeric Listing

AEROSOL ASSORTMENT WITH CAN CABINET

- Red Lion™ Chemicals
- 24 Can Assortment
- Cleaners/Degreasers
- Lubricants

P/N 7748
24 CANS

AEROSOL ASSORTMENT WITH CAN CABINET

- Red Lion™ Chemicals
- 12 Can Assortment
- Cleaners/Degreasers
- Lubricants
- Insecticide

P/N 7749
12 CANS

TAPS – BOTTOM

- Plastic Protective Case
- 8 Taps
- 6-32 to 1/2-13

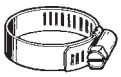
P/N 7787
8 PIECES

KEY STOCK – SQUARE

- 31 Bars
- 12" Long
- 1/8 to 1/2 Square

P/N 7793
31 PIECES

HOSE CLAMPS



- Assortment #1
- Industry #4 - #36
- 10 Sizes
- 100 Pieces
- Steel Rack

P/N 7794
100 PIECES

HOSE CLAMPS

- Assortment #2
- Industry #40 - #72
- 5 Sizes
- 10 Pieces each
- Steel Rack

P/N 7796
50 PIECES

CARBIDE ROTARY FILE ORGANIZER (W/AIR GRINDER)

- 3-Drawer Metal Cabinet
- 13 Sizes / Styles
- Air Grinder

P/N 7806
14 PIECES

SHOOTER TAP AND HEX DIE SET – METRIC

- 17 Taps and 17 Dies
- Sturdy Polyethylene Case

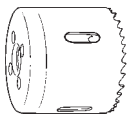
P/N 8821
41 PIECES

SHOOTER TAP AND HEX DIE SET

- 17 Taps and 17 Dies
- Sturdy Polyethylene Case

P/N 8822
41 PIECES

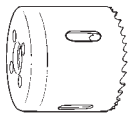
HOLE SAWS "MECHANICS"



- 5 Hole Saws 7/8 to 1-1/2
- 1/4 Round Shank Arbor
- Arbor Adapter

P/N 8826
7 PIECES

HOLE SAWS "INDUSTRIAL"



- 9 Hole Saws 3/4 to 2-1/2
- 3 Arbors
- 12 x 7/16 Drive Extension

P/N 8829
13 PIECES

FUSION SEAL ELECTRICAL WRAP

- 1" x 30 mil x 36 Feet Red, Black, Gray and Clear
- Chromate Red Plastic Tool Box

P/N 8833
5 PIECES

ELECTRICAL TROUBLESHOOTING

Includes: Multi-Purpose Strip & Crimp Tool, Shrink Tubing, Silver Solder, Red Lion Contact Cleaner ES, Black Thermo Wire Tie, Fusion Wrap and Chromate Red Plastic Tool Box

P/N 8834 **133 PIECES**

DOUBLE EDGE SCREW EXTRACTOR SET (5-PC.)

- 5-Piece Set includes: #1 through #5
- Plastic Pouch

P/N 12060
5 PIECES

BRASS PIPE NIPPLES

- **32 Pieces (1/2" and 3/4")**
- **Use with brass, copper or iron pipe**
- **High pressure water, air, oil, LP & natural gas applications**
- **Meets specifications of SAE automotive pipe fitting standards**

P/N 17038
32 PIECES

BLACK IRON PIPE NIPPLES

- **40 Pieces (1/2" and 3/4")**
- **For iron, steel, brass or bronze piping systems**
- **Air, gas, oil, water, steam, boilers, trucks, solvents, and hydraulic applications**
- **Conforms to ASME B 16.3**

P/N 17037
40 PIECES

GALVANIZED BLACK IRON PIPE NIPPLES

- **40 Pieces (1/2" and 3/4")**
- **Low pressure plumbing applications including air, water, oil, natural gas, and steam**
- **Max pressure 150 psi**
- **Conforms to ASTM A-733 standards**

P/N 17039
40 PIECES

SCREEN BAK ABRASIVES 3 PACK

- 1-1/2 x 30 Feet
- 80, 120 and 180 Grit

P/N 17711
3 PIECES

MISC. ASSORTMENTS – Numeric Listing

SHRINK TUBING SIX-2-ONE™

- 13 Pieces of 13 Feet of Tubing
- Metal Index

P/N 17842
13 PIECES

ADHESIVE LINED

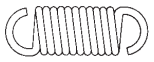
SHRINK TUBING SIX-2-ONE™

- 13 Pieces of 13 Feet of Tubing
- Metal Index

P/N 17883
13 PIECES

NON-ADHESIVE LINED

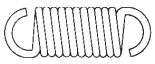
SPRINGS – 1,000 PIECES



P/N 60200
1000 PIECES

- 5-Drawer Metal Cabinet
- Metal Display Board

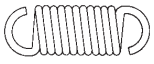
SPRINGS – 400 PIECES



P/N 60400
400 PIECES

- 2-Drawer Metal Cabinet
- Metal Display Board
- 50 Sizes / Styles

SPRINGS – 250 PIECES



P/N 60460
250 PIECES

- 15-Drawer Metal Cabinet
- Display Card
- 27 Sizes/Styles

TAP SET INDEX - 10 TAPS (1/4-20 TO 1/2-20)

P/N 61602
10 PIECES

- 10 Sizes
- 1/4-20 to 1/2-20

CARBIDE ROTARY FILE INDEX (1/4" SHANK)

- Double Cut
- 8 Sizes and Styles
- Metal Index

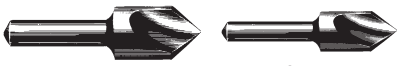
P/N 61604
8 PIECES

CARBIDE ROTARY FILE INDEX (1/8" SHANK)

- 7 Sizes / Styles
- Metal Index

P/N 61606
7 PIECES

COUNTERSINK INDEX 1/4 TO 5/8



P/N 61607
4 PIECES

- 4 Sizes
- 1/4 to 5/8
- Metal Index

CARBIDE ROTARY FILE ORGANIZER (1/4" SHANK)

- 13 Sizes / Styles
- 3-Drawer Metal Cabinet

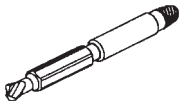
P/N 61608
13 PIECES

POWER-OUT™ BROKEN BOLT EXTRACTOR KIT (4-PC.)

P/N 61609
4 EXTRACTORS

- Plastic Case
- 4 Sizes
- 1/4", 5/16", 3/8" and 1/2"

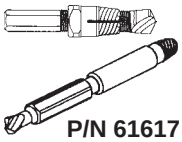
MICRO DRILL-OUT™ EXTRACTOR SET (4-PC.)



P/N 61616
4 PIECES

- 4-Piece Set includes: #5, #6 & M3; #8 & M4; #10, #12 & M5; 1/4" & M6

MICRO AND POWER-OUT™ EXTRACTOR COMPLETE SET



P/N 61617
7 PIECES

- Broken Bolt Extractors: 5/16" (M8), 3/8" (M10) and 1/2" (M12)
- Micro Broken Bolt Extractors: #5 and #6 (M3), #8 (M4), #10 and #12 (M) and 1/4" (M6)

X-OUT™ DAMAGED SCREW REMOVER KIT (3-PC.)

P/N 61623
3 PIECES

- Plastic Case
- 3 Sizes
- #6 - #8, #8 - #10 and #10 - #14

DOUBLE EDGE SCREW EXTRACTOR COMPLETE SET

P/N 61624
7 PIECES

- 7-Piece Set includes: #1 through #7
- Metal Index

CARBIDE ROTARY FILE INDEX (1/4" SHANK)

P/N 61626
8 PIECES

- Fast Mill Cut
- 8 Sizes and Styles
- Metal Index

FOSTER BIT SET

P/N 61649
7 PIECES

- Plastic Case
- 7 Sizes includes 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1"
- All sizes 3/8" shank

BROKEN STUD REMOVAL KIT – #1 - #5 (10-PC.)

P/N 61676
10 PIECES

- 5 Left Hand Drills
- 5 Easy Outs #1 - #5
- Metal Index

MISC. ASSORTMENTS – Numeric Listing

DIAMOND CORE BITS

- 1/4" shank
- 1/8", 3/16", 1/4", 5/16", 3/8", 1/2"
- Engineered to bore and drill fast clean holes
- For natural & composite materials
- Perfect for porcelain
- Includes extractor

P/N 8818
6 PIECES

BI-METAL RECIP SAW BLADES WOOD WIZARDS

• 19408	6", 6 TPI
• 19424	9", 6 TPI
• 19409	12", 6 TPI
• 19218	12", 12/14 TPI

P/N 17656
5 PIECES

BI-METAL RECIP SAW BLADES METAL MAGICIANS #1

• 19413	4", 14 TPI
• 19414	6", 14 TPI
• 19429	9", 14 TPI
• 19420	6", 24 TPI
• 19428	12", 18 TPI

P/N 17657
5 PIECES

BI-METAL RECIP SAW BLADES METAL MAGICIANS #2

• 19417	6", 18 TPI
• 19418	8", 18 TPI
• 19419	4", 24 TPI
• 19428	12", 18 TPI
• 19429	9", 14 TPI

P/N 17658
5 PIECES

BI-METAL RECIP SAW BLADES HEAVY DUTY HYBRIDS

• 19427	8", 10 TPI
• 19411	8", 10/14 TPI
• 19445	9", 14 TPI
• 19454	9", 10 TPI
• 19457	12", 6 TPI

P/N 17659
5 PIECES

CHROMATE®
INDUSTRIAL CORP.

ALLOY 200 Vi-LOC WASHERS ASSORTMENT

FEATURES:

- *The most reliable vibration-resistant lock washer available*
- *Special chromate protective plating for durability and corrosion resistance*
- *Resists vibration, lost holding power, slippage, wear and equipment breakdown*
- *Use only in pairs*

P/N 7703

8 82503 07703 7

368

EXPANSION	EXPANSION	EXPANSION	EXPANSION
8 82503 06102 9 5/16" (8 mm) **P/N 6102**	8 82503 06105 0 1/2" (12 mm) **P/N 6105**	8 82503 06110 4 3/4" (20 mm) **P/N 6110**	EXPANSION
8 82503 06101 2 1/4" (6 mm) **P/N 6101**	8 82503 06104 3 7/16" (11 mm) **P/N 6104**	8 82503 06107 4 5/8" (16 mm) **P/N 6107**	8 82503 06112 8 1" (25 mm) **P/N 6112**
8 82503 06100 5 3/16" (5 mm) **P/N 6100**	8 82503 06103 6 3/8" (10 mm) **P/N 6103**	8 82503 06106 7 9/16" (14 mm) **P/N 6106**	8 82503 06111 1 7/8" (22 mm) **P/N 6111**

A10-1

TRAY FRONT

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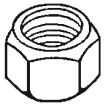
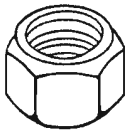
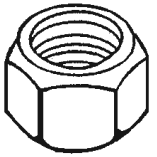
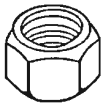
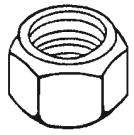
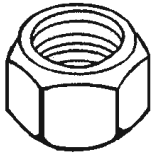
ALLOY 200 TAPER LOCK NUT ASSORTMENT

P/N 7747

8 82503 07747 1

FEATURES

- *Use with Alloy 200 and Grade 8 cap screws*
- *Meets Grade C specifications*
- *Triple heat treated*
- *Superior vibration and shock resistance*
- *150,000 PSI*
- *Clear zinc plating*

8 82503 06800 4 1/4-20 USS **P/N 6800**	8 82503 06805 9 5/16-18 USS **P/N 6805**	8 82503 06810 3 3/8-16 USS **P/N 6810**	8 82503 06815 8 7/16-14 USS **P/N 6815**
 8 82503 06820 2 1/2-13 USS **P/N 6820**	8 82503 06825 7 9/16-12 USS **P/N 6825**	 8 82503 06830 1 5/8-11 USS **P/N 6830**	 8 82503 06835 6 3/4-10 USS **P/N 6835**
8 82503 05800 5 1/4-28 SAE **P/N 5800**	8 82503 05805 0 5/16-24 SAE **P/N 5805**	8 82503 05810 4 3/8-24 SAE **P/N 5810**	8 82503 05815 9 7/16-20 SAE **P/N 5815**
 8 82503 05820 3 1/2-20 SAE **P/N 5820**	8 82503 05825 8 9/16-18 SAE **P/N 5825**	 8 82503 05830 2 5/8-18 SAE **P/N 5830**	 8 82503 05835 7 3/4-16 SAE **P/N 5835**

TRAY FRONT

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ALLOY 200 XT™ FLAT WASHERS

FEATURES:

- *Extra thick pattern is 75% thicker than standard SAE washers which eliminates dishing, bending and galling*
- *Manufactured from high strength, heat-treated alloy steel providing superior strength*
- *Achieve highest clamping loads available*
- *Yellow dichromate plating assures superior resistance to rust and corrosion for longer life*

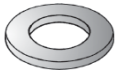
P/N 17790

265

1/4
Thickness: 3/32 - 7/64
ID: 9/32 OD: 5/8
P/N 5900

5/16
Thickness: 3/32 - 7/64
ID: 11/32 OD: 11/16
P/N 5901

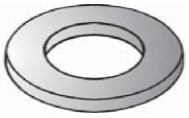
3/8
Thickness: 3/32 - 7/64
ID: 13/32 OD: 13/16
P/N 5902



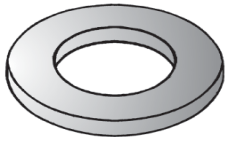
7/16
Thickness: 3/32 - 7/64
ID: 15/32 OD: 59/64
P/N 5903

1/2
Thickness: 5/32 - 3/16
ID: 17/32 OD: 1-1/16
P/N 5904

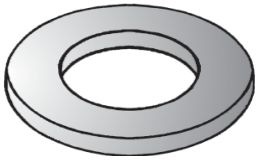
5/8
Thickness: 11/64 - 13/64
ID: 11/16 OD: 1-5/16
P/N 5906



3/4
Thickness: 11/64 - 13/64
ID: 13/16 OD: 1-15/32
P/N 5907



7/8
Thickness: 15/64 - 17/64
ID: 15/16 OD: 1-3/4
P/N 5908



1
Thickness: 15/64 - 17/64
ID: 1-1/8 OD: 2
P/N 5909

A10-3

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CHROMATE®
INDUSTRIAL CORP.

FREE SPINNING LOCKNUT ASSORTMENT

P/N 17919PS

FEATURES:

- *Precision heat treated*
- *Retains clamping force during severe vibration and shock*
- *Pro-Shield™ plating provides superior resistance to rust and corrosion*
- *Nuts lock when tightened against a solid surface using the convex flange*
- *Spins freely making assembly and disassembly fast and easy*
- *Can be re-used over and over again*

195

1/4-20 P/N 6801PS	5/16-18 P/N 6806PS	3/8-16 P/N 6811PS	EXPANSION
1/2-13 P/N 6821PS	EXPANSION	EXPANSION	EXPANSION

A10-4

TRAY FRONT

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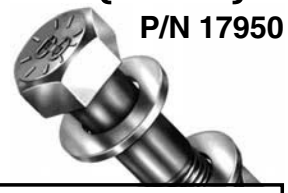
CHROMATE®
INDUSTRIAL CORP.

PRO-SHIELD CAP SCREW ASSORTMENT (USS)

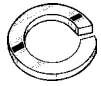
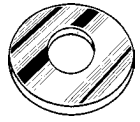
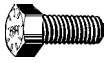
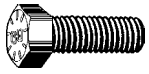
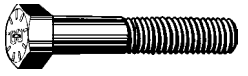
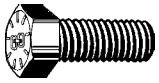
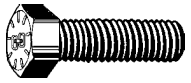
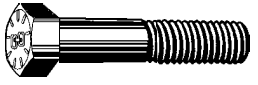
FEATURES:

- *Precision heat treated alloy steel*
- *Durable Pro-Shield™ coating provides superior resistance to rust and corrosion*
- *Excellent elongation properties*
- *U.S. made with U.S. steel and U.S. labor*
- *Up to 200,000 psi tensile strength*
- *Rockwell "C" hardness 38-43*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision rolled threads manufactured to SAE J429 and meets ASTM A354*

P/N 17950



700

1/4 Lock Washer **P/N 6300PS**	5/16 Lock Washer **P/N 6305PS**	 3/8 Lock Washer **P/N 6310PS**	1/4 UniFit™ Flat Washer **P/N 5400PS**	5/16 UniFit™ Flat Washer **P/N 5401PS**	 3/8 UniFit™ Flat Washer **P/N 5402PS**
1/4-20 Finished Hex Nut **P/N 4700PS**	 1/4-20 x 1/2 **P/N 4005PS**	1/4-20 x 3/4 **P/N 4010PS**	1/4-20 x 1 **P/N 4015PS**	1/4-20 x 1-1/2 **P/N 4025PS**	1/4-20 x 2 **P/N 4035PS**
5/16-18 Finished Hex Nut **P/N 4705PS**	 5/16-18 x 3/4 **P/N 4065PS**	5/16-18 x 1 **P/N 4070PS**	5/16-18 x 1-1/4 **P/N 4075PS**	 5/16-18 x 1-1/2 **P/N 4080PS**	5/16-18 x 2 **P/N 4090PS**
3/8-16 Finished Hex Nut **P/N 4710PS**	 3/8-16 x 3/4 **P/N 4120PS**	 3/8-16 x 1 **P/N 4125PS**	3/8-16 x 1-1/4 **P/N 4130PS**	 3/8-16 x 1-1/2 **P/N 4135PS**	3/8-16 x 2 **P/N 4140PS**

A10-5

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

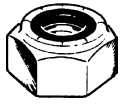
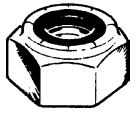
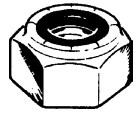
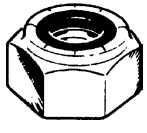
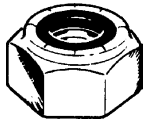
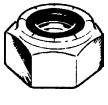
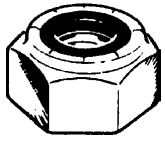
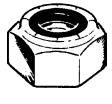
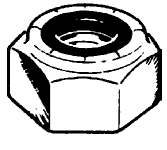
GRADE 8 ZINC YELLOW NYLON LOCK NUT ASSORTMENT

P/N 17955

FEATURES:

- *Special prime steel*
- *One-piece nylon insert for positive 360º locking*
- *Chemical resistant and reusable*
- *Dichromate protective plating*
- *Helps reduce corrosion of nut and mating thread*
- *Leak resistant and self-sealing*
- *Maximum temperature is 250ºF*

310

1/4-20 **P/N 22020**	 1/2-13 **P/N 22028**	1/4-28 **P/N 22021**	1/2-20 **P/N 22029**
5/16-18 **P/N 22022**	 9/16-12 **P/N 22030**	5/16-24 **P/N 22023**	 9/16-18 **P/N 22031**
3/8-16 **P/N 22024**	 5/8-11 **P/N 22032**	3/8-24 **P/N 22025**	 5/8-18 **P/N 22033**
 7/16-14 **P/N 22026**	 3/4-10 **P/N 22034**	 7/16-20 **P/N 22027**	 3/4-16 **P/N 22035**

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CHROMATE INDUSTRIAL CORP.

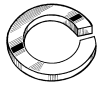
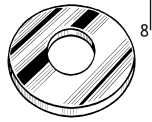
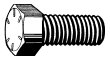
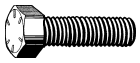
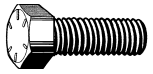
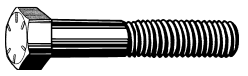
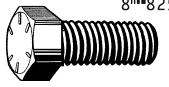
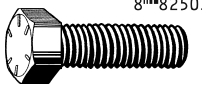
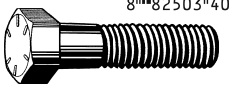
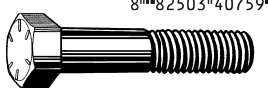
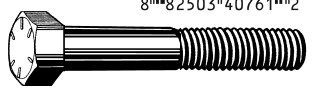
GRADE 8 CAP SCREW ASSORTMENT (USS)

FEATURES

- *Medium carbon alloy steel, through-hardened*
- *Durable dichromate plating*
- *Excellent elongation properties*
- *U.S. made with U.S. steel and U.S. labor*
- *Minimum 150,000 psi tensile strength*
- *Rockwell "C" hardness 33-39*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision rolled threads manufactured to SAE J429 and meets ASTM A354*

P/N 17795

710

1/4 Lock Washer **P/N 6300**	5/16 Lock Washer **P/N 6305**	 3/8 Lock Washer **P/N 6310**	1/4 UniFit™ Flat Washer **P/N 5400**	5/16 UniFit™ Flat Washer **P/N 5401**	 3/8 UniFit™ Flat Washer **P/N 5402**
1/4-20 Finished Hex Nut **P/N 8926**	 1/4-20 x 1/2 **P/N 40700**	 1/4-20 x 3/4 **P/N 40702**	1/4-20 x 1 **P/N 40704**	1/4-20 x 1-1/2 **P/N 40707**	1/4-20 x 2 **P/N 40709**
5/16-18 Finished Hex Nut **P/N 8927**	 5/16-18 x 3/4 **P/N 40728**	5/16-18 x 1 **P/N 40730**	5/16-18 x 1-1/4 **P/N 40732**	 5/16-18 x 1-1/2 **P/N 40733**	5/16-18 x 2 **P/N 40735**
3/8-16 Finished Hex Nut **P/N 8928**	 3/8-16 x 3/4 **P/N 40754**	 3/8-16 x 1 **P/N 40756**	 3/8-16 x 1-1/4 **P/N 40758**	 3/8-16 x 1-1/2 **P/N 40759**	 3/8-16 x 2 **P/N 40761**

A11-2

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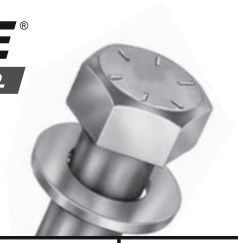
050113

CHROMATE® INDUSTRIAL CORP.

GRADE 8 CAP SCREW ASSORTMENT (SAE)



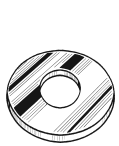
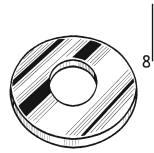
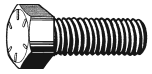
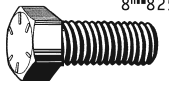
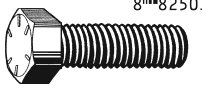
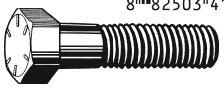
FEATURES

- *Medium carbon alloy steel, through-hardened*
- *Durable dichromate plating*
- *Excellent elongation properties*
- *Minimum 150,000 psi tensile strength*
- *Rockwell "C" hardness 33-39*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision rolled threads manufactured to SAE J429 and meets ASTM A354*

P/N 17984

8 82503 02857 2

710

8 82503 06300 9 1/4 Lock Washer **P/N 6300**	8 82503 06305 4 5/16 Lock Washer **P/N 6305**	8 82503 06310 8 3/8 Lock Washer **P/N 6310**	8 82503 05400 7 1/4 UniFit™ Flat Washer **P/N 5400**	 8 82503 05401 4 5/16 UniFit™ Flat Washer **P/N 5401**	 8 82503 05402 1 3/8 UniFit™ Flat Washer **P/N 5402**
8 82503 08905 4 1/4-28 Finished Hex Nut **P/N 8905**	8 82503 41000 1 1/4-28 x 1/2 **P/N 41000**	8 82503 41002 5 1/4-28 x 3/4 **P/N 41002**	8 82503 41004 9 1/4-28 x 1 **P/N 41004**	8 82503 41007 0 1/4-28 x 1-1/2 **P/N 41007**	8 82503 41009 4 1/4-28 x 2 **P/N 41009**
8 82503 08906 1 5/16-24 Finished Hex Nut **P/N 8906**	 8 82503 41028 5 5/16-24 x 3/4 **P/N 41028**	8 82503 41030 8 5/16-24 x 1 **P/N 41030**	8 82503 41032 2 5/16-24 x 1-1/4 **P/N 41032**	8 82503 41033 9 5/16-24 x 1-1/2 **P/N 41033**	8 82503 41035 3 5/16-24 x 2 **P/N 41035**
8 82503 08907 8 3/8-24 Finished Hex Nut **P/N 8907**	 8 82503 41054 4 3/8-24 x 3/4 **P/N 41054**	 8 82503 41056 8 3/8-24 x 1 **P/N 41056**	 8 82503 41058 2 3/8-24 x 1-1/4 **P/N 41058**	8 82503 41059 9 3/8-24 x 1-1/2 **P/N 41059**	8 82503 41061 2 3/8-24 x 2 **P/N 41061**

A11-3

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CHROMATE®
INDUSTRIAL CORP.

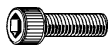
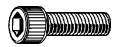
CIC 200™ HEX SOCKET CAP SCREW ASSORTMENT

P/N 7700

FEATURES:

- *Protected with black oxide coating*
- *Deep socket assures full wrench engagement*
- *Triple heat-treated alloy steel*
- *Minimum 180,000 PSI tensile strength*
- *Meets ASME/ANSI B18.3 requirements*
- *Class 3A precision rolled threads*

330

6-32 x 1/4 **P/N 35520**	6-32 x 3/4 **P/N 35540**	8-32 x 1/2 **P/N 35565**	 10-32 x 1/2 **P/N 36601**	 10-24 x 1/2 **P/N 35601**	10-32 x 1-1/4 **P/N 36606**
6-32 x 3/8 **P/N 35525**	6-32 x 1 **P/N 35550**	8-32 x 5/8 **P/N 35570**	10-32 x 5/8 **P/N 36602**	10-24 x 5/8 **P/N 35602**	10-32 x 1-1/2 **P/N 36607**
6-32 x 1/2 **P/N 35530**	8-32 x 1/4 **P/N 35555**	8-32 x 3/4 **P/N 35575**	10-32 x 3/4 **P/N 36603**	10-24 x 3/4 **P/N 35603**	10-24 x 1-1/4 **P/N 35606**
6-32 x 5/8 **P/N 35535**	8-32 x 3/8 **P/N 35560**	8-32 x 1 **P/N 35585**	10-32 x 1 **P/N 36605**	10-24 x 1 **P/N 35605**	10-24 x 1-1/2 **P/N 35607**

A12-1

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ SOCKET SET SCREWS

P/N 7704

NOTE: *Part numbers in bold italic are* ***NOT*** *available with knurled cup point.*

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Black oxide for durability and corrosion resistance*
- *Class 3A precision rolled threads meets ASME/ANSI B18.3*
- *Special internal knurled cup point provides superior holding power*
- *Rockwell "C" hardness 45-53*

500

4-40 x 1/8 **P/N 2225**	6-32 x 1/8 **P/N 2235**	8-32 x 1/8 **P/N 2250**	10-24 x 3/16 ***P/N 2265***	10-32 x 3/16 **P/N 5265**	1/4-20 x 1/4 **P/N 2281**	5/16-18 x 5/16 **P/N 2292**	3/8-16 x 1/2 **P/N 2309**
4-40 x 3/16 ***P/N 2226***	6-32 x 3/16 **P/N 2236**	8-32 x 3/16 **P/N 2251**	10-24 x 1/4 **P/N 2266**	10-32 x 1/4 **P/N 5266**	1/4-20 x 5/16 **P/N 2282**	5/16-18 x 3/8 **P/N 2293**	7/16-14 x 1/2 ***P/N 2322***
4-40 x 1/4 ***P/N 2227***	6-32 x 1/4 **P/N 2237**	8-32 x 1/4 **P/N 2252**	10-24 x 3/8 ***P/N 2268***	10-32 x 3/8 **P/N 5268**	1/4-20 x 3/8 **P/N 2283**	5/16-18 x 1/2 **P/N 2295**	1/2-13 x 1/2 **P/N 2331**
4-40 x 3/8 ***P/N 2229***	6-32 x 3/8 ***P/N 2239***	8-32 x 3/8 **P/N 2254**	10-24 x 1/2 ***P/N 2270***	10-32 x 1/2 **P/N 5270**	1/4-20 x 1/2 **P/N 2285**	3/8-16 x 3/8 **P/N 2307**	1/2-13 x 1 **P/N 2334**

A12-2

TRAY FRONT

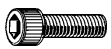
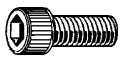
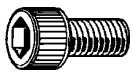
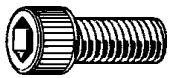
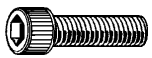
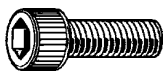
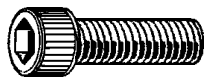
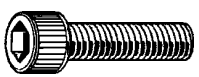
CHROMATE®
INDUSTRIAL CORP.

CIC 200™ HEX SOCKET CAP SCREW ASSORTMENT 6-32 to 3/8-16 P/N 17745

FEATURES:

- *Protected with durable zinc chromate plating*
- *Deep socket assures full wrench engagement*
- *Triple heat-treated alloy steel*
- *Minimum 180,000 PSI tensile strength*
- *Meets ASME/ANSI B18.3 requirements*
- *Class 3A precision rolled threads*

300

6-32 x 3/8 **P/N 35525**	8-32 x 3/8 **P/N 35560**	 10-24 x 1/2 **P/N 35601**	 1/4-20 x 1/2 **P/N 35611**	 5/16-18 x 1/2 **P/N 35625**	 3/8-16 x 3/4 **P/N 35652**
6-32 x 1/2 **P/N 35530**	8-32 x 1/2 **P/N 35565**	10-24 x 5/8 **P/N 35602**	 1/4-20 x 3/4 **P/N 35613**	 5/16-18 x 3/4 **P/N 35627**	 3/8-16 x 1 **P/N 35654**
6-32 x 5/8 **P/N 35535**	8-32 x 5/8 **P/N 35570**	10-24 x 3/4 **P/N 35603**	1/4-20 x 1 **P/N 35615**	 5/16-18 x 1 **P/N 35629**	3/8-16 x 1-1/4 **P/N 35655**
6-32 x 3/4 **P/N 35540**	8-32 x 3/4 **P/N 35575**	10-24 x 1 **P/N 35605**	1/4-20 x 1-1/4 **P/N 35616**	5/16-18 x 1-1/2 **P/N 35631**	3/8-16 x 1-1/2 **P/N 35656**

A12-3

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Rev. 061407

CHROMATE® INDUSTRIAL CORP.

CIC 200™ BUTTON HEAD SOCKET CAP SCREWS (4-40 to 10-32) P/N 17787

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Excellent elongation properties for ultimate clamp load*
- *Black oxide finish for durability and corrosion resistance*
- *Smooth, chamfered end assures easy threading*
- *Class 3A precision rolled threads meets ASME/ANSI B18.3*

545

4-40 x 1/4 **P/N 3901**	4-40 x 3/8 **P/N 3902**	4-40 x 1/2 **P/N 3903**	6-32 x 1/4 **P/N 3906**	6-32 x 3/8 **P/N 3907**	6-32 x 1/2 **P/N 3908**
6-32 x 5/8 **P/N 3909**	8-32 x 1/4 **P/N 3911**	8-32 x 3/8 **P/N 3912**	8-32 x 1/2 **P/N 3913**	8-32 x 5/8 **P/N 3914**	8-32 x 3/4 **P/N 3915**
10-24 x 1/4 **P/N 3918**	10-24 x 3/8 **P/N 3919**	10-24 x 1/2 **P/N 3920**	10-24 x 5/8 **P/N 3921**	10-24 x 3/4 **P/N 3922**	10-24 x 1 **P/N 3923**
10-32 x 1/4 **P/N 4918**	10-32 x 3/8 **P/N 4919**	10-32 x 1/2 **P/N 4920**	10-32 x 5/8 **P/N 4921**	10-32 x 3/4 **P/N 4922**	10-32 x 1 **P/N 4923**

A12-4

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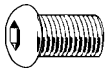
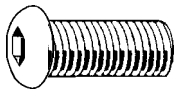
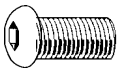
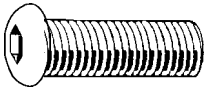
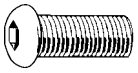
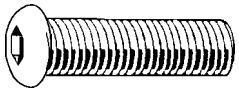
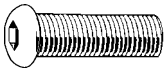
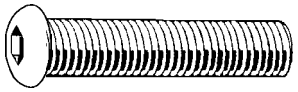
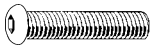
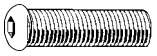
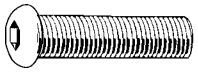
CHROMATE®
INDUSTRIAL CORP.

CIC 200™ BUTTON HEAD SOCKET CAP SCREWS (1/4-20 to 1/2-13) P/N 17788

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Excellent elongation properties for ultimate clamp load*
- *Black oxide finish for durability and corrosion resistance*
- *Smooth, chamfered end assures easy threading*
- *Class 3A precision rolled threads meets ASME/ANSI B18.3*

205

1/4-20 x 3/8 **P/N 3926**	5/16-18 x 3/8 **P/N 3932**	 3/8-16 x 1/2 **P/N 3938**	 1/2-13 x 1 **P/N 3945**
1/4-20 x 1/2 **P/N 3927**	5/16-18 x 1/2 **P/N 3933**	 3/8-16 x 5/8 **P/N 3939**	 1/2-13 x 1-1/4 **P/N 3946**
1/4-20 x 5/8 **P/N 3928**	5/16-18 x 5/8 **P/N 3934**	 3/8-16 x 3/4 **P/N 3940**	 1/2-13 x 1-1/2 **P/N 3947**
1/4-20 x 3/4 **P/N 3929**	5/16-18 x 3/4 **P/N 3935**	 3/8-16 x 1 **P/N 3941**	 1/2-13 x 2 **P/N 3948**
 1/4-20 x 1 **P/N 3930**	 5/16-18 x 1 **P/N 3936**	 3/8-16 x 1-1/4 **P/N 3942**	

A12-5

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ LOW HEAD SOCKET CAP SCREWS

P/N 17809

FEATURES:

- *Use where standard height socket head cap screws are too high and for applications with limited clearance*
- *RC Hardness 38-43*
- *170,000 psi minimum tensile strength*
- *Precision Class 3A threads*

375

8-32 x 3/8 **P/N 63400** Hex Key: 5/64	8-32 x 1/2 **P/N 63401** Hex Key: 5/64	8-32 x 3/4 **P/N 63402** Hex Key: 5/64	8-32 x 1 **P/N 63403** Hex Key: 5/64	10-24 x 3/8 **P/N 63404** Hex Key: 3/32	10-24 x 1/2 **P/N 63405** Hex Key: 3/32
10-24 x 3/4 **P/N 63406** Hex Key: 3/32	10-32 x 3/8 **P/N 63407** Hex Key: 3/32	10-32 x 1/2 **P/N 63408** Hex Key: 3/32	10-32 x 5/8 **P/N 63409** Hex Key: 3/32	10-32 x 3/4 **P/N 63410** Hex Key: 3/32	1/4-20 x 3/8 **P/N 63411** Hex Key: 1/8
1/4-20 x 1/2 **P/N 63412** Hex Key: 1/8	1/4-20 x 5/8 **P/N 63413** Hex Key: 1/8	1/4-20 x 3/4 **P/N 63414** Hex Key: 1/8	1/4-20 x 1 **P/N 63415** Hex Key: 1/8	5/16-18 x 1/2 **P/N 63416** Hex Key: 5/32	5/16-18 x 3/4 **P/N 63417** Hex Key: 5/32
5/16-18 x 1 **P/N 63418** Hex Key: 5/32	5/16-18 x 1-1/2 **P/N 63420** Hex Key: 5/32	3/8-16 x 1/2 **P/N 63421** Hex Key: 3/16	3/8-16 x 3/4 **P/N 63422** Hex Key: 3/16	3/8-16 x 1 **P/N 63423** Hex Key: 3/16	3/8-16 x 1-1/2 **P/N 63425** Hex Key: 3/16

A12-6

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 150™ FLAT HEAD SOCKET CAP SCREWS (4-40 to 10-32)

P/N 17824

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Minimum 160,000 psi tensile strength*
- *Class 3A precision threads meet ASME/ANSI B18.3*
- *Triple heat-treated alloy steel for durability and corrosion resistance*

855

4-40 x 1/4 **P/N 61700**	4-40 x 3/8 **P/N 61701**	4-40 x 1/2 **P/N 61702**	4-40 x 5/8 **P/N 61703**	4-40 x 3/4 **P/N 61704**	6-32 x 1/4 **P/N 61710**
6-32 x 3/8 **P/N 61711**	6-32 x 1/2 **P/N 61712**	6-32 x 5/8 **P/N 61713**	6-32 x 3/4 **P/N 61714**	8-32 x 3/8 **P/N 61715**	8-32 x 1/2 **P/N 61716**
8-32 x 5/8 **P/N 61717**	8-32 x 3/4 **P/N 61718**	8-32 x 1 **P/N 61719**	10-24 x 3/8 **P/N 61720**	10-24 x 1/2 **P/N 61721**	10-24 x 3/4 **P/N 61723**
10-24 x 1 **P/N 61724**	10-32 x 3/8 **P/N 61727**	10-32 x 1/2 **P/N 61728**	10-32 x 3/4 **P/N 61730**	10-32 x 1 **P/N 61731**	

A12-7

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CHROMATE®
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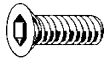
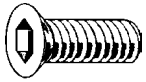
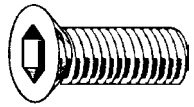
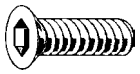
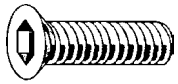
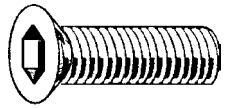
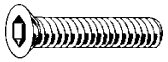
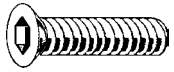
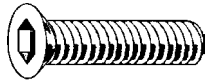
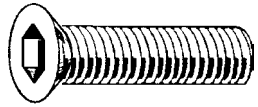
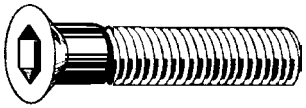
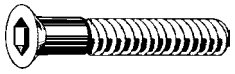
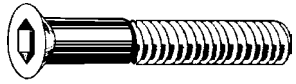
CIC 150™ FLAT HEAD SOCKET CAP SCREWS (1/4-20 to 1/2-13)

P/N 17825

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Minimum 160,000 psi tensile strength*
- *Class 3A precision threads meet ASME/ANSI B18.3*
- *Triple heat-treated alloy steel for durability and corrosion resistance*

300

 1/4-20 x 1/2 **P/N 61735**	5/16-18 x 1/2 **P/N 61750**	 3/8-16 x 3/4 **P/N 61768**	 1/2-13 x 1 **P/N 61789**
1/4-20 x 3/4 **P/N 61737**	 5/16-18 x 3/4 **P/N 61752**	 3/8-16 x 1 **P/N 61769**	 1/2-13 x 1-1/4 **P/N 61790**
 1/4-20 x 1 **P/N 61738**	 5/16-18 x 1 **P/N 61753**	 3/8-16 x 1-1/4 **P/N 61770**	 1/2-13 x 1-1/2 **P/N 61791**
1/4-20 x 1-1/4 **P/N 61739**	5/16-18 x 1-1/4 **P/N 61754**	3/8-16 x 1-1/2 **P/N 61771**	 1/2-13 x 2 **P/N 61793**
1/4-20 x 1-1/2 **P/N 61740**	 5/16-18 x 1-1/2 **P/N 61755**	 3/8-16 x 2 **P/N 61773**	

A12-8

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CHROMATE®
INDUSTRIAL CORP.

CIC 150™ BUTTON HEAD SOCKET CAP SCREWS (4-40 to 10-32)

P/N 17826

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Class 3A precision threads meet ASME/ANSI B18.3*
- *Triple heat-treated alloy steel for durability and corrosion resistance*
- *Minimum 160,000 psi tensile strength*

9T0

4-40 x 1/4 **P/N 61900**	4-40 x 3/8 **P/N 61901**	4-40 x 1/2 **P/N 61902**	6-32 x 1/4 **P/N 61903**	6-32 x 3/8 **P/N 61904**	6-32 x 1/2 **P/N 61905**
6-32 x 5/8 **P/N 61906**	8-32 x 1/4 **P/N 61907**	8-32 x 3/8 **P/N 61908**	8-32 x 1/2 **P/N 61909**	8-32 x 5/8 **P/N 61910**	8-32 x 3/4 **P/N 61911**
10-24 x 1/4 **P/N 61912**	10-24 x 3/8 **P/N 61913**	10-24 x 1/2 **P/N 61914**	10-24 x 5/8 **P/N 61915**	10-24 x 3/4 **P/N 61916**	10-24 x 1 **P/N 61918**
10-32 x 1/4 **P/N 61919**	10-32 x 3/8 **P/N 61920**	10-32 x 1/2 **P/N 61921**	10-32 x 5/8 **P/N 61922**	10-32 x 3/4 **P/N 61923**	10-32 x 1 **P/N 61925**

A12-9

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CHROMATE®
INDUSTRIAL CORP.

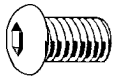
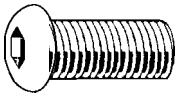
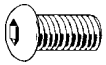
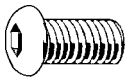
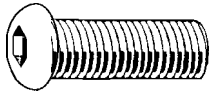
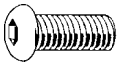
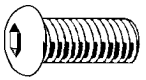
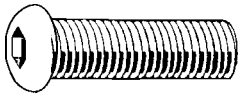
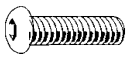
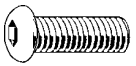
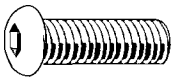
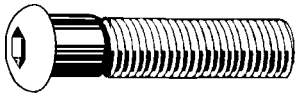
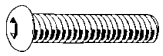
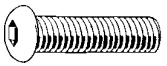
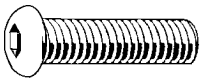
CIC 150™ BUTTON HEAD SOCKET CAP SCREWS (1/4-20 to 1/2-13)

P/N 17827

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Class 3A precision threads meet ASME/ANSI B18.3*
- *Triple heat-treated alloy steel for durability and corrosion resistance*
- *Minimum 160,000 psi tensile strength*

410

1/4-20 x 3/8 **P/N 61926**	5/16-18 x 3/8 **P/N 61937**	 3/8-16 x 1/2 **P/N 61948**	 1/2-13 x 1 **P/N 61958**
1/4-20 x 1/2 **P/N 61927**	 5/16-18 x 1/2 **P/N 61938**	 3/8-16 x 5/8 **P/N 61949**	 1/2-13 x 1-1/4 **P/N 61959**
1/4-20 x 5/8 **P/N 61928**	 5/16-18 x 5/8 **P/N 61939**	 3/8-16 x 3/4 **P/N 61950**	 1/2-13 x 1-1/2 **P/N 61960**
 1/4-20 x 3/4 **P/N 61929**	 5/16-18 x 3/4 **P/N 61940**	 3/8-16 x 1 **P/N 61952**	 1/2-13 x 2 **P/N 61961**
 1/4-20 x 1 **P/N 61931**	 5/16-18 x 1 **P/N 61942**	 3/8-16 x 1-1/4 **P/N 61953**	

A12-10

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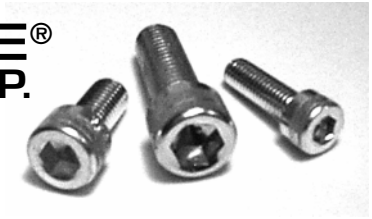


CIC 150 SOCKET HEAD CAP SCREWS

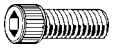
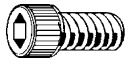
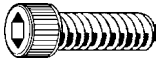
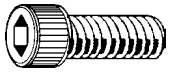
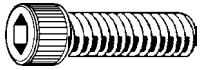
P/N 17830

FEATURES:

- *Thermal black oxide finish for durability and corrosion resistance*
- *Heat-treated, high-strength alloy steel with deep socket for full wrench engagement*
- *Smooth, chamfered end assures easy threading*
- *Minimum 180,000* psi tensile strength*

**180,000 psi min 1/8" and smaller;*
170,000 psi min 5/8" and larger.

009

6-32 x 3/8 **P/N 61106**	6-32 x 1/2 **P/N 61107**	6-32 x 5/8 **P/N 61108**	6-32 x 3/4 **P/N 61109**	8-32 x 3/8 **P/N 61113**	8-32 x 1/2 **P/N 61114**
8-32 x 5/8 **P/N 61115**	8-32 x 3/4 **P/N 61116**	10-24 x 1/2 **P/N 61122**	10-24 x 5/8 **P/N 61123**	10-24 x 3/4 **P/N 61124**	10-24 x 1 **P/N 61126**
 1/4-20 x 1/2 **P/N 61131**	1/4-20 x 3/4 **P/N 61133**	1/4-20 x 1 **P/N 61134**	1/4-20 x 1-1/4 **P/N 61135**	 5/16-18 x 1/2 **P/N 61141**	 5/16-18 x 3/4 **P/N 61143**
5/16-18 x 1 **P/N 61144**	5/16-18 x 1-1/2 **P/N 61146**	 3/8-16 x 3/4 **P/N 61153**	 3/8-16 x 1 **P/N 61154**	3/8-16 x 1-1/2 **P/N 61155**	3/8-16 x 1-1/2 **P/N 61156**

A12-11

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INDUSTRIAL CORP.

CIC 200 HEX SOCKET WRENCH ASSORTMENT

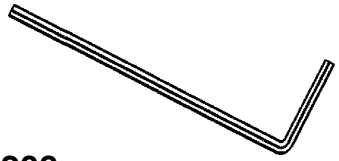
P/N 17837

FEATURES:

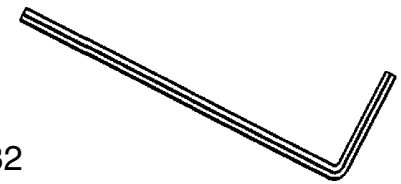
- *Chamfer ends eliminate burr problems*
- *Manufactured from the highest quality tool steel for strength and durability*
- *Exclusive corrosion resistant dry finish*

41

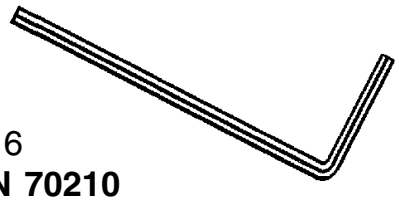
7/64
P/N 70206



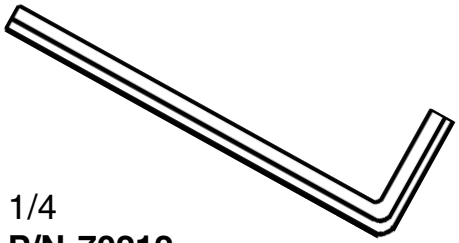
9/64
P/N 70208



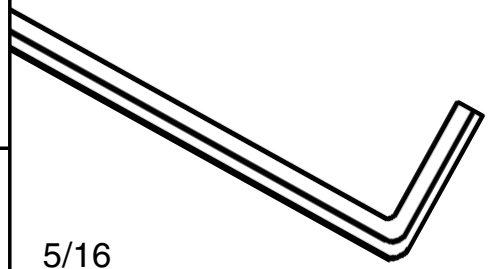
5/32
P/N 70209



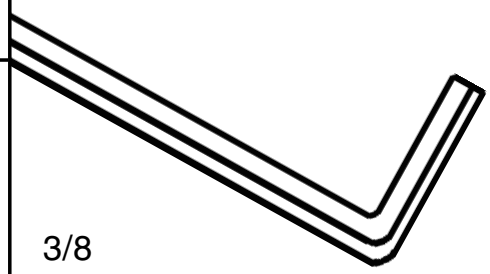
3/16
P/N 70210



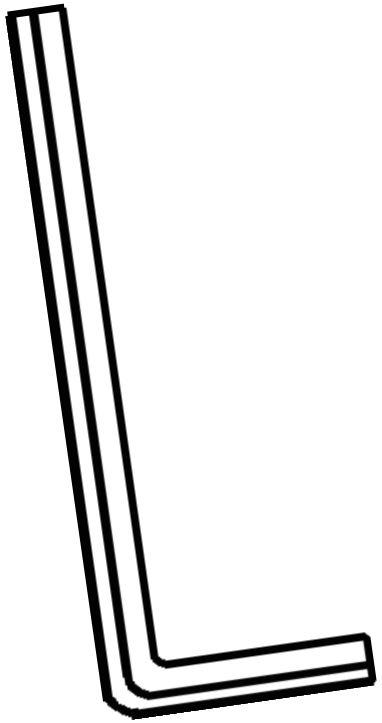
1/4
P/N 70212



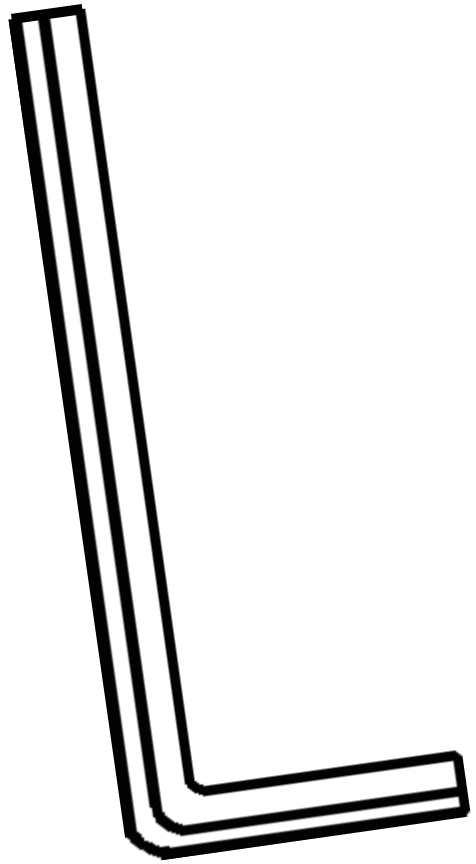
5/16
P/N 70213



3/8
P/N 70214



1/2
P/N 70216



5/8
P/N 70218

A12-12

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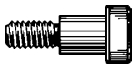
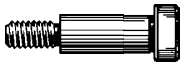
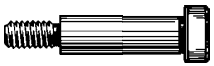
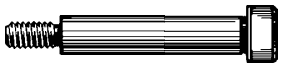
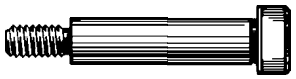
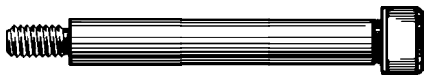
CIC 200 SHOULDER SCREW ASSORTMENT

P/N 17839

FEATURES:

- *Deep socket for full wrench engagement*
- *Heat-treated alloy steel*
- *Rockwell "C" hardness 45-53*
- *Unified 3A precision rolled thread fit meets ASME/ANSI B18.3*
- *Polished shoulder for smooth, precision fit*

59

1/4 x 3/8 **P/N 3602**	1/4 x 1/2 **P/N 3603**	1/4 x 3/4 **P/N 3605**	1/4 x 1 **P/N 3606**
1/4 x 1-1/4 **P/N 3607**	1/4 x 1-1/2 **P/N 3608**	 5/16 x 3/8 **P/N 3610**	5/16 x 1/2 **P/N 3611**
 5/16 x 3/4 **P/N 3613**	 5/16 x 1 **P/N 3614**	 5/16 x 1-1/2 **P/N 3616**	3/8 x 1 **P/N 3624**
3/8 x 1-1/4 **P/N 3625**	 3/8 x 1-1/2 **P/N 3626**	3/8 x 2 **P/N 3628**	 3/8 x 2-1/2 **P/N 3630**

A12-13

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 150™ SOCKET SET SCREWS

P/N 17987

NOTE: *Part numbers in bold italic are* ***NOT*** *available with knurled cup point.*

FEATURES:

- *Black oxide for durability and corrosion resistance*
- *Class 3A precision rolled threads meets ASME/ANSI B18.3*
- *Knurled cup point provides superior holding power*
- *Rockwell "C" hardness 45-53*

505

4-40 x 1/8 **P/N 61270**	6-32 x 1/8 **P/N 61266**	8-32 x 1/8 **P/N 61274**	10-24 x 3/16 **P/N 61282**	10-32 x 3/16 **P/N 61355**	1/4-20 x 1/4 **P/N 61290**	5/16-18 x 5/16 **P/N 61390**	3/8-16 x 1/2 **P/N 61311**
4-40 x 3/16 **P/N 61271**	6-32 x 3/16 **P/N 61267**	8-32 x 3/16 **P/N 61275**	10-24 x 1/4 **P/N 61283**	10-32 x 1/4 **P/N 61356**	1/4-20 x 5/16 **P/N 61359**	5/16-18 x 3/8 **P/N 61299**	7/16-14 x 1/2 ***P/N 63373***
4-40 x 1/4 **P/N 61272**	6-32 x 1/4 **P/N 61268**	8-32 x 1/4 **P/N 61304**	10-24 x 3/8 **P/N 61284**	10-32 x 3/8 **P/N 61357**	1/4-20 x 3/8 **P/N 61291**	5/16-18 x 1/2 **P/N 61300**	1/2-13 x 1/2 **P/N 61318**
4-40 x 3/8 **P/N 61278**	6-32 x 3/8 **P/N 61269**	8-32 x 3/8 **P/N 61277**	10-24 x 1/2 **P/N 61285**	10-32 x 1/2 **P/N 61358**	1/4-20 x 1/2 **P/N 61292**	3/8-16 x 3/8 **P/N 61310**	1/2-13 x 1 **P/N 63380**

A12-14

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

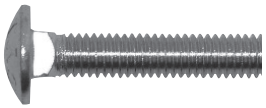
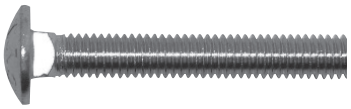
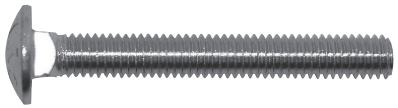
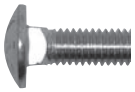
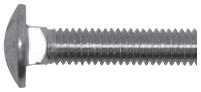
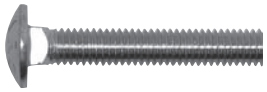
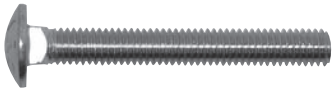
CARRIAGE BOLT ASSORTMENT

P/N 17919

FEATURES:

- *Square Neck and Clean, Sharp USS Threads*
- *Durable Chromate Plating*

400

 Round Head Carriage Bolt 3/8-16" x 1-1/2" **P/N 22857**	 Round Head Carriage Bolt 3/8-16" x 2" **P/N 22858**	 Round Head Carriage Bolt 3/8-16" x 2-1/2" **P/N 22859**	 Round Head Carriage Bolt 3/8-16" x 3" **P/N 22860**
 Round Head Carriage Bolt 5/16-18" x 1" **P/N 22840**	 Round Head Carriage Bolt 5/16-18" x 1-1/2" **P/N 22842**	 Round Head Carriage Bolt 5/16-18" x 2" **P/N 22843**	 Round Head Carriage Bolt 5/16-18" x 2-1/2" **P/N 22844**
 Round Head Carriage Bolt 1/4-20" x 1" **P/N 22826**	 Round Head Carriage Bolt 1/4-20" x 1-1/4" **P/N 22827**	 Round Head Carriage Bolt 1/4-20" x 1-1/2" **P/N 22828**	 Round Head Carriage Bolt 1/4-20" x 2" **P/N 22829**
 Round Head Carriage Bolt 10-24" x 3/4" **P/N 22811**	 Round Head Carriage Bolt 10-24" x 1" **P/N 22815**	 Round Head Carriage Bolt 10-24" x 1-1/4" **P/N 22816**	 Round Head Carriage Bolt 10-24" x 2" **P/N 22818**

A13-1

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

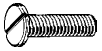
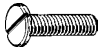
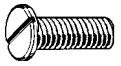
CIC 200™ SLOTTED BINDING HEAD MACHINE SCREW ASSORTMENT

P/N 7705

FEATURES:

- *Precision, burr-freethreads for exact fit*
- *Special chromate plating resists rust and corrosion for easier removal*

1180

6-32 x 1/2 **P/N 312**	8-32 x 1/2 **P/N 323**	 10-32 x 1/2 **P/N 336**	 10-24 x 1/2 **P/N 349**	10-24 x 1-1/4 **P/N 354**	1/4-20 x 3/4 **P/N 374**
6-32 x 5/8 **P/N 313**	8-32 x 5/8 **P/N 324**	10-32 x 5/8 **P/N 337**	10-24 x 5/8 **P/N 350**	10-24 x 1-1/2 **P/N 355**	1/4-20 x 1 **P/N 376**
6-32 x 3/4 **P/N 314**	8-32 x 3/4 **P/N 325**	10-32 x 3/4 **P/N 338**	10-24 x 3/4 **P/N 351**	1/4-20 x 1/2 **P/N 372**	1/4-20 x 1-1/4 **P/N 377**
6-32 x 1 **P/N 316**	8-32 x 1 **P/N 327**	10-32 x 1 **P/N 340**	10-24 x 1 **P/N 353**	 1/4-20 x 5/8 **P/N 373**	1/4-20 x 1-1/2 **P/N 378**

A15-1

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

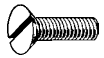
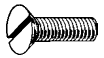
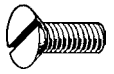
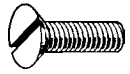
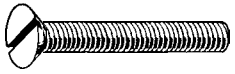
CIC 200™ FLAT HEAD MACHINE SCREW ASSORTMENT

P/N 7706

FEATURES:

- *Precision, burr-freethreads for exact fit*
- *Special chromate plating resists rust and corrosion for easier removal*

1180

6-32 x 1/2 **P/N 412**	8-32 x 1/2 **P/N 423**	 10-32 x 1/2 **P/N 436**	 10-24 x 1/2 **P/N 449**	10-24 x 1-1/4 **P/N 454**	1/4-20 x 3/4 **P/N 474**
6-32 x 5/8 **P/N 413**	8-32 x 5/8 **P/N 424**	10-32 x 5/8 **P/N 437**	10-24 x 5/8 **P/N 450**	10-24 x 1-1/2 **P/N 455**	1/4-20 x 1 **P/N 476**
6-32 x 3/4 **P/N 414**	8-32 x 3/4 **P/N 425**	10-32 x 3/4 **P/N 438**	10-24 x 3/4 **P/N 451**	 1/4-20 x 1/2 **P/N 472**	1/4-20 x 1-1/4 **P/N 477**
6-32 x 1 **P/N 416**	8-32 x 1 **P/N 427**	10-32 x 1 **P/N 440**	10-24 x 1 **P/N 453**	 1/4-20 x 5/8 **P/N 473**	 1/4-20 x 1-1/2 **P/N 478**

A15-2

TRAY FRONT

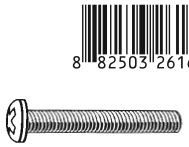
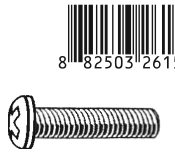
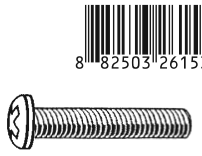
CIC 200™ PHILLIPS PAN HEAD MACHINE SCREWS

P/N 7771

FEATURES:

- *For faster application without slippage using a screw gun, drill motor or screwdriver*
- *Special chromate plating eliminates rust and corrosion for easier removal*

1000

6-32 x 1/2 **P/N 26113**	8-32 x 1/2 **P/N 26123**	10-24 x 1/2 **P/N 26162**	 10-24 x 1-1/4 **P/N 26166**	10-32 x 3/4 **P/N 26135**	 1/4-20 x 1 **P/N 26152**
6-32 x 5/8 **P/N 26114**	8-32 x 5/8 **P/N 26124**	10-24 x 5/8 **P/N 26163**	10-24 x 1-1/2 **P/N 26167**	10-32 x 1 **P/N 26136**	 1/4-20 x 1-1/4 **P/N 26153**
6-32 x 3/4 **P/N 26115**	8-32 x 3/4 **P/N 26125**	10-24 x 3/4 **P/N 26164**	10-32 x 1/2 **P/N 26133**	1/4-20 x 1/2 **P/N 26150**	1/4-20 x 1-1/2 **P/N 26154**
6-32 x 1 **P/N 26116**	8-32 x 1 **P/N 26126**	10-24 x 1 **P/N 26165**	10-32 x 5/8 **P/N 26134**	1/4-20 x 3/4 **P/N 26151**	1/4-20 x 2 **P/N 26156**

A15-2A

TRAY FRONT

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050113

CHROMATE®
INDUSTRIAL CORP.

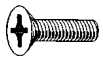
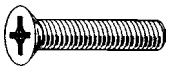
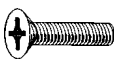
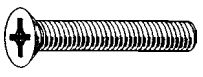
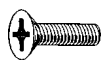
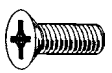
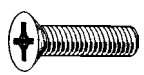
CIC 200™ PHILLIPS FLAT HEAD MACHINE SCREW ASSORTMENT

P/N 7776

FEATURES:

- *Precision, burr-free threads for exact fit*
- *Phillips drive for faster application without slippage using a screw gun, drill motor or screwdriver*
- *Special chromate plating eliminates rust and corrosion for easier removal*

1000

6-32 x 1/2 **P/N 36113**	8-32 x 1/2 **P/N 36123**	 10-24 x 1/2 **P/N 36162**	10-24 x 1-1/4 **P/N 36166**	10-32 x 3/4 **P/N 36135**	 1/4-20 x 1 **P/N 36152**
6-32 x 5/8 **P/N 36114**	8-32 x 5/8 **P/N 36124**	 10-24 x 5/8 **P/N 36163**	10-24 x 1-1/2 **P/N 36167**	10-32 x 1 **P/N 36136**	 1/4-20 x 1-1/4 **P/N 36153**
6-32 x 3/4 **P/N 36115**	8-32 x 3/4 **P/N 36125**	10-24 x 3/4 **P/N 36164**	 10-32 x 1/2 **P/N 36133**	 1/4-20 x 1/2 **P/N 36150**	1/4-20 x 1-1/2 **P/N 36154**
6-32 x 1 **P/N 36116**	8-32 x 1 **P/N 36126**	10-24 x 1 **P/N 36165**	10-32 x 5/8 **P/N 36134**	 1/4-20 x 3/4 **P/N 36151**	1/4-20 x 2 **P/N 36156**

A15-2B

TRAY FRONT

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INDUSTRIAL CORP.

NUT/LOCK WASHER/FLAT WASHER ASSORTMENT

P/N 7726

FEATURES:

- *Washers are precision stamped to exacting tolerance*
- *Special Chromate plating for corrosion resistance*

3075

No. 4 LOCKWASHER **P/N 71200**	No. 6 LOCKWASHER **P/N 71202**	No. 8 LOCKWASHER **P/N 71204**	No. 10 LOCKWASHER **P/N 71206**	No. 12 LOCKWASHER **P/N 71208**	1/4" LOCKWASHER **P/N 71210**
No. 4 FLATWASHER **P/N 31235**	No. 6 FLATWASHER **P/N 31236**	No. 8 FLATWASHER **P/N 31237**	No. 10 FLATWASHER **P/N 31238**	3/16" FLATWASHER **P/N 66431**	1/4" USS FLATWASHER **P/N 66432**
4-40 HEX NUT **P/N 5195**	6-32 HEX NUT **P/N 5200**	8-32 HEX NUT **P/N 5205**	10-32 HEX NUT **P/N 6210**	10-24 HEX NUT **P/N 5210**	1/4-20 HEX NUT **P/N 52300**
12-24 HEX NUT **P/N 5220**	6-32 KEP NUT **P/N 6900**	8-32 KEP NUT **P/N 6904**	10-32 KEP NUT **P/N 6912**	10-24 KEP NUT **P/N 6908**	1/4-20 KEP NUT **P/N 6914**

A15-3

TRAY FRONT

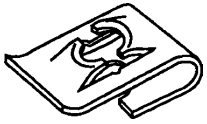
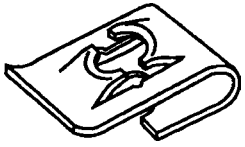
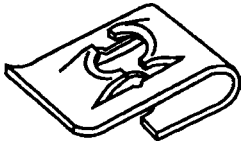
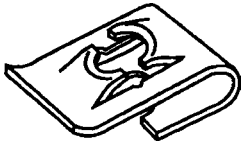
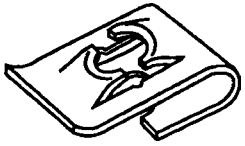
CHROMATE® INDUSTRIAL CORP.

CIC 200™ STEEL SPRING NUTS "FLAT", "J" AND "U" TYPE ASSORTMENT **P/N 7716**

FEATURES:

- *Can be used with a variety of panel and channel edge thickness*
- *Versatile-can be used with machine or sheet metal screws*
- *Precision burr-free threads and special chromate plating provides for fast, smooth installation and easy, corrosion-free removal*

700

 10-32 "FLAT" TYPE **P/N 62505**	 6-32 "J" TYPE **P/N 62510**	 8-32 "U" TYPE **P/N 62526**	 #6 "FLAT" TYPE **P/N 62601**	 #6 "J" TYPE **P/N 62605**	 #6 "U" TYPE **P/N 62614**
 6-32 "FLAT" TYPE **P/N 62501**	 8-32 "J" TYPE **P/N 62515**	 10-24 "U" TYPE **P/N 62528**	 #8 "FLAT" TYPE **P/N 62602**	 #8 "J" TYPE **P/N 62608**	 #8 "U" TYPE **P/N 62620**
 8-32 "FLAT" TYPE **P/N 62503**	 10-24 (SHORT) "J" TYPE **P/N 62519**	EXPANSION	 #10 "FLAT" TYPE **P/N 62603**	 #10 (SHORT) "J" TYPE **P/N 62610**	 #10 "U" TYPE **P/N 62625**
 10-24 "FLAT" TYPE **P/N 62504**	 10-24 (LONG) "J" TYPE **P/N 62524**	EXPANSION	EXPANSION	 #10 (LONG) "J" TYPE **P/N 62612**	EXPANSION

A15-4

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

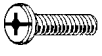
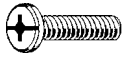
CIC 200™ SUPER MACHINE SCREW ASSORTMENT (6-32, 8-32 AND 10-32)

P/N 17722

FEATURES:

- *Precision, burr-free threads for exact fit*
- *Special chromate plating eliminates rust and corrosion for easier removal*

1270

6-32 x 1/4 **P/N 56111**	6-32 x 3/4 **P/N 56115**	8-32 x 1/4 **P/N 56121**	8-32 x 3/4 **P/N 56125**	10-32 x 1/4 **P/N 56131**	10-32 x 3/4 **P/N 56135**
6-32 x 3/8 **P/N 56112**	6-32 x 1 **P/N 56116**	8-32 x 3/8 **P/N 56122**	8-32 x 1 **P/N 56126**	10-32 x 3/8 **P/N 56132**	10-32 x 1 **P/N 56136**
6-32 x 1/2 **P/N 56113**	6-32 x 1-1/2 **P/N 56118**	 8-32 x 1/2 **P/N 56123**	8-32 x 1-1/2 **P/N 56128**	10-32 x 1/2 **P/N 56133**	10-32 x 1-1/2 **P/N 56138**
6-32 x 5/8 **P/N 56114**	6-32 HEX NUT **P/N 5200**	8-32 x 5/8 **P/N 56124**	8-32 HEX NUT **P/N 5205**	 10-32 x 5/8 **P/N 56134**	10-32 HEX NUT **P/N 6210**

A15-6

TRAY FRONT

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Rev. 073106

CHROMATE® INDUSTRIAL CORP.

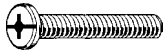
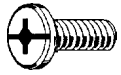
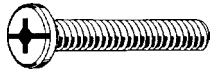
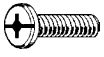
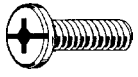
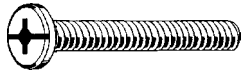
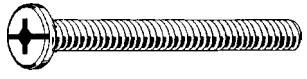
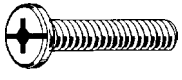
CIC 200™ SUPER MACHINE SCREW ASSORTMENT (10-24 AND 1/4-20)

P/N 17723

FEATURES:

- *Strength and durability unmatched by any other machine screw*
- *Special chromate plating provides for fast, smooth installation and easy, corrosion-free removal*
- *120,000 PSI minimum tensile strength – exceeds grade 5 cap screw strength specifications*
- *Super tough through-hardening process – reduces possibility of snapping, shearing, stretching or bending*

1100

10-24 x 3/8 **P/N 56161**	 10-24 x 1 **P/N 56165**	10-24 x 2-1/2 **P/N 56170**	 1/4-20 x 1/2 **P/N 56150**	 1/4-20 x 1-1/4 **P/N 56154**	1/4-20 x 3 **P/N 56158**
 10-24 x 1/2 **P/N 56162**	10-24 x 1-1/4 **P/N 56166**	#10 WIDE BAND FLAT WASHER **P/N 66431**	 1/4-20 x 5/8 **P/N 56151**	 1/4-20 x 1-1/2 **P/N 56155**	1/4-20 HEX NUT **P/N 5225**
10-24 x 5/8 **P/N 56163**	10-24 x 1-1/2 **P/N 56167**	10-24 HEX NUT **P/N 5210**	1/4-20 x 3/4 **P/N 56152**	 1/4-20 x 2 **P/N 56156**	10-24 x 2-3/4 **P/N 56172**
10-24 x 3/4 **P/N 56164**	10-24 x 2 **P/N 56169**	#10 NARROW BAND FLAT WASHER **P/N 31238**	 1/4-20 x 1 **P/N 56153**	1/4-20 x 2-1/2 **P/N 56157**	1/4 USS FLAT WASHER **P/N 66432**

A15-7

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ SMALL NUT ASSORTMENT

P/N 17736

FEATURES:

- *Protected with special chromate plating*
- *Designed for use with standard machine screws*

1200

6-32 CAP NUT **P/N 6930**	8-32 CAP NUT **P/N 6934**	10-24 CAP NUT **P/N 6938**	1/4-20 CAP NUT **P/N 6944**	6-32 WING NUT **P/N 5130**	8-32 WING NUT **P/N 5135**
6-32 NYLON LOCK NUT **P/N 6005**	8-32 NYLON LOCK NUT **P/N 6010**	10-24 NYLON LOCK NUT **P/N 6015**	10-32 NYLON LOCK NUT **P/N 5015**	1/4-20 NYLON LOCK NUT **P/N 6020**	10-24 WING NUT **P/N 5142**
6-32 KEP NUT **P/N 6900**	8-32 KEP NUT **P/N 6904**	10-24 KEP NUT **P/N 6908**	10-32 KEP NUT **P/N 6912**	1/4-20 KEP NUT **P/N 6914**	10-32 WING NUT **P/N 5140**
6-32 HEX MACH NUT **P/N 5200**	8-32 HEX MACH NUT **P/N 5205**	10-24 HEX MACH NUT **P/N 5210**	10-32 HEX MACH NUT **P/N 6210**	1/4-20 HEX MACH NUT **P/N 5225**	1/4-20 WING NUT **P/N 5145**

A15-8

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

OVERSIZE FENDER WASHER ASSORTMENT (3/16" TO 1/2")

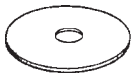
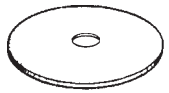
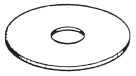
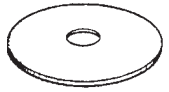
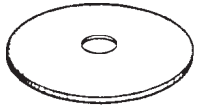
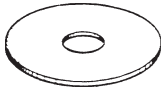
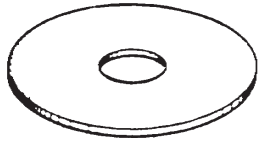
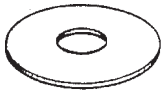
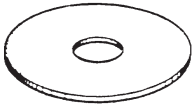
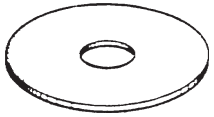
P/N 17742

8 82503 17742 3

FEATURES

- *Fender washers have an extra-wide bearing surface, eliminates the need for hole patching*
- *Precision stamped to exacting tolerance*
- *Special Chromate plating for durability*

400

8 82503 00989 2 3/16 ID: 7/32 OD: 1 **P/N 990** 	8 82503 00987 8 3/16 ID: 7/32 OD: 1-1/4 **P/N 988** 	EXPANSION
8 82503 00988 5 1/4 ID: 9/32 OD: 1 **P/N 989** 	8 82503 00990 8 1/4 ID: 9/32 OD: 1-1/4 **P/N 991** 	8 82503 00991 5 1/4 ID: 9/32 OD: 1-1/2 **P/N 992** 
8 82503 00992 2 5/16 ID: 11/32 OD: 1-1/4 **P/N 993** 	8 82503 00993 9 5/16 ID: 11/32 OD: 1-1/2 **P/N 994**	8 82503 00996 0 1/2 ID: 17/32 OD: 2 **P/N 997** 
8 82503 00995 3 3/8 ID: 13/32 OD: 1-1/4 **P/N 996** 	8 82503 00994 6 3/8 ID: 13/32 OD: 1-1/2 **P/N 995** 	8 82503 00997 7 3/8 ID: 27/64 OD: 1-5/8 **P/N 998** 

A15-9

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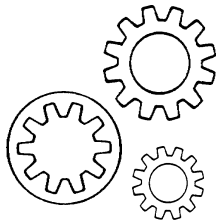


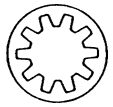
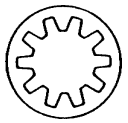
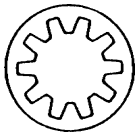
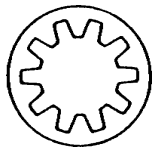
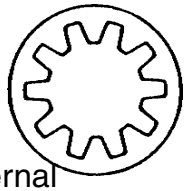
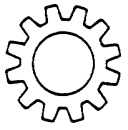
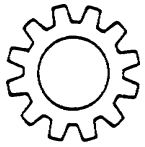
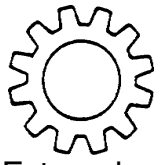
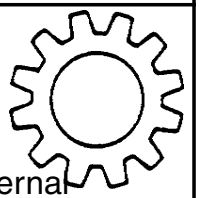
INTERNAL AND EXTERNAL STAR WASHER ASSORTMENT

P/N 17836

FEATURES:

- *High carbon spring tempered steel for strength and resiliency*
- *Positive "spring action" keeps assemblies under tension, eliminating failures*

950

#6 Internal **P/N 5171**	#8 Internal **P/N 5172**	#10 Internal **P/N 5173**	#12 Internal **P/N 5174**	1/4 Internal **P/N 5175**	5/16 Internal **P/N 5176**
3/8 Internal **P/N 5177**	 7/16 Internal **P/N 5178**	 1/2 Internal **P/N 5179**	 9/16 Internal **P/N 5180**	 5/8 Internal **P/N 5181**	 3/4 Internal **P/N 5182**
#6 External **P/N 5101**	#8 External **P/N 5102**	#10 External **P/N 5103**	#12 External **P/N 5104**	1/4 External **P/N 5105**	5/16 External **P/N 5106**
3/8 External **P/N 5107**	7/16 External **P/N 5108**	 1/2 External **P/N 5109**	 9/16 External **P/N 5110**	 5/8 External **P/N 5111**	 3/4 External **P/N 5112**

A15-10

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

NYLON SLOTTED ROUND HEAD MACHINE SCREW ASSORTMENT

P/N 17873

FEATURES:

- *Non-conductive and corrosion resistant*
- *Resists chemicals and solvents (except mineral acids)*
- *Temperature range 0°F to 300°F*
- *Conforms to irregular surfaces and provides good vibration dampening*

1500

6-32 Nylon Hex Nut **P/N 26703**	8-32 Nylon Hex Nut **P/N 26705**	10-32 Nylon Hex Nut **P/N 26707**	#6 Nylon Flat Washer **P/N 26730**	#8 Nylon Flat Washer **P/N 26731**	#10 Nylon Flat Washer **P/N 26732**
6-32 x 1/4 **P/N 26500**	6-32 x 1/2 **P/N 26504**	6-32 x 3/4 **P/N 26508**	6-32 x 1 **P/N 26510**	6-32 x 1-1/2 **P/N 26513**	6-32 x 2 **P/N 26517**
8-32 x 1/4 **P/N 26525**	8-32 x 1/2 **P/N 26530**	8-32 x 3/4 **P/N 26532**	8-32 x 1 **P/N 26534**	8-32 x 1-1/2 **P/N 26538**	8/32 x 2 **P/N 26541**
10-32 x 1/4 **P/N 26555**	10-32 x 1/2 **P/N 26559**	10-32 x 3/4 **P/N 26561**	10-32 x 1 **P/N 26564**	10-32 x 1-1/2 **P/N 26567**	10-32 x 2 **P/N 26569**

A15-11

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

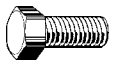
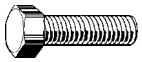
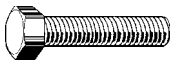
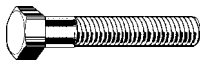
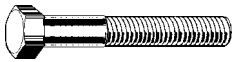
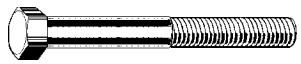
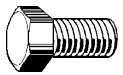
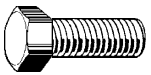
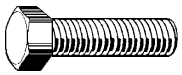
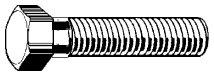
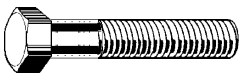
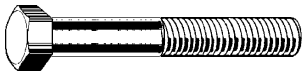
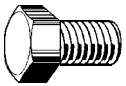
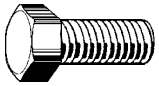
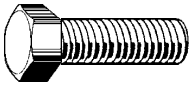
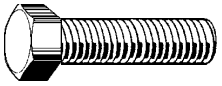
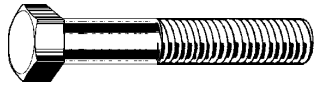
NYLON HEX CAP MACHINE SCREW ASSORTMENT (1/4" - 3/8")

P/N 17874

FEATURES:

- *Non-conductive and corrosion resistant*
- *Resists chemicals and solvents (except mineral acids)*
- *Temperature range 0°F to 300°F*
- *Conforms to irregular surfaces and provides good vibration dampening*

615

1/4-20 Nylon Hex Nut **P/N 26709**	5/16-18 Nylon Hex Nut **P/N 26711**	3/8-16 Nylon Hex Nut **P/N 26713**	1/4 Nylon Flat Washer **P/N 26733**	5/16 Nylon Flat Washer **P/N 26734**	3/8 Nylon Flat Washer **P/N 26735**
 1/4-20 x 1/2 **P/N 26601**	 1/4-20 x 3/4 **P/N 26603**	 1/4-20 x 1 **P/N 26604**	 1/4-20 x 1-1/4 **P/N 26605**	 1/4-20 x 1-1/2 **P/N 26606**	 1/4-20 x 2 **P/N 26607**
 5/16-18 x 1/2 **P/N 26616**	 5/16-18 x 3/4 **P/N 26617**	 5/16-18 x 1 **P/N 26618**	 5/16-18 x 1-1/4 **P/N 26619**	 5/16-18 x 1-1/2 **P/N 26621**	 5/16-18 x 2 **P/N 26622**
 3/8-16 x 1/2 **P/N 26632**	 3/8-16 x 3/4 **P/N 26633**	 3/8-16 x 1 **P/N 26634**	 3/8-16 x 1-1/4 **P/N 26635**	3/8-16 x 1-1/2 **P/N 26636**	 3/8-16 x 2 **P/N 26637**

A15-12

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

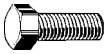
INDENTED HEX HEAD MACHINE SCREW ASSORTMENT

P/N 17907

FEATURES:

• Indented hex head and case hardened strength offer superior clamping force and durability

1215

6-32 x 1/2 **P/N 23202**	8-32 x 3/8 **P/N 23210**	8-32 x 1-1/2 **P/N 23214**	10-24 x 1-1/2 **P/N 23223**	10-32 x 1 **P/N 23233**	12-24 x 3/4 **P/N 23243**
6-32 x 3/4 **P/N 23203**	8-32 x 1/2 **P/N 23211**	10-24 x 1/2 **P/N 23220**	10-24 x 2 **P/N 23224**	10-32 x 1-1/2 **P/N 23234**	12-24 x 1 **P/N 23244**
6-32 x 1 **P/N 23204**	8-32 x 3/4 **P/N 23212**	10-24 x 3/4 **P/N 23221**	10-32 x 1/2 **P/N 23231**	10-32 x 2 **P/N 23235**	12-24 x 1-1/2 **P/N 23245**
6-32 x 1-1/2 **P/N 23205**	8-32 x 1 **P/N 23213**	10-24 x 1 **P/N 23222**	10-32 x 3/4 **P/N 23232**	 12-24 x 1/2 **P/N 23242**	12-24 x 2 **P/N 23246**

A15-13

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

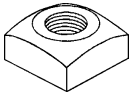
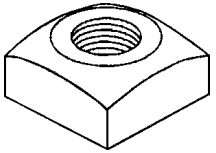
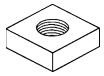
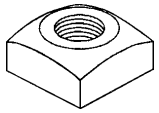
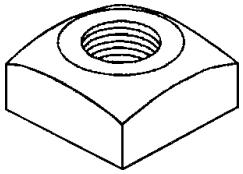
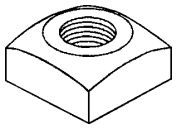
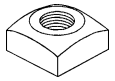
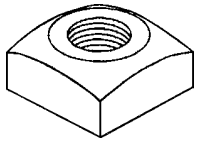
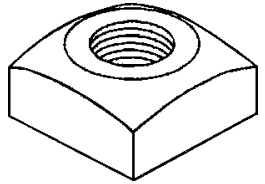
SQUARE NUTS ASSORTMENT

P/N 17916

FEATURES:

- *Precision burr-free threads and special zinc plating provides for fast, smooth installation and easy, corrosion-free removal.*

623

 4-40 Square Machine Screw Nuts P/N 62900	 10-32 Square Machine Screw Nuts P/N 62904	 3/8-16 Regular Square Nuts P/N 62802	 3/4-10 Regular Square Nuts P/N 62806
 6-32 Square Machine Screw Nuts P/N 62901	 12-24 Square Machine Screw Nuts P/N 62905	 7/16-14 Regular Square Nuts P/N 62803	 7/8-9 Regular Square Nuts P/N 62807
 8-32 Square Machine Screw Nuts P/N 62902	 1/4-20 Regular Square Nuts P/N 62800	 1/2-13 Regular Square Nuts P/N 62804	
 10-24 Square Machine Screw Nuts P/N 62903	 5/16-18 Regular Square Nuts P/N 62801	 5/8-11 Regular Square Nuts P/N 62805	 1-8 Regular Square Nuts P/N 62808

A15-14

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

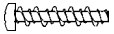
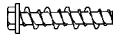
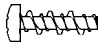
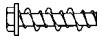
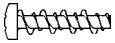
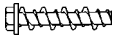
CIC 200™ BI-CUT SCREW ASSORTMENT FOR LOW DENSITY MATERIALS

P/N 7715

FEATURES:

- *Phillips binding and hex washer heads*
- *High performance double-threaded design for plastic, fiberglass, wood, masonite and other low density materials*
- *Lower driving torque, greater pull-out strength*
- *Maximum protection against stripping, cracking and splitting*
- *High 30º and low 60º included angle threads*

1290

 4 x 1/4 PHILLIPS BINDING **P/N 95000**	 6 x 3/8 PHILLIPS BINDING **P/N 95008**	 8 x 3/4 PHILLIPS BINDING **P/N 95016**	 4 x 1/4 HEX WASHER **P/N 95100**	 6 x 3/8 HEX WASHER **P/N 95108**	 8 x 3/4 HEX WASHER **P/N 95116**
 4 X 3/8 PHILLIPS BINDING **P/N 95002**	 6 x 1/2 PHILLIPS BINDING **P/N 95010**	 10 x 1/2 PHILLIPS BINDING **P/N 95018**	 4 x 3/8 HEX WASHER **P/N 95102**	 6 x 1/2 HEX WASHER **P/N 95110**	 10 x 1/2 HEX WASHER **P/N 95118**
 4 x 1/2 PHILLIPS BINDING **P/N 95004**	 8 x 3/8 PHILLIPS BINDING **P/N 95012**	 10 x 5/8 PHILLIPS BINDING **P/N 95020**	 4 x 1/2 HEX WASHER **P/N 95104**	 8 x 3/8 HEX WASHER **P/N 95112**	 10 x 5/8 HEX WASHER **P/N 95120**
 6 x 1/4 PHILLIPS BINDING **P/N 95006**	 8 x 1/2 PHILLIPS BINDING **P/N 95014**	 10 x 3/4 PHILLIPS BINDING **P/N 95022**	 6 x 1/4 HEX WASHER **P/N 95106**	 8 x 1/2 HEX WASHER **P/N 95114**	 10 x 3/4 HEX WASHER **P/N 95122**

A16-1

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

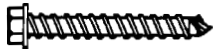
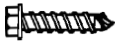
CIC 200™ HEX WASHER HEAD SELF DRILLING METAL SCREW ASSORTMENT

P/N 7710

FEATURES:

- *Drill and tap holes without pre-drilling*
- *Hex washer head designs are case hardened for extra strength*
- *Corrosion resistant coating*

730

 8 x 1/2 **P/N 94009**	 8 x 1-1/4 **P/N 94014**	 10 x 5/8 **P/N 94018**	 10 x 1-1/2 **P/N 94024**	 12 x 1-1/2 **P/N 94035**	 10 x 2 **P/N 94026**
 8 x 5/8 **P/N 94010**	 8 x 1-1/2 **P/N 94015**	 10 x 3/4 **P/N 94019**	 12 x 3/4 **P/N 94029**	 14 x 3/4 **P/N 94041**	 12 x 2 **P/N 94037**
 8 x 3/4 **P/N 94011**	 8 x 1-3/4 **P/N 94016**	 10 x 1 **P/N 94021**	 12 x 1 **P/N 94031**	 14 x 1 **P/N 94043**	 14 x 1-1/2 **P/N 94047**
 8 x 1 **P/N 94013**	 10 x 1/2 **P/N 94017**	 10 x 1-1/4 **P/N 94023**	 12 x 1-1/4 **P/N 94032**	 14 x 1-1/4 **P/N 94045**	 14 x 2 **P/N 94048**

A16-2

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ SUR-GRIP HEX WASHER/AB POINT METAL SCREW ASSORTMENT

P/N 7773

FEATURES:

- *Recessed, serrated washer face resists vibration loosening*
- *Full diameter threads prevents "strip-out"*
- *Zinc plated and waxed for corrosion resistance and easy driving*

640

 8-18 x 1/2 **P/N 22530**	 10-16 x 1/2 **P/N 22544**	 12-14 x 5/8 **P/N 22554**	 1/4-14 x 5/8 **P/N 22564**
 8-18 x 5/8 **P/N 22532**	 10-16 x 5/8 **P/N 22546**	 12-14 x 3/4 **P/N 22556**	EXPANSION
 8-18 x 3/4 **P/N 22536**	 10-16 x 3/4 **P/N 22648**	 12-14 x 1 **P/N 22558**	 1/4-14 x 1 **P/N 22568**
 8-18 x 1 **P/N 22538**	 10-16 x 1 **P/N 22550**	 12-14 x 1-1/2 **P/N 22560**	 1/4-14 x 1-1/2 **P/N 22570**

A16-5

TRAY FRONT

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030112

CHROMATE® INDUSTRIAL CORP.

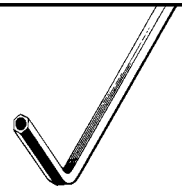
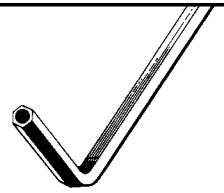
CIC 200™ HEX-LOCK™ SECURITY SCREWS ASSORTMENT

P/N 17733

FEATURES:

- *Prevents pilferage, vandalism and unauthorized access*
- *18-8 stainless steel – for corrosion resistance and durability*
- *Unique hex key/pin lock design – makes removal virtually impossible without specially machined keys*
- *Use for: computers, videos, typewriters, and office equipment; alarm systems, smoke detectors and lighting; bathroom fixtures, etc.*

224

6-32 x 3/8 **P/N 44101**	8-32 x 1/2 **P/N 44110**	10-24 x 1/2 **P/N 44119**	10-32 x 1/2 **P/N 44127**	1/4-20 x 3/4 **P/N 44137**	 1/8 HEX LOCK KEY **P/N 44200**
6-32 x 1/2 **P/N 44102**	8-32 x 3/4 **P/N 44112**	10-24 x 3/4 **P/N 44121**	10-32 x 3/4 **P/N 44129**	1/4-20 x 1 **P/N 44138**	 5/32 HEX LOCK KEY **P/N 44202**
6-32 x 3/4 **P/N 44104**	8-32 x 1 **P/N 44113**	10-24 x 1 **P/N 44122**	10-32 x 1 **P/N 44130**	1/4-20 x 1-1/2 **P/N 44140**	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

A16-6

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

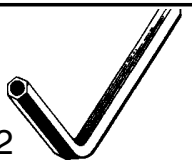
CIC 200™ HEX-LOCK™ SECURITY SCREWS (SHEET METAL)

P/N 17734

FEATURES:

- *Hex Key/Pin Lock design makes removal virtually impossible without specially machined keys*
- *Prevents pilferage, vandalism and unauthorized access*
- *Manufactured of 18-8 stainless steel for corrosion resistance and durability*

204

10 x 1/2 **P/N 44014**	10 x 3/4 **P/N 44016**	10 x 1 **P/N 44017**	10 x 1-1/4 **P/N 44018**	10 x 1-1/2 **P/N 44019**	10 x 2 **P/N 44020**
8 x 3/8 **P/N 44006**	8 x 1/2 **P/N 44007**	8 x 3/4 **P/N 44009**	8 x 1 **P/N 44010**	8 x 1-1/4 **P/N 44011**	8 x 1-1/2 **P/N 44012**
6 x 3/8 **P/N 44000**	6 x 1/2 **P/N 44001**	6 x 3/4 **P/N 44003**	6 x 1 **P/N 44004**	EXPANSION	1/8 HEX LOCK KEY **P/N 44200**
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	 5/32 HEX LOCK KEY **P/N 44202**

A1-7

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

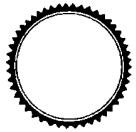
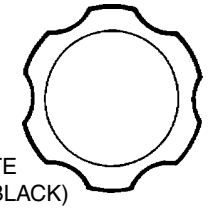
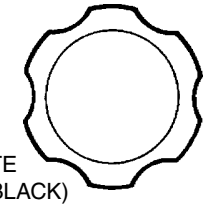
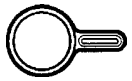
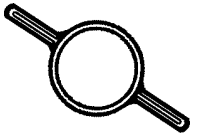
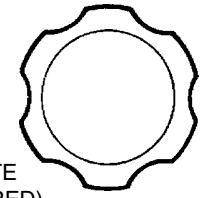
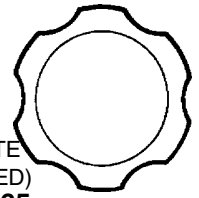
THUMB SCREW KNOB ASSORTMENT

P/N 17744

FEATURES:

- *Instantly produce any size/style thumb screw by pressing onto a standard socket head cap screw*
- *Acetal Resin construction for strength and durability*
- *Color-coded for easy identification*
- *Four styles accomodate different leverage/speed requirements*

370

1/4 "L" KNOB (BLACK) **P/N 44096**	1/4 TEE KNOB (BLACK) **P/N 44080**	3/8 TEE KNOB (BLACK) **P/N 44088**	#10 KNURLED KNOB (BLACK) **P/N 44052**	 1/4 x 1 KNURLED KNOB (BLACK) **P/N 44060**	 3/8 ROSETTE KNOB (BLACK) **P/N 44072**
#10 "L" KNOB (BLACK) **P/N 44092**	#10 TEE KNOB (BLACK) **P/N 44076**	#6 KNURLED KNOB (BLACK) **P/N 44044**	#8 KNURLED KNOB (BLACK) **P/N 44048**	1/4 x 3/4 KNURLED KNOB (BLACK) **P/N 44056**	 1/4 ROSETTE KNOB (BLACK) **P/N 44064**
 1/4 "L" KNOB (RED) **P/N 44097**	1/4 TEE KNOB (RED) **P/N 44081**	 3/8 TEE KNOB (RED) **P/N 44089**	#10 KNURLED KNOB (RED) **P/N 44053**	1/4 x 1 KNURLED KNOB (RED) **P/N 44061**	 3/8 ROSETTE KNOB (RED) **P/N 44073**
#10 "L" KNOB (RED) **P/N 44093**	#10 TEE KNOB (RED) **P/N 44077**	#6 KNURLED KNOB (RED) **P/N 44045**	#8 KNURLED KNOB (RED) **P/N 44049**	1/4 x 3/4 KNURLED KNOB (RED) **P/N 44057**	 1/4 ROSSETTE KNOB (RED) **P/N 44065**

A16-8

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

DRIVER BIT AND SCREW GUN ASSORTMENT

P/N 17758

FEATURES:

- *Made from shock resistant tool steel and heat treated for maximum strength and hardness*
- *For longest life, always use the correct bit for the screw you are driving*
- *Skill articulating screwdriver has project power driver, 4 project positions, durable metal front end, built-in work light and built-in rechargeable battery*

69

1-15/16" 6-8 PHILLIPS POWER BIT **P/N 83025**	1" 8-10 PHILLIPS INSERT BIT **P/N 83022**	T20 TORX® INSERT BIT **P/N 83056**	1/4 x 3 MAGNETIC BIT HOLDER ADAPTER **P/N 83020**	7/16 x 2-9/16 MAGNETIC NUTSETTER **P/N 83008**	SKIL 2.4V ARTICULATING SCREWDRIVER **P/N 8212**
1-15/16" 8-10 PHILLIPS POWER BIT **P/N 83026**	1" 12-14 PHILLIPS INSERT BIT **P/N 83023**	1/4 x 2 #6 SQUARE DRIVE POWER BIT **P/N 7069**	1/4 x 2-9/16 MAGNETIC NUTSETTER **P/N 83005**	5F-6R SLOTTED POWER BIT WITH FINDER **P/N 83060**	
1-15/16" 12-14 PHILLIPS POWER BIT **P/N 83027**	T10 TORX® INSERT BIT **P/N 83054**	1/4 x 2 #8-10 SQUARE DRIVE POWER BIT **P/N 7070**	5/16 x 2-9/16 MAGNETIC NUTSETTER **P/N 83006**	6F-8R SLOTTED POWER BIT WITH FINDER **P/N 83061**	
1" 6-8 PHILLIPS INSERT BIT **P/N 83021**	T15 TORX® INSERT BIT **P/N 83055**	1/4 x 2 #12-14 SQUARE DRIVE POWER BIT **P/N 7071**	3/8 x 2-9/16 MAGNETIC NUTSETTER **P/N 83007**	10F-12R SLOTTED POWER BIT WITH FINDER **P/N 83062**	

A16-9

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

DRYWALL SCREW ASSORTMENT

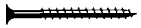
P/N 17879

FEATURES:

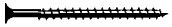
- *Attaches drywall to wood*
- *Superior holding power*
- *Easy Penetration*
- *Unique head design minimizes paper burrs*
- *No. 2 phillips drive*
- *Coarse thread – black phosphate finish*
- *Includes (2) drywall screw setters that perfects countersink drywall screws into drywall every time*

1502

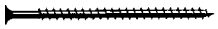
Drywall Screw Setter
P/N 83065



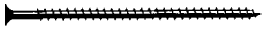
6 x 1
P/N 13000



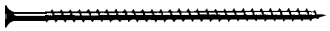
6 x 1-1/4
P/N 13002



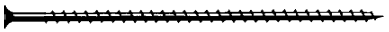
6 x 1-5/8
P/N 13003



7 x 2
P/N 13004

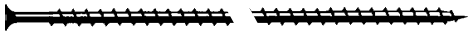


8 x 2-1/2
P/N 13006



8 x 3
P/N 13007

10 x 3-1/2
P/N 13008



10 x 4
P/N 13009

A16-10

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

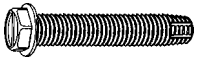
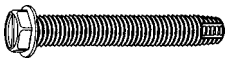
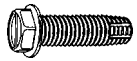
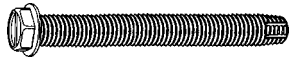
CIC 200™ THREAD CUTTING SCREWS

P/N 17884

FEATURES:

- *Specially designed to thread their own hole through strong, sharp threads with a minimum amount of torque*
- *The type F point provides cleaner threads and positive chip ejection*
- *Eliminates expensive tapping costs*
- *Special hardening process provides maximum resistance to breakage*
- *Washer head provides an even load bearing surface*

750

6-32 x 1/4 **P/N 7033**	8-32 x 1/4 **P/N 7038**	10-24 x 1/2 **P/N 7005**	10-32 x 3/8 **P/N 7046**	12-24 x 3/4 **P/N 7054**	1/4-20 x 1 **P/N 7012**
6-32 x 1/2 **P/N 7035**	8-32 x 1/2 **P/N 7040**	10-24 x 3/4 **P/N 7006**	10-32 x 1 **P/N 7047**	12-24 x 1 **P/N 7055**	 1/4-20 x 1-1/4 **P/N 7010**
6-32 x 3/4 **P/N 7036**	8-32 x 3/4 **P/N 7041**	10-24 x 1 **P/N 7042**	10-32 x 1-1/4 **P/N 7048**	1/4-20 x 1/2 **P/N 7009**	 1/4-20 x 1-1/2 **P/N 7013**
6-32 x 1 **P/N 7037**	8-32 x 1 **P/N 7000**	10-24 x 1-1/2 **P/N 7044**	10-32 x 1-1/2 **P/N 7049**	 1/4-20 x 3/4 **P/N 7011**	 1/4-20 x 2 **P/N 7014**

A16-11

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

DRIVER BIT ASSORTMENT

P/N 17893

FEATURES:

- *Nutsetters and bits are ideal for drill motors and screw guns*
- *Made from shock resistant tool steel and heat treated for maximum strength and hardness*
- *Always use the correct size bit for the screw you are driving to prevent stripping*

54

1-15/16 6-8 PHILLIPS POWER BIT **P/N 83025**	1" 8-10 PHILLIPS INSERT BIT **P/N 83022**	T20 TORX® INSERT BIT **P/N 83056**	1/4 x 3 MAGNETIC BIT HOLDER ADAPTOR **P/N 83020**	7/16 x 2-9/16 MAGNETIC NUTSETTER **P/N 83008**	5F-6R SLOTTED POWER BIT W/FINDER **P/N 83060**
1-15/16 5-10 PHILLIPS POWER BIT **P/N 83026**	1" 12-14 PHILLIPS INSERT BIT **P/N 83023**	1/4 x 2 #6 SQUARE DRIVE POWER BIT **P/N 7069**	1/4 x 2-9/16 MAGNETIC NUTSETTER **P/N 83005**	6F-8R SLOTTED INSERT BIT **P/N 83072**	6F-8R SLOTTED POWER BIT W/FINDER **P/N 83061**
1-15/16 12-16 PHILLIPS POWER BIT **P/N 83027**	T10 TORX® INSERT BIT **P/N 83054**	1/4 x 2 #8-10 SQUARE DRIVE POWER BIT **P/N 7070**	5/16 x 2-9/16 MAGNETIC NUTSETTER **P/N 83006**	8F-10R SLOTTED INSERT BIT **P/N 83073**	10F-12R SLOTTED POWER BIT W/FINDER **P/N 83062**
1" 6-8 PHILLIPS INSERT BIT **P/N 83021**	T15 TORX® INSERT BIT **P/N 83055**	1/4 x 2 #12-14 SQUARE DRIVE POWER BIT **P/N 7071**	3/8 x 2-9/16 MAGNETIC NUTSETTER **P/N 83007**	10F-12R SLOTTED INSERT BIT **P/N 83074**	QUICK CHANGE CHUCK ADAPTER **P/N 83066**

A16-12

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

SECURITY BIT ASSORTMENT

P/N 17964

FEATURES:

- *Convenient assortment of the most commonly used security screw bits*
- *Made from shock resistant tool steel and heat treated for maximum strength and hardness*
- *For longest life, always use the correct bit for the screw you are driving*

43

#4 X 1" SPANNER INSERT BIT **P/N 83080**	#6 X 1" SPANNER INSERT BIT **P/N 83081**	#8 X 1" SPANNER INSERT BIT **P/N 83082**	#10 X 1" SPANNER INSERT BIT **P/N 83083**	#12 X 1" SPANNER INSERT BIT **P/N 83084**	1/4 X 1" SPANNER INSERT BIT **P/N 83085**
For #4 Screw T9 TORX® SECURITY INSERT BIT **P/N 83091**	For #6 Screw T10 TORX® SECURITY INSERT BIT **P/N 83092**	For #8 Screw T15 TORX® SECURITY INSERT BIT **P/N 83093**	For #10 Flat Screw T20 TORX® SECURITY INSERT BIT **P/N 83094**	For #10 Button Screw T25 TORX® SECURITY INSERT BIT **P/N 83095**	For 1/4 Screw T27 TORX® SECURITY INSERT BIT **P/N 83096**
For #14 Flat Screw T30 TORX® SECURITY INSERT BIT **P/N 83097**	For 5/16 - 3/8 Screws T40 TORX® SECURITY INSERT BIT **P/N 83098**	For #4 Screw 3/32 HEX-LOCK DRIVER BIT **P/N 44203**	For #6 - #8 Screws 1/8 HEX-LOCK DRIVER BIT **P/N 44204**	For #8 - 1/4 Screws 5/32 HEX-LOCK DRIVER BIT **P/N 44206**	For 5/16 Screw 3/16 HEX-LOCK DRIVER BIT **P/N 44207**
For 3/8 Screw 7/32 HEX-LOCK DRIVER BIT **P/N 44208**	#6 TRI-WING INSERT BIT W3 **P/N 83122**	#8 TRI-WING INSERT BIT W4 **P/N 83123**	#10 TRI-WING INSERT BIT W5 **P/N 83124**	For #5 - #10 Screws #2 PHILLIPS PIN HEAD INSERT BIT **P/N 83120**	For #12 - #16 Screws #3 PHILLIPS PIN HEAD INSERT BIT **P/N 83121**

A16-13

TRAY FRONT

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POWER BIT ASSORTMENT

P/N 17965

FEATURES:

- *Convenient assortment of the most commonly used power bits*
- *Made from shock resistant tool steel and heat treated for maximum strength and hardness*
- *For longest life, always use the correct size bit for the screw you are driving.*

30

EXPANSION	1/4" x 3" SLOTTED POWER BIT **P/N 83046**	1/4" x 6" SLOTTED POWER BIT **P/N 83047**
QUICK CHANGE CHUCK ADAPTER **P/N 83066**	5/16" x 3" SLOTTED POWER BIT **P/N 83048**	5/16" x 6" SLOTTED POWER BIT **P/N 83049**
1-15/16" 2-4 PHILLIPS POWER BIT **P/N 83025**	2-3/4" 6-8 PHILLIPS POWER BIT **P/N 83030**	6" 6-8 PHILLIPS POWER BIT **P/N 83041**
1-15/16" 5-10 PHILLIPS POWER BIT **P/N 83026**	2-3/4" 8-10 PHILLIPS POWER BIT **P/N 83031**	6" 8-10 PHILLIPS POWER BIT **P/N 83042**
1-15/16" 12-16 PHILLIPS POWER BIT **P/N 83027**	2-3/4" 12-14 PHILLIPS POWER BIT **P/N 83032**	6" 12-14 PHILLIPS POWER BIT **P/N 83043**
1/4" x 2-1/4" MAGNETIC BIT HOLDER ADAPTER **P/N 83018**	1/4" x 3" MAGNETIC BIT HOLDER ADAPTER **P/N 83020**	1/4" x 6" MAGNETIC BIT HOLDER **P/N 83019**

A16-14

TRAY FRONT

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050113

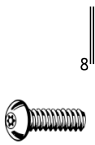
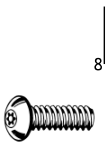
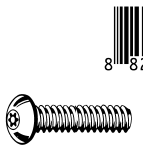
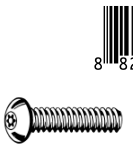
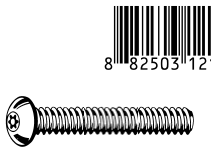
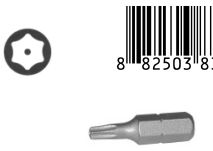
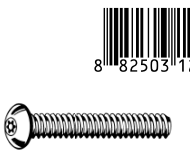
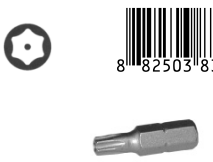
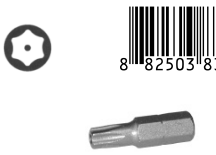
CHROMATE®
INDUSTRIAL CORP.

BUTTON HEAD TORX® S/S T/R MACHINE SCREWS

FEATURES
- *High quality TORX® Stainless Steel Tamper Resistant (T/R) Security Screws*
- *Uniformly threaded screws designed to be threaded into nuts or holes*
- *Sizes 6-32 to 1/4-20*
- *Insert Bits T10 to T27*

P/N 17670

189

6-32 X 1/2 **P/N 43807**	8-32 X 1/2 **P/N 43815**	 10-24 X 1/2 **P/N 43823**	 10-32 X 1/2 **P/N 43831**	 1/4-20 X 3/4 **P/N 43841**	T10 SECURITY INSERT BIT **P/N 83092**
6-32 X 3/4 **P/N 43809**	8-32 X 3/4 **P/N 43816**	10-24 X 3/4 **P/N 43825**	 10-32 X 3/4 **P/N 43833**	 1/4-20 X 1 **P/N 43842**	 T15 SECURITY INSERT BIT **P/N 83093**
6-32 X 1 **P/N 43810**	8-32 X 1 **P/N 43817**	10-24 X 1 **P/N 43826**	 10-32 X 1 **P/N 43834**	1/4-20 X 1-1/2 **P/N 43844**	 T25 SECURITY INSERT BIT **P/N 83095**
6-32 X 1-1/2 **P/N 43811**	8-32 X 1-1/4 **P/N 43818**	10-24 X 1-1/2 **P/N 43828**	10-32 X 1-1/2 **P/N 43836**	1/4-20 X 2 **P/N 43846**	 T27 SECURITY INSERT BIT **P/N 83096**

A16-15

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

FLAT HEAD TORX® S/S T/R MACHINE SCREWS

FEATURES
- *High quality TORX® Stainless Steel Tamper Resistant (T/R) Security Screws*
- *Uniformly threaded screws designed to be threaded into nuts or holes*
- *Sizes 8-32 to 1/4-20*
- *Security Insert Bits T20 to T30*

PN 17671

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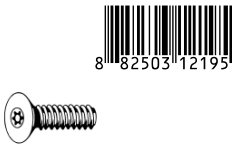
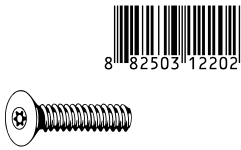
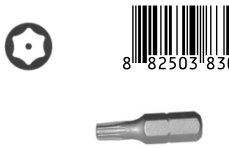
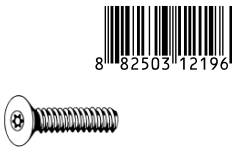
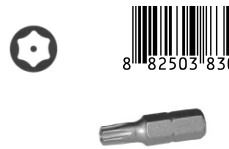
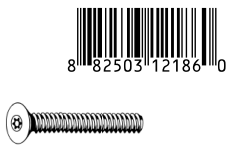
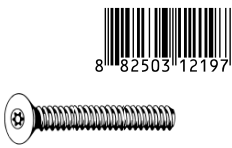
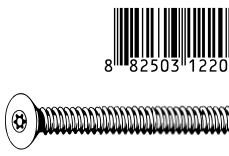
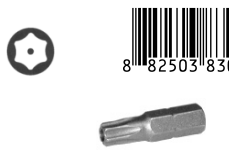
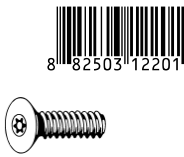
8-32 X 1/2 **P/N 43888**	10-24 X 1/2 **P/N 43896**	10-32 X 1/2 **P/N 43903**	 12-24 X 1/2 **P/N 43908**	 1/4-20 X 1 **P/N 43915**	 T20 SECURITY INSERT BIT **P/N 83094**
8-32 X 3/4 **P/N 43890**	10-24 X 3/4 **P/N 43898**	10-32 X 3/4 **P/N 43904**	 12-24 X 3/4 **P/N 43909**	1/4-20 X 1-1/4 **P/N 43916**	 T25 SECURITY INSERT BIT **P/N 83095**
8-32 X 1 **P/N 43891**	 10-24 X 1 **P/N 43899**	10-32 X 1 **P/N 43905**	 12-24 X 1 **P/N 43910**	 1/4-20 X 1-1/2 **P/N 43917**	 T30 SECURITY INSERT BIT **P/N 83097**
8-32 X 1-1/2 **P/N 43893**	10-24 X 1-1/2 **P/N 43901**	10-32 X 1-1/2 **P/N 43907**	 1/4-20 X 3/4 **P/N 43914**	1/4-20 X 2 **P/N 43919**	EXPANSION

A16-16

TRAY FRONT

BUTTON HEAD TORX® S/S T/R SHEET METAL SCREWS

P/N 17672

FEATURES

- *High quality TORX® Stainless Steel Tamper Resistant (T/R) Security Screws*
- *Designed to join thin pieces of metal to wood, fiberglass or metal*
- *For general repair*
- *Sizes 6 to 14*
- *Insert Bits T10 to T27*

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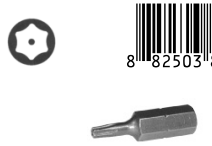
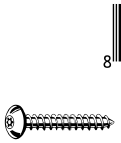
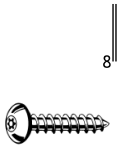
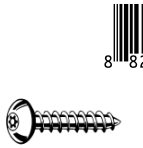
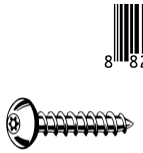
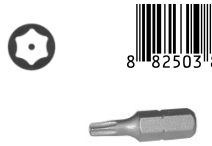
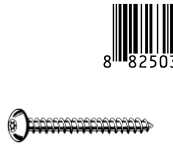
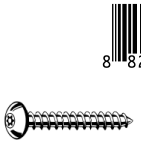
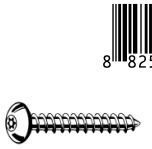
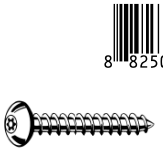
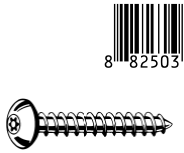
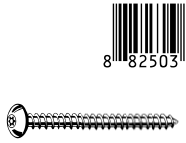
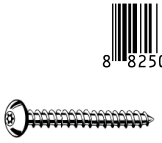
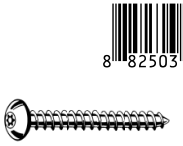
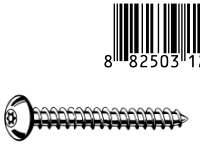
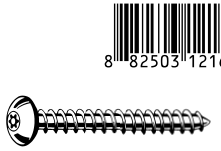
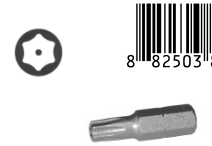
6 X 1/2 **P/N 43850**	8 X 3/8 **P/N 43855**	8 X 1-1/2 **P/N 43860**	10 X 1-1/2 **P/N 43866**	14 X 1/2 **P/N 43872**	 T10 SECURITY INSERT BIT **P/N 83092**
 6 X 3/4 **P/N 43851**	8 X 1/2 **P/N 43856**	 10 X 1/2 **P/N 43861**	 12 X 3/4 **P/N 43868**	 14 X 3/4 **P/N 43873**	 T15 SECURITY INSERT BIT **P/N 83093**
 6 X 1 **P/N 43852**	 8 X 3/4 **P/N 43857**	 10 X 3/4 **P/N 43863**	 12 X 1 **P/N 43869**	 14 X 1 **P/N 43874**	T25 SECURITY INSERT BIT **P/N 83095**
 6 X 1-1/2 **P/N 43853**	 8 X 1 **P/N 43858**	 10 X 1 **P/N 43864**	 12 X 1-1/2 **P/N 43871**	 14 X 1-1/2 **P/N 43876**	 T27 SECURITY INSERT BIT **P/N 83096**

A16-17

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

FLAT HEAD TORX® S/S T/R SHEET METAL SCREWS

FEATURES

- *High quality TORX® Stainless Steel Tamper Resistant (T/R) Security Screws*
- *Designed to join thin pieces of metal to wood, fiberglass or metal*
- *For general repair*
- *Sizes 6 to 14*
- *Insert Bits T15 to T30*

P/N 17673

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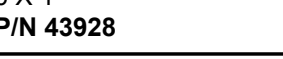
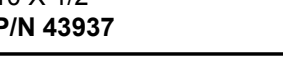
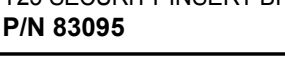
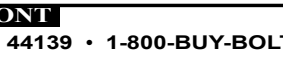
6 X 1/2 **P/N 43925**	8 X 1/2 **P/N 43930**	8 X 1-1/2 **P/N 43935**	10 X 1 **P/N 43939**	14 X 3/4 **P/N 43943**	T15 SECURITY INSERT BIT **P/N 83093**
6 X 3/4 **P/N 43927**	8 X 3/4 **P/N 43932**	8 X 2 **P/N 43936**	10 X 1-1/4 **P/N 43940**	14 X 1 **P/N 43944**	T20 SECURITY INSERT BIT **P/N 83094**
 6 X 1 **P/N 43928**	8 X 1 **P/N 43933**	 10 X 1/2 **P/N 43937**	10 X 1-1/2 **P/N 43941**	14 X 1-1/4 **P/N 43945**	 T25 SECURITY INSERT BIT **P/N 83095**
6 X 1-1/2 **P/N 43929**	8 X 1-1/4 **P/N 43934**	10 X 3/4 **P/N 43938**	 14 X 5/8 **P/N 43942**	14 X 1-1/2 **P/N 43946**	T30 SECURITY INSERT BIT **P/N 83097**

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

PAN HEAD TORX® 410 S/S T/R SELF DRILLING SCREWS

FEATURES

- *High quality TORX® Stainless Steel Tamper Resistant (T/R) Security Screws*
- *Eliminates separate drilling and tapping operations*
- *Provides sharp, clean and consistent drill point, excellent thread engagement and holding power*
- *Sizes 8-18 and 10-16*
- *Insert Bits T20 and T25*

P/N 17674

8 82503 12243 0

92

8 82503 12230 0 8-18 X 1/2 **P/N 43950**	8 82503 12234 8 10-16 X 1/2 **P/N 43954**	8 82503 12238 6 10-16 X 1-1/2 **P/N 43958**	 8 82503 83094 6 T20 SECURITY INSERT BIT **P/N 83094**
8 82503 12231 7 8-18 X 3/4 **P/N 43951**	8 82503 12235 5 10-16 X 3/4 **P/N 43955**	EXPANSION	 8 82503 83095 3 T25 SECURITY INSERT BIT **P/N 83095**
8 82503 12232 4 8-18 X 1 **P/N 43952**	8 82503 12236 2 10-16 X 1 **P/N 43956**	EXPANSION	EXPANSION
8 82503 12233 1 8-18 X 1-1/4 **P/N 43953**	8 82503 12237 9 10-16 X 1-1/4 **P/N 43957**	EXPANSION	EXPANSION

A16-19

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

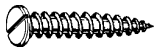
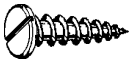
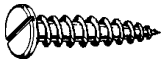
CIC 200™ BINDING HEAD SHEET METAL SCREW ASSORTMENT

P/N 7712

FEATURES:

- *Deep, twist resistant slot and an extra sharp leader point assures quick, positive driving*
- *Case hardened for strength*

1400

6 x 3/8 **P/N 109**	6 x 1 **P/N 114**	8 x 1 **P/N 131**	 10 x 1 **P/N 142**	12 x 1 **P/N 153**	 14 x 3/4 **P/N 162**
6 x 1/2 **P/N 110**	8 x 1/2 **P/N 127**	10 x 1/2 **P/N 138**	10 x 1-1/4 **P/N 143**	12 x 1-1/4 **P/N 154**	 14 x 1 **P/N 164**
6 x 5/8 **P/N 111**	8 x 5/8 **P/N 128**	10 x 5/8 **P/N 139**	12 x 5/8 **P/N 150**	12 x 1-1/2 **P/N 155**	14 x 1-1/4 **P/N 165**
6 x 3/4 **P/N 112**	8 x 3/4 **P/N 129**	10 x 3/4 **P/N 140**	12 x 3/4 **P/N 151**	14 x 5/8 **P/N 161**	14 x 1-1/2 **P/N 166**

A171-1

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

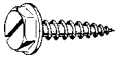
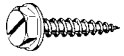
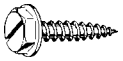
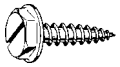
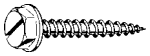
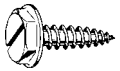
CIC 200™ HEX WASHER SLOTTED METAL SCREW ASSORTMENT

P/N 7714

FEATURES:

- *Hex washer head and case hardened strength offer superior clamping force and durability*
- *Combines power of hex driver with convenience of using a slotted screwdriver*

1210

6 x 3/8 **P/N 855**	6 x 1 **P/N 859**	8 x 1 **P/N 863**	10 x 1 **P/N 869**	12 x 1 **P/N 876**	14 x 3/4 **P/N 881**
6 x 1/2 **P/N 856**	8 x 1/2 **P/N 860**	 10 x 1/2 **P/N 866**	10 x 1-1/4 **P/N 870**	12 x 1-1/4 **P/N 877**	14 x 1 **P/N 883**
6 x 5/8 **P/N 857**	 8 x 5/8 **P/N 861**	 10 x 5/8 **P/N 867**	 12 x 1/2 **P/N 872**	12 x 1-1/2 **P/N 878**	14 x 1-1/4 **P/N 884**
6 x 3/4 **P/N 858**	 8 x 3/4 **P/N 862**	10 x 3/4 **P/N 868**	12 x 3/4 **P/N 874**	 14 x 1/2 **P/N 879**	14 x 1-1/2 **P/N 885**

A17-3

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

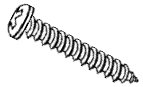
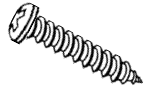
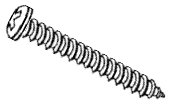
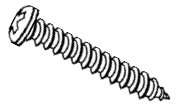
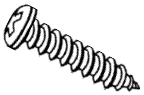
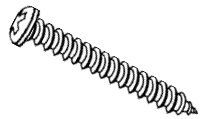
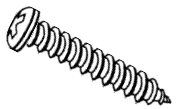
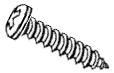
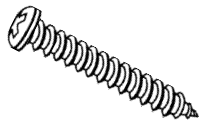
CIC 200™ PHILLIPS BINDING HEAD SHEET METAL SCREW ASSORTMENT

P/N 7767

FEATURES:

- *Deep phillips drive and extra sharp leader point provides for quick, easy driving*
- *Case hardened for extra strength*

1000

6 x 3/8 **P/N 1506**	6 x 1 **P/N 1511**	8 x 1 **P/N 1520**	 10 x 1 **P/N 1530**	 12 x 1 **P/N 1539**	14 x 3/4 **P/N 1546**
6 x 1/2 **P/N 1507**	8 x 1/2 **P/N 1516**	10 x 1/2 **P/N 1526**	 10 x 1-1/4 **P/N 1531**	 12 x 1-1/4 **P/N 1540**	 14 x 1 **P/N 1548**
6 x 5/8 **P/N 1508**	8 x 5/8 **P/N 1517**	10 x 5/8 **P/N 1527**	12 x 5/8 **P/N 1536**	 12 x 1-1/2 **P/N 1541**	 14 x 1-1/4 **P/N 1549**
6 x 3/4 **P/N 1509**	8 x 3/4 **P/N 1518**	 10 x 3/4 **P/N 1528**	12 x 3/4 **P/N 1537**	14 x 5/8 **P/N 1545**	 14 x 1-1/2 **P/N 1550**

A17-4

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAIN PARKWAY, SOLON, OH 44139 • 800-BUY-BOLT • FAX: 888-233-3377 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

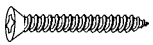
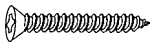
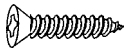
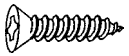
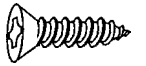
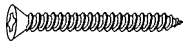
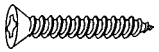
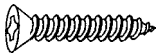
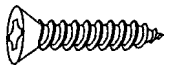
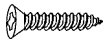
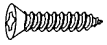
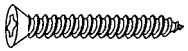
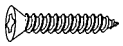
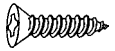
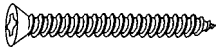
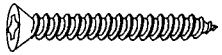
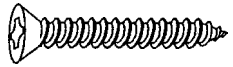
CIC 200™ PHILLIPS FLAT HEAD SHEET METAL SCREW ASSORTMENT

P/N 7766

FEATURES:

- *Attaches drywall, insulation board, wood etc. to 14-20 gauge metal studs*
- *Unique head design minimizes paper burns*
- *Drill point for fast, easy driving*
- *Case hardened for extra strength*

1440

6 x 3/8 **P/N 1606**	 6 x 1 **P/N 1611**	 8 x 1 **P/N 1620**	 10 x 3/4 **P/N 1628**	 12 x 3/4 **P/N 1637**	 14 x 3/4 **P/N 1646**
6 x 1/2 **P/N 1607**	8 x 1/2 **P/N 1616**	 8 x 1-1/4 **P/N 1621**	 10 x 1 **P/N 1630**	 12 x 1 **P/N 1639**	 14 x 1 **P/N 1648**
 6 x 5/8 **P/N 1608**	 8 x 5/8 **P/N 1617**	10 x 1/2 **P/N 1626**	 10 x 1-1/4 **P/N 1631**	12 x 1-1/4 **P/N 1640**	14 x 1-1/4 **P/N 1649**
6 x 3/4 **P/N 1609**	 8 x 3/4 **P/N 1618**	 10 x 5/8 **P/N 1627**	 10 x 1-1/2 **P/N 1632**	 12 x 1-1/2 **P/N 1641**	 14 x 1-1/2 **P/N 1650**

A17-5

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ PHILLIPS OVAL HEAD METAL SCREW ASSORTMENT P/N 7765

FEATURES:

- *Case hardened for extra strength*
- *Super sharp leader point assures fast drive while deep threads provide strong grip*

1505

6 x 1/2 **P/N 1406**	6 x 1-1/4 **P/N 1411**	8 x 3/4 **P/N 1416**	8 x 2 **P/N 1422**	10 x 1-1/2 **P/N 1430**	12 x 1-1/4 **P/N 1438**
6 x 5/8 **P/N 1407**	6 x 1-1/2 **P/N 1412**	8 x 1 **P/N 1418**	10 x 3/4 **P/N 1426**	10 x 2 **P/N 1432**	12 x 1-1/2 **P/N 1439**
6 x 3/4 **P/N 1408**	8 x 1/2 **P/N 1414**	8 x 1-1/4 **P/N 1419**	10 x 1 **P/N 1428**	12 x 3/4 **P/N 1435**	12 x 1-3/4 **P/N 1440**
6 x 1 **P/N 1410**	8 x 5/8 **P/N 1415**	8 x 1-1/2 **P/N 1420**	10 x 1-1/4 **P/N 1429**	12 x 1 **P/N 1437**	12 x 2 **P/N 1441**

A17-6

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

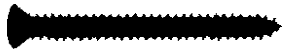
CIC 200™ BLACK PHOSPHATE METAL SCREWS - PHILLIPS OVAL HEAD AND BINDING HEAD WITH 1/2" TRIM WASHER

P/N 7775

FEATURES:

- *Phillips design provides for fast, sure driving*
- *Case hardened for extra strength*
- *Binding head with washer is ideal for upholstery and trim*

1310

 OVAL HEAD 6 x 5/8 **P/N 9650**	 OVAL HEAD 8 x 1/2 **P/N 9658**	 OVAL HEAD 8 x 1-1/2 **P/N 9666**	 OVAL HEAD 10 x 1-1/2 **P/N 9674**	 BINDING WASHER 8 x 1/2 **P/N 9680**	 BINDING WASHER 10 x 3/4 **P/N 9688**
 OVAL HEAD 6 x 3/4 **P/N 9652**	 OVAL HEAD 8 x 3/4 **P/N 9660**	 OVAL HEAD 8 x 1-3/4 **P/N 9668**	 OVAL HEAD 10 x 2 **P/N 9676**	 BINDING WASHER 8 x 3/4 **P/N 9682**	 BINDING WASHER 10 x 1 **P/N 9690**
 OVAL HEAD 6 x 1 **P/N 9654**	 OVAL HEAD 8 x 1 **P/N 9662**	 OVAL HEAD 10 x 3/4 **P/N 9670**		 BINDING WASHER 8 x 1 **P/N 9684**	 BINDING WASHER 10 x 1-1/4 **P/N 9692**
 OVAL HEAD 6 x 1-1/4 **P/N 9656**	 OVAL HEAD 8 x 1-1/4 **P/N 9664**	 OVAL HEAD 10 x 1 **P/N 9672**		 BINDING WASHER 8 x 1-1/4 **P/N 9686**	 BINDING WASHER 10 x 1-1/2 **P/N 9694**

A17-8

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

SQUARE DRIVE

CIC 200™ SUR-DRIVE PAN HEAD TYPE "A" SHEET METAL SCREW ASSORTMENT **P/N 17708**

FEATURES:

- *Hardened steel and deep square recess sockets make CIC 200 SUR-DRIVE screws ideal for power driving while the special lubricant makes hand driving easy*
- *Square drive pan head*
- *Corrosion resistant plating*
- *The unique square recess also provides for security as square drive bits are not as common as typical phillips or slotted drivers*

1106

 6 x 1 **P/N 7082**	 8 x 1 **P/N 7088**	 8 x 2 **P/N 7091**	 10 x 1-1/4 **P/N 7096**	 12 x 3/4 **P/N 7103**	 12 x 1-1/2 **P/N 7106**
 6 x 3/4 **P/N 7081**	 8 x 3/4 **P/N 7087**	 8 x 1-1/2 **P/N 7090**	 10 x 1 **P/N 7095**	 12 x 1/2 **P/N 7102**	
 6 x 1/2 **P/N 7080**	 8 x 1/2 **P/N 7086**	 8 x 1-1/4 **P/N 7089**	 10 x 3/4 **P/N 7094**	 10 x 2 **P/N 7099**	 12 x 1 **P/N 7104**
 #6 1/4 DRIVER **P/N 7069**		 #8 & 10 1/4 DRIVER **P/N 7070**	 10 x 1/2 **P/N 7093**	 10 x 1-1/2 **P/N 7098**	 #12 & 14 1/4 DRIVER **P/N 7071**

A17-9

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

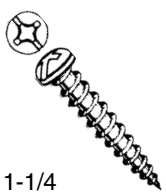
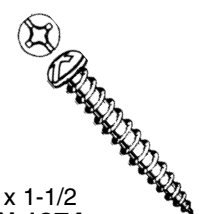
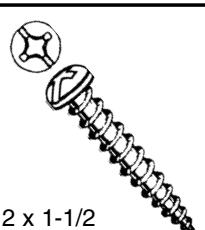
CIC 200™ COMBINATION SLOTTED/PHILLIPS METAL SCREW ASSORTMENT

P/N 17748

FEATURES:

- *The unique head design of these binding head metal screws allows for solid, non-slip driving with either a slotted or phillips driver*
- *Extra sharp type "A" leader point for faster, easier starting*
- *Precision recess assures solid, non-slip grip*
- *Corrosion resistant plating for long life*
- *Case hardened for extra strength*
- *Skill articulating screwdriver has project power driver, 4 project positions, durable metal front end, built-in work light and built-in rechargeable battery*

1201

6 x 3/8 **P/N 1243**	8 x 1/2 **P/N 1254**	10 x 3/8 **P/N 1267**	10 x 1 **P/N 1272**	12 x 3/4 **P/N 1281**
6 x 1/2 **P/N 1244**	8 x 5/8 **P/N 1255**	10 x 1/2 **P/N 1268**	 10 x 1-1/4 **P/N 1273**	12 x 1 **P/N 1282**
6 x 1 **P/N 1248**	8 x 3/4 **P/N 1256**	10 x 5/8 **P/N 1269**	 10 x 1-1/2 **P/N 1274**	12 x 1-1/4 **P/N 1283**
8 x 3/8 **P/N 1253**	8 x 1 **P/N 1258**	10 x 3/4 **P/N 1270**	12 x 1/2 **P/N 1279**	 12 x 1-1/2 **P/N 1284**

FREE

SKILL CORDLESS SCREWDRIVER INCLUDED IN ASSORTMENT

SKIL 2.4V ARTICULATING SCREWDRIVER
P/N 8212

A17-10

TRAY FRONT

MMS LEVEL "C"

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Rev. 010407

CHROMATE®
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PHILLIPS FLAT AND MODIFIED TRUSS HEAD SELF-DRILLING METAL SCREW ASSORTMENT

P/N 17877

FEATURES:

- *Drill and tap holes without pre-drilling*
- *Phillips flat and modified truss head designs are case hardened for extra strength*
- *Corrosion resistant coating*

1695

#6 x 1/2 Phillips Flat Head **P/N 84041**	#8 x 1/2 Phillips Flat Head **P/N 84045**	#8 x 1-1/4 Phillips Flat Head **P/N 84049**	#10 x 1" Phillips Flat Head **P/N 84053**	#14 x 1" Phillips Flat Head **P/N 84057**	#8 x 3/4 Modified Truss Head **P/N 84036**
#6 x 5/8 Phillips Flat Head **P/N 84042**	#8 x 5/8 Phillips Flat Head **P/N 84046**	#10 x 1/2 Phillips Flat Head **P/N 84050**	#10 x 1-1/4 Phillips Flat Head **P/N 84054**	#14 x 1-1/4 Phillips Flat Head **P/N 84058**	#8 x 1" Modified Truss Head **P/N 84037**
#6 x 3/4 Phillips Flat Head **P/N 84043**	#8 x 3/4 Phillips Flat Head **P/N 84047**	#10 x 5/8 Phillips Flat Head **P/N 84051**	#10 x 1-1/2 Phillips Flat Head **P/N 84055**	#14 x 1-1/2 Phillips Flat Head **P/N 84059**	#8 x 1-1/4 Modified Truss Head **P/N 84038**
#8 x 3/8 Phillips Flat Head **P/N 84044**	#8 x 1" Phillips Flat Head **P/N 84048**	#10 x 3/4 Phillips Flat Head **P/N 84052**	#14 x 3/4 Phillips Flat Head **P/N 84056**	#8 x 1/2 Modified Truss Head **P/N 84035**	#8 x 1-5/8 Modified Truss Head **P/N 84039**

A17-11

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

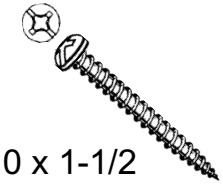
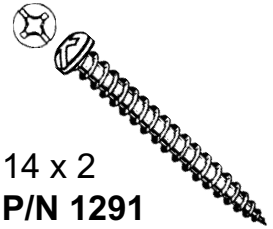
COMBINATION SLOTTED/PHILLIPS METAL SCREWS ASSORTMENT

P/N 17892

FEATURES:

- *The unique head design of these binding head metal screws allows for solid, non-slip driving with either a slotted or Phillips driver*
- *Extra sharp type "A" leader point for faster, easier starting*
- *Corrosion resistant plating for long life*
- *Case hardened for extra strength*

1135

6 x 3/8 **P/N 1243**	8 x 1/2 **P/N 1254**	10 x 3/8 **P/N 1267**	10 x 1 **P/N 1272**	12 x 3/4 **P/N 1281**	14 x 3/4 **P/N 1288**
6 x 1/2 **P/N 1244**	8 x 5/8 **P/N 1255**	10 x 1/2 **P/N 1268**	10 x 1-1/4 **P/N 1273**	12 x 1 **P/N 1282**	14 x 1 **P/N 1289**
6 x 1 **P/N 1248**	8 x 3/4 **P/N 1256**	10 x 5/8 **P/N 1269**	 10 x 1-1/2 **P/N 1274**	12 x 1-1/4 **P/N 1283**	14 x 1-1/2 **P/N 1290**
8 x 3/8 **P/N 1253**	8 x 1 **P/N 1258**	10 x 3/4 **P/N 1270**	12 x 1/2 **P/N 1279**	12 x 1-1/2 **P/N 1284**	 14 x 2 **P/N 1291**

A17-12

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

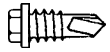
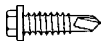
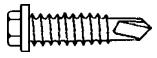
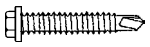
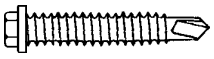
CIC 200™ SUR-GRIP HEX WASHER DRILL AND TAP SCREW ASSORTMENT

P/N 7772

FEATURES:

- *Specially designed to drill, tap and securely fasten work material in one easy, economical operation*
- *Recessed, serrated washer face resists vibration loosening*
- *Eliminates expensive tapping costs*
- *Zinc plated and waxed*
- *Specially designed to thread their own hole through strong, sharp threads with a minimum amount of torque*
- *Saves assembly steps, labor, equipment, tools, replacement cost*

500

8-18 x 1/2” **P/N 22630**	10-16 x 1/2” **P/N 22644**	12-14 x 5/8 **P/N 22654**	 1/4-14 x 5/8” **P/N 22664**
8-18 x 5/8” **P/N 22632**	 10-16 x 5/8 **P/N 22646**	12-14 x 3/4” **P/N 22656**	1/4-14 x 3/4” **P/N 22666**
8-18 x 3/4” **P/N 22636**	10-16 x 3/4 **P/N 22648**	12-14 x 1” **P/N 22658**	 1/4-14 x 1” **P/N 22668**
 8-18 x 1” **P/N 22638**	10-16 x 1” **P/N 22650**	12-14 x 1-1/2” **P/N 22660**	 1/4-14 x 1-1/2” **P/N 22670**

A17-13

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

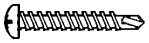
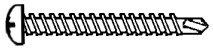
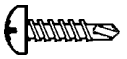
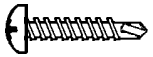
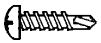
PHILLIPS PAN HEAD SELF DRILLING METAL SCREW ASSORTMENT

P/N 7709

FEATURES:

- *Drill and tap holes without pre-drilling*
- *Screws are case hardened for extra strength*
- *Corrosion resistant coating*

1510

#6 x 3/8 **P/N 84000**	 #6 x 1 **P/N 84005**	 #8 x 1-1/2 **P/N 84015**	 #10 x 3/4 **P/N 84019**
#6 x 1/2 **P/N 84001**	#8 x 1/2 **P/N 84009**	#10 x 1/2 **P/N 84017**	 #10 x 1 **P/N 84021**
 #6 x 5/8 **P/N 84002**	#8 x 3/4 **P/N 84011**	#10 x 5/8 **P/N 84018**	#10 x 1-1/4 **P/N 84022**
#6 x 3/4 **P/N 84003**	#8 x 1 **P/N 84013**		

A17-12

TRAY FRONT

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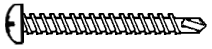
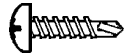
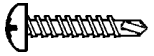
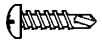
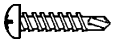
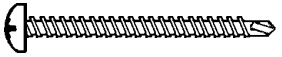
PHILLIPS PAN HEAD SELF DRILLING METAL SCREW ASSORTMENT

P/N 17858

FEATURES:

- *Drill and tap holes without pre-drilling*
- *Screws are case hardened for extra strength*
- *Corrosion resistant coating*

1520

#6 x 3/8 **P/N 84000**	#6 x 1 **P/N 84005**	 #8 x 1-1/2 **P/N 84015**	 #10 x 3/4 **P/N 84019**
#6 x 1/2 **P/N 84001**	#8 x 1/2 **P/N 84009**	#8 x 2 **P/N 84016**	 #10 x 1 **P/N 84021**
 #6 x 5/8 **P/N 84002**	#8 x 3/4 **P/N 84011**	#10 x 1/2 **P/N 84017**	#10 x 1-1/4 **P/N 84022**
 #6 x 3/4 **P/N 84003**	#8 x 1 **P/N 84013**	#10 x 5/8 **P/N 84018**	 #10 x 2 **P/N 84024**

A17-12

TRAY FRONT

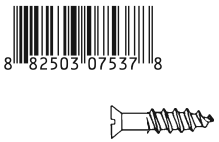
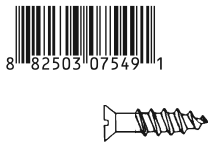
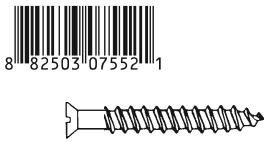
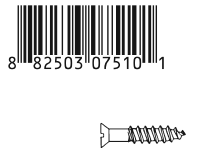
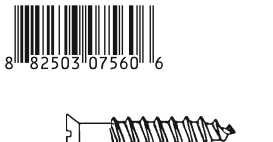
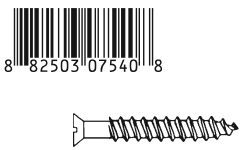
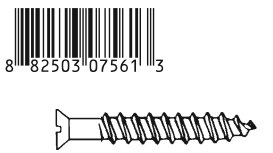
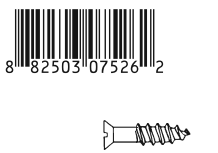
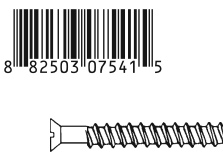
SLOTTED FLAT HEAD WOOD SCREWS

FEATURES:

- *Self-centering and easy driving*
- *Special chromate plating for superior corrosion resistance*
- *Designed for fast, easy installation to save time, money and labor*

P/N 7717

1325

6 x 1/2 **P/N 7509**	7 x 3/4 **P/N 7519**	8 x 3/4 **P/N 7527**	 10 x 3/4 **P/N 7537**	 12 x 3/4 **P/N 7549**	 12 x 1-1/2 **P/N 7552**
 6 x 5/8 **P/N 7510**	7 x 1 **P/N 7520**	8 x 1 **P/N 7529**	10 x 1 **P/N 7539**	12 x 1 **P/N 7550**	 14 x 1-1/4 **P/N 7560**
6 x 3/4 **P/N 7511**	7 x 1-1/4 **P/N 7521**	8 x 1-1/4 **P/N 7530**	 10 x 1-1/4 **P/N 7540**	12 x 1-1/4 **P/N 7551**	 14 x 1-1/2 **P/N 7561**
6 x 1 **P/N 7512**	 8 x 5/8 **P/N 7526**	10 x 1/2 **P/N 7575**	 10 x 1-1/2 **P/N 7541**	14 x 1 **P/N 7559**	14 x 2 **P/N 7563**

A18-1

TRAY FRONT

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050113

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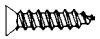
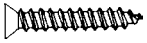
CIC 200™ SUR-FAST FLAT HEAD PHILLIPS WOOD SCREW ASSORTMENT

P/N 7782

FEATURES:

- *Dual thread and self-centering design provides super fast starting and driving*
- *Hardened high strength steel, chromate plated and waxed for durability and easy driving*

1390

6 x 1/2 **P/N 7204**	 7 x 5/8 **P/N 7209**	8 x 3/4 **P/N 7218**	9 x 3/4 **P/N 7226**	10 x 3/4 **P/N 7237**	8 x 2 **P/N 7223**
6 x 5/8 **P/N 7205**	7 x 3/4 **P/N 7210**	 8 x 1 **P/N 7219**	9 x 1 **P/N 7227**	10 x 1 **P/N 7238**	9 x 2 **P/N 7231**
6 x 3/4 **P/N 7206**	7 x 1 **P/N 7211**	8 x 1-1/4 **P/N 7220**	9 x 1-1/4 **P/N 7228**	10 x 1-1/4 **P/N 7239**	10 x 2 **P/N 7242**
6 x 1 **P/N 7207**	7 x 1-1/4 **P/N 7212**	8 x 1-1/2 **P/N 7221**	9 x 1-1/2 **P/N 7229**	10 x 1-1/2 **P/N 7240**	10 x 2-1/2 **P/N 7243**

A18-2

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ SUR-DRIVE™ FLATHEAD WOOD SCREW ASSORTMENT

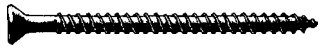
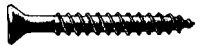
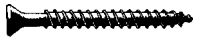
P/N 17705

SQUARE DRIVE

FEATURES:

- *Hardened steel and deep square recess sockets make CIC 200 Sur-Drive screws ideal for power driving*
- *The unique square recess also provides for security as square drive bits are not as common as typical phillips or slotted drivers*
- *Special dual threads for less separation of boards*

1304

6 x 1-1/4 **P/N 7123**	8 x 1 **P/N 7132**	 8 x 2-1/2 **P/N 7136**	 10 x 1-1/2 **P/N 7143**		10 x 3-1/2 **P/N 7147**
6 x 1 **P/N 7122**	8 x 3/4 **P/N 7131**	8 x 2 **P/N 7135**	10 x 1-1/4 **P/N 7142**	1/4 DRIVER #8 AND 10 **P/N 7070**	10 x 3 **P/N 7146**
6 x 3/4 **P/N 7121**	8 x 1/2 **P/N 7130**	8 x 1-1/2 **P/N 7134**	10 x 1 **P/N 7141**	1/4 DRIVER #6 **P/N 7069**	10 x 2-1/2 **P/N 7145**
6 x 1/2 **P/N 7120**	 6 x 1-1/2 **P/N 7124**	8 x 1-1/4 **P/N 7133**	10 x 3/4 **P/N 7140**	10 x 2 **P/N 7144**	8 x 3 **P/N 7137**

A18-3

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

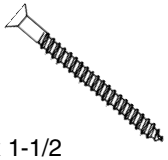
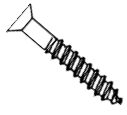
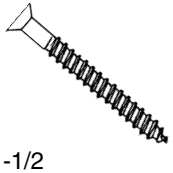
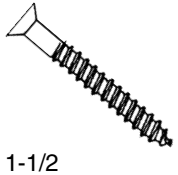
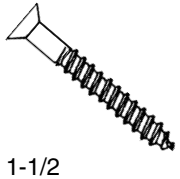
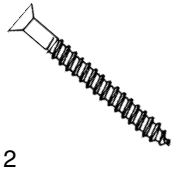
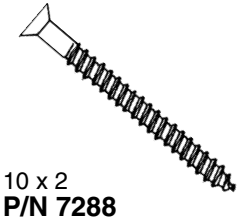
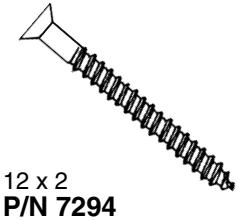
CIC 200™ BRASS PHILLIPS FLAT HEAD WOOD SCREW ASSORTMENT

P/N 17746

FEATURES:

- *Solid brass alloy wood screws provides the ultimate in factory fit and finish in all wood applications*
- *Precision phillips drive assures solid grip with screwdriver*
- *Extra sharp leader point for faster, easier starting*
- *Solid brass construction eliminates corrosion*
- *Skill articulating screwdriver has project power driver, 4 project positions, durable metal front end, built-in work light and built-in rechargeable battery*

1000

6 x 1 **P/N 7269**	8 x 3/4 **P/N 7274**	10 x 3/4 **P/N 7283**	12 x 3/4 **P/N 7289**	EXPANSION	**FREE** *SKILL CORDLESS SCREWDRIVER INCLUDED IN ASSORTMENT* SKIL 2.4V ARTICULATING SCREWDRIVER **P/N 8212**
 6 x 1-1/2 **P/N 7271**	 8 x 1 **P/N 7276**	10 x 1 **P/N 7284**	12 x 1 **P/N 7290**	EXPANSION	
EXPANSION	 8 x 1-1/2 **P/N 7278**	 10 x 1-1/2 **P/N 7286**	 12 x 1-1/2 **P/N 7292**	EXPANSION	
8 x 1/2 **P/N 7272**	 8 x 2 **P/N 7280**	 10 x 2 **P/N 7288**	 12 x 2 **P/N 7294**	EXPANSION	

A18-4

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

SQUARE DRIVE

CIC 200™ SUR-DRIVE™ DECK SCREW ASSORTMENT

P/N 17762

FEATURES:

- *Square drive flat head for faster, positive drive without slippage*
- *Designed for cabinet work, counters, furniture, paneling, subfloors, fences, decks and docks*
- *Fast spiral threads - for super fast driving without splitting wood*
- *Superior coating – prevents rust, corrosion and stains that discolor wood*
- *Withstands the caustic elements of weather, saltwater, acid rain, chemicals and sunlight*

604

8 x 2 SUR-DRIVE DECK SCREW
P/N 7150

8 x 2-3/4 SUR-DRIVE DECK SCREW
P/N 7152

8 x 2-1/2 SUR-DRIVE DECK SCREW
P/N 7151

8 x 3 SUR-DRIVE DECK SCREW
P/N 7153

10 x 3-1/2 SUR-DRIVE DECK SCREW
P/N 7154

10 x 4 SUR-DRIVE DECK SCREW
P/N 7155

#2 x 2 SUR-DRIVE POWER BIT
P/N 7070

#2 x 3 SUR-DRIVE POWER BIT
P/N 7073

A18-5

TRAY FRONT

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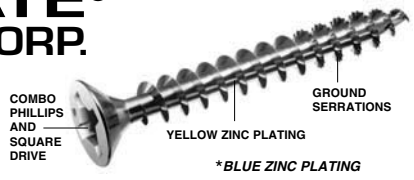
CHROMATE® INDUSTRIAL CORP.

MAD-MAX SCREW ASSORTMENT



FEATURES:

P/N 17876

- *Ground serrations create a thread even in brittle masonry materials such as concrete block, brick, adobe and stucco*
- *Accommodates both phillips and square drives*
- *No pre-drilling – assures faster assembly time*
- *No anchor required*
- *Greater holding power*
- *Yellow zinc plating for smooth and easy screw penetration and reduced corrosion*

570

#6 x 1/2 **P/N 7160**	#6 x 5/8 **P/N 7161**	#6 x 1” **P/N 7162**	#6 x 1-1/2 **P/N 7164***	#6 x 2” **P/N 7165***	#10 x 2-1/2 **P/N 7177**
#8 x 3/4 **P/N 7166**	#8 x 1” **P/N 7167**	#8 x 1-1/2 **P/N 7169**	#8 x 2” **P/N 7170**	#8 x 2-1/2 **P/N 7171**	#10 x 3” **P/N 7178**
#10 x 3/4 **P/N 7172***	#10 x 1” **P/N 7173***	#10 x 1-1/4 **P/N 7174**	#10 x 1-1/2 **P/N 7175***	#10 x 2” **P/N 7176**	#14 x 3” **P/N 7184**
#14 x 1” **P/N 7179***	#14 x 1-1/4 **P/N 7180**	#14 x 1-1/2 **P/N 7181***	#14 x 2” **P/N 7182***	#14 x 2-1/2 **P/N 7183***	#14 x 3-1/2 **P/N 7185***

A18-6

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

LAG SCREW ASSORTMENT

P/N 17912

350

 Hex Head Lag Screw 1/4" x 1" **P/N 1460**	 Hex Head Lag Screw 1/4" x 1-1/2" **P/N 1462**	 Hex Head Lag Screw 1/4" x 2" **P/N 1463**	 Hex Head Lag Screw 1/4" x 3" **P/N 1465**
 Hex Head Lag Screw 5/16" x 1-1/2" **P/N 1470**	 Hex Head Lag Screw 5/16" x 2" **P/N 1472**	 Hex Head Lag Screw 5/16" x 3" **P/N 1474**	 Hex Head Lag Screw 5/16" x 4" **P/N 1476**
 Hex Head Lag Screw 3/8" x 1-1/2" **P/N 1479**	 Hex Head Lag Screw 3/8" x 2" **P/N 1480**	 Hex Head Lag Screw 3/8" x 3" **P/N 1482**	 Hex Head Lag Screw 3/8" x 4" **P/N 1484**
 Lag Screw Expansion Shield 1/4" x 1-1/2" **P/N 640**	 Lag Screw Expansion Shield 5/16" x 1-3/4" **P/N 641**	 Lag Screw Expansion Shield 3/8" x 2-1/2" **P/N 642**	EXPANSION

A18-7

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

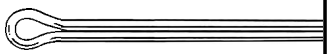
CHROMATE COTTER PIN ASSORTMENT

P/N 7719

FEATURES:

- *Easy to Insert, Lock, Remove and Reuse*
- *Precision made and Protected with Special Chromate Plating*

1175

1/16 x 1/2 **P/N 915**	3/32 x 1 **P/N 922**	7/64 x 1-1/2 **P/N 91927**	1/8 x 2-1/2 **P/N 933**	5/32 x 2-1/2 **P/N 939**	 3/16 x 3 **P/N 945**
1/16 x 1 **P/N 917**	3/32 x 1-1/2 **P/N 924**	1/8 x 1 **P/N 928**	5/32 x 1 **P/N 935**	3/16 x 1-1/2 **P/N 942**	5/32 x 3 **P/N 940**
1/16 x 1-1/2 **P/N 919**	3/32 x 2 **P/N 926**	1/8 x 1-1/2 **P/N 930**	5/32 x 1-1/2 **P/N 936**	3/16 x 2 **P/N 943**	1/4 x 2 **P/N 949**
3/32 x 1/2 **P/N 920**	7/64 x 1 **P/N 91926**	1/8 x 2 **P/N 932**	5/32 x 2 **P/N 938**	1/4 x 1-1/2 **P/N 948**	1/4 x 3 **P/N 951**

A19-1

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ SPRING PIN ASSORTMENT

P/N 7720

FEATURES:

- *Lightweight, high strength and reusable*
- *Precision made from carbon spring steel and chromate plated*
- *Triple heat treated*

665

1/16 x 1/4 **P/N 46800**	5/64 x 1/2 **P/N 46816**	3/32 x 1 **P/N 46832**	5/32 x 1/2 **P/N 46848**	3/16 x 1 **P/N 46866**	3/16 x 2 **P/N 46874**
1/16 x 1/2 **P/N 46804**	5/64 x 3/4 **P/N 46822**	1/8 x 3/8 **P/N 46834**	5/32 x 1 **P/N 46852**	7/32 x 3/4 **P/N 46876**	7/32 x 2 **P/N 46886**
1/16 x 3/4 **P/N 46808**	3/32 x 1/4 **P/N 46826**	1/8 x 1 **P/N 46840**	5/32 x 1-1/2 **P/N 46856**	7/32 x 1-1/2 **P/N 46882**	1/4 x 2 **P/N 46898**
5/64 x 1/4 **P/N 46812**	3/32 x 3/4 **P/N 46830**	1/8 x 1-1/2 **P/N 46844**	3/16 x 5/8 **P/N 46862**	1/4 x 1 **P/N 46890**	1/4 x 3 **P/N 46902**

A19-2

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

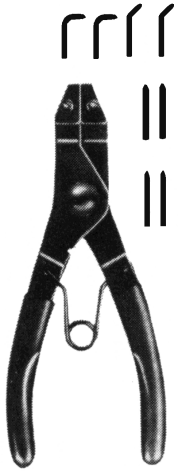
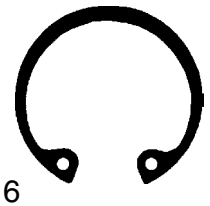
INTERNAL SNAP RING ASSORTMENT WITH PLIERS

P/N 7721

FEATURES:

- *Precision made from high strength carbon spring steel*
- *Chromate plated*
- *Triple heat treated*

321

1/4 **P/N 47000**	5/16 **P/N 47001**	3/8 **P/N 47002**	7/16 **P/N 47003**	1/2 **P/N 47004**	 PLIERS **P/N 47089**
9/16 **P/N 47005**	5/8 **P/N 47006**	11/16 **P/N 47007**	3/4 **P/N 47008**	13/16 **P/N 47009**	
7/8 **P/N 47010**	15/16 **P/N 47011**	1” **P/N 47012**	1.023 **P/N 47013**	1-1/16 **P/N 47014**	
1-1/8 **P/N 47015**	1-3/16 **P/N 47016**	1-1/4 **P/N 47017**	 1-5/16 **P/N 47018**	1-3/8 **P/N 47019**	

A19-3

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

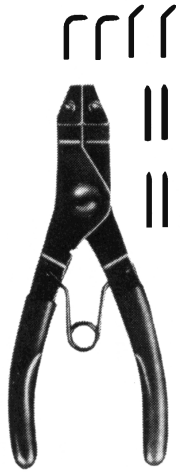
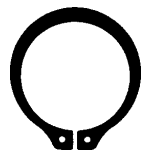
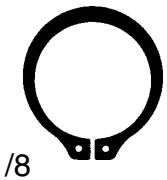
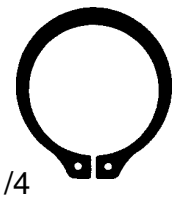
EXTERNAL SNAP RING ASSORTMENT WITH PLIERS

P/N 7722

FEATURES:

- *Precision made from high strength carbon spring steel*
- *Chromate plated*
- *Triple heat treated*

350

1/4 **P/N 47027**	5/16 **P/N 47028**	3/8 **P/N 47029**	7/16 **P/N 47030**	1/2 **P/N 47031**	 PLIERS **P/N 47088**
9/16 **P/N 47032**	5/8 **P/N 47033**	11/16 **P/N 47034**	3/4 **P/N 47035**	25/32 **P/N 47036**	
13/16 **P/N 47037**	7/8 **P/N 47038**	15/16 **P/N 47039**	1” **P/N 47040**	 1.023 **P/N 47041**	
1-1/16 **P/N 47042**	 1-1/8 **P/N 47043**	1-3/16 **P/N 47044**	 1-1/4 **P/N 47045**	1-5/16 **P/N 47046**	

A19-4

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

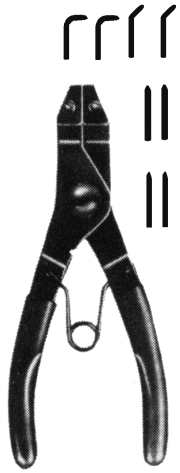
INTERNAL-EXTERNAL SNAP RING ASSORTMENT WITH 2 PLIERS I

P/N 7723

FEATURES:

- *Precision made from high strength carbon spring steel*
- *Chromate plated*
- *Triple heat treated*

427

1/4 **P/N 47000**	5/16 **P/N 47001**	3/8 **P/N 47002**	7/16 **P/N 47003**	1/2 **P/N 47004**	 2 PLIERS **P/N 47088** EXTERNAL **P/N 47089** INTERNAL
9/16 **P/N 47005**	5/8 **P/N 47006**	11/16 **P/N 47007**	3/4 **P/N 47008**	13/16 **P/N 47009**	
1/4 **P/N 47027**	5/16 **P/N 47028**	3/8 **P/N 47029**	7/16 **P/N 47030**	1/2 **P/N 47031**	
9/16 **P/N 47032**	5/8 **P/N 47033**	11/16 **P/N 47034**	3/4 **P/N 47035**	25/32 **P/N 47036**	

A19-5

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

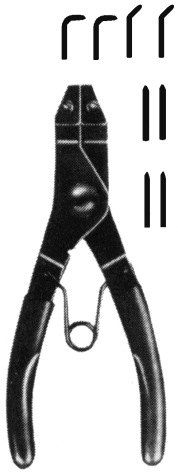
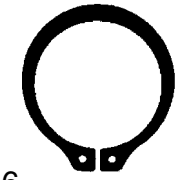
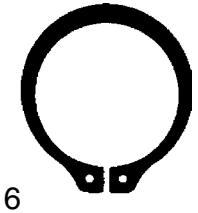
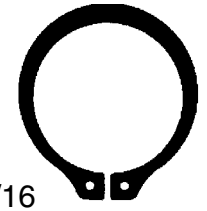
INTERNAL-EXTERNAL SNAP RING ASSORTMENT WITH 2 PLIERS II

P/N 7724

FEATURES:

- *Precision made from high strength carbon spring steel*
- *Chromate plated*
- *Triple heat treated*

247

7/8 **P/N 47010**	15/16 **P/N 47011**	1” **P/N 47012**	1.023 **P/N 47013**	1-1/16 **P/N 47014**	 2 PLIERS **P/N 47088** (EXTERNAL) **P/N 47089** (INTERNAL)
1-1/8 **P/N 47015**	1-3/16 **P/N 47016**	1-1/4 **P/N 47017**	1-5/16 **P/N 47018**	1-3/8 **P/N 47019**	
13/16 **P/N 47037**	7/8 **P/N 47038**	15/16 **P/N 47039**	1” **P/N 47040**	1.023 **P/N 47041**	
 1-1/16 **P/N 47042**	1-1/8 **P/N 47043**	 1-3/16 **P/N 47044**	1-1/4 **P/N 47045**	 1-5/16 **P/N 47046**	

A19-6

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ "E" RING ASSORTMENT

P/N 7725

FEATURES:

- *Precision made from high strength carbon spring steel and chromate plated*
- *Triple heat treated*

590

 SHAFT: 1/16 GROOVE: .052 THICKNESS: .010 OD: .140 **P/N 47052**	 SHAFT: 1/16 GROOVE: .052 THICKNESS: .010 OD: .156 **P/N 47053**	 SHAFT: 3/32 GROOVE: .074 THICKNESS: .015 **P/N 47054**	 SHAFT: 1/8 GROOVE: .095 THICKNESS: .015 **P/N 47055**	 SHAFT: 9/64 GROOVE: .102 THICKNESS: .015 OD: .203 **P/N 47056**	EXPANSION
 SHAFT: 9/64 GROOVE: .105 THICKNESS: .025 OD: .270 **P/N 47057**	 SHAFT: 5/32 GROOVE: .116 THICKNESS: .025 **P/N 47058**	 SHAFT: 11/64 GROOVE: .127 THICKNESS: .025 **P/N 47059**	 SHAFT: 3/16 GROOVE: .147 THICKNESS: .025 OD: .335 **P/N 47060**	 SHAFT: 3/16 GROOVE: .125 THICKNESS: .025 OD: .375 **P/N 47061**	EXPANSION
 SHAFT: 7/32 GROOVE: .188 THICKNESS: .025 **P/N 47062**	 SHAFT: 1/4 GROOVE: .210 THICKNESS: .025 **P/N 47063**	 SHAFT: 5/16 GROOVE: .250 THICKNESS: .025 **P/N 47064**	 SHAFT: 3/8 GROOVE: .303 THICKNESS: .035 **P/N 47065**	 SHAFT: 7/16 GROOVE: .343 THICKNESS: .035 OD: .687 **P/N 47066**	EXPANSION
 SHAFT: 7/16 GROOVE: .380 THICKNESS: .035 OD: .600 **P/N 47067**	 SHAFT: 1/2 GROOVE: .396 THICKNESS: .042 **P/N 47068**	 SHAFT: 5/8 GROOVE: .042 THICKNESS: .485 **P/N 47069**	 SHAFT: .744 GROOVE: .625 THICKNESS: .050 **P/N 47070**	 SHAFT: 3/4 GROOVE: .580 THICKNESS: .050 **P/N 47071**	EXPANSION

A19-7

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

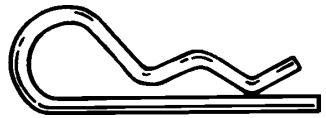
CIC 200™ CLEVIS PIN AND HAIR PIN COTTER ASSORTMENT – 3/16 TO 5/16

P/N 17719

FEATURES:

- *A multi-hole fastener for quick and easy length adjustments*
- *Manufactured with 1010, 1018 and 1022 steel*
- *Cotter pins are reusable, provide quick installation, and are strong and reusable*
- *Accurately formed from quality spring steel and protected with chromate plating*

280

 3/16 x 1-1/2 CLEVIS PIN **P/N 46950**	 3/16 x 2 CLEVIS PIN **P/N 46952**	 1/4 x 1-1/2 CLEVIS PIN **P/N 46953**	 1/4 x 2 CLEVIS PIN **P/N 46955**
 1/4 x 3 CLEVIS PIN **P/N 46957**	 5/16 x 1-1/2 CLEVIS PIN **P/N 46958**	 5/16 x 2 CLEVIS PIN **P/N 46960**	 5/16 x 2 CLEVIS PIN **P/N 46962**
 14ga (.080") x 1-9/16 HAIR PIN COTTER **P/N 47098**	 13ga (.091") x 1-5/8 HAIR PIN COTTER **P/N 47090**	 13ga (.091") x 2-5/16 HAIR PIN COTTER **P/N 47092**	 13ga (.091") x 2-1/2 HAIR PIN COTTER **P/N 47096**

A19-8

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

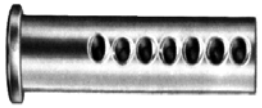
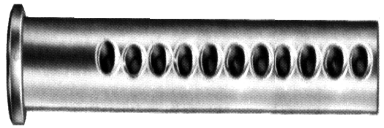
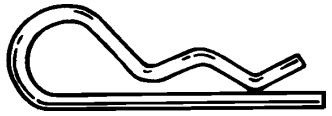
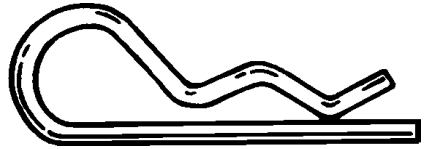
CHROMATE® INDUSTRIAL CORP.

CIC 200™ CLEVIS PIN AND HAIR PIN COTTER ASSORTMENT – 3/8 TO 3/4

P/N 17720

FEATURES:

- *A multi-hole fastener for quick and easy length adjustments*
- *Manufactured with 1010, 1018 and 1022 steel*
- *Cotter pins are reusable, provide quick installation and are strong and reusable*
- *Accurately formed from quality spring steel and protected with chromate plating*

 3/8 x 1-1/2 CLEVIS PIN **P/N 46965**	 7/16 x 2 CLEVIS PIN **P/N 46972**	 1/2 x 2 CLEVIS PIN **P/N 46977**	 5/8 x 2 CLEVIS PIN **P/N 46982**
 3/8 x 2 CLEVIS PIN **P/N 46967**	 7/16 x 3 CLEVIS PIN **P/N 46974**	 1/2 x 3 CLEVIS PIN **P/N 46979**	 3/4 x 3 CLEVIS PIN **P/N 46985**
 3/8 x 3 CLEVIS PIN **P/N 46969**	 11ga (.125") x 1-15/16 HAIR PIN COTTER **P/N 47097**	 11ga (.125") x 2-9/16 HAIR PIN COTTER **P/N 47095**	 9 ga (.148") x 3-5/16 HAIR PIN COTTER **P/N 47094**

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

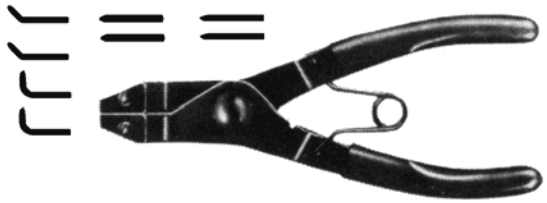
CIC 200™ METRIC EXTERNAL RETAINING RING ASSORTMENT

P/N 17726

FEATURES:

- *High carbon steel*
- *Makes contact with the grooved shaft along its entire periphery, ensuring high thrust load capacity*

225



ADJUSTABLE EXTERNAL RETAINING RING
P/N 47088

SHAFT: 4mm
GROOVE: 3.8mm
THICKNESS: 0.40mm
P/N 47304

SHAFT: 6mm
GROOVE: 5.7mm
THICKNESS: 0.70mm
P/N 47306

SHAFT: 8mm
GROOVE: 7.6mm
THICKNESS: 0.80mm
P/N 47308

SHAFT: 10mm
GROOVE: 9.6mm
THICKNESS: 1.00mm
P/N 47310

SHAFT: 12mm
GROOVE: 11.5mm
THICKNESS: 1.00mm
P/N 47312

SHAFT: 14mm
GROOVE: 13.4mm
THICKNESS: 1.00mm
P/N 47314

SHAFT: 15mm
GROOVE: 14.3mm
THICKNESS: 1.00mm
P/N 47315

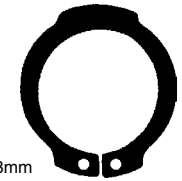
SHAFT: 16mm
GROOVE: 15.2mm
THICKNESS: 1.00mm
P/N 47316

SHAFT: 18mm
GROOVE: 17.0mm
THICKNESS: 1.20mm
P/N 47318

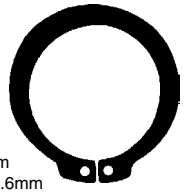
SHAFT: 20mm
GROOVE: 19.0mm
THICKNESS: 1.20mm
P/N 47320

SHAFT: 22mm
GROOVE: 21.0mm
THICKNESS: 1.20mm
P/N 47322

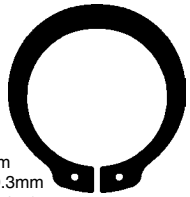
SHAFT: 25mm
GROOVE: 23.9mm
THICKNESS: 1.20mm
P/N 47325



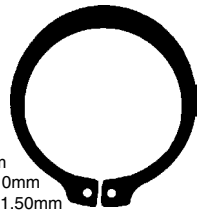
SHAFT: 28mm
GROOVE: 26.6mm
THICKNESS: 1.50mm
P/N 47328



SHAFT: 30mm
GROOVE: 28.6mm
THICKNESS: 1.50mm
P/N 47330



SHAFT: 32mm
GROOVE: 30.3mm
THICKNESS: 1.50mm
P/N 47332



SHAFT: 35mm
GROOVE: 33.0mm
THICKNESS: 1.50mm
P/N 47335

SHAFT: 36mm
GROOVE: 34.0mm
THICKNESS: 1.75mm
P/N 47336

SHAFT: 38mm
GROOVE: 36.0mm
THICKNESS: 1.75mm
P/N 47338

SHAFT: 40mm
GROOVE: 37.5mm
THICKNESS: 1.75mm
P/N 47340

SHAFT: 42mm
GROOVE: 39.5mm
THICKNESS: 1.75mm
P/N 47342

A19-10

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

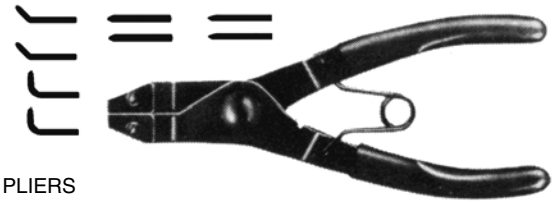
CIC 200™ METRIC INTERNAL RETAINING RINGS ASSORTMENT

P/N 17728

FEATURES:

- *High carbon steel*
- *Makes contact with the grooved housing along most of its periphery, ensuring high thrust load capacity*

251



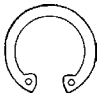
ADJUSTABLE INTERNAL RETAINING RING PLIERS
P/N 47089

HOUSING: 10mm
GROOVE: 10.4mm
THICKNESS: 1.00mm
P/N 47510

HOUSING: 12mm
GROOVE: 12.5mm
THICKNESS: 1.00mm
P/N 47512

HOUSING: 14mm
GROOVE: 14.6mm
THICKNESS: 1.00mm
P/N 47514

HOUSING: 15mm
GROOVE: 15.7mm
THICKNESS: 1.00mm
P/N 47515

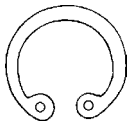


HOUSING:16mm
GROOVE: 16.8mm
THICKNESS: 1.00mm
P/N 47516

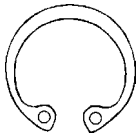
HOUSING: 18mm
GROOVE: 19.0mm
THICKNESS: 1.00mm
P/N 47518

HOUSING: 19mm
GROOVE: 20.0mm
THICKNESS: 1.00mm
P/N 47519

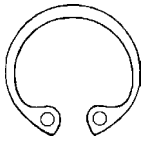
HOUSING: 20mm
GROOVE: 21.0mm
THICKNESS: 1.00mm
P/N 47520



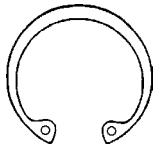
HOUSING: 22mm
GROOVE: 23.0mm
THICKNESS: 1.00mm
P/N 47522



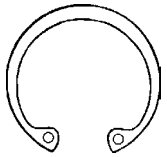
HOUSING: 24mm
GROOVE: 25.2mm
THICKNESS: 1.20mm
P/N 47524



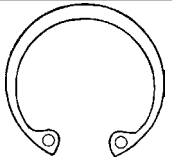
HOUSING: 25mm
GROOVE: 26.2mm
THICKNESS: 1.20mm
P/N 47525



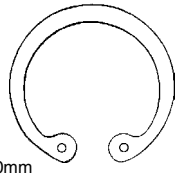
HOUSING: 27mm
GROOVE: 28.4mm
THICKNESS: 1.20mm
P/N 47527



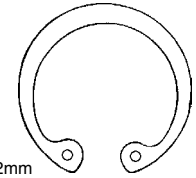
HOUSING: 28mm
GROOVE: 29.4mm
THICKNESS: 1.20mm
P/N 47528



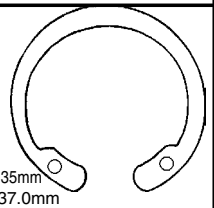
HOUSING: 29mm
GROOVE: 30.4mm
THICKNESS: 1.20mm
P/N 47529



HOUSING: 30mm
GROOVE: 31.4mm
THICKNESS: 1.20mm
P/N 47530

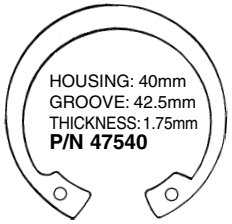


HOUSING: 32mm
GROOVE: 33.7mm
THICKNESS: 1.20mm
P/N 47532



HOUSING: 35mm
GROOVE: 37.0mm
THICKNESS: 1.50mm
P/N 47535

HOUSING: 38mm
GROOVE: 40.0mm
THICKNESS: 1.50mm
P/N 47538



HOUSING: 40mm
GROOVE: 42.5mm
THICKNESS: 1.75mm
P/N 47540

HOUSING: 42mm
GROOVE: 44.5mm
THICKNESS: 1.75mm
P/N 47542

A19-11

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

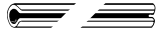
CIC 200™ METRIC SPRING PINS ASSORTMENT

P/N 17731

FEATURES:

- *Lightweight, high strength and reusable*
- *Precision made from carbon spring steel*
- *Triple heat treated*

868

1 x 10mm **P/N 47552**	1 x 16mm **P/N 47554**	1 x 20mm **P/N 47556**	1.5 x 16mm **P/N 47560**	1.5 x 20mm **P/N 47562**	2 x 10mm **P/N 47564**	2 x 16mm **P/N 47567**	2 x 20mm **P/N 47569**
2 x 30mm **P/N 47571**	2.5 x 10mm **P/N 47573**	2.5 x 16mm **P/N 47575**	2.5 x 20mm **P/N 47577**	2.5 x 30mm **P/N 47579**	3 x 10mm **P/N 47581**	3 x 16mm **P/N 47583**	3 x 20mm **P/N 47584**
3 x 30mm **P/N 47587**	3 x 40mm **P/N 47589**	3.5 x 16mm **P/N 47591**	3.5 x 20mm **P/N 47592**	3.5 x 30mm **P/N 47594**	3.5 x 40mm **P/N 47596**	4 x 20mm **P/N 47600**	4 x 30mm **P/N 47602**
4 x 40mm **P/N 47604**	4.5 x 20mm **P/N 47608**	4.5 x 30mm **P/N 47610**	4.5 x 40mm **P/N 47612**	5 x 20mm **P/N 47615**	5 x 30mm **P/N 47617**	5 x 40mm **P/N 47618**	 5 x 60mm **P/N 47620**

A19-12

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

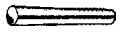
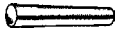
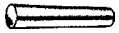
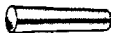
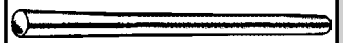
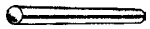
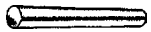
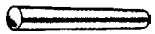
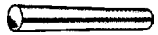
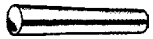
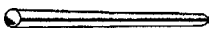
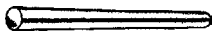
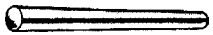
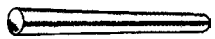
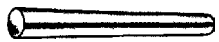
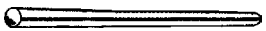
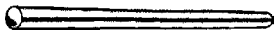
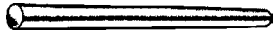
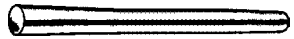
CIC 200™ TAPER PINS ASSORTMENT

P/N 17757

FEATURES:

- *An aid in hole alignment*
- *Low carbon steel C-12L14 machined to a 63 micro-finish (max.)*
- *Tolerance of +.0013/ -.007 on the major diameter*
- *Conforms to specification MS 24692 and ANSI 18.8.2*

305

 0 x 3/4 **P/N 46502**	 1 x 3/4 **P/N 46517**	 2 x 3/4 **P/N 46532**	 3 x 3/4 **P/N 46555**	 3 x 2-1/2 **P/N 46563**	EXPANSION
 0 x 1 **P/N 46504**	 1 x 1 **P/N 46519**	 2 x 1 **P/N 46534**	 3 x 1 **P/N 46557**	 4 x 1 **P/N 46580**	EXPANSION
 0 x 1-1/2 **P/N 46506**	 1 x 1-1/2 **P/N 46521**	 2 x 1-1/2 **P/N 46536**	 3 x 1-1/2 **P/N 46559**	 4 x 1-1/2 **P/N 46582**	EXPANSION
 0 x 2 **P/N 46508**	 1 x 2 **P/N 46523**	 2 x 2 **P/N 46538**	3 x 2 **P/N 46561**	 4 x 2 **P/N 46584**	EXPANSION

A19-13

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

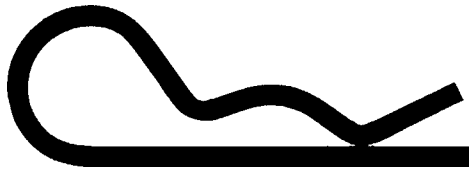
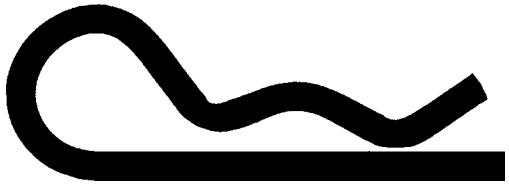
HAIR PIN COTTERS ASSORTMENT

P/N 17791

FEATURES:

- *Quick installation and reuseable*
- *Accurately formed from quality spring steel*
- *Protected with Chromate plating*

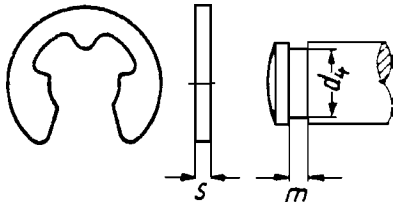
245

14 GA x 1-9/16” **P/N 47098**	13 GA x 2-5/16” **P/N 47092**	9 GA x 3-5/16” **P/N 47094**	 7 GA x 3-3/4” **P/N 47093**
13 GA x 1-5/8” **P/N 47090**	11 GA x 1-15/16” **P/N 47097**		
13 GA x 2-1/2” **P/N 47096**	11 GA x 2-9/16” **P/N 47095**	7 GA x 3-1/4” **P/N 47091**	 3 GA x 4” **P/N 47099**

A19-14

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.



METRIC "E" (RETAINING) RINGS

P/N 17811

FEATURES:

- *The three prongs of this popular retaining ring make contact with the bottom of the groove, resulting in exceptional thrust loadings*
- *Hardness HRC 46 to 54*
- *DIN 6799*

1775

 SHAFT DIA.: 1.2mm RING THICKNESS (S): .3mm GROOVE DIA. (D^4): 1.2mm GROOVE WIDTH (M): .34mm **P/N 47350**	 SHAFT DIA.: 1.5mm RING THICKNESS (S): .4mm GROOVE DIA. (D^4): 1.5mm GROOVE WIDTH (M): .44mm **P/N 47351**	 SHAFT DIA.: 1.9mm RING THICKNESS (S): .5mm GROOVE DIA. (D^4): 1.9mm GROOVE WIDTH (M): .54mm **P/N 47352**	 SHAFT DIA.: 2.3mm RING THICKNESS (S): .6mm GROOVE DIA. (D^4): 2.3mm GROOVE WIDTH (M): .64mm **P/N 47353**
 SHAFT DIA.: 3.2mm RING THICKNESS (S): .6mm GROOVE DIA. (D^4): 3.2mm GROOVE WIDTH (M): .64mm **P/N 47354**	 SHAFT DIA.: 4mm RING THICKNESS (S): .7mm GROOVE DIA. (D^4): 4mm GROOVE WIDTH (M): .74mm **P/N 47355**	 SHAFT DIA.: 5mm RING THICKNESS (S): .7mm GROOVE DIA. (D^4): 5mm GROOVE WIDTH (M): .74mm **P/N 47356**	 SHAFT DIA.: 6mm RING THICKNESS (S): .7mm GROOVE DIA. (D^4): 6mm GROOVE WIDTH (M): .74mm **P/N 47357**
 SHAFT DIA.: 7mm RING THICKNESS (S): .9mm GROOVE DIA. (D^4): 7mm GROOVE WIDTH (M): .94mm **P/N 47358**	 SHAFT DIA.: 8mm RING THICKNESS (S): 1.0mm GROOVE DIA. (D^4): 8mm GROOVE WIDTH (M): 1.05mm **P/N 47359**	 SHAFT DIA.: 9mm RING THICKNESS (S): 1.1mm GROOVE DIA. (D^4): 9mm GROOVE WIDTH (M): 1.15mm **P/N 47360**	 SHAFT DIA.: 10mm RING THICKNESS (S): 1.2mm GROOVE DIA. (D^4): 10mm GROOVE WIDTH (M): 1.25mm **P/N 47361**
 SHAFT DIA.: 12mm RING THICKNESS (S): 1.3mm GROOVE DIA. (D^4): 12mm GROOVE WIDTH (M): 1.35mm **P/N 47362**	 SHAFT DIA.: 15mm RING THICKNESS (S): 1.5mm GROOVE DIA. (D^4): 15mm GROOVE WIDTH (M): 1.55mm **P/N 47363**	 SHAFT DIA.: 19mm RING THICK. (S): 1.75mm GROOVE DIA. (D^4): 19mm GROOVE WIDTH (M): 1.80mm **P/N 47364**	

A19-15

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

METRIC DOWEL PIN ASSORTMENT

P/N 17810

FEATURES:

- *Hardened steel*
- *Hardness HRC 58 to 62*
- *Precision ground*

259

4mm x 12mm **P/N 47656**	4mm x 16mm **P/N 47657**	4mm x 20mm **P/N 47658**	4mm x 25mm **P/N 47659**	5mm x 16mm **P/N 47661**	5mm x 20mm **P/N 47662**
5mm x 25mm **P/N 47663**	5mm x 30mm **P/N 47664**	6mm x 20mm **P/N 47666**	6mm x 25mm **P/N 47667**	6mm x 30mm **P/N 47668**	6mm x 35mm **P/N 47669**
8mm x 20mm **P/N 47671**	8mm x 25mm **P/N 47672**	8mm x 30mm **P/N 47673**	8mm x 35mm **P/N 47674**	10mm x 25mm **P/N 47676**	10mm x 30mm **P/N 47677**
10mm x 35mm **P/N 47678**	10mm x 40mm **P/N 47679**	12mm x 30mm **P/N 47681**	12mm x 35mm **P/N 47682**	12mm x 40mm **P/N 47683**	12mm x 50mm **P/N 47684**

A19-16

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200 DOWEL PIN ASSORTMENT

P/N 17835

FEATURES:

- *.0002" over listed diameter*
- *Rust resistant black luster finish*
- *Precision ground*
- *Heat treated to core hardness of HRC 47-5 and surface hardness of HRC 60*
- *Meets ASME/ANSI B18.8.2*

345

1/8 x 3/8 **P/N 47100**	1/8 x 1/2 **P/N 47101**	1/8 x 3/4 **P/N 47103**	1/8 x 1 **P/N 47105**	1/8 x 1-1/4 **P/N 47106**	1/8 x 1-1/2 **P/N 47107**
3/16 x 1/2 **P/N 47109**	3/16 x 3/4 **P/N 47111**	3/16 x 1 **P/N 47113**	3/16 x 1-1/2 **P/N 47115**	3/16 x 2 **P/N 47117**	1/4 x 1/2 **P/N 47118**
1/4 x 3/4 **P/N 47120**	1/4 x 1 **P/N 47122**	1/4 x 1-1/4 **P/N 47123**	1/4 x 1-1/2 **P/N 47124**	1/4 x 2 **P/N 47126**	5/16 x 3/4 **P/N 47131**
5/16 x 1 **P/N 47133**	5/16 x 1-1/2 **P/N 47135**	5/16 x 2 **P/N 47137**	3/8 x 1 **P/N 47145**	3/8 x 1-1/2 **P/N 47147**	3/8 x 2 **P/N 47149**

A19-17

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

HAMMERLOCK COTTER PIN ASSORTMENT

P/N 17872

FEATURES:

- *Made from low carbon steel and zinc plated*
- *Special design locks the cotter in place with one hammer blow*
- *Made for semi-permanent applications*
- *Size is based upon effective length as measured from under head to end of prong*

3095

1/16 x 1/2 **P/N 90100**	3/32 x 1 **P/N 90110**	7/64 x 1-1/2 **P/N 90118**	1/8 x 2-1/2 **P/N 90128**	5/32 x 2-1/2 **P/N 90139**	3/16 x 3 **P/N 90148**
1/16 x 1 **P/N 90102**	3/32 x 1-1/2 **P/N 90112**	1/8 x 1 **P/N 90123**	5/32 x 1 **P/N 90133**	5/32 x 3 **P/N 90140**	1/4 x 1-1/2 **P/N 90155**
1/16 x 1-1/2 **P/N 90104**	3/32 x 2 **P/N 90114**	1/8 x 1-1/2 **P/N 90125**	5/32 x 1-1/2 **P/N 90135**	3/16 x 1-1/2 **P/N 90145**	1/4 x 2 **P/N 90156**
3/32 x 1/2 **P/N 90108**	7/64 x 1 **P/N 90116**	1/8 x 2 **P/N 90127**	5/32 x 2 **P/N 90137**	3/16 x 2 **P/N 90146**	1/4 x 3 **P/N 90158**

A19-18

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

HAIR PIN COTTERS ASSORTMENT

22 Gauge to 13 Gauge

P/N 17990

FEATURES:

- *Quick installation and reuseable*
- *Accurately formed from quality spring steel*
- *Protected with Chromate plating*

725

 22 GA x .6” **P/N 47365**	 18 GA x 1-9/16” **P/N 47370**	 16 GA x 1-9/16” **P/N 47374**	 13 GA x 1-5/8” **P/N 47090**
 20 GA x 7/16” **P/N 47366**	 17 GA x 3/4” **P/N 47371**	 15 GA x 1-3/32” **P/N 47375**	 13 GA x 2-5/16” **P/N 47092**
 19 GA x 1” **P/N 47368**	 17 GA x 7/8” **P/N 47372**	 15 GA x 1-7/8” **P/N 47376**	 13 GA x 2” **P/N 47378**
 18 GA x 19/32” **P/N 47369**	 16 GA x 1-5/16” **P/N 47373**	 14 GA x 1-9/16” **P/N 47098**	 13 GA x 2-1/2” **P/N 47096**

A19-19

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

HAIR PIN COTTERS ASSORTMENT

11 Gauge to 0 Gauge

P/N 17991

FEATURES:

- *Quick installation and reuseable*
- *Accurately formed from quality spring steel*
- *Protected with Chromate plating*

105

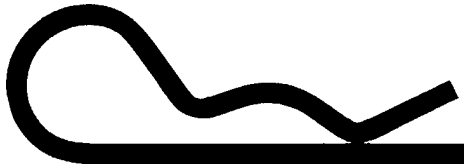
11 GA x 1-15/16”
P/N 47097

11 GA x 2-9/16”
P/N 47095

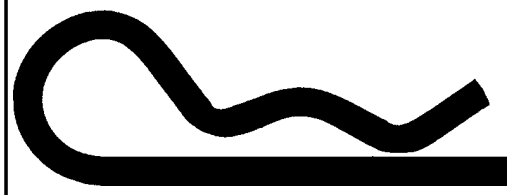
9 GA x 3-5/16”
P/N 47094

9 GA x 2-15/16”
P/N 47383

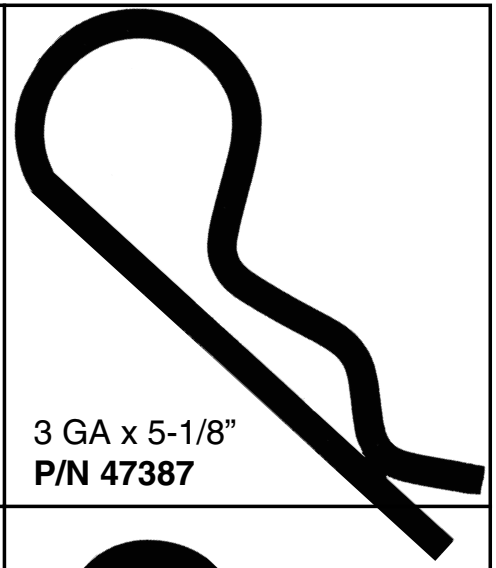
7 GA x 3-1/4”
P/N 47091



7 GA x 3-3/4”
P/N 47093



3 GA x 4”
P/N 47099



3 GA x 5-1/8”
P/N 47387

0 GA x 4-1/16”
P/N 47389

A19-20

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 800-BUY-BOLT • FAX: 877-233-3377 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

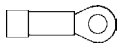
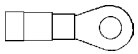
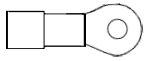
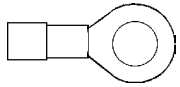
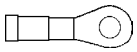
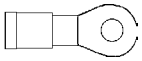
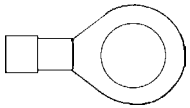
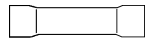
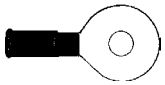
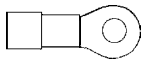
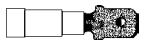
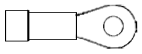
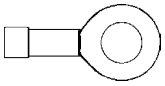
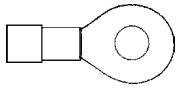
NYLON INSULATED DOUBLE GRIP SOLDERLESS TERMINAL ASSORTMENT

P/N 7728

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*

638

 22-18 x 6 RING CONNECTOR **P/N 2002**	 16-14 x 8 RING CONNECTOR **P/N 2010**	 12-10 x 6 RING CONNECTOR **P/N 2015**	 12-10 x 3/8 RING CONNECTOR **P/N 2020**	 22-18 BUTT CONNECTOR **P/N 2750**	
 22-18 x 8 RING CONNECTOR **P/N 2003**	 16-14 x 10 RING CONNECTOR **P/N 2011**	 12-10 x 8 RING CONNECTOR **P/N 2016**	 12-10 x 1/2 RING CONNECTOR **P/N 2021**	 16-14 BUTT CONNECTOR **P/N 2760**	
 22-18 x 10 RING CONNECTOR **P/N 2004**	 16-14 x 1/4 RING CONNECTOR **P/N 2012**	 12-10 x 10 RING CONNECTOR **P/N 2017**	 16-14 x 1/4 MALE QUICK SLIDE **P/N 2025**	 12-10 BUTT CONNECTOR **P/N 2770**	
 16-14 x 6 RING CONNECTOR **P/N 2009**	 16-14 x 3/8 RING CONNECTOR **P/N 2014**	 12-10 x 1/4 RING CONNECTOR **P/N 2018**	 16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2035**	 DOUBLE MALE QUICK SLIDE ADAPTER **P/N 2045**	

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TRAY FRONT

CIC 200™ NYLON INSULATED DOUBLE GRIP TERMINAL ASSORTMENT II

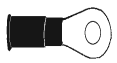
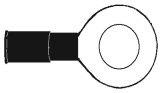
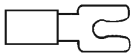
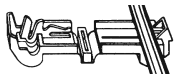
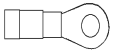
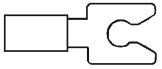
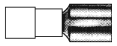
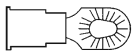
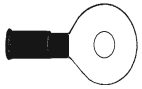
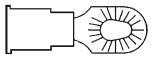
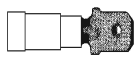
P/N 7729

8 82503 07729 7

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*

360

8 82503 02009 5  16-14 x 6 RING CONNECTOR **P/N 2009**	8 82503 02014 9  16-14 x 3/8 RING CONNECTOR **P/N 2014**	8 82503 02792 6  16-14 x 10 SNAP SPADE **P/N 2792**	8 82503 02023 1 16-14 x 3/16 FEMALE QUICK SLIDE **P/N 2023**	8 82503 02043 9  18-14 x 1/4 T-TAP FEMALE QUICK SLIDE CONNECTOR **P/N 2043**	EXPANSION
8 82503 02010 1  16-14 x 8 RING CONNECTOR **P/N 2010**	8 82503 02779 7 16-14 x 4 SNAP SPADE **P/N 2779**	8 82503 02793 3  16-14 x 1/4 SNAP SPADE **P/N 2793**	8 82503 02035 4  16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2035**	8 82503 02048 4 16-14 x 1/4 FULLY INSULATED FEMALE QUICK SLIDE **P/N 2048**	EXPANSION
8 82503 02011 8 16-14 x 10 RING CONNECTOR **P/N 2011**	8 82503 02790 2 16-14 x 6 SNAP SPADE **P/N 2790**	8 82503 02722 3  16-14 x 2-4-6 MULTI-RING **P/N 2722**	8 82503 02738 4 16-14 x 3/16 MALE QUICK SLIDE **P/N 2738**	8 82503 02058 3 16-14 x 1/4 FULLY INSULATED MALE QUICK SLIDE **P/N 2058**	EXPANSION
8 82503 02012 5  16-14 x 1/4 RING CONNECTOR **P/N 2012**	8 82503 02791 9 16-14 x 8 SNAP SPADE **P/N 2791**	8 82503 02724 7  16-14 x 6-8-10 MULTI-RING **P/N 2724**	8 82503 02025 5  16-14 x 1/4 MALE QUICK SLIDE **P/N 2025**	8 82503 02760 5 16-14 BUTT CONNECTOR **P/N 2760**	EXPANSION

A20-2

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

050113

HIGH TEMPERATURE TERMINAL ASSORTMENT

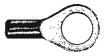
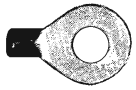
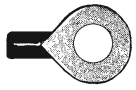
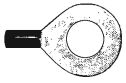
P/N 7730

8 82503 07730 3

FEATURES

- *Nickel plated alloy steel*
- *Designed for 900ºF (482ºC) continuous, 1200ºF (649ºC) intermittent*
- *Perfect for ovens, motors, light fixtures or anywhere that other terminals would not corrode*

700

8 82503 02126 9 22-18 x 6 RING CONNECTOR **P/N 2126**	8 82503 02131 3  16-14 x 10 RING CONNECTOR **P/N 2131**	8 82503 02135 1  12-10 x 1/4 RING CONNECTOR **P/N 2135**	8 82503 02141 2 16-14 x 10 SPADE **P/N 2141**	8 82503 02153 5 16-14 x 1/4 FEMALE Q.S. RIGHT ANGLE FLAG **P/N 2153**	EXPANSION
8 82503 02127 6 22-18 x 10 RING CONNECTOR **P/N 2127**	8 82503 02132 0  16-14 x 1/4 RING CONNECTOR **P/N 2132**	8 82503 02136 8 12-10 x 3/8 RING CONNECTOR **P/N 2136**	8 82503 02142 9 12-10 x 10 SPADE **P/N 2142**	8 82503 02176 4 22-18 BUTT CONNECTOR **P/N 2176**	EXPANSION
8 82503 02128 3  22-18 x 1/4 RING CONNECTOR **P/N 2128**	8 82503 02133 7 12-10 x 6 RING CONNECTOR **P/N 2133**	8 82503 02145 0 22-18 x 6 BLOCK SPADE **P/N 2145**	8 82503 02148 1 16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2148**	8 82503 02177 1 16-14 BUTT CONNECTOR **P/N 2177**	EXPANSION
8 82503 02130 6 16-14 x 6 RING CONNECTOR **P/N 2130**	8 82503 02134 4 12-10 x 10 RING CONNECTOR **P/N 2134**	8 82503 02140 5 22-18 x 10 SPADE **P/N 2140**	8 82503 02152 8 16-14 x 1/4 MALE QUICK SLIDE **P/N 2152**	8 82503 02178 8 12-10 BUTT CONNECTOR **P/N 2178**	EXPANSION

A20-3

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050113

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ WIRE TIE ASSORTMENT WITH TENSIONING TOOL

P/N 7732

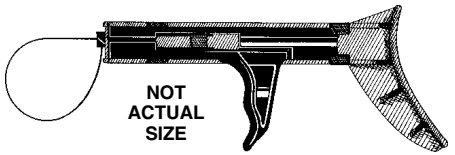
FEATURES:

- *Self-locking white wire ties are QPL listed and UL recognized.*
- *Superior design and construction.*
- *Wire tie tensioning tool is lightweight for speedy and efficient tensioning. Cinch tie to desired bundle and twist tool to remove excess strap. Ideal for all widths through 3/16". Recommended for use with 18-50 pound ties.*

551

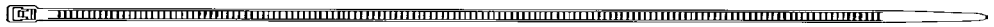
3/32" W x 5-1/2" L
1-1/4" Max. Dia. 18 psi
P/N 8402

Tensioning Tool
P/N 8470



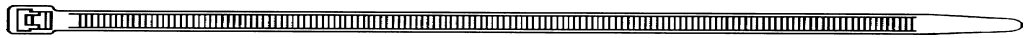
3/32" W x 4" L
3/4" Max. Dia. 18 psi
P/N 8401

3/32" W x 8" L
2" Max. Dia. 18 psi
P/N 8403



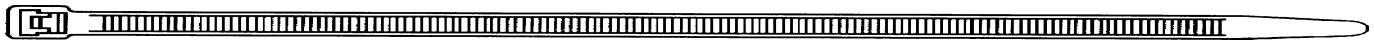
9/64" W x 5-1/2" L
1-1/4" Max. Dia. 30 psi
P/N 8404

5/32" W x 8-1/2" L
2" Max. Dia. 40 psi
P/N 8405



3/16" W x 8" L
1-3/4" Max. Dia. 50 psi
P/N 8408

3/16" W x 11-1/8" L
3" Max. Dia. 50 psi
P/N 8409



A20-4

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ WEATHER RESISTANT THERMO TIE ASSORTMENT WITH TENSIONING TOOL **P/N 7733**

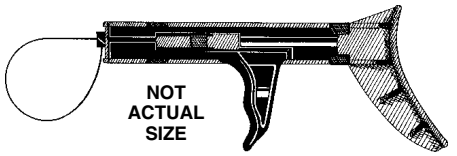
FEATURES:

- *Fast, easy and efficient way to tie wires and cables*
- *Resistant to solvents, fungus, oil, grease, alkalies, mild acids, ultra violet rays, etc.*
- *Meets MIL specifications (3367-1 to 7-0)*
- *Temperature range 65°F to 185°F*

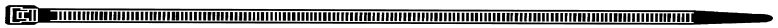
651

3/32" W x 3-3/8" L
5/8" Max. Dia. 18 psi
P/N 8430

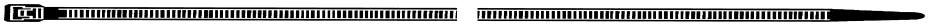
Tensioning Tool
P/N 8470



3/32" W x 4" L
7/8" Max. Dia. 18 psi
P/N 8431

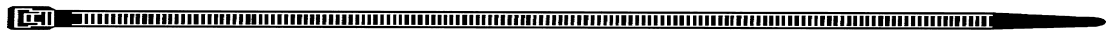


3/32" W x 6" L
1-1/2" Max. Dia. 18 psi
P/N 8432



3/32" W x 8" L
2-3/16" Max. Dia. 18 psi
P/N 8433

9/64" W x 5-3/4" L
1-7/16" Max. Dia. 40 psi
P/N 8434



9/64" W x 8-3/4" L
2-3/8" Max. Dia. 40 psi
P/N 8435

3/16" W x 7-1/2" L
1-7/8" Max. Dia. 50 psi
P/N 8438

3/16" W x 11-1/8" L
3-1/16" Max. Dia. 50 psi
P/N 8439

A20-5

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CHROMATE®
INDUSTRIAL CORP.

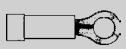
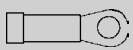
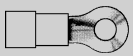
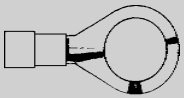
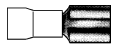
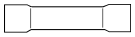
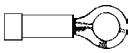
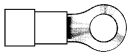
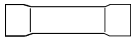
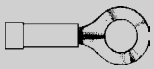
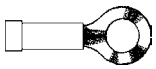
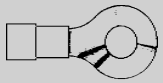
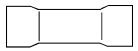
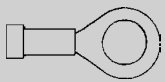
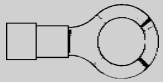
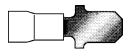
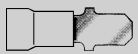
CIC 200™ PVC INSULATED SOLDERLESS TERMINAL ASSORTMENT

P/N 7727

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *High temperature nylon insulation*
- *One piece, electro-tin plated high conductivity copper construction for maximum corrosion resistance*

1000

NOT INCLUDED  22-18 x 6 RING CONNECTOR **P/N 2626**	NOT INCLUDED  16-14 x 6 RING CONNECTOR **P/N 2630**	NOT INCLUDED  12-10 x 6 RING CONNECTOR **P/N 2635**	NOT INCLUDED  12-10 x 1/2 RING CONNECTOR **P/N 2639**	 22-18 x 1/4 FEMALE QUICK SLIDE **P/N 2864**	 22-18 BUTT CONNECTOR **P/N 2838**
 22-18 x 10 RING CONNECTOR **P/N 2627**	16-14 x 10 RING CONNECTOR **P/N 2631**	 12-10 x 10 RING CONNECTOR **P/N 2636**	NOT INCLUDED 16-14 x 10 SPADE **P/N 2731**	16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2865**	 16-14 BUTT CONNECTOR **P/N 2839**
NOT INCLUDED  22-18 x 1/4 RING CONNECTOR **P/N 2628**	 16-14 x 1/4 RING CONNECTOR **P/N 2632**	NOT INCLUDED  12-10 x 1/4 RING CONNECTOR **P/N 2637**	NOT INCLUDED 12-10 x 10 SPADE **P/N 2736**	NOT INCLUDED 12-10 x 1/4 FEMALE QUICK SLIDE **P/N 2866**	 12-10 BUTT CONNECTOR **P/N 2840**
NOT INCLUDED 22-18 x 10 SPADE **P/N 2727**	NOT INCLUDED  16-14 x 3/8 RING CONNECTOR **P/N 2633**	NOT INCLUDED  12-10 x 3/8 RING CONNECTOR **P/N 2638**	NOT INCLUDED 22-18 x 1/4 MALE QUICK SLIDE **P/N 2867**	 16-14 x 1/4 MALE QUICK SLIDE **P/N 2868**	NOT INCLUDED  12-10 x 1/4 MALE QUICK SLIDE **P/N 2869**

A20-6

TRAY FRONT

CIC 200™ SUR-SEAL TERMINAL ASSORTMENT

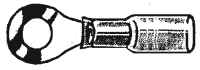
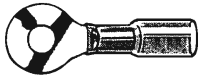
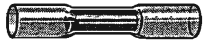
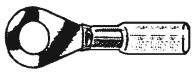
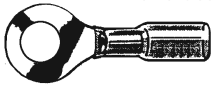
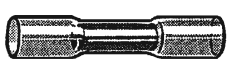
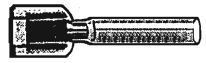
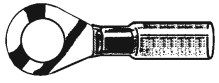
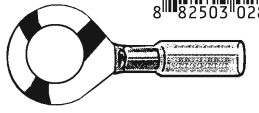
P/N 7777

8 82503 07777 8

FEATURES

- *Heat shrink tubing and tin plated high conductivity copper connectors are bonded together*
- *Forms a moisture-proof seal*
- *Prevents corrosion and voltage drop*
- *Just crimp and heat*

116

8 82503 02816 9 RING CONNECTOR 22-18 x 4-6 **P/N 2816**	8 82503 02820 6 RING CONNECTOR 16-14 x 8-10 **P/N 2820**	8 82503 02824 4 RING CONNECTOR 12-10 x 8/10 **P/N 2824**	8 82503 02828 2 SPADE CONNECTOR 22-18 x 8-10 **P/N 2828**	8 82503 02841 1 BUTT CONNECTOR 20-18 **P/N 2841**	8 82503 02845 9 FULLY INSULATED FEMALE QUICK SLIDE 16-14 x 1/4 **P/N 2845**
8 82503 02817 6 RING CONNECTOR 22-18 x 8-10 **P/N 2817**	8 82503 02821 3  RING CONNECTOR 16-14 x 1/4 **P/N 2821**	8 82503 02825 1  RING CONNECTOR 12-10 x 1/4 **P/N 2825**	8 82503 02829 9 SPADE CONNECTOR 16-14 x 4-6 **P/N 2829**	8 82503 02842 8  BUTT CONNECTOR 16-14 **P/N 2842**	8 82503 02846 6 FULLY INSULATED MALE QUICK SLIDE 22-18 x 1/4 **P/N 2846**
8 82503 02818 3  RING CONNECTOR 22-18 x 1/4 **P/N 2818**	8 82503 02822 0 RING CONNECTOR 16-14 x 5/16 **P/N 2822**	8 82503 02826 8  RING CONNECTOR 12-10 x 3/8 **P/N 2826**	8 82503 02830 5 SPADE CONNECTOR 16-14 x 8-10 **P/N 2830**	8 82503 02843 5  BUTT CONNECTOR 12-10 **P/N 2843**	8 82503 02847 3  FULLY INSULATED FEMALE QUICK SLIDE 22-18 x 1/4 **P/N 2847**
8 82503 02819 0 RING CONNECTOR 16-14 x 4-6 **P/N 2819**	8 82503 02823 7  RING CONNECTOR 16-14 x 3/8 **P/N 2823**	8 82503 02827 5  RING CONNECTOR 12-10 x 1/2 **P/N 2827**	8 82503 02831 2 SPADE CONNECTOR 12-10 x 8-10 **P/N 2831**	8 82503 02844 2 FULLY INSULATED MALE QUICK SLIDE 16-14 x 1/4 **P/N 2844**	EXPANSION

A20-10

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

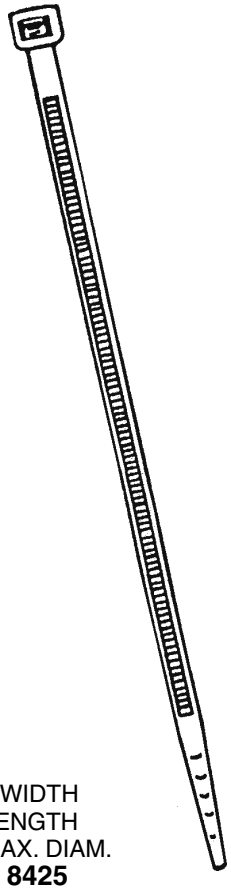
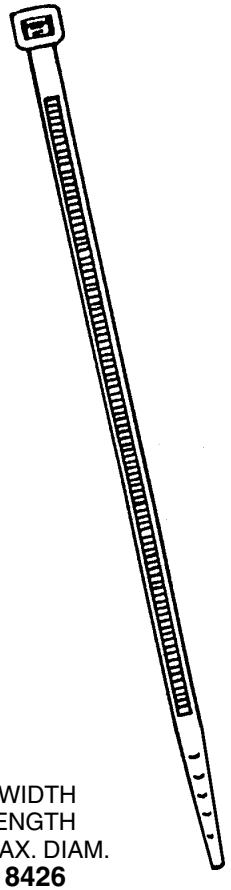
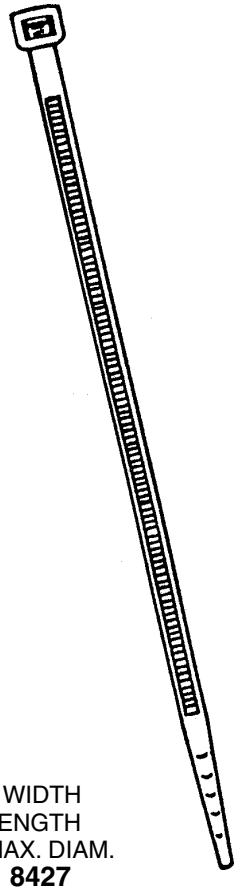
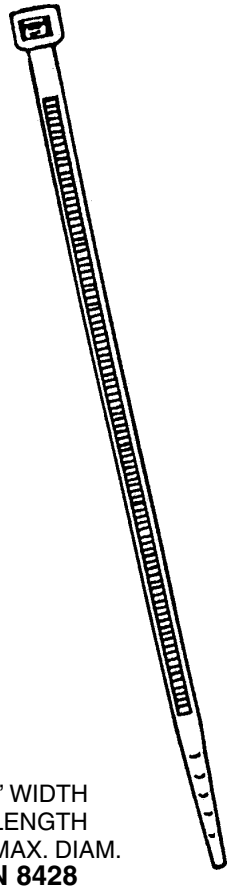
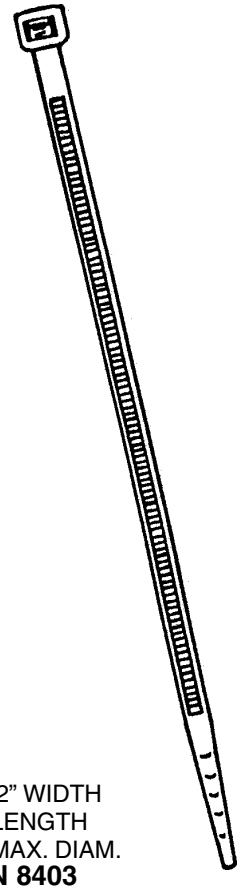
CIC 200™ FLUORESCENT IDENTIFICATION WIRE TIE ASSORTMENT

P/N 7799

FEATURES:

- *Superior design and construction that is QPL listed and UL recognized*

1000

FLUORESCENT PINK	FLUORESCENT GREEN	FLUORESCENT ORANGE	FLUORESCENT YELLOW	STANDARD WHITE
				
1/8" WIDTH 8" LENGTH 2" MAX. DIAM. **P/N 8425**	1/8" WIDTH 8" LENGTH 2" MAX. DIAM. **P/N 8426**	1/8" WIDTH 8" LENGTH 2" MAX. DIAM. **P/N 8427**	1/8" WIDTH 8" LENGTH 2" MAX. DIAM. **P/N 8428**	3/32" WIDTH 8" LENGTH 2" MAX. DIAM. **P/N 8403**

A20-11

TRAY FRONT

MMS LEVEL "C"

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080101

CIC 200™ POZI-LOK AND TWIST-LOK WIRE NUT ASSORTMENT

P/N 7764

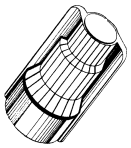
8 82503 07764 8

FEATURES:

- *No more twisted wires to loosen*
- *Neat connections even in tight places*
- *Color coded to insure identification*
- *Special design provides sure connection every time by hand – No tools required*
- *UL listed for solid copper to copper wires only*
- *Temperature: rated at 105°C maximum*
- *Unique spiral spring configuration automatically threads and twists wires together for a perfect connection every time*

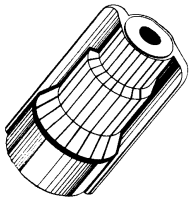
328

8 82503 02861 9



POZI-LOK WIRE CONNECTOR
22-12 YELLOW
P/N 2861

8 82503 02863 3



POZI-LOK CONNECTOR
14-6 BLUE
P/N 2863

8 82503 02801 5

TWIST-LOK CONNECTOR
22-16 GRAY
P/N 2801

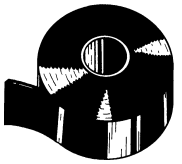
8 82503 16040 1

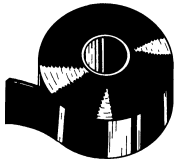
SPIN TWIST WIRE CONNECTOR
P/N 2856

8 82503 02803 9

TWIST-LOK CONNECTOR
22-14 BLUE
P/N 2803

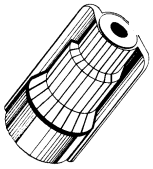
8 82503 02891 6





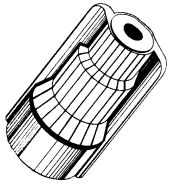
LINERLESS TAPE
3/4 x 180
P/N 2891

8 82503 02862 6



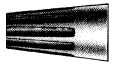
POZI-LOK CONNECTOR
22-10 RED
P/N 2862

8 82503 02859 6



POZI-LOK B.G.R. GROUND NUT
14-10 GREEN
P/N 2859

8 82503 02805 3



TWIST-LOK CONNECTOR
22-14 ORANGE
P/N 2805

A20-12

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

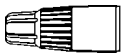
CIC 200™ WATERPROOF CONNECTOR ASSORTMENT

P/N 17721

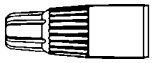
FEATURES:

- *Pre-filled with silicone for a completely water-tight, air-tight connection*
- *One-step installation saves money and labor*
- *Custom silicone sealant provides ultimate insulation and is impervious to air and moisture*
- *Ribbed housings and large wings for easy twist-on installation*
- *U.L. listed and CSA approved for pressure-type applications, 486°C*

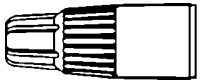
50



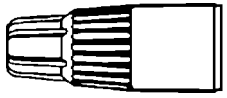
#1 WATERPROOF CONNECTOR
MIN: 3 #22 MAX: 2 #16
GRAY
P/N 2525



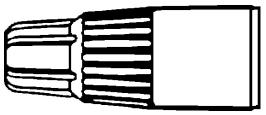
#2 WATERPROOF CONNECTOR
MIN: 3 #20 MAX: 3 #16
BLUE
P/N 2526



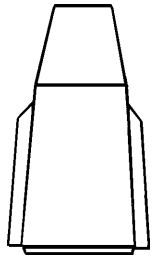
#4 WATERPROOF CONNECTOR
MIN: 4 #18 MAX: 2 #12
YELLOW
P/N 2528



#5 WATERPROOF CONNECTOR
MIN: 2 #14 MAX: 4 #12
RED
P/N 2529



#6 WATERPROOF CONNECTOR
MIN: 3 #22 MAX: 4 #12 OR 3 #10
BLUE
P/N 2530



#9 WATERPROOF CONNECTOR
MIN: 2 #10 SOL MAX: 2 #6
BLUE
P/N 2531

A20-13

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ "SUR-SEAL" COLOR HEAT SHRINK TUBING ASSORTMENT

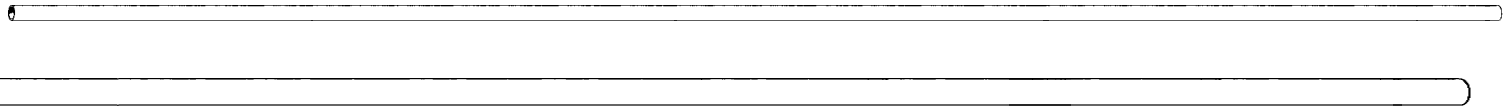
P/N 17725

FEATURES:

- *Dual wall flexible color-keyed polyolefin tubing with thick wall adhesive*
- *Color-keyed for easy identification of wire size*
- *Operating temperature range is -67°F (-55°C) to 230°F (110°C)*
- *Recommended in applications requiring moisture protection or waterproofing*
- *Shrink temperature is 239°F (115°C)*

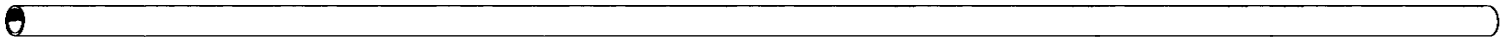
28

1/8" x 12" BROWN
P/N 6090

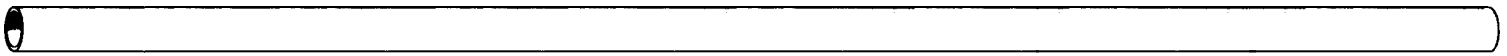


3/16" x 12" GRAY
P/N 6091

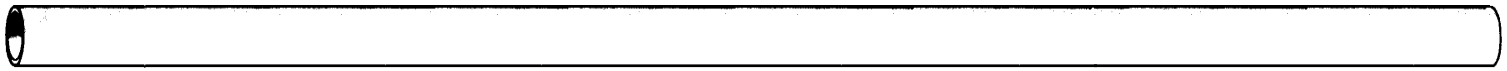
1/4" x 12" WHITE
P/N 6092



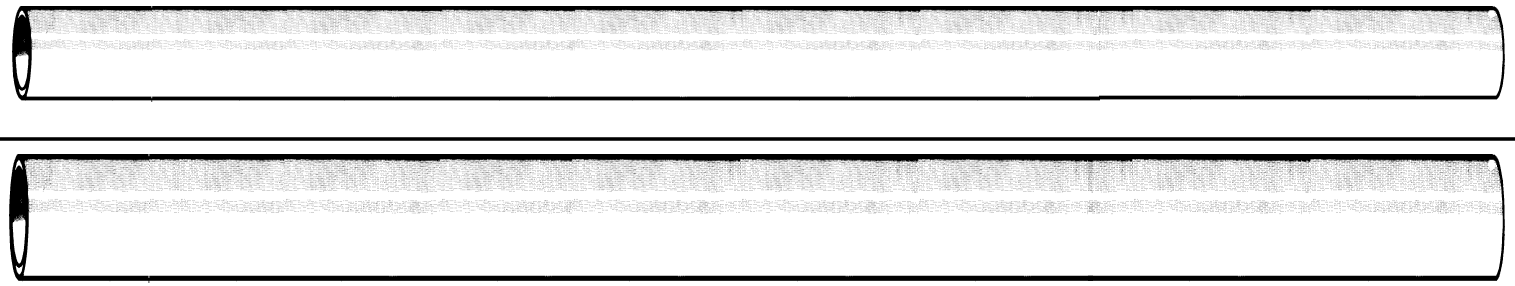
3/8" x 12" RED
P/N 6093



1/2" x 12" BLUE
P/N 6094



3/4" x 12" YELLOW
P/N 6095



1" x 12" BLACK
P/N 6096

A20-14

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

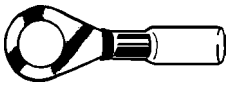
CIC 200™ SUR-SEAL SOLDER LINK TERMINALS ASSORTMENT

P/N 17729

FEATURES:

- *Heat shrink tubing and tin plated high conductivity copper connectors are bonded together to form a moisture-proof seal, preventing corrosion and voltage drop*
- *Superior protection for splices exposed to the elements*
- *Adhesive heat shrink tubing provides a high strength, water-tight seal*
- *Flux coated low heat solder preform for ultimate strength and conductivity*

120

 RED BUTT 18-20 **P/N 2160**	 BLUE BUTT 14-16 **P/N 2161**	 YELLOW BUTT 10-12 **P/N 2162**	 RED RING 18-20 #6 **P/N 2154**	 RED RING 18-20 #8 **P/N 2155**	 RED RING 18-20 #10 **P/N 2156**
 RED RING 18-20 1/4 **P/N 2157**	 RED SPADE 18-20 #10 **P/N 2169**	 BLUE RING 14-16 #8 **P/N 2158**	 BLUE RING 14-16 #10 **P/N 2159**	 BLUE RING 14-16 1/4 **P/N 2163**	 BLUE RING 14-16 3/8 **P/N 2164**
 BLUE SPADE 14-16 #10 **P/N 2170**	 YELLOW RING 10-12 #10 **P/N 2165**	 YELLOW RING 10-12 1/4 **P/N 2166**	 YELLOW RING 10-12 3/8 **P/N 2167**	 YELLOW RING 10-12 1/2 **P/N 2168**	 YELLOW SPADE 10-12 #10 **P/N 2171**
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

A20-15

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

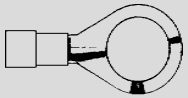
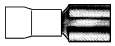
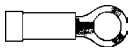
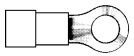
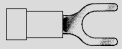
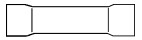
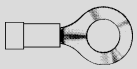
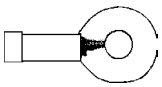
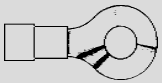
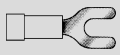
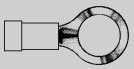
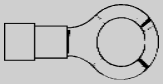
NYLON INSULATED DOUBLE GRIP SOLDERLESS TERMINAL STARTER ASSORTMENT

P/N 17710

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*

400

*NOT INCLUDED 22-18 x 6 RING CONNECTOR **P/N 2002**	*NOT INCLUDED 16-14 x 6 RING CONNECTOR **P/N 2009**	*NOT INCLUDED 12-10 x 6 RING CONNECTOR **P/N 2015**	*NOT INCLUDED  12-10 x 1/2 RING CONNECTOR **P/N 2021**	 22-18 x 1/4 FEMALE QUICK SLIDE **P/N 2024**	22-18 BUTT CONNECTOR **P/N 2750**
22-18 x 10 RING CONNECTOR **P/N 2004**	 16-14 x 10 RING CONNECTOR **P/N 2011**	 12-10 x 10 RING CONNECTOR **P/N 2017**	*NOT INCLUDED  16-14 x 10 SPADE **P/N 2111**	16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2035**	 16-14 BUTT CONNECTOR **P/N 2760**
*NOT INCLUDED  22-18 x 1/4 RING CONNECTOR **P/N 2005**	 16-14 x 1/4 RING CONNECTOR **P/N 2012**	*NOT INCLUDED  12-10 x 1/4 RING CONNECTOR **P/N 2018**	*NOT INCLUDED  12-10 x 10 SPADE **P/N 2117**	*NOT INCLUDED 12-10 x 1/4 FEMALE QUICK SLIDE **P/N 2036**	12-10 BUTT CONNECTOR **P/N 2770**
*NOT INCLUDED 22-18 x 10 SPADE **P/N 2104**	*NOT INCLUDED  16-14 x 3/8 RING CONNECTOR **P/N 2014**	*NOT INCLUDED  12-10 x 3/8 RING CONNECTOR **P/N 2020**	*NOT INCLUDED 22-18 x 1/4 MALE QUICK SLIDE **P/N 2054**	16-14 x 1/4 MALE QUICK SLIDE **P/N 2025**	*NOT INCLUDED 12-10 x 1/4 MALE QUICK SLIDE **P/N 2748**

A20-16

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

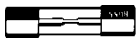
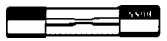
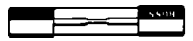
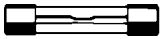
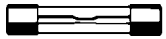
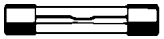
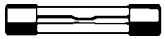
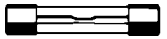
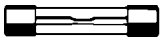
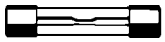
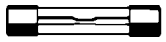
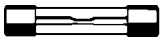
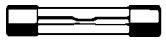
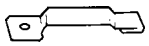
GLASS TUBE AND BLADE FUSE ASSORTMENT

P/N 17737

FEATURES:

- *Quality fuses provide safety and reliabilty by preventing short-circuits and overloads that can cause fires and property damage*

345

SFE - 4 **P/N 2914**	SFE - 7-1/2 **P/N 2916**	SFE - 9 **P/N 2917**	 SFE - 14 **P/N 2918**	 SFE - 20 **P/N 2919**	 SFE - 30 **P/N 2920**
 AGC - 1 **P/N 2930**	 AGC - 2 **P/N 2935**	 AGC - 3 **P/N 2939**	 AGC - 4 **P/N 2940**	 AGC - 5 **P/N 2941**	 AGC - 10 **P/N 2948**
 AGC - 15 **P/N 2951**	 AGC - 20 **P/N 2952**	 AGC - 25 **P/N 2953**	 AGC - 30 **P/N 2954**	ATC - 5 **P/N 2902**	ATC - 10 **P/N 2904**
ATC - 15 **P/N 2905**	ATC - 20 **P/N 2906**	ATC - 25 **P/N 2907**	ATC - 30 **P/N 2908**	MALE FUSE CLIP ADAPTER GLASS FUSE 25/32 LONG **P/N 2800**	 MALE FUSE CLIP ADAPTER BLADE FUSE 1-1/8 LONG **P/N 2802**

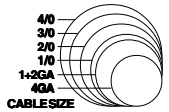
A20-17

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ BATTERY TERMINAL ASSORTMENT 4GA TO 4/0

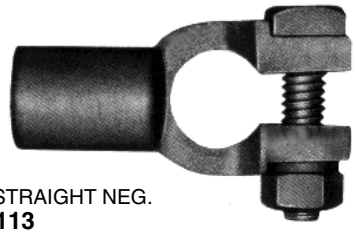
P/N 17752



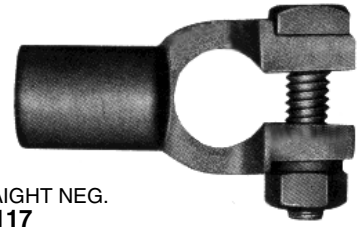
FEATURES:

- *Easily identified, electro-tin plated copper connector provides high conductivity and resists corrosion*
- *Easy to crimp*

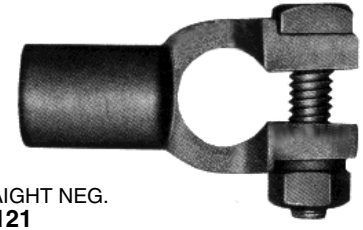
50



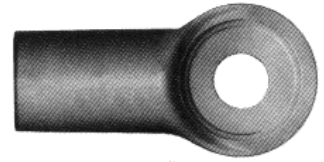
1+2 GA STRAIGHT NEG.
P/N 32113



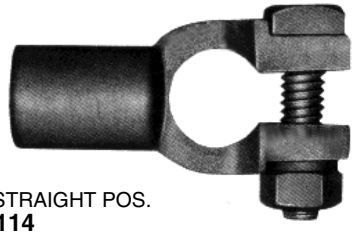
2/0 STRAIGHT NEG.
P/N 32117



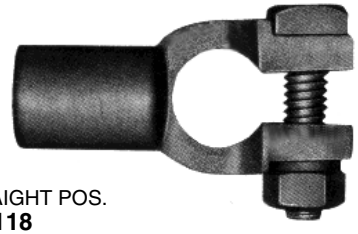
4/0 STRAIGHT NEG.
P/N 32121



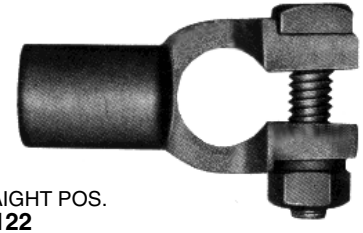
4 GA ST/SM STRAIGHT UNIV.
P/N 32155



1+2 GA STRAIGHT POS.
P/N 32114

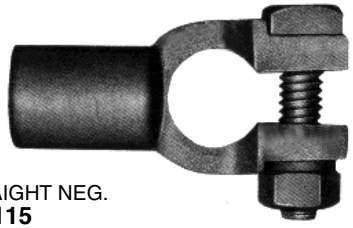


2/0 STRAIGHT POS.
P/N 32118

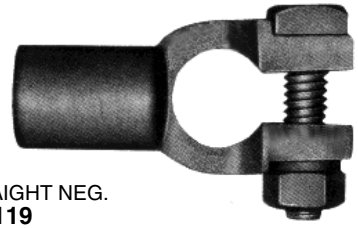


4/0 STRAIGHT POS.
P/N 32122

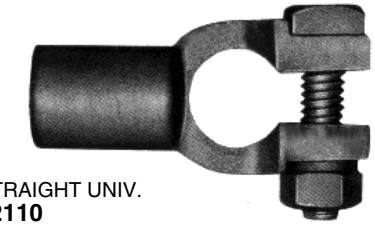
3/8 STUD NUT
P/N 32165



1/0 STRAIGHT NEG.
P/N 32115

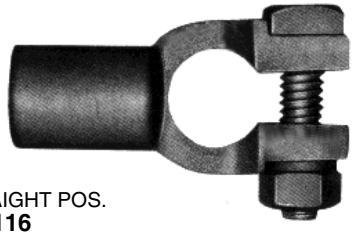


3/0 STRAIGHT NEG.
P/N 32119

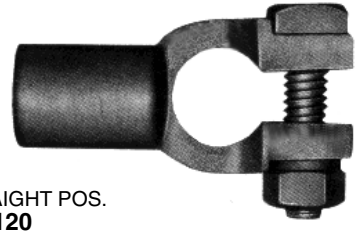


4 GA STRAIGHT UNIV.
P/N 32110

3/8 S.M. BOLT
P/N 32166



1/0 STRAIGHT POS.
P/N 32116



3/0 STRAIGHT POS.
P/N 32120

5/16 x 1-3/8 BATTERY BOLT w/ NUT
P/N 2855

A20-19

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ THICK WALL SHRINK TUBING ASSORTMENT

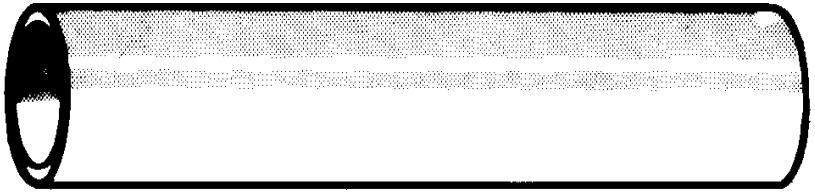
P/N 17753

FEATURES:

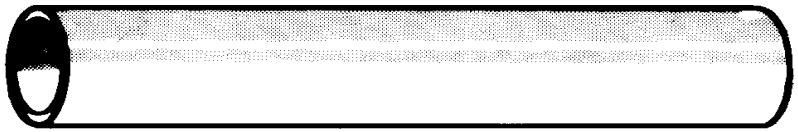
- *Heat shrink tubing*
- *Waterproof, insulates and protects against oxidation and corrosion in electrical splices, connections and terminations*
- *Sealant locks out corrosion causing elements*
- *Temperature required to shrink: 115°C/239°F*
- *Continuous operating temperature: 90°C/194°F*
- *Dielectric strength 600 volts*

TUBING/HOSE CUTTER TO 2" DIA.
P/N 54505

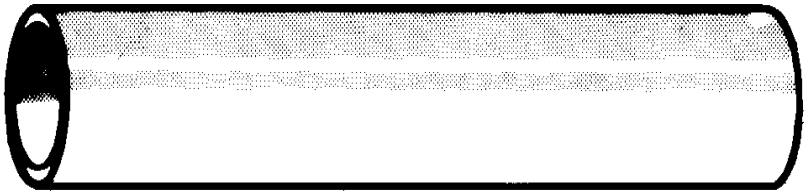
8-2 GA SUR-SEAL HEAT SHRINK TUBING
3 TO 1 SHRINK RATIO
P/N 2875



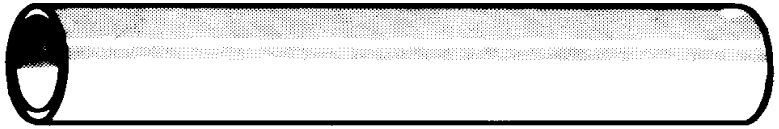
2 GA - 4/0 THICK WALL HEAT SHRINK TUBING - RED
3 TO 1 SHRINK RATIO
P/N 32180



6-1 GA - THICK WALL HEAT SHRINK TUBING - RED
3 TO 1 SHRINK RATIO
P/N 32172



2 GA - 4/0 THICK WALL HEAT SHRINK TUBING - BLACK
3 TO 1 SHRINK RATIO
P/N 32178



6-1 GA - THICK WALL HEAT SHRINK TUBING - BLACK
3 TO 1 SHRINK RATIO
P/N 32174

CHROMATE® INDUSTRIAL CORP.

CIC 200™ SOLDER-LINK SLUG ASSORTMENT

P/N 17751

FEATURES:

- *CIC 200 Solder Link Slugs and Sur-Seal tubing provides the fastest, easiest, hermetically sealed battery connections possible – far superior to crimping*
- *Cost efficient – no expensive tools required*
- *Pre-measured – provides the exact amount of solder for each size connector*
- *Available in 7 sizes – 4 gauge to 4/0*
- *Color coded – coincides with industry standards*
- *Provides the perfect connection every time – complete and environmentally sealed*

241

GRAY 4 GA SLUG **P/N 6270**	PINK 1 GA SLUG **P/N 6272**	ORANGE 2/0 SLUG **P/N 6274**	YELLOW 4/0 SLUG **P/N 6276**
GREEN 2 GA SLUG **P/N 6271**	BLACK 1/0 SLUG **P/N 6273**	PURPLE 3/0 SLUG **P/N 6275**	SOLDER-LINK™ FLUX **P/N 74518**

A20-21

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CIC 200™ MET-TAB™ WIRE TIE ASSORTMENT

P/N 17755

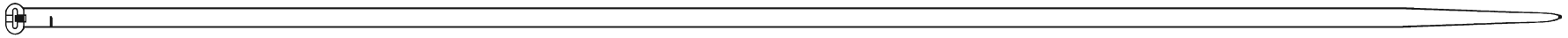
FEATURES:

- *The strongest wire and cable tying system available*
- *Notchless design – eliminates stress areas assuring strongest possible tie*
- *Stainless Steel locking device – allows infinite adjustability for optimum bundle tightness and ultimate strength*

425

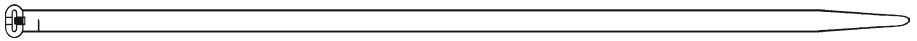
17/64 x 13-3/8 BLACK (OUTDOOR)
P/N 8076

3/16 x 14-3/16 BLACK (OUTDOOR)
P/N 8074



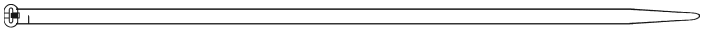
3/16 x 14-3/16 STANDARD
P/N 8060

3/16 x 7-5/16 BLACK (OUTDOOR)
P/N 8072



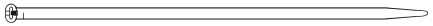
3/16 x 7-5/16 STANDARD
P/N 8058

9/16 x 5-1/2 BLACK (OUTDOOR)
P/N 8068



9/64 x 5-1/2 STANDARD
P/N 8054

3/32 x 3-5/8 BLACK (OUTDOOR)
P/N 8064



3/32 x 3-5/8 STANDARD
P/N 8050

A20-22

TRAY FRONT

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050113

CHROMATE®
INDUSTRIAL CORP.

CIC 200™ VINYL COATED TUBE AND HOSE CLAMP ASSORTMENT

P/N 17759

FEATURES:

- *Vinyl coated metal tube and hose clamps*
- *Provides protection and routing support for tubes, pipes, wire bundles and cables where abrasion, moving parts or heat may exist*
- *One oval hole for easy alignment*
- *1/32" thick black vinyl cushion*
- *3/4" width and 13/32" hole diameter*

1/4" TUBE/HOSE SIZE **P/N 30153**	1/2" TUBE/HOSE SIZE **P/N 30157**	3/4" TUBE/HOSE SIZE **P/N 30161**	1-1/4" TUBE/HOSE SIZE **P/N 30169**
3/8" TUBE/HOSE SIZE **P/N 30155**	5/8" TUBE/HOSE SIZE **P/N 30159**	1" TUBE/HOSE SIZE **P/N 30165**	1-1/2" TUBE/HOSE SIZE **P/N 30173**

CHROMATE® INDUSTRIAL CORP.

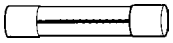
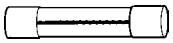
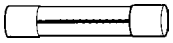
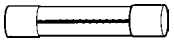
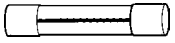
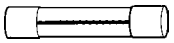
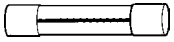
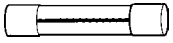
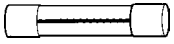
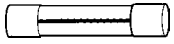
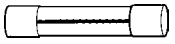
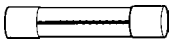
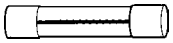
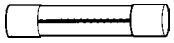
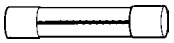
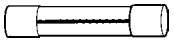
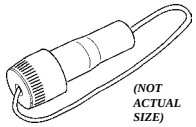
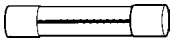
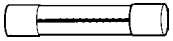
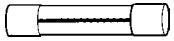
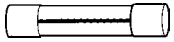
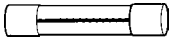
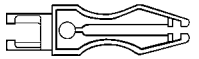
CIC 200™ TIME DELAY FUSE ASSORTMENT
1/4 to 30 AMP

P/N 17760

FEATURES:

- *Quality fuses provide safety and reliabilty by preventing short-circuits and overloads that can cause fires and property damage*
- *Time delay*
- *Construction:glass tube albaloy plated brass end caps*

158

 MDL 1/4 **P/N 29009**	 MDL 1-1/2 **P/N 29021**	 MDL 4 **P/N 29031**	 MDL 7 **P/N 29035**	 MDL 12 **P/N 29040**	 MDL 30 **P/N 29044**
 MDL 1/2 **P/N 29013**	 MDL 2 **P/N 29024**	 MDL 5 **P/N 29032**	 MDL 7-1/2 **P/N 29036**	 MDL 15 **P/N 29041**	GLASS FUSE CLIP ADAPTER **P/N 2800**
 MDL 3/4 **P/N 29016**	 MDL-2-1/2 **P/N 29026**	 MDL 6 **P/N 29033**	 MDL 8 **P/N 29037**	 MDL 20 **P/N 29042**	 *(NOT ACTUAL SIZE)* FUSE HOLDER **P/N 2912**
 MDL 1 **P/N 29018**	 MDL 3 **P/N 29028**	 MDL 6-1/4 **P/N 29034**	 MDL 10 **P/N 29039**	 MDL 25 **P/N 29043**	 *(NOT ACTUAL SIZE)* FUSE PULLER **P/N 2969**

A20-24

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

ELECTRICAL TAPE ASSORTMENT

P/N 17772

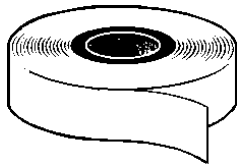
FEATURES:

- *Ideal for color-coding all wiring and connections*
- *Excellent for elongation, flexibility and strength*
- *Flame retardant*
- *UL Listed*

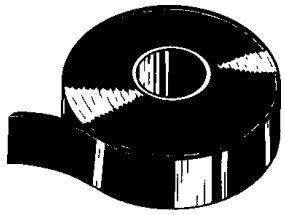
21

3/4 x 66’
ELECTRICAL TAPE - BLUE
P/N 2190

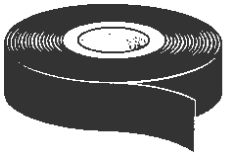
3/4 x 66’
ELECTRICAL TAPE - GREEN
P/N 2193



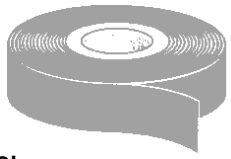
3/4 x 66’
ELECTRICAL TAPE - WHITE
P/N 2197



3/4 x 15’
LINERLESS SPLICING TAPE
P/N 2891

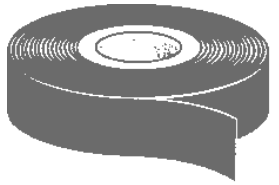


3/4 x 66’
ELECTRICAL TAPE - BROWN
P/N 2191

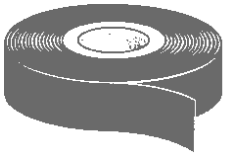


3/4 x 66’
ELECTRICAL TAPE - ORANGE
P/N 2194

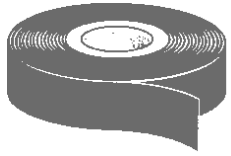
3/4 x 66’
ELECTRICAL TAPE - YELLOW
P/N 2198



1 x 36’
FUSION SEAL ELEC. WRAP - RED
P/N 2899



3/4 x 66’
ELECTRICAL TAPE - GRAY
P/N 2192



3/4 x 66’
ELECTRICAL TAPE - RED
P/N 2195

3/4 x 60’
ELECTRICAL TAPE - BLACK
P/N 2199

A20-25

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CHROMATE®
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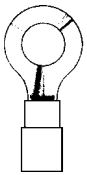
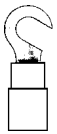
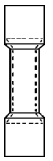
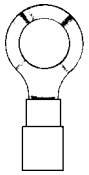
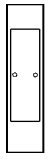
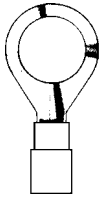
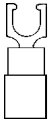
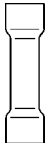
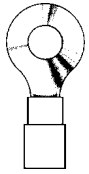
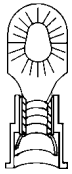
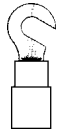
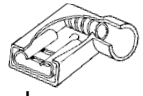
YELLOW 12-10 TERMINAL ASSORTMENT

P/N 17845

FEATURES:

- *Double crimp holds both wire & insulation for superior strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*
- *One piece, electro-tin plated high-conductivity copper construction for maximum corrosion resistance*
- *Crimp guides for accurate crimping*

320

12-10 x 6 Double Grip Nylon Ring **P/N 2015**	12-10 x 5/16 Double Grip Nylon Ring **P/N 2019** 	12-10 x 6 Double Grip Nylon Spade **P/N 2115**	12-10 x 8 Double Grip Nylon Hook **P/N 2216** 	12-10 x 1/4 Double Grip Nylon Female Quick Slide **P/N 2036**	12-10 Double Grip Nylon Butt Connector **P/N 2770** 
12-10 x 8 Double Grip Nylon Ring **P/N 2016**	12-10 x 3/8 Double Grip Nylon Ring **P/N 2020** 	12-10 x 8 Double Grip Nylon Spade **P/N 2116**	12-10 x 10 Double Grip Nylon Hook **P/N 2217**	12-10 x 1/4 Double Grip Nylon Male Quick Slide **P/N 2748**	12-10 Single Grip Nylon Butt Connector **P/N 2070** 
12-10 x 10 Double Grip Nylon Ring **P/N 2017**	12-10 x 1/2 Double Grip Nylon Ring **P/N 2021** 	12-10 x 10 Double Grip Nylon Spade **P/N 2117**	12-10 x 10 Double Grip Nylon Snap Spade **P/N 2798** 	12-10 x 1/4 Double Grip Nylon Fully Insulated Female Quick Slide **P/N 2044**	12-10 Moisture Resistant Butt Connector **P/N 2061** 
12-10 x 1/4 Double Grip Nylon Ring **P/N 2018** 	12-10 x 6-8 Double Grip Nylon Multi Ring **P/N 2725** 	12-10 x 6 Double Grip Nylon Hook **P/N 2215** 	12-10 x 1/4 Double Grip Nylon Snap Spade **P/N 2799**	12-10 x 1/4 Double Grip Nylon Fully Insulated Male Quick Slide **P/N 2076**	12-10 Fully Insulated Nylon Female Flag Quick Slide **P/N 2049** 

A20-26

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 877-233-3377 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

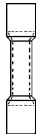
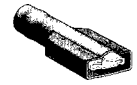
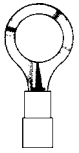
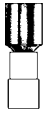
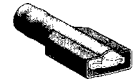
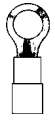
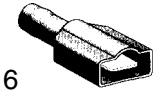
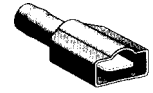
BLUE 16-14 TERMINAL ASSORTMENT

P/N 17846

FEATURES:

- *Double crimp holds both wire & insulation for superior strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*
- *One piece, electro-tin plated high-conductivity copper construction for maximum corrosion resistance*
- *Crimp guides for accurate crimping*

400

16-14 x 6 Double Grip Nylon Ring **P/N 2009**	16-14 x 5/16 Double Grip Nylon Ring **P/N 2013**	16-14 x 10 Double Grip Nylon Hook **P/N 2211**	16-14 Double Grip Nylon Butt Connector **P/N 2760** 	16-14 x 3/16 Double Grip Nylon Female Quick Slide **P/N 2023**	16-14 x 3/16 Double Grip Nylon Fully Insulated Female Quick Slide **P/N 2047** 
16-14 x 8 Double Grip Nylon Ring **P/N 2010**	16-14 x 3/8 Double Grip Nylon Ring **P/N 2014** 	16-14 x 6 Double Grip Nylon Spade **P/N 2109**	16-14 Single Grip Nylon Butt Connector **P/N 2060**	16-14 x 1/4 Double Grip Nylon Female Quick Slide **P/N 2035** 	16-14 x 1/4 Double Grip Nylon Fully Insulated Female Quick Slide **P/N 2048** 
16-14 x 10 Double Grip Nylon Ring **P/N 2011** 	16-14 x 6 Double Grip Nylon Hook **P/N 2209**	16-14 x 8 Double Grip Nylon Spade **P/N 2110**	16-14 Moisture Resistant Butt Connector **P/N 2062**	16-14 x 3/16 Double Grip Nylon Male Quick Slide **P/N 2738**	16-14 x 3/16 Double Grip Nylon Fully Insulated Male Quick Slide **P/N 2074** 
16-14 x 1/4 Double Grip Nylon Ring **P/N 2012**	16-14 x 8 Double Grip Nylon Hook **P/N 2210**	16-14 x 10 Double Grip Nylon Spade **P/N 2111**	16-14 x 1/8 Double Grip Nylon Female Quick Slide **P/N 2022**	14-16 x 1/4 Double Grip Nylon Male Quick Slide **P/N 2025**	16-14 x 1/4 Double Grip Nylon Fully Insulated Male Quick Slide **P/N 2058** 

A202-27

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

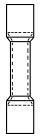
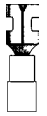
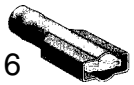
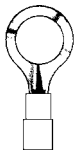
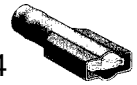
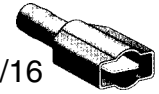
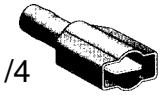
RED 22-18 TERMINAL ASSORTMENT

P/N 17847

FEATURES:

- *Double crimp holds both wire & insulation for superior strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*
- *One piece, electro-tin plated high-conductivity copper construction for maximum corrosion resistance*
- *Crimp guides for accurate crimping*

380

22-18 x 4 Double Grip Nylon Ring **P/N 2001**	22-18 x 5/16 Double Grip Nylon Ring **P/N 2006**	22-18 x 10 Double Grip Nylon Hook **P/N 2204**	22-18 Double Grip Nylon Butt Connector **P/N 2750** 	22-18 x 3/16 Double Grip Nylon Female Quick Slide **P/N 2031** 	22-18 x 3/16 Double Grip Nylon Fully Insulated Female Quick Slide **P/N 2041** 
22-18 x 6 Double Grip Nylon Ring **P/N 2002**	22-18 x 3/8 Double Grip Nylon Ring **P/N 2007** 	22-18 x 6 Double Grip Nylon Spade **P/N 2102**	22-18 Single Grip Nylon Butt Connector **P/N 2050**	22-18 x 1/4 Double Grip Nylon Female Quick Slide **P/N 2024**	22-18 x 1/4 Double Grip Nylon Fully Insulated Female Quick Slide **P/N 2042** 
22-18 x 8 Double Grip Nylon Ring **P/N 2003**	22-18 x 6 Double Grip Nylon Hook **P/N 2202**	22-18 x 8 Double Grip Nylon Spade **P/N 2103**	22-18 Moisture Resistant Butt Connector **P/N 2063**	22-18 x 3/16 Double Grip Nylon Male Quick Slide **P/N 2053**	22-18 x 3/16 Double Grip Nylon Fully Insulated Male Quick Slide **P/N 2071** 
22-18 x 1/4 Double Grip Nylon Ring **P/N 2005**	22-18 x 8 Double Grip Nylon Hook **P/N 2203**	22-18 x 10 Double Grip Nylon Spade **P/N 2104**	22-18 x .110 Double Grip Nylon Female Quick Slide **P/N 2055**	22-18 x 1/4 Double Grip Nylon Male Quick Slide **P/N 2054**	22-18 x 1/4 Double Grip Nylon Fully Insulated Male Quick Slide **P/N 2072** 

A20-28

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

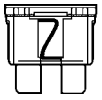
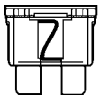
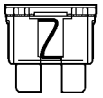
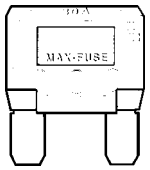
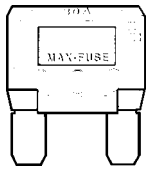
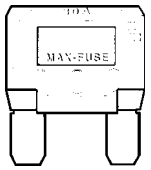
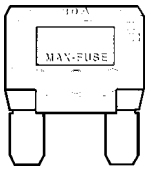
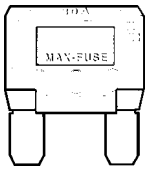
AUTOMOTIVE/BLADE FUSE ASSORTMENT

P/N 17843

FEATURES:

- *Quality flat blade fuses provide safety and reliability by preventing short-circuits and overloads that can cause fires and property damage*
- *Color-coded for fast, easy identification*

105

ATM 2 Amp Mini Fuse **P/N 6290**	ATM 3 Amp Mini Fuse **P/N 6291**	ATM 4 Amp Mini Fuse **P/N 6292**	ATM 5 Amp Mini Fuse **P/N 6293**	ATM 7-1/2 Amp Mini Fuse **P/N 6294**	ATM 10 Amp Mini Fuse **P/N 6295**
ATM 15 Amp Mini Fuse **P/N 6296**	ATM 20 Amp Mini Fuse **P/N 6297**	ATM 25 Amp Mini Fuse **P/N 6298**	ATM 30 Amp Mini Fuse **P/N 6299**	 ATC 3 Amp Fuse **P/N 2900**	 ATC 4 Amp Fuse **P/N 2901**
ATC 5 Amp Fuse **P/N 2902**	ATC 7-1/2 Amp Fuse **P/N 2903**	ATC 10 Amp Fuse **P/N 2904**	ATC 15 Amp Fuse **P/N 2905**	ATC 20 Amp Fuse **P/N 2906**	 ATC 25 Amp Fuse **P/N 2907**
ATC 30 Amp Fuse **P/N 2908**	 Maxi 20 Amp Fuse **P/N 29050**	 Maxi 30 Amp Fuse **P/N 29051**	 Maxi 40 Amp Fuse **P/N 29052**	 Maxi 50 Amp Fuse **P/N 29053**	 Maxi 60 Amp Fuse **P/N 29054**

A20-29

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

AUTOMOTIVE BULB AND FLASHER ASSORTMENT

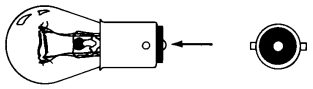
P/N 17853

FEATURES:

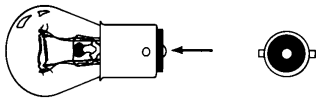
- *All lamps/bulbs are identified by the standard industry number*
- *Electronic signal flashers meet the demands of heavy trucks and conform to all D.O.T. requirements and SAE specifications*

82

#67
AUTO/TRUCK BULB
P/N 28904



#89
AUTO/TRUCK BULB
P/N 28906



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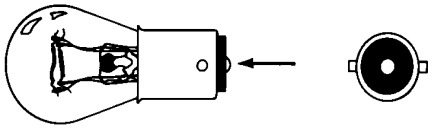
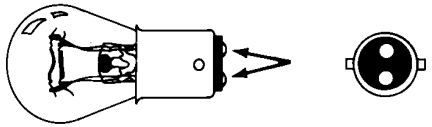
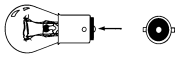
AUTO/TRUCK BULB
P/N 28928



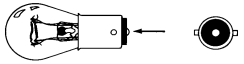
#1157
AUTO/TRUCK BULB
P/N 28930



#53
AUTO/TRUCK BULB
P/N 28900

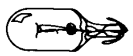


#1893
AUTO/TRUCK BULB
P/N 28938

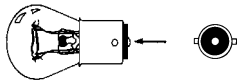


EXTRA HEAVY
5X SERIES / 2 PRONG
P/N 29060

#194
AUTO/TRUCK BULB
P/N 28914



#1895
AUTO/TRUCK BULB
P/N 28940



EXTRA HEAVY
5X SERIES / 3 PRONG
P/N 29061

A20-30

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

PIGTAIL STRAIN RELIEF ASSORTMENT

P/N 17851

FEATURES:

- *Liquid tight, spiral strain relief that offers additional safety against overstress and conductor breakage.*
- *Ideally suited for hand-held equipment, moving machinery, robotics and instrumentation.*
- *PG thread size lock nuts are included. NPT size lock nuts are sold separately.*

50

Diameter Range:
.118 - .255
Mounting Hole:
.492

PG-7
PIGTAIL STRAIN RELIEF
P/N 28180

Diameter Range:
.197 - .394
Mounting Hole:
.733

PG-11
PIGTAIL STRAIN RELIEF
P/N 28182

Diameter Range:
.394 - .551
Mounting Hole:
.886

PG-16
PIGTAIL STRAIN RELIEF
P/N 28184

Diameter Range:
.157 - .314
Mounting Hole:
.599

PG-9
PIGTAIL STRAIN RELIEF
P/N 28181

Diameter Range:
.236 - .472
Mounting Hole:
.804

PG-13.5
PIGTAIL STRAIN RELIEF
P/N 28183

Diameter Range:
.236 - .472
Mounting Hole:
.825

NOT ACTUAL SIZE

1/2 NPT LOCK NUT
P/N 28204

1/2 NPT
PIGTAIL STRAIN RELIEF
P/N 28185

3/4 NPT
LOCK NUT
P/N 28205

Diameter Range:
.545 - .709
Mounting Hole:
1.050

3/4 NPT
PIGTAIL STRAIN RELIEF
P/N 28186

A20-31

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

STRAIN RELIEF ASSORTMENT

P/N 17852

FEATURES:

- *Liquid tight, unique, easy to assemble strain relief cable connectors.*
- *Universally suited for all types of machinery and equipment, including automation, motion control and robotics.*
- *PG thread size lock nuts are included. NPT size lock nuts are sold separately.*

56

Diameter Range:
.118 - .255
Mounting Hole:
.492

PG-7
STRAIN RELIEF
P/N 28190

Diameter Range:
.157 - .314
Mounting Hole:
.599

PG-9
STRAIN RELIEF
P/N 28191

Diameter Range:
.197 - .394
Mounting Hole:
.733

PG-11
STRAIN RELIEF
P/N 28192

Diameter Range:
.236 - .472
Mounting Hole:
.804

PG-13.5
STRAIN RELIEF
P/N 28193

Diameter Range:
.394 - .551
Mounting Hole:
.886

PG-16
STRAIN RELIEF
P/N 28194

Diameter Range:
.545 - .709
Mounting Hole:
1.115

PG-21
STRAIN RELIEF
P/N 28195

Diameter Range:
.708 - .984
Mounting Hole:
1.457

PG-29
STRAIN RELIEF
P/N 28196

1/2 NPT
LOCK NUT
P/N 28204

1/2 NPT
STRAIN RELIEF
P/N 28187

Diameter Range:
.236 - .472
Mounting Hole:
.825

3/4 NPT
LOCK NUT
P/N 28205

3/4 NPT
STRAIN RELIEF
P/N 28188

Diameter Range:
.545 - .709
Mounting Hole:
1.050

1 NPT
LOCK NUT
P/N 28206

1 NPT
STRAIN RELIEF
P/N 28189

Diameter Range:
.708 - .984
Mounting Hole:
1.303

A20-32

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

CONNECTOR INSTRUCTIONS

1. **Strip wire end**
   08-10 and 12-18 AWG – approximately 1/2"
   18-24 AWG – approximately 3/8"
2. **Insert wire into male end**
   EXPOSE BARE WIRE ONLY
3. **Hand tighten male end into barrel**

CONNECTION COMPLETED!
Repeat steps 1 - 3 for other wire

POSI-LOCK™ CONNECTOR & SUR-SEAL™ TERMINAL ASSORTMENT

P/N 17863

8 82503 17863 5

FEATURES:

- *No tools required*
- *Up to 4 times stronger than crimp connectors*
- *Multiple splice connections (over 26 wire combinations)*
- *High temperature and chemical resistant*
- *Reusable & reconnectable, weather resistant brass core*
- *Heat shrink tubing & tin plated high conductivity copper connectors bond together to form a moisture-proof seal*

160

8 82503 20600 0

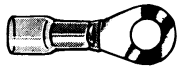
18-24 AWG
Posi-Lock™ Connector – Red
P/N 20600

8 82503 20637 6

20-22 AWG
Posi-Tap™ Connector – Red
P/N 20637

8 82503 02828 2

22-18 AWG **/** Stud Size 8-10
Sur-Seal™ Terminal – Red
P/N 2828



8 82503 02821 3

16-14 AWG **/** Stud Size 1/4"
Sur-Seal™ Terminal – Blue
P/N 2821

8 82503 04639 2

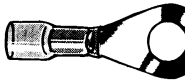
16-14 AWG
Posi-Lock™ Connector – Blue
P/N 20627

8 82503 20638 3

16-18 AWG
Posi-Tap™ Connector – Blue
P/N 20638

8 82503 02817 6

22-18 AWG **/** Stud Size 8-10
Sur-Seal™ Terminal – Red
P/N 2817



8 82503 02822 0

16-14 AWG **/** Stud Size 5/16"
Sur-Seal™ Terminal – Blue
P/N 2822

8 82503 04637 8

12-10 AWG
Posi-Lock™ Connector – Yellow
P/N 20628

8 82503 20639 0

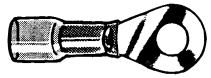
12-18 AWG
Posi-Tap™ Connector – Black
P/N 20639

8 82503 02820 6

16-14 AWG **/** Stud Size 8-10
Sur-Seal™ Terminal – Blue
P/N 2820

8 82503 02824 4

12-10 AWG **/** Stud Size 8-10
Sur-Seal™ Terminal – Yellow
P/N 2824



8 82503 02825 1

12-10 AWG **/** Stud Size 1/4"
Sur-Seal™ Terminal – Yellow
P/N 2825

8 82503 20617 8

6-8 AWG
Posi-Lock™ Connector – White
P/N 20617

8 82503 20640 6

10-16 AWG
Posi-Tap™ Connector – Yellow
P/N 20640

8 82503 20618 5

12-18 AWG
Posi-Lock™ Blade Fuseholder
P/N 20618

8 82503 20606 2

12-18 AWG
Posi-Lock™ Glass Tube Fuseholder
P/N 20606

A20-33

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

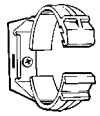
INSTRUCTIONS:
1. *Insert conduit/pipe into open hanger.*
2. *Apply slight pressure to the conduit/pipe and the jaws close and lock. Do not try to squeeze the hanger closed.*

CONDUIT/PIPE HANGER ASSORTMENT

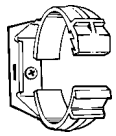
P/N 17882

FEATURES:
- *Highly versatile – works with all types of cable and conduit*
- *Easy to use – requiring only one installer*
- *Economical – since installation time is routinely reduced by up to 35%*
- *Highly adaptable – can be attached to cable tray, concrete, brick, cinder block, sheet metal, fiberglass, strut – virtually any surface or structural member*
- *Corrosion resistant – made of durable Nylon 12 Grilamid®*

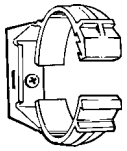
.374 - .465 (#10)
P/N 22971



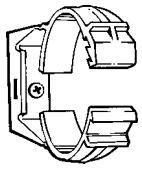
.465 - .563 (#12)
P/N 22972



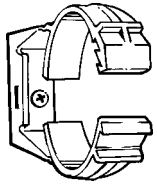
.563 - .661 (#15)
P/N 22973



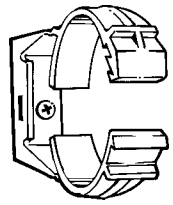
.661 - .768 (#17)
P/N 22974



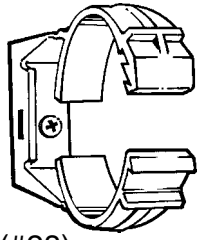
.768 - .866 (#20)
P/N 22975



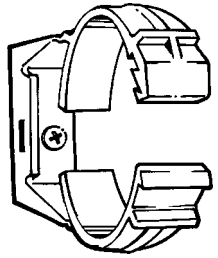
.866 - .898 (#22)
P/N 22976



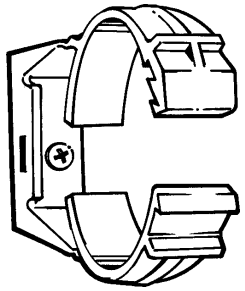
.969 - 1.094 (#25)
P/N 22977



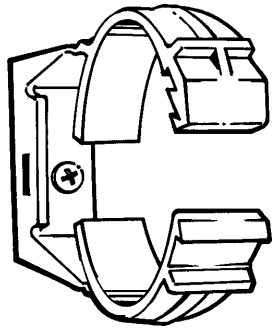
1.094 - 1.228 (#28)
P/N 22978



1.228 - 1.398 (#32)
P/N 22979



1.398 - 1.555 (#36)
P/N 22980



1.555 - 1.713 (#40)
P/N 22981

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

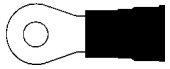
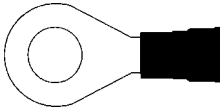
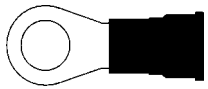
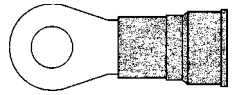
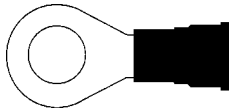
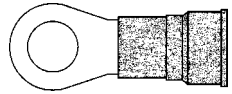
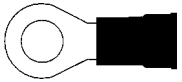
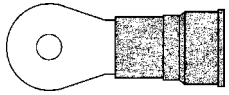
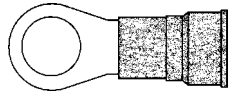
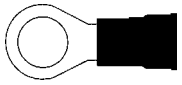
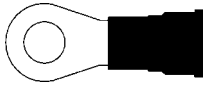
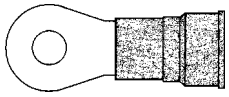
BRAZED SEAM RING TERMINALS

P/N 17886

FEATURES:

- *Terminals have nylon insulation and brazed seam for superior performance*
- *Funnel design for post, positive wire insertion*
- *Operating temperature -40°F to 221°F (-40°C to 105°C)*

165

 8 GA x 10 **P/N 21000**	 8 GA x 1/2 **P/N 21005**	 6 GA x 3/8 **P/N 21010**	 4 GA x 5/16 **P/N 21016**
8 GA x 1/4 **P/N 21001**	6 GA x 10 **P/N 21007**	 6 GA x 1/2 **P/N 21012**	 4 GA x 3/8 **P/N 21017**
 8 GA x 5/16 **P/N 21002**	6 GA x 1/4 **P/N 21008**	 4 GA x 10 **P/N 21014**	 4 GA x 1/2 **P/N 21019**
 8 GA x 3/8 **P/N 21003**	 6 GA x 5/16 **P/N 21009**	 4 GA x 1/4 **P/N 21015**	**EXPANSION**

A2036

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

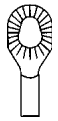
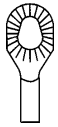
NON-INSULATED BRAZED SEAM TERMINALS (22-18 GA)

P/N 17887

FEATURES:

- *Non-insulated terminals have a brazed seam for superior performance*
- *Beveled smooth for easy wire insertion*
- *Operating temperature to 347ºF (175ºC)*

650

 22-18 x 2-6 Multi-Ring **P/N 24110**	22-18 x 1/4 Ring **P/N 24117**	22-18 x 3/16 Female Disconnect **P/N 24136**	22-18 x 3/16 Female Flag Terminal **P/N 24147**
 22-18 x 6-10 Multi-Ring **P/N 24111**	22-18 x 6 Spade **P/N 24126**	22-18 x 1/4 Female Disconnect **P/N 24137**	**EXPANSION**
22-18 x 6 Ring **P/N 24115**	22-18 x 10 Spade **P/N 24127**	22-18 x 3/16 Male Disconnect **P/N 24140**	**EXPANSION**
22-18 x 10 Ring **P/N 24116**	22-18 Seamless Butt Connector **P/N 24132**	22-18 x 1/4 Male Disconnect **P/N 24141**	**EXPANSION**

A20-37

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

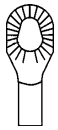
NON-INSULATED BRAZED SEAM TERMINALS (16-14 GA)

P/N 17888

FEATURES:

- *Non-insulated terminals have a brazed seam for superior performance*
- *Beveled smooth for easy wire insertion*
- *Operating temperature to 347°F (175°C)*

700

 16-14 x 2-6 Multi-Ring **P/N 24112**	 16-14 x 1/4 Ring **P/N 24120**	 16-14 Seamless Butt Connector **P/N 24133**	 16-14 x 1/4 Male Disconnect **P/N 24143**
 16-14 x 6-10 Multi-Ring **P/N 24113**	 16-14 x 3/8 Ring **P/N 24121**	 16-14 x 3/16 Female Disconnect **P/N 24138**	 16-14 x 3/16 Female Flag Terminal **P/N 24148**
 16-14 x 6 Ring **P/N 24118**	 16-14 x 6 Spade **P/N 24128**	 16-14 x 1/4 Female Disconnect **P/N 24139**	**EXPANSION**
 16-14 x 10 Ring **P/N 24119**	 16-14 x 10 Spade **P/N 24129**	 16-14 x 3/16 Male Disconnect **P/N 24142**	**EXPANSION**

A20-38

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

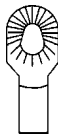
NON-INSULATED BRAZED SEAM TERMINALS (12-10 GA)

P/N 17889

FEATURES:

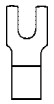
- *Non-insulated terminals have a brazed seam for superior performance*
- *Beveled smooth for easy wire insertion*
- *Operating temperature to 347°F (175°C)*

450

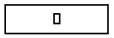


12-10 x 6-10 Multi-Ring
P/N 24114

12-10 x 1/4 Ring
P/N 24124



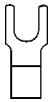
12-10 x 6 Spade
P/N 24130



12-10 Seamless
Butt Connector
P/N 24134

12-10 x 6 Ring
P/N 24122

12-10 x 3/8 Ring
P/N 24125



12-10 x 10 Spade
P/N 24131

12-10 x 1/4
Male Disconnect
P/N 24144

12-10 x 10 Ring
P/N 24123

A2039

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CHROMATE® INDUSTRIAL CORP.

CIC 200™ TEST/ALLIGATOR CLIPS

P/N 17891

FEATURES:

- *Crimp, solder and screw type alligator clips*
- *Red and black insulators for easy color-coding*

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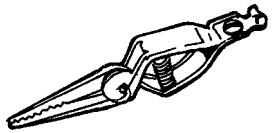
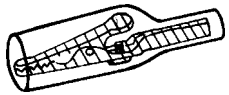
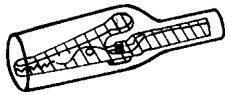
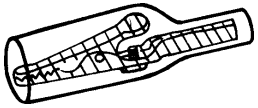
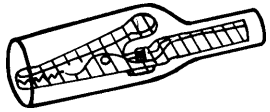
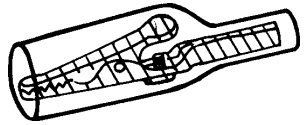
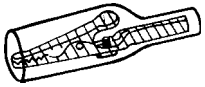
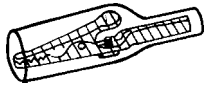
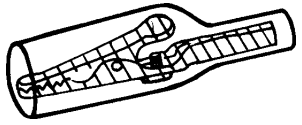
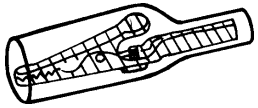
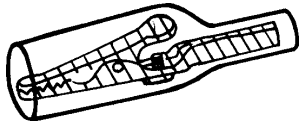
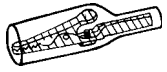
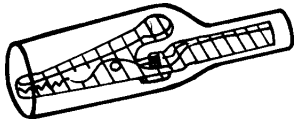
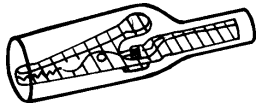
 2-3/8 x 5/16 Alligator Clip - Steel Red **P/N 8274**	 2-3/8 x 5/16 Alligator Clip - Steel Black **P/N 8272**	 2-1/8 x 5/16 Crocodile Clip - Copper **P/N 28272**	 Insulator for 28272 Black **P/N 28286**	 Insulator for 28272 Red **P/N 28287**	 2-7/16 x 5/8 General Purpose - Steel **P/N 28273**
 2 x 5/16 Alligator Clip - Steel **P/N 8270**	 Insulator for 8270/8276 Red **P/N 8298**	 Insulator for 8270/8276 Black **P/N 8296**	 2 x 1/2 General Purpose - Steel **P/N 8292**	 1-1/2 x 5/16 General Purpose - Steel **P/N 8290**	 Insulator for 28273 Red **P/N 28303**
 1-3/32 x 3/16 Mini-Alligator Clip - Steel **P/N 28270**	 Insulator for 28270 Red **P/N 28281**	 Insulator for 28270 Black **P/N 28280**	 Insulator for 8292 Red **P/N 28297**	 Insulator for 8290 Red **P/N 28291**	 Insulator for 28273 Black **P/N 28300**
 1-3/32 x 3/16 Mini-Alligator Clip - Steel **P/N 8284**	 Insulator for 8284/8286 Red **P/N 28277**	 Insulator for 8284/8286 Black **P/N 28274**	 Insulator for 8292 Black **P/N 28294**	 Insulator for 8290 Black **P/N 28288**	**EXPANSION**

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TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

COMPRESSION LUGS & BUTT CONNECTORS

P/N 17890

FEATURES:

- *High Conductivity*
- *Wrought Copper*
- *Electro Tin Plated to Minimize Corrosion*
- *Long Barrel Permits Two Crimps for Heavy Loads*
- *Color Code Designates Cable Size and Tool Setting Die*
- *Chamfered Ends Provide Easy Cable Insertion*

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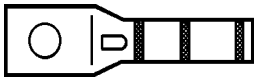
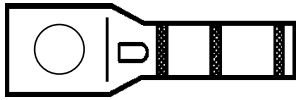
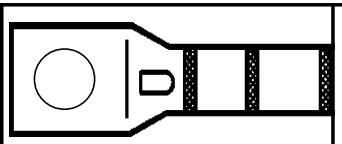
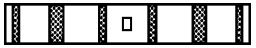
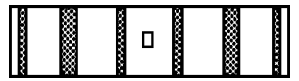
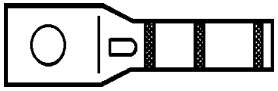
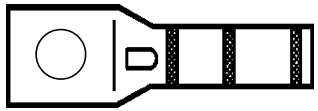
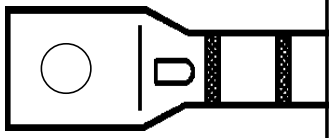
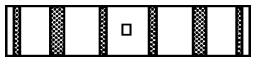
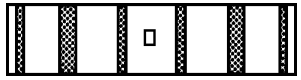
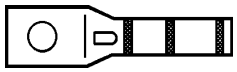
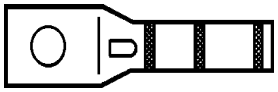
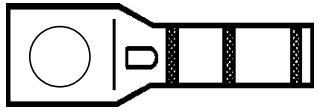
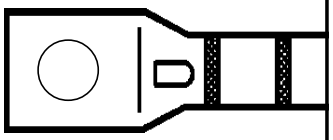
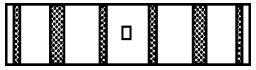
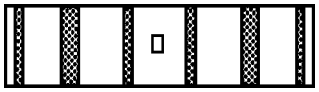
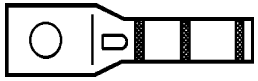
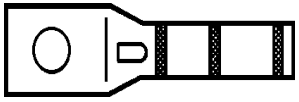
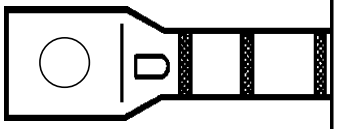
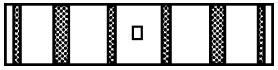
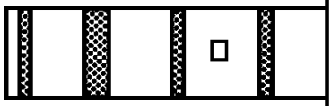
8 GA x 10 Compression Lug **P/N 22314**	 2 GA x 5/16 Compression Lug **P/N 22318**	 1/0 x 3/8 Compression Lug **P/N 22322**	 3/0 x 1/2 Compression Lug **P/N 22326**	 6 GA Compression Butt Connector **P/N 22301**	 1/0 Compression Butt Connector **P/N 22305**
6 GA x 1/4 Compression Lug **P/N 22315**	 1 GA x 1/4 Compression Lug **P/N 22319**	 2/0 x 3/8 Compression Lug **P/N 22323**	 4/0 x 3/8 Compression Lug **P/N 22327**	 4 GA Compression Butt Connector **P/N 22302**	 2/0 Compression Butt Connector **P/N 22306**
 4 GA x 1/4 Compression Lug **P/N 22316**	 1 GA x 5/16 Compression Lug **P/N 22320**	 2/0 x 1/2 Compression Lug **P/N 22324**	 4/0 x 1/2 Compression Lug **P/N 22328**	 2 GA Compression Butt Connector **P/N 22303**	 3/0 Compression Butt Connector **P/N 22307**
 2 GA x 1/4 Compression Lug **P/N 22317**	 1/0 x 5/16 Compression Lug **P/N 22321**	 3/0 x 3/8 Compression Lug **P/N 22325**	8 GA Compression Butt Connector **P/N 22300**	 1 GA Compression Butt Connector **P/N 22304**	 4/0 Compression Butt Connector **P/N 22308**

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

DOUBLE GRIP NYLON INSULATED TERMINAL ASSORTMENT

P/N 17903

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *High temperature nylon insulation*

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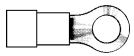
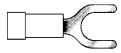
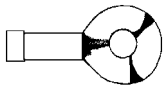
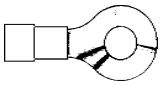
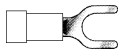
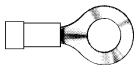
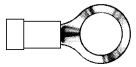
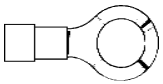
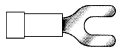
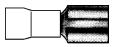
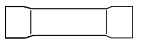
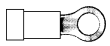
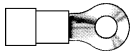
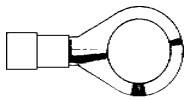
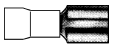
 22-18 x 6 RING CONNECTOR **P/N 2002**	 16-14 x 10 RING CONNECTOR **P/N 2011**	 12-10 x 10 RING CONNECTOR **P/N 2017**	 22-18 x 10 SPADE **P/N 2104**	 16-14 x 1/4 MALE QUICK SLIDE **P/N 2025**	 12-10 x 1/4 FEMALE QUICK SLIDE **P/N 2036**
 22-18 x 10 RING CONNECTOR **P/N 2004**	 16-14 x 1/4 RING CONNECTOR **P/N 2012**	 12-10 x 1/4 RING CONNECTOR **P/N 2018**	 16-14 x 10 SPADE **P/N 2111**	 12-10 x 1/4 MALE QUICK SLIDE **P/N 2748**	 22-18 BUTT CONNECTOR **P/N 2750**
 22-18 x 1/4 RING CONNECTOR **P/N 2005**	 16-14 x 3/8 RING CONNECTOR **P/N 2014**	 12-10 x 3/8 RING CONNECTOR **P/N 2020**	 12-10 x 10 SPADE **P/N 2117**	 22-18 x 1/4 FEMALE QUICK SLIDE **P/N 2024**	 16-14 BUTT CONNECTOR **P/N 2760**
 16-14 x 6 RING CONNECTOR **P/N 2009**	 12-10 x 6 RING CONNECTOR **P/N 2015**	 12-10 x 1/2 RING CONNECTOR **P/N 2021**	 22-18 x 1/4 MALE QUICK SLIDE **P/N 2054**	 16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2035**	 12-10 BUTT CONNECTOR **P/N 2770**

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TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

BATTERY ASSORTMENT

P/N 17906

- *Long lasting and dependable – even after 5 years of storage*
- *Lasts up to five times longer than super heavy duty batteries*
- *Long service life at high drain discharges*
- *Less likely to leak, protecting important equipment*
- *Mercury free*
- *Operates reliably in temperature extremes of -39°F to 106°F (-20°C to 54°C)*
- *Date coded to ensure freshness*

58

D PROCELL ALKALINE BATTERY **P/N 29201**	C PROCELL ALKALINE BATTERY **P/N 29202**	AA PROCELL ALKALINE BATTERY **P/N 29203**	9V PROCELL ALKALINE BATTERY **P/N 29200**
D PROCELL ALKALINE BATTERY **P/N 29201**	C PROCELL ALKALINE BATTERY **P/N 29202**	AA PROCELL ALKALINE BATTERY **P/N 29203**	9V PROCELL ALKALINE BATTERY **P/N 29200**
D PROCELL ALKALINE BATTERY **P/N 29201**	C PROCELL ALKALINE BATTERY **P/N 29202**	AA PROCELL ALKALINE BATTERY **P/N 29203**	AAA PROCELL ALKALINE BATTERY **P/N 29204**
D PROCELL ALKALINE BATTERY **P/N 29201**	C PROCELL ALKALINE BATTERY **P/N 29202**	AA PROCELL ALKALINE BATTERY **P/N 29203**	AAA PROCELL ALKALINE BATTERY **P/N 29204**

A20-44

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

PUSH-CON/SNAP-CON/SPRING-CON WIRE CONNECTOR ASSORTMENT **P/N 17908**

- *Connects both stranded and solid copper wire*
- *Push-Con have clear housing which allows visual identification*
- *No more twisting and taping required – simply strip the wire and insert the conductor*
- *Integrated test port allows for continuity testing without re-insertion*
- *Touch-proof and rated to 206°F (105°C)*
- *UL listed / CSA certified for 600 volts (1000 volts for fixtures and signs)*

283

2-CONDUCTOR
PUSH-CON WIRE CONNECTOR – YELLOW
12-16 AWG Stranded or 12-18 AWG Solid Copper
P/N 2521

4-CONDUCTOR
PUSH-CON WIRE CONNECTOR – ORANGE
12-16 AWG Stranded or 12-18 AWG Solid Copper
P/N 2522

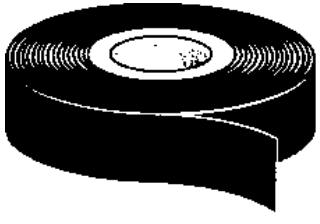
6-CONDUCTOR
PUSH-CON WIRE CONNECTOR – BLACK
12-16 AWG Stranded or 12-18 AWG Solid Copper
P/N 2523

8-CONDUCTOR
PUSH-CON WIRE CONNECTOR – GREY
12-16 AWG Stranded or 12-18 AWG Solid Copper
P/N 2524

3-CONDUCTOR
SNAP-CON WIRE CONNECTOR – RED
10-14 AWG Stranded or 10-14 AWG Solid Copper
P/N 2517

3-CONDUCTOR
SNAP-CON WIRE CONNECTOR
P/N 2518

SPRING-CON BUTT CONNECTOR – GRAY
12-28 AWG Stranded or Solid Wire
P/N 2516



3/4" x 60' COBRA INSULATED TAPE
P/N 2199

4-CONDUCTOR HI-TEMP
PUSH-CON WIRE CONNECTOR – BLACK
P/N 2532

MULTI-PURPOSE STRIP & CRIMP TOOL
P/N 8256

A20-45

TRAY FRONT

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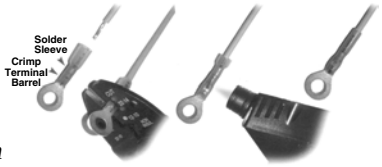
CHROMATE® INDUSTRIAL CORP.

CSS TERMINALS (CRIMP-SOLDER-SEAL) ASSORTMENT

P/N 17909

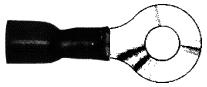
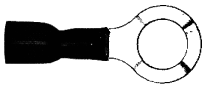
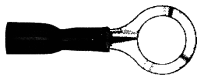
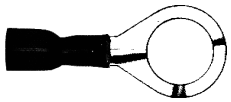
FEATURES:

- *Crimped for maximum reliability and easy installation*
- *Soldered for additional strength and better conductivity*
- *Sealed for durable insulation and watertight connection*



1. Strip the wire 1/2".
2. Select a connector that matches the wire gauge and insert the wire thru the solder sleeve and terminal barrel.
3. Make sure the wire is properly seated and crimp the terminal barrel (the 1/4" of the barrel closest to the terminal end) using an insulated connector crimping tool nest that matches the color or gauge of the terminal.
4. Apply heat evenly around the length of the tubing (including the crimp area) until the tubing fully recovers and the adhesive flows.
5. Continue distributing the heat over the solder sleeve until the solder flows into the terminal barrel.
6. Remove from the heat and let cool for the ULTIMATE connection.

200

18-20 x 6 CSS Ring **P/N 21700**	14-16 x 10 CSS Ring **P/N 21708**	10-12 x 10 CSS Ring **P/N 21714**	18-20 x 10 CSS Spade **P/N 21721**	18-20 CSS Butt Connector **P/N 21738**	18-20 CSS Male Quick Slide 1/4 **P/N 21743**
18-20 x 10 CSS Ring **P/N 21702**	14-16 x 1/4 CSS Ring **P/N 21709**	 10-12 x 1/4 CSS Ring **P/N 21715**	14-16 x 6 CSS Spade **P/N 21722**	14-16 CSS Butt Connector **P/N 21739**	14-16 CSS Female Quick Slide 1/4 Fully Insulated **P/N 21745**
18-20 x 1/4 CSS Ring **P/N 21703**	14/16 x 5/16 CSS Ring **P/N 21710**	 10-12 x 3/8 CSS Ring **P/N 21717**	14-16 x 10 CSS Spade **P/N 21724**	10-12 CSS Butt Connector **P/N 21740**	14-16 CSS Male Quick Slide 1/4 **P/N 21746**
14-16 x 6 CSS Ring **P/N 21706**	 14-16 x 3/8 CSS Ring **P/N 21711**	 10-12 x 1/2 CSS Ring **P/N 21718**	10-12 x 10 CSS Spade **P/N 21727**	18-20 CSS Female Quick Slide 1/4 Fully Insulated **P/N 21742**	10-12 CSS Female Quick Slide 1/4 Fully Insulated **P/N 21748** 10-12 CSS Male Quick Slide 1/4 **P/N 21749**

A20-46

TRAY FRONT

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CIC 200™ CLEAR SHRINK TUBING

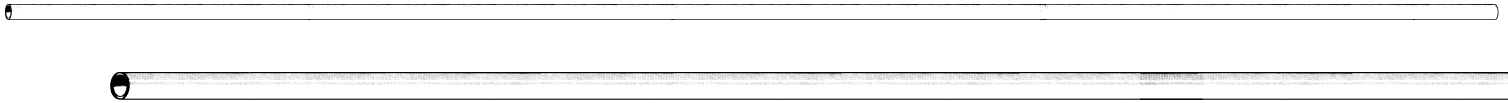
P/N 17925

FEATURES:

- *Dual wall flexible clear polyolefin tubing with thick wall adhesive*
- *Clear for easy viewing of finished product*
- *Operating temperature range is -67°F (-55°C) to 230°F (110°C)*
- *Recommended in applications requiring moisture protection or waterproofing*
- *Shrink temperature is 239°F (115°C)*

43

1/8" x 12"
P/N 26090



3/16" x 12"
P/N 26091

1/4" x 12"
P/N 26092

3/8" x 12"
P/N 26093

1/2" x 12"
P/N 26094

3/4" x 12"
P/N 26095

1" x 12"
P/N 26096

A20-47

TRAY FRONT

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CHROMATE INDUSTRIAL CORP.

BATTERY TERMINAL REPAIR ASSORTMENT

HEAT SHRINK TUBING:
- *Thick wall for abrasion protection and puncture resistance*
- *Sealant locks out corrosion causing elements*
- *Made of a tough crosslinked polyolefin*

SUR-SEAL BUTT CONNECTOR:
- *Protection for splices exposed to the elements*
- *Heat shrink tubing provides a high strength, water-tight seal*

LECTRO SEAL:
- *Heavy polyvinyl chloride backing*
- *Self-fuseing, rubber based insulating compound*

FUSION SEAL:
- *Weather and saltwater resistant*
- *Form fitting*
- *Electrical insulator*

MAGNA-LUG:
- *Wider pads for better electrical contact*
- *Thicker pads for greater strength*
- *80% thicker walls for greater conductivity and strength*

MILITARY BATTERY CONNECTORS:
- *Mil specs A52425-1 / A52425 - 2*

P/N 17936

40

2GA 4/0 BLK 6" HVY WALL
HEAT SHRINK TUBE
P/N 32178

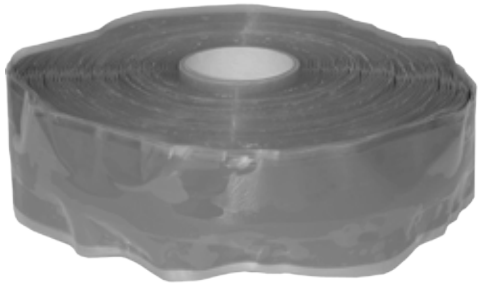
2GA 4/0 RED 6" HVY WALL
HEAT SHRINK TUBE
P/N 32180

2/0 GA MAGNA-LUG
1/2 STUD
P/N 32206

16-14 SUR-SEAL
BUTT CONNECTOR
P/N 2842

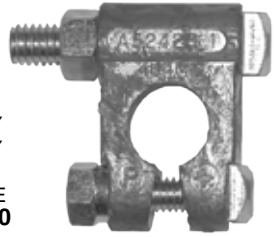
STUD NUT
P/N 32165

SIDE MOUNT BOLT-OEM
P/N 32166

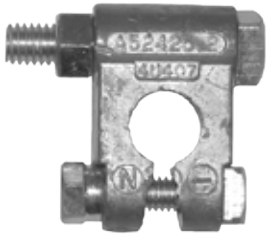


1 X 36 FUSION SEAL
ELEC WRAP-RED
P/N 2899

2-1/2 X 10'
LECTRO SEAL "600"
P/N 2898



MILITARY
BATTERY
CONN.
POSITIVE
P/N 2810



MILITARY
BATTERY
CONN.
NEGATIVE
P/N 2812

A20-48

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CHROMATE INDUSTRIAL CORP.

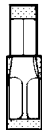
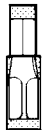
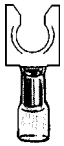
HMMWV ELECTRICAL TERMINAL ASSORTMENT

P/N 17960

FEATURES:

- *Contains Chromate's high strength terminals for lasting repairs*

520

16-14 x .157 SNAP PLUG **P/N 2030**	16-14 x .176 SNAP PLUG **P/N 2029**	16-14 x .157 SNAP PLUG RECEPTACLE **P/N 2784** 	16-14 x .176 SNAP PLUG RECEPTACLE **P/N 2765** 	.156 2-WAY SNAP PLUG CONNECTOR **P/N 2040**	EXPANSION
16-14 x 4-6 SUR SEAL RING CONNECTOR **P/N 2819**	16-14 x 8-10 SUR SEAL RING CONNECTOR **P/N 2820**	16-14 x 1/4 SUR-SEAL RING CONNECTOR **P/N 2821**	16-14 x 5/16 SUR-SEAL RING CONNECTOR **P/N 2822**	16-14 x 3/8 SUR-SEAL RING CONNECTOR **P/N 2823**	EXPANSION
16-14 x 6 SUR SEAL SNAP SPADE **P/N 21606**	16-14 x 8 SUR SEAL SNAP SPADE **P/N 21607**	16-14 x 10 SUR-SEAL SNAP SPADE **P/N 21608**	16-14 x 1/4 SUR-SEAL SNAP SPADE **P/N 21609** 	EXPANSION	EXPANSION
16-14 x 1/4 SUR SEAL FULLY INSULATED FEMALE QUICK SLIDE **P/N 2845**	16-14 x 1/4 SUR SEAL FULLY INSULATED MALE QUICK SLIDE **P/N 2844**	16-14 SUR-SEAL BUTT CONNECTOR **P/N 2842**	4 GA MAGNA-LUG 3/8 STUD **P/N 32214**	EXPANSION	EXPANSION

A20-50

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CHROMATE® INDUSTRIAL CORP.

BLOW ALERT FUSE ASSORTMENT

P/N 17963

FEATURES:

- *It glows when it blows – when a circuit short or surge occurs, a light atop the fuse immediately indicates which fuse needs replacing*
- *Color-coded for fast amperage identification*
- *Built to exacting oem specifications*
- *Saves time and effort and eliminates guesswork and testing*

ATM 3 Amp Mini Fuse – Violet **P/N 6280**	ATM 5 Amp Mini Fuse – Tan **P/N 6281**	ATM 7.5 Amp Mini Fuse – Brown **P/N 6282**	ATM 10 Amp Mini Fuse – Red **P/N 6283**	ATM 15 Amp Mini Fuse – Blue **P/N 6284**	ATM 20 Amp Mini Fuse – Yellow **P/N 6285**
ATM 25 Amp Mini Fuse – Natural **P/N 6286**	ATM 30 Amp Mini Fuse – Green **P/N 6287**	ATC 3 Amp Fuse – Violet **P/N 29070**	ATC 5 Amp Fuse – Tan **P/N 29071**	ATC 7.5 Amp Fuse – Brown **P/N 29072**	ATC 10 Amp Fuse – Red **P/N 29073**
ATC 15 Amp Fuse – Blue **P/N 29074**	ATC 20 Amp Fuse – Yellow **P/N 29075**	ATC 25 Amp Fuse – Natural **P/N 29076**	ATC 30 Amp Fuse – Green **P/N 29077**	ATC 40 Amp Fuse – Orange **P/N 29078**	Maxi 20 Amp Fuse – Yellow **P/N 29080**
Maxi 30 Amp Fuse – Green **P/N 29081**	Maxi 40 Amp Fuse – Orange **P/N 29082**	Maxi 50 Amp Fuse – Red **P/N 29083**	Maxi 60 Amp Fuse – Blue **P/N 29084**	Maxi 70 Amp Fuse – Tan **P/N 29085**	Maxi 80 Amp Fuse – Natural **P/N 29086**

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CHROMATE® INDUSTRIAL CORP.

RELEASABLE WIRE TIE ASSORTMENT

P/N 17968

RELEASABLE WIRE TIE FEATURES:

- *Temporary or permanent bundling allows for quick addition or removal of wires or items*
- *Strap finger release latch allows easy access but reduces snags compared to top latch style*

SNAP-TIE FEATURES:

- *Just one snap to tie and untie*
- *Made of durable nylon 6/6 and fully reusable*
- *Once applied, the tail can be tucked away for added safety*
- *Highly visible yellow color*
- *Versatile design allows use for multiple applications*

155

- **BLACK – RECOMMENDED FOR OUTDOOR USE**
- **SUPERIOR ULTRAVIOLET RESISTANCE AND LONG LIFE**

5/16" W x 6" L
1-3/8" Max. Dia. 50 psi
P/N 8452

3/16" W x 14-1/2" L
4" Max. Dia. 50 psi
P/N 8595

- **WHITE – RECOMMENDED FOR INDOOR USE**

5/16" W x 6" L
1-3/8" Max. Dia. 50 psi
P/N 8451

3/16" W x 14-1/2" L
4" Max. Dia. 50 psi
P/N 8598

1/2" W x 29-1/2" L
.75 - 8.25" Max. Dia.
200 lbs. tensile strength
P/N 8079

A20-55

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

NYLON CABLE CLAMPS ASSORTMENT **P/N 17974**

FEATURES:

- *Rustproof, rotproof, weatherproof and chemical proof*
- *Temperature range is -40°F to 185°F continuously, 250°F intermittently.*

925

5/32 x 1/8 Black **P/N 2602**	3/8 x 1/2 Black **P/N 2618**	1/2 x 3/8 White **P/N 2981**	1/2 x 3/4 White **P/N 2994**
5/32 x 3/16 Black **P/N 2604**	1/2 x 5/8 Black **P/N 2642**	1/2 x 7/16 White **P/N 2983**	1/2 x 1” White **P/N 2996**
1/4 x 1/4 Black **P/N 2608**	1/2 x 1/8 White **P/N 2976**	1/2 x 1/2 White **P/N 2985**	1/2 x 1-1/4 White **P/N 2998**
3/8 x 5/16 Black **P/N 2612**	1/2 x 3/16 White **P/N 2977**	1/2 x 5/8 White **P/N 2993**	1/2 x 1-1/2 White **P/N 2999**
3/8 x 3/8 Black **P/N 2614**	1/2 x 1/4 White **P/N 2978**		
3/8 x 7/16 Black **P/N 2616**	1/2 x 5/16 White **P/N 2979**		

A20-56

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

COLD SHRINK TUBING ASSORTMENT

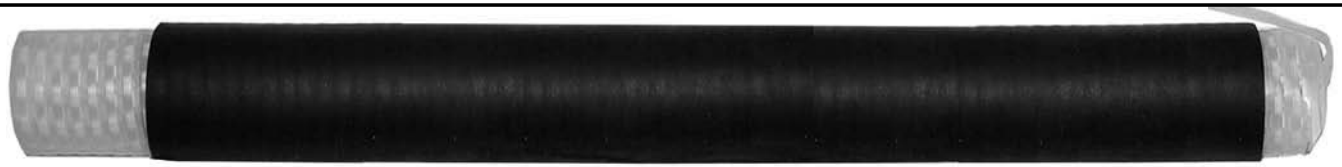
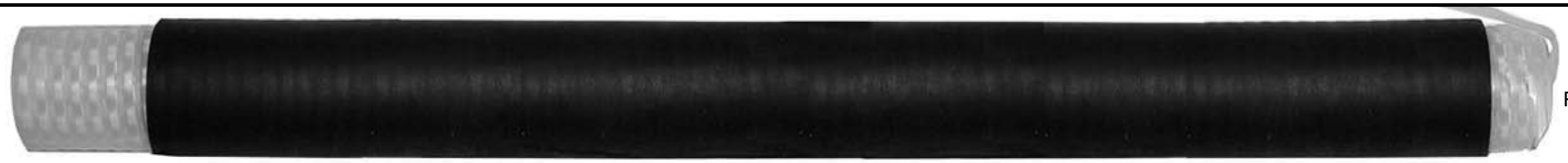
P/N 17989

PRODUCT DIAMETER RANGE:
Minimum = Seal Diameter
Maximum = Connector Clearance Dimension

FEATURES:

- *Pre-stretched on a removable core for efficiency and ease of installation*
- *Shrink to fit to ensure a permanent, durable environmental seal and protection*
- *No torches or heat required*
- *Water-resistant – meets the water seal requirements of ANSI C119.1*
- *Resists acids and alkalies; resists ozone*

8

PRODUCT DIAMETER RANGE 0.31” - 0.56” **P/N 66080**		RELAXED TUBE LENGTH 6”
PRODUCT DIAMETER RANGE 0.10” - 0.82” **P/N 66081**		RELAXED TUBE LENGTH 8”
PRODUCT DIAMETER RANGE 0.40” - 0.82” **P/N 66082**		RELAXED TUBE LENGTH 8”
PRODUCT DIAMETER RANGE 0.55” - 1.18” **P/N 66083**		RELAXED TUBE LENGTH 9”
PRODUCT DIAMETER RANGE 0.55” - 1.18” **P/N 66084**		RELAXED TUBE LENGTH 11”
PRODUCT DIAMETER RANGE 0.67” - 1.38” **P/N 66085**** **Primary uses: Sealing of terminal lug barrels, conduit couplings and conduit-to-cable breakouts.		RELAXED TUBE LENGTH 6”

A20-57

TRAY FRONT

ILLUSTRATIONS NOT ACTUAL SIZE

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CHROMATE® INDUSTRIAL CORP.

HEAT SHRINK CONNECTORS AND TUBING ASSORTMENT

P/N 17997

FEATURES:

- *Window on connector allows visual inspection*
- *High adhesive-flow polyolefin tubing seals multiple wires*
- *Uniform copper wall*
- *Crimp indicator*
- *Color-coded dashes on tubing indicate sizes*
- *Clear tubing allows visual inspection*

24-22 AWG Heat Shrink
Muti Wire In-line Connector
P/N 21616

20-18 AWG Heat Shrink
Muti Wire In-line Connector
P/N 21617

16-14 AWG Heat Shrink
Muti Wire In-line Connector
P/N 21618

12-10 AWG Heat Shrink
Muti Wire In-line Connector
P/N 21619

22-14 AWG Heat Shrink Multi Wire
Closed End Connector
P/N 21620

18-10 AWG Heat Shrink Multi Wire
Closed End Connector
P/N 21621

0.22" ID - 0.045 ID x 6" Hi-Flow
Adhesive Heat Shrink Tubing
P/N 32181

0.30" ID - 0.06 ID x 6" Hi-Flow
Adhesive Heat Shrink Tubing
P/N 32182

0.35" ID - 0.08 ID x 6" Hi-Flow
Adhesive Heat Shrink Tubing
P/N 32183

0.45" ID - 0.105 ID x 6" Hi-Flow
Adhesive Heat Shrink Tubing
P/N 32184

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

HMMWV WEATHER RESISTANT THERMO TIE ASSORTMENT

P/N 17013

FEATURES:

- *Fast, easy and efficient way to tie wires and cables*
- *Resistant to solvents, fungus, oil, grease, alkalies, mild acids, ultra violet rays, etc.*
- *Meets MIL specifications (3367-1 to 7-0)*
- *Temperature range 65°F to 185°F*

425

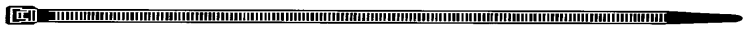
5/16" W x 15-1/8" L
4-1/16" Max. Dia.
120 psi
P/N 8443

3/16" W x 14-1/2" L
4-1/8" Max. Dia.
50 psi
P/N 8437

3/16" W x 11-1/8" L
3-1/16" Max. Dia.
50 psi
P/N 8439

3/16" W x 7-1/2" L
1-7/8" Max. Dia.
50 psi
P/N 8438

3/32" W x 6" L
1-1/2" Max. Dia.
18 psi
P/N 8432



3/32" W x 4" L
7/8" Max. Dia.
18 psi
P/N 8431

A20-59

TRAY FRONT

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CHROMATE INDUSTRIAL CORP.

HMMWV ELECTRICAL MAINTENANCE ASSORTMENT

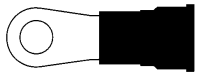
P/N 17014

234

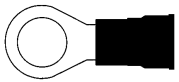
THICK WALL HEAT SHRINK TUBING - RED - 6"
3 TO 1 SHRINK RATIO
14-4 WIRE RANGE
ID: 1/2"
POST SHRINK ID: 5/32"
P/N 32168

THICK WALL HEAT SHRINK TUBING - BLACK - 6"
3 TO 1 SHRINK RATIO
14-4 WIRE RANGE
ID: 1/2"
POST SHRINK ID: 5/32"
P/N 32170

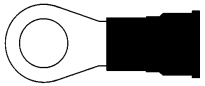
BRAZED SEAM RING TERMINAL
NYLON INSULATED
8 GA x 1/4"
P/N 21001



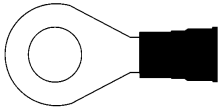
BRAZED SEAM RING TERMINAL
NYLON INSULATED
6 GA x 1/4"
P/N 21008



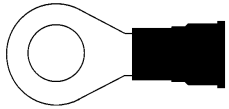
BRAZED SEAM RING TERMINAL
NYLON INSULATED
8 GA x 3/8"
P/N 21003



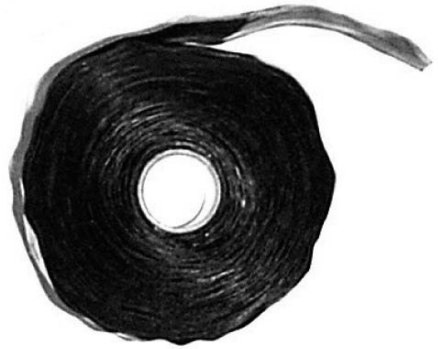
BRAZED SEAM RING TERMINAL
NYLON INSULATED
6 GA x 3/8"
P/N 21010



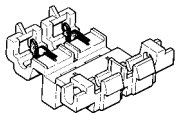
BRAZED SEAM RING TERMINAL
NYLON INSULATED
8 GA x 1/2"
P/N 21005



BRAZED SEAM RING TERMINAL
NYLON INSULATED
6 GA x 1/2"
P/N 21012



FUSION SEAL ELECTRICAL WRAP – BLACK
P/N 28991



IN-LINE TAP - BLUE
WIRE SIZE: 18-14
20 AMP MAX.
P/N 2032

ATC 20 AMP FUSE - YELLOW
P/N 29075

ATC 30 AMP FUSE - GREEN
P/N 29077

A2-0-60

TRAY FRONT

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CHROMATE INDUSTRIAL CORP.

HMMWV ALUMINUM PULL RIVET ASSORTMENT

P/N 17015

FEATURES:

- *A convenient assortment of aluminum rivets that includes both dome and large flange styles.*

1101

LARGE FLANGE 1/8" DIAMETER 1/16" to 1/8" GRIP #30 DRILL **P/N 9838**	DOME HEAD 3/16" DIAMETER To 1/8" GRIP #11 DRILL **P/N 9827**	DOME HEAD 3/16" DIAMETER 3/8" to 1/2" GRIP #11 DRILL **P/N 9830**	**P/N 6885**
LARGE FLANGE 1/8" DIAMETER 1/8" to 1/4" GRIP #30 DRILL **P/N 9839**	DOME HEAD 3/16" DIAMETER 1/8" to 1/4" GRIP #11 DRILL **P/N 9828**	DOME HEAD 3/16" DIAMETER 1/2" to 5/8" GRIP #11 DRILL **P/N 9831**	
DOME HEAD 1/8" DIAMETER 3/16" to 1/4" GRIP #30 DRILL **P/N 9809**	DOME HEAD 3/16" DIAMETER 1/4" to 3/8" GRIP #11 DRILL **P/N 9829**	LARGE FLANGE 3/16" DIAMETER 1/2" to 5/8" GRIP #11 DRILL **P/N 9846**	
DOME HEAD 5/32" DIAMETER 1/8" to 1/4" GRIP #20 DRILL **P/N 9820**	LARGE FLANGE 3/16" DIAMETER 1/16" to 3/8" GRIP #11 DRILL **P/N 9844**	EXPANSION	

A20-61

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

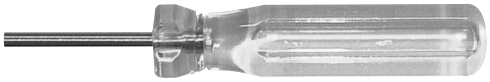
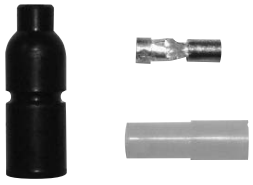
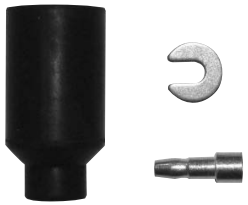
HMMWV WEATHERPAK/ELECTRICAL KIT

P/N 17010

FEATURES:

- *Weatherpack locking connectors*
- *Terminals and seals are secured in the connector body with a hinge lock assembly*
- *Sealed against dust, dirt and moisture*
- *Silicone seals must be used with the terminals*

251

 Weatherpak Terminal Extractor Tool **P/N 12014**		Weatherpak Female Terminal 20-18 GA **P/N 532308**	Weatherpak Male Terminal 20-18 GA **P/N 532309**	Weatherpak Female Terminal 16-14 GA **P/N 532306**	Weatherpak Male Terminal 16-14 GA **P/N 532307**
Weatherpak Cable Seal – Green 20-18 GA **P/N 532312**	Weatherpak Cable Seal – Gray 16-14 GA **P/N 532311**	Weatherpak 1 Terminal Tower **P/N 532314**	Weatherpak 1 Terminal Shroud **P/N 532315**	Weatherpak 2 Terminal Tower **P/N 532316**	Weatherpak 2 Terminal Shroud **P/N 532317**
 Male Plug Connector Kit **P/N 534441**	 Female Plug Connector Kit **P/N 534442**	Weatherpak 3 Terminal Tower **P/N 532318**	Weatherpak 3 Terminal Shroud **P/N 532319**	Weatherpak 4 Terminal Tower **P/N 532320**	Weatherpak 4 Terminal Shroud **P/N 532321**

A20-62

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

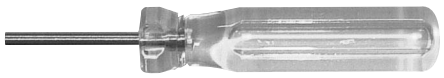
WEATHERPAK ASSORTMENT

P/N 17016

FEATURES:

- *Weatherpack locking connectors*
- *Terminals and seals are secured in the connector body with a hinge lock assembly*
- *Sealed against dust, dirt and moisture*
- *Silicone seals must be used with the terminals*

231

 Weatherpak Terminal Extractor Tool **P/N 12014**	Weatherpak Female Terminal 20-18 GA **P/N 532308**	Weatherpak Male Terminal 20-18 GA **P/N 532309**	Weatherpak Female Terminal 16-14 GA **P/N 532306**
Weatherpak Male Terminal 16-14 GA **P/N 532307**	Weatherpak Cable Seal – Green 20-18 GA **P/N 532312**	Weatherpak Cable Seal – Gray 16-14 GA **P/N 532311**	Weatherpak 1 Terminal Tower **P/N 532314**
Weatherpak 1 Terminal Shroud **P/N 532315**	Weatherpak 2 Terminal Tower **P/N 532316**	Weatherpak 2 Terminal Shroud **P/N 532317**	Weatherpak 3 Terminal Tower **P/N 532318**
Weatherpak 3 Terminal Shroud **P/N 532319**	Weatherpak 4 Terminal Tower **P/N 532320**	Weatherpak 4 Terminal Shroud **P/N 532321**	EXPANSION

A20-03

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

EPDM COVERED CABLE CLAMPS ASSORTMENT

P/N 17017

110

Cable Clamp .250" / 1/4" Industry No. 4 **P/N 30182**	Cable Clamp .375" / 3/8" Industry No. 6 **P/N 30183**	Cable Clamp .500" / 1/2" Industry No. 8 **P/N 30184**	Cable Clamp .625" / 5/8" Industry No. 10 **P/N 30185**
Cable Clamp .750" / 3/4" Industry No. 12 **P/N 30186**	Cable Clamp .875" / 7/8" Industry No. 14 **P/N 30187**	Cable Clamp 1.000" / 1" Industry No. 16 **P/N 30188**	Cable Clamp 1.250" / 1-1/4" Industry No. 20 **P/N 30189**
Cable Clamp 1.500" / 1/2" Industry No. 24 **P/N 30190**	Cable Clamp 1.750" / 1-3/4" Industry No. 28 **P/N 30191**	Cable Clamp 2.000" / 2" Industry No. 32 **P/N 30192**	Cable Clamp 2.250" / 2-1/4" Industry No. 36 **P/N 30193**
Cable Clamp 2.500" / 2-1/2" Industry No. 40 **P/N 30194**	Cable Clamp 2.750" / 2-3/4" Industry No. 44 **P/N 30195**	Cable Clamp 3.000" / 3" Industry No. 48 **P/N 30196**	EXPANSION

A20-64

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

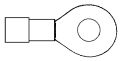
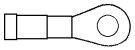
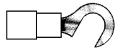
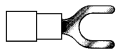
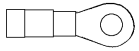
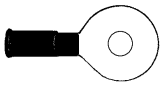
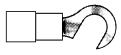
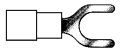
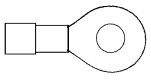
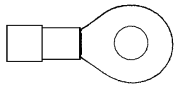
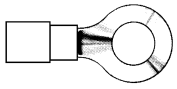
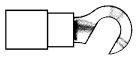
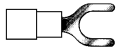
NYLON INSULATED DOUBLE GRIP SOLDERLESS TERMINAL ASSORTMENT

P/N 17019

FEATURES:

- *Double crimp holds both wire and insulation for added strength*
- *Funnel design for fast, positive wire insertion*
- *Deep "V" groove and long barrel for extra strong grip and maximum current flow*
- *High temperature nylon insulation*

501

22-18 BUTT CONNECTOR **P/N 2750**	16-14 BUTT CONNECTOR **P/N 2760**	12-10 BUTT CONNECTOR **P/N 2770**	16-14 x 1/4 MALE QUICK SLIDE **P/N 2025**	16-14 x 1/4 FEMALE QUICK SLIDE **P/N 2035**	MULTI-PURPOSE STRIP AND CRIMP TOOL **P/N 8256**
 22-18 x 6 RING CONNECTOR **P/N 2002**	 22-18 x 8 RING CONNECTOR **P/N 2003**	22-18 x 10 RING CONNECTOR **P/N 2004**	 22-18 x 10 DOUBLE GRIP NYLON HOOK **P/N 2204**	 22-18 x 10 DOUBLE GRIP NYLON SPADE **P/N 2104**	
 16-14 x 8 RING CONNECTOR **P/N 2010**	16-14 x 10 RING CONNECTOR **P/N 2011**	 16-14 x 1/4 RING CONNECTOR **P/N 2012**	 16-14 x 10 DOUBLE GRIP NYLON HOOK **P/N 2211**	 16-14 x 10 DOUBLE GRIP NYLON SPADE **P/N 2111**	
 12-10 x 10 RING CONNECTOR **P/N 2017**	 12-10 x 1/4 RING CONNECTOR **P/N 2018**	 12-10 x 5/16 DOUBLE GRIP NYLON RING **P/N 2019**	 12-10 x 10 DOUBLE GRIP NYLON HOOK **P/N 2217**	 12-10 x 10 DOUBLE GRIP NYLON SPADE **P/N 2117**	

A20-65

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

HEAVY DUTY/DIRECT BURY HEAT SHRINK TUBING ASSORTMENT

P/N 17032

FEATURES:

- *Shrink Ratio: 3 to 1*
- *Flame Retardant*
- *For Battery Splices and Terminals*
- *DIRECT BURIAL Capability*
- *Use in UNDERWATER ENVIRONMENTS*
- *For Connections in the Harshest Conditions*
- *Mil Specs: MIL-DTL-23053/15, Class 2*
- *UL 486D*
- *Material: Polyolefin*
- *Length: 12"*

22

0.40"
Black
P/N 66097

0.40"
Red
P/N 66098

0.80"
Black
P/N 66099

0.80"
Red
P/N 66100

1.10"
Black
P/N 66101

1.10"
Red
P/N 66102

1.50"
Black
P/N 66103

A20-66

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

MAGNA LUG STARTER/GROUND BATTERY TERMINAL ASSORTMENT

P/N 17036

FEATURES:

- *COLOR CODED FOR EASY IDENTIFICATION*
- *WIDER PADS FOR BETTER ELECTRICAL CONTACT*
- *THICKER PADS FOR GREATER STRENGTH*
- *80% THICKER WALLS FOR GREATER CONDUCTIVITY AND STRENGTH*
- *EXCEED SAE CONDUCTIVITY STANDARDS*
- *MADE OF 100% COPPER, TIN PLATED TWICE AS THICK AS INDUSTRY STANDARDS*
- *CAN BE CRIMPED OR SOLDERED*

96

WIRE GAUGE: 6 STUD SIZE: 1/4" COLOR: GRAY **P/N 32216**	WIRE GAUGE: 4 STUD SIZE: 1/4" COLOR: GRAY **P/N 32213**	WIRE GAUGE: 1-2 STUD SIZE: 5/16" COLOR: PINK **P/N 32205**	WIRE GAUGE: 1/0 STUD SIZE: 5/16" COLOR: BLACK **P/N 32202**	WIRE GAUGE: 2/0 STUD SIZE: 5/16" COLOR: ORANGE **P/N 32208**	
WIRE GAUGE: 6 STUD SIZE: 5/16" COLOR: GRAY **P/N 32217**	WIRE GAUGE: 4 STUD SIZE: 5/16" COLOR: GRAY **P/N 32215**	WIRE GAUGE: 1-2 STUD SIZE: 3/8" COLOR: PINK **P/N 32204**	WIRE GAUGE: 1/0 STUD SIZE: 3/8" COLOR: BLACK **P/N 32201**	WIRE GAUGE: 2/0 STUD SIZE: 3/8" COLOR: ORANGE **P/N 32207**	
WIRE GAUGE: 6 STUD SIZE: 3/8" COLOR: GRAY **P/N 32218**	WIRE GAUGE: 4 STUD SIZE: 3/8" COLOR: GRAY **P/N 32214**	WIRE GAUGE: 1-2 STUD SIZE: 1/2" COLOR: PINK **P/N 32203**	WIRE GAUGE: 1/0 STUD SIZE: 1/2" COLOR: BLACK **P/N 32200**	WIRE GAUGE: 2/0 STUD SIZE: 1/2" COLOR: ORANGE **P/N 32206**	
WIRE GAUGE: 3/0 STUD SIZE: 3/8" COLOR: PURPLE **P/N 32210**	WIRE GAUGE: 3/0 STUD SIZE: 1/2" COLOR: PURPLE **P/N 32209**	WIRE GAUGE: 4/0 STUD SIZE: 3/8" COLOR: YELLOW **P/N 32212**	WIRE GAUGE: 4/0 STUD SIZE: 1/2" COLOR: YELLOW **P/N 32211**	EXPANSION	BATTERY CABLE STRIPPER **P/N 8215**

A20-67

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

BATTERY MAINTENANCE KIT

P/N 17035

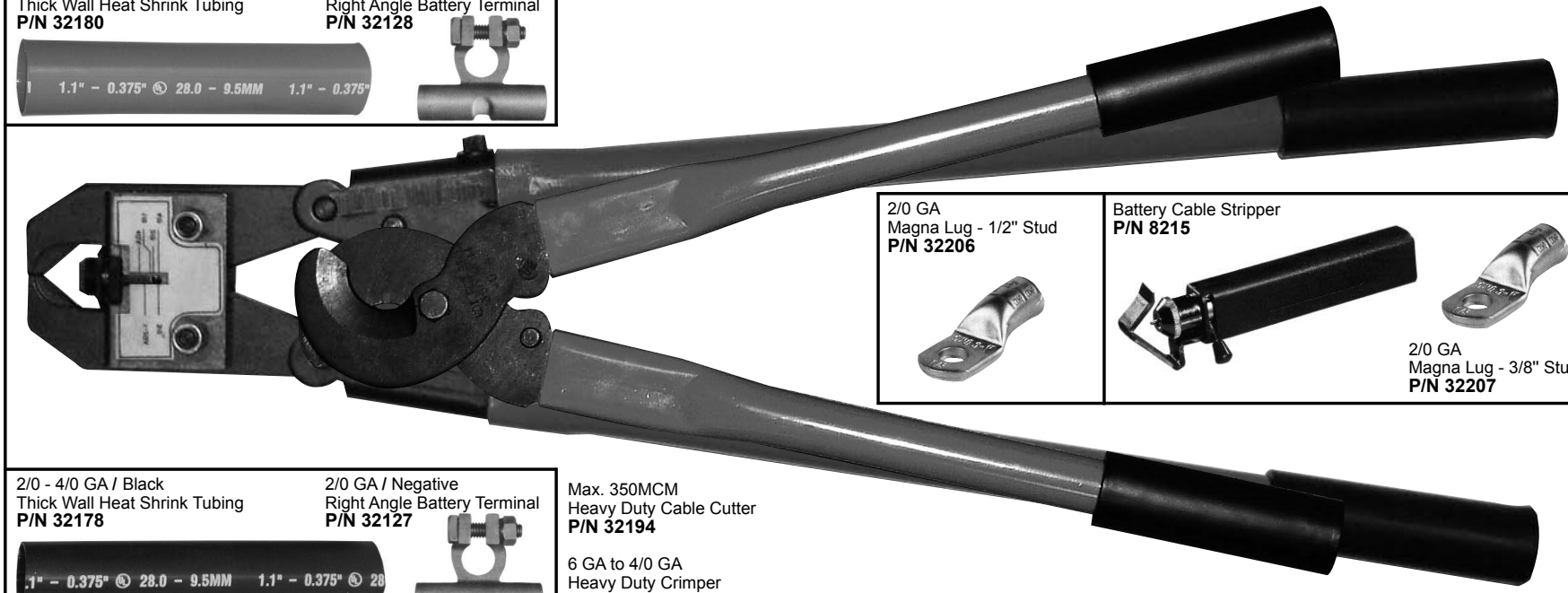
FEATURES:

- *Great battery maintenance kit for tow trucks, car lots, field repair, govt. motorpools, body shops, rental fleets, etc.*
- *All tools are top of the line quality (made in the USA)*
- *Has all the parts needed to service and change your battery*
- *This high quality maintenance kit will provide the professional technician many years of service*

29

2/0 - 4/0 GA / Red
Thick Wall Heat Shrink Tubing
P/N 32180

2/0 GA / Positive
Right Angle Battery Terminal
P/N 32128



2/0 GA
Magna Lug - 1/2" Stud
P/N 32206

Battery Cable Stripper
P/N 8215

2/0 GA
Magna Lug - 3/8" Stud
P/N 32207

2/0 GA / Negative
Straight Battery
Terminal
P/N 32117

2/0 GA / Positive
Straight Battery
Terminal
P/N 32118

2/0 - 4/0 GA / Black
Thick Wall Heat Shrink Tubing
P/N 32178

2/0 GA / Negative
Right Angle Battery Terminal
P/N 32127

Max. 350MCM
Heavy Duty Cable Cutter
P/N 32194

6 GA to 4/0 GA
Heavy Duty Crimper
P/N 32195

A20-68

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CHROMATE® INDUSTRIAL CORP.

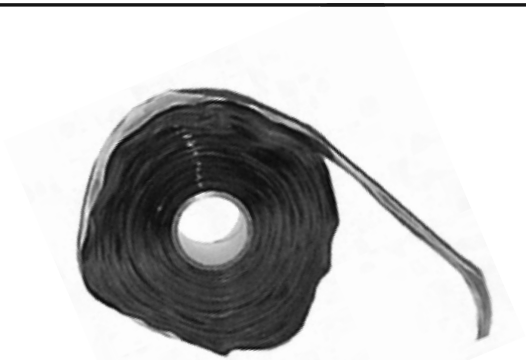
FUSION SEAL ELECTRICAL WRAP ASSORTMENT

P/N 17042

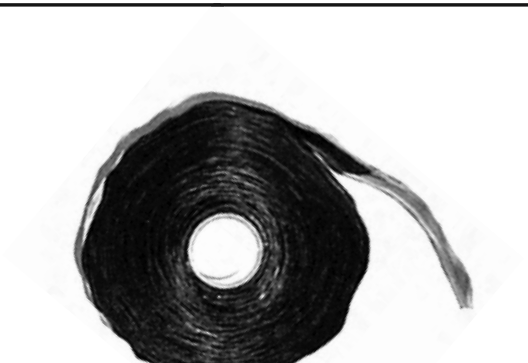
Features:

- *Long lasting electrode insulating wrap*
- *Form fitting, extremely flexible*
- *Superior protection in extreme temperatures and highly corrosive environments*
- *Weather and saltwater resistant*
- *Electrical insulation, splices, and cable harnesses*
- *Economical substitute for heat shrink tubing and hot air ducting*

4



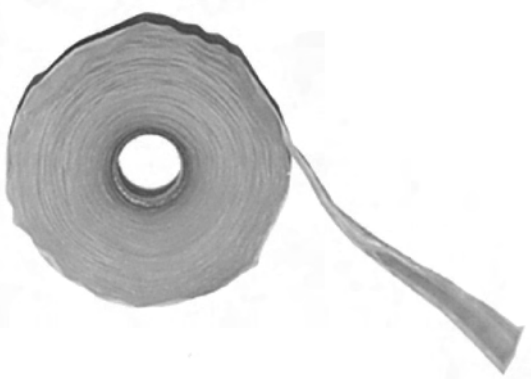
1" x 30 mil x 36 Feet
Red
P/N 2899



1" x 30 mil x 36 Feet
Black
P/N 28991

EXPANSION

1" x 30 mil x 36 Feet
Gray
P/N 28992



1" x 30 mil x 36 Feet
Clear
P/N 28993

EXPANSION

A20-69

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

GRIP TIES ASSORTMENT

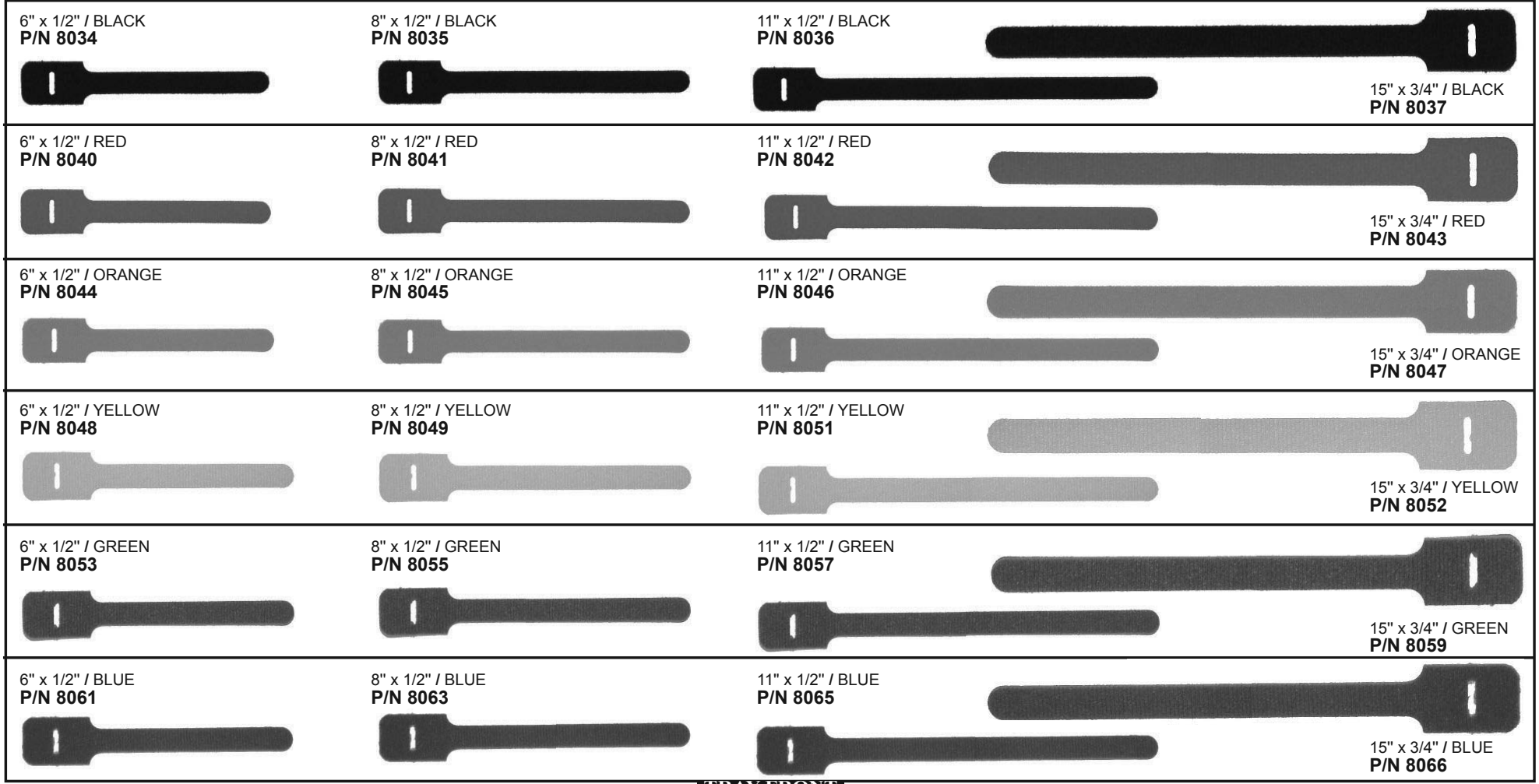
P/N 17041

FEATURES:

- Low profile, one piece fastening devices. Constructed of polyethylene hook and nylon loop, laminated back to back.
- Quick release for repetitive access to cable and wire. Can be opened and closed numerous times without failure.
- Reusable, adjustable, releasable and easy to install.
- Design provides ease of installation in tight areas such as telecommunications closets and will not get caught on other cables.
- Will not cause damage to Category 5e and Category 6 cable or fiber optic cable since it cannot be over-cinched.
- Minimum Tensile Strength: 40 lbs (6", 8", 11") / 50 lbs (15")

102

6" x 1/2" / BLACK **P/N 8034**	8" x 1/2" / BLACK **P/N 8035**	11" x 1/2" / BLACK **P/N 8036**
6" x 1/2" / RED **P/N 8040**	8" x 1/2" / RED **P/N 8041**	11" x 1/2" / RED **P/N 8042**
6" x 1/2" / ORANGE **P/N 8044**	8" x 1/2" / ORANGE **P/N 8045**	11" x 1/2" / ORANGE **P/N 8046**
6" x 1/2" / YELLOW **P/N 8048**	8" x 1/2" / YELLOW **P/N 8049**	11" x 1/2" / YELLOW **P/N 8051**
6" x 1/2" / GREEN **P/N 8053**	8" x 1/2" / GREEN **P/N 8055**	11" x 1/2" / GREEN **P/N 8057**
6" x 1/2" / BLUE **P/N 8061**	8" x 1/2" / BLUE **P/N 8063**	11" x 1/2" / BLUE **P/N 8065**



15" x 3/4" / BLACK **P/N 8037**

15" x 3/4" / RED **P/N 8043**

15" x 3/4" / ORANGE **P/N 8047**

15" x 3/4" / YELLOW **P/N 8052**

15" x 3/4" / GREEN **P/N 8059**

15" x 3/4" / BLUE **P/N 8066**

A20-70

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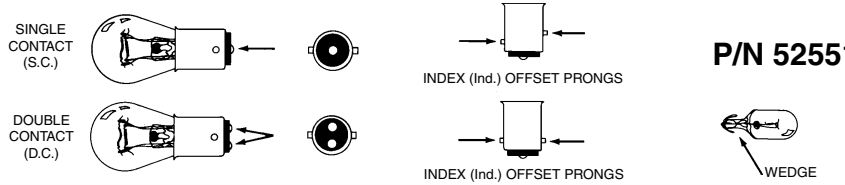
INDUSTRIAL CORP.

MILITARY VEHICLE 24V BULB ASSORTMENT

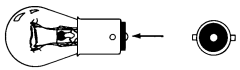
P/N 525515A

FEATURES:

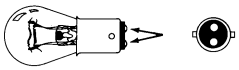
- *Single and double contacts, index offset and bayonet inline prongs, double end cap and wedge base*
- *Voltage range from 12.8 to 28 volts*
- *Dual filament lamps*
- *Bulb life from 400 to 7,500 hours*



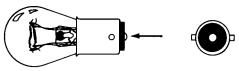
100



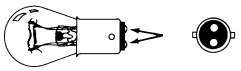
#1683 24V Single Contact Bayonet Bulb
P/N 516099



#1638 24V Double Contact Bayonet Bulb
P/N 516097

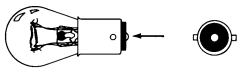


#1203 24V Single Contact Bayonet Bulb
P/N 516096

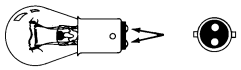


#198 Double Contact Index Bulb
P/N 28911

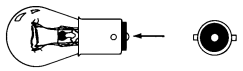
#3157 Park & Turn Mini-Bulb (Clear)
P/N 28941



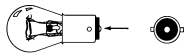
#1141 Single Contact Bayonet Bulb
P/N 28926



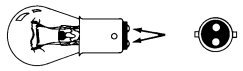
#2057 Double Contact Index Bulb
P/N 28929



#97 Single Contact Bayonet Bulb
P/N 28910



#757 24V Miniature Bayonet Bulb
P/N 516095



#624 24V Double Contact Bayonet Bulb
P/N 516094

A20-71

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BUTT CONNECTOR ASSORTMENT

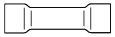
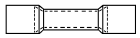
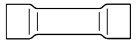
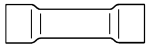
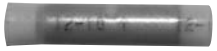
FEATURES:

- *Double crimp holds both wire & insulation for superior strength.*
- *Funnel design for fast, positive wire insertion.*
- *Deep "V" groove and long barrel for extra strong grip & maximum current flow.*
- *High temperature nylon insulation.*

P/N 17075

8 82503 11883 9

131

8 82503 09779 0 22-18 / RED STRIPES LENGTH: 1.5" **P/N 2924**	8 82503 02750 6 22-18 DOUBLE GRIP **P/N 2750**	8 82503 02063 7  22-18 RED / MOISTURE RESISTANT **P/N 2063**	8 82503 02841 1 20-18 BUTT CONNECTOR **P/N 2841**	8 82503 21738 9 18-20 CSS – CRIMP-SOLDER-SEAL **P/N 21738**	8 82503 05806 7 22-18 COOL SEAL BUTT CONNECTOR **P/N 2652**
8 82503 09780 6 16-14 / BLUE STRIPES LENGTH: 1.5" **P/N 2925**	8 82503 02760 5  16-14 DOUBLE GRIP **P/N 2760**	8 82503 02062 0  16-14 BLUE / MOISTURE RESISTANT **P/N 2062**	8 82503 02842 8 16-14 BUTT CONNECTOR **P/N 2842**	8 82503 21739 6 14-16 CSS – CRIMP-SOLDER-SEAL **P/N 21739**	8 82503 05807 4 16-14 COOL SEAL BUTT CONNECTOR **P/N 2653**
8 82503 09781 3 12-10 / YELLOW STRIPES LENGTH: 1.625" **P/N 2926**	8 82503 02770 4 12-10 DOUBLE GRIP **P/N 2770**	8 82503 02061 3  12-10 YELLOW / MOISTURE RESISTANT **P/N 2061**	8 82503 02843 5 12-10 BUTT CONNECTOR **P/N 2843**	8 82503 21740 2 10-12 CSS – CRIMP-SOLDER-SEAL **P/N 21740**	8 82503 05808 1  12-10 COOL SEAL BUTT CONNECTOR **P/N 2654**
8 82503 02077 4 22-18 to 16-14 REDUCING BUTT CONNECTOR **P/N 2077**	8 82503 02078 1 16-14 to 12-10 REDUCING BUTT CONNECTOR **P/N 2078**	8 82503 03727 7 24-22 HEAT SHRINK MULTI WIRE IN-LINE CONNECTOR **P/N 21616**	8 82503 03728 4 20-18 HEAT SHRINK MULTI WIRE IN-LINE CONNECTOR **P/N 21617**	8 82503 03729 1 16-14 HEAT SHRINK MULTI WIRE IN-LINE CONNECTOR **P/N 21618**	8 82503 03731 4 12-10 HEAT SHRINK MULTI WIRE IN-LINE CONNECTOR **P/N 21619**

A20-72

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

3M™ PROFESSIONAL GRADE ELECTRICAL TAPE

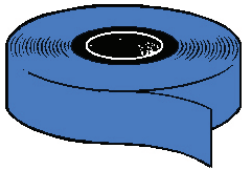
FEATURES

- Outstanding electrical and mechanical properties make this tape excellent for use in phase identification, and color coding of motor leads and piping systems.
- Insulate splices up to 600V
- 7 mil (0.178 mm) polyvinyl chloride (PVC) color-coding tape
- Abrasion and weather-resistant
- Resists UV rays, abrasion, corrosion, alkalies and acids
- Flame retardant
- UL Listed and CSA certified
- Also useful for marking safety areas

P/N 17077

8 82503 11957 7

18

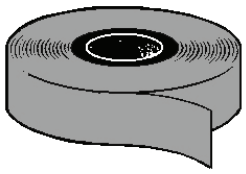


8 82503 11958 4

3/4" x 66'
BLUE
P/N 28750

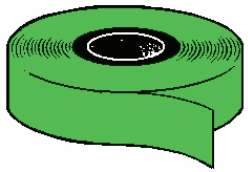
8 82503 11959 1

3/4" x 66'
BROWN
P/N 28751



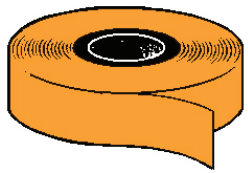
8 82503 11960 7

3/4" x 66'
GRAY
P/N 28752



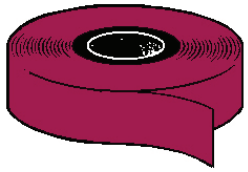
8 82503 11961 4

3/4" x 66'
GREEN
P/N 28753



8 82503 11962 1

3/4" x 66'
ORANGE
P/N 28754

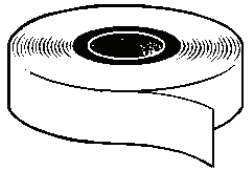


8 82503 11964 5

3/4" x 66'
VIOLET
P/N 28756

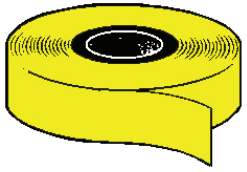
8 82503 11963 8

3/4" x 66'
RED
P/N 28755



8 82503 11965 2

3/4" x 66'
WHITE
P/N 28757



8 82503 11966 9

3/4" x 66'
YELLOW
P/N 28758

A20-73

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

020114

CHROMATE®
INDUSTRIAL CORP.

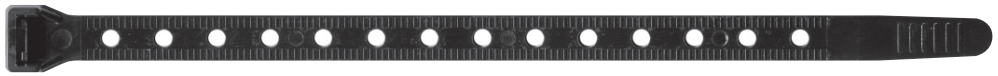
MOUNTABLE CABLE TIES

P/N 17663

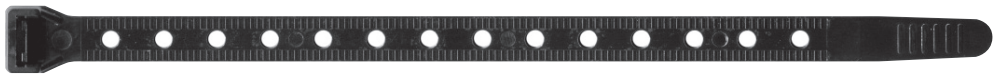
FEATURES

- *Three high quality cable ties: 3/8" x 8", 3/8" x 11", 3/8" x 14"*
- *Bundle, mount and hang: Cords, ropes, hoses, cables, wire, tarps, etc.*
- *90 pound tensile strength*
- *Multiple mounting positions*
- *UV resistant*

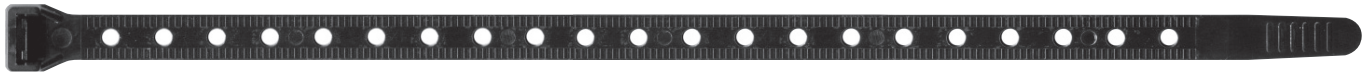
150



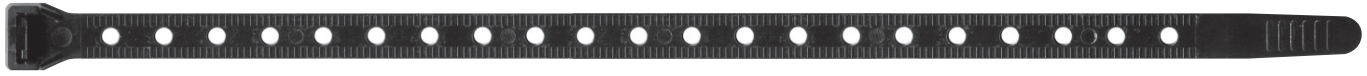
3/8" x 8"
2" max. Bundle
P/N 8094



3/8" x 8"
2" max. Bundle
P/N 8094



3/8" x 11"
3" max. Bundle
P/N 8095



3/8" x 11"
3" max. Bundle
P/N 8095

3/8" x 14"
4" max. Bundle
P/N 8096

3/8" x 14"
4" max. Bundle
P/N 8096

A20-74

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-888-567-2200 • FAX: 631-567-2418 • www.chromate.com

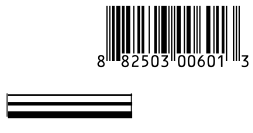
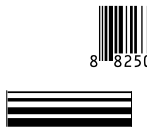
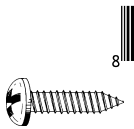
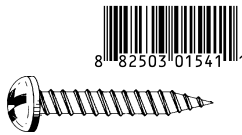
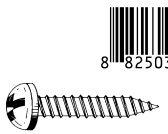
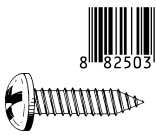
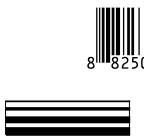
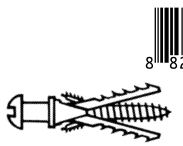
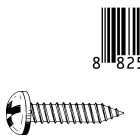
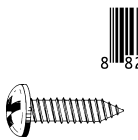
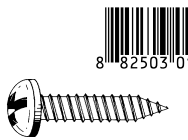
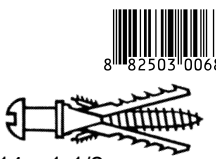
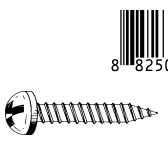
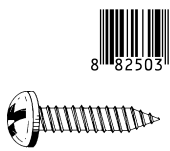
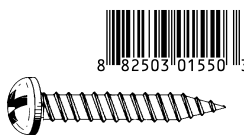
CIC 200 PLASTIC SCREW ANCHOR ASSORTMENT WITH PHILLIPS BINDING HEAD METAL SCREWS

P/N 7734

FEATURES:
- *For light duty applications in solid materials*
- *Color coded diameters for easy identification*
- *Acid resistant*

NYLON FLANGED:
- *For light duty applications*
- *Large flange helps eliminate push through*
- *Special side locks to prevent turning during installation*
- *Super deep ridges provide superior holding power*

1160

 4-6 x 1 VINYL **P/N 601**	 10-12 x 1 VINYL **P/N 604**	14 x 2 VINYL **P/N 610**	6 x 3/4 METAL SCREW **P/N 1509**	 10 x 3/4 METAL SCREW **P/N 1528**	 12 x 1-1/2 METAL SCREW **P/N 1541**
4-6 x 1-1/2 VINYL **P/N 599**	10-12 x 1-1/2 VINYL **P/N 606**	6-8 x 1 NYLON FLANGED **P/N 680**	6 x 1 METAL SCREW **P/N 1511**	 10 x 1 METAL SCREW **P/N 1530**	 14 x 3/4 METAL SCREW **P/N 1546**
 8 x 1 VINYL **P/N 602**	14 x 1 VINYL **P/N 608**	 8-10 x 1-1/4 NYLON FLANGED **P/N 681**	 8 x 3/4 METAL SCREW **P/N 1518**	 12 x 3/4 METAL SCREW **P/N 1537**	 14 x 1 METAL SCREW **P/N 1548**
8 x 1-1/2 VINYL **P/N 603**	14 x 1-1/2 VINYL **P/N 609**	 12-14 x 1-1/2 NYLON FLANGED **P/N 682**	 8 x 1 METAL SCREW **P/N 1520**	 12 x 1 METAL SCREW **P/N 1539**	 14 x 1-1/2 METAL SCREW **P/N 1550**

A21-1

TRAY FRONT

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080114

CHROMATE® INDUSTRIAL CORP.

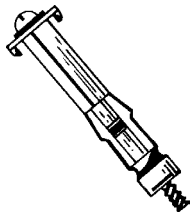
CIC 200™ HOLLOW WALL ANCHOR ASSORTMENT WITH QUICKSET TOOL

P/N 7735

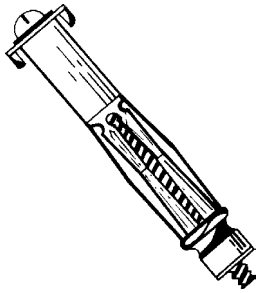
FEATURES:

- *Sleeve style hollow wall anchor designed for use in plaster, drywall, concrete block, hollow tile or plywood*
- *Anchors come with combo head screw for convenience*

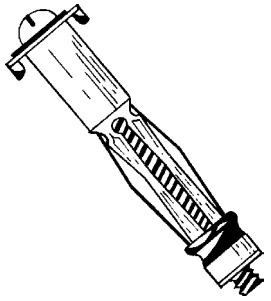
230



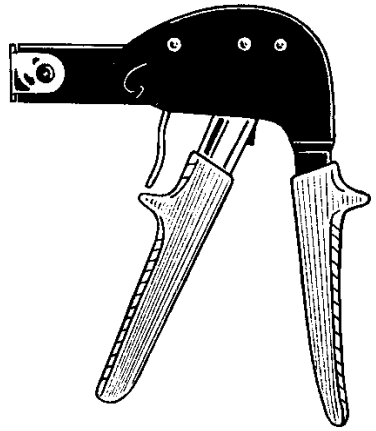
1/8 - LONG
5/8 to 1-1/4 GRIP
5/16 DRILL
P/N 5971

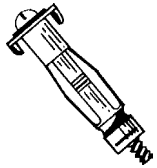


3/16 - LONG
5/8 to 1-1/4 GRIP
7/16 DRILL
P/N 5974

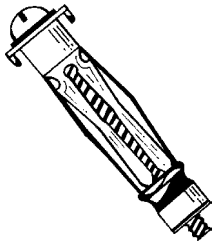


1/4 - LONG
5/8 to 1-1/4 GRIP
1/2 DRILL
P/N 5977

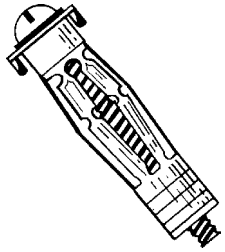




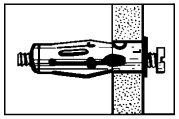
1/8 - SHORT
1/8 to 5/8 GRIP
5/16 DRILL
P/N 5970



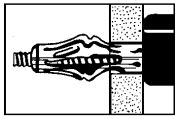
3/16 - SHORT
1/8 to 5/8 GRIP
7/16 DRILL
P/N 5973



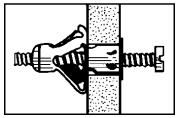
1/4 - SHORT
1/8 to 5/8 GRIP
1/2 DRILL
P/N 5976



1- Push fasteners into predrilled hole



2- Slip QuickSet's jaw over screwhead



3- Then simply squeeze the handle until the fastener is fully collapsed

A21-2

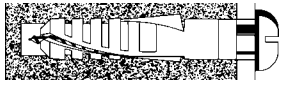
TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200 SUPER HOLD ANCHOR ASSORTMENT WITH PHILLIPS BINDING HEAD METAL SCREWS

FEATURES:

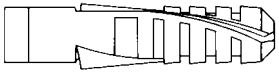
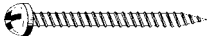
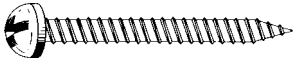
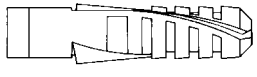
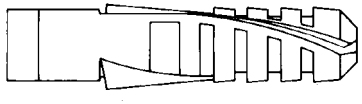
- *Ribbed construction gives maximum holding power*
- *Spiral design keeps screw centered while maintaining equal expansion on all sides*
- *Specially designed wings prevent anchor from spinning or falling out*



PROPER INSTALLATION

P/N 7718

485

 12-14 SUPER HOLD 5/16 DRILL **P/N 88632**	 5/16-3/8 SUPER HOLD 1/2 DRILL **P/N 88634**	 8 x 2 METAL SCREW **P/N 1524**	 14 x 2 METAL SCREW **P/N 1552**
 8-10 SUPER HOLD 1/4 DRILL **P/N 88631**		 6 x 1-1/2 METAL SCREW **P/N 1513**	 12 x 2 METAL SCREW **P/N 1543**
 4-6 SUPER HOLD 3/16 DRILL **P/N 88630**	 1/4-5/16 SUPER HOLD 3/8 DRILL **P/N 88633**	 7/16-1/2 SUPER HOLD 5/8 DRILL **P/N 88635**	 10 x 1-3/4 METAL SCREW **P/N 1533**

A21-3

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

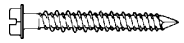
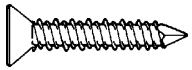
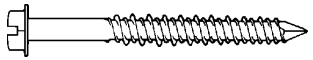
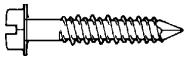
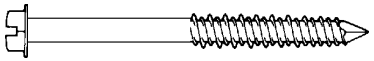
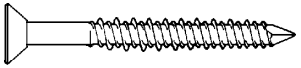
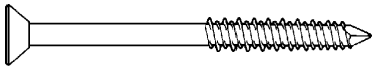
CIC 200™ SLOTTED HEX WASHER AND PHILLIPS FLAT HEAD CEMENT SCREW ASSORTMENT

P/N 7790

FEATURES:

- *Self-tapping screw type anchors*
- *Works fast and securely in all types of masonry applications*
- *Fast – install 2 to 3 fasteners per minute, just drill, then drive*
- *Strong – designed for ultimate pullout strength*
- *Safe and easy – no dangerous equipment needed for installation*
- *Special high, sharp thread cuts deep and easily while low thread provides stability for accurate driving*
- *Removable – repairs and adjustments of installed components are made easy because our fastener can be removed and re-inserted in the same hole*

350

 3/16 x 1-1/4 SLOTTED HEX WASHER **P/N 9050** 5/32 x 3-1/2 DRILL **P/N 9086**	 1/4 x 1-3/4 SLOTTED HEX WASHER **P/N 9058** 3/16 x 3-1/2 DRILL P/N **9083**	 1/4 x 1-1/4 PHILLIPS FLAT HEAD **P/N 9071** 3/16 x 3-1/2 DRILL **P/N 9083**	
 3/16 x 1-3/4 SLOTTED HEX WASHER **P/N 9051** 5/32 x 3-1/2 DRILL **P/N 9086**	 1/4 x 2-1/4 SLOTTED HEX WASHER **P/N 9059** 3/16 x 4-1/2 DRILL **P/N 9084**	 1/4 x 1-3/4 PHILLIPS FLAT HEAD **P/N 9072** 3/16 x 3-1/2 DRILL **P/N 9083**	
 1/4 x 1-1/4 SLOTTED HEX WASHER **P/N 9057** 3/16 x 3-1/2 DRILL **P/N 9083**	 1/4 x 2-3/4 SLOTTED HEX WASHER **P/N 9060** 3/16 x 4-1/2 DRILL **P/N 9084**	 1/4 x 2-1/4 PHILLIPS FLAT HEAD **P/N 9073** 3/16 x 4-1/2 DRILL **P/N 9084**	 1/4 x 2-3/4 PHILLIPS FLAT HEAD **P/N 9074** 3/16 x 4-1/2 DRILL **P/N 9084**

A21-4

TRAY FRONT

CIC 200™ TOGGLE ANCHOR ASSORTMENT

BUTTERLY TOGGLE FEATURES
- *Eliminates big holes*
- *Fastens in drywall, paneling, tile and concrete*
- *Holds up to 590 lbs*
- *Accepts screws no.6-no.14*

MULTI - TOGGLE FEATURES
- *Installs in seconds*
- *Works in walls 3/8 to 2-1/2" thick*
- *Bolt can be removed without losing anchor behind wall*

P/N 7741

210

8 82503 05381 9

BUTTER-FLY TOGGLE
1/8-1/4 WALL THICKNESS
5/16 DRILL
P/N 5381

8 82503 05383 3

BUTTER-FLY TOGGLE
5/8-3/4 WALL THICKNESS
5/16 DRILL
P/N 5383

8 82503 05385 7

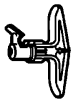
BUTTER-FLY TOGGLE
1/2-1 WALL THICKNESS
5/16 DRILL
P/N 5385

EXPANSION

8 82503 05382 6

BUTTER-FLY TOGGLE
3/8-1/2 WALL THICKNESS
5/16 DRILL
P/N 5382

8 82503 05384 0



PICTURE HOOK TOGGLE
3/8-1/2 WALL THICKNESS
5/16 DRILL
P/N 5384

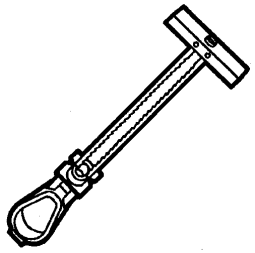
8 82503 05386 4

BUTTERFLY-TOGGLE
1-3/8+ WALL THICKNESS
5/16 DRILL
P/N 5386

8 82503 05393 2

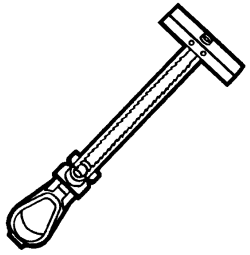
WIRE HARNESS ANCHOR
3/8-1/2 WALL THICKNESS
5/16 DRILL
P/N 5393

8 82503 05390 1



MULTI - TOGGLE
3/16 (10-24) SCREW
1/2 DRILL
P/N 5390

8 82503 05391 8

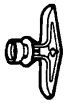


MULTI-TOGGLE
1/4-20 SCREW
1/2 DRILL
P/N 5391

8 82503 05387 1

BUTTER-FLY TOGGLE
1-1/2+ WALL THICKNESS
5/16 DRILL
P/N 5387

8 82503 05388 8



SHELVING TOGGLE
3/8-1/2 WALL THICKNESS
5/16 DRILL
P/N 5388

8 82503 05394 9

WIRE HARNESS ANCHOR
5/8-3/8 WALL THICKNESS
5/16 DRILL
P/N 5394

A21-5

TRAY FRONT

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040113

SUPERFAST™ ANCHOR ASSORTMENT

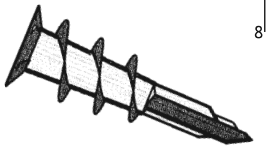
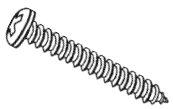
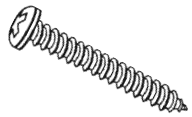
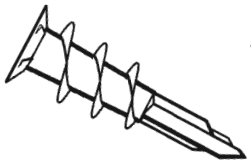
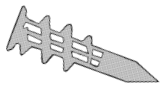
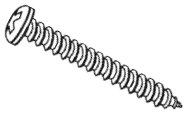
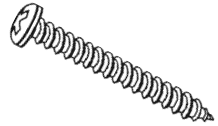
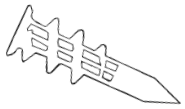
P/N 17701

8 82503 17701 0

FEATURES

- *No pre-drilling*
- *Removable*
- *Extra deep #2 phillips drive*
- *Installs with phillips screwdriver or screwgun*
- *Works in 3/8", 1/2" and 5/8" drywall*
- *Standard anchors use #8 or #10 sheet metal screws*
- *Mini anchors use #6 or #8 sheet metal screws*

500

 8 82503 88650 9 SUPERFAST™ (ZINC) **P/N 88650** For use with #8 or #10 sheet metal screws	8 82503 88640 0 SUPERFAST™ (ZINC) W/FLAT BLADE **P/N 88640** For use with #8 or #10 sheet metal screws	 8 82503 01511 4 6 x 1" PHILLIPS BINDING HEAD SHEET METAL SCREWS **P/N 1511**	 8 82503 01521 3 8 x 1-1/4" PHILLIPS BINDING HEAD SHEET METAL SCREWS **P/N 1521**
 8 82503 88645 5 SUPERFAST™ (NYLON) **P/N 88645** For use with #8 or #10 sheet metal screws	 8 82503 88680 6 SUPERFAST™ MINI (ZINC) **P/N 88680** For use with #6 or #8 sheet metal screws	 8 82503 01512 1 6 x 1-1/4" PHILLIPS BINDING HEAD SHEET METAL SCREWS **P/N 1512**	 8 82503 01522 0 8 x 1-1/2" PHILLIPS BINDING HEAD SHEET METAL SCREWS **P/N 1522**
8 82503 88646 2 SUPERFAST™ (NYLON) LOCKING **P/N 88646** For use with #8 or #10 sheet metal screws	 8 82503 88675 2 SUPERFAST™ MINI (PLASTIC) **P/N 88675** For use with #6 or #8 sheet metal screws	EXPANSION	EXPANSION

A21-6

TRAY FRONT

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050113

CHROMATE®
INDUSTRIAL CORP.

EPOXY-LOCK™ STUD AND DRIVER ASSORTMENT

P/N 17732

FEATURES:

- *Carbon steel studs with chamfered on one end and hex socket drive on the other end*
- *No separate driver required*

USE WITH EPOXY-LOCK CHEMICAL ANCHOR P/N 88750

3/8 STUD
P/N 88780

USE WITH EPOXY-LOCK CHEMICAL ANCHOR P/N 88755

1/2 STUD
P/N 88785

USE WITH EPOXY-LOCK CHEMICAL ANCHOR P/N 88760

5/8 STUD
P/N 88790

USE WITH EPOXY-LOCK CHEMICAL ANCHOR P/N 88765

3/4 STUD
P/N 88795

A21-7

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

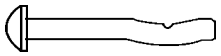
CIC 200™ HAMMER-LOCK ANCHOR ASSORTMENT

P/N 17750

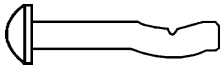
FEATURES:

- *Fast, easy and vibration resistant*
- *The Hammer-Lock Anchor can be installed quickly and easily in concrete, block, brick or stone*
- *The one-peice construction eliminates extra pieces or steps required for installation and provides remarkable holding power*
- *Just drill and set!*

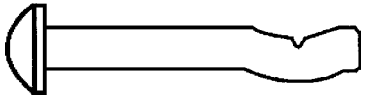
201



3/16 x 1-1/2 ROUND HEAD
3/16" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88502

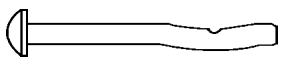


1/4 x 1-1/2 ROUND HEAD
1/4" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88510

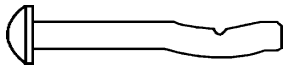


3/8 x 2-1/2 ROUND HEAD
3/8" DRILL DIAM. AND 1-3/4" DEPTH
P/N 88517

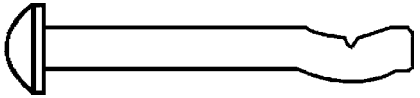
1/4-20 ROD COUPLING
3/16" DRILL AND 1-1/4" DEPTH
P/N 88549



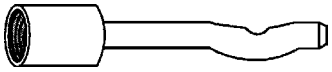
3/16 x 2 ROUND HEAD
3/16" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88503



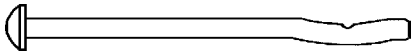
1/4 x 2 ROUND HEAD
1/4" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88511



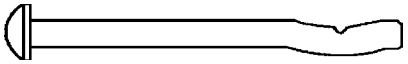
3/8 x 3 ROUND HEAD
3/8" DRILL DIAM. AND 1-3/4" DEPTH
P/N 88518



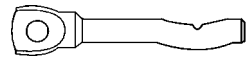
3/8-16 ROD COUPLING
1/4" DRILL DIAM. AND 1-3/4" DEPTH
P/N 88550



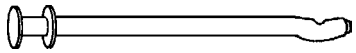
3/16 x 3 ROUND HEAD
3/16" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88505



1/4 x 3 ROUND HEAD
1/4" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88513

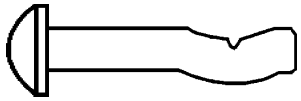


3/16 TIE WIRE
3/16" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88551

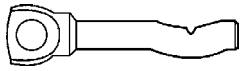


3/16 x 2-3/4 FORMING
3/16" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88555

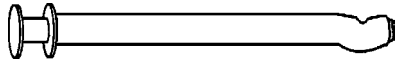
1/4 x 1 ROUND HEAD
1/4" DRILL DIAM. AND 7/8" DEPTH
P/N 88508



3/8 x 2 ROUND HEAD
3/8" DRILL DIAM. AND 1-3/4" DEPTH
P/N 88516



1/4 TIE WIRE
1/4" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88552



1/4 x 2-3/4 FORMING
1/4" DRILL DIAM. AND 1-1/4" DEPTH
P/N 88556

A21-8

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CHROMATE®
INDUSTRIAL CORP.

PHILLIPS/SLOTTED COMBO ROUND HEAD TOGGLE BOLT ANCHORS

P/N 17775

FEATURES:

- *Phillips/slotted combo round head for fast and easy assembly*
- *Die cast trunion nut has more threads than standard toggle*
- *Stronger and more reliable*
- *Unique design provides greater strength*
- *Corrosion resistant finish*

170

1/8 x 3
(3/8 HOLE SIZE)
P/N 816

1/8 x 4
(3/8 HOLE SIZE)
P/N 817

3/16 x 6
(1/4 HOLE SIZE)
P/N 822

5/16 x 4
(7/8 HOLE SIZE)
P/N 828

3/16 x 3
(1/2 HOLE SIZE)
P/N 819

3/16 x 4
(1/2 HOLE SIZE)
P/N 820

5/16 x 5
(7/8 HOLE SIZE)
P/N 829

1/4 x 3
(5/8 HOLE SIZE)
P/N 823

1/4 x 4
(5/8 HOLE SIZE)
P/N 824

1/4 x 6
(5/8 HOLE SIZE)
P/N 826

3/8 x 4
(7/8 HOLE SIZE)
P/N 832

A21-9

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

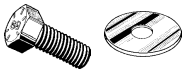
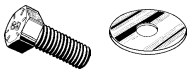
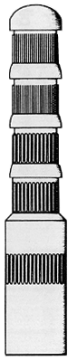
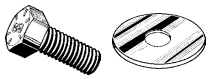
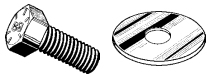
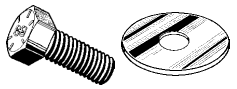
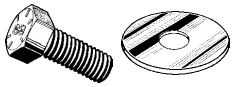
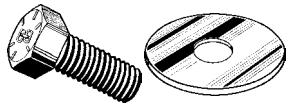
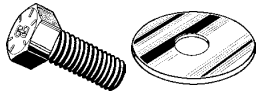
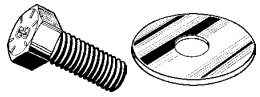
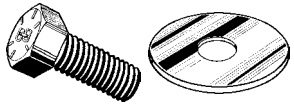
CIC 200™ DROP-TITE™ ANCHOR ASSORTMENT

P/N 17777

FEATURES:

- *For use with CIC 200 Drop-Tite Epoxy (P/N 74534)*
- *Extremely high holding values – epoxy bond adheres to entire length of anchor body, producing superior ultimate strength*
- *Easy to install – no special tools or bits required*
- *Shallow embedment – provides excellent holding value while avoiding rebar and "drill-thru"*
- *Close edge distance and spacing – epoxy bond and shallow embedment minimize effects of "cone failure"*

157

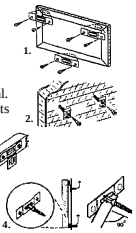
 5/16 x 1-9/16 **P/N 88560**	 1/4-20 x 1/2 GR8 CAP SCREW **P/N 40700** 1/4-20 CIC 200 UNIFIT WASHER **P/N 5400**	 1/4-20 x 3/4 GR8 CAP SCREW **P/N 40702** 1/4 CIC 200 UNIFIT WASHER **P/N 5400**	 7/8 x 5-3/4 **P/N 88564**
 7/16 x 2-3/8 **P/N 88561**	 5/16-18 x 3/4 GR8 CAP SCREW **P/N 40728** 5/16 CIC 200 UNIFIT WASHER **P/N 5401**	 5/16-18 x 1 GR8 CAP SCREW **P/N 40730** 5/16 CIC 200 UNIFIT WASHER **P/N 5401**	
 1/2 x 2-3/4 **P/N 88562**	 3/8-16 x 3/4 GR8 CAP SCREW **P/N 40754** 3/8 CIC UNIFIT WASHER **P/N 5402**	 3/8-16 x 1 GR8 CAP SCREW **P/N 40756** 3/8 CIC 200 UNIFIT WASHER **P/N 5402**	 5/8-11 x 1-3/4 GR8 CAP SCREW **P/N 40855** 5/8 CIC 200 UNIFIT WASHER **P/N 5406**
 5/8 x 3-5/8 **P/N 88563**	 1/2-13 x 1 GR8 CAP SCREW **P/N 40807** 1/2 CIC 200 UNIFIT WASHER **P/N 5404**	 1/2-13 x 1-1/4 GR8 CAP SCREW **P/N 40809** 1/2 CIC 200 UNIFIT WASHER **P/N 5404**	 5/8-11 x 2 GR8 CAP SCREW **P/N 40856** 5/8 CIC 200 UNIFIT WASHER **P/N 5406**

A21-10

CHROMATE® INDUSTRIAL CORP.

INSTALLATION INSTRUCTIONS

1. Fasten three (3) Security Slotted Brackets to the back of picture frame – two on top and one o bottom. See diagram as shown.
2. Fasten two (2) Slide-In Mounting Brackets to wall material. This should coincide with the two Security Slotted Brackets on the top of picture frame only.
3. Position picture frame on Mounting Brackets directly behind Slotted Brackets as shown.
4. Screw one Secure-T-Screw into wall material at the location of the bottom Security Slotted Bracket. Position Secure-T-Screw into Security Slotted Bracket and twist the Secure-T-Screw securely with a wrench.



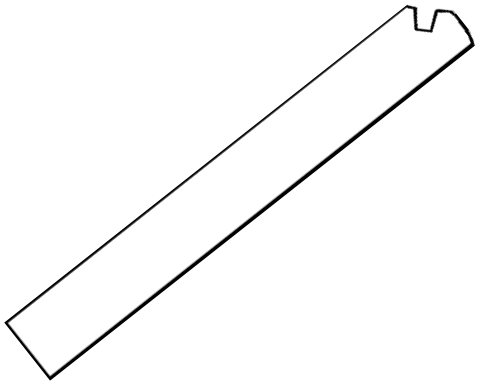
SECURITY PICTURE HANGING HARDWARE ASSORTMENT

FEATURES:

P/N 17854

- *Metal hardware to assemble, hang and securely fasten picture frames, mirrors and other wall hangings.*

511

 SECURE-T SCREW **P/N 88746**	 12-16 x 1-1/2 NYLON FLANGED ANCHOR **P/N 682**	 SLIDE-IN MOUNTING BRACKET **P/N 88747**	 8-12 x 1-1/4 NYLON FLANGED ANCHOR **P/N 681**
 SECURE-T SCREW WRENCH **P/N 88749**	 SECURITY SLOTTED BRACKET **P/N 88748**	 6 x 1/2 PHILLIPS SLOTTED METAL SCREW **P/N 1244**	 10 x 1-1/4 PHILLIPS SLOTTED METAL SCREW **P/N 1273**

A21-12

TRAY FRONT

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INDUSTRIAL CORP.

HAMMER DRIVE STUD ANCHOR ASSORTMENT

P/N 17871

FEATURES:

- *Fast, easy setting of anchor, drill insert and hammer*
- *No hole spotting – can be drilled and set with fixture in place*
- *High pull-out and shear strength*
- *Yellow dichromate over zinc plating for superior corrosion resistance*

	2000 PSI CONCRETE			4000 PSI CONCRETE	
	TENSION IN FT. LBS.		SHEAR	TENSION IN FT. LBS.	
DIAMETER	MIN. EMBED.	MAX. EMBED.	MIN. EMBED.	MIN. EMBED.	MAX. EMBED.
1/4"	(1") 900	(1-1/2") 1000	(1") 1600	(1") 1300	(1-1/2") 1400
5/16"	(1-1/4") 1400	(1-7/8") 1500	(1-1/4") 3000	(1-1/4") 2100	(1-7/8") 2400
3/8"	(1-1/2") 2200	(2-1/4") 2800	(1-1/2") 3400	(1-1/2") 3200	(2-1/4") 3700
1/2"	(2") 3600	(3") 4200	(2") 7200	(2") 5600	(3") 5700
5/8"	(2-1/2") 5400	(3-3/4") 6600	(2-1/2") 9200	(2-1/2") 7500	(3-3/4") 10,400
3/4"	(3") 7500	(4-1/2") 9900	(3") 13,500	(3") 9500	(4-1/2") 13,400

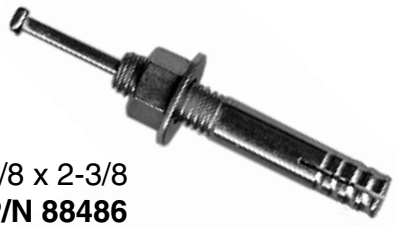
80

1/4 x 1-3/4
P/N 88480

1/4 x 2-3/8
P/N 88481

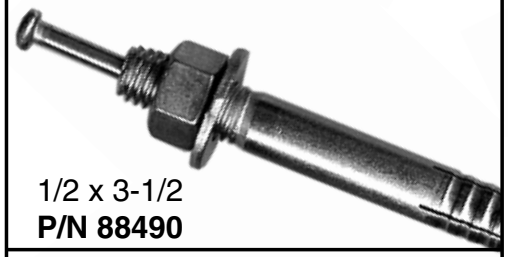
5/16 x 2”
P/N 88483

5/16 x 2-3/4
P/N 88484



3/8 x 2-3/8
P/N 88486

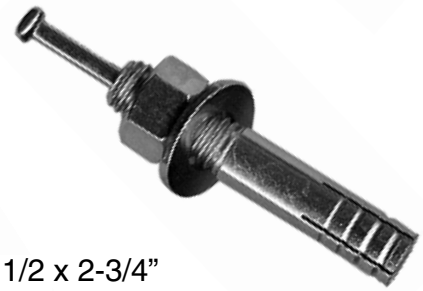
3/8 x 3-1/2
P/N 88487



1/2 x 3-1/2
P/N 88490

1/2 x 6”
P/N 88492

3/8 x 5”
P/N 88488



1/2 x 2-3/4”
P/N 88489

1/2 x 4-3/4
P/N 88491

A21-14

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

INSTALLATION PROCEDURE:

1. Drill hole the same diameter as the Taper Bolt, using fixture as a template.
2. Drive Taper Bolt into place leaving recommended head clearance. If hole is oversized, simply remove and pre-expand the expander nut to fit hole.
3. Tighten Taper Bolt to recommended torque.
4. For larger projects, set Taper Bolt with an impact wrench. This method offers speed, consistency and greater installer productivity.

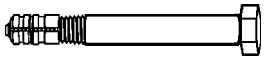
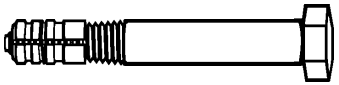
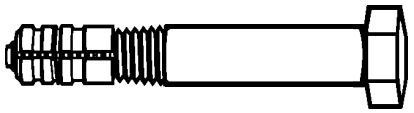
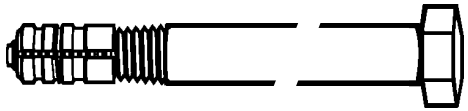
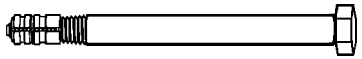
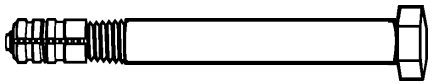
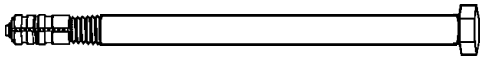
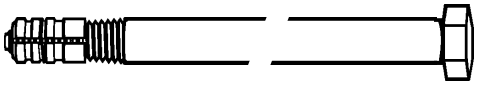
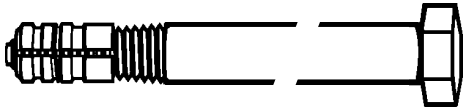
TAPER BOLT ANCHOR ASSORTMENT

P/N 17881

FEATURES:

- *Grade 5, zinc plated taper bolt*
- *Required hole diameter equals anchor diameter – no repositioning of equipment required*
- *Undersize/oversize holes can be accommodated by turning the pre-expanded nut a few times*
- *Bolt can be removed and re-used with a new nut*
- *Equipment may be removed and replaced – the bolt is simply re-inserted and torqued to obtain original holding power (the nut stays in the hole)*
- *The highest tensile and shear strength of any expansion anchor*
- *Withstands vibratory loads better than any other expansion anchor*

62

1/4 Nut **P/N 77677N**	3/8 Nut **P/N 77680N**	1/2 Nut **P/N 77684N**	
 1/4 x 1-3/4 **P/N 77677**	 3/8 x 2-1/4 **P/N 77680**	 1/2 x 2-7/8 **P/N 77684**	 1/2 x 5 **P/N 77686**
 1/4 x 2-1/2 **P/N 77678**	 3/8 x 3 **P/N 77682**		
 1/4 x 3-1/2 **P/N 77679**	 3/8 x 4 **P/N 77683**	 1/2 x 4 **P/N 77685**	1/4 x 6 x 1/4 Black Beauty Drill **P/N 77510** 3/8 x 6 x 3/8 Black Beauty Drill **P/N 77530** 1/2 x 6-3/4 x 3/8 Black Beauty Drill **P/N 77546**

A21-15

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ CEMENT BOLT ANCHORS ASSORTMENT

P/N 17901

FEATURES:

- *Hex washer head, heat-treated, high strength carbon steel*
- *Serrations under head for superior holding power*
- *Removable, reusable and vibration-resistant*
- *Layout or hole spotting is eliminated-can be drilled and, set with fixture in place*
- *Works in most base material-concrete, block and brick*

158

1/4 x 1-1/4
P/N 9019

1/4 x 3
P/N 9022

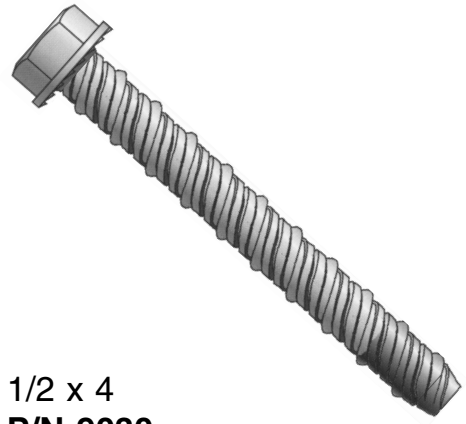
3/8 x 3
P/N 9025

1/2 x 3
P/N 9029

1/4 x 1-3/4
P/N 9020

3/8 x 1-3/4
P/N 9023

3/8 x 4
P/N 9026



1/2 x 4
P/N 9030

1/4 x 2-1/4
P/N 9021

3/8 x 2-1/2
P/N 9024

A21-16

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CHROMATE® INDUSTRIAL CORP.

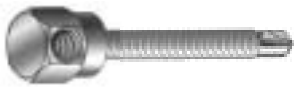
SUSPEND-IT FASTENER ASSORTMENT

P/N 17915

FEATURES:

- *One-piece, all steel threaded fastening system for suspending steel threaded rod vertically overhead in pipe hanging, fire protection, electrical and cable-tray applications*
- *Two head configurations for vertical and side mounting*
- *Can be installed in a variety of base materials including steel, wood and concrete*
- *Self-tapping screw style for concrete and self-drilling screw style for wood and steel*

3/8 x 1/4-20 x 2" Vertical Metal
P/N 9501



3/8 x 1/4-20 x 1-1/2 Side Metal
P/N 9515

3/8 x 3/8 x 2-1/2 Vertical Wood
P/N 9508

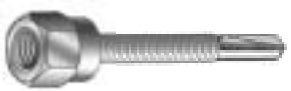
3/8 x 1/4 x 1-1/2 Vertical Concrete
P/N 9511

3/8 x 1/4-20 x 1-1/2 Vertical Metal
P/N 9502

1/4-20 Flangrip Lock Nut
P/N 6990

1/2 x 3/8 x 2-1/2 Vertical Wood
P/N 9509

1/2 x 3/8 x 2-3/4 Vertical Concrete
P/N 9512



1/2 x 12-20 x 1-1/2 Vertical Metal
P/N 9503

3/8 x 1/4 x 2" Vertical Wood
P/N 9505

3/8 x 1/4 x 2" Side Wood
P/N 9517

Universal Socket Driver
P/N 9519

3/8 x 1/4-20 x 1" Side Metal
P/N 9514

3/8 x 1/4 x 3" Vertical Wood
P/N 9506

3/8 x 3/8 x 2-1/2 Side Wood
P/N 9518

3/8 Concrete Socket Driver
P/N 9521

1/2 Concrete Socket Driver
P/N 9522

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

TURBO-DRIVE™ ANCHORS ASSORTMENT

P/N 17929

FEATURES:

- *Installs in wallboard, plywood, concrete, hollow or grout filled block, brick and plaster*
- *Patented design provides for smooth entry, clean cutting and a powerful hold*
- *Thread design prevents spinning and stripping*
- *Heat treated point penetrates metal and wood studs*
- *Installs quickly and easily with a Phillips screwdriver*
- *Can be easily backed out*

504

3/16 x 1-1/4
PAN HEAD CHROME
P/N 88656

3/16 x 1-1/4
OVAL HEAD CHROME
P/N 88658

3/16 x 1-1/4
PAN HEAD WHITE
P/N 88657

3/16 x 1-1/4
OVAL HEAD WHITE
P/N 88659

3/16 x 3-1/2 x 3/16
BLACK BEAUTY DRILL
P/N 77504

3/16 x 6 x 3/16
BLACK BEAUTY DRILL
P/N 77505

1-15/16
5-10 PHILLIPS POWER BIT
P/N 83026

2-3/4
5-10 PHILLIPS POWER BIT
P/N 83031

A21-18

TRAY FRONT

HOLLOW WALL ANCHOR ASSORTMENT

P/N 17948

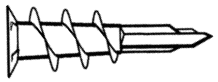
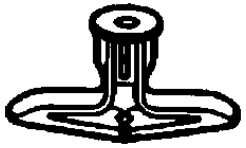
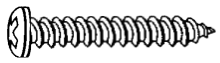
SUPERFAST ANCHORS:
- *No pre drilling*
- *Removable*
- *Extra deep #2 phillips drive*
- *Works in 3/8", 1/2" and 5/8" drywall*
- *Use with #6, 8, 10 or 12 metal screws*

BUTTERFLY ANCHORS:
- *Fastens in drywall, paneling, tile and concrete*
- *Holds up to 590lbs.*
- *Accepts screws No. 6 - No. 14*

NYLON FLANGED ANCHORS:
- *Special side locks*
- *Special taper wings*
- *Large flange to eliminate push through*
- *Super deep ridges for superior holding power*

TURBO-DRIVE ANCHORS:
- *Installs in wall board, plywood, concrete, hollow or grout filled block, brick or plaster*
- *Installs directly through fixture into wall board*
- *Smooth entry, clean cutting and powerful hold*
- *Can be easily backed out*

432

 8 82503 88645 5 CIC 200 SUPERFAST ANCHOR - NYLON **P/N 88645**	8 82503 05382 6 3/8-1/2 CIC BUTTERFLY TOGGLE **P/N 5382**	8 82503 00682 2 12-14 X 1-1/2 NYLON FLANGED ANCHOR **P/N 682**	8 82503 01520 6 8 X 1 PHILLIPS BINDING HEAD METAL SCREW **P/N 1520**
8 82503 88675 2 SUPERFAST MINI ANCHOR - PLASTIC **P/N 88675**	 8 82503 05383 3 5/8-3/4 CIC BUTTERFLY TOGGLE **P/N 5383**	8 82503 88656 1 TURBO-DRIVE ANCHOR CHROME PAN HEAD **P/N 88656**	8 82503 01530 5 10 X 1 PHILLIPS BINDING HEAD METAL SCREW **P/N 1530**
8 82503 88650 9 CIC 200 SUPERFAST ANCHOR **P/N 88650**	8 82503 00680 8 6-8 X 1 NYLON FLANGED ANCHOR **P/N 680**	8 82503 88658 5 TURBO-DRIVE ANCHOR CHROME OVAL HEAD **P/N 88658**	8 82503 01532 9 10 X 1-1/2 PHILLIPS BINDING HEAD METAL SCREW **P/N 1532**
8 82503 88680 6 SUPERFAST MINI ANCHOR - ZINC **P/N 88680**	8 82503 00681 5 8-10 X 1-1/4 NYLON FLANGED ANCHOR **P/N 681**	8 82503 01552 7 14 X 2 PHILLIPS BINDING HEAD METAL SCREW **P/N 1552**	 8 82503 01550 3 14 X 1-1/2 PHILLIPS BINDING HEAD METAL SCREW **P/N 1550**

A21-20

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

INSTALLATION PROCEDURE:

1. **Drill hole the same diameter as the Taper Bolt, using fixture as a template.**
2. **Drive Taper Bolt into place leaving recommended head clearance. If hole is oversized, simply remove and pre-expand the expander nut to fit hole.**
3. **Tighten Taper Bolt to recommended torque.**
4. **For larger projects, set Taper Bolt with an impact wrench. This method offers speed, consistency and greater installer productivity.**

TAPER BOLT ANCHOR ASSORTMENT

FEATURES:

- *Grade 5, zinc plated taper bolt*
- *Required hole diameter equals anchor diameter – no repositioning of equipment required*
- *Undersize/oversize holes can be accommodated by turning the pre-expanded nut a few times*
- *Bolt can be removed and re-used with a new nut*
- *Equipment may be removed and replaced – the bolt is simply re-inserted and torqued to obtain original holding power (the nut stays in the hole)*
- *The highest tensile and shear strength of any expansion anchor*
- *Withstands vibratory loads better than any other expansion anchor*

P/N 17953

8 82503 17953 3

45

3/8 Nut
P/N 77680N

8 82503 45193 6

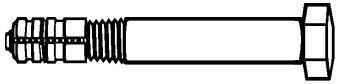
1/2 Nut
P/N 77684N

8 82503 45194 3

5/8 Nut
P/N 77687N

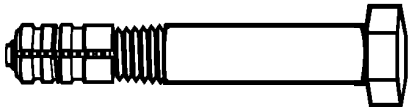
8 82503 45195 0

8 82503 77680 0



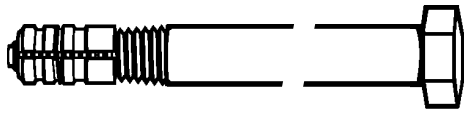
3/8 x 2-1/4
P/N 77680

8 82503 77684 8



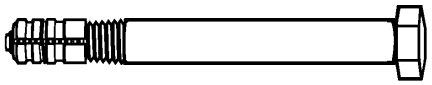
1/2 x 2-7/8
P/N 77684

8 82503 77686 2



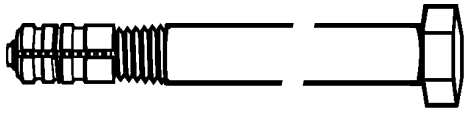
1/2 x 5
P/N 77686

8 82503 77682 4



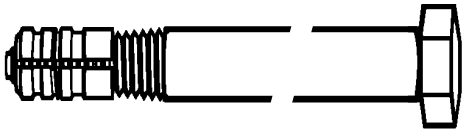
3/8 x 3
P/N 77682

8 82503 77685 5



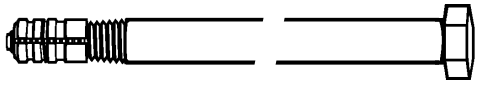
1/2 x 4
P/N 77685

8 82503 77687 9



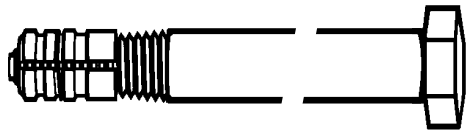
5/8 x 3-1/2
P/N 77687

8 82503 77683 1



3/8 x 4
P/N 77683

8 82503 17953 3



5/8 x 4-1/2
P/N 77688

3/8 x 6 x 3/8
Black Beauty Drill
P/N 77530

8 82503 77530 8

1/2 x 6-3/4 x 3/8
Black Beauty Drill
P/N 77546

8 82503 77546 9

5/8 x 6 x 3/8
Black Beauty Drill
P/N 77563

8 82503 77563 6

A21-21

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

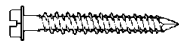
CIC 200™ CEMENT SCREW AND DRILL ASSORTMENT

P/N 17021

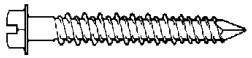
FEATURES:

- *Self-tapping screw type anchors*
- *Works fast and securely in all types of masonry applications*
- *Fast – install 2 to 3 fasteners per minute, just drill, then drive*
- *Strong – designed for ultimate pullout strength*
- *Safe and easy – no dangerous equipment needed for installation*
- *Special high, sharp thread cuts deep and easily while low thread provides stability for accurate driving*
- *Removable – repairs and adjustments of installed components are made easy because our fastener can be removed and re-inserted in the same hole*

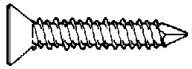
353



3/16" x 1-1/4"
SLOTTED HEX WASHER SCREWS
P/N 9050
DRILL **P/N 9086**



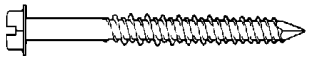
1/4" x 1-3/4"
SLOTTED HEX WASHER SCREWS
P/N 9058
DRILL **P/N 9083**



1/4" x 1-1/4"
PHILLIPS FLAT HEAD SCREWS
P/N 9071
DRILL **P/N 9083**

5/32" x 3-1/2"
CARBIDE TIPPED DRILL
P/N 9086

3/16" x 1-3/4"
SLOTTED HEX WASHER SCREWS
P/N 9051
DRILL **P/N 9086**

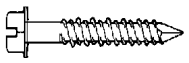


1/4" x 2-1/4"
SLOTTED HEX WASHER SCREWS
P/N 9059
DRILL **P/N 9084**

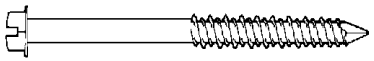
1/4" x 1-3/4"
PHILLIPS FLAT HEAD SCREWS
P/N 9072
DRILL **P/N 9083**

3/16" x 3-1/2"
CARBIDE TIPPED DRILL
P/N 9083

3/16" x 4-1/2"
CARBIDE TIPPED DRILL
P/N 9084

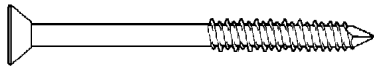


1/4" x 1-1/4"
SLOTTED HEX WASHER SCREWS
P/N 9057
DRILL **P/N 9083**



1/4" x 2-3/4"
SLOTTED HEX WASHER SCREWS
P/N 9060
DRILL **P/N 9084**

1/4" x 2-1/4"
PHILLIPS FLAT HEAD SCREWS
P/N 9073
DRILL **P/N 9084**



1/4" x 2-3/4"
PHILLIPS FLAT HEAD SCREWS
P/N 9074
DRILL **P/N 9084**

A21-22

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

TRIPLE-GRIP™ ANCHORS

P/N 17699

FEATURES:

- *Easy to install*
- *Superior holding power*
- *Expandable wings grip tightly behind drywall*
- *Lateral wings hold anchor in place*
- *Cam action expands inside drywall*
- *For use on drywall, plaster, brick, concrete, ceramic tile*

1400

#6 - 1/4" DRILL DIA. BEIGE **P/N 88636**	#8 - 1/4" DRILL DIA. GREY **P/N 88637**	#10 - 5/16" DRILL DIA. BLUE **P/N 88638**	#12 - 3/8" DRILL DIA. GREEN **P/N 88639**
HEX WASHER HEAD SLOTTED METAL SCREW 6 x 1 **P/N 859**	HEX WASHER HEAD SLOTTED METAL SCREW 8 x 1-1/4 **P/N 864**	HEX WASHER HEAD SLOTTED METAL SCREW 10 x 1-1/4 **P/N 870**	HEX WASHER HEAD SLOTTED METAL SCREW 12 x 1-1/2 **P/N 878**

A21-23

TRAY FRONT

NYLON FLANGED ANCHORS WITH DRILLS

FEATURES
- Notched wings with 2 expansion points to prevent rotation of the anchor as the screw is inserted.
- Easy to install, screws and drill bits included.
- Sizes 6-8 to 12-14

P/N 17688

803

8 82503 00680 8

6-8 X 1
NYLON FLANGED ANCHOR - WHITE
P/N 680

8 82503 00681 5

8-10 X 1-1/14
NYLON FLANGED ANCHOR - BLUE
P/N 681

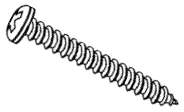
8 82503 00682 2

12-14 X 1-1/2
NYLON FLANGED ANCHOR - GREEN
P/N 682

8 82503 01511 4

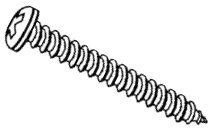
6 X 1
PHILLIPS BINDING METAL SCREW
P/N 1511

8 82503 01531 2



10 X 1-1/14
PHILLIPS BINDING METAL SCREW
P/N 1531

8 82503 01550 3



14-1/2
PHILLIPS BINDING METAL SCREW
P/N 1550

CARBIDE MASONRY DRILLS

8 82503 77504 9

3/16 X 3-1/2 X 3/16
P/N 77504

8 82503 77509 4

1/4 X 4 X 1/4
P/N 77509

8 82503 77518 6

5/16 X 4-3/4 X 5/16
P/N 77518

A21-24

TRAY FRONT

MULTI-TOGGLE ANCHOR ASSORTMENT

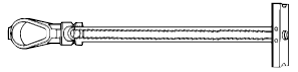
P/N 17664

8 82503 12281 2

FEATURES

- *Quick one person installation*
- *Small drill holes*
- *Reusable in same hole*
- *Screw can be removed without losing anchor behind wall*
- *Fully threaded steel zinc plated screws*

500

8 82503 05390 1 3/16 (10-24) MULTI-TOGGLE ANCHOR **P/N 5390**	8 82503 05390 1 3/16 (10-24) MULTI-TOGGLE ANCHOR **P/N 5390**	8 82503 05391 8 1/4-20 MULTI-TOGGLE ANCHOR **P/N 5391**	8 82503 05391 8  1/4-20 MULTI-TOGGLE ANCHOR **P/N 5391**
8 82503 26224 2 10-24 X 3” ROUND COMBINATION MACHINE SCREW **P/N 26224**	8 82503 26225 9 10-24 X 4” ROUND COMBINATION MACHINE SCREW **P/N 26225**	8 82503 26228 0 1/4-20 X 3” ROUND COMBINATION MACHINE SCREW **P/N 26228**	8 82503 26229 7 1/4-20 X 4” ROUND COMBINATION MACHINE SCREW **P/N 26229**

A21-25

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ MULTI-GRIP PULL RIVET ASSORTMENT

P/N 7740

FEATURES:

- *Only Chromate multi-grip pull rivets adapt to hole size variance and pull up snug regardless of material thickness*
- *Only a few sizes cover the applications of up to 15 standard rivets*

750

DOME HEAD

1/8 DIAM.
1/32 to 3/16 GRIP
#29 DRILL
P/N 6850

DOME HEAD

1/8 DIAM.
1/8 to 5/16 GRIP
#29 DRILL
P/N 6853

DOME HEAD

5/32 DIAM.
3/64 to 1/4 GRIP
#19 DRILL
P/N 6855

DOME HEAD

3/16 DIAM.
1/16 to 1/4 GRIP
#8 DRILL
P/N 6860

DOME HEAD

3/16 DIAM.
3/16 to 7/16 GRIP
#8 DRILL
P/N 6865

120° C'S'K'

1/8 DIAM.
3/32 to 1/4 GRIP
#29 DRILL
P/N 6867

LARGE FLANGE

1/8 DIAM.
1/32 to 3/16 GRIP
#29 DRILL
P/N 6875

LARGE FLANGE

1/8 DIAM.
1/8 to 5/16 GRIP
#29 DRILL
P/N 6876

LARGE FLANGE

3/16 DIAM.
1/4 to 1/2 GRIP
#8 DRILL
P/N 6879

LARGE FLANGE

3/16 DIAM.
1/2 to 25/32 GRIP
#8 DRILL
P/N 6882

A22-1

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

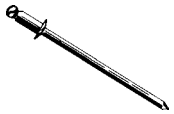
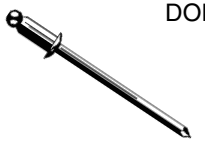
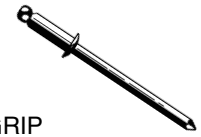
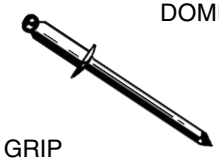
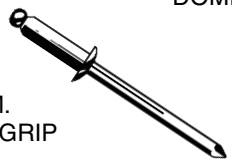
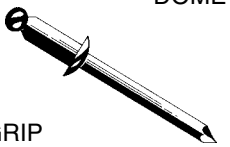
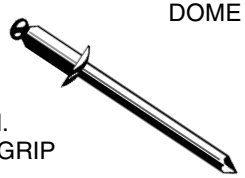
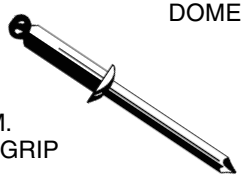
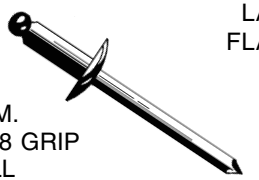
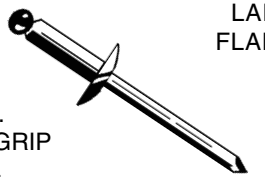
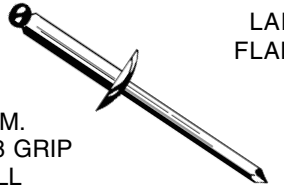
CIC 200™ ALUMINUM/STEEL PULL RIVET ASSORTMENT

P/N 7737

FEATURES:

• A convenient assortment of aluminum/steel rivets that includes both dome and large flange styles

1235

DOME HEAD  3/32 DIAM. to 1/8 GRIP #41 DRILL **P/N 9851**	DOME HEAD 3/32 DIAM. 1/8 to 1/4 GRIP #41 DRILL **P/N 9852**	DOME HEAD  1/8 DIAM. to 1/16 GRIP #30 DRILL **P/N 9858**	DOME HEAD 1/8 DIAM. 1/16 to 1/8 GRIP #30 DRILL **P/N 9859**
DOME HEAD 1/8 DIAM. 1/8 to 3/16 GRIP #30 DRILL **P/N 9860**	DOME HEAD  1/8 DIAM. 3/16 to 1/4 GRIP #30 DRILL **P/N 9861**	DOME HEAD 5/32 DIAM. to 1/8 GRIP #20 DRILL **P/N 9869**	DOME HEAD  5/32 DIAM. 3/16 to 1/4 GRIP #20 DRILL **P/N 9871**
DOME HEAD  5/32 DIAM. 1/4 to 3/8 GRIP #20 DRILL **P/N 9872**	DOME HEAD  3/16 DIAM. 1/8 to 1/4 GRIP #11 DRILL **P/N 9879**	DOME HEAD  3/16 DIAM. 1/4 to 3/8 GRIP #11 DRILL **P/N 9880**	DOME HEAD  3/16 DIAM. 3/8 to 1/2 GRIP #11 DRILL **P/N 9881**
LARGE FLANGE 1/8 DIAM. 1/8 to 1/4 GRIP #30 DRILL **P/N 9898**	LARGE FLANGE  3/16 DIAM. 1/16 to 3/8 GRIP #11 DRILL **P/N 9903**	LARGE FLANGE  3/16 DIAM. 3/8 to 1/2 GRIP #11 DRILL **P/N 9904**	LARGE FLANGE  3/16 DIAM. 1/2 to 5/8 GRIP #11 DRILL **P/N 9905**

A22-2

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CHROMATE®
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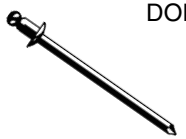
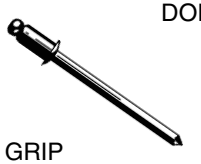
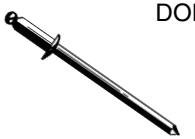
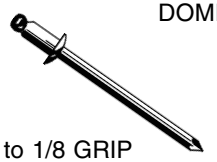
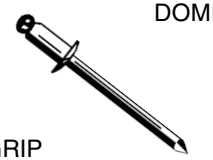
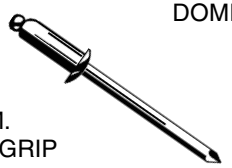
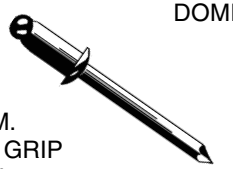
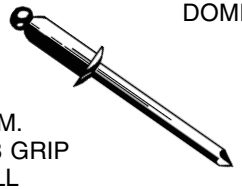
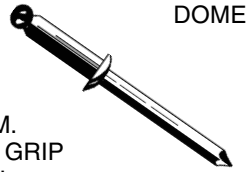
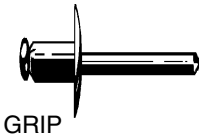
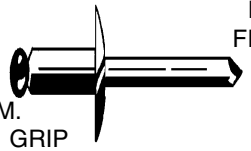
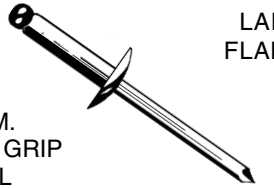
CIC 200™ STEEL/STEEL PULL RIVET ASSORTMENT

P/N 7738

FEATURES:

• A convenient assortment of all steel rivets that includes both dome and large flange style

1125

DOME HEAD 3/32 DIAM. to 1/8 GRIP #41 DRILL **P/N 9911**	DOME HEAD 3/32 DIAM. 1/8 to 1/4 GRIP #41 DRILL **P/N 9912**	DOME HEAD  1/8 DIAM. to 1/16 GRIP #30 DRILL **P/N 9918**	DOME HEAD  1/8 DIAM. 1/16 to 1/8 GRIP #30 DRILL **P/N 9919**
DOME HEAD  1/8 DIAM. 1/8 to 3/16 GRIP #30 DRILL **P/N 9920**	DOME HEAD 1/8 DIAM. 3/16 to 1/4 GRIP #30 DRILL **P/N 9921**	DOME HEAD  5/32 DIAM. to 1/8 GRIP #20 DRILL **P/N 9930**	DOME HEAD  5/32 DIAM. 1/8 to 1/4 GRIP #20 DRILL **P/N 9932**
DOME HEAD  5/32 DIAM. 1/4 to 3/8 GRIP #20 DRILL **P/N 9933**	DOME HEAD  3/16 DIAM. 1/8 to 1/4 GRIP #11 DRILL **P/N 9940**	DOME HEAD  3/16 DIAM. 1/4 to 3/8 GRIP #11 DRILL **P/N 9941**	DOME HEAD  3/16 DIAM. 3/8 to 1/2 GRIP #11 DRILL **P/N 9942**
LARGE FLANGE  1/8 DIAM. 1/8 to 1/4 GRIP #30 DRILL **P/N 9961**	LARGE FLANGE 3/16 DIAM. 1/16 to 3/8 GRIP #11 DRILL **P/N 9967**	LARGE FLANGE  3/16 DIAM. 3/8 to 1/2 GRIP #11 DRILL **P/N 9968**	LARGE FLANGE  3/16 DIAM. 1/2 to 5/8 GRIP #11 DRILL **P/N 9969**

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CHROMATE®
INDUSTRIAL CORP.

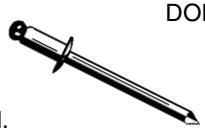
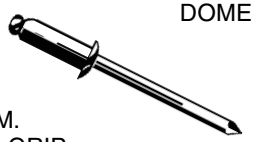
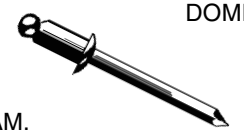
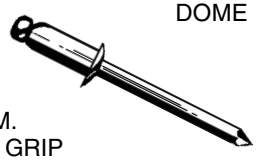
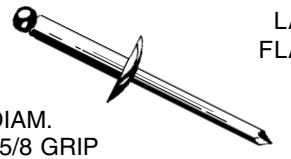
CIC 200™ ALUM/ALUM PULL RIVET ASSORTMENT

P/N 7739

FEATURES:

- *A convenient assortment of all aluminum rivets that includes both dome and large flange styles*

1255

DOME HEAD 3/32 DIAM. to 1/8 GRIP #41 DRILL **P/N 9800**	DOME HEAD 3/32 DIAM. 1/8 to 1/4 GRIP #41 DRILL **P/N 9801**	DOME HEAD 1/8 DIAM. to 1/16 GRIP #30 DRILL **P/N 9806**	DOME HEAD 1/8 DIAM. 1/16 to 1/8 GRIP #30 DRILL **P/N 9807**
DOME HEAD 1/8 DIAM. 1/8 to 3/16 GRIP #30 DRILL **P/N 9808**	DOME HEAD 1/8 DIAM. 3/16 to 1/4 GRIP #30 DRILL **P/N 9809**	DOME HEAD 5/32 DIAM. to 1/8 GRIP #20 DRILL **P/N 9818**	DOME HEAD  5/32 DIAM. 1/8 to 1/4 GRIP #20 DRILL **P/N 9820**
DOME HEAD  5/32 DIAM. 1/4 to 3/8 GRIP #20 DRILL **P/N 9821**	DOME HEAD  3/16 DIAM. 1/8 to 1/4 GRIP #11 DRILL **P/N 9828**	DOME HEAD  3/16 DIAM. 1/4 to 3/8 GRIP #11 DRILL **P/N 9829**	DOME HEAD 3/16 DIAM. 3/8 to 1/2 GRIP #11 DRILL **P/N 9830**
LARGE FLANGE 1/8 DIAM. 1/8 to 1/4 GRIP #30 DRILL **P/N 9839**	LARGE FLANGE 3/16 DIAM. 1/16 to 3/8 GRIP #11 DRILL **P/N 9844**	LARGE FLANGE 1/8 DIAM. 1/16 to 1/8 GRIP #30 DRILL **P/N 9838**	LARGE FLANGE  3/16 DIAM. 1/2 to 5/8 GRIP #11 DRILL **P/N 9846**

A22-4

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CHROMATE® INDUSTRIAL CORP.

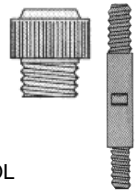
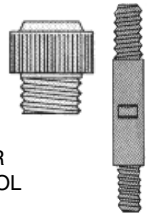
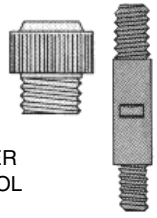
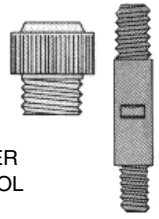
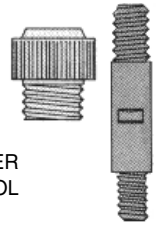
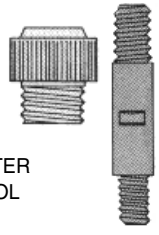
CIC 200™ STANDARD AND THIN SHEET NUTSERT ASSORTMENT

P/N 7781

FEATURES:

- *Fast, convenient installation of threads in any blind area*
- *CIC 200 Thinserts and Nutserts are an easily-installed alternative to many "blind" fasteners*
- *They offer strength, permanence and load-bearing capabilities for a variety of materials.*

356

 6-32 TSN USE 1/4 DRILL **(P/N 97116)** **P/N 590**	 8-32 TSN USE 1/4 DRILL **(P/N 97116)** **P/N 591**	 10-24 TSN USE 9/32 DRILL **(P/N 97118)** **P/N 592**	 10-32 TSN USE 9/32 DRILL **(P/N 97118)** **P/N 593**	 1/4-20 TSN USE 3/8 DRILL **(P/N 97124)** **P/N 594**	 QUIK TOOL FOR THREADED INSERTS **P/N 9610**
 6-32 ADAPTER FOR QUIK TOOL **P/N 483**	 8-32 ADAPTER FOR QUIK TOOL **P/N 484**	 10-24 ADAPTER FOR QUIK TOOL **P/N 485**	 10-32 ADAPTER FOR QUIK TOOL **P/N 486**	 1/4-20 ADAPTER FOR QUIK TOOL **P/N 488**	
EXPANSION	EXPANSION	 10-24 NUTSERT USE 9/32 DRILL **(P/N 97118)** **P/N 47903**	EXPANSION	 1/4-20 NUTSERT USE 3/8 DRILL **(P/N 97124)** **P/N 47905**	
 5/16-18 TSN USE 1/2 DRILL **(P/N 97132)** **P/N 595**	 5/16-18 ADAPTER FOR QUIK TOOL **P/N 490**	 5/16-18 NUTSERT USE 1/2 DRILL **(P/N 97132)** **P/N 47907**	EXPANSION	EXPANSION	

A22-5A

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

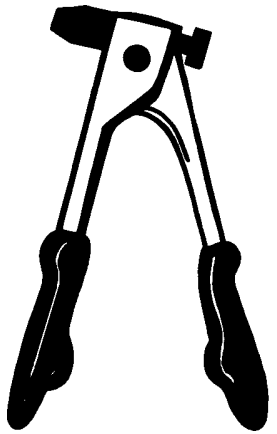
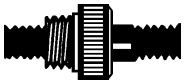
CIC 200™ STANDARD AND THIN SHEET NUTSERT ASSORTMENT

P/N 17700

FEATURES:

- *Fast, convenient installation of threads in any blind area*
- *CIC 200 Thinserts and Nutserts are an easily-installed alternative to many "blind" fasteners*
- *They offer strength, permanence and load-bearing capabilities for a variety of materials*

103

EXPANSION	EXPANSION	10-24 TSN USE 9/32 DRILL (**P/N 97118**) **P/N 583**	EXPANSION	1/4-20 TSN USE 3/8 DRILL (**P/N 97124**) **P/N 585**	 QUIK TOOL **P/N 9610**
EXPANSION	EXPANSION	10-24 ADAPTER **P/N 485**	EXPANSION	 1/4-20 ADAPTER **P/N 488**	
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	

A22-5B

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ THREAD REPAIR INSERT ASSORTMENT

FEATURES:

- *Installs permanent threads that won't fail, strip, rotate or pull out even under excessive loading*

P/N 7736

67

 6-32 INTERNAL THREAD **P/N 1654** TO INSTALL: USE #7 DRILL USE 1/4-20 TAP	 1/4-20 INTERNAL THREAD **P/N 1657** TO INSTALL: USE 23/64 DRILL USE 7/16-14 TAP	 1/2-13 INTERNAL THREAD **P/N 1661** TO INSTALL: USE 21/32 DRILL USE 3/4-10 TAP	5/16-24 INTERNAL THREAD **P/N 1759** TO INSTALL: USE 27/64 DRILL USE 1/2-13 TAP
 8-32 INTERNAL THREAD **P/N 1655** TO INSTALL: USE "F" DRILL USE 5/16-18 TAP	 5/16-18 INTERNAL THREAD **P/N 1658** TO INSTALL: USE 27/64 DRILL USE 1/2-13 TAP	 10-32 INTERNAL THREAD **P/N 1757** TO INSTALL: USE 5/16 DRILL USE 3/8-16 TAP	3/8-24 INTERNAL THREAD **P/N 1760** TO INSTALL: USE 31/64 DRILL USE 9/16-12 TAP
 10-24 INTERNAL THREAD **P/N 1656** TO INSTALL: USE 5/16 DRILL USE 3/8-16 TAP	 3/8-16 INTERNAL THREAD **P/N 1659** TO INSTALL: USE 31/64 DRILL USE 9/16-12 TAP	 1/4-28 INTERNAL THREAD **P/N 1758** TO INSTALL: USE 23/64 DRILL USE 7/16-14 TAP	7/16-20 INTERNAL THREAD **P/N 1761** TO INSTALL: USE 17/32 DRILL USE 5/8-11 TAP
			1/2-20 INTERNAL THREAD **P/N 1762** TO INSTALL: USE 21/32 DRILL USE 3/4-10 TAP

A22-6

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ WOOD THREAD REPAIR INSERT ASSORTMENT

P/N 7742

FEATURES:

- *The most effective way to make strong joints in hard wood, soft wood and particle board using machine screws and/or bolts*

90

 6-32 USE 1/4" DRILL **P/N 3789**	 8-32 USE 1/4" DRILL **P/N 3788**	 10-24 USE 3/8" DRILL **P/N 3790**	 10-32 USE 3/8" DRILL **P/N 3792**	 1/4-20 USE 3/8" DRILL **P/N 3794**	 5/16-18 USE 1/2" DRILL **P/N 3796**
 3/8-16 USE 1/2" DRILL **P/N 3798**	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

A22-7

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ STAINLESS STEEL PULL RIVET ASSORTMENT

P/N 7797

FEATURES:

- *These dome head rivets provide excellent corrosion resistance*

535

1/8" DIAMETER
3/16" to 1/4" GRIP RANGE
#30 DRILL (**P/N 10030**)
P/N 9706

3/16" DIAMETER
1/8" to 1/4" GRIP RANGE
#11 DRILL (**P/N 10011**)
P/N 9712

EXPANSION

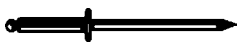
1/8" DIAMETER
1/8" to 3/16" GRIP RANGE
#30 DRILL (**P/N 10030**)
P/N 9704

3/16" DIAMETER
to 1/8" GRIP RANGE
#11 DRILL (**P/N 10011**)
P/N 9710

3/16" DIAMETER
3/8" to 1/2" GRIP RANGE
#11 DRILL (**P/N 10011**)
P/N 9716

EXPANSION

1/8" DIAMETER
to 1/8" GRIP RANGE
#30 DRILL (**P/N 10030**)
P/N 9702



1/8" DIAMETER
1/4" to 3/8" GRIP RANGE
#30 DRILL (**P/N 10030**)
P/N 9708

3/16" DIAMETER
1/4" to 3/8" GRIP RANGE
#11 DRILL (**P/N 10011**)
P/N 9714

A22-8

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CHROMATE®
INDUSTRIAL CORP.

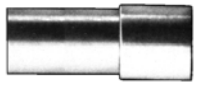
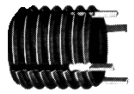
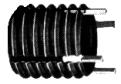
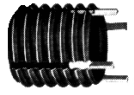
CIC 200™ PERMASERT™ PERMANENT THREAD REPAIR INSERTS ASSORTMENT

P/N 17735

FEATURES:

- *Permanent, locking steel thread repair inserts*
- *Quickly repairs stripped, damaged or worn threads*
- *For use on original equipment applications where softer materials won't hold*
- *Installed with standard drills and taps*
- *No pre-winder tool required*
- *Positive mechanical lock against rotation*

85

 1/4 TOOL **P/N 1882**	 5/16 TOOL **P/N 1883**	 3/8 TOOL **P/N 1884**	 7/16 TOOL **P/N 1885**	 1/2 TOOL **P/N 1886**	EXPANSION
 1/4-20 INTERNAL THREAD 7/16-14 EXTERNAL THREAD **P/N 1915** USE "X" DRILL; 7/16-14 TAP	 5/16-18 INTERNAL THREAD 1/2-13 EXTERNAL THREAD **P/N 1917** USE 29/64 DRILL; 1/2-13 TAP	 3/8-16 INTERNAL THREAD 9/16-12 EXTERNAL THREAD **P/N 1919** USE 33/64 DRILL; 9/16-12 TAP	 7/16-14 INTERNAL THREAD 5/8-11 EXTERNAL THREAD **P/N 1921** USE 37/64 DRILL; 5/8-11 TAP	 1/2-13 INTERNAL THREAD 3/4-16 EXTERNAL THREAD **P/N 1923** USE 45/64 DRILL; 3/4-16 TAP	EXPANSION
 1/4-28 INTERNAL THREAD 7/16-14 EXTERNAL THREAD **P/N 1916** USE "X" DRILL; 7/16-14 TAP	 5/16-24 INTERNAL THREAD 1/2-13 EXTERNAL THREAD **P/N 1918** USE 29/64 DRILL; 1/2-13 TAP	 3/8-24 INTERNAL THREAD 9/16-12 EXTERNAL THREAD **P/N 1920** USE 33/64 DRILL; 9/16-12 TAP	 7/16-20 INTERNAL THREAD 5/8-11 EXTERNAL THREAD **P/N 1922** USE 37/64 DRILL; 5/8-11 TAP	 1/2-20 INTERNAL THREAD 3/4-16 EXTERNAL THREAD **P/N 1924** USE 45/64 DRILL; 3/4-16 TAP	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

A22-9

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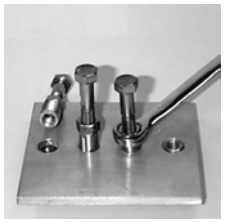

SELF-TAPPING THREADED INSERTS

P/N 17785

INSTALLATION INSTRUCTIONS:
(Using a hex head cap screw and nut)

1. Drill to recommended hole size.
2. Thread hex nut onto cap screw. Screw insert onto cap screw with holes away from nut. Tighten the nut snugly to the top of the insert.
3. Using appropriate wrench or socket, carefully align insert perpendicular to the hole and turn clockwise until flush with surface. To remove cap screw, hold the nut with a wrench and loosen cap screw.

FEATURES:

- *Provides maximum pull-out strength and wear resistant threads in aluminum, aluminum alloy, magnesium and mild steels*
- *Three lateral cutting holes provides an easy self-tapping installation resulting in a connection highly resistant to vibration*

175

4-40 **P/N 1940** **DRILL/HOSE SIZE** #15 (.181)	10-24 **P/N 1943** **DRILL/HOSE SIZE** L (.291)	5/16-18 **P/N 1946** **DRILL/HOSE SIZE** 7/16 (.437)	1/2-13 **P/N 1949** **DRILL/HOSE SIZE** 43/64 (.669)
6-32 **P/N 1941** **DRILL/HOSE SIZE** 7/32 (.216)	10-32 **P/N 1944** **DRILL/HOSE SIZE** L (.291)	3/8-16 **P/N 1947** **DRILL/HOSE SIZE** 33/64 (.516)	
8-32 **P/N 1942** **DRILL/HOSE SIZE** 15/64 (.236)	1/4-20 **P/N 1945** **DRILL/HOSE SIZE** U (.366)	7/16-14 **P/N 1948** **DRILL/HOSE SIZE** 19/32 (.590)	5/8-11 **P/N 1950** **DRILL/HOSE SIZE** 3/4 (.748)

A22-10

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

KNURLED THREADED INSERT ASSORTMENT

P/N 17828

THINSERT FEATURES:

- *Splined body provides increased torque-to-turn resistance over conventional non-splined inserts*
- *Low profile head provides near-flush seating without special hole preparation*
- *Material thickness ranging from .020" to 0.312"*
- *Hardened surface providing high-strength, load-bearing threads*
- *Lead-in chamfer on the body provides ease of insertion into the work piece*

NUTSERT FEATURES:

- *Reduced assembly costs – installed from one side of the workpiece*
- *Not grip sensitive – can be used in any material thickness from .030" through solid materials*
- *Portability – allows installation anywhere and at any time in the assembly process*
- *Radial expansion provides 360º contact with parent material*
- *Reduced rear-sheet protrusion*

340

6-32 **P/N 590** DRILL SIZE 17/64	1/4-20 **P/N 594** DRILL SIZE 25/64	6-32 **P/N 47901** DRILL SIZE 7/32	1/4-20 **P/N 47905** DRILL SIZE 3/8
8-32 **P/N 591** DRILL SIZE 17/64	5/16-18 **P/N 595** DRILL SIZE 17/32	8-32 **P/N 47902** DRILL SIZE 1/4	1/4-28 **P/N 47906** DRILL SIZE 3/8
10-24 **P/N 592** DRILL SIZE 19/64	3/8-16 **P/N 596** DRILL SIZE 17/32	10-24 **P/N 47903** DRILL SIZE 9/32	5/16-18 **P/N 47907** DRILL SIZE 1/2
10-32 **P/N 593** DRILL SIZE 19/64	4-40 **P/N 47900** DRILL SIZE 3/16	10-32 **P/N 47904** DRILL SIZE 9/32	5/16-24 **P/N 47908** DRILL SIZE 1/2

A22-11

TRAY FRONT

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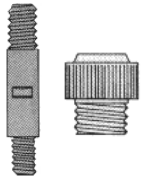

QUIK TOOL AND ADAPTER/MANDREL ASSORTMENT

P/N 17829

FEATURES:

- *For fast, easy installation of blind threaded inserts from 4-40 to 3/8*

12

4-40 **P/N 460**	10-32 **P/N 486**	5/16-24 **P/N 493**	 Quik Tool **P/N 9610**
6-32 **P/N 483**	1/4-20 **P/N 488**	3/8-16 **P/N 489**	
8-32 **P/N 484**	1/4-28 **P/N 492**		
10-24 **P/N 485**	5/16-18 **P/N 490**	3/8-24 **P/N 494**	

A22-12

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

HI-TORQUER TOOL AND CONVERSION KIT ASSORTMENT

P/N 17861

FEATURES:

- *Easily installs all sizes of threaded inserts*
- *"Quick-change" thread adaptation kit allows change over of the base tool to place different thread sizes without the need of other tools*

6

EXPANSION

4-40 HI-TORQUER CONVERSION KIT
P/N 22100

10-32 HI-TORQUER CONVERSION KIT
P/N 22104

6-32 HI-TORQUER CONVERSION KIT
P/N 22101

1/4-20 HI-TORQUER CONVERSION KIT
P/N 22105

8-32 HI-TORQUER CONVERSION KIT
P/N 22102

EXPANSION

1/4-28 HI-TORQUER CONVERSION KIT
P/N 22106

10-24 HI-TORQUER CONVERSION KIT
P/N 22103

EXPANSION

5/16-18 HI-TORQUER CONVERSION KIT
P/N 22107

EXPANSION

5/16-24 HI-TORQUER CONVERSION KIT
P/N 22108

EXPANSION

3/8-16 HI-TORQUER CONVERSION KIT
P/N 22109

EXPANSION

3/8-24 HI-TORQUER CONVERSION KIT
P/N 22110

HI-TORQUER
THREADED INSERT TOOL
P/N 9611

A22-13

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

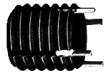
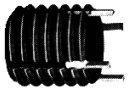
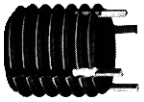
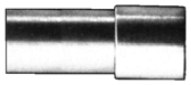
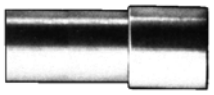
METRIC PERMASERTS ASSORTMENT

P/N 17920

FEATURES:

- *Permanent, locking steel thread repair inserts*
- *Quickly repairs stripped, damaged or worn threads*
- *For use on original equipment applications where softer materials won't hold*
- *Installed with standard drills and taps*
- *No pre-winder tool required*
- *Positive mechanical lock against rotation*

35

 M5 x .8 INTERNAL THREAD M8 x 1.25 EXTERNAL THREAD **P/N 21800** USE 6.9MM or I DRILL	 M6 x 1 INTERNAL THREAD M10 x 1.25 EXTERNAL THREAD **P/N 21801** USE 8.8MM or 11/32 DRILL	 M8 x 1.25 INTERNAL THREAD M12 x 1.25 EXTERNAL THREAD **P/N 21802** USE 10.8MM or 27/64 DRILL	EXPANSION
 M10 x 1.5 INTERNAL THREAD M14 x 1.5 EXTERNAL THREAD **P/N 21804** USE 12.8MM or 1/2 DRILL	EXPANSION	 M12 x 1.75 INTERNAL THREAD M16 x 1.5 EXTERNAL THREAD **P/N 21806** USE 14.75MM or 37/64 DRILL	EXPANSION
 M5 TOOL **P/N 21815**	 M6 TOOL **P/N 21816**	 M8 x 1.25 TOOL **P/N 21817**	EXPANSION
 M10 x 1.5 TOOL **P/N 21819**	EXPANSION	 M12 x 1.75 TOOL **P/N 21821**	

A22-14

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

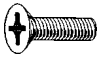
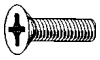
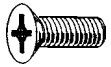
NUTSERT ASSORTMENT

P/N 17927

FEATURES:

- *Splined body provides increased torque-to-turn resistance over conventional non-splined inserts*
- *Low profile head provides near-flush seating without special hole preparation*
- *Material thickness ranging from .020" to 0.312"*
- *Hardened surface providing high-strength, load-bearing threads*
- *Lead-in chamfer on the body provides ease of insertion into the work piece*
- *For fast, easy installation of blind threaded inserts from 6-32 to 1/4-20*

506

6-32 ADAPTER FOR QUIK TOOL **P/N 483**	8-32 ADAPTER FOR QUIK TOOL **P/N 484**	10-24 ADAPTER FOR QUIK TOOL **P/N 485**	10-32 ADAPTER FOR QUIK TOOL **P/N 486**	1/4-20 ADAPTER FOR QUIK TOOL **P/N 488**	QUIK TOOL ONLY FOR NUTSERT **P/N 9610**
6-32 STAR FLANGE THINSERT **P/N 590**	8-32 STAR FLANGE THINSERT **P/N 591**	10-24 STAR FLANGE THINSERT **P/N 592**	10-32 STAR FLANGE THINSERT **P/N 593**	1/4-20 STAR FLANGE THINSERT **P/N 594**	
6-32 x 1/2 PHIL FLT HD MACH SC **P/N 36113**	8-32 x 1/2 PHIL FLT HD MACH SC **P/N 36123**	 10-24 x 1/2 PHIL FLT HD MACH SC **P/N 36162**	 10-32 x 1/2 PHIL FLT HD MACH SC **P/N 36133**	 1/4-20 x 1/2 PHIL FLT HD MACH SC **P/N 36150**	
6-32 x 1 PHIL FLT HD MACH SC **P/N 36116**	8-32 x 1 PHIL FLT HD MACH SC **P/N 36126**	10-24 x 1 PHIL FLT HD MACH SC **P/N 36165**	10-32 x 1 PHIL FLT HD MACH SC **P/N 36136**	1/4-20 x 1 PHIL FLT HD MACH SC **P/N 36152**	

A22-15

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

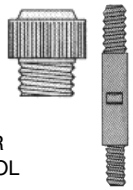
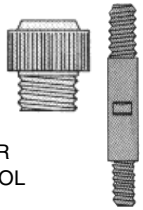
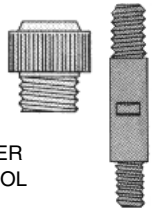
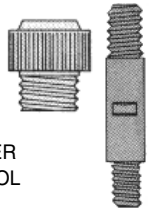
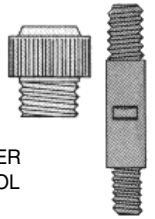
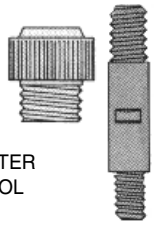
THINSERT/NUTSERT ASSORTMENT

P/N 17935

FEATURES:

- *Fast, convenient installation of threads in any blind area*
- *CIC 200 Thinserts and Nutserts are an easily-installed alternative to many "blind" fasteners*
- *They offer strength, permanence and load-bearing capabilities for a variety of materials.*

302

6-32 STAR FLANGE THINSERT **P/N 590**	8-32 STAR FLANGE THINSERT **P/N 591**	10-24 STAR FLANGE THINSERT **P/N 592**	10-32 STAR FLANGE THINSERT **P/N 593**	1/4-20 STAR FLANGE THINSERT **P/N 594**	QUIK TOOL FOR THREADED INSERTS **P/N 9610**
 6-32 ADAPTER FOR QUIK TOOL **P/N 483**	 8-32 ADAPTER FOR QUIK TOOL **P/N 484**	 10-24 ADAPTER FOR QUIK TOOL **P/N 485**	 10-32 ADAPTER FOR QUIK TOOL **P/N 486**	 1/4-20 ADAPTER FOR QUIK TOOL **P/N 488**	
6-32 STARSERT THREADED NUTSERT **P/N 47901**	8-32 STARSERT THREADED NUTSERT **P/N 47902**	10-24 STARSERT THREADED NUTSERT **P/N 47903**	10-32 STARSERT THREADED NUTSERT **P/N 47904**	1/4-20 STARSERT THREADED NUTSERT **P/N 47905**	
5/16-18 STAR FLANGE THINSERT **P/N 595**	 5/16-18 ADAPTER FOR QUIK TOOL **P/N 490**	5/16-18 STARSERT THREADED NUTSERT **P/N 47907**	EXPANSION	EXPANSION	

A22-16

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

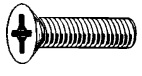
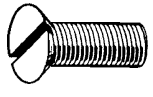
CIC 200™ WOOD THREAD REPAIR INSERT ASSORTMENT

P/N 17942

FEATURES:

- *The most effective way to make strong joints in hard wood, soft wood and particle board using machine screws and/or bolts*

288

 8-32 WOOD THREAD REPAIR INSERT **P/N 3788**	 10-24 WOOD THREAD REPAIR INSERT **P/N 3790**	 1/4-20 WOOD THREAD REPAIR INSERT **P/N 3794**	 3/8-16 WOOD THREAD REPAIR INSERT **P/N 3798**
 8-32 INSTALLATION TOOL **P/N 1893**	 10-24 INSTALLATION TOOL **P/N 1894**	 1/4-20 INSTALLATION TOOL **P/N 1895**	 3/8-16 INSTALLATION TOOL **P/N 1897**
 8-32 x 3/4 PHILLIPS FLAT HEAD MACHINE SCREW **P/N 36125**	 10-24 x 3/4 PHILLIPS FLAT HEAD MACHINE SCREW **P/N 36164**	 1/4-20 x 3/4 PHILLIPS FLAT HEAD MACHINE SCREW **P/N 36151**	 3/8-16 x 3/4 SLOTTED FLAT HEAD MACHINE SCREW **P/N 1864**
 1/4 CIC 200 QUAD PT DRILL - STUBBY **P/N 81016**	 3/8 CIC 200 QUAD PT DRILL - STUBBY **P/N 81024**	 3/8 CIC 200 QUAD PT DRILL - STUBBY **P/N 81024**	 1/2 CIC 200 QUAD PT DRILL - STUBBY **P/N 81032**

A22-17

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ TRI-CLAMP RIVET AND FINISHING CAP ASSORTMENT

P/N 17940

FEATURES:

- *Only Chromate multi-grip pull rivets adapt to hole size variance and pull up snug regardless of material thickness*
- *Only a few sizes cover the applications of up to 15 standard rivets*
- *Finishing caps provide clean, finished look in black or white*

650

5/32 DIAM.
3/64 to 1/8 GRIP
11/64 DRILL
P/N 6887

3/16 DIAM.
3/64 to 5/32 DRILL
#8 DRILL
P/N 6883

3/16 DIAM.
5/32 to 15/32 GRIP
#8 DRILL
P/N 6889

5/32 DIAM.
BLACK FINISHING
RIVET CAP
P/N 6897

3/16 DIAM.
WHITE FINISHING
RIVET CAP
P/N 6898

5/32 DIAM.
3/64 to 9/32 GRIP
11/64 DRILL
P/N 6888

3/16 DIAM.
3/64 to 11/32 DRILL
#8 DRILL
P/N 6886

5/32 DIAM.
WHITE FINISHING
RIVET CAP
P/N 6896

3/16 DIAM.
BLACK FINISHING
RIVET CAP
P/N 6899

A22-18

TRAY FRONT

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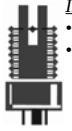
CHROMATE® INDUSTRIAL CORP.

METRIC COILSERTS ASSORTMENT

P/N 17981

COILSERTS

- *Rolled from high quality stainless steel wire wound to the shape of a spring thread*
- *Once the wire is wound into a helical coil and installed into a tapped hole, it provides a permanent and wear resistant thread in the parent material that is generally stronger than the original thread*
- *Coilserts compensatory action shares the load over the entire bolt and hole, increasing holding or pull out strength. With a coilsert in place, load and stress are more evenly distributed.*



INSTALLATION TOOL

- *The most practical and simple to use for general applications*
- *Care must be taken to ensure that the adjustable collar is correctly set to suit the particular type and length of the coilsert. If the collar is incorrectly set, the tool may slip off the tang as the coilsert enters the hole.*

35

M5 x .8 INSTALLATION TOOL **P/N 21860** 	M6 x 1 INSTALLATION TOOL **P/N 21861**
M5 x .8 INTERNAL THREAD **P/N 21845** 	M6 x 1 INTERNAL THREAD **P/N 21846**
M8 x 1.25 INSTALLATION TOOL **P/N 21863** 	M10 x 1.5 INSTALLATION TOOL **P/N 21864**
M8 x 1.25 INTERNAL THREAD **P/N 21849** 	M10 x 1.5 INTERNAL THREAD **P/N 21853**
M12 x 1.75 INSTALLATION TOOL **P/N 21867** 	EXPANSION
M12 x 1.75 INTERNAL THREAD **P/N 21857** 	EXPANSION

A22-20

TRAY FRONT

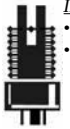
CHROMATE® INDUSTRIAL CORP.

COILSERTS ASSORTMENT

P/N 17980

COILSERTS

- *Rolled from high quality stainless steel wire wound to the shape of a spring thread*
- *Once the wire is wound into a helical coil and installed into a tapped hole, it provides a permanent and wear resistant thread in the parent material that is generally stronger than the original thread*
- *Coilserts compensatory action shares the load over the entire bolt and hole, increasing holding or pull out strength. With a coilsert in place, load and stress are more evenly distributed.*



INSTALLATION TOOL

- *The most practical and simple to use for general applications*
- *Care must be taken to ensure that the adjustable collar is correctly set to suit the particular type and length of the coilsert. If the collar is incorrectly set, the tool may slip off the tang as the coilsert enters the hole.*

1/4-20 and 1/4-28 TOOL
P/N 21861

5/16-18 TOOL
P/N 21862

1/4-20 INTERNAL THREAD
P/N 21823

1/4-28 INTERNAL THREAD
P/N 21824

5/16-18 INTERNAL THREAD
P/N 21825

5/16-24 TOOL
P/N 21863

3/8-16 TOOL
P/N 21864

5/16-24 INTERNAL THREAD
P/N 21826

3/8-24 TOOL
P/N 21865

3/8-16 INTERNAL THREAD
P/N 21827

7/16-14 and 7/16-20 TOOL
P/N 21866

3/8-24 INTERNAL THREAD
P/N 21828

1/2-13 and 1/2-20 TOOL
P/N 21867

7/16-14 INTERNAL THREAD
P/N 21829

7/16-20 INTERNAL THREAD
P/N 21830

1/2-13 INTERNAL THREAD
P/N 21831

1/2-20 INTERNAL THREAD
P/N 21832

A22-21

TRAY FRONT

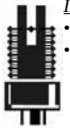
CHROMATE® INDUSTRIAL CORP.

COILSERTS WITH TAPS ASSORTMENT

P/N 17985

COILSERTS

- *Rolled from high quality stainless steel wire wound to the shape of a spring thread*
- *Once the wire is wound into a helical coil and installed into a tapped hole, it provides a permanent and wear resistant thread in the parent material that is generally stronger than the original thread*
- *Coilserts compensatory action shares the load over the entire bolt and hole, increasing holding or pull out strength. With a coilsert in place, load and stress are more evenly distributed.*



INSTALLATION TOOL

- *The most practical and simple to use for general applications*
- *Care must be taken to ensure that the adjustable collar is correctly set to suit the particular type and length of the coilsert. If the collar is incorrectly set, the tool may slip off the tang as the coilsert enters the hole.*

92

1/4-20 and 1/4-28 TOOL
P/N 21861

5/16-18 TOOL
P/N 21862

1/4-20 INTERNAL THREAD
P/N 21823

TAP
P/N 21823T

1/4-28 INTERNAL THREAD
P/N 21824

TAP
P/N 21824T

5/16-18 INTERNAL THREAD
P/N 21825

TAP
P/N 21825T

5/16-24 TOOL
P/N 21863

3/8-16 TOOL
P/N 21864

5/16-24 INTERNAL THREAD
P/N 21826

TAP
P/N 21826T

3/8-24 TOOL
P/N 21865

3/8-16 INTERNAL THREAD
P/N 21827

TAP
P/N 21827T

7/16-14 and 7/16-20 TOOL
P/N 21866

3/8-24 INTERNAL THREAD
P/N 21828

TAP
P/N 21828T

1/2-13 and 1/2-20 TOOL
P/N 21867

7/16-14 INTERNAL THREAD
P/N 21829

TAP
P/N 21829T

7/16-20 INTERNAL THREAD
P/N 21830

TAP
P/N 21830T

1/2-13 INTERNAL THREAD
P/N 21831

TAP
P/N 21831T

1/2-20 INTERNAL THREAD
P/N 21832

TAP
P/N 21832T

A22-22

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ RAZOR-BACK™ WOOD SPADE BITS

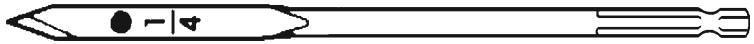
P/N 17730

FEATURES:

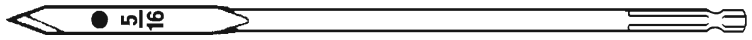
- *Chisel edge design for cleaner, smoother holes and faster cutting*
- *Angled spurs make bigger chips with less binding*
- *Exclusive tempering process for tough bits that last up to 6 times longer*
- *Hex shank fits all drills and 1/4" quick-change holders and also prevents spinning in drill chuck or in bit extension*
- *Quick Change extension allows for fast and easy bit changes – saving time and money*
- *Slim diameter Quick Change chuck passes through 11/16" and larger holes*

16

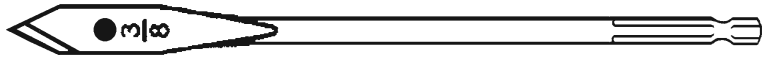
1/4"
P/N 61580



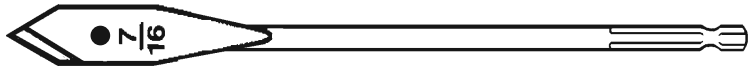
5/16"
P/N 61581



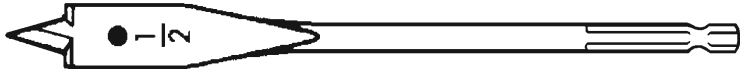
3/8"
P/N 61582



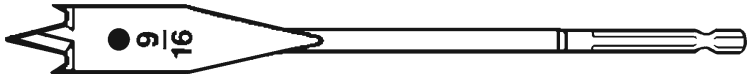
7/16"
P/N 61583



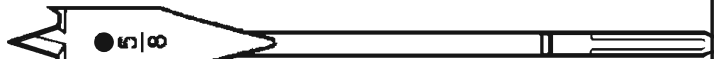
1/2"
P/N 61584



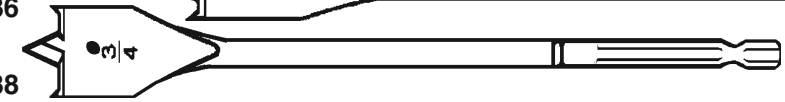
9/16"
P/N 61585



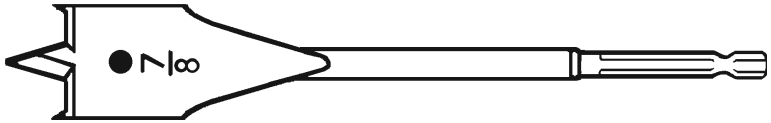
5/8"
P/N 61586



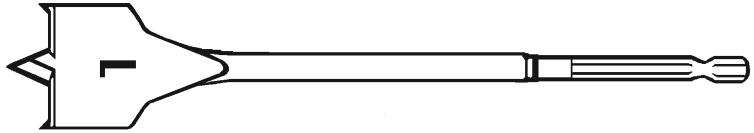
3/4"
P/N 61588



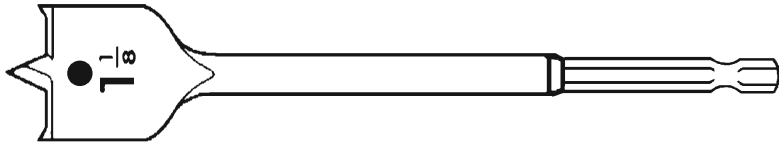
7/8"
P/N 61590



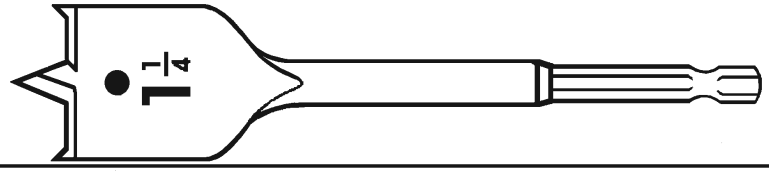
1"
P/N 61592



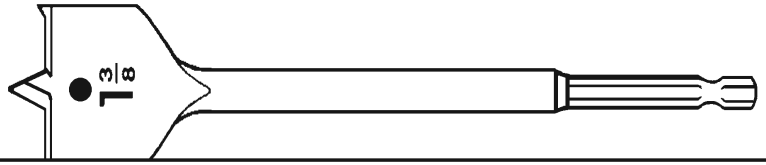
1-1/8"
P/N 61593



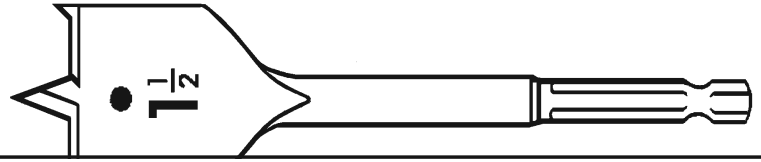
1-1/4"
P/N 61594



1-3/8"
P/N 61595

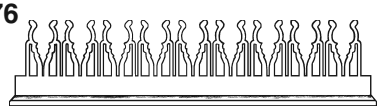


1-1/2"
P/N 61596



12" QUICK CHANGE EXTENSION
P/N 61576

WALL MOUNT SPADE BIT HOLDER
P/N 7976



A23-1

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

FORSTNER BITS

P/N 17946

FEATURES:

- *Precision-sharpened high speed steel bit with center guide point provides smoother cuts*
- *Fully hardened and have machined bodies for increased strength, safety and life*
- *Use in portable drills as well as drill presses*
- *Used to drill clean accurate, flat-bottomed holes in wood for counterboard screws, pocket holes, pilot holes and decorative edges*
- *Use in portable drills as well as drill presses*

USES:

- *Drills smooth 90^0 holes in all softwoods*
- *Drills partially overlapped flat-bottom holes for ease in mortising*
- *Drills holes for making arched openings*
- *Drills pocket holes used to fix supports*
- *Ideal for making recesses for hinges*

13

1/4 FORSTNER BIT
P/N 63500

7/8 FORSTNER BIT
P/N 63510

1-3/8 FORSTNER BIT
P/N 63518

3/8 FORSTNER BIT
P/N 63502

1" FORSTNER BIT
P/N 63512

1-1/2 FORSTNER BIT
P/N 63520

1/2 FORSTNER BIT.
P/N 63504

5/8 FORSTNER BIT
P/N 63506

1-1/8 FORSTNER BIT
P/N 63514

1-5/8 FORSTNER BIT
P/N 63522

3/4 FORSTNER BIT
P/N 63508

1-1/4 FORSTNER BIT
P/N 63516

1-3/4 FORSTNER BIT
P/N 63524

EXPANSION

1-7/8 FORSTNER BIT
P/N 63526

EXPANSION

2" FORSTNER BIT
P/N 63528

EXPANSION

2-1/8 FORSTNER BIT
P/N 63530

A23-2

TRAY FRONT

SDS MAX HAMMER DRILL BITS SIZES 1/2" TO 1-1/8"

P/N 17065

8 82503 10914 1

FEATURES:

- *Innovative 4 cutter cross head design*
- *Unique carbide geometry & centering tips for easy start up and drilling*
- *Use in concrete and hard masonry materials*

SDS Max Hammer Bit, 1/2" x 8" x 13"
P/N 77079

8 82503 10753 6

SDS Max Hammer Bit, 5/8" x 8" x 13"
P/N 77083

8 82503 10757 4

SDS Max Hammer Bit, 3/4" x 8" x 13"
P/N 77087

8 82503 10761 1

SDS Max Hammer Bit, 7/8" x 8" x 13"
P/N 77090

8 82503 10764 2

SDS Max Hammer Bit, 1" x 8" x 13"
P/N 77093

8 82503 10767 3

SDS Max Hammer Bit, 1-1/8" x 12" x 17"
P/N 77097

8 82503 10771 0

TRAY FRONT

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SPLINE SHANK HAMMER DRILL BITS, SINGLE POINT, SIZES 1/2" TO 3/4"

P/N 17066

8 82503 10915 8

FEATURES:

• Splines held to very close tolerences assure perfect fit

• Use in concrete and hard masonry materials

5

Spline Shank Hammer Bit, 1/2" x 5" x 10"
P/N 77111

8 82503 10785 7

Spline Shank Hammer Bit, 1/2" x 11" x 16"
P/N 77113

8 82503 10787 1

Spline Shank Hammer Bit, 5/8" x 5" x 10"
P/N 77119

8 82503 10793 2

Spline Shank Hammer Bit, 5/8" x 8" x 13"
P/N 77120

8 82503 10794 9

Spline Shank Hammer Bit, 3/4" x 11" x 16"
P/N 77127

8 82503 10801 4

EXPANSION

A23-4

TRAY FRONT

SPLINE SHANK HAMMER DRILL BITS, SINGLE POINT, SIZES 1" TO 1-1/2"

P/N 17067

8 82503 10916 5

FEATURES:

- *Splines held to very close tolerences assure perfect fit*
- *Use in concrete and hard masonry materials*

4

Spline Shank Hammer Bit, 1" x 11" x 16"
P/N 77134

8 82503 10808 3

Spline Shank Hammer Bit, 1-1/8" x 11" x 16"
P/N 77137

8 82503 10811 3

Spline Shank Hammer Bit, 1-1/4" x 11" x 16"
P/N 77139

8 82503 10813 7

Spline Shank Hammer Bit, 1-1/2" x 11" x 16"
P/N 77144

8 82503 10826 7

EXPANSION

EXPANSION

A23-5

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

SPLINE SHANK HAMMER DRILL BITS, QUAD POINT, SIZES 5/8" TO 3/4"

P/N 17068

FEATURES:

- *50% improved bit life*
- *Rounder more accurate holes*
- *Resists rebar hits*
- *Use in concrete and hard masonry materials*

4

Spline Shank Hammer Bit, Quad Point, 5/8" x 5" x 10"
P/N 77148

Spline Shank Hammer Bit, Quad Point, 5/8" x 11" x 16"
P/N 77149

Spline Shank Hammer Bit, Quad Point, 3/4" x 5" x 10"
P/N 77153

Spline Shank Hammer Bit, Quad Point, 3/4" x 11" x 16"
P/N 77154

EXPANSION

EXPANSION

A23-6

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

SPLINE SHANK HAMMER DRILL BITS, QUAD POINT, SIZES 7/8" TO 1-1/4"

P/N 17069

FEATURES:

- *50% improved bit life*
- *Rounder more accurate holes*
- *Resists rebar hits*
- *Use in concrete and hard masonry materials*

4

Spline Shank Hammer Bit, Quad Point, 7/8" x 11" x 16"
P/N 77158

Spline Shank Hammer Bit, Quad Point, 1" x 11" x 16"
P/N 77160

Spline Shank Hammer Bit, Quad Point, 1-1/8" x 11" x 16"
P/N 77163

Spline Shank Hammer Bit, Quad Point, 1-1/4" x 11" x 16"
P/N 77165

EXPANSION

EXPANSION

A23-7

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

REAMER ASSORTMENT

P/N 17976

FEATURES

- *"Spiral taper" frame and steel reamer for enlarging, finishing and making precision holes in sheet steel, frames, tubing, alloy and stainless steel sections*
- *1/2" diameter shank with ground flats for non-slip chucking*
- *More cutting edges for smooth, fast precision cuts with less chance of chipping and galling*
- *Stop collar prevents over penetration for safer, faster operation*
- *Left hand spiral for easy entry and fast metal removal*
- *5-flute design eliminates chattering and rough holes*

8

1/4 **P/N 91458**	5/8 **P/N 91462**
5/16 **P/N 91459**	3/4 **P/N 91463**
3/8 **P/N 91460**	7/8 **P/N 91464**
1/2 **P/N 91461**	1" **P/N 91465**

A23-8

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

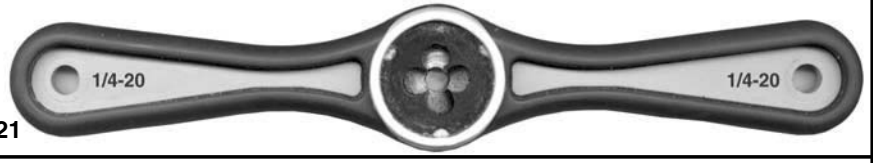
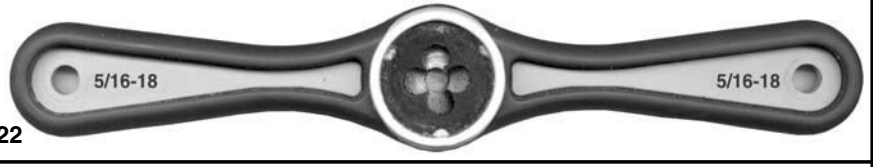
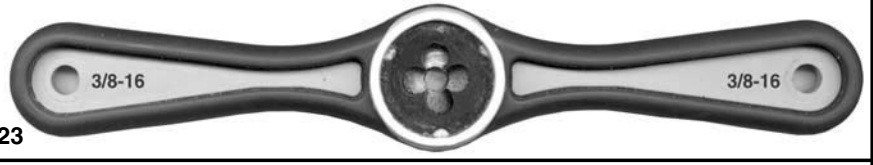
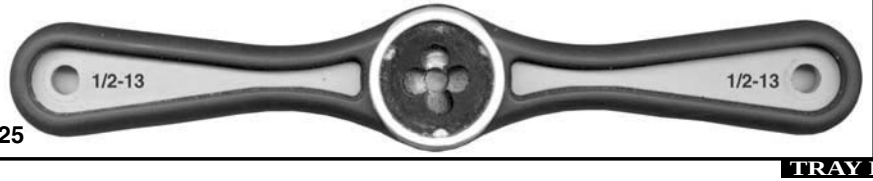
QUICK-CUT DIE & HANDLE ASSORTMENT

P/N 17977

FEATURES:

- *Ready to use HSS die and handle for quick repair and threading*
- *Built-in guide assures accurate starting and no cross threading*
- *Convenient – one tool does it all*
- *Ergonomically designed handle is comfortable to use*
- *Overall length is 8-3/4" wide*

7

6-32 **P/N 30426**	8-32 **P/N 30427**
10-24 **P/N 30428**	EXPANSION 10-32 P/N 30429
 1/4-20 **P/N 30421**	EXPANSION 1/4-28 P/N 30431
 5/16-18 **P/N 30422**	EXPANSION 5/16-24 P/N 30432
 3/8-16 **P/N 30423**	EXPANSION 3/8-24 P/N 30433
 1/2-13 **P/N 30425**	EXPANSION 1/2-20 P/N 30435

A24-1

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

METRIC QUICK-CUT DIE & HANDLE ASSORTMENT

P/N 17978

FEATURES:

- *Ready to use HSS die and handle for quick repair and threading*
- *Built-in guide assures accurate starting and no cross threading*
- *Convenient – one tool does it all*
- *Ergonomically designed handle is comfortable to use*
- *Overall length is 8-3/4" wide with the exception of 3mm x 0.50, 4mm x 0.70 and 5mm x 0.80 which are 7" wide*

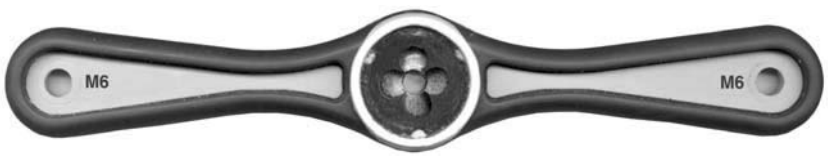
7

3mm x 0.50
P/N 30414

4mm x 0.70
P/N 30415

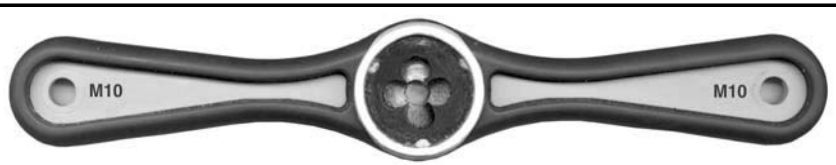
5mm x 0.80
P/N 30416

6mm x 1.00
P/N 30417

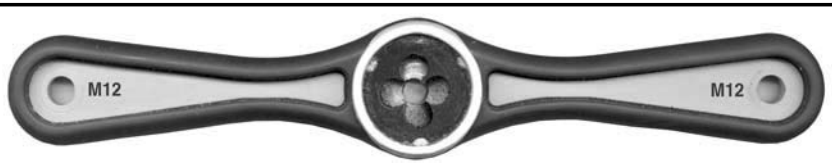


8mm x 1.25
P/N 30418

10mm x 1.50
P/N 30419



12mm x 1.75
P/N 30420



A24-2

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 800-BUY-BOLT • FAX: 888-233-3377 • www.chromate.com

TiN SPIRAL POINT TAPS, 11 PIECE SET

FEATURES

• TPI Sizes: 4-40 to 1/4-28

P/N 17682

11

4-40 **P/N 12600**	8-36 **P/N 12604**	12-28 **P/N 12608**	EXPANSION
6-32 **P/N 12601**	10-24 **P/N 12605**	1/4-20 **P/N 12609**	EXPANSION
6-40 **P/N 12602**	10-32 **P/N 12606**	1/4-28 **P/N 12610**	EXPANSION
8-32 **P/N 12603**	12-24 **P/N 12607**	EXPANSION	EXPANSION

A24-3

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

TiN SPIRAL POINT TAPS, 12 PIECE SET

FEATURES

• TPI Sizes: 5/16-18 to 3/4-16

P/N 17683

12

5/16-18 **P/N 12611**	7/16-14 **P/N 12615**	5/8-11 **P/N 12619**	EXPANSION
5/16-24 **P/N 12612**	7/16-20 **P/N 12616**	5/8-18 **P/N 12620**	EXPANSION
3/8-16 **P/N 12613**	1/2-13 **P/N 12617**	3/4-10 **P/N 12621**	EXPANSION
3/8-24 **P/N 12614**	1/2-20 **P/N 12618**	3/4-16 **P/N 12621**	EXPANSION

A24-4

TRAY FRONT

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090113

TiN COMBO DRILL & TAPS, 12 PIECE SET

P/N 17684

8 82503 11324 7

FEATURES

• TPI Sizes: 4-40 to 12-28

12

8 82503 11774 0 4-40 **P/N 12700**	8 82503 11778 8 6-32 **P/N 12704**	8 82503 11782 5 10-24 **P/N 12708**	EXPANSION
8 82503 11775 7 4-48 **P/N 12701**	8 82503 11779 5 6-40 **P/N 12705**	8 82503 11783 2 10-32 **P/N 12709**	EXPANSION
8 82503 11776 4 5-40 **P/N 12702**	8 82503 11780 1 8-32 **P/N 12706**	8 82503 11784 9 12-24 **P/N 12710**	EXPANSION
8 82503 11777 1 5-44 **P/N 12703**	8 82503 11781 8 8-36 **P/N 12707**	8 82503 11785 6 12-28 **P/N 12711**	EXPANSION

A24-5

TRAY FRONT

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TiN COMBO DRILL & TAPS, 10 PIECE SET

FEATURES

• TPI Sizes: 1/4-20 to 1/2-20

P/N 17685

10

1/4-20 **P/N 12712**	3/8-16 **P/N 12716**	1/2-13 **P/N 12720**	EXPANSION
1/4-28 **P/N 12713**	3/8-24 **P/N 12717**	1/2-20 **P/N 12721**	EXPANSION
5/16-18 **P/N 12714**	7/16-14 **P/N 12718**	EXPANSION	EXPANSION
5/15-24 **P/N 12715**	7/16-20 **P/N 12719**	EXPANSION	EXPANSION

A24-6

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CIC 200™ RECIPROCATING SAW BLADES 1/2" SHANK BI-METAL ASSORTMENT

P/N 17713

FEATURES:

- *Bi-metal construction of high cobalt content, high speed steel and alloy steel for faster cutting and greater durability*
- *A variety of blades for wood and metal cutting*

22

12 x 18 TPI
P/N 19428

FOR HEAVY GAUGE METAL 18 GA TO 1/8”

12 X 6 TPI
P/N 19409

FAST CUTTING IN WOOD OR NAIL-EMBEDDED WOOD

8 x 18 TPI
P/N 19418

FOR HEAVY GAUGE METAL 18 GA TO 1/8”

8 x 10/14 TPI
P/N 19411

FOR WOOD, PLASTIC AND METAL

6 x 6 TPI
P/N 19408

FOR WOOD OR NAIL-EMBEDDED WOOD

6 x 14 TPI
P/N 19414

FOR HEAVY GAUGE METAL 1/8” AND THICKER

4 x 24 TPI
P/N 19419

FOR THIN METAL
18 GAUGE AND UNDER

6 x 24 TPI
P/N 19420

FOR THIN METAL 18 GAUGE AND UNDER

6 x 10 TPI
P/N 19410

FOR WOOD AND NON-FERROUS METALS

4 x 18 TPI
P/N 19416

FOR HEAVY GAUGE METAL
18 GA TO 1/8”

6 x 18 TPI
P/N 19417

FOR HEAVY GAUGE METAL 18 GA TO 1/8”

3 x 18
P/N 19426

FOR METAL SCROLL CUTTING

4 x 14 TPI
P/N 19413

FOR HEAVY GAUGE METAL
1/8” AND THICKER

A26-1

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CHROMATE® INDUSTRIAL CORP.

CIC 200 BI-METAL HOLE SAWS 5/8" TO 2" ASSORTMENT

P/N 17712

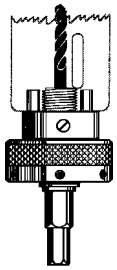
FEATURES:

- *CIC 200 hole saws cut faster and longer – saving time, money and labor*
- *Variable pitch tooth design*
- *M3 high speed steel cutting edge*
- *1-3/8" depth*

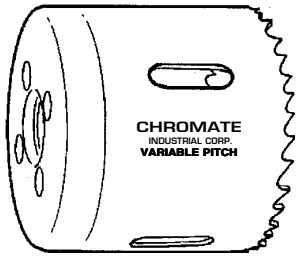
1/4" x 2-7/8"
PILOT DRILL
P/N 3994

3/8"
HEX ARBOR
P/N 1181

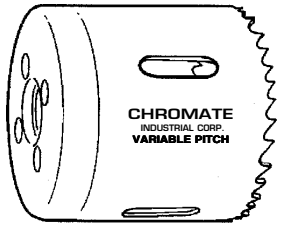
1/4" x 4-5/16"
PILOT DRILL
P/N 3992



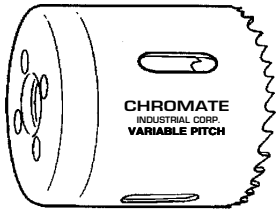
7/16"
HEX ARBOR
P/N 5450



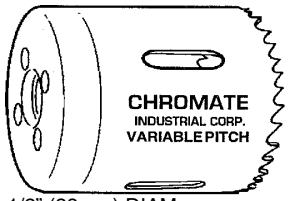
2" (51mm) DIAM.
P/N 1032



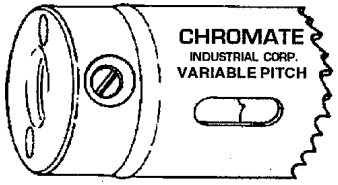
1-3/4" (44mm) DIAM.
P/N 1028



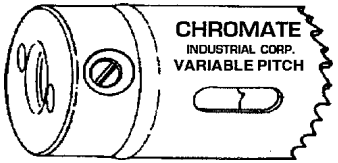
1-5/8" (41mm) DIAM.
P/N 1026



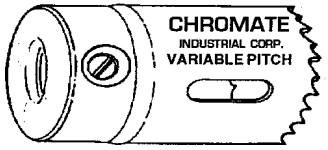
1-1/2" (38mm) DIAM.
P/N 1024



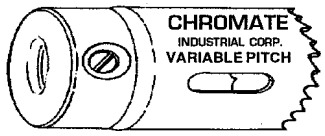
1-3/8" (35mm) DIAM.
P/N 1022



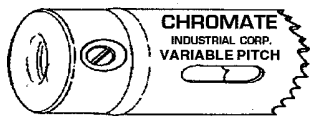
1-1/4" (32mm) DIAM.
P/N 1020



1-1/8" (29mm) DIAM.
P/N 1018



1" (25mm) DIAM.
P/N 1016



7/8" (22mm) DIAM.
P/N 1014

3/4" (19mm) DIAM.
P/N 1012

5/8" (16mm) DIAM.
P/N 1010

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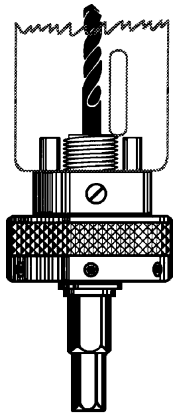
CHROMATE® INDUSTRIAL CORP.

CIC 200™ BI-METAL HOLE SAWS 2-1/8" TO 4" ASSORTMENT **P/N 17714**

FEATURES:

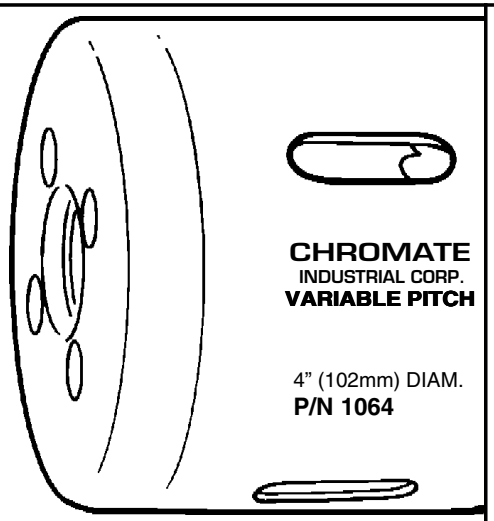
- *CIC 200 hole saws cut faster and longer – saving time, money and labor*
- *Variable pitch tooth design*
- *M3 high speed steel cutting edge*
- *1-3/8" depth*

11

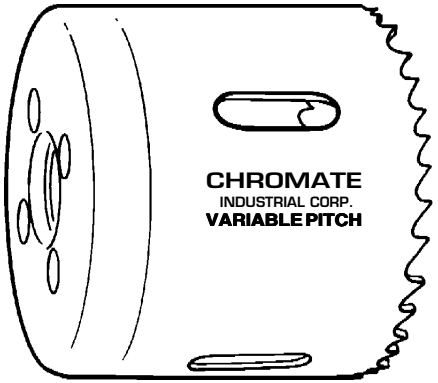


7/16"
HEX ARBOR
P/N 5450

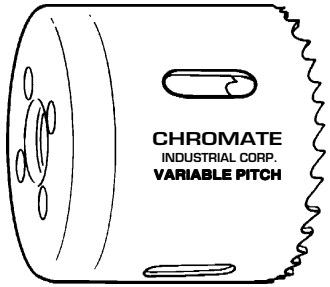
1/4"
PILOT DRILL
P/N 3992



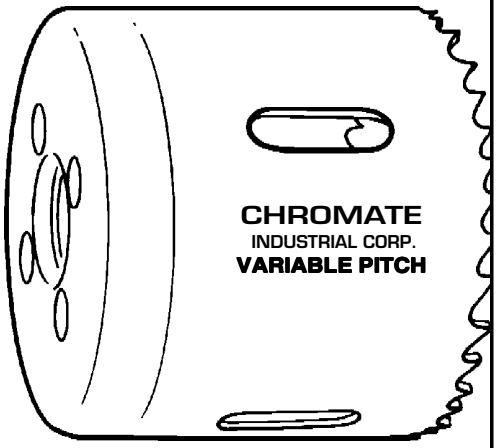
4" (102mm) DIAM.
P/N 1064



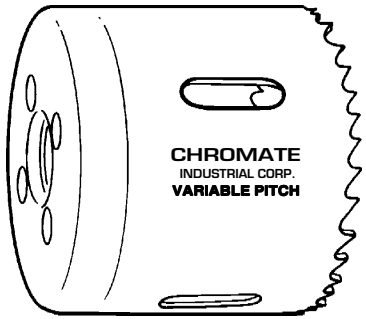
3" (76mm) DIAM.
P/N 1048



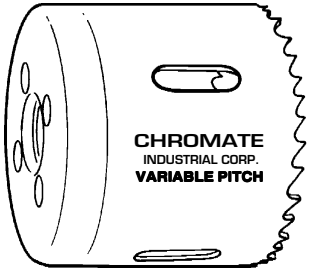
2-1/4" (57mm) DIAM.
P/N 1036



3-1/2" (89mm) DIAM.
P/N 1056



2-1/2" (64mm) DIAM.
P/N 1040



2-1/8" (54mm) DIAM.
P/N 1034

A26-3

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ HACKSAW/ROD SAW ASSORTMENT

FEATURES:

- *Bi-metal construction of high cobalt content high speed steel and alloy steel for faster cutting and greater durability*
- *Includes CIC 200™ tungsten carbide hacksaw and rod saw blades*
- *Super hard tungsten carbide particles permanently bonded to a strong alloy steel allows these blades to cut through the toughest materials*

P/N 17770

36

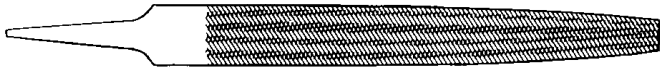
32-26 CIC 200 BI-METAL HACKSAW BLADE
P/N 423226

24-20 CIC 200 BI-METAL HACKSAW BLADE
P/N 422420

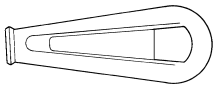
18-14 CIC 200 BI-METAL HACKSAW BLADE
P/N 421814

12"
TUNGSTEN CARBIDE GRIT ROD SAW BLADE
P/N 22600

12"
TUNGSTEN CARBIDE GRIT HACKSAW BLADE
P/N 22700



10"
HALF ROUND BASTARD FILE
P/N 15532



PLASTIC FILE HANDLE
P/N 15559

A26-5

TRAY FRONT

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CIC 200™ SABRE/JIG SAW BLADE ASSORTMENT

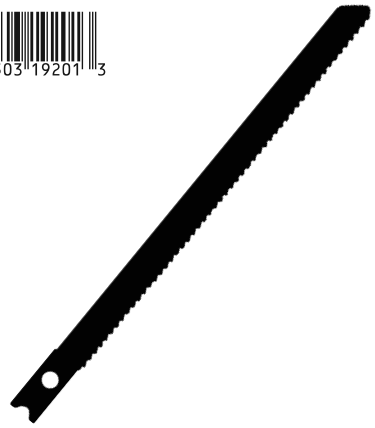
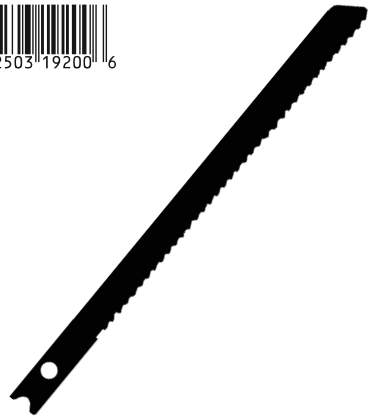
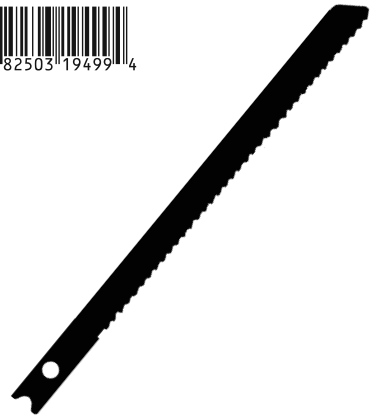
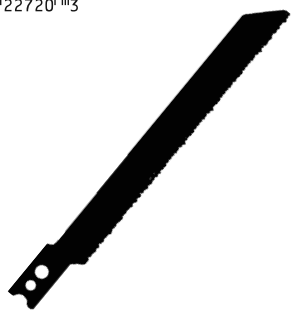
P/N 17771

8 82503 17771 3

FEATURES

- *Durable carbon and high-speed steel construction*
- *Milled teeth, set and hardened for maximum performance in metal, wood and other materials*

34

8 82503 19203 7 2-3/4 x 24 TPI BI-METAL BLADE **P/N 19203**	8 82503 19202 0 2-3/4 x 18 TPI BI-METAL BLADE **P/N 19202**	8 82503 19201 3  3-5/8 x 14 TPI BI-METAL BLADE **P/N 19201**	EXPANSION
8 82503 19200 6  3-5/8 x 10 TPI BI-METAL BLADE **P/N 19200**	8 82503 19207 5 3-5/8 x 6 TPI BI-METAL BLADE **P/N 19207**	8 82503 19499 4  4 x 10 TPI STANDARD BLADE **P/N 19499**	8 82503 22720 3  2-7/8 x 3/8 MEDIUM CARBIDE GRIT BLADE **P/N 22720**

A26-6

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

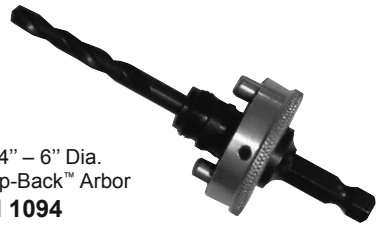
LENOX® SPEED SLOT™ BI-METAL HOLE SAWS 5/8" TO 2" ASSORTMENT

P/N 17715

FEATURES:

- *Long lasting, fast cutting and versatile*
- *SPEED SLOT™ features a staircase design for easy plug removal*
- *Up to 2X life in metal cutting – Enhanced tooth geometry, a thin kerf design, and an advanced coating contribute to the efficiency of the cutting process*

1-1/4" – 6" Dia.
Snap-Back™ Arbor
P/N 1095



1-1/4" – 6" Dia.
Snap-Back™ Arbor
P/N 1094

9/16" – 1-3/16" Dia.
Snap-Back™ Arbor
P/N 1093

1/4" x 3" Pilot Drill
P/N 51753

1/4" x 4" Pilot Drill
P/N 51754

2" (50.8 mm) Dia.
P/N 51723

1-3/4" (44.5 mm) Dia.
P/N 51720

1-5/8" (41.3 mm) Dia.
P/N 51718

1-1/2" (38.1 mm) Dia.
P/N 51716

1-3/8" (34.9 mm) Dia.
P/N 51714

1-1/4" (31.8 mm) Dia.
P/N 51711

1-1/8" (28.6 mm) Dia.
P/N 51709

1" (25.4 mm) Dia.
P/N 51707

7/8" (22.2 mm) Dia.
P/N 51705

3/4" (19.1 mm) Dia.
P/N 51703

5/8" (15.9 mm) Dia.
P/N 51701

A29-7

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

LENOX® SPEED SLOT™ BI-METAL HOLE SAWS 2-1/8" TO 4" ASSORTMENT

P/N 17716

FEATURES:

- *Long lasting, fast cutting and versatile*
- *SPEED SLOT™ features a staircase design for easy plug removal*
- *Up to 2X life in metal cutting – Enhanced tooth geometry, a thin kerf design, and an advanced coating contribute to the efficiency of the cutting process*

12

1-1/4" – 6" Dia.
Snap-Back™ Arbor
P/N 1095

1-1/4" – 6" Dia.
Snap-Back™ Arbor
P/N 1094

1/4" x 3" Pilot Drill
P/N 51753

1/4" x 4" Pilot Drill
P/N 51754

4" (101.6 mm) Dia.
P/N 51742

3" (76.2 mm) Dia.
P/N 51734

2-1/4" (57.2 mm) Dia.
P/N 51726

3-1/2" (88.9 mm) Dia.
P/N 51738

2-1/2" (63.5 mm) Dia.
P/N 51728

2-1/8" (54.0 mm) Dia.
P/N 51725

A26-8

TRAY FRONT

METAL CUTTING RECIPROCATING SAW BLADE ASSORTMENT

P/N 17961

FEATURES:

- *Bi-metal construction of high cobalt content, high speed steel and alloy steel for faster cutting and greater durability*
- *A variety of blades for wood and metal cutting*

19

12 x 18 TPI
P/N 19428
FOR HEAVY GAUGE METAL 18 GA TO 1/8”

12 x 14 TPI
P/N 19448
FOR CUTTING WOOD, NAIL-EMBEDDED WOOD AND METAL

9 x 14 TPI
P/N 19445
FOR CUTTING WOOD, NAIL-EMBEDDED WOOD AND METAL

6 x 14 TPI
P/N 19441 FOR CUTTING WOOD, NAIL-EMBEDDED WOOD AND METAL

9” x 6 TPI
DEMOLITION BLADE
P/N 19453
FOR CUTTING WOOD, NAIL-EMBEDDED WOOD AND METAL

6 x 14 TPI
P/N 19414 FOR HEAVY GAUGE METAL 1/8” AND THICKER

9” x 10 TPI
DEMOLITION BLADE
P/N 19454
FOR CUTTING WOOD, NAIL-EMBEDDED WOOD AND METAL

6 x 18 TPI
P/N 19417 FOR HEAVY GAUGE METAL 18 GA TO 1/8”

8 x 18 TPI
P/N 19418
FOR HEAVY GAUGE METAL 18 GA TO 1/8”

RECIP. HOLDER
P/N 30385H

A26-11

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

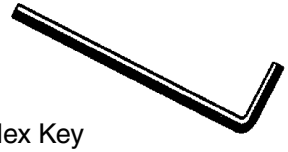
RAZORQWIK™ CARBIDE TIPPED HOLE CUTTER ASSORTMENT

P/N 17962

FEATURES:

- *Specially designed for cutting pipe, thick steel, steel plate, iron, aluminum, copper, cast iron and stainless steel up to 1" thick*
- *Special tungsten carbide teeth – excellent wear and heat resistance*
- *One piece construction – no assembly required and stable accurate drilling*
- *Ejector spring ejects the slug saving time*
- *Safety collar stop prevents over penetration for safer, faster operation*

16

5/8" Carbide Tipped Hole Cutter **P/N 51110**	11/16" Carbide Tipped Hole Cutter **P/N 51111**	3/4" Carbide Tipped Hole Cutter **P/N 51112**	13/16" Carbide Tipped Hole Cutter **P/N 51113**
7/8" Carbide Tipped Hole Cutter **P/N 51114**	15/16" Carbide Tipped Hole Cutter **P/N 51115**	1" Carbide Tipped Hole Cutter **P/N 51116**	1-1/16" Carbide Tipped Hole Cutter **P/N 51117**
1-1/8" Carbide Tipped Hole Cutter **P/N 51118**	1-1/4" Carbide Tipped Hole Cutter **P/N 51120**	1-3/8" Carbide Tipped Hole Cutter **P/N 51122**	1-1/2" Carbide Tipped Hole Cutter **P/N 51124**
		 3mm Hex Key **P/N 64306**	Carbide Tipped Pilot Drill for Hole Cutters **P/N 51149**

A26-12

TRAY FRONT

CIC 200™ SPECIALTY RECIPROCATING BLADE ASSORTMENT

P/N 17973

8 82503 02763 6

FEATURES

- ***Pruning*** *– Very aggressive blade designed for rough-in wood, very fast cutting and pruning.*
- ***Plunge-N-Cut*** *– One step blade cuts without pilot holes. Double edge design for reversible cutting. Bi-metal construction for durabilty.*
- ***Demolition*** *– Extra thick blades designed for the toughest work - resists bending and breaking.*
- ***Tungsten Carbide Grit*** *– Tungsten carbide grains bonded to alloy body for faster cutting and longer life. Designed for cutting abrasive materials and the hardest steels. For fiberglass, plaster, ceramic tile, soil pipe, composites, particle board, laminates, hardwood.*

14

8 82503 08521 6

9” x 5 TPI
PRUNING
P/N 19401

8 82503 19457 4

12” X 6 TPI
DEMOLITION BLADE
P/N 19457

8 82503 19453 6

9” x 6 TPI
DEMOLITION BLADE
P/N 19453

8 82503 19454 3

9” x 10 TPI
DEMOLITION BLADE
P/N 19454

8 82503 19477 2

6” x 6 TPI
RECIP BLADE PLASTER BOARD/ SHEETROCK
P/N 19477

8 82503 22740 1

4 x 5/8
COARSE CARB GRIT RECIP BLADE
P/N 22740

8 82503 22780 7

6 x 5/8
COARSE CARB GRIT RECIP BLADE
P/N 22780

A26-13

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

RAZORQWIK™ STUBBY CARBIDE TIPPED HOLE CUTTER ASSORTMENT

P/N 17982

FEATURES:

- *Special tungsten carbide teeth – superior wear and heat resistance cuts stainless steel and tough alloys*
- *One piece construction – no assembly required and assures stable accurate drilling*
- *Ejector spring ejects the slug saving time*
- *Safety collar stop prevents over penetration for safer, faster operation*
- *1/4" hex shank for use in quick-change adapters*
- *Fast, clean cuts every time and perfect for use in battery powered drills*

14

5/8" Carbide Tipped Hole Cutter **P/N 51150**	11/16" Carbide Tipped Hole Cutter **P/N 51151**	3/4" Carbide Tipped Hole Cutter **P/N 51152**	13/16" Carbide Tipped Hole Cutter **P/N 51153**
7/8" Carbide Tipped Hole Cutter **P/N 51154**	15/16" Carbide Tipped Hole Cutter **P/N 51155**	1" Carbide Tipped Hole Cutter **P/N 51156**	1-1/16" Carbide Tipped Hole Cutter **P/N 51157**
1-1/8" Carbide Tipped Hole Cutter **P/N 51158**	1-1/4" Carbide Tipped Hole Cutter **P/N 51160**	1-3/8" Carbide Tipped Hole Cutter **P/N 51162**	2.5mm Hex Key **P/N 64305**

A26-15

TRAY FRONT

DIAMOND HOLE CUTTERS, 3/4" – 2-1/4"

P/N 17072

FEATURES

- *Sizes: 3/4" to 2-1/4"*
- *Range of applications from hard tile and stone to cement board and fiberglass*
- *Typical users: plumbers, tilers, builders, joiners and MRO*

DIAMOND HOLE CUTTER
SIZE: 3/4"
P/N 51770

DIAMOND HOLE CUTTER
SIZE: 1-1/4"
P/N 51773

DIAMOND HOLE CUTTER
SIZE: 1-3/4"
P/N 51776

ARBOR
3/4" TO 1-1/8"
P/N 51785

DIAMOND HOLE CUTTER
SIZE: 7/8"
P/N 51771

DIAMOND HOLE CUTTER
SIZE: 1-3/8"
P/N 51774

DIAMOND HOLE CUTTER
SIZE: 2"
P/N 51777

ARBOR
1-1/4" TO 4"
P/N 51786

DIAMOND HOLE CUTTER
SIZE: 1-1/8"
P/N 51772

DIAMOND HOLE CUTTER
SIZE: 1-1/2"
P/N 51775

DIAMOND HOLE CUTTER
SIZE: 2-1/4"
P/N 51778

PILOT DRILL
P/N 51787

TRAY FRONT

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DIAMOND HOLE CUTTERS, 2-1/2" – 4"

P/N 17073

8 82503 11709 2

FEATURES

- *Sizes: 2-1/2" to 4"*
- *Range of applications from hard tile and stone to cement board and fiberglass*
- *Typical users: plumbers, tilers, builders, joiners and MRO*

6

8 82503 11681 1

DIAMOND HOLE CUTTER
SIZE: 2-1/2"
P/N 51779

8 82503 11687 3

DIAMOND HOLE CUTTER
SIZE: 3-1/4"
P/N 51781

8 82503 11696 5

DIAMOND HOLE CUTTER
SIZE: 3-1/2"
P/N 51783

8 82503 11705 4

ARBOR
1-1/4" TO 4"
P/N 51786

8 82503 11684 2

DIAMOND HOLE CUTTER
SIZE: 3"
P/N 51780

8 82503 11690 3

DIAMOND HOLE CUTTER
SIZE: 3-11/32"
P/N 51782

8 82503 11698 9

DIAMOND HOLE CUTTER
SIZE: 4"
P/N 51784

8 82503 11706 1

PILOT DRILL
P/N 51787

A26-17

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

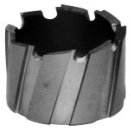
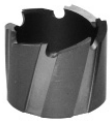
SHEET METAL HOLE CUTTERS/FRACTIONAL

P/N 17686

FEATURES:

- *Thirteen sizes: 5/16" to 1-1/2"*
- *Make clean accurate burr-free holes fast!*
- *Use in sheet metal, plate, tube stock and plastic up to 1/2" thick (7/8" to 1-1/2"); up to 1/4" thick (5/16" to 3/4").*
- *Made from hardened M2 H.S.S. and precision ground to exacting specifications.*
- *Patented tooth geometry.*

24

5/16" Sheet Metal Hole Cutter **P/N 51800**	9/16" Sheet Metal Hole Cutter **P/N 51804**	1" Sheet Metal Hole Cutter **P/N 51814**	1-1/2" Sheet Metal Hole Cutter **P/N 51818**	Spacer Washer **P/N 51810**	5/16" to 3/4" Arbor **P/N 51807**
3/8" Sheet Metal Hole Cutter **P/N 51801**	5/8" Sheet Metal Hole Cutter **P/N 51805**	1-1/8" Sheet Metal Hole Cutter **P/N 51815**	Pilot Pin for 5/16" to 3/4" Arbor **P/N 51808**	Hex Washer **P/N 51821**	7/8" to 1-1/2" Arbor **P/N 51819**
7/16" Sheet Metal Hole Cutter **P/N 51802**	3/4" Sheet Metal Hole Cutter **P/N 51806**	 1-1/4" Sheet Metal Hole Cutter **P/N 51816**	Pilot Pin for 7/8" to 1-1/2" Arbor **P/N 51820**	1/8 Hex Key **P/N 51811**	Center Punch **P/N 51812**
1/2" Sheet Metal Hole Cutter **P/N 51803**	 7/8" Sheet Metal Hole Cutter **P/N 51813**	1-3/8" Sheet Metal Hole Cutter **P/N 51817**	Stop Washer **P/N 51809**	5/32 Hex Key **P/N 44202**	EXPANSION

A26-18

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

BI-METAL RECIPROCATING SAW BLADES
METAL CUTTING ASSORTMENT

P/N 17660

13

12" x 18 TPI
P/N 19428

12" x 10 TPI
DEMOLITION BLADE
P/N 19458

9" x 14 TPI
P/N 19429

8" x 18 TPI
P/N 19418

6" x 5/8 TPI
DEMOLITION BLADE
P/N 19455

6-10" x 14 TPI
P/N 19405

6" x 14 TPI
P/N 19414

6" x 18 TPI
P/N 19417

6" x 24 TPI
P/N 19420

4" x 14 TPI
P/N 19413

4" x 18 TPI
P/N 19416

4" x 24 TPI
P/N 19419

3" x 18 TPI
P/N 19426

A26-19

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090114

CHROMATE® INDUSTRIAL CORP.

WOOD CUTTING RECIPROCATING SAW BLADE ASSORTMENT

P/N 17661

8 82503 12287 4

10

12" x 6 TPI
DEMOLITION BLADE
P/N 19457

8 82503 19457 4

12" X 6 TPI
BI-METAL RECIP BLADE
P/N 19409

8 82503 19409 3

8 82503 08521 6

9" X 5 TPI
PRUNING BLADE
P/N 19401

8 82503 19408 6

6" x 6 TPI
BI-METAL RECIP BLADE
P/N 19408

8" x 10 TPI
BI-METAL RECIP BLADE
P/N 19427

8 82503 12275 1

6" x 6 TPI
RECIP BLADE PLASTER BOARD/ SHEETROCK
P/N 19477

8 82503 19477 2

8 82503 12274 4

9" x 6 TPI
BI-METAL RECIP BLADE
P/N 19424

8 82503 19410 9

6" x 10 TPI
BI-METAL RECIP BLADE
P/N 19410

8 82503 19411 6

8" x 10/14 TPI
BI-METAL RECIP BLADE
P/N 19411

8 82503 44930 8

RECIP. HOLDER
P/N 30385H

A26-20

TRAY FRONT

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STUD/METAL CUTTING RECIPROCATING SAW BLADE ASSORTMENT

P/N 17662

8 82503 12288 1

10

12" x 10 TPI
P/N 19423

8 82503 08505 6

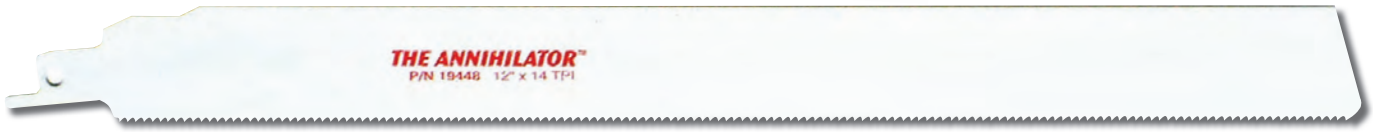
9" x 10 TPI
P/N 19422

8 82503 08504 9

6" x 10 TPI
P/N 19421

8 82503 08503 2

12" x 14 TPI
P/N 19448



8 82503 19448 2

9" x 14 TPI
P/N 19445

8 82503 19445 1

8 82503 19441 3

6" x 14 TPI
P/N 19441

9" x 6 TPI
DEMOLITION BLADE
P/N 19453

8 82503 19453 6

6" x 5/8, COARSE CARBIDE GRIT BLADE
P/N 22780

8 82503 22780 7

9" x 10 TPI
DEMOLITION BLADE
P/N 19454

8 82503 19454 3

8 82503 22740 1

4" x 5/8, COARSE CARBIDE GRIT BLADE
P/N 22740

A26-21

TRAY FRONT

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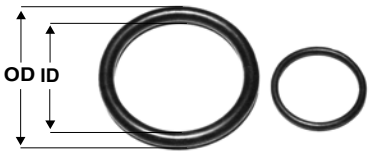

BUNA "N" O-RING ASSORTMENT

P/N 7743

FEATURES:

- *Buna "N" O-Rings withstand temperatures of -40 to +300*
- *Resists-Gasoline, Motor Oil, Transmission Oil, Water, Mild Acids, Mild Alkalis, Anti-Freeze*
- *Use In-Drain Plug Gaskets, Fuel Lines, Engine Seals, Carburetors, Garden Power Equipment*

370

ID:1/8 OD:1/4 Thickness:1/16 Industry #006 **P/N 60001**	ID:1/4 OD:3/8 Thickness:1/16 Industry#010 **P/N 60005**	ID: 7/16 OD: 5/8 Thickness: 3/32 Industry #111 **P/N 60027**	ID: 11/16 OD: 7/8 Thickness: 3/32 Industry #115 **P/N 60031**	ID: 7/8 OD: 1-1/8 Thickness: 1/8 Industry #212 **P/N 60051**	ID: 1-1/2 OD: 1-3/4 Thickness:1/8 Industry #222 **P/N 60061**
ID:5/32 OD:9/32 Thickness:1/16 Industry#007 **P/N 60002**	ID:5/16 OD:7/16 Thickness:1/16 Industry#011 **P/N 60006**	ID: 1/2 OD:11/16 Thickness: 3/32 Industry #112 **P/N 60028**	ID: 3/4 OD: 15/16 Thickness: 3/32 Industry #116 **P/N 60032**	ID: 1" OD: 1-1/4 Thickness: 1/8 Industry #214 **P/N 60053**	ID: 1-1/2 OD:1-7/8 Thickness: 3/16 Industry #325 **P/N 60069**
ID:3/16 OD:5/16 Thickness:1/16 Industry#008 **P/N 60003**	ID:3/8 OD:1/2 Thickness:1/16 Industry#012 **P/N 60007**	ID: 9/16 OD: 3/4 Thickness: 3/32 Industry #113 **P/N 60029**	ID: 3/4 OD: 1" Thickness: 1/8 Industry #210 **P/N 60049**	ID:1-1/4" OD:1-1/2 Thickness:1/8 Industry#218 **P/N 60057**	ID: 1-5/8 OD: 2" Thickness: 3/16 Industry #326 **P/N 60070**
ID:7/32 OD:11/32 Thickness:1/16 Industry#009 **P/N 60004**	ID:3/8 OD:9/16 Thickness:3/32 Industry#110 **P/N 60026**	ID: 5/8 OD: 13/16 Thickness: 3/32 Industry #114 **P/N 60030**	ID: 13/16 OD: 1-1/16 Thickness: 1/8 Industry #211 **P/N 60050**	ID: 1-3/8 OD: 1-5/8 Thickness: 1/8 Industry #220 **P/N 60059**	ID: 1-3/4 OD: 2-1/8 Thickness: 3/16 Industry #327 **P/N 60071**

A27-1

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

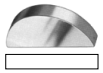
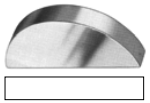
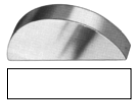
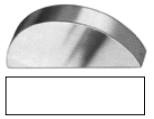
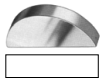
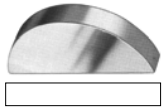
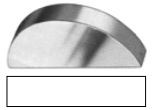
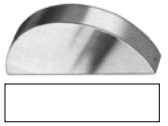
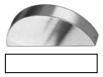
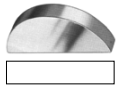
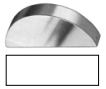
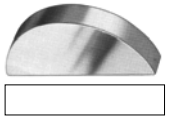
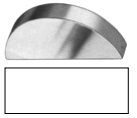
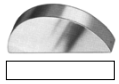
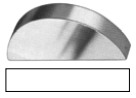
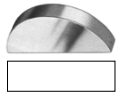
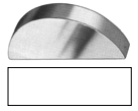
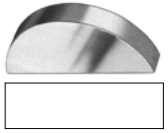
CIC 200™ WOODRUFF KEY ASSORTMENT

P/N 7744

FEATURES:

- *Machined from 1035 steel*

449

3/32 x 1/2 **P/N 60144**	 1/8 x 3/4 **P/N 60148**	3/16 x 5/8 **P/N 60152**	 3/16 x 1-1/8 **P/N 60156**	 1/4 x 1 **P/N 60160**	 5/16 x 1-1/8 **P/N 60164**
3/32 x 5/8 **P/N 60145**	5/32 x 5/8 **P/N 60149**	 3/16 x 3/4 **P/N 60153**	 3/16 x 1-1/4 **P/N 60157**	 1/4 x 1-1/8 **P/N 60161**	 5/16 x 1-1/4 **P/N 60165**
1/8 x 1/2 **P/N 60146**	 5/32 x 3/4 **P/N 60150**	 3/16 x 7/8 **P/N 60154**	 1/4 x 3/4 **P/N 60158**	 1/4 x 1-1/4 **P/N 60162**	 3/8 x 1 **P/N 60166**
1/8 x 5/8 **P/N 60147**	 5/32 x 7/8 **P/N 60151**	 3/16 x 1 **P/N 60155**	 1/4 x 7/8 **P/N 60159**	 5/16 x 1 **P/N 60163**	 3/8 x 1-1/4 **P/N 60167**

A27.2

TRAY FRONT

CIC 200™ RAPID CUT FILE ASSORTMENT

P/N 7798

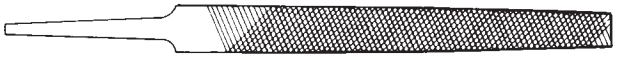
FEATURES

- *Uniform in cut, permitting the removal of more metal, faster and easier*
- *Designed for greater performance and longer life*

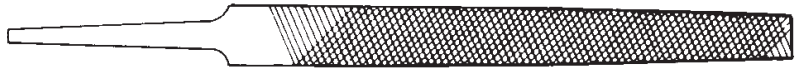
25

8” MILL BASTARD
P/N 15500

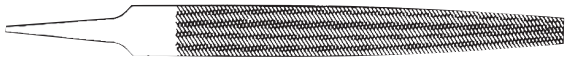
10” MILL BASTARD
P/N 15504



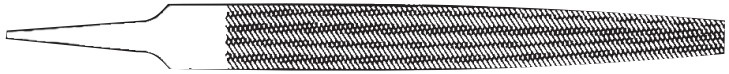
8” FLAT BASTARD
P/N 15508



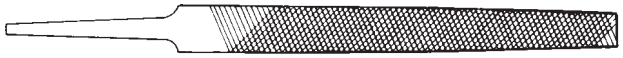
10” FLAT BASTARD
P/N 15512



8” HALF ROUND
P/N 15528



10” HALF ROUND
P/N 15532

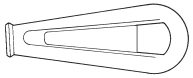


8” SQUARE BASTARD
P/N 15540

6” ROUND BASTARD
P/N 15516

8” ROUND BASTARD
P/N 15520

10” ROUND BASTARD
P/N 15524



PLASTIC FILE HANDLE
P/N 15559

6” SLIM TAPER SAW
P/N 15536

8” x 7/32
CHAIN SAW FILE
P/N 15544

8” x 3/16
CHAIN SAW FILE
P/N 15548

8” x 5/32
CHAIN SAW FILE
P/N 15552

A27-3

TRAY FRONT

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060115

CHROMATE® INDUSTRIAL CORP.

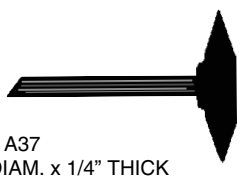
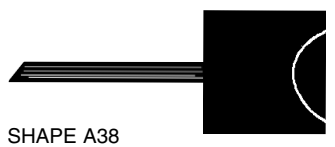
CIC 200™ MOUNTED POINTS ASSORTMENT

P/N 17702

FEATURES:

- *For high-speed air and electric grinders*
- *Ideal for grinding dies, castings, weld seams and other general metal removal applications*
- *Manufactured with aluminum oxide grain and vitrified bond*

20

 SHAPE A1 3/4" DIAM. x 2-1/2" THICK **P/N 33840**	 SHAPE A11 7/8" DIAM. x 2" THICK **P/N 33841**	 SHAPE A13 1-1/8" DIAM. x 1-1/8" THICK **P/N 33842**	 SHAPE A21 1" DIAM. x 1" THICK **P/N 33843**
 SHAPE A23 3/4" DIAM. x 1" THICK **P/N 33844**	 SHAPE A31 1-3/8" DIAM. x 1" THICK **P/N 33845**	 SHAPE A37 1-1/4" DIAM. x 1/4" THICK **P/N 33846**	 SHAPE A38 1" DIAM. x 1" THICK **P/N 33847**
 SHAPE B52 3/8" DIAM. x 3/4" THICK **P/N 33848**	 SHAPE B62 1/2" DIAM. x 3/8" THICK **P/N 33849**	 SHAPE B91 1/2" DIAM. x 5/8" THICK **P/N 33850**	 SHAPE B111 7/16" DIAM. x 11/16" THICK **P/N 33851**
 SHAPE W215 1" DIAM. x 3/16" THICK **P/N 33852**	 SHAPE W220 1" DIAM. x 1" THICK **P/N 33853**	 SHAPE W222 1" DIAM. x 2" THICK **P/N 33854**	 SHAPE W236 1-1/2" DIAM. x 1/2" THICK **P/N 33855**

A27-5

CHROMATE® INDUSTRIAL CORP.

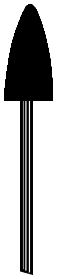
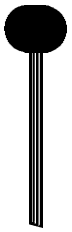
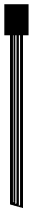
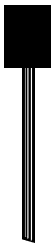
CIC 200™ MOUNTED POINTS 1/8" SHANK ASSORTMENT

P/N 17707

FEATURES:

- *For high-speed air and electric grinders*
- *Ideal for grinding dies, castings, weld seams and other general metal removal applications*
- *Manufactured with aluminum oxide grain and vitrified bond*

22

SHAPE B44 7/32" DIAM. x 3/8" THICK MAX. RPM 68,400 **P/N 33825**	 SHAPE B52 3/8" DIAM. x 3/4" THICK MAX. RPM 45,370 **P/N 33826**	 SHAPE B62 1/2" DIAM. x 3/8" THICK MAX. RPM 41,020 **P/N 33827**	SHAPE B123 3/16" DIAM. x 3/16" THICK MAX. RPM 104,250 **P/N 33828**	SHAPE W144 1/8" DIAM. x 1/4" THICK MAX. RPM 105,000 **P/N 33829**	 SHAPE W152 3/16" DIAM. x 1/4" THICK MAX. RPM 105,000 **P/N 33835**
SHAPE W162 1/4" DIAM. x 3/8" THICK MAX. RPM 68,400 **P/N 33836**	 SHAPE W176 3/8" DIAM. x 1/2" THICK MAX. RPM 45,370 **P/N 33837**	SHAPE W200 3/4" DIAM. x 1/8" THICK MAX. RPM 50,930 **P/N 33838**	EXPANSION	EXPANSION	EXPANSION

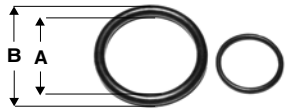
A27-6

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ METRIC O-RINGS ASSORTMENT

P/N 17724



FEATURES:

- *Provides superior resistance to gasoline, motor oil, transmission oil, hydraulic fluids, anti-freeze, mild acids, mild alkalies and water*
- *Precision manufactured to exacting specifications – assuring maximum leakage protection*
- *Temperature range: -65ºF to 300ºF (-54ºC to 149ºC)*
- *Ideal for use in engines, equipment, fuel systems, carburetors, drain lines, etc.*

480

2 x 3 x 7 **P/N 60920**	2 x 7 x 11 **P/N 60924**	2 x 14 x 18 **P/N 60931**	2.5 x 14 x 19 **P/N 60963**	3 x 19 x 25 **P/N 60979**	3 x 25 x 31 **P/N 60983**	3 x 32 x 38 **P/N 60990**	3 x 38 x 44 **P/N 60996**
2 x 4 x 8 **P/N 60921**	2 x 8 x 12 **P/N 60925**	2.5 x 10 x 15 **P/N 60960**	2.5 x 16 x 21 **P/N 60964**	3 x 20 x 26 **P/N 60980**	3 x 27 x 33 **P/N 60985**	3 x 33 x 39 **P/N 60991**	4 x 38 x 46 **P/N 61025**
2 x 5 x 9 **P/N 60922**	2 x 10 x 14 **P/N 60927**	2.5 x 11 x 16 **P/N 60961**	2.5 x 17 x 22 **P/N 60965**	3 x 22 x 28 **P/N 60981**	3 x 28 x 34 **P/N 60986**	3 x 35 x 41 **P/N 60993**	4 x 41 x 49 **P/N 61026**
2 x 6 x 10 **P/N 60923**	2 x 12 x 16 **P/N 60929**	2.5 x 12 x 17 **P/N 60962**	2.5 x 19 x 24 **P/N 60966**	3 x 24 x 30 **P/N 60982**	3 x 30 x 36 **P/N 60988**	3 x 36 x 42 **P/N 60994**	4 x 44 x 52 **P/N 61028**

A27-7

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

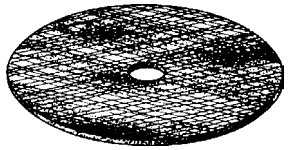
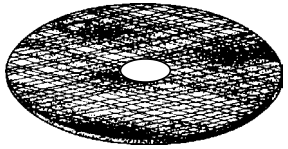
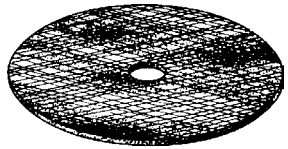
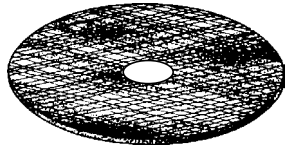
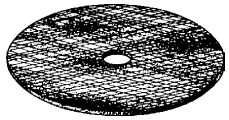
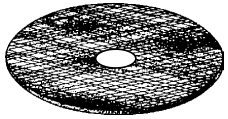
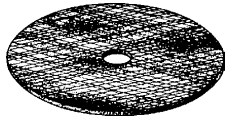
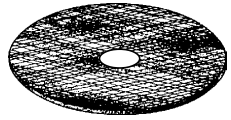
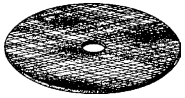
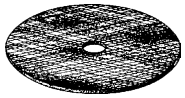
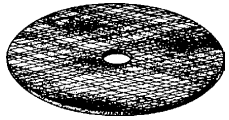
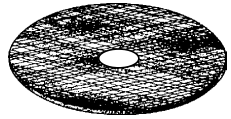
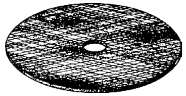
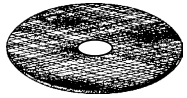
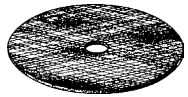
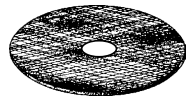
CIC 200™ RAPID CUT-OFF WHEELS ASSORTMENT

P/N 17727

FEATURES:

- *High speed cut-off wheels*
- *Wheels to 4" diameter*
- *Manufactured with zirconium aluminum for longer life*

42

 4 x 1/32 x 1/4 MAX. 21,000 RPM **P/N 33882**	 4 x 1/32 x 3/8 MAX. 21,000 RPM **P/N 33884**	 4 x 1/16 x 1/4 MAX. 15,280 RPM **P/N 33886**	 4 x 1/16 x 3/8 MAX. 15,280 RPM **P/N 33888**
 3 x 1/16 x 1/4 MAX. 20,375 RPM **P/N 33872**	 3 x 1/16 x 3/8 MAX. 20,375 RPM **P/N 33874**	 3 x 1/8 x 1/4 MAX. 20,375 RPM **P/N 33876**	 3 x 1/8 x 3/8 MAX. 20,375 RPM **P/N 33878**
 2 x 1/8 x 1/4 MAX. 30,560 RPM **P/N 33864**	 2 x 1/8 x 3/8 MAX. 30,560 RPM **P/N 33866**	 3 x 1/32 x 1/4 MAX. 24,200 RPM **P/N 33868**	 3 x 1/32 x 3/8 MAX. 24,200 RPM **P/N 33870**
 2 x 1/32 x 1/4 MAX. 30,600 RPM **P/N 33861**	 2 x 1/32 x 3/8 MAX. 30,600 RPM **P/N 33863**	 2 x 1/16 x 1/4 MAX. 30,560 RPM **P/N 33860**	 2 x 1/16 x 3/8 MAX. 30,560 RPM **P/N 33862**
 "FLUSH" TYPE MANDREL SET 1/4" and 3/8" SHANK **P/N 33955**	 "NUT" TYPE MANDREL NUT 1/32" - 3/8" **P/N 33950**	 1 x 1/32 x 1/4 MAX. 61,100 RPM **P/N 33856**	 1 x 1/16 x 1/4 MAX. 61,100 RPM **P/N 33858**

A27-8

TRAY FRONT

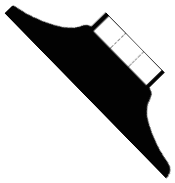
CHROMATE® INDUSTRIAL CORP.

CIC 200™ QUICK-LOK™ ABRASIVE DISC ASORTMENT (2" AND 3" DIA.) P/N 17738

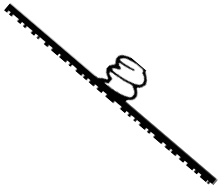
FEATURES:

- *Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites*
- *Just a half twist and they're securely locked in place....a half twist again and it's off*
- *Ideal for use with air tools and flex-shaft grinders*
- *Premium aluminum oxide minerals on durable resin bond and fiber backing*
- *Color coded disc buttons for easy grade identification: brown = 36, orange = 60, white = 120*

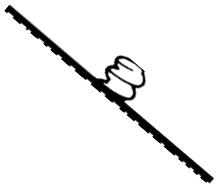
34



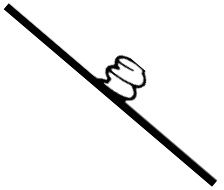
2" BACK-UP PAD
P/N 45638



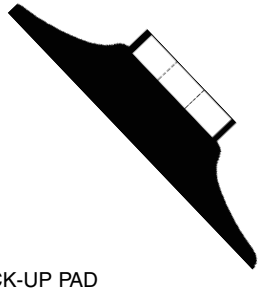
2" ALUMINUM OXIDE DISC
36 GRIT (BROWN DISC BUTTON)
P/N 45655



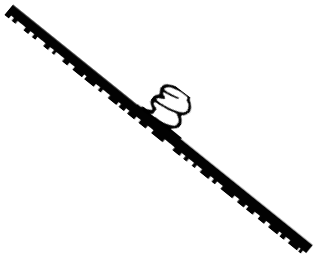
2" ALUMINUM OXIDE DISC
60 GRIT (ORANGE DISC BUTTON)
P/N 45657



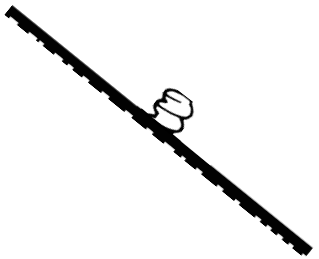
2" ALUMINUM OXIDE DISC
120 GRIT (WHITE DISC BUTTON)
P/N 45660



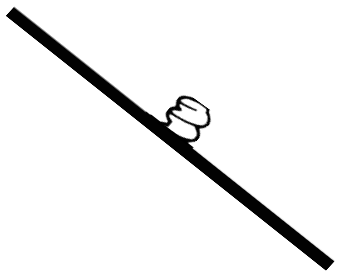
3" BACK-UP PAD
P/N 45642



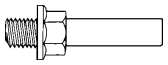
3" ALUMINUM OXIDE DISC
36 GRIT (BROWN DISC BUTTON)
P/N 45661



3" ALUMINUM OXIDE DISC
60 GRIT (ORANGE DISC BUTTON)
P/N 45663



3" ALUMINUM OXIDE DISC
120 GRIT (WHITE DISC BUTTON)
P/N 45666



1/4" THREADED SHAFT
P/N 45630

A27-9

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

CHROMATE® INDUSTRIAL CORP.

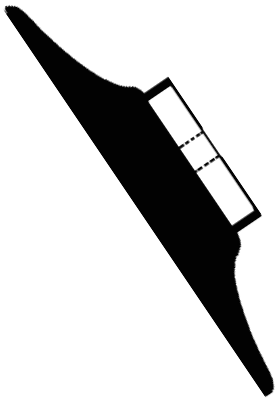
CIC 200™ QUICK-LOK™ ABRASIVE DISC ASSORTMENT (4" DIA.)

P/N 17739

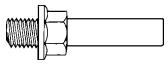
FEATURES:

- *Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites*
- *Just a half twist and they're securely locked in place...a half twist again and it's off*
- *Ideal for use with air tools and flex-shaft grinders*
- *Premium aluminum oxide minerals on durable resin bond and fibre backing*
- *Color coded disc buttons for easy grade identification: Brown = 36, Orange = 60, White: 120*

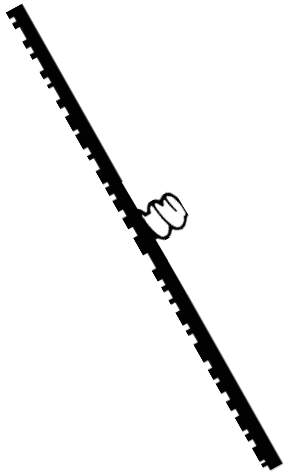
21



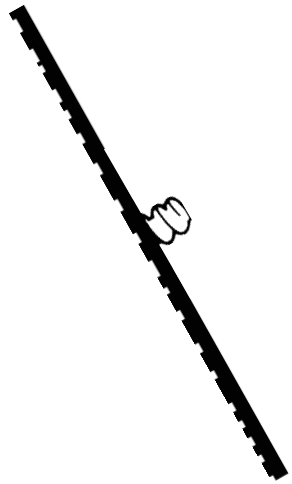
4" BACK-UP PAD
P/N 45644



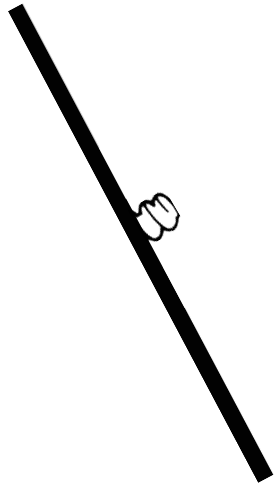
1/4" THREADED SHAFT
P/N 45630



4" ALUMINUM OXIDE DISC
36 GRIT (BROWN DISC BUTTON)
P/N 45667



4" ALUMINUM OXIDE DISC
60 GRIT (ORANGE DISC BUTTON)
P/N 45669



4" ALUMINUM OXIDE DISC
120 GRIT (WHITE DISC BUTTON)
P/N 45672

A27-10

TRAY FRONT

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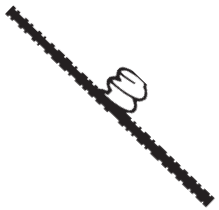
QUICK-LOK™ SURFACE CONDITIONING DISCS MED/COARSE (2" & 3" DIA.)

P/N 17740

FEATURES:

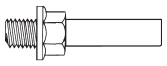
- *Non-woven nylon, impregnated with abrasive particles, provides a bur-free surface suitable for painting or coating*
- *Ideal for rust, oxide and coating removal*

24

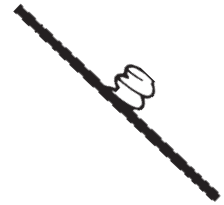


2" SURFACE CONDITIONING DISC
COARSE (BROWN)
P/N 45682

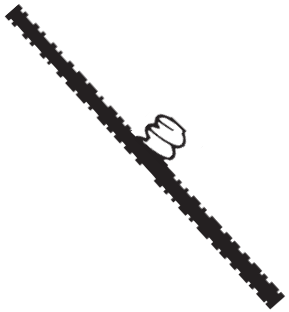
2" BACK-UP PAD
P/N 45638



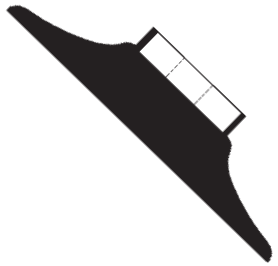
1/4" THREADED SHAFT
P/N 45630



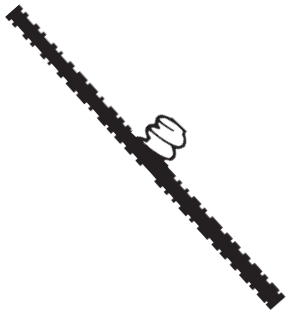
2" SURFACE CONDITIONING DISC
MEDIUM (MAROON)
P/N 45681



3" SURFACE CONDITIONING DISC
COARSE (BROWN)
P/N 45686



3" BACK-UP PAD
P/N 45642



3" SURFACE CONDITIONING DISC
MEDIUM (MAROON)
P/N 45685

A27-11

TRAY FRONT

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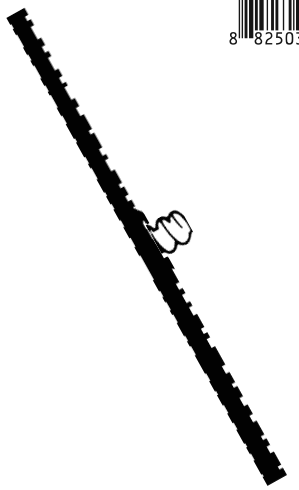
CIC 200™ QUICK-LOK™ SURFACE CONDITIONING PAD ASSORTMENT (4" DIA.)

P/N 17741

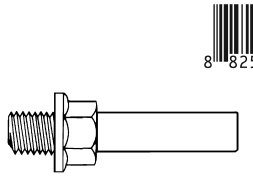
FEATURES:

- *Non-woven nylon, impregnated with abrasive particles, provides a bur-free surface suitable for painting or coating*
- *Ideal for rust, oxide and coating removal*

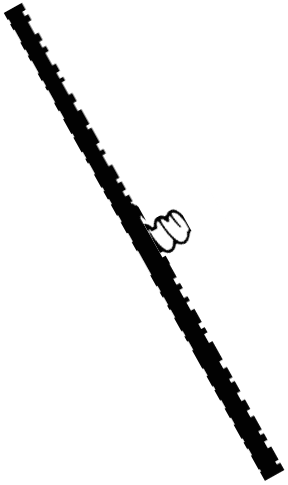
13



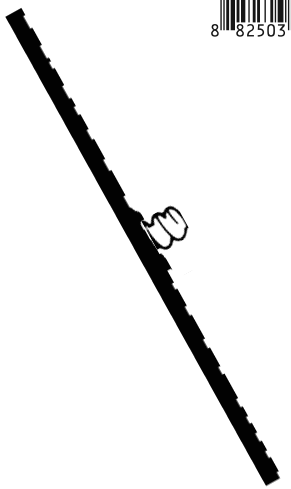
4" SURFACE CONDITIONING PAD
COARSE (BROWN DISC)
P/N 45688



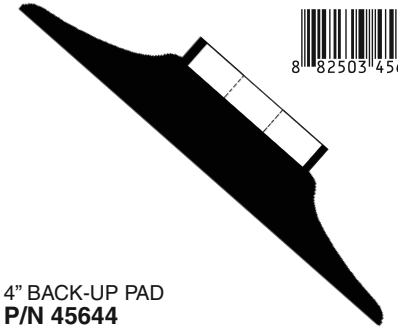
1/4" THREADED SHAFT
P/N 45630



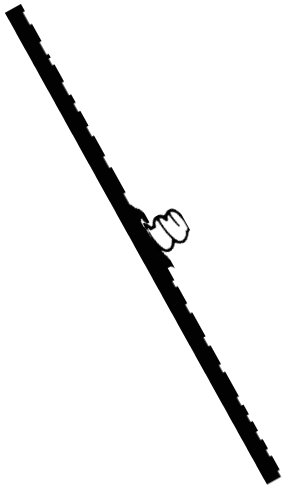
4" SURFACE CONDITIONING PAD
COARSE (BROWN DISC)
P/N 45688



4" SURFACE CONDITIONING PAD
MEDIUM (RED DISC)
P/N 45687



4" BACK-UP PAD
P/N 45644



4" SURFACE CONDITIONING PAD
MEDIUM (RED DISC)
P/N 45687

A27-12

TRAY FRONT

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030113

CHROMATE®
INDUSTRIAL CORP.

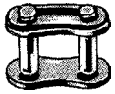
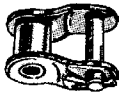
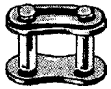
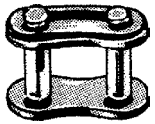
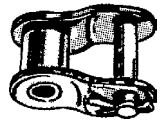
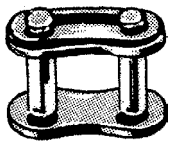
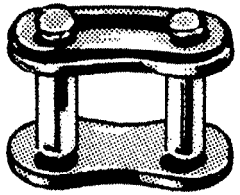
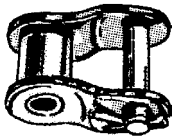
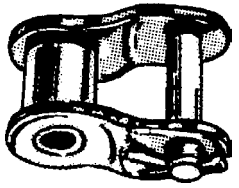
CIC 200™ CHAIN LINK ASSORTMENT
#35 to #80 Connecting and Offset Links

P/N 17743

FEATURES:

- *Leakproof lubrication – provides two to one longer life over conventional curled bushing roller chains, even in the most severe applications*
- *Cold formed, one-piece construction – for better fatigue characteristics, providing minimal initial elongation and longer life*
- *Uniformity of contact point between pin and bushing – increases wear resistance and decreases elongation*

54

 #35 CONNECTING LINK **P/N 60490**	 #40 CONNECTING LINK **P/N 60491**	 #35 OFFSET LINK **P/N 60480**	 #40 OFFSET LINK **P/N 60481**
 #41 CONNECTING LINK **P/N 60492**	 #50 CONNECTING LINK **P/N 60493**	 #41 OFFSET LINK **P/N 60482**	 #50 OFFSET LINK **P/N 60483**
 #60 CONNECTING LINK **P/N 60494**	 #80 CONNECTING LINK **P/N 60495**	 #60 OFFSET LINK **P/N 60484**	 #80 OFFSET LINK **P/N 60485**

A27-13

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

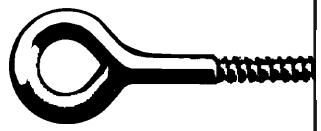
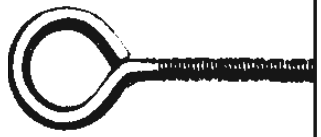
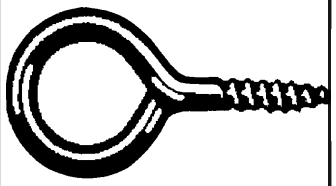
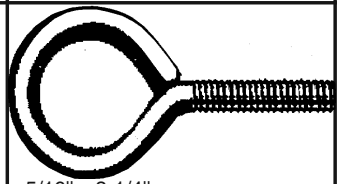
CIC 200™ SCREW EYE AND "S" HOOK ASSORTMENT

P/N 17747

FEATURES:

- *Zinc plated steel eyebolts*
- *Rolled threads*
- *U.S. standard*

450

 1" "S" HOOK (HEAVY OPEN) **P/N 1900**	 9/16" SCREW EYE (SMALL) **P/N 1164**	 15/16" SCREW EYE (SMALL) **P/N 1158**	 1" SCREW EYE (SMALL) **P/N 1161**	 1-3/8" SCREW EYE (SMALL) **P/N 1156**	 1/4" x 3-3/4" LAG" SCREW **P/N 1166**
 1-1/2" "S" HOOK (HEAVY OPEN) **P/N 1901**	 1-1/8" "S" HOOK (LIGHT CLOSED) **P/N 1993**	 1-3/8" SCREW EYE (LARGE) **P/N 1145**	 1-13/16" SCREW EYE (MEDIUM) **P/N 1149**	3/16" x 1-15/16" TURNED EYEBOLTS **P/N 60809**	 1/4" x 3" TURNED EYEBOLTS **P/N 60884**
 1-3/4" "S" HOOK (HEAVY OPEN) **P/N 1902**	 1-5/8" "S" HOOK (LIGHT CLOSED) **P/N 1991**	 1-15/16" SCREW EYE (LARGE) **P/N 1142**	 1-9/16" SCREW EYE (MEDIUM) **P/N 1150**	1/4" x 2-5/8" TURNED EYEBOLTS **P/N 60811**	 1/4" x 4" TURNED EYEBOLTS **P/N 60885**
1-1/2" "S" HOOK (LIGHT OPEN) **P/N 1960**	1-7/8" "S" HOOK (LIGHT OPEN) **P/N 1961**	 2-7/8" SCREW EYE (LARGE) **P/N 1139**	1-5/8" SCREW EYE (SMALL) **P/N 1155**	1/4" x 2" TURNED EYEBOLTS **P/N 60883**	 5/16" x 3-1/4" TURNED EYEBOLTS **P/N 60889**

A27-14

TRAY FRONT

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030112

CHROMATE®
INDUSTRIAL CORP.

VITON O-RING ASSORTMENT

P/N 17754

FEATURES:

- *Broad temperature range -15°F to +400 °F*
- *Excellent chemical compatibility resists acids, silicon fluids, solvents and oils*
- *Low compression set*
- *Brown in color for easy identification*

335

ID: 1/8 OD: 1/4 THICKNESS: 1/16 INDUSTRY #006 **P/N 61041**	ID: 1/4 OD: 3/8 THICKNESS: 1/16 INDUSTRY #010 **P/N 61045**	ID: 7/16 OD: 5/8 THICKNESS: 3/32 INDUSTRY #111 **P/N 61062**	ID: 11/16 OD: 7/8 THICKNESS: 3/32 INDUSTRY #115 **P/N 61066**	ID: 7/8 OD: 1-1/8 THICKNESS: 1/8 INDUSTRY #212 **P/N 61081**	ID: 1-1/2 OD: 1-3/4 THICKNESS: 1/8 INDUSTRY #222 **P/N 61091**
ID: 5/32 OD: 9/32 THICKNESS: 1/16 INDUSTRY #007 **P/N 61042**	ID: 5/16 OD: 7/16 THICKNESS: 1/16 INDUSTRY # 011 **P/N 61046**	ID: 1/2 OD: 11/16 THICKNESS: 3/32 INDUSTRY #112 **P/N 61063**	ID: 3/4 OD: 15/16 THICKNESS: 3/32 INDUSTRY #116 **P/N 61067**	ID: 1 OD: 1-1/4 THICKNESS: 1/8 INDUSTRY #214 **P/N 61083**	ID: 1-1/2 OD: 1-7/8 THICKNESS: 3/16 INDUSTRY #325 **P/N 61094**
ID: 3/16 OD: 5/16 THICKNESS: 1/16 INDUSTRY #008 **P/N 61043**	ID: 3/8 OD: 1/2 THICKNESS: 1/16 INDUSTRY #012 **P/N 61047**	ID: 9/16 OD: 3/4 THICKNESS: 3/32 INDUSTRY #113 **P/N 61064**	ID: 3/4 OD:1 THICKNESS: 1/8 INDUSTRY #210 **P/N 61079**	ID: 1-1/4 OD: 1-1/2 THICKNESS: 1/8 INDUSTRY #218 **P/N 61087**	ID: 1-5/8 OD: 2 THICKNESS: 3/16 INDUSTRY #326 **P/N 61095**
ID: 7/32 OD: 11/32 THICKNESS: 1/16 INDUSTRY #009 **P/N 61044**	ID: 3/8 OD: 9/16 THICKNESS: 3/32 INDUSTRY #110 **P/N 61061**	ID: 5/8 OD: 13/16 THICKNESS: 3/32 INDUSTRY #114 **P/N 61065**	ID: 13/16 OD: 1-1/16 THICKNESS: 1/8 INDUSTRY #211 **P/N 61080**	ID: 1-3/8 OD: 1-5/8 THICKNESS: 1/8 INDUSTRY #220 **P/N 61089**	ID: 1-3/4 OD: 2-1/8 THICKNESS: 3/16 INDUSTRY #327 **P/N 61096**

A27-15

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

CIC 200™ TRIM-KUT™ SANDING DISC ASSORTMENT

P/N 17776

FEATURES:

- *Tough aluminum oxide grain-impregnated into durable plastic (polyamide) backing*
- *Extremely lightweight – for easy use with power hand tools*
- *Easily trimmed – exposing new cutting surface and maximizing abrasive*
- *Can be used all the way to the core – for ultimate consumption and value*
- *No tooling – simply spin-on and spin-off*

3" x 36 GRIT
P/N 33960

3" x 60 GRIT
P/N 33961

3" x 120 GRIT
P/N 33962

5" x 36 GRIT
P/N 33963

5" x 60 GRIT
P/N 33964

5" x 120 GRIT
P/N 33965

MANDRELL WITH 1/4" SHANK
P/N 33966

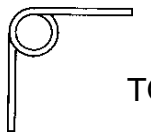
MANDRELL WITH 5/8-11 THREAD ARBOR
P/N 33967

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

SPRING ASSORTMENT (2-DRAWER)

DRAWER #1

ASSORTMENT NO. 60400

60401 EXTENSION 3/16 x 2	60408 EXTENSION 15/32 x 2-7/16	60415 COMPRESSION 9/16 x 1-3/4	60422 COMPRESSION 5/16 x 1-7/8
60402 EXTENSION 1/4 x 2-11/32	60409 EXTENSION 7/16 x 2-15/16	60416 COMPRESSION 5/16 x 1-3/8	60423 COMPRESSION 5/16 x 2-5/16
60403 EXTENSION 1/4 x 3	60410 EXTENSION 13/32 x 2-3/4	60417 COMPRESSION 5/16 x 1-1/2	60424 COMPRESSION 1/4 x 2
60404 EXTENSION 9/32 x 2-1/2	60411 BARREL COMPRESSION 5/16-9/16 x 2	60418 COMPRESSION 13/64 x 2-1/4	60425 COMPRESSION 7/16 x 3
60405 EXTENSION 1/2 x 2-5/16	60412 COMPRESSION 7/16 x 1-3/4	60419 COMPRESSION 7/32 x 1-5/8	60426 EXTENSION 1/2 x 3-1/2
60406 EXTENSION 1/4 x 1-7/8	60413 COMPRESSION 5/8 x 1-3/4	60420 COMPRESSION 3/16 x 1-5/16	60427 COMPRESSION 21/64 x 1-1/8
60407 CONE COMPRESSION 13/32 - 11/16 x 1	 60414 TORSION 1/2	60421 COMPRESSION 3/16 x 1-1/8	60428 COMPRESSION 5/16 x 1-1/2

A27-17

TRAY FRONT

SPRING ASSORTMENT (2-DRAWER)

DRAWER #2

ASSORTMENT NO. 60400

60429 COMP. 1/4 x 2	60430 COMP. 5/16 x 1-7/16	60431 COMP. 1/4 x 1-7/16	60432 EXTENSION 3/4 x 1-3/4	60433 EXTENSION 3/4 x 1-15/16	60434 EXTENSION 3/4 x 2-3/16
60435 EXTENSION 3/4 x 2-5/16	60436 EXTENSION 3/4 x 2-5/8	60437 EXTENSION 3/4 x 2-13/16	60438 EXTENSION 3/4 x 3		
60439 EXTENSION 3/4 x 3-3/8	60440 EXTENSION 5/16 x 2-1/2	60441 EXTENSION 11/32 x 2	60442 EXTENSION 7/32 x 1-3/4	60443 EXTENSION 1/4 x 1-11/16	60444 EXTENSION 7/32 x 2-3/16
60445 EXTENSION 5/16 x 2-1/16	60446 EXTENSION 9-16 x 3-5/8	60447 EXTENSION 11/32 x 6-7/8			
60448 EXTENSION 1/2 x 6-1/8	60449 EXTENSION 13/32 x 7-1/2				
60450 EXTENSION 9/16 x 6-5/8					

A27-18

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

SPRING ASSORTMENT (4-DRAWER)

DRAWER #1 **P/N 60200**

60201 EXTENSION 5/32 x 1-7/8	**60208** EXTENSION 15/32 x 2-7/16	**60215** TORSION 1/2 x 2-1/4	**60222** COMPRESSION 7/32 x 1-1/4
60202 EXTENSION 1/4 x 2-1/2	**60209** EXTENSION 7/16 x 2-15/16	**60216** COMPRESSION 5/8 x 2	**60223** COMPRESSION 5/16 x 1-7/8
60203 EXTENSION 1/4 x 2-1/4	**60210** EXTENSION 13/32 x 2-3/4	**60217** COMPRESSION 5/16 x 1-3/8	**60224** COMPRESSION 5/16 x 2-5/16
60204 EXTENSION 5/16 x 2-11/16	**60211** EXTENSION 3/8 x 2-11/16	**60218** COMPRESSION 5/16 x 1-1/2	**60225** COMPRESSION 1/4 x 2
60205 EXTENSION 1/2 x 2-5/16	**60212** BARREL COMPRESSION 7/16 - 11/16 x 2	**60219** COMPRESSION 13/64 x 2-1/4	**60226** COMPRESSION 7/16 x 3
60206 EXTENSION 3/8 x 2	**60213** COMPRESSION 1/2 x 1-3/4	**60220** COMPRESSION 7/32 x 1-5/8	**60227** EXTENSION 1/2 x 3-5/8
60207 CONE COMPRESSION 13/32 - 11/16 x 1	**60214** COMPRESSION 5/8 x 1-3/4	**60221** COMPRESSION 3/16 x 1-5/16	**60228** EXTENSION 3/4 x 2-5/16

A27-19

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CHROMATE®
INDUSTRIAL CORP.

SPRING ASSORTMENT (4-DRAWER)

DRAWER #2 **P/N 60200**

60229 EXTENSION 7/16 x 3-11/16	**60230** EXTENSION 1/2 x 3-13/16	**60231** EXTENSION 3/4 x 1-15/16	**60232** COMPRESSION 7/16 x 3-1/4	**60234** EXTENSION 3/4 x 1-3/4
60233 COMPRESSION 21/64 x 3-5/16	**60236** EXTENSION 5/16 x 3-7/16	**60237** COMPRESSION 15/32 x 1-1/8	**60238** EXTENSION 9/32 x 6-1/2	
60239 COMPRESSION 11/16 x 1-1/2	**60240** EXTENSION 21/32 x 5-3/8	**60241** COMPRESSION 1/2 x 2-13/16	**60242** EXTENSION 1/2 x 6	
60243 COMPRESSION 11/16 x 3	**60244** EXTENSION 5/8 x 5-7/8	**60245** COMPRESSION 3/4 x 3-3/8	**60235** COMPRESSION 15/32 x 2-3/8	
60246 EXTENSION 21/32 x 4-7/8	**60247** COMPRESSION 7/8 x 3-7/16	**60248** COMPRESSION 7/16 x 5		
60249 COMPRESSION 31/32 x 3-3/4	**60250** COMPRESSION 15/32 x 6-3/4	**60251** EXTENSION 11/32 x 4		

A27-20

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SPRING ASSORTMENT (4-DRAWER)

DRAWER #3

P/N 60200

60252 EXT. 7/16 x 5	**60254** COMP. 15/32 x 5-1/4	**60256** COMP. 1-1/32 x 5-3/8	**60258** COMP. 1-1/4 x 4-5/8	**60260** COMP. 11/16 x 9-1/2	**60261** COMP. 15/16 x 9-7/8	**60262** EXT. 1/2 x 9-3/4	**60263** EXT. 3/4 x 10-1/4	**60264** EXT. 3/4 x 8
60253 EXT. 9/16 x 3-15/16	**60255** COMP. 13/16 x 3-1/4	**60257** COMP. 3/4 x 3	**60259** COMP. 1 x 3-3/4					**60265** COMP. 5/8 x 2-11/16

A27-21

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

SPRING ASSORTMENT (4-DRAWER)

DRAWER #4 **P/N 60200**

60266 EXTENSION 3/8 x 2-3/16	**60272** COMPRESSION 1/4 x 1-7/8	**60278** EXTENSION 5/16 x 1-11/16	**60284** COMPRESSION 7/16 x 1-7/16	**60290** COMPRESSION 5/16 x 1-1/2	**60296** COMPRESSION 3/8 x 1-1/2
60267 COMPRESSION 21/64 x 1-1/8	**60273** EXTENSION 7/16 x 1-15/16	**60279** COMPRESSION 3/8 x 1-15/16	**60285** COMPRESSION 5/8 x 1-9/16	**60291** EXTENSION 9/32 x 2-7/16	**60297** EXTENSION 3/8 x 2-3/16
60268 EXTENSION 5/16 x 2-3/16	**60274** COMPRESSION 5/16 x 1-7/16	**60280** COMPRESSION 1/2 x 1-7/16	**60286** EXTENSION 3/16 x 2	**60292** COMPRESSION 5/16 x 1-11/16	**60298** COMPRESSION 1/4 x 1-7/16
60269 COMPRESSION 1/4 x 2	**60275** EXTENSION 15/64 x 1-1/2	**60281** EXTENSION 3/16 x 1-11/16	**60287** COMPRESSION 15/64 x 1-3/4	**60293** EXTENSION 1/4 x 2-5/16	**60299** COMPRESSION 3/8 x 1-7/8
60270 EXTENSION 5/16 x 2-1/8	**60276** COMPRESSION 5/16 x 2	**60282** COMPRESSION 1/2 x 1-3/4	**60288** EXTENSION 3/8 x 2	**60294** COMPRESSION 1/4 x 2	**60300** EXTENSION 15/32 x 2-1/4
60271 COMPRESSION 3/16 x 1-1/2	**60277** COMPRESSION 3/8 x 1-7/16	**60283** EXTENSION 7/32 x 2	**60289** COMPRESSION 5/8 x 2	**60295** COMPRESSION 5/16 x 1-1/2	

A27-22

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CHROMATE® INDUSTRIAL CORP.

SET SCREW TYPE SHAFT COLLAR ASSORTMENT

P/N 17781

FEATURES:

- *Hex Socket Set Screw Locks Shaft*
- *Zinc Plated Steel*

1/8" Set Screw Type Shaft Collar
P/N 3800

3/16" Set Screw Type Shaft Collar
P/N 3801

1/4" Set Screw Type Shaft Collar
P/N 3802

5/16" Set Screw Type Shaft Collar
P/N 3803

3/8" Set Screw Type Shaft Collar
P/N 3804

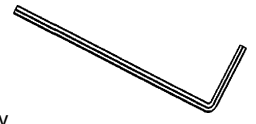
7/16" Set Screw Type Shaft Collar
P/N 3805

1/2" Set Screw Type Shaft Collar
P/N 3806

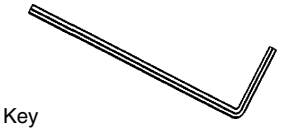
5/8" Set Screw Type Shaft Collar
P/N 3808

3/4" Set Screw Type Shaft Collar
P/N 3810

1" Set Screw Type Shaft Collar
P/N 3814



1/16" Hex Socket Key
P/N 70203



5/64" Hex Socket Key
P/N 70204

3/32" Hex Socket Key
P/N 70205

1/8" Hex Socket Key
P/N 70207

5/32" Hex Socket Key
P/N 70209

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CHROMATE®
INDUSTRIAL CORP.

CLAMP TYPE SHAFT COLLAR

P/N 17782

FEATURES:
- *Clamp design provides a full radial hold on shaft*
- *Tighten cap screw to secure*
- *Greater clamping force than set screw shaft collars*
- *Black oxide steel*

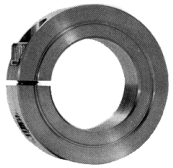
3/16” Clamp Type Shaft Collar
P/N 3835

1/4” Clamp Type Shaft Collar
P/N 3836

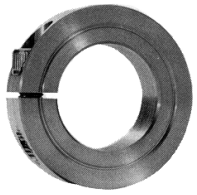
5/16” Clamp Type Shaft Collar
P/N 3837

3/8” Clamp Type Shaft Collar
P/N 3838

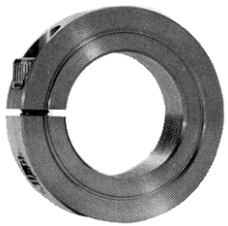
1/2” Clamp Type Shaft Collar
P/N 3840



5/8” Clamp Type Shaft Collar
P/N 3842

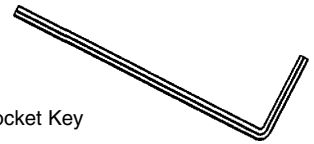


3/4” Clamp Type Shaft Collar
P/N 3844

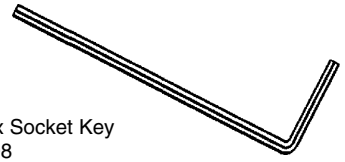


1” Clamp Type Shaft Collar
P/N 3848

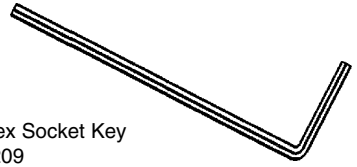
3/32” Hex Socket Key
P/N 70205



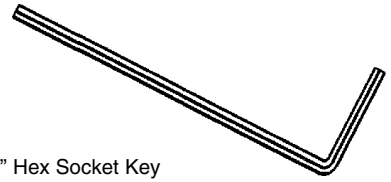
7/64” Hex Socket Key
P/N 70206



9/64” Hex Socket Key
P/N 70208



5/32” Hex Socket Key
P/N 70209



3/16” Hex Socket Key
P/N 70210

MMS LEVEL “A”

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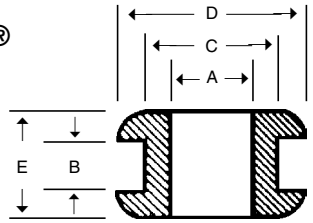
CHROMATE® INDUSTRIAL CORP.



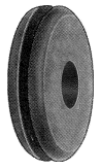
RUBBER GROMMET ASSORTMENT

P/N 17794

FEATURES:

- *Use for insulating, vibration dampening, sealing, abrasion control and electrical cord protection*
- *Made from a black natural rubber base compound*
- *Hardness is 50-60 Shore A durometer*
- *Temperature resistant to 180°F*

356

A: 5/32 B: 1/16 C: 1/4 D: 3/8 E: 3/16 **P/N 62700**	A: 15/64 B: 3/16 C: 3/8 D: 5/8 E: 3/8 **P/N 62704**	A: 5/16 B: 1/16 C: 3/4 D: 1” E: 5/16 **P/N 62708**	 A: 3/8 B: 1/16 C: 1” D: 1-1/4 E: 1/4 **P/N 62712**	A: 1/2 B: 3/32 C: 25/32 D: 1-1/16 E: 11/32 **P/N 62716**	A: 5/8 B: 1/16 C: 7/8 D: 1-1/8 E: 5/16 **P/N 62720**
A: 3/16 B: 1/16 C: 5/16 D: 1/2 E: 1/4 **P/N 62701**	A: 1/4 B: 1/16 C: 3/8 D: 1/2 E: 7/32 **P/N 62705**	A: 5/16 B: 1/8 C: 9/16 D: 13/16 E: 3/8 **P/N 62709**	A: 3/8 B: 1/8 C: 5/8 D: 7/8 E: 3/8 **P/N 62713**	A: 1/2 B: 1/8 C: 3/4 D: 1” E: 1/2 **P/N 62717**	A: 3/4 B: 1/16 C: 1-1/16 D: 1-3/8 E: 3/8 **P/N 62721**
A: 3/16 B: 3/32 C: 9/32 D: 7/16 E: 7/32 **P/N 62702**	A: 1/4 B: 1/16 C: 7/16 D: 5/8 E: 3/16 **P/N 62706**	A: 5/16 B: 1/4 C: 9/16 D: 13/16 E: 1/2 **P/N 62710**	A: 3/8 B: 1/4 C: 5/8 D: 7/8 E: 1/2 **P/N 62714**	A: 1/2 B: 1/4 C: 13/16 D: 1-1/16 E: 1/2 **P/N 62718**	A: 3/4 B: 1/4 C: 1-1/4 D: 1-5/8 E: 7/16 **P/N 62722**
A: 3/16 B: 1/4 C: 5/16 D: 7/16 E: 3/8 **P/N 62703**	A: 5/16 B: 1/16 C: 7/16 D: 9/16 E: 3/16 **P/N 62707**	A: 3/8 B: 1/16 C: 1/2 D: 5/8 E: 1/4 **P/N 62711**	A: 1/2 B: 3/32 C: 3/4 D: 31/32 E: 9/32 **P/N 62715**	A: 5/8 B: 1/8 C: 7/8 D: 1-1/8 E: 3/8 **P/N 62719**	A: 1” B: 1/16 C: 1-3/8 D: 1-3/4 E: 7/16 **P/N 62723**

A27-25

TRAY FRONT

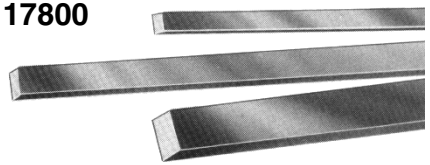
CHROMATE®
INDUSTRIAL CORP.

PLATED KEYSTOCK ASSORTMENT

FEATURES:

- *Make machinery keys by cutting, filing and fitting key stock*
- *Machine cut ends*
- *Tolerances: –.000 to +.002 in both dimensions*
- *P.S.I. – 85,000 B.H.N. –165 to 180*

P/N 17800



36

1/8" x 12"
P/N 60182

3/16" x 12"
P/N 60183

1/4" x 12"
P/N 60184

5/16" x 12"
P/N 60185

3/8" x 12"
P/N 60186

1/2" x 12"
P/N 60188

A27.26

TRAY FRONT

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CHROMATE®
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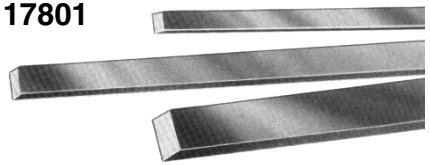
UNPLATED KEYSTOCK ASSORTMENT

FEATURES:

- *Make machinery keys by cutting, filing and fitting key stock*
- *Machine cut ends*
- *Tolerances: –.002 to +.000 in both dimensions*
- *P.S.I. – 85,000 B.H.N. –165 to 180*

P/N 17801



36

1/8" x 12"
P/N 50182

3/16" x 12"
P/N 50183

1/4" x 12"
P/N 50184

5/16" x 12"
P/N 50185

3/8" x 12"
P/N 50186

1/2" x 12"
P/N 50188

A27.27

TRAY FRONT

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INDUSTRIAL CORP.

BUNA "N" COMPOUND O-RING ASSORTMENT (1/16" CROSS SECTION)

P/N 17820

FEATURES:

- *General purpose O'Rings withstand temperatures of -40°F to +300°F*
- *Resists gasoline, motor oil, transmission oil, water, mild acids, mild alkalis and anti-freeze*
- *Use in drain plug gaskets, fuel lines, engine seals, carburetors and garden power equipment*

558

1/8 x 1/4 **P/N 60001** -006	5/32 x 9/32 **P/N 60002** -007	3/16 x 5/16 **P/N 60003** -008	7/32 x 11/32 **P/N 60004** -009	1/4 x 3/8 **P/N 60005** -010	5/16 x 7/16 **P/N 60006** -011	3/8 x 1/2 **P/N 60007** -012	7/16 x 9/16 **P/N 60008** -013
1/2 x 5/8 **P/N 60009** -014	9/16 x 11/16 **P/N 60010** -015	5/8 x 3/4 **P/N 60011** -016	11/16 x 13/16 **P/N 60012** -017	3/4 x 7/8 **P/N 60013** -018	13/16 x 15/16 **P/N 60014** -019	7/8 x 1 **P/N 60015** -020	15/16 x 1-1/16 **P/N 60016** -021
1 x 1-1/8 **P/N 60017** -022	1-1/16 x 1-3/16 **P/N 60018** -023	1-1/8 x 1-1/4 **P/N 60019** -024	1-3/16 x 1-5/16 **P/N 60086** -025	1-1/4 x 1-3/8 **P/N 60087** -026	1-5/16 x 1-7/16 **P/N 60088** -027	1-3/8 x 1-1/2 **P/N 60089** -028	1-1/2 x 1-5/8 **P/N 60020** -029
1-5/8 x 1-3/4 **P/N 60090** -030	1-3/4 x 1-7/8 **P/N 60091** -031	1-7/8 x 2 **P/N 60092** -032	2 x 2-1/8 **P/N 60093** -033	2-1/8 x 2-1/4 **P/N 60094** -034	2-1/4 x 2-3/8 **P/N 60095** -035	2-3/8 x 2-1/2 **P/N 60096** -036	2-1/2 x 2-5/8 **P/N 60097** -037

A27-28

TRAY FRONT

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INDUSTRIAL CORP.

BUNA "N" COMPOUND O-RING ASSORTMENT (3/32" CROSS SECTION)

P/N 17821

FEATURES:

- *General purpose O'Rings withstand temperatures of -40°F to +300°F*
- *Resists gasoline, motor oil, transmission oil, water, mild acids, mild alkalis and anti-freeze*
- *Use in drain plug gaskets, fuel lines, engine seals, carburetors and garden power equipment*

558

1/4 x 7/16 **P/N 63108** -108	5/16 x 1/2 **P/N 63109** -109	3/8 x 9/16 **P/N 60026** -110	7/16 x 5/8 **P/N 60027** -111	1/2 x 11/16 **P/N 60028** -112	9/16 x 3/4 **P/N 60029** -113	5/8 x 13/16 **P/N 60030** -114	11/16 x 7/8 **P/N 60031** -115
3/4 x 15/16 **P/N 60032** -116	13/16 x 1 **P/N 60033** -117	7/8 x 1-1/16 **P/N 60034** -118	15/16 x 1-1/8 **P/N 60035** -119	1 x 1-3/16 **P/N 60036** -120	1-1/16 x 1-1/4 **P/N 60037** -121	1-1/8 x 1-5/16 **P/N 60038** -122	1-3/16 x 1-3/8 **P/N 60039** -123
1-1/4 x 1-7/16 **P/N 60040** -124	1-5/16 x 1-1/2 **P/N 63125** -125	1-3/8 x 1-9/16 **P/N 63126** -126	1-7/16 x 1-5/8 **P/N 63127** -127	1-1/2 x 1-11/16 **P/N 63128** -128	1-9/16 x 1-3/4 **P/N 63129** -129	1-5/8 x 1-13/16 **P/N 63130** -130	1-11/16 x 1-7/8 **P/N 63131** -131
1-3/4 x 1-15/16 **P/N 63132** -132	1-13/16 x 2 **P/N 60041** -133	1-7/8 x 2-1/16 **P/N 63134** -134	1-15/16 x 2-1/8 **P/N 63135** -135	2 x 2-3/16 **P/N 63136** -136	2-1/16 x 2-1/4 **P/N 63137** -137	2-1/8 x 2-5/16 **P/N 63138** -138	2-3/16 x 2-3/8 **P/N 63139** -139

A27-29

TRAY FRONT

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INDUSTRIAL CORP.

BUNA "N" COMPOUND O-RING ASSORTMENT (1/8" CROSS SECTION)

P/N 17822

FEATURES:

- *General purpose O'Rings withstand temperatures of -40°F to +300°F*
- *Resists gasoline, motor oil, transmission oil, water, mild acids, mild alkalis and anti-freeze*
- *Use in drain plug gaskets, fuel lines, engine seals, carburetors and garden power equipment*

510

5/16 x 9/16 **P/N 63203** -203	3/8 x 5/8 **P/N 63204** -204	7/16 x 11/16 **P/N 63205** -205	1/2 x 3/4 **P/N 63206** -206	9/16 x 13/16 **P/N 63207** -207	5/8 x 7/8 **P/N 60047** -208
11/16 x 15/16 **P/N 60048** -209	3/4 x 1 **P/N 60049** -210	13/16 x 1-1/16 **P/N 60050** -211	7/8 x 1-1/8 **P/N 60051** -212	15/16 x 1-3/16 **P/N 60052** -213	1 x 1-1/4 **P/N 60053** -214
1-1/16 x 1-5/16 **P/N 60054** -215	1-1/8 x 1-3/8 **P/N 60055** -216	1-3/16 x 1-7/16 **P/N 60056** -217	1-1/4 x 1-1/2 **P/N 60057** -218	1-5/16 x 1-9/16 **P/N 60058** -219	1-3/8 x 1-5/8 **P/N 60059** -220
1-7/16 x 1-11/16 **P/N 60060** -221	1-1/2 x 1-3/4 **P/N 60061** -222	1-5/8 x 1-7/8 **P/N 60062** -223	1-3/4 x 2 **P/N 60063** -224	1-7/8 x 2-1/8 **P/N 63225** -225	2 x 2-1/4 **P/N 63226** -226

A27-30

TRAY FRONT

CHROMATE INDUSTRIAL CORP.

BRISTLE BRUSH ASSORTMENT

FEATURES:

- *Ideal for cleaning, finishing, blending and deburring*
- *Use on corners, welds and other areas where extra conformability is required*
- *Ideal for cleaning rivets, welds and corners*
- *50X Grade/Green, 80X Grade/Yellow*

P/N 17850

8 82503 17850 5

16

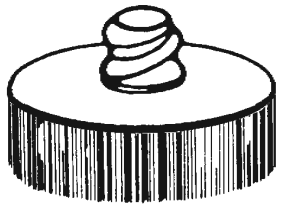
8 82503 45689 4

1" x 50X GRADE GREEN BRISTLE BRUSH
P/N 45689

8 82503 45690 0

2" x 50X GRADE GREEN BRISTLE BRUSH
P/N 45690

8 82503 45691 7



3" x 50X GRADE GREEN BRISTLE BRUSH
P/N 45691

8 82503 45638 2

2" QUICK-LOK DISC PAD
P/N 45638

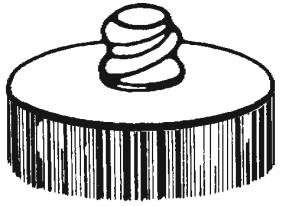
8 82503 45694 8

1" x 80X GRADE YELLOW BRISTLE BRUSH
P/N 45694

8 82503 45692 4

2" x 80X GRADE YELLOW BRISTLE BRUSH
P/N 45692

8 82503 45693 1



3" x 80X GRADE YELLOW BRISTLE BRUSH
P/N 45693

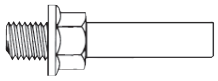
8 82503 45642 9

3" QUICK-LOK DISC PAD
P/N 45642

8 82503 45634 4

1" QUICK-LOK DISC PAD
P/N 45634

8 82503 45630 6



1/4" QUICK-LOK THREADED SHAFT
P/N 45630

A27-31

TRAY FRONT

UTILITY BLADE KNIFE ASSORTMENT

P/N 17864

SCRAPER

- *Strong, galvanized, non-rusting steel with retractable blade*
- *Comfortable, form-fitted grip*
- *For use with #9 single edge industrial blade*

INDUSTRIAL BLADE

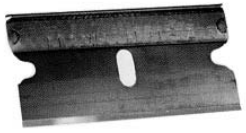
- *High quality, carbon steel double-beveled ground razor edge*
- *Folded steel backing crimped on both ends to hold blade securely*

ERGO-KNIFE™

- *Hinged handle makes it the easiest knife for changing blades*
- *Ergonomically designed to provide maximum power with minimum fatigue*
- *Internal blade caddy holds blades safely and conveniently*
- *Patented quick release handle eliminates the need for a screwdriver or tools to change blades.*
- *Retractable blade for easy use and safe storage*

102

INDUSTRIAL SCRAPER
P/N 66403



#9 SINGLE EDGE
SAFETY BLADES
P/N 66402

ERGO-KNIFE™
WITH BLADES
P/N 66410

ROUND BLADE
25 PACK
P/N 66421

HOOK BLADE
25 PACK
P/N 66418

BI METAL
UTILITY KNIFE BLADE
P/N 66415

A27-32

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

DISPOSABLE PAINT/CHIP BRUSH ASSORTMENT

P/N 17880

FEATURES:

- *Natural Wood Handles*
- *100% Pure White Bristles*
- *Bristles Set in Epoxy for Solvent Resistance*

44

1" Varnish
P/N 21576

1-1/2" Varnish
P/N 21577

2-1/2" Varnish
P/N 21579

3" Varnish
P/N 21580

A27-34

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

UTILITY BRUSH ASSORTMENT

P/N 17878

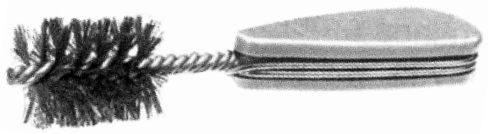
TUBE FITTING BRUSH FEATURES:
- *Cleans fittings quickly and easily*
- *Stainless steel wire fill held in heavy stem wire, with comfortable hand fitting plastic handle for manual cleaning of fittings*

SCRATCH BRUSH FEATURES:
- *Curved plastic handles with easy grip design*
- *Stainless steel for heavy duty cleaning*
- *Brass for less abrasion action*
- *Nylon for lighter duty cleaning*

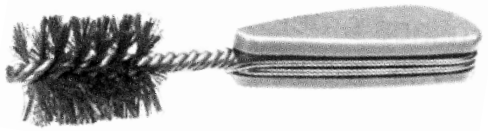
ACID SWAB BRUSH FEATURES:
- *Made of genuine horsehair, held firmly by crimped tin handle*

20

1/2" TUBE FITTING BRUSH
P/N 41348



3/4" TUBE FITTING BRUSH
P/N 41349



S/S SMALL SCRATCH BRUSH
P/N 41340

BRASS SMALL SCRATCH BRUSH
P/N 41342

NYLON SMALL SCRATCH BRUSH
P/N 41347

3/8" ACID SWAB BRUSH
P/N 41345

A27-35

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ PAINT STICKS ASSORTMENT

P/N 17904

PAINT STICK MARKER:

- *Real paint in stick form*
- *Weather-resistant, UV-resistant*
- *Ideal for layout, color coding, fabrication and identification*
- *Marks through oil and water*
- *Marks on smooth, rough, rusty or dirty surfaces*
- *For use on metal, wood, plastic, concrete, rubber, glass, cardboard and paper*
- *Lead-free*
- *Marking range: -50ºf to 150ºf (-46ºC to 66ºC)*

VALVE ACTION PAINT MARKERS:

- *Marks with real paint, dries in 3 minutes*
- *Nib releases paint as needed for continuous marking*
- *Marks on all surfaces including metal, wood, glass, plastic, rubber, cardboard and paper*
- *Lead free, low halogens*
- *Durable metal barrel*
- *Meets California VOC Regulations*
- *Marking range:-50ºf to 150ºf (-46ºC to 66ºC)*

24

PAINT STICK MARKER- WHITE
P/N 28400

PAINT STICK MARKER - YELLOW
P/N 28401

PAINT STICK MARKER - RED
P/N 28402

PAINT STICK MARKER - BLACK
P/N 28403

VALVE ACTION MARKER - WHITE
P/N 28404

VALVE ACTION MARKER - YELLOW
P/N 28405

VALVE ACTION MARKER - RED
P/N 28406

VALVE ACTION - BLACK
P/N 28407

A27-36

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

STAINLESS STEEL SET SCREW TYPE SHAFT COLLAR ASSORTMENT

P/N 17910

FEATURES:

• Hex Socket Set Screw Locks Shaft • Stainless steel for maximum corrosion resistance

1/8” Set Screw Type Shaft Collar
P/N 23800

3/16” Set Screw Type Shaft Collar
P/N 23801

1/4” Set Screw Type Shaft Collar
P/N 23802

5/16” Set Screw Type Shaft Collar
P/N 23803

3/8” Set Screw Type Shaft Collar
P/N 23804

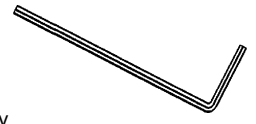
7/16” Set Screw Type Shaft Collar
P/N 23805

1/2” Set Screw Type Shaft Collar
P/N 23806

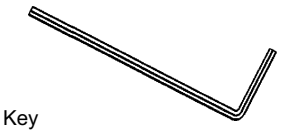
5/8” Set Screw Type Shaft Collar
P/N 23808

3/4” Set Screw Type Shaft Collar
P/N 23810

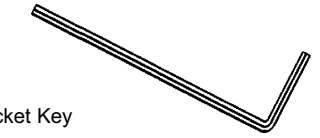
1” Set Screw Type Shaft Collar
P/N 23814



1/16” Hex Socket Key
P/N 70203

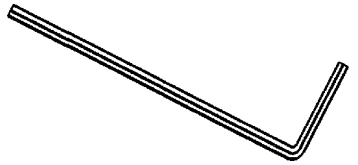


5/64” Hex Socket Key
P/N 70204



3/32” Hex Socket Key
P/N 70205

1/8” Hex Socket Key
P/N 70207



5/32” Hex Socket Key
P/N 70209

TRAY FRONT

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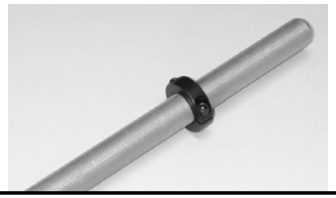


DOUBLE SPLIT TYPE SHAFT COLLAR

P/N 17911

FEATURES:

- *Clamp design provides a full radial hold on shaft*
- *Tighten cap screws to secure*
- *Greater clamping force than set screw shaft collars • Black oxide steel*

41

3/16” Double Split Type Shaft Collar
P/N 23900

1/4” Double Split Type Shaft Collar
P/N 23901

5/16” Double Split Type Shaft Collar
P/N 23902

3/8” Double Split Type Shaft Collar
P/N 23903

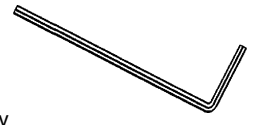
1/2” Double Split Type Shaft Collar
P/N 23905

5/8” Double Split Type Shaft Collar
P/N 23907

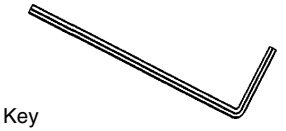
3/4” Double Split Type Shaft Collar
P/N 23909

1” Double Split Type Shaft Collar
P/N 23913

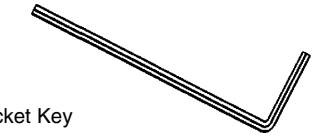
1-1/2” Double Split Type Shaft Collar
P/N 23921



3/32” Hex Socket Key
P/N 70205

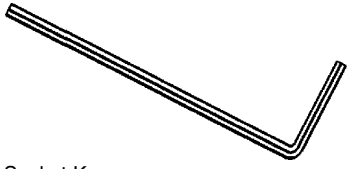


7/64” Hex Socket Key
P/N 70206



9/64” Hex Socket Key
P/N 70208

5/32” Hex Socket Key
P/N 70209



3/16” Hex Socket Key
P/N 70210

A27-38

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

QUICK-LOK™ MINI FLAP DISCS ASSORTMENT

P/N 17921

FEATURES:

- *High quality zirconium effective on materials from mild steel to exotic titanium alloys, composites and plastics*
- *Combines grinding and finishing in one step*
- *"Mini" size allows access to tight areas*
- *Quick-Lok™ connection saves time and money – half twist and they're securely locked in place...a half twist again and it's off*

40 GRIT 2" DIA
P/N 33937

80 GRIT 2" DIA
P/N 33939

120 GRIT 2" DIA
P/N 33941

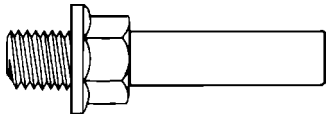
BACK-UP PAD 2" DIA
P/N 45638

BACK-UP PAD 3" DIA
P/N 45642

40 GRIT 3" DIA
P/N 33943

80 GRIT 3" DIA
P/N 33945

120 GRIT 3" DIA
P/N 33946



1/4" THREADED SHAFT
P/N 45630

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CHROMATE® INDUSTRIAL CORP.

BLACK MAXI™ HAND FILES ASSORTMENT

FEATURES:

- *Special black oxide coating lasts longer, resists loading and rusts*
- *Handy assortment of the most commonly used files*

P/N 17922

16

10" MILL BASTARD
P/N 15581

10" FLAT MULTI-KUT
P/N 15554

10" FLAT BASTARD
P/N 15583

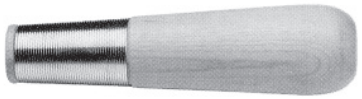
10" HALF ROUND BASTARD
P/N 15591

10" ROUND BASTARD
P/N 15587

7" DOUBLE EXTRA SLIM
P/N 15538

8" THREE
SQUARE BASTARD
P/N 15542

10" ALL PURPOSE
P/N 15546



6" TO 10" WOODEN FILE HANDLE
P/N 15555

FILE CARD
P/N 15588

A27-43

TRAY FRONT

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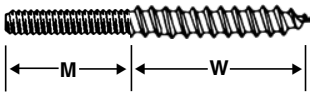
INDUSTRIAL CORP.

HANGER BOLTS ASSORTMENT

P/N 17923



FEATURES:

- *One end has wood screw thread and the other end is threaded to hold a nut*
- *Screws one end into wood and the exposed end provides a machine threaded stud for corner brackets, nuts, hooks, etc...*

540

10-24 x 1-1/2 **P/N 21120**	MACHINE THREAD (M) 5/8"	WOOD THREAD (W) 7/8"	10-24 x 2 **P/N 21122**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1"	10-24 x 2-1/2 **P/N 21123**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1-1/2"	10-24 x 3 **P/N 21124**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 1-1/2"
1/4-20 x1-1/2 **P/N 21126**	MACHINE THREAD (M) 5/8"	WOOD THREAD (W) 7/8"	1/4-20 x 2 **P/N 21128**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1"	1/4-20 x 2-1/2 **P/N 21130**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1-1/2"	1/4-20 x 3 **P/N 21132**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 1-1/2"
5/16-18 x 2-1/2 **P/N 21143**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1-1/2"	5/16-18 x 3 **P/N 21145**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 1-1/2"	5/16-18 x 3-1/2 **P/N 21146**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 2"	5/16-18 x 4 **P/N 21147**	MACHINE THREAD (M) 2"	WOOD THREAD (W) 2"
3/8-16 x 2-1/2 **P/N 21153**	MACHINE THREAD (M) 1"	WOOD THREAD (W) 1-1/2"	3/8-16 x 3 **P/N 21154**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 1-1/2"	3/8-16 x 3-1/2 **P/N 21155**	MACHINE THREAD (M) 1-1/2"	WOOD THREAD (W) 2"	3/8-16 x 4 **P/N 21156**	MACHINE THREAD (M) 2"	WOOD THREAD (W) 2"

A27-44

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

HMMWV BRAKE, POWER STEERING AND ALTERNATOR REPAIR ASSORTMENT

FEATURES:

- *Contains Chromate's high strength fasteners for lasting repairs*

P/N 17933

455

10mm x 30mm
METRIC CAP SCREW
P/N 67156

10mm x 35 mm
METRIC CAP SCREW
P/N 67158

1/4-28 x 1
GRADE 8 CAP SCREW
P/N 41004

1/4-20 USS
TAPER LOCKNUT
P/N 6800

10mm x 120mm
METRIC CAP SCREW
P/N 67176

1/4 SAE
NARROW BAND FLAT WASHER
P/N 9000

7/16
LOCK WASHER
P/N 6315

5/16-18 x 1
GRADE 8 CAP SCREW
P/N 40730

1/2 SAE
NARROW BAND FLAT WASHER
P/N 9004

5/16
FREE SPINNING FLANGE LOCKNUT
P/N 6811PS

10 x 30
HEX FLANGE BOLT 10.9
P/N 69990

10 x 45
HEX FLANGE BOLT 10.9
P/N 69991

10mm
METRIC FLAT WASHER
P/N 67346

A27-45

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

DOUBLE EDGE/SPIRAL SCREW EXTRACTORS

DOUBLE EDGE EXTRACTORS
- *Removes damaged screws and bolts without damaging threads*
- *Double edge can be used for both right and left hand drills*
- *Superior non-slip engagement with screw or bolt to be removed*

SPIRAL SCREW EXTRACTORS
- *High carbon steel construction for strength and durability*
- *Sharp spiral flutes bite quickly into broken stud or bolt for solid grip*
- *Removes broken studs or bolts without damaging threads in hole*

LEFT HAND DRILLS
- *Reverse drilling actually assists threading out broken studs or bolts*
- *Special tool steel alloy for superior strength, faster heat dissipation and longer life*
- *Extended flutes for fast chip removal and cooler running*
- *Cuts standard, stainless, tool and exotic steels*

P/N 17934

20

#1 DOUBLE EDGED SCREW EXTRACTORS
P/N 12061

1/8 LEFT HAND DRILL
P/N 11005

#2 DOUBLE EDGED SCREW EXTRACTORS
P/N 12062

3/16 LEFT HAND DRILL
P/N 11007

#3 DOUBLE EDGED SCREW EXTRACTORS
P/N 12063

1/4 LEFT HAND DRILL
P/N 11009

#4 DOUBLE EDGED SCREW EXTRACTORS
P/N 12064

11/32 LEFT HAND DRILL
P/N 11012

#5 DOUBLE EDGED SCREW EXTRACTORS
P/N 12065

7/16 LEFT HAND DRILL
P/N 11015

#1 SPIRAL SCREW EXTRACTOR
P/N 13060

5/64 LEFT HAND DRILL
P/N 11002

#2 SPIRAL SCREW EXTRACTOR
P/N 13061

7/64 LEFT HAND DRILL
P/N 11004

#3 SPIRAL SCREW EXTRACTOR
P/N 13062

5/32 LEFT HAND DRILL
P/N 11006

#4 SPIRAL SCREW EXTRACTOR
P/N 13063

1/4 LEFT HAND DRILL
P/N 11009

#5 SPIRAL SCREW EXTRACTOR
P/N 13064

19/64 LEFT HAND DRILL
P/N 11010

EXPANSION

A27-46

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

PLUMBER'S O-RING ASSORTMENT

P/N 17943

FEATURES:

- *Buna "N" O-Rings withstand temperatures of -40 to +300*
- *Resists-Gasoline, Motor Oil, Transmission Oil, Water, Mild Acids, Mild Alkalis, Anti-Freeze*
- *Use In-Drain Plug Gaskets, Fuel Lines, Engine Seals, Carburetors, Garden Power Equipment*

210

ID:11/16 OD: 13/16 Thickness: 1/16 Industry #017 **P/N 60012**	ID: 1/4 OD: 7/16 Thickness: 3/32 Industry #108 **P/N 63108**	ID: 1-7/16 OD: 1-5/8 Thickness: 3/32 Industry #127 **P/N 63127**	ID: 5/8 OD: 7/8 Thickness: 1/8 Industry #208 **P/N 60047**
ID: 1 OD: 1-1/8 Thickness: 1/16 Industry #022 **P/N 60017**	ID: 5/16 OD: 1/2 Thickness: 3/32 Industry #109 **P/N 63109**	ID: 1/4 OD: 1/2 Thickness: 1/8 Industry #202 **P/N 63202**	ID: 11/16 OD: 15/16 Thickness: 1/8 Industry #209 **P/N 60048**
ID: 1-1/4 OD: 1-3/8 Thickness: 1/16 Industry #026 **P/N 60087**	ID: 13/16 OD: 1 Thickness: 3/32 Industry #117 **P/N 60033**	ID: 1/2 OD: 3/4 Thickness: 1/8 Industry #206 **P/N 63206**	ID: 1-3/16 OD: 1-7/16 Thickness: 1/8 Industry #217 **P/N 60056**
ID: 1-1/2 OD: 1-5/8 Thickness: 1/16 Industry #029 **P/N 60020**	ID: 1-1/16 OD: 1-1/4 Thickness: 3/32 Industry #121 **P/N 60037**	ID: 9/16 OD: 13/16 Thickness: 1/8 Industry #207 **P/N 63207**	ID: 1-3/8 OD: 1-5/8 Thickness: 1/8 Industry #220 **P/N 60059**

A2747

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

BUMPER ASSORTMENT

P/N 17945

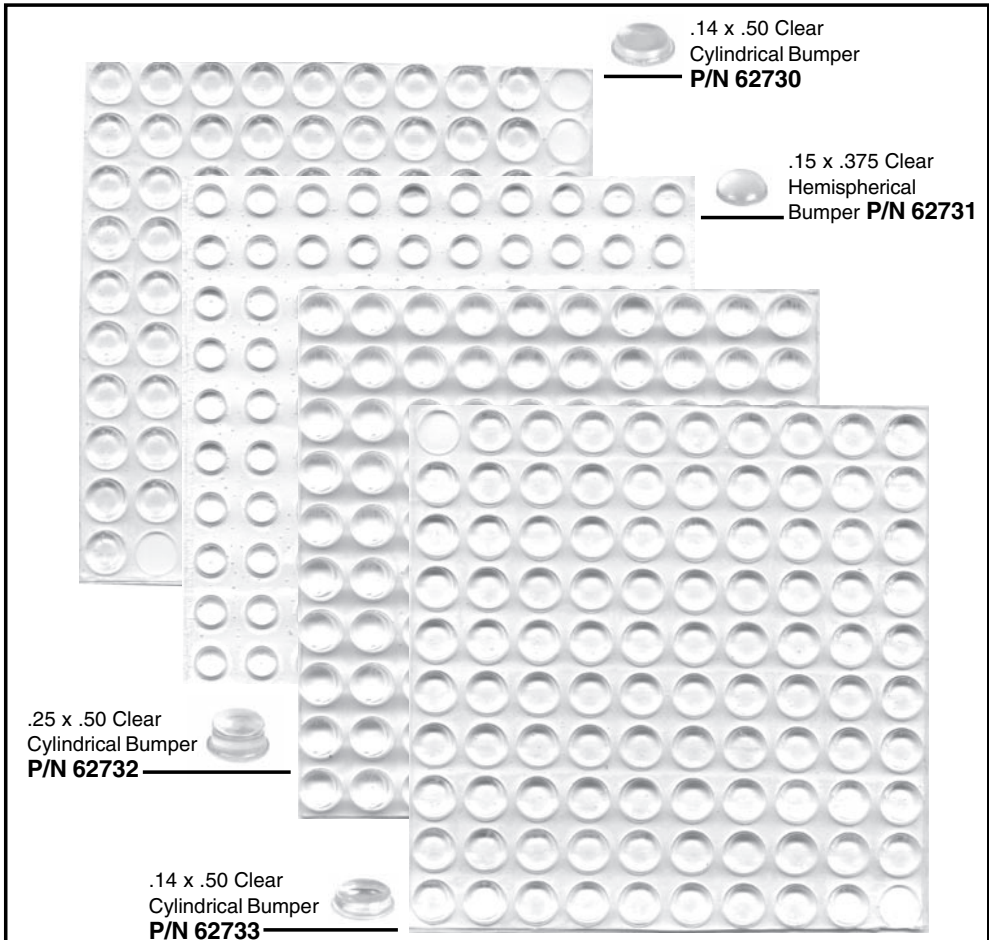
FEATURES:

- *UL recognized component*
- *Easy 'peel off' backing*
- *Superior abrasion resistance*
- *Crack-resistant and resilient*
- *Non-staining and non-marring*
- *Vibration and shock dampening*
- *Superb coefficient of friction and resistance to skidding*

APPLICATIONS

- *Cutting boards*
- *Picture frames*
- *Cabinet doors*
- *Computers*
- *Appliances*
- *Office equipment*
- *Desktop calculators and many more*

739

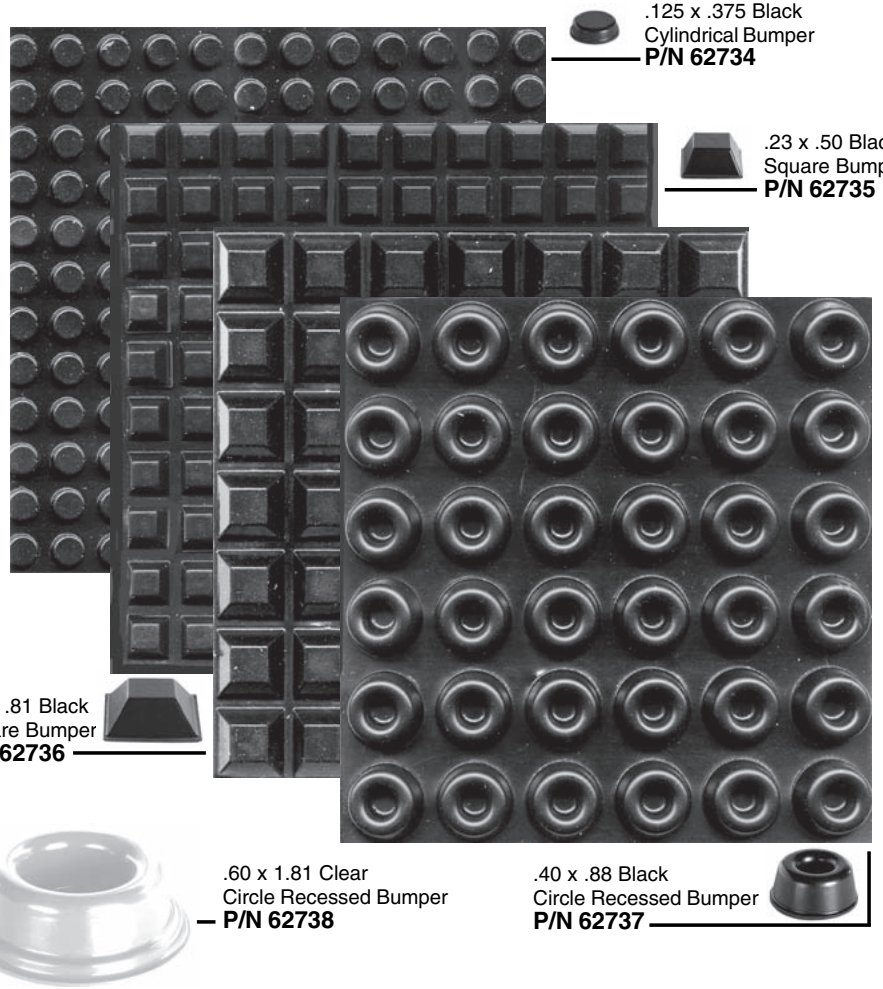


.14 x .50 Clear Cylindrical Bumper **P/N 62730**

.15 x .375 Clear Hemispherical Bumper **P/N 62731**

.25 x .50 Clear Cylindrical Bumper **P/N 62732**

.14 x .50 Clear Cylindrical Bumper **P/N 62733**



.125 x .375 Black Cylindrical Bumper **P/N 62734**

.23 x .50 Black Square Bumper **P/N 62735**

.30 x .81 Black Square Bumper **P/N 62736**

.60 x 1.81 Clear Circle Recessed Bumper **P/N 62738**

.40 x .88 Black Circle Recessed Bumper **P/N 62737**

A27-50

TRAY FRONT

PTFE PIPE AND ANTI-SEIZE TAPES

P/N 17949

8 82503 02714 8

ANTI-SEIZE TAPE FEATURES:

- *Easy to apply from handy plastic spool*
- *Discourages seizing, galling and carbon fusing*
- *Non-toxic, non-flammable, non-standing*
- *Inhibits corrosion, rusting and galvanic pitting*
- *Effective across a broad range of temps.: -450°F to 2600°F*
- *Will not squeeze out and rub off like grease base products*

PTFE PIPE TAPE FEATURES:

- *Forms a permanent seal for the life of the connection*
- *Approved by the USDA and FDA and are non-toxic under normal usage*
- *Green/oxygen tape is suitable for oxygen service such as hospital equipment and oxygen cylinders*
- *Pink/plumbers tape is extra thick and extra dense for pipe-fitting*

13

8 82503 02895 4

1/2 x 520”
White-Standard PTFE Tape
P/N 2895

8 82503 32890 0

1/2 x 520”
White-High Density PTFE Tape
P/N 32890

8 82503 02304 1

1/2 x 260”
Pink/Plumbers PTFE Tape
P/N 32901

8 82503 32898 6

1/2 x 520”
Yellow/Gas Line PTFE Tape
P/N 32898

8 82503 02284 6

1/2 x 260”
Green/Oxygen PTFE Tape
P/N 32900

8 82503 02308 9

1/2 x 600”
Copper Anti-Seize Tape
P/N 32902

Copper: For cleaner high-temperature threaded anti-seize applications. Reduces required torque. Applied easily, seals tightly, overcomes high temperature seizing.
Temp. range -450°F to 1800°F

8 82503 02321 8

1/2 x 600”
Nickel Anti-Seize Tape
P/N 32903

Nickel: For applications where copper cannot be used including chemical, extremely high temperature and harsher environments. Made specifically for stainless steel threads.
Temp. range -450°F to 2600°F

8 82503 02360 7

1/2 x 600”
Ceramic Anti-Seize Tape
P/N 32904

Ceramic: Formulated specifically for anti-seize applications typical to food industry. All materials FDA approved.
Temp. range: -450°F to 2100°F

A27-51

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

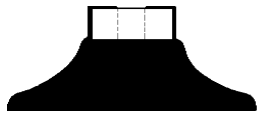
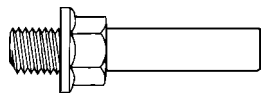
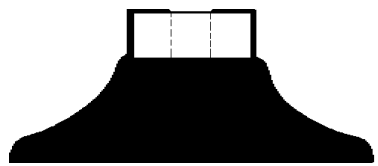
QUICK-LOK ABRASIVE DISC ASSORTMENT P/N 17954

FEATURES:
- *Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites*
- *Just a half twist and they're securely locked in place . . . a half twist again and it's off*
- *Ideal for use with air tools and flex-shaft grinders*

STRIPPING DISC FEATURES:
- *Extra-coarse discs are constructed from an open, non-loading web*
- *Makes tough cleaning and stripping jobs quick and easy*
- *Cleans faster and safer than wire brushes*

MINI FLAP DISC FEATURES:
- *High quality zirconium effective on materials from mild steel to exotic titanium alloys, composites and plastics*
- *Combines grinding and finishing in one step*
- *"Mini" size allows access to tight areas*

15

2" X-Coarse Quick-Lok Coating Removal Disc **P/N 45617**	2" x 80 Grit Quick-Lok Flap Disc **P/N 33939**	 2" Quick-Lok Disc Pad - Medium **P/N 45638**	 1/4" Quick-Lok Threaded Shaft **P/N 45630**
3" X-Coarse Quick-Lok Coating Removal Disc **P/N 45618**	3" x 80 Grit Quick-Lok Flap Disc **P/N 33945**	 3" Quick-Lok Disc Pad - Medium **P/N 45642**	

A27-5-2

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

2MM METRIC O-RINGS ASSORTMENT

P/N 17970

FEATURES:

- *Provides superior resistance to gasoline, motor oil, transmission oil, hydraulic fluids, anti-freeze, mild acids, mild alkalies and water*
- *Precision manufactured to exacting specifications – assuring maximum leakage protection*
- *Temperature range: -65ºF to 300ºF (-54ºC to 149ºC)*
- *Ideal for use in engines, equipment, fuel systems, carburetors, drain lines, etc.*

006

2 x 3 x 7 **P/N 60920**	2 x 8 x 12 **P/N 60925**	2 x 13 x 17 **P/N 60930**	2 x 19 x 23 **P/N 60934**
2 x 4 x 8 **P/N 60921**	2 x 9 x 13 **P/N 60926**	2 x 14 x 18 **P/N 60931**	2 x 20 x 24 **P/N 60935**
2 x 5 x 9 **P/N 60922**	2 x 10 x 14 **P/N 60927**	2 x 15 x 19 **P/N 60932**	2 x 25 x 29 **P/N 60936**
2 x 6 x 10 **P/N 60923**	2 x 11 x 15 **P/N 60928**	2 x 16 x 20 **P/N 60933**	2 x 28 x 32 **P/N 60937**
2 x 7 x 11 **P/N 60924**	2 x 12 x 16 **P/N 60929**		

A27-53

TRAY FRONT

MMS LEVEL "A"

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100106

CHROMATE®
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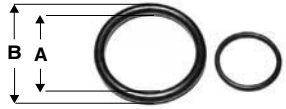
2.5MM METRIC O-RINGS ASSORTMENT

P/N 17971



FEATURES:

- *Provides superior resistance to gasoline, motor oil, transmission oil, hydraulic fluids, anti-freeze, mild acids, mild alkalies and water*
- *Precision manufactured to exacting specifications – assuring maximum leakage protection*
- *Temperature range: -65ºF to 300ºF (-54ºC to 149ºC)*
- *Ideal for use in engines, equipment, fuel systems, carburetors, drain lines, etc.*

590

2.5 x 8 x 13 **P/N 60957**	2.5 x 13 x 18 **P/N 60958**	2.5 x 18 x 23 **P/N 60959**	2.5 x 22 x 27 **P/N 60969**
2.5 x 10 x 15 **P/N 60960**	2.5 x 14 x 19 **P/N 60963**	2.5 x 19 x 24 **P/N 60966**	2.5 x 23 x 28 **P/N 60970**
2.5 x 11 x 16 **P/N 60961**	2.5 x 16 x 21 **P/N 60964**	2.5 x 20 x 25 **P/N 60967**	2.5 x 24 x 29 **P/N 60971**
2.5 x 12 x 17 **P/N 60962**	2.5 x 17 x 22 **P/N 60965**	2.5 x 21 x 26 **P/N 60968**	2.5 x 25 x 30 **P/N 60972**

A27-54

TRAY FRONT

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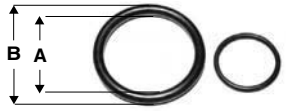
CHROMATE®
INDUSTRIAL CORP.

3MM METRIC O-RINGS ASSORTMENT

P/N 17972



FEATURES:

- *Provides superior resistance to gasoline, motor oil, transmission oil, hydraulic fluids, anti-freeze, mild acids, mild alkalies and water*
- *Precision manufactured to exacting specifications – assuring maximum leakage protection*
- *Temperature range: -65ºF to 300ºF (-54ºC to 149ºC)*
- *Ideal for use in engines, equipment, fuel systems, carburetors, drain lines, etc.*

480

3 x 9 x 15 **P/N 60976**	3 x 22 x 28 **P/N 60981**	3 x 30 x 36 **P/N 60988**	3 x 38 x 44 **P/N 60996**
3 x 10 x 16 **P/N 60977**	3 x 24 x 30 **P/N 60982**	3 x 32 x 38 **P/N 60990**	3 x 39 x 45 **P/N 60997**
3 x 11 x 17 **P/N 60978**	3 x 25 x 31 **P/N 60983**	3 x 33 x 39 **P/N 60991**	3 x 42 x 48 **P/N 60998**
3 x 19 x 25 **P/N 60979**	3 x 27 x 33 **P/N 60985**	3 x 35 x 41 **P/N 60993**	3 x 45 x 51 **P/N 60999**
3 x 20 x 26 **P/N 60980**	3 x 28 x 34 **P/N 60986**	3 x 36 x 42 **P/N 60994**	

A27-55

TRAY FRONT

MMS LEVEL "A"

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100106

HMMWV UPARMOR ASSORTMENT

P/N 17969

FEATURES:

- *Contains Chromate's high strength fasteners for lasting repairs*
- *Contains Vi-Loc Washers – the most reliable vibration resistant lock washer available – meets military specifications: MSN-5310-01-051-4149*

199

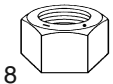
1/4 (6mm)
Vi-Loc Washer
P/N 6101

5/16 (8mm)
Vi-Loc Washer
P/N 6102

3/8 (10mm)
Vi-Loc Washer
P/N 6103

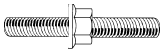
3/8-16 Grade 8
Finished Hex Nut Zinc Yellow
P/N 8928

3/8-16
Alloy 200 Taper Lock Nut
P/N 6810

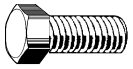


7/16-14 Grade 8
Finished Hex Nut Zinc Yellow
P/N 8929

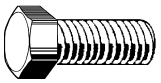
7/16-20
Alloy 200 Taper Lock Nut
P/N 5815



Oil Pan Stud
P/N 530416

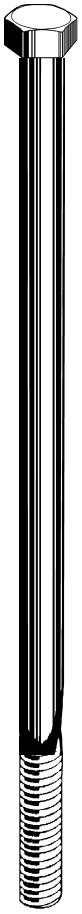


8 x 16mm
Grade 10.9 Metric HHCS
P/N 67120



10 x 20mm
Grade 10.9 Metric HHCS
P/N 67152

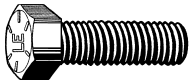
10 x 100mm
Grade 10.9 Metric HHCS
P/N 67174



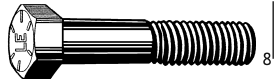
7/16-20 x 9-3/4"
Grade 5 HHCS Zinc 1.35 Thread
P/N 530415

1/4-20 x 5/8
Grade 8 HHCS Zinc Yellow
P/N 40701

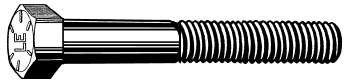
1/4-28 x 5/8
Grade 8 HHCS Zinc Yellow
P/N 41001



3/8-16 x 1
Grade 8 HHCS Zinc Yellow
P/N 40756



3/8-16 x 1-1/2
Grade 8 HHCS Zinc Yellow
P/N 40759



3/8-16 x 2-1/4
Grade 8 HHCS Zinc Yellow
P/N 40762

A27-57

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

BLACK MAXI HAND FILE ASSORTMENT

P/N 17841T

FEATURES:

- *Uniform in cut, permitting the removal of more metal, faster and easier*
- *Designed for greater performance and longer life*

15

FILE CARD
P/N 15588

WOOD HANDLE
P/N 15556

10” SQUARE FILE
P/N 15542

WOOD HANDLE
P/N 15555

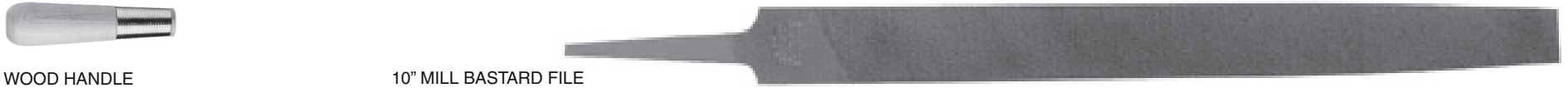
7” TAPER SAW FILE
P/N 15538

WOOD HANDLE
P/N 15555

10” ROUND FILE
P/N 15587

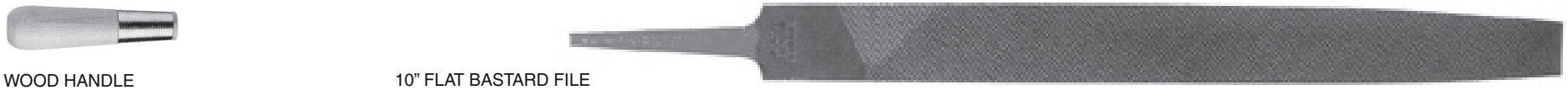
WOOD HANDLE
P/N 15556

10” HALF ROUND FILE
P/N 15591



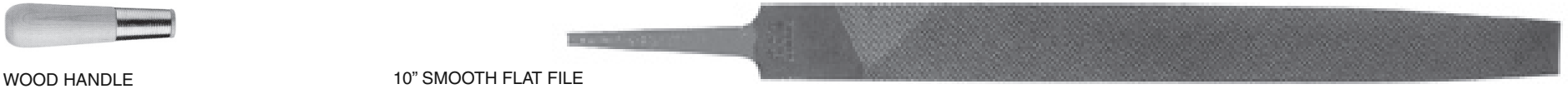
WOOD HANDLE
P/N 15556

10” MILL BASTARD FILE
P/N 15581



WOOD HANDLE
P/N 15556

10” FLAT BASTARD FILE
P/N 15583



WOOD HANDLE
P/N 15556

10” SMOOTH FLAT FILE
P/N 15584

A27-58

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CHROMATE® INDUSTRIAL CORP.

ZINC PLATED 2-EAR CLAMPS ASSORTMENT

FEATURES:

- *2-Ear design gives increased clamping range*
- *Sturdy design for good, permanent sealing*
- *Ideal for air and liquid lines*
- *Fast, simple, secure installation*
- *De-burred edges prevents damage to clamped parts*
- *Deformation of ears provides visual indication that clamp is closed*

P/N 17999

176

Standard Jaw Pincers
P/N 66386

5/16, 9 mm 2-Ear Clamp
P/N 30117

3/8, 11 mm 2-Ear Clamp
P/N 30118

1/2, 13 mm 2-Ear Clamp
P/N 30119

9/16, 15 mm 2-Ear Clamp
P/N 30120

5/8, 15 mm 2-Ear Clamp
P/N 30121

3/4, 20 mm 2-Ear Clamp
P/N 30122

7/8, 23 mm 2-Ear Clamp
P/N 30123

15/16, 25 mm 2-Ear Clamp
P/N 30124

1, 27 mm 2-Ear Clamp
P/N 30125

A27-59

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

HEX HEAD MULTI-SPLINE SCREW EXTRACTORS

FEATURES:

- *Designed to remove broken studs, bolts, socket screws and fittings for high torque applications*
- *Aggressive left hand spiral design for extra gripping power*

P/N 17053

 HEX HEAD SIZE: 1/2" BOLT DIA.: #12 DRILL BIT DIA.: 1/8" **P/N 22126**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 1/4" DRILL BIT DIA.: 5/32" **P/N 22127**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 5/16" DRILL BIT DIA.: 3/16" **P/N 22128**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 3/8" DRILL BIT DIA.: 7/32" **P/N 22129**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 7/16" DRILL BIT DIA.: 1/4" **P/N 22130**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 1/2" DRILL BIT DIA.: 9/32" **P/N 22131**
 HEX HEAD SIZE: 1/2" BOLT DIA.: 9/16" DRILL BIT DIA.: 5/16" **P/N 22132**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 5/18" DRILL BIT DIA.: 11/32" **P/N 22133**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 11/16" DRILL BIT DIA.: 3/8" **P/N 22134**	 HEX HEAD SIZE: 1/2" BOLT DIA.: 3/4" DRILL BIT DIA.: 13/32" **P/N 22135**	 HEX HEAD SIZE: 5/8" BOLT DIA.: 13/16" DRILL BIT DIA.: 7/16" **P/N 22136**	 HEX HEAD SIZE: 5/8" BOLT DIA.: 7/8" DRILL BIT DIA.: 15/32" **P/N 22137**
 HEX HEAD SIZE: 5/8" BOLT DIA.: 15/16" DRILL BIT DIA.: 1/2" **P/N 22138**	 HEX HEAD SIZE: 3/4" BOLT DIA.: 1" DRILL BIT DIA.: 17/32" **P/N 22139**	 HEX HEAD SIZE: 3/4" BOLT DIA.: 1-1/16" DRILL BIT DIA.: 9/16" **P/N 22140**	 HEX HEAD SIZE: 3/4" BOLT DIA.: 1-1/8" DRILL BIT DIA.: 19/32" **P/N 22141**	 HEX HEAD SIZE: 3/4" BOLT DIA.: 1-3/16" DRILL BIT DIA.: 5/8" **P/N 22142**	 HEX HEAD SIZE: 7/8" BOLT DIA.: 1-1/4" DRILL BIT DIA.: 21/32" **P/N 22143**
 HEX HEAD SIZE: 7/8" BOLT DIA.: 1-5/16" DRILL BIT DIA.: 11/16" **P/N 22144**	 HEX HEAD SIZE: 7/8" BOLT DIA.: 1-3/8" DRILL BIT DIA.: 23/32" **P/N 22145**	 HEX HEAD SIZE: 7/8" BOLT DIA.: 1-7/16" DRILL BIT DIA.: 3/4" **P/N 22146**	 HEX HEAD SIZE: 1" BOLT DIA.: 1-1/2" DRILL BIT DIA.: 25/32 **P/N 22147**	 HEX HEAD SIZE: 1" BOLT DIA.: 1-9/16" DRILL BIT DIA.: 13/16" **P/N 22148**	 HEX HEAD SIZE: 1" & 1" BOLT DIA.: 1-5/8" & 1-11/16" DRILL BIT DIA.: 27/32" & 7/8" **P/N 22149 & 22150**

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

BOLT EXTRACTORS

P/N 17054

FEATURES:

- *When you are faced with a rounded-off, rusted-tight or painted-over bolt, bolt extractors will break it free*
- *Reverse spiral flutes are designed to bite down to provide maximum gripping power*
- *High carbon steel ensures longer life and greater durability*
- *Universal lobular design fits all types of fasteners*
- *3/8" & 1/2" square drive for use with hand ratchets, impact wrenches, and air ratchets*
- *Hexagonal flats for use with flat wrench, pliers,adjustable wrench, sockets or IRWIN® VISE-GRIP® locking pliers*

 REMOVES METRIC BOLT: N/A REMOVES FRACTIONAL BOLT: 1/4" DRIVE SIZE: 3/8" **P/N 22151**	 REMOVES METRIC BOLT: 8 mm REMOVES FRACTIONAL BOLT: 5/16" DRIVE SIZE: 3/8" **P/N 22152**	 REMOVES METRIC BOLT: N/A REMOVES FRACTIONAL BOLT: 3/8" DRIVE SIZE: 3/8" **P/N 22153**	 REMOVES METRIC BOLT: 10 mm REMOVES FRACTIONAL BOLT: N/A DRIVE SIZE: 3/8" **P/N 22154**	 REMOVES METRIC BOLT: 11 mm REMOVES FRACTIONAL BOLT: 7/16" DRIVE SIZE: 3/8" **P/N 22155**	EXPANSION
 REMOVES METRIC BOLT: 12 mm REMOVES FRACTIONAL BOLT: N/A DRIVE SIZE: 3/8" **P/N 22156**	 REMOVES METRIC BOLT: N/A REMOVES FRACTIONAL BOLT: 1/2" DRIVE SIZE: 3/8" **P/N 22157**	 REMOVES METRIC BOLT: 13 mm REMOVES FRACTIONAL BOLT: N/A DRIVE SIZE: 3/8" **P/N 22158**	 REMOVES METRIC BOLT: 14 mm REMOVES FRACTIONAL BOLT: 9/16" DRIVE SIZE: 3/8" **P/N 22159**	 REMOVES METRIC BOLT: 16 mm REMOVES FRACTIONAL BOLT: 5/8" DRIVE SIZE: 3/8" **P/N 22160**	
 REMOVES METRIC BOLT: 17 mm REMOVES FRACTIONAL BOLT: N/A DRIVE SIZE: 3/8" **P/N 22161**	 REMOVES METRIC BOLT: N/A REMOVES FRACTIONAL BOLT: 11/16" DRIVE SIZE: 3/8" **P/N 22162**	 REMOVES METRIC BOLT: 19 mm REMOVES FRACTIONAL BOLT: 3/4" DRIVE SIZE: 3/8" **P/N 22163**	 REMOVES METRIC BOLT: 19 mm REMOVES FRACTIONAL BOLT: 3/4" DRIVE SIZE: 1/2" **P/N 22164**	 REMOVES METRIC BOLT: 21 mm REMOVES FRACTIONAL BOLT: 13/16" DRIVE SIZE: 1/2" **P/N 22165**	
 REMOVES METRIC BOLT: 22 mm REMOVES FRACTIONAL BOLT: 7/8" DRIVE SIZE: 1/2" **P/N 22166**	 REMOVES METRIC BOLT: 24 mm REMOVES FRACTIONAL BOLT: 15/16" DRIVE SIZE: 1/2" **P/N 22167**	 REMOVES METRIC BOLT: N/A REMOVES FRACTIONAL BOLT: 1" DRIVE SIZE: 1/2" **P/N 22168**	EXPANSION	EXPANSION	

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CRIMPED END BRUSH ASSORTMENT

P/N 17967

FEATURES:

- ***Wire End Brushes*** *– High quality, oil tempered, crimped wire provides superior cutting characteristics and fatigue resistance while a standard 1/4" stem makes them perfect for use in portable air, electric and drill press chucks.*
  - Use for weld cleaning, mold cleaning, deburring, polishing tools, dies and molds, removing rust and paint and spot painting.
- ***Hand Scratch Brushes*** *– Constructed of heavy gauge wire embedded in a plastic and heavy duty hardwood handle.*
  - Use for removing paint, rust, scale, solder chips and dirt and cleaning metal parts, threads, files, etc.

12

Crimped End Brush
1/2" Dia. x 7/8 Trim x .014 Wire
P/N 41320

Crimped End Brush
3/4" Dia. x 7/8 Trim x .014 Wire
P/N 41315

Stem
Mounted
Brush
3" Dia. x
.014 Wire
P/N 41336

Circular Flared End Brush
1-1/2" Dia. x .006 Wire
P/N 41325

Hollow
End Brush
1-3/4" Dia.
x .0118 Wire
P/N 41330

Circular Flared
End Brush
3" Dia. x
.008 Wire
P/N 41326

Stem Mounted Brush
2" Dia. x .0118 Wire
P/N 41335

S/S Small
Scratch Brush
P/N 41340

S/S Shoe Handle Scratch Brush
P/N 41312

A27.62

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

BRISTLE BRUSH ASSORTMENT

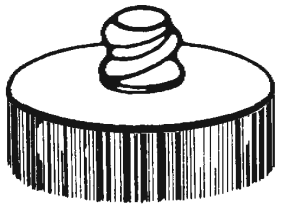
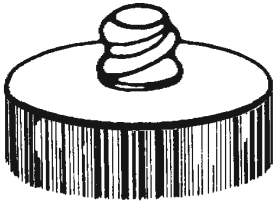
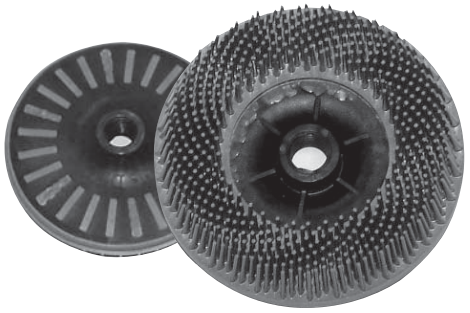
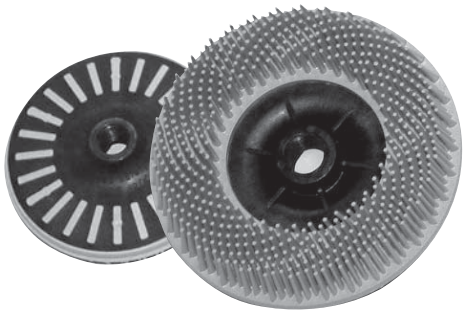
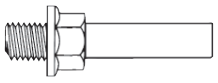
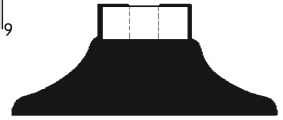
FEATURES:

- *Ideal for cleaning, finishing, blending and deburring*
- *Use on corners, welds and other areas where extra conformability is required*
- *Ideal for cleaning rivets, welds and corners*
- *50X Grade/Green, 80X Grade/Yellow*

P/N 17694

8 82503 10545 7

18

8 82503 45689 4 1" x 50X GRADE GREEN BRISTLE BRUSH **P/N 45689**	8 82503 45694 8 1" x 80X GRADE YELLOW BRISTLE BRUSH **P/N 45694**	8 82503 45690 0 2" x 50X GRADE GREEN BRISTLE BRUSH **P/N 45690**	8 82503 45692 4 2" x 80X GRADE YELLOW BRISTLE BRUSH **P/N 45692**
8 82503 45691 7  3" x 50X GRADE GREEN BRISTLE BRUSH **P/N 45691**	8 82503 45693 1  3" x 80X GRADE YELLOW BRISTLE BRUSH **P/N 45693**	8 82503 06742 7  4.5" x 50X GRADE GREEN BRISTLE BRUSH **P/N 45703**	8 82503 06743 4  4.5" x 80X GRADE YELLOW BRISTLE BRUSH **P/N 45704**
8 82503 45630 6  1/4" QUICK-LOK THREADED SHAFT **P/N 45630**	8 82503 45634 4 1" QUICK-LOK DISC PAD **P/N 45634**	8 82503 45638 2 2" QUICK-LOK DISC PAD **P/N 45638**	8 82503 45642 9  3" QUICK-LOK DISC PAD **P/N 45642**

A27-63

TRAY FRONT

CONSTANT PRESSURE CLAMPS, SMALL SIZES

P/N 17679

FEATURES

- Maintains constant steady pressure 360° around the connection.
- Diameter Sizes: 13/16" to 3-1/16"

Size: 0016
Min/Max Dia. (mm): 21 to 33 (inch): 13/16 to 1-19/64
P/N 30280

Size: 0022
Min/Max Dia. (mm): 29 to 43 (inch): 1-1/8 to 1-11/16
P/N 30283

Size: 0032
Min/Max Dia. (mm): 39 to 59 (inch): 1-9/16 to 2-5/16
P/N 30286

Size: 0040
Min/Max Dia. (mm): 46 to 71 (inch): 1-13/16 to 2-13/16
P/N 30289

Size: 0019
Min/Max Dia. (mm): 27 to 35 (inch): 1-16 to 1-3/8
P/N 30281

Size: 0024
Min/Max Dia. (mm): 30 to 46 (inch): 1-3/16 to 1-13/16
P/N 30284

Size: 0034
Min/Max Dia. (mm): 41 to 62 (inch): 1-5/8 to 2-7/16
P/N 30287

Size: 0044
Min/Max Dia. (mm): 52 to 78 (inch): 2-1/16 to 3-1/16
P/N 30290

Size: 0020
Min/Max Dia. (mm): 26 to 40 (inch): 1 to 1-9/16
P/N 30282

Size: 0028
Min/Max Dia. (mm): 34 to 52 (inch): 1-5/16 to 2-1/16
P/N 30285

Size: 0036
Min/Max Dia. (mm): 43 to 65 (inch): 1-11/16 to 2-9/16
P/N 30288

TRAY FRONT

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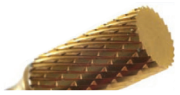
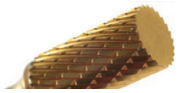
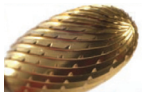
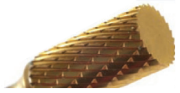
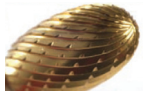
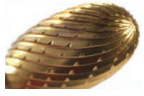
TiN CARBIDE BURS, 12 PIECE SET

P/N 17680

FEATURES

- *Cylinder Shape (SA)*
- *Cylinder Radius End (SC)*
- *Ball Shape (SD)*
- *Oval Shape (SE)*

12

 CYLINDER SHAPE SA1 **P/N 34354**	CYLINDER RADIUS END SC3 **P/N 34404**	BALL SHAPE SD5 **P/N 34431**	EXPANSION
 CYLINDER SHAPE SA3 **P/N 34359**	CYLINDER RADIUS END SC5 **P/N 34410**	 OVAL SHAPE SE1 **P/N 34441**	EXPANSION
 CYLINDER SHAPE SA5 **P/N 34365**	BALL SHAPE SD1 **P/N 34423**	 OVAL SHAPE SE3 **P/N 34443**	EXPANSION
CYLINDER RADIUS END SC1 **P/N 34399**	BALL SHAPE SD3 **P/N 34427**	 OVAL SHAPE SE5 **P/N 34446**	EXPANSION

A27-65

TRAY FRONT

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TiN CARBIDE BURS, 12 PIECE SET

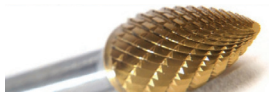
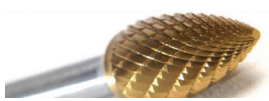
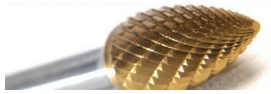
P/N 17681

8 82503 11321 6

FEATURES

- *Tree Shape Radius End (SF)*
- *Tree Shape (SG)*
- *14° Taper Radius End (SL)*
- *Cone Shape (SM)*

12

8 82503 11665 1 TREE SHAPE RADIUS END SF1 **P/N 34455**	 8 82503 11686 6 TREE SHAPE SG3 **P/N 34476**	8 82503 11707 8 14° TAPER RADIUS END SL4 **P/N 34497**	EXPANSION
8 82503 11668 2 TREE SHAPE RADIUS END SF3 **P/N 34458**	 8 82503 11689 7 TREE SHAPE SG5 **P/N 34479**	8 82503 11718 4 CONE SHAPE SM2 **P/N 34508**	EXPANSION
8 82503 11673 6 TREE SHAPE RADIUS END SF5 **P/N 34463**	8 82503 11701 6 14° TAPER RADIUS END SL1 **P/N 34491**	8 82503 11720 7 CONE SHAPE SM4 **P/N 34510**	EXPANSION
 8 82503 11683 5 TREE SHAPE SG1 **P/N 34473**	8 82503 11704 7 14° TAPER RADIUS END SL3 **P/N 34494**	8 82503 11721 4 CONE SHAPE SM5 **P/N 34511**	EXPANSION

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TRAY FRONT

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CONSTANT PRESSURE CLAMPS, MEDIUM SIZES

P/N 17678

FEATURES

- Maintains constant steady pressure 360° around the connection.
- Diameter Sizes: 2-3/16" to 4-1/16"

20

Size: 0048
Min/Max Dia. (mm): 56 to 84 (inch): 2-3/16 to 3-5/16
P/N 30291

Size: 0052
Min/Max Dia. (mm): 60 to 91 (inch): 2-3/8 to 3-9/16
P/N 30292

Size: 0056
Min/Max Dia. (mm): 64 to 97 (inch): 2-1/2 to 3-13/16
P/N 30293

Size: 0060
Min/Max Dia. (mm): 68 to 103 (inch): 2-11/16 to 4-1/16
P/N 30294

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TRAY FRONT

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CONSTANT PRESSURE CLAMPS, LARGE SIZES

P/N 17677

FEATURES

- Maintains constant steady pressure 360° around the connection.
- Diameter Sizes: 2-13/16" to 5-13/16"

Size: 0064
Min/Max Dia. (mm): 71 to 110 (inch): 2-13/16 to 4-5/16
P/N 30295

Size: 0072
Min/Max Dia. (mm): 81 to 122 (inch): 3-3/16 to 4-13/16
P/N 30296

Size: 0080
Min/Max Dia. (mm): 90 to 135 (inch): 3-9/16 to 5-5/16
P/N 30297

Size: 0088
Min/Max Dia. (mm): 97 to 148 (inch): 3-13/16 to 5-13/16
P/N 30298

TRAY FRONT

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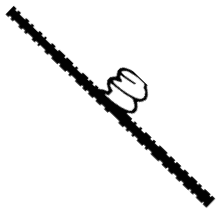
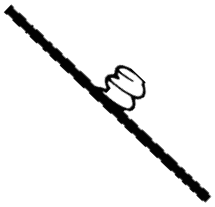
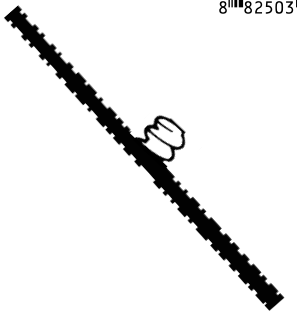
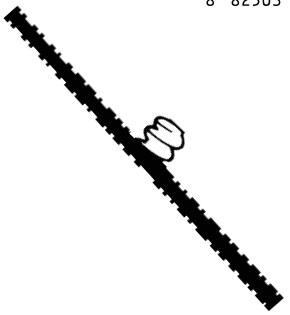
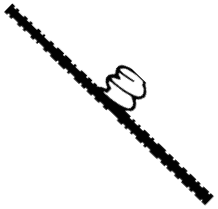
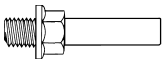
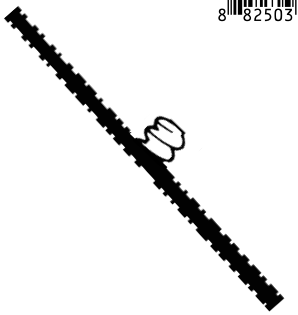
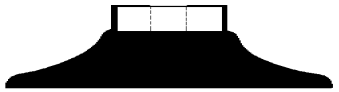
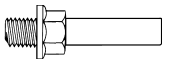
QUICK-LOK™ SURFACE CONDITIONING DISCS VERY FINE/MED/COARSE (2" & 3" DIA.)

P/N 17076

FEATURES:

- *Non-woven nylon, impregnated with abrasive particles, provides a bur-free surface suitable for painting or coating*
- *Ideal for rust, oxide and coating removal*

34

 2" SURFACE CONDITIONING DISC VERY FINE (BLUE) **P/N 45683**	 2" SURFACE CONDITIONING DISC COARSE (BROWN) **P/N 45682**	 3" SURFACE CONDITIONING DISC VERY FINE (BLUE) **P/N 45684**	 3" SURFACE CONDITIONING DISC COARSE (BROWN) **P/N 45686**
 2" SURFACE CONDITIONING DISC MEDIUM (MAROON) **P/N 45681**	 2" BACK-UP PAD **P/N 45638**  1/4" THREADED SHAFT **P/N 45630**	 3" SURFACE CONDITIONING DISC MEDIUM (MAROON) **P/N 45685**	 3" BACK-UP PAD **P/N 45642**  1/4" THREADED SHAFT **P/N 45630**

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TRAY FRONT

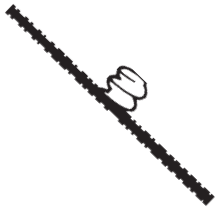
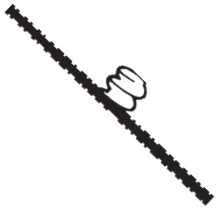
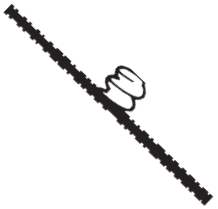
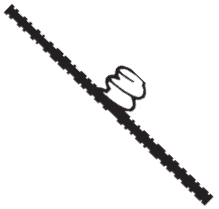
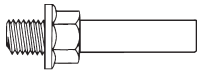
3M ROLOC™ DISCS (2" DIAMETER) CERAMIC CLOSED COAT ABRASIVE GRAIN

P/N 17078

FEATURES:

- *24, 60, 80, 120 Grades (Grits)*
- *Durable cloth backing*

22

 2" ROLOC™ DISC 24 GRIT (BLACK) **P/N 45600**	 2" ROLOC™ DISC 60 GRIT (ORANGE) **P/N 45602**	 2" ROLOC™ DISC 80 GRIT (YELLOW) **P/N 45603**	 2" ROLOC™ DISC 120 GRIT (WHITE) **P/N 45604**
 2" BACK-UP PAD **P/N 45638**	 1/4" THREADED SHAFT **P/N 45630**	EXPANSION	EXPANSION

A27-70

TRAY FRONT

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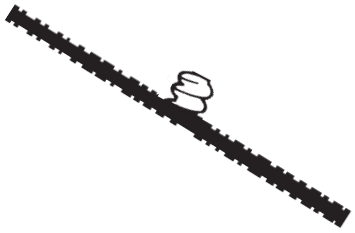
3M ROLOC™ DISCS (3" DIAMETER) CERAMIC CLOSED COAT ABRASIVE GRAIN

P/N 17079

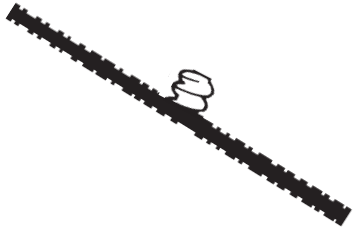
FEATURES:

- *24, 60, 80, 120 Grades (Grits)*
- *Durable cloth backing*

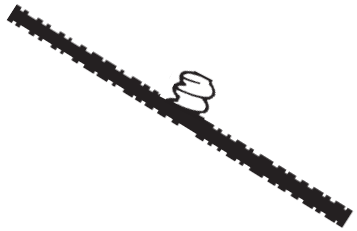
22



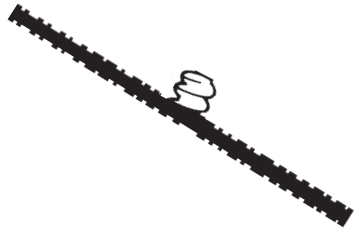
3" ROLOC™ DISC
24 GRIT (BLACK)
P/N 45605



3" ROLOC™ DISC
60 GRIT (ORANGE)
P/N 45607

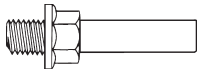


3" ROLOC™ DISC
80 GRIT (YELLOW)
P/N 45608



3" ROLOC™ DISC
120 GRIT (WHITE)
P/N 45609

3" BACK-UP PAD
P/N 45642



1/4" THREADED SHAFT
P/N 45630

EXPANSION

EXPANSION

A27-71

TRAY FRONT

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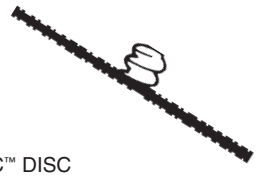
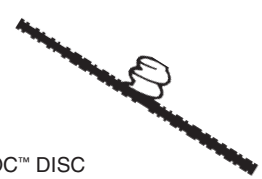
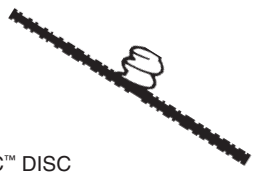
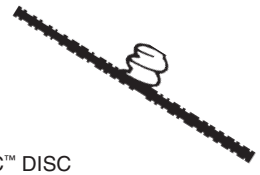
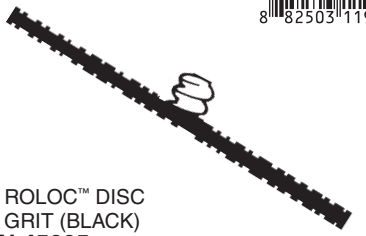
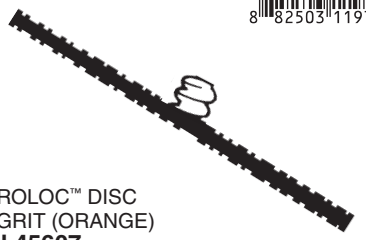
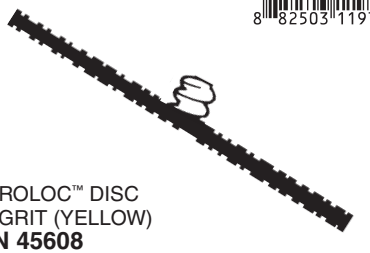
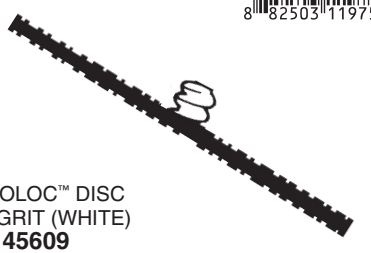
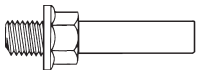
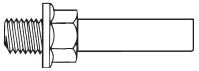
3M ROLOC™ DISCS (2" & 3" DIAMETER) CERAMIC CLOSED COAT ABRASIVE GRAIN

P/N 17080

FEATURES:

- *24, 60, 80, 120 Grades (Grits)*
- *Durable cloth backing*

22

 2" ROLOC™ DISC 24 GRIT (BLACK) **P/N 45600**	 2" ROLOC™ DISC 60 GRIT (ORANGE) **P/N 45602**	 2" ROLOC™ DISC 80 GRIT (YELLOW) **P/N 45603**	 2" ROLOC™ DISC 120 GRIT (WHITE) **P/N 45604**
 3" ROLOC™ DISC 24 GRIT (BLACK) **P/N 45605**	 3" ROLOC™ DISC 60 GRIT (ORANGE) **P/N 45607**	 3" ROLOC™ DISC 80 GRIT (YELLOW) **P/N 45608**	 3" ROLOC™ DISC 120 GRIT (WHITE) **P/N 45609**
2" BACK-UP PAD **P/N 45638**	 1/4" THREADED SHAFT **P/N 45630**	3" BACK-UP PAD **P/N 45642**	 1/4" THREADED SHAFT **P/N 45630**

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TRAY FRONT

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FLAP DISCS/TYPE 27, ZIRCONIA ALUMINA

FEATURES

- *40, 60, 80, and 120 Grits*
- *Recommended for aggressive use and heavy duty applications*
- *Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life.*
- *Type 27 - For working on flat grinding surfaces. The best choice for smooth finishing.*

P/N 17666

8 82503 12264 5

8

8 82503 12246 1

4-1/2" x 7/8"
40 GRIT
P/N 33970

8 82503 12247 8

4-1/2" x 7/8"
60 GRIT
P/N 33971

EXPANSION

8 82503 12248 5

4-1/2" x 7/8"
80 GRIT
P/N 33972

8 82503 12249 2

4-1/2" x 7/8"
120 GRIT
P/N 33973

EXPANSION

A27-73

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

FLAP DISCS/TYPE 29, ZIRCONIA ALUMINA

FEATURES

- *40, 60, 80, and 120 Grits*
- *Recommended for aggressive use and heavy duty applications*
- *Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life.*
- *Type 29 - For working on contoured and edge work. Flaps are angled at 8 degrees for greater surface contact and aggressive use.*

P/N 17667

8 82503 12265 2

8

8 82503 12250 8

4-1/2" x 7/8"
40 GRIT
P/N 33980

8 82503 12251 5

4-1/2" x 7/8"
60 GRIT
P/N 33981

EXPANSION

8 82503 12252 2

4-1/2" x 7/8"
80 GRIT
P/N 33982

8 82503 12253 9

4-1/2" x 7/8"
120 GRIT
P/N 33983

EXPANSION

A27-74

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

FLAP DISCS/TYPE 27 XL, ZIRCONIA ALUMINA

P/N 17668

FEATURES

- *40, 60, 80, and 120 Grits*
- *Recommended for aggressive use and heavy duty applications*
- *Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life.*
- *Type 27 - For working on flat grinding surfaces. The best choice for smooth finishing.*
- *High Density (XL) - Approximately 35-55% more material than regular Z3 flap discs.*

8

4-1/2" x 7/8"
40 GRIT
P/N 33975

4-1/2" x 7/8"
60 GRIT
P/N 33976

EXPANSION

4-1/2" x 7/8"
80 GRIT
P/N 33977

4-1/2" x 7/8"
120 GRIT
P/N 33978

EXPANSION

A27-75

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OHIO 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

FLAP DISCS/TYPE 29 XL, ZIRCONIA ALUMINA

P/N 17669

8 82503 12267 6

FEATURES

- *40, 60, 80, and 120 Grits*
- *Recommended for aggressive use and heavy duty applications*
- *Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life.*
- *Type 29 - For working on contoured and edge work. Flaps are angled at 8 degrees for greater surface contact and aggressive use.*
- *High Density (XL) - Approximately 35-55% more material than regular Z3 flap discs.*

8

8 82503 12258 4

4-1/2" x 7/8"
40 GRIT
P/N 33985

8 82503 12259 1

4-1/2" x 7/8"
60 GRIT
P/N 33986

EXPANSION

8 82503 12260 7

4-1/2" x 7/8"
80 GRIT
P/N 33987

8 82503 12261 4

4-1/2" x 7/8"
120 GRIT
P/N 33988

EXPANSION

A27-76

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

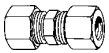
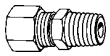
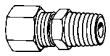
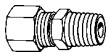
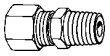
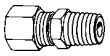
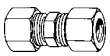
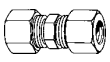
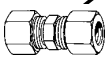
CIC 200™ BRASS COMPRESSION TUBE FITTINGS ASSORTMENT

P/N 7745

FEATURES:

- *Medium pressure air, oil, water and natural gas applications*
- *Manufactured from high density brass alloy*
- *No flaring or soldering required*
- *Easy to assemble*
- *Available with long or short nut in wide range of styles and sizes*

651

 MALE ELBOW 1/8 O.D. TUBE 1/8 PIPE **P/N 53148**	 MALE ELBOW 3/16 O.D. TUBE 1/8 PIPE **P/N 53149**	 MALE ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 53151**	 MALE ELBOW 5/16 O.D. TUBE 1/8 PIPE **P/N 53154**	 MALE ELBOW 3/8 O.D. TUBE 1/8 PIPE **P/N 53157**	 UNION 5/16 O.D. TUBE **P/N 53045**
 MALE CONNECTOR 1/8 O.D. TUBE 1/8 PIPE **P/N 53117**	 MALE CONNECTOR 3/16 O.D. TUBE 1/8 PIPE **P/N 53118**	 MALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 53120**	 MALE CONNECTOR 5/16 O.D. TUBE 1/8 PIPE **P/N 53123**	 MALE CONNECTOR 3/8 O.D. TUBE 1/8 PIPE **P/N 53126**	 UNION 1/4 O.D. TUBE **P/N 53042**
 NUT 1/8 O.D. TUBE **P/N 53014**	 NUT 3/16 O.D. TUBE **P/N 53015**	 NUT 1/4 O.D. TUBE **P/N 53016**	 NUT 5/16 O.D. TUBE **P/N 53017**	 NUT 3/8 O.D. TUBE **P/N 53018**	 UNION 3/16 O.D. TUBE **P/N 53041**
 SLEEVE 1/8 O.D. TUBE **P/N 53000**	 SLEEVE 3/16 O.D. TUBE **P/N 53001**	 SLEEVE 1/4 O.D. TUBE **P/N 53002**	 SLEEVE 5/16 O.D TUBE **P/N 53003**	 SLEEVE 3/8 O.D. TUBE **P/N 53004**	UNION 1/8 O.D. TUBE **P/N 53040**  UNION 3/8 O.D. TUBE **P/N 53047**

A291-1

TRAY FRONT

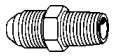
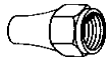
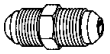
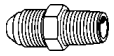
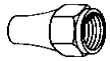
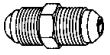
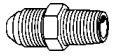
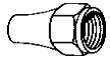
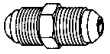
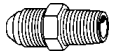
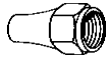
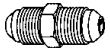
CHROMATE® INDUSTRIAL CORP.

CIC 200™ BRASS SAE 45° FLARE FITTINGS ASSORTMENT

P/N 7746

FEATURES:

- *High pressure fuel, oil, air, water LP and natural gas applications*
- *Manufactured from virgin high density brass alloy*
- *Low cost, reusable*
- *Available with long or short nut and in wide range of styles and sizes*

 FEMALE CONNECTOR 3/8 O.D. TUBE 1/4 PIPE **P/N 54025**	 MALE ELBOW 3/8 O.D. TUBE 1/4 PIPE **P/N 54095**	 MALE CONNECTOR 3/8 O.D. TUBE 1/4 PIPE **P/N 54067**	 LONG NUT 3/8 O.D. TUBE **P/N 53902**	EXPANSION	 UNION 3/8 O.D. TUBE **P/N 53948**
 FEMALE CONNECTOR 5/16 O.D. TUBE 1/8 PIPE **P/N 54022**	 MALE ELBOW 5/16 O.D. TUBE 1/8 PIPE **P/N 54092**	 MALE CONNECTOR 5/16 O.D. TUBE 1/8 PIPE **P/N 54063**	 LONG NUT 5/16 O.D. TUBE **P/N 53901**	EXPANSION	 UNION 5/16 O.D. TUBE **P/N 53947**
 FEMALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 54020**	 MALE ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 54089**	 MALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 54059**	 LONG NUT 1/4 O.D. TUBE **P/N 53900**	EXPANSION	 UNION 1/4 O.D. TUBE **P/N 53946**
 FEMALE CONNECTOR 3/16 O.D. TUBE 1/8 PIPE **P/N 54019**	 MALE ELBOW 3/16 O.D. TUBE 1/8 PIPE **P/N 54088**	 MALE CONNECTOR 3/16 O.D. TUBE 1/8 PIPE **P/N 54057**	 LONG NUT 3/16 O.D. TUBE **P/N 53899**	EXPANSION	 UNION 3/16 O.D. TUBE **P/N 53945**

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ BRASS INVERTED FLARE TUBE FITTINGS ASSORTMENT P/N 7751

FEATURES:

- *High pressure air, oil, water, LP and natural gas applications*
- *Manufactured from virgin high density brass alloy*
- *Seats and threads are recessed and protected*
- *Use with copper, brass, aluminum and brazed steel hydraulic tubing can be flared*
- *Shorter nut allows very close tube bends*
- *Reusable*
- *Temperature range: -65ºF to 250ºF*
- *Excellent vibration resistance*

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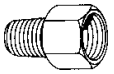
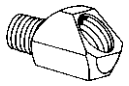
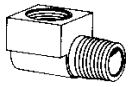
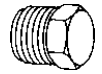
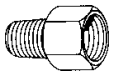
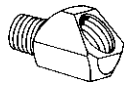
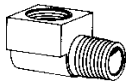
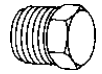
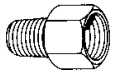
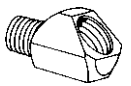
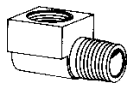
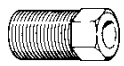
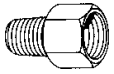
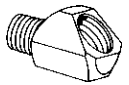
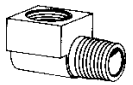
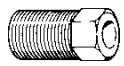
 INVERTED NUT 3/8 OD TUBE **P/N 53636**	 MALE CONNECTOR 3/8 OD TUBE 1/4 PIPE **P/N 53671**	 UNION 3/8 OD TUBE **P/N 53702**	 45º MALE ELBOW 3/8 OD TUBE 1/4 PIPE **P/N 53716**	 90º MALE ELBOW 3/8 OD TUBE 1/4 PIPE **P/N 53733**	 PLUG 1/4 OD TUBE **P/N 53656**
 INVERTED NUT 5/16 OD TUBE **P/N 53635**	 MALE CONNECTOR 5/16 OD TUBE 1/8 PIPE **P/N 53668**	 UNION 5/16 OD TUBE **P/N 53701**	 45º MALE ELBOW 5/16 OD TUBE 1/8 PIPE **P/N 53714**	 90º MALE ELBOW 5/16 OD TUBE 1/8 PIPE **P/N 53729**	 PLUG 3/16 OD TUBE **P/N 53655**
 INVERTED NUT 1/4 OD TUBE **P/N 53634**	 MALE CONNECTOR 1/4 OD TUBE 1/8 PIPE **P/N 53666**	 UNION 1/4 OD TUBE **P/N 53700**	 45º MALE ELBOW 1/4 OD TUBE 1/8 PIPE **P/N 53713**	 90º MALE ELBOW 1/4 OD TUBE 1/8 PIPE **P/N 53727**	 LONG NUT – STEEL 1/4 OD TUBE **P/N 53648**
 INVERTED NUT 3/16 OD TUBE **P/N 53633**	 MALE CONNECTOR 3/16 OD TUBE 1/8 PIPE **P/N 53665**	 UNION 3/16 OD TUBE **P/N 53699**	 45º MALE ELBOW 3/16 OD TUBE 1/8 PIPE **P/N 53712**	 90º MALE ELBOW 3/16 OD TUBE 1/8 PIPE **P/N 53726**	 LONG NUT – STEEL 3/16 OD TUBE **P/N 53647**

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TRAY FRONT

CIC 200™ GREASE FITTINGS ASSORTMENT

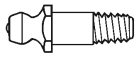
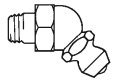
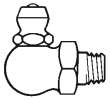
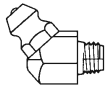
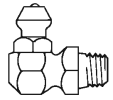
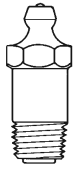
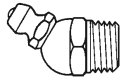
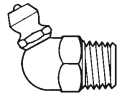
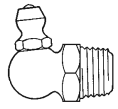
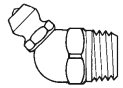
P/N 7750

8 82503 07750 1

FEATURES:

- *Precision made, case hardened and cadium plated*
- *A convenient assortment of the most commonly used grease fittings*

300

8 82503 54701 1 1/4-28 – SHORT LENGTH 17/32 **P/N 54701**	8 82503 54702 8 1/4-28 – MEDIUM LENGTH 45/64 **P/N 54702**	8 82503 54703 5  1/4-28 – LONG LENGTH 15/16 **P/N 54703**	8 82503 54704 2 1/4-28 – X-LONG LENGTH 1-1/16 **P/N 54704**	8 82503 54706 6  1/4-28 – 45° LENGTH 7/8 **P/N 54706**	EXPANSION
8 82503 54708 0  1/4-28 – 90° LENGTH 47/64 **P/N 54708**	8 82503 54705 9 1/4-28 PLUG **P/N 54705**	8 82503 54709 7 1/4-28 SELF-TAPPING LENGTH 17/32 **P/N 54709**	8 82503 54710 3  1/4-28 – 45° SELF TAPPING LENGTH 7/8 **P/N 54710**	8 82503 54711 0  1/4-28 – 90° SELF TAPPING LENGTH 47/64 **P/N 54711**	EXPANSION
8 82503 54689 2 1/8 PIPE – SHORT LENGTH 11/16 **P/N 54689**	8 82503 54690 8  1/8 PIPE – LONG LENGTH 1-1/4 **P/N 54690**	8 82503 54691 5  1/8 PIPE – 38° LENGTH 1-1/16 **P/N 54691**	8 82503 54692 2  1/8 PIPE – 67° LENGTH 27/32 **P/N 54692**	8 82503 54693 9  1/8 PIPE – 90° LENGTH 13/16 **P/N 54693**	EXPANSION
8 82503 54717 2 3/16 DRIVE-IN LENGTH 37/64 **P/N 54717**	8 82503 54720 2 3/16 DRIVE-IN – 65° LENGTH 49/64 **P/N 54720**	8 82503 54718 9 1/4 DRIVE-IN LENGTH 39/64 **P/N 54718**	8 82503 54719 6 5/16 DRIVE-IN LENGTH 9/16 **P/N 54719**	8 82503 54694 6  1/8 PIPE – 45° LENGTH 1” **P/N 54694**	EXPANSION

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TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

050113

CHROMATE®
INDUSTRIAL CORP.

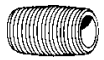
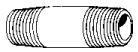
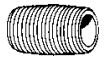
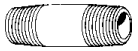
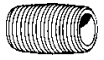
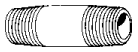
CIC 200™ BRASS PIPE FITTINGS ASSORTMENT

P/N 7752

FEATURES:

- *High pressure water, air, oil, LP and natural gas applications*
- *Manufactured from virgin high density brass alloy*
- *Positive mechanical seal*
- *Large range of styles and sizes*

208

 COUPLING 1/8 PIPE **P/N 54273**	 HEX HEAD PLUG 1/8 PIPE **P/N 54422**	 CLOSE NIPPLE 1/8 PIPE **P/N 54335**	 LONG NIPPLE 1/8 PIPE x 2” **P/N 54349**	 BUSHING 1/4-1/8 PIPE **P/N 54311**	EXPANSION
 COUPLING 1/4 PIPE **P/N 54274**	 HEX HEAD PLUG 1/4 PIPE **P/N 54423**	 CLOSE NIPPLE 1/4 PIPE **P/N 54336**	 LONG NIPPLE 1/4 PIPE x 2” **P/N 54350**	 BUSHING 3/8-1/8 PIPE **P/N 54312**	EXPANSION
 COUPLING 3/8 PIPE **P/N 54275**	 HEX HEAD PLUG 3/8 PIPE **P/N 54424**	 CLOSE NIPPLE 3/8 PIPE **P/N 54337**	 LONG NIPPLE 3/8 PIPE x 2” **P/N 54351**	 BUSHING 3/8-1/4 PIPE **P/N 54313**	 DRAIN COCK 1/4 PIPE **P/N 54752**
 HEX NIPPLE 1/8 PIPE **P/N 54432**	 HEX NIPPLE 1/4 PIPE **P/N 54433**	 BUSHING 1/2-3/8 PIPE **P/N 54316**	 BUSHING 1/2-1/4 PIPE **P/N 54315**	 BUSHING 1/2-1/8 PIPE **P/N 54314**	 DRAIN COCK 1/8 PIPE **P/N 54751**

A29-5

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

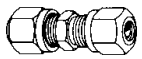
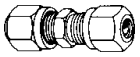
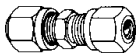
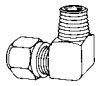
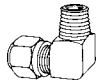
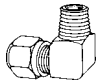
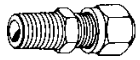
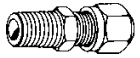
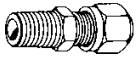
CIC 200™ NTA BRAKE FITTING ASSORTMENT (BRASS)

P/N 7753

FEATURES:

- *Meets all air brake specifications – fully D.O.T. approved*
- *Utilizes ribbed sleeve for compression and positive grip*
- *Body (less insert) interchangeable with standard air brake compression bodies*

238

 UNION 1/4 O.D. TUBE **P/N 55418**	 UNION 3/8 O.D. TUBE **P/N 55419**	 UNION 1/2 O.D. TUBE **P/N 55420**	 MALE ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 55482**	 MALE ELBOW 3/8 O.D. TUBE 1/8 PIPE **P/N 55485**	 MALE ELBOW 1/2 O.D. TUBE 1/4 TUBE **P/N 55490**
 TUBE INSERT 1/4 O.D. TUBE **P/N 55425**	 TUBE INSERT 3/8 O.D. TUBE **P/N 55426**	 TUBE INSERT 1/2 O.D. TUBE **P/N 55427**	 TUBE INSERT 5/8 O.D. TUBE **P/N 55428**	 MALE CONNECTOR 1/2 O.D. TUBE 1/4 PIPE **P/N 55470**	EXPANSION
 SLEEVE 1/4 O.D. TUBE **P/N 55402**	 SLEEVE 3/8 O.D. TUBE **P/N 55403**	 SLEEVE 1/2 O.D. TUBE **P/N 55404**	 SLEEVE 5/8 O.D. TUBE **P/N 55405**	 MALE CONNECTOR 3/8 O.D. TUBE 1/8 PIPE **P/N 55466**	EXPANSION
 NUT 1/4 O.D. TUBE **P/N 55410**	 NUT 3/8 O.D. TUBE **P/N 55411**	 NUT 1/2 O.D. TUBE **P/N 55412**	 NUT 5/8 O.D. TUBE **P/N 55413**	 MALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 55463**	EXPANSION

A29-6

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

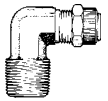
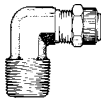
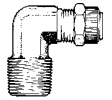
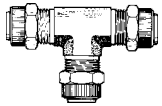
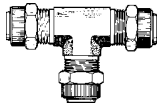
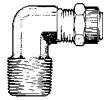
CIC 200™ POLY-TITE® BRASS FITTINGS ASSORTMENT

P/N 7754

FEATURES:

- *For instrument, pneumatic, lubricant, fuel and coolant lines*
- *A preassembled, compact brass compression fitting designed for speed aand ease of use*
- *Use with polyethylene, polypropylene, vinyl, nylon, copper and aluminum tubing*

434

 SLEEVE 1/2 O.D. TUBE **P/N 55651**	 NUT 1/2 O.D. TUBE **P/N 55657**		 MALE CONNECTOR 1/4 O.D. TUBE 1/4 PIPE **P/N 55621**	 MALE ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 55632**	 MALE ELBOW 3/8 O.D. TUBE 3/8 PIPE **P/N 55638**
 SLEEVE 3/8 O.D. TUBE **P/N 55650**	 NUT 3/8 O.D. TUBE **P/N 55656**	 UNION 3/8 O.D. TUBE **P/N 55603**	 MALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 55620**	 MALE CONNECTOR 3/8 O.D. TUBE 3/8 PIPE **P/N 55627**	 MALE ELBOW 3/8 O.D. TUBE 1/4 PIPE **P/N 55637**
 SLEEVE 5/16 O.D. TUBE **P/N 55649**	 NUT 5/16 O.D. TUBE **P/N 55655**	 UNION 5/16 O.D. TUBE **P/N 55602**	 UNION TEE 3/8 O.D. TUBE **P/N 55609**	 MALE CONNECTOR 3/8 O.D. TUBE 1/4 PIPE **P/N 55626**	
 SLEEVE 1/4 O.D. TUBE **P/N 55648**	 NUT 1/4 O.D. TUBE **P/N 55654**	 UNION 1/4 O.D. TUBE **P/N 55601**	 UNION TEE 1/4 O.D. TUBE **P/N 55607**		 MALE ELBOW 1/4 O.D. TUBE 1/4 PIPE **P/N 55633**

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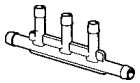
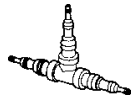
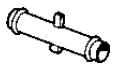
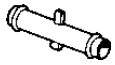
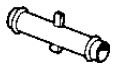
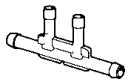
CHROMATE® INDUSTRIAL CORP.

CIC 200™ VACUUM AND LOW PRESSURE LINE FITTINGS ASSORTMENT

P/N 7731

FEATURES:

- *Chemical resistant, high impact nylon connectors*
- *For all applications involving emission controls, shifting devices, windsheild washers, etc. on trucks, cars, forklifts and equipment*

 1/8 (ALL ENDS) STRAIGHT CONNECTOR **P/N 52502**	 1/8 (ALL ENDS) "T" CONNECTOR **P/N 52510**	 3/16 (ALL ENDS) "Y" CONNECTOR **P/N 52520**	 3/16 (ALL ENDS) FIVE WAY "T" CONNECTOR **P/N 52528**	EXPANSION	 5/32 - 1/4 - 3/8 UNIVERSAL"T" CONNECTOR **P/N 52548**
 3/16 (ALL ENDS) STRAIGHT CONNECTOR **P/N 52504**	 3/16 (ALL ENDS) "T" CONNECTOR **P/N 52512**	 1/4 (ALL ENDS) "Y" CONNECTOR **P/N 52522**	 3/16 (ALL ENDS) "X" CONNECTOR **P/N 52530**	EXPANSION	EXPANSION
 1/4 (ALL ENDS) STRAIGHT CONNECTOR **P/N 52506**	 1/4 (ALL ENDS) "T" CONNECTOR **P/N 52514**	 5/16 (ALL ENDS) "Y" CONNECTOR **P/N 52524**	 3/16 RUBBER VACUUM LINE CAP **P/N 52532**	EXPANSION	 5/32 - 1/4 - 3/8 UNIVERSAL STRAIGHT CONNECTOR **P/N 52550**
 5/16 (ALL ENDS) STRAIGHT CONNECTOR **P/N 52508**	 5/16 (ALL ENDS) "T" CONNECTOR **P/N 52516**	 3/16 (ALL ENDS) FOUR WAY "T" CONNECTOR **P/N 52526**	 1/4 RUBBER VACUUM LINE CAP **P/N 52534**	EXPANSION	EXPANSION

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INSTANT FITTINGS (DOT) ASSORTMENT

P/N 7770

8 82503 07770 9

FEATURES:

- *The fastest connections for air, fuel, water and oil lines*
- *Automatic locking and sealing to maximum working pressure*
- *Unrestricted ID allows maximum flow*
- *One piece fitting means reduced assembly time and fewer parts in inventory*
- *Fully reusable since there are no ferrules or inserts*
- *Broad selection of styles and sizes*

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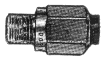
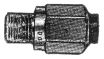
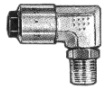
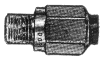
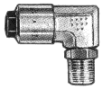
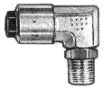
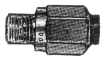
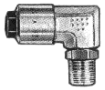
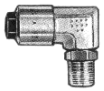
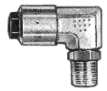
 8 82503 05572 1 MALE CONNECTOR 1/4 O.D. TUBE 1/8 PIPE **P/N 44739**	 8 82503 05581 3 MALE CONNECTOR 3/8 O.D. TUBE 3/8 PIPE **P/N 44746**	8 82503 05588 2 MALE ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 44752**	 8 82503 05670 4 360° SWIVEL ELBOW 1/4 O.D. TUBE 1/4 PIPE **P/N 44764**	8 82503 05771 8 UNION 1/4 O.D. TUBE **P/N 44779**	8 82503 04737 5 MALE BRANCH TEE 1/2 O.D. TUBE X 1/4 NPT **P/N 44571**
8 82503 05573 8 MALE CONNECTOR 1/4 O.D. TUBE 1/4 PIPE **P/N 44740**	 8 82503 05582 0 MALE CONNECTOR 3/8 O.D. TUBE 1/2 PIPE **P/N 44747**	8 82503 05589 9 MALE ELBOW 1/4 O.D. TUBE 1/4 PIPE **P/N 44753**	 8 82503 05687 2 360° SWIVEL ELBOW 3/8 O.D. TUBE 1/4 PIPE **P/N 44767**	8 82503 05778 7 UNION 3/8 O.D. TUBE **P/N 44780**	8 82503 04708 5 MALE ELBOW 1/2 O.D. TUBE 1/4 PIPE **P/N 44548**
8 82503 05574 5 MALE CONNECTOR 1/4 O.D. TUBE 3/8 PIPE **P/N 44741**	8 82503 05584 4 MALE CONNECTOR 1/2 O.D. TUBE 3/8 PIPE **P/N 44749**	8 82503 05592 9 MALE ELBOW 3/8 O.D. TUBE 1/4 PIPE **P/N 44755**	 8 82503 05688 9 360° SWIVEL ELBOW 3/8 O.D. TUBE 3/8 PIPE **P/N 44768**	8 82503 05783 1 UNION 1/2 O.D. TUBE **P/N 44781**	EXPANSION
8 82503 05579 0 MALE CONNECTOR 3/8 O.D. TUBE 1/4 PIPE **P/N 44745**	 8 82503 05586 8 MALE CONNECTOR 1/2 O.D. TUBE 1/2 PIPE **P/N 44750**	 8 82503 05669 8 360° SWIVEL ELBOW 1/4 O.D. TUBE 1/8 PIPE **P/N 44763**	 8 82503 05689 6 360° SWIVEL ELBOW 1/2 O.D. TUBE 3/8 PIPE **P/N 44769**	8 82503 04733 7 MALE BRANCH TEE 3/8 O.D. TUBE X 1/4 NPT **P/N 44568**	 8 82503 05671 1 360° SWIVEL ELBOW 1/4 O.D. TUBE 3/8 NPT **P/N 44765**

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ 1/8 – 1/4 INSTANT FITTINGS PRO ASSORTMENT I

P/N 7701

FEATURES:

- *Pressure rating: from 27" Hg to 250 PSI*
- *Temperature range: -40°F to 200°F*
- *Use with polyethylene, nylon and polyurethane tubing*
- *The fastest connections for air, water and oil lines*
- *Instant pneumatic, hydraulic, instrumentation and lubrication connections*
- *Automatic locking and sealing to maximum working pressure*
- *Release collar for instant removal of tubing and line checks*

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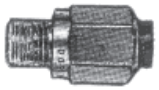
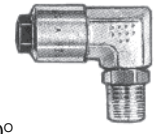
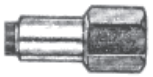
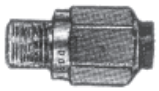
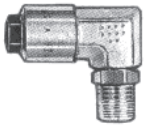
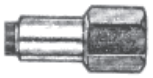
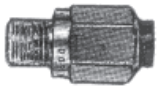
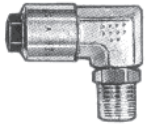
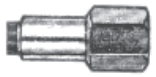
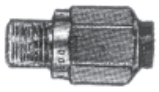
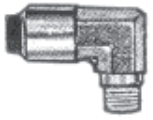
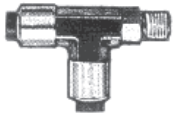
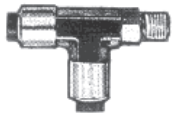
 MALE CONNECTOR 1/8-1/16 **P/N 55300**	EXPANSION	 360° MALE SWIVEL ELBOW 1/8-1/8 **P/N 55310**	 MALE SWIVEL BRANCH TEE 1/8-1/8 **P/N 55320**	 FEMALE CONNECTOR 1/8-1/8 **P/N 55335**	 UNION TEE 1/8 **P/N 55330**
 MALE CONNECTOR 1/8-1/8 **P/N 55301**	 MALE ELBOW 1/8-1/8 **P/N 55306**	 360° MALE SWIVEL ELBOW 1/4-1/8 **P/N 44322**	 MALE SWIVEL BRANCH TEE 1/4-1/4 **P/N 44402**	 FEMALE CONNECTOR 1/8-1/8 **P/N 44360**	 UNION TEE 1/4 **P/N 44354**
 MALE CONNECTOR 1/4-1/8 **P/N 44300**	 MALE ELBOW 1/4-1/8 **P/N 44316**	 360° MALE SWIVEL ELBOW 1/4-1/4 **P/N 44324**	EXPANSION	 FEMALE CONNECTOR 1/4-1/4 **P/N 44362**	 UNION 1/8 **P/N 55325**
 MALE CONNECTOR 1/4-1/4 **P/N 44302**	 MALE ELBOW 1/4-1/4 **P/N 44318**	 MALE SWIVEL RUN TEE 1/8-1/8 **P/N 55315**	 MALE SWIVEL RUN TEE 1/4-1/4 **P/N 44432**	 UNION ELBOW 1/4 **P/N 44440**	 UNION 1/4 **P/N 44779**

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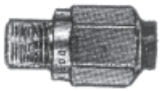
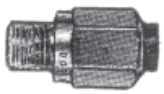
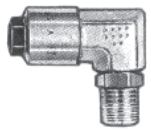
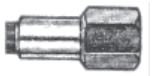
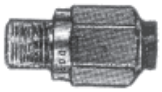
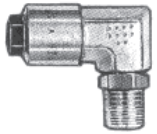
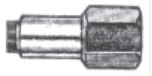
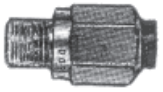
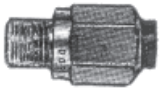
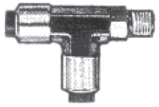
CHROMATE® INDUSTRIAL CORP.

CIC 200™ 3/8 – 1/2 INSTANT FITTINGS PRO ASSORTMENT II

P/N 7711

FEATURES:

- *The fastest connections for air, fuel, water and oil lines*
- *Instant pneumatic, hydraulic, instrumentation and lubrication connections*
- *Automatic locking and sealing to maximum working pressure*
- *Release collar for instant removal of tubing and line checks*
- *Pressure rating: from 27" Hg to 250 PSI*
- *Temperature range: -40°F to 200°F*
- *Use with polyethylene, nylon and poyurethane tubing*

 MALE CONNECTOR 3/8-1/4 **P/N 44306**	 MALE CONNECTOR 1/2-1/2 **P/N 44314**	 360° MALE SWIVEL ELBOW 3/8-1/4 **P/N 44326**	 MALE SWIVEL BRANCH TEE 3/8-1/4 **P/N 44404**	 FEMALE CONNECTOR 3/8-1/4 **P/N 44364**	 UNION TEE 3/8 **P/N 44356**
 MALE CONNECTOR 3/8-3/8 **P/N 44308**	 MALE ELBOW 3/8-1/4 **P/N 44320**	 360° MALE SWIVEL ELBOW 1/2-3/8 **P/N 44340**	 MALE SWIVEL BRANCH TEE 1/2-3/8 **P/N 44406**	 FEMALE CONNECTOR 3/8-3/8 **P/N 44366**	 UNION TEE 1/2 **P/N 44358**
 MALE CONNECTOR 3/8-1/2 **P/N 44310**	 MALE ELBOW 3/8-3/8 **P/N 44317**	EXPANSION	 MALE SWIVEL RUN TEE 3/8-1/4 **P/N 44434**	 UNION ELBOW 3/8 **P/N 44442**	 UNION 3/8 **P/N 44780**
 MALE CONNECTOR 1/2-3/8 **P/N 44312**	 MALE ELBOW 1/2-3/8 **P/N 44758**	EXPANSION	 MALE SWIVEL RUN TEE 1/2-3/8 **P/N 44436**	 UNION ELBOW 1/2 **P/N 44444**	 UNION 1/2 **P/N 44350**

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CHROMATE®
INDUSTRIAL CORP.

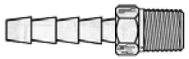
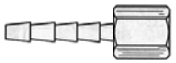
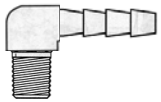
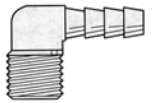
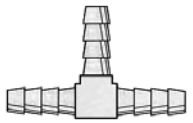
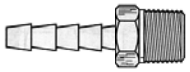
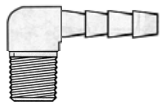
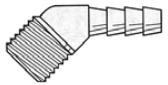
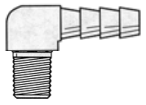
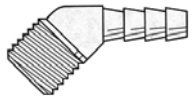
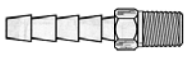
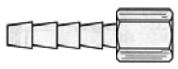
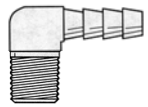
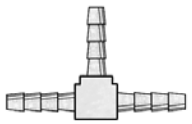
HOSE BARB FITTINGS ASSORTMENT

P/N 17778

FEATURES:

- *Made to dryseal standards and machined from CA360, CA345 or CA377 Brass Rod*
- *Temperature ranges from -40°F to 160°F*
- *Working pressure: 150 PSI maximum*

75

1/4 X 1/8 MALE **P/N 53303**	 3/8 X 1/4 MALE **P/N 53311**	 1/4 X 3/8 FEMALE **P/N 53355**	 1/4 X 1/8 MALE 90° ELBOW **P/N 53375**	 3/8 X 3/8 MALE 90° ELBOW **P/N 53381**	 3/8 Tee **P/N 53418**
1/4 X 1/4 MALE **P/N 53304**	 3/8 X 3/8 MALE **P/N 53312**	3/8 X 1/8 FEMALE **P/N 53359**	 1/4 X 1/4 MALE 90° ELBOW **P/N 53376**	 1/4 X 1/8 MALE 45° ELBOW **P/N 53410**	1/4 ID BRASS HOSE MENDER **P/N 52240**
1/4 X 3/8 MALE **P/N 53305**	1/4 X 1/8 FEMALE **P/N 53353**	3/8 X 1/4 FEMALE **P/N 53360**	 3/8 X 1/8 MALE 90° ELBOW **P/N 53379**	 3/8 X 1/4 MALE 45° ELBOW **P/N 53414**	5/16 I.D. BRASS HOSE MENDER **P/N 52242**
 3/8 X 1/8 MALE **P/N 53310**	1/4 X 1/4 FEMALE **P/N 53354**	 3/8 X 3/8 FEMALE **P/N 53361**	 3/8 X 1/4 MALE 90° ELBOW **P/N 53380**	 1/4 TEE **P/N 53416**	3/8 I.D. BRASS HOSE MENDER **P/N 52244**

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GARDEN HOSE FITTINGS ASSORTMENT

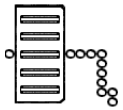
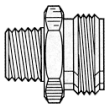
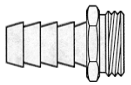
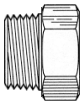
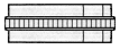
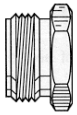
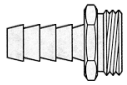
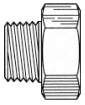
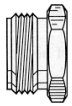
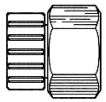
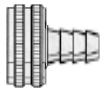
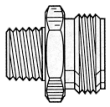
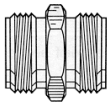
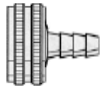
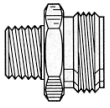
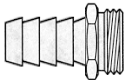
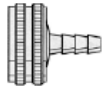
P/N 17779

8 82503 17779 9

FEATURES

- *Manufactured from CA360 or CA345 brass*
- *Working pressure: 75 PSI (or recommended working pressure of garden hose used - not to exceed 150 PSI)*
- *Temperature Range: -35°F to 100°F*
- *Hose barb ends are intended for use with hose clamps*
- *All female connector ends should have a garden hose washer inserted prior to usage*
- *All garden hose ends are standard 3/4 garden hose thread*

53

8 82503 53280 2 GARDEN HOSE CAP WITH CHAIN **P/N 53280** 	8 82503 53285 7 MALE GARDEN HOSE X 3/8 MALE PIPE **P/N 53285** 	8 82503 53290 1 MALE GARDEN HOSE X 5/8 HOSE BARB **P/N 53290** 	8 82503 53295 6 FEMALE GARDEN HOSE X 3/4 MALE PIPE **P/N 53295** 
8 82503 53281 9 GARDEN HOSE CAP **P/N 53281** 	8 82503 53286 4 MALE GARDEN HOSE X 3/4 FEMALE PIPE **P/N 53286** 	8 82503 53291 8 MALE GARDEN HOSE X 1/2 HOSE BARB **P/N 53291** 	8 82503 53296 3 FEMALE GARDEN HOSE X 1/2 MALE PIPE **P/N 53296** 
8 82503 53282 6 GARDEN HOSE PLASTIC WASHER **P/N 53282**	8 82503 53287 1 MALE GARDEN HOSE X 1/2 FEMALE PIPE **P/N 53287** 	8 82503 53292 5 FEMALE SWIVEL GARDEN HOSE X 3/4 FEMALE PIPE **P/N 53292** 	8 82503 53297 0 FEMALE SWIVEL GARDEN HOSE X 3/4 HOSE BARB **P/N 53297** 
8 82503 53283 3 MALE GARDEN HOSE X 3/4 MALE PIPE **P/N 53283** 	8 82503 53288 8 MALE GARDEN HOSE UNION **P/N 53288** 	8 82503 53293 2 FEMALE SWIVEL GARDEN HOSE X 1/2 FEMALE PIPE **P/N 53293**	8 82503 53298 7 FEMALE SWIVEL GARDEN HOSE X 5/8 HOSE BARB **P/N 53298** 
8 82503 53284 0 MALE GARDEN HOSE X 1/2 MALE PIPE **P/N 53284** 	8 82503 53289 5 MALE GARDEN HOSE X 3/4 HOSE BARB **P/N 53289** 	8 82503 53294 9 FEMALE SWIVEL GARDEN HOSE UNION **P/N 53294**	8 82503 53299 4 FEMALE SWIVEL GARDEN HOSE X 1/2 HOSE BARB **P/N 53299** 

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CHROMATE® INDUSTRIAL CORP.

BRASS PIPE FITTING ASSORTMENT

P/N 17844

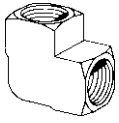
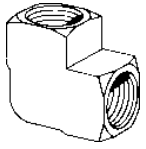
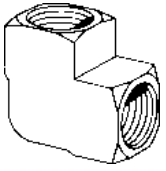
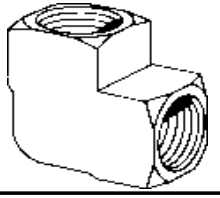
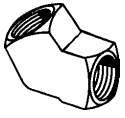
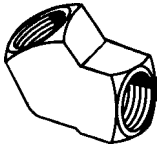
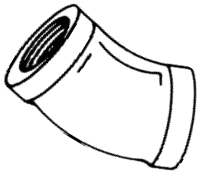
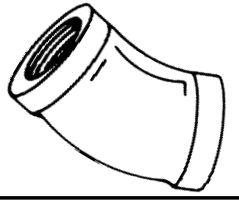
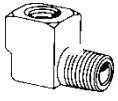
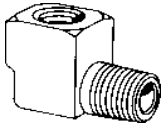
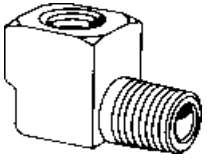
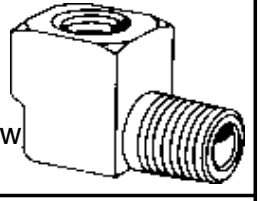
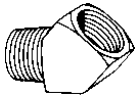
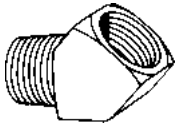
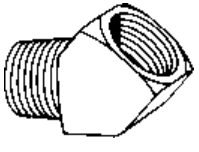
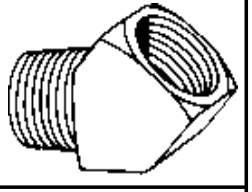
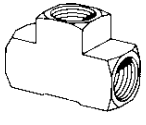
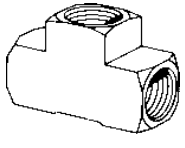
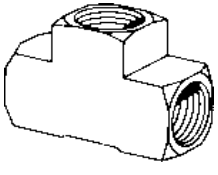
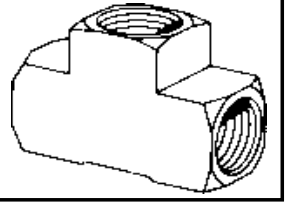
FEATURES:

- *High pressure water, air, oil, lp and natural gas applications*
- *Manufactured from virgin high density brass alloy*
- *Positive mechanical seal*
- *Large ranges of styles and sizes*

SPECIFICATIONS:

Pressure: *1,200 psi operating. Proof pressure up to 15,000 psi for 1/8" and 1/4" pipe; 5,000 psi on larger sizes*
Temperature: *-65°F to +250°F at 1,000 psi*
Vibration: *Good resistance*
Use with: *Brass, copper or iron pipe*
Conformance: *Meets specifications of SAE automotive pipe fitting standards*
Assembly Instructions: *Tighten a minimum of 2-1/2 full turns past hand tight*

09

1/8 Elbow **P/N 54244** 	1/4 Elbow **P/N 54245** 	3/8 Elbow **P/N 54246** 	1/2 Elbow **P/N 54247** 
1/8 45° Elbow **P/N 54240** 	1/4 45° Elbow **P/N 54241** 	3/8 45° Elbow **P/N 54242** 	1/2 45° Elbow **P/N 54243** 
1/8 Street Elbow **P/N 54375** 	1/4 Street Elbow **P/N 54376** 	3/8 Street Elbow **P/N 54378** 	1/2 Street Elbow **P/N 54379** 
1/8 45° Street Elbow **P/N 54453** 	1/4 45° Street Elbow **P/N 54454** 	3/8 45° Street Elbow **P/N 54455** 	1/2 45° Street Elbow **P/N 54456** 
1/8 Tee **P/N 54254** 	1/4 Tee **P/N 54255** 	3/8 Tee **P/N 54256** 	1/2 Tee **P/N 54257** 

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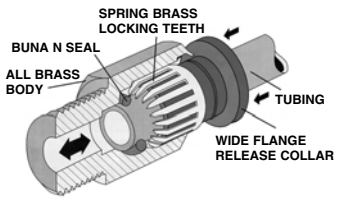

METRIC INSTANT FITTINGS ASSORTMENT (4mm to 8mm)

P/N 17856

FEATURES:

- *Easy one piece connection requires no tools or components to connect – saves time and money*
- *Automatically locks and seals to the max. working pressure*
- *Male pipe threads are precoated with liquid sealant for faster assembly*
- *Unrestricted tube I.D. allows for maximum airflow*

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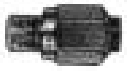 Male Connector 4mm x 1/8 **P/N 56001**	Male Connector 4mm x 1/4 **P/N 56002**	Male Connector 6mm x 1/8 **P/N 56004**	Male Connector 6mm x 1/4 **P/N 56005**	Male Connector 8mm x 1/4 **P/N 56007**	Male Connector 8mm x 3/8 **P/N 56008**
Swivel Elbow 4mm x 1/8 **P/N 56015**	Swivel Elbow 4mm x 1/4 **P/N 56016**	Swivel Elbow 6mm x 1/8 **P/N 56017**	Swivel Elbow 6mm x 1/4 **P/N 56018**	Swivel Elbow 8mm x 1/4 **P/N 56020**	Swivel Elbow 8mm x 3/8 **P/N 56021**
4mm Union **P/N 56042**	6mm Union **P/N 56043**	8mm Union **P/N 56044**	4mm Union Tee **P/N 56052**	6mm Union Tee **P/N 56053**	8mm Union Tee **P/N 56054**
Female Connector 4mm x 1/8 **P/N 56057**	Female Connector 6mm x 1/8 **P/N 56059**	Female Connector 8mm x 1/4 **P/N 56062**	Swivel Branch Tee 4mm x 1/8 **P/N 56065**	Swivel Branch Tee 6mm x 1/4 **P/N 56067**	Swivel Branch Tee 8mm x 1/4 **P/N 56069**

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TRAY FRONT

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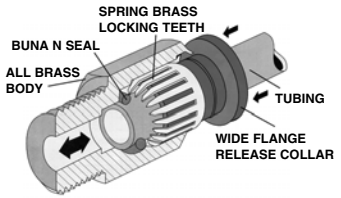
INDUSTRIAL CORP.



METRIC INSTANT FITTINGS ASSORTMENT (10mm to 12mm)

P/N 17857

FEATURES:

- *Easy one piece connection requires no tools or components to connect – saves time and money*
- *Automatically locks and seals to the max. working pressure*
- *Male pipe threads are precoated with liquid sealant for faster assembly*
- *Unrestricted tube I.D. allows for maximum airflow*

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Male Connector 10mm x 1/4 **P/N 56009**	Male Connector 10mm x 3/8 **P/N 56010**	Male Connector 12mm x 3/8 **P/N 56013**	Male Connector 12mm x 1/2 **P/N 56014**	Swivel Elbow 10mm x 1/4 **P/N 56022**	Swivel Elbow 10mm x 3/8 **P/N 56023**
Swivel Elbow 12mm x 3/8 **P/N 56025**	Swivel Elbow 12mm x 1/2 **P/N 56026**	Male Swivel Run Tee 10mm x 1/4 **P/N 56032**	Male Swivel Run Tee 10mm x 3/8 **P/N 56033**	Male Swivel Run Tee 12mm x 3/8 **P/N 56034**	Male Swivel Run Tee 12mm x 1/2 **P/N 56035**
10mm Union **P/N 56045**	12mm Union **P/N 56046**	10mm Union Elbow **P/N 56050**	12mm Union Elbow **P/N 56051**	10mm Union Tee **P/N 56055**	12mm Union Tee **P/N 56056**
Female Connector 10mm x 3/8 **P/N 56063**	Female Connector 12mm x 3/8 **P/N 56064**	Swivel Branch Tee 10mm x 1/4 **P/N 56070**	Swivel Branch Tee 10mm x 3/8 **P/N 56071**	Swivel Branch Tee 12mm x 3/8 **P/N 56073**	Swivel Branch Tee 12mm x 1/2 **P/N 56074**

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

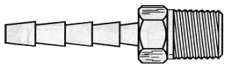
AIR HOSE REPAIR KIT ASSORTMENT

P/N 17862

FEATURES:

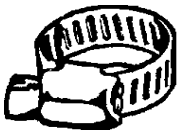
- *All components necessary repair 1/4" and 3/8" air hose*
- *Industrial interchange couplers and plugs can be used with any connectors that meet MIL-C-4109*
- *All stainless steel hose clamps for maximum corrosion resistance*
- *Precision made Blo-Gun easily controls air flow*

1/4 NPT Female
Quick Disconnect
Brass Coupler Body
P/N 52200

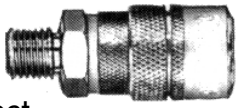


1/4 x 1/8
Male Hose Barb
P/N 53303

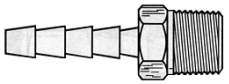
1/4 to 5/8
S/S #4 Mini Clamp
P/N 40507



5/16 to 7/8
S/S #6 Mini Clamp
P/N 40508

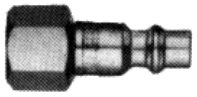


1/4 NPT Male
Quick Disconnect
Brass Coupler Body
P/N 52216

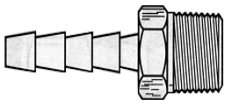


1/4 x 1/4
Male Hose Barb
P/N 53304

1/4 I.D. Brass Hose Mender
P/N 52240



1/4 NPT Female
Quick Disconnect
Brass Coupler Plug
P/N 52218

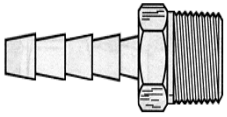


3/8 x 1/4
Male Hose Barb
P/N 53311

3/8 I.D. Brass Hose Mender
P/N 52244

Full Flo Safety Lever Blo-Gun
P/N 52228

1/4 NPT Male
Quick Disconnect
Brass Coupler Plug
P/N 52202



3/8 x 3/8
Male Hose Barb
P/N 53312

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METRIC GREASE FITTING ASSORTMENT

P/N 17866

FEATURES:

- *Precision made, case hardened and cadmium plated*
- *High pressure ball check for superior performance*

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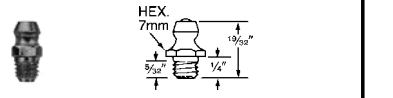
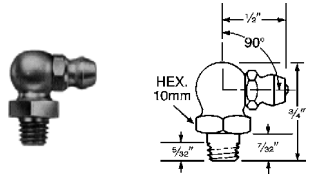
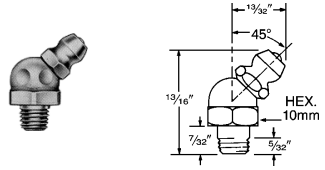


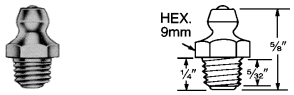
6mm x 1.0
STRAIGHT MALE PIPE THREAD
P/N 54741



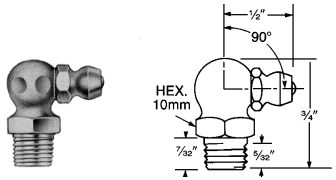
6mm x 1.0
90° MALE PIPE THREAD
P/N 54742



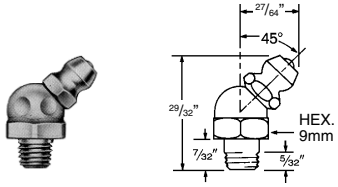
6mm x 1.0
45° MALE PIPE THREAD
P/N 54743



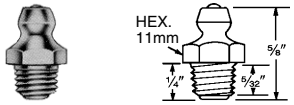
8mm x 1.0
STRAIGHT MALE PIPE THREAD
P/N 54744



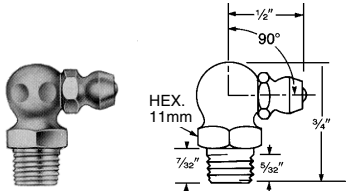
8mm x 1.0
90° MALE PIPE THREAD
P/N 54745



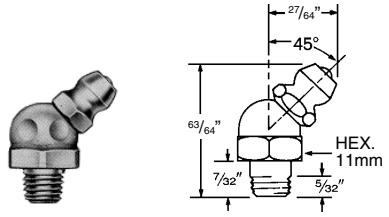
8mm x 1.0
45° MALE PIPE THREAD
P/N 54746



10mm x 1.0
STRAIGHT MALE PIPE THREAD
P/N 54749



10mm x 1.0
90° MALE PIPE THREAD
P/N 54748



10mm x 1.0
45° MALE PIPE THREAD
P/N 54747

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OIL PAN DRAIN PLUG ASSORTMENT

P/N 17947

FEATURES:

- *Made of steel*
- *Oversized used to replace stripped out drain plug*
- *Double oversized used to replace stripped out self-tapping oversized plug*
- *Triple oversized used to replace stripped out oversized plug or self-tapping double oversized plug*
- *Piggyback fits stripped 1/2" threads in oil pan*
- *Piggyback fits AM, GM, Chrysler and Ford products thru 1981 with 1/2" pan plugs*
- *Long Tip style made for easier installation*
- *Universal rubber drain plug used for stripped threads in oil pan*

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 1/2-20 STANDARD OIL PAN DRAIN PLUG **P/N 54190**	 1/2-20 STANDARD OIL PAN DRAIN PLUG W/LONG TIP **P/N 54192**	 1/2-20 OVERSIZED OIL PAN DRAIN PLUG **P/N 54196**	 1/2-20 DOUBLE OVERSIZED OIL PAN DRAIN PLUG **P/N 54197**
 1/2-20 TRIPLE OVERSIZED OIL PAN DRAIN PLUG **P/N 54198**	 1/2-20 OVERSIZED PIGGYBACK OIL PAN DRAIN PLUG **P/N 54200**	 1/2-20 DOUBLE OVERSIZED PIGGYBACK OIL PAN DRAIN PLUG **P/N 54201**	 1/2 FIBER GASKET FOR DRIAN PLUG **P/N 54202**
 1/2 FIBER GASKET FOR OVERSIZED DRAIN PLUG **P/N 54206**	 1/2 FIBER GASKET FOR LONG TIP DRAIN PLUG **P/N 54208**	 1/2 NYLON GASKET FOR DRAIN PLUG **P/N 54209**	 1/2 UNIVERSAL RUBBER DRAIN PLUG **P/N 54212**

A29-20

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

METRIC OIL PAN DRAIN PLUG ASSORTMENT

P/N 17951

FEATURES:

- *Metric steel drain plugs to fit most oil pans*
- *Nylon gaskets for all drain plug sizes*
- *Specialty gasket includes one-piece metal gasket and synthetic rubber equivalent O-ring center*

74

 12mm X 1.25 OIL PAN DRAIN PLUG **P/N 54213**	 12mm X 1.75 OIL PAN DRAIN PLUG **P/N 54226**	 14mm X 1.50 OIL PAN DRAIN PLUG **P/N 54214**	 16mm X 1.50 OIL PAN DRAIN PLUG **P/N 54215**
 18mm X 1.50 OIL PAN DRAIN PLUG **P/N 54216**	 20mm X 1.50 OIL PAN DRAIN PLUG **P/N 54217**	 12mm NYLON GASKET FOR DRAIN PLUG **P/N 54227**	 14mm NYLON GASKET FOR DRAIN PLUG **P/N 54228**
 16mm NYLON GASKET FOR DRAIN PLUG **P/N 54229**	 18mm NYLON GASKET FOR DRAIN PLUG **P/N 54230**	 20mm NYLON GASKET FOR DRAIN PLUG **P/N 54231**	 12mm SPECIALTY GASKET **P/N 54225**

A29-21

TRAY FRONT

ILLUSTRATIONS ACTUAL SIZE
Label No. 168348

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CHROMATE® INDUSTRIAL CORP.

COMPOSITE FITTINGS – FRACTIONAL

P/N 17992

FEATURES:

- *Positive gripping action of gripping ring allows tubing to withstand vibration with or without pressure*
- *Unrestricted ID allows maximum flow*
- *Possible to use smaller tube size where larger tubing with compression or barb fitting has been required*
- *Fully reuseable since there are no ferrules or inserts*
- *Elbow and tee configurations are orientable*
- *One-piece fitting means reduced assembly time and fewer parts in inventory*
- *Tapered male pipe threads have pre-applied thread sealant.*

30

1/8 x 1/8 Male Connector **P/N 55301**	3/8 x 3/8 Male Connector **P/N 44308**	3/8 x 1/4 Male Elbow **P/N 44618**	1/8 Union **P/N 44724**
1/4 x 1/8 Male Connector **P/N 44300**	1/8 x 1/8 Male Elbow **P/N 44604**	3/8 x 3/8 Male Elbow **P/N 44619**	1/4 Union **P/N 44727**
1/4 x 1/4 Male Connector **P/N 44302**	1/4 x 1/8 Male Elbow **P/N 44611**	1/4 Union Tee **P/N 44717**	3/8 Union **P/N 44729**
3/8 x 1/4 Male Connector **P/N 44306**	1/4 x 1/4 Male Elbow **P/N 44612**	3/8 Union Tee **P/N 44719**	

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TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

COMPOSITE FITTINGS – METRIC

P/N 17993

FEATURES:

- *Easy one piece construction*
- *No tools or extra components needed to connect fitting*
- *Reduced assembly time . . . up to 75% savings compared to compression fittings*
- *Automatically locks and seals to maximum working pressure*
- *Wide release collar allows fast and easy removal of tubing for line checks*
- *Male pipe threads are precoated with liquid sealant*
- *Unique positive gripping action of locking teeth allows tubing to withstand vibration with or without pressure*
- *Because there is no nut, fittings can be closely mounted*
- *Unrestricted tube I.D. allows for maximum airflow*
- *Fully reusable and silicon free*

4mm x 1/8 Male Connector **P/N 56001**	8mm x 1/4 Male Connector **P/N 56007**	6mm x 1/4 Male Elbow **P/N 44805**	6mm Union **P/N 44885**
4mm x 1/4 Male Connector **P/N 56002**	8mm x 3/8 Male Connector **P/N 56008**	8mm x 1/8 Male Elbow **P/N 44806**	8mm (5/16) Union **P/N 44728**
6mm x 1/8 Male Connector **P/N 56004**	4mm x 1/8 Male Elbow **P/N 44802**	8mm x 1/4 Male Elbow **P/N 44807**	4mm (5/32) Union Tee **P/N 44715**
6mm x 1/4 Male Connector **P/N 56005**	4mm x 1/4 Male Elbow **P/N 44803**	8mm x 3/8 Male Elbow **P/N 44808**	6mm Union Tee **P/N 44875**
8mm x 1/8 Male Connector **P/N 56006**	6mm x 1/8 Male Elbow **P/N 44804**	4mm (5/32) Union **P/N 44884**	8mm (5/16) Union Tee **P/N 44718**

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CHROMATE® INDUSTRIAL CORP.

PRESS FITTINGS - COPPER/PRESS-FIT ASSORTMENT

P/N 17050

FEATURES:

- *For ½" to 4" diameter potable water systems*
- *Combines all the known advantages of copper with clean, rapid, heat-free joining technology*
- *No glues, fluxes or solder needed*
- *A purpose designed O-ring provides the mechanism by which a perfect seal is created*
- *No consumable materials - reduces material cost and storage*

COUPLING WITH STOP - CXC 1/2" **P/N 51214**	COUPLING WITH STOP - CXC 3/4" **P/N 51215**	COUPLING WITHOUT STOP - CXC 1/2" **P/N 51223**	COUPLING WITHOUT STOP - CXC 3/4" **P/N 51224**
REDUCER COUPLER - CXC 3/4" x 1/2" **P/N 51232**	COUPLER FEMALE ADAPTER - CXF 1/2" x 1/2" **P/N 51257**	COUPLER FEMALE ADAPTER - CXF 3/4" x 3/4" **P/N 51258**	COUPLER MALE ADAPTER - CXM 1/2" x 1/2" **P/N 51282**
COUPLER MALE ADAPTER - CXM 3/4" x 3/4" **P/N 51283**	45° ELBOW - CXC 1/2" **P/N 51308**	45° ELBOW - CXC 3/4" **P/N 51309**	90° ELBOW - CXC 1/2" **P/N 51326**
90° ELBOW - CXC 3/4" **P/N 51327**	TEE - CXCXC 1/2" x 1/2" x 1/2" **P/N 51350**	TEE - CXCXC 3/4" x 3/4" x 3/4" **P/N 51351**	EXPANSION
TEE - CXCXC 3/4" x 3/4" x 1/2" **P/N 51362**	TUBE CAP - C 1/2" **P/N 51489**	TUBE CAP - C 3/4" **P/N 51490**	EXPANSION

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CHROMATE® INDUSTRIAL CORP.

PUSH FITTINGS - COPPER/PUSH-IN ASSORTMENT

P/N 17051

FEATURES:

- *Provide plumbing system design flexibility by allowing you to join Copper and CPVC lines with just one fitting*
- *The fittings simply push together in seconds to create a perfect joint.*
- *No torches and no solder are required*

36

COUPLING WITH STOP - CXC 1/2" **P/N 51170**	COUPLING WITH STOP - CXC 3/4" **P/N 51171**	COUPLING - CXC 3/4" x 1/2" **P/N 51173**	FEMALE ADAPTER - CXF 1/2" **P/N 51176**
FEMALE ADAPTER - CXF 3/4" **P/N 51177**	MALE ADAPTER - CXM 1/2" **P/N 51179**	MALE ADAPTER - CXM 3/4" **P/N 51180**	45° ELBOW - CXC 1/2" **P/N 51182**
45° ELBOW - CXC 3/4" **P/N 51183**	90° ELBOW - CXC 1/2" **P/N 51188**	90° ELBOW - CXC 3/4" **P/N 51189**	90° STREET ELBOW - FTGXC 1/2" **P/N 51191**
90° STREET ELBOW - FTGXC 3/4" **P/N 51192**	TEE - CXCXC 1/2" x 1/2" x 1/2" **P/N 51201**	TEE - CXCXC 3/4" x 3/4" x 3/4" **P/N 51202**	EXPANSION
TEE - CXCXC 3/4" x 3/4" x 1/2" **P/N 51203**	TUBE CAP - C 1/2" **P/N 51207**	TUBE CAP - C 3/4" **P/N 51208**	EXPANSION

A29-25

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

REMOVABLE FITTINGS - COPPER/PUSH-IN ASSORTMENT

P/N 17052

FEATURES:

- *For ½" to 1" diameter potable water systems*
- *Heat free method for joining Copper and CPVC tube*
- *The fittings simply push together in seconds to create a perfect joint, they are designed to save time and money on installations*
- *No torches and no solder are required*
- *Requires no extra materials beyond the fitting for Copper and CPVC tube installations*
- *The use of solder, flux, heat or special pressing tools is eliminated*

COUPLING WITH STOP - C X C 1/2" **P/N 51600**	COUPLING WITH STOP - C X C 3/4" **P/N 51601**	REDUCER COUPLING - C X C 3/4" x 1/2" **P/N 51606**	FEMALE ADAPTER - C X F 1/2" **P/N 51608**
FEMALE ADAPTER - C X F 3/4" **P/N 51609**	MALE ADAPTER - C X M 1/2" **P/N 51614**	MALE ADAPTER - C X M 3/4" **P/N 51615**	90° ELBOW - C X C 1/2" **P/N 51627**
90° ELBOW - C X C 3/4" **P/N 51628**	TEE FITTINGS - C X C X C 1/2" **P/N 51635**	TEE FITTINGS - C X C X C 3/4" **P/N 51636**	TEE FITTINGS - C X C X C 3/4" x 3/4" x 1/2" **P/N 51639**
TUBE CAP - C 1/2" **P/N 51654**	TUBE CAP - C 3/4" **P/N 51655**	DEMOUNTING CLIP 1/2" **P/N 51660**	DEMOUNTING CLIP 3/4" **P/N 51661**
SLIP COUPLING 1/2" **P/N 51663**	SLIP COUPLING 3/4" **P/N 51664**	BALL VALVE 1/2" **P/N 51670**	BALL VALVE 3/4" **P/N 51671**

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TAPERED POLY CAPS AND PLUGS, RED

P/N 17689

8 82503 11387 2

FEATURES

- *Use as a cap or a plug*
- *Made from flexible low density polyethylene*
- *Fits snugly, yet removable*
- *Use on MIL Std., SAE type tube, hydraulic fittings, plus threaded external and internal NPT fittings*

405

8 82503 11341 4

T-1 Tapered Poly Plug, Non-thread
Plug Size: 0.302" Cap Size: 0.174"
P/N 39892

8 82503 11349 0

T-5 Tapered Poly Plug, Non-thread
Plug Size: 0.547" Cap Size: 0.409"
P/N 39900

8 82503 11360 5

T-9 Tapered Poly Plug, Non-thread
Plug Size: 0.788" Cap Size: 0.628"
P/N 39911

8 82503 11369 8

T-12X Tapered Poly Plug, Non-thread
Plug Size: 1.040" Cap Size: 0.855"
P/N 39920

8 82503 11342 1

T-2 Tapered Poly Plug, Non-thread
Plug Size: 0.365" Cap Size: 0.235"
P/N 39893

8 82503 11352 0

T-6 Tapered Poly Plug, Non-thread
Plug Size: 0.608" Cap Size: 0.468"
P/N 39903

8 82503 11361 2

T-9X Tapered Poly Plug, Non-thread
Plug Size: 0.823" Cap Size: 0.663"
P/N 39912

8 82503 11371 1

T-13 Tapered Poly Plug, Non-thread
Plug Size: 1.090" Cap Size: 0.901"
P/N 39922

8 82503 11344 5

T-2X Tapered Poly Plug, Non-thread
Plug Size: 0.396" Cap Size: 0.267"
P/N 39895

8 82503 11353 7

T-6X Tapered Poly Plug, Non-thread
Plug Size: 0.631" Cap Size: 0.487"
P/N 39904

8 82503 11345 2

T-3 Tapered Poly Plug, Non-thread
Plug Size: 0.396" Cap Size: 0.267"
P/N 39896

8 82503 11355 1

T-7 Tapered Poly Plug, Non-thread
Plug Size: 0.667" Cap Size: 0.518"
P/N 39906

8 82503 11363 6

T-10 Tapered Poly Plug, Non-thread
Plug Size: 0.848" Cap Size: 0.687"
P/N 39914

8 82503 11377 3

T-15X Tapered Poly Plug, Non-thread
Plug Size: 1.360" Cap Size: 1.173"
P/N 39928

8 82503 11347 6

T-4 Tapered Poly Plug, Non-thread
Plug Size: 0.485" Cap Size: 0.356"
P/N 39898

8 82503 11359 9

T-8X Tapered Poly Plug, Non-thread
Plug Size: 0.755" Cap Size: 0.613"
P/N 39910

8 82503 11364 3

T-11 Tapered Poly Plug, Non-thread
Plug Size: 0.911" Cap Size: 0.740"
P/N 39915

8 82503 11384 1

T-17S Tapered Poly Plug, Non-thread
Plug Size: 1.600" Cap Size: 1.451"
P/N 39935

A29-27

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

RED LION ADHESIVE AND SEALANT ASSORTMENT

P/N 17756

RED LION RESEARCH

FEATURES:

- *Red Lion quality adhesives and sealants provide fast, efficient and permanent repairs for all your industrial repair problems.*

8

E-Z POXY 200
P/N 74502

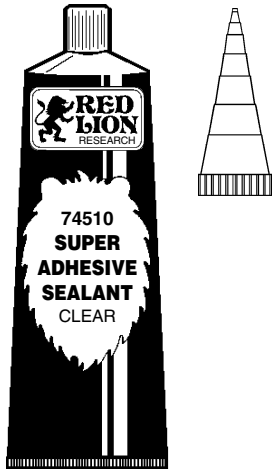
TEFLON PIPE SEALANT
P/N 74511

STUD LOCK AND BEARING MOUNT
P/N 74515

THREADLOCKER
P/N 74513

INSTANT ADHESIVE
P/N 74516

THREAD SEALANT (HYDRAULIC/PNEUMATIC)
P/N 74524



SUPER ADHESIVE SEALANT WITH APPLICATION NOZZLE
P/N 74510

E-Z POXY CUPS
P/N 74514

A30-1

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

E-Z POXY STICKS ASSORTMENT

P/N 17928

FEATURES:

- *Hand-kneadable, specialty epoxy putty that mixes in just one minute to provide fast repairs*
- *No measuring, mess or wasteproofing*
- *Cures fast*
- *E-Z Poxy 200 is authorized by the USDA for use in federally inspected meat and poultry plants*

12

E-Z Poxy 200
P/N 74502

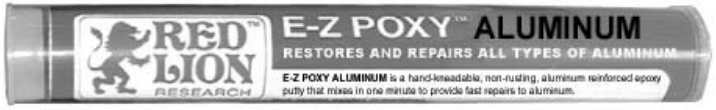
E-Z Poxy Aqua Repair
P/N 74500

E-Z Poxy Wood
P/N 74503

E-Z Poxy Copper
P/N 74501

E-Z Poxy Plastic
P/N 74527

E-Z Poxy Aluminum
P/N 74505



E-Z Poxy Concrete
P/N 74526

A302

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

THREAD TREATMENT ASSORTMENT

P/N 17932

RED LION™ THREAD TREATMENT LIQUIDS:

- *Liquid formula works best on small parts and large volume jobs*
- *Covers all threadlocking applications*
- *Fast cure without cracking or shrinking*
- *Easy application – no mixing required*

LOCTITE® THREAD TREATMENT STICKS:

- *Convenient, fast and easy to apply*
- *No leaks, drips or spills*
- *Keeps toolboxes, workbenches and hands clean*
- *Solid formula – great for overhead use*
- *Functional for a full range of uses*

6

- *Medium strength / blue removable with hand tools*

Threadlocker
P/N 74513

- *High strength / red removable with heat and hand tools*

Stud Lock and Bearing Mount
P/N 74515

- *Fast, easy pipe sealing*

PTFE
Pipe Sealant
P/N 74511

- *Medium strength sealant for hydraulic and pneumatic systems*

Thread Sealant
P/N 74524

- *Medium strength / blue removable with hand tools*

248 Medium Strength Blue Threadlocker
P/N 74561

- *High strength / red removable with heat and hand tools*

268 Medium Strength Red Threadlocker
P/N 74563

- *Fast, easy pipe sealing*

PST 561 White Thread Sealant
P/N 74564

- *Recommended for all soft metals. Also can be used on all plastics and non-metallic gasket materials.*

C5-A Copper Anti-Seize Lubricant
P/N 74565

- *Recommended for stainless steel and aluminum. Can be used on all plastics and non-metallic gasket materials.*

Silver Anti-Seize Lubricant
P/N 74566

A30-3

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CHROMATE® INDUSTRIAL CORP.

LOCTITE® QUICKSTIX™ ASSORTMENT

P/N 17952

LOCTITE® QUICKSTIX:

- *Convenient, fast and easy to apply*
- *No leaks, drips or spills*
- *Keeps toolboxes, workbenches and hands clean*
- *Solid formula – great for overhead use*
- *Functional for a full range of uses*
- *Color-coded caps for easy application identification*

8

• *Medium strength / blue removable with hand tools*	• *High strength / red removable with heat and hand tools*	• *Fast, easy pipe sealing*	• *Recommended for all soft metals. Also can be used on all plastics and non-metallic gasket materials.*
248 Medium Strength Blue Threadlocker **P/N 74561**	268 High Strength Red Threadlocker **P/N 74563**	PST 561 White Thread Sealant **P/N 74564**	C5-A Copper Anti-Seize Lubricant **P/N 74565**
• *Forms a flexible, solvent resistant seal preventing fluid or gas leaks on all types of rigid iron, steel and aluminum flanges*	• *Allows cut gaskets to be positioned and held in place while mating surfaces are aligned for assembly*	• *Bonds non-threaded cylindrical assemblies making press fits stronger*	• *Recommended for stainless steel and aluminum. Can be used on all plastics and non-metallic gasket materials.*
548 Gasket Eliminator 18gm **P/N 74569**	534 Hi-Tack Gasket Dressing 19gm **P/N 74570**	668 Retaining Compound 19gm **P/N 74571**	Silver Anti-Seize Lubricant **P/N 74566**

A30-4

TRAY FRONT

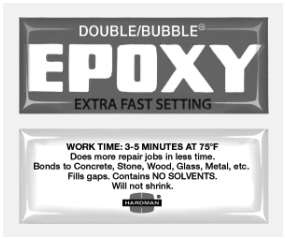
CHROMATE® INDUSTRIAL CORP.

DOUBLE/BUBBLE® EPOXY ASSORTMENT

P/N 17040

40

8 82503 06517 1



Double/Bubble® Epoxy Extra Fast Setting
- Extra fast setting for quick repairs
- For bonding wood, glass, metal, stone, concrete, ceramics & leather

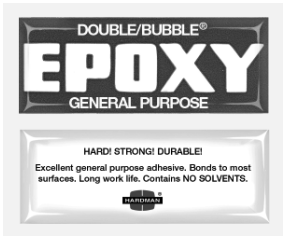
P/N 74499

8 82503 06519 5

Double/Bubble® Machineable Epoxy
- Machineable tooling and/or body-patching adhesive
- Adheres to metal, wood and hard plastics
- Can be machined, sanded, drilled and tapped

P/N 74498

8 82503 06520 1



Double/Bubble® General Purpose Epoxy
- A long work-life adhesive
- For bonding wood, metal, ceramics, concrete, rubber & plastics

P/N 74497

8 82503 06521 8

Double/Bubble® High Peel Strength Epoxy
- A flexible, tough & durable, vibration resistant adhesive
- High peel and shear strengths
- Bonds to polystyrene, ABS nylon, metal, wood, masonry and rubber

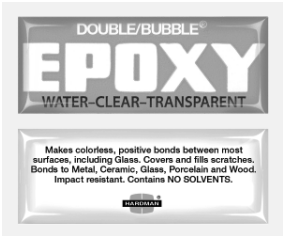
P/N 74496

8 82503 06522 5

Double/Bubble® Wet Surface Patching Epoxy
- A gap-filling adhesive for use in damp or moist environments
- Cures and bonds under water
- Bonds to stone, concrete, metal, glass, china, wood and fiberglass

P/N 74495

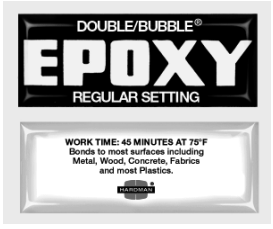
8 82503 06523 2



Double/Bubble® Water Clear Epoxy
- Use as an adhesive or coating
- Bonds to metal, ceramics, glass, porcelain and wood
- Covers and fills scratches
- Impact resistant

P/N 74494

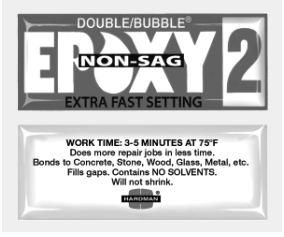
8 82503 06524 9



Double/Bubble® Regular Setting Epoxy
- A low-viscosity adhesive
- Fairly long work-life
- Cures to a light color
- Bonds well to wood, metal, concrete, fabrics and most plastics

P/N 74493

8 82503 06525 6



Double/Bubble® Extra Fast Set (Non-Sag) Epoxy
- Extra fast setting
- Non-sag (thixotropic) adhesive
- For quick repairs
- Bonds to wood, glass, metal, stone, ceramics and leather

P/N 74492

A30-5

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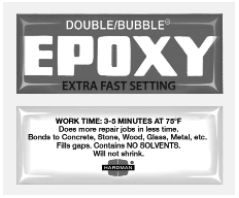
070113

DOUBLE/BUBBLE® EPOXY AND URETHANE ASSORTMENT

P/N 17074

8 82503 06526 3

55



8 82503 06517 1

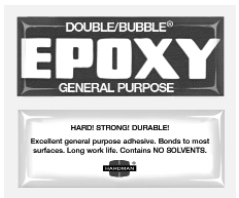
Double/Bubble® Epoxy Extra Fast Setting
- Extra fast setting for quick repairs
- For bonding wood, glass, metal, stone, concrete, ceramics & leather

P/N 74499

8 82503 06519 5

Double/Bubble® Machineable Epoxy
- Machineable tooling and/or body-patching adhesive
- Adheres to metal, wood and hard plastics
- Can be machined, sanded, drilled and tapped

P/N 74498



8 82503 06520 1

Double/Bubble® General Purpose Epoxy
- A long work-life adhesive
- For bonding wood, metal, ceramics, concrete, rubber & plastics

P/N 74497

8 82503 06521 8

Double/Bubble® High Peel Strength Epoxy
- A flexible, tough & durable, vibration resistant adhesive
- High peel and shear strengths
- Bonds to polystyrene, ABS nylon, metal, wood, masonry and rubber

P/N 74496

8 82503 06522 5

Double/Bubble® Wet Surface Patching Epoxy
- A gap-filling adhesive for use in damp or moist environments
- Cures and bonds under water
- Bonds to stone, concrete, metal, glass, china, wood and fiberglass

P/N 74495

8 82503 06523 2

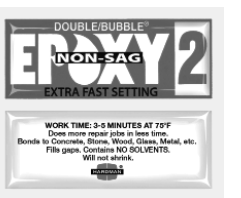
Double/Bubble® Water Clear Epoxy
- Use as an adhesive or coating
- Bonds to metal, ceramics, glass, porcelain and wood
- Covers and fills scratches
- Impact resistant

P/N 74494

8 82503 06524 9

Double/Bubble® Regular Setting Epoxy
- A low-viscosity adhesive
- Fairly long work-life
- Cures to a light color
- Bonds well to wood, metal, concrete, fabrics and most plastics

P/N 74493



8 82503 06525 6

Double/Bubble® Extra Fast Set (Non-Sag) Epoxy
- Extra fast setting
- Non-sag (thixotropic) adhesive
- For quick repairs
- Bonds to wood, glass, metal, stone, ceramics and leather

P/N 74492

8 82503 11740 5

Double/Bubble® Urethane – Flexible
- Shore Hardness D-50
- A good combination of high peel and lap shear strengths
- Will bond to rubber, leather, china and many plastics

P/N 74417

8 82503 11741 2

Double/Bubble® Urethane – Semi-Rigid
- Shore Hardness D-85
- Extra fast setting, semi-rigid
- Combines very high lap shear strength with good peel strength

P/N 74418

8 82503 11742 9

Double/Bubble® Urethane – Very Flexible
- Shore Hardness A-85
- Fast setting with high peel strength – tough and flexible
- Bonds to most metals, plastics, rubber, glass and leather
- Good for low temperature, sub-zero applications

P/N 74419

EXPANSION

A30-6

TRAY FRONT

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070113

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INDUSTRIAL CORP.

BRASS FLAT HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS **P/N 7755**

FEATURES:

- *Brass fasteners are non-magnetic and have good corrosion resistance*
- *Min. Tensile 55,000 - 65,000 PSI*

530

6-32 NUTS **P/N 21102**	8-32 NUTS **P/N 21103**	10-32 NUTS **P/N 21105**	10-24 NUTS **P/N 21104**	10-24 x 1-1/4 **P/N 47746**	1/4-20 x 3/4 **P/N 47786**
6-32 x 1/2 **P/N 47715**	8-32 x 1/2 **P/N 47727**	10-32 x 1/2 **P/N 47760**	10-24 x 1/2 **P/N 47741**	10-24 x 1-1/2 **P/N 47747**	1/4-20 x 1 **P/N 47788**
6-32 x 3/4 **P/N 4717**	8-32 x 3/4 **P/N 47729**	10-32 x 3/4 **P/N 47762**	10-24 x 3/4 **P/N 47743**	1/4-20 NUTS **P/N 21107**	1/4-20 x 1-1/4 **P/N 47789**
6-32 x 1 **P/N 47719**	8-32 x 1 **P/N 47731**	10-32 x 1 **P/N 47764**	10-24 x 1 **P/N 47745**	1/4-20 x 1/2 **P/N 47784**	1/4-20 x 1-1/2 **P/N 47790**

A32-1

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CHROMATE®
INDUSTRIAL CORP.

BRASS ROUND HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS

P/N 7756

FEATURES:

- *Brass fasteners are non-magnetic and have good corrosion resistance*
- *Min.Tensile 55,000 - 65,000 PSI*

530

6-32 NUTS **P/N 21102**	8-32 NUTS **P/N 21103**	10-32 NUTS **P/N 21105**	10-24 NUTS **P/N 21104**	10-24 x 1-1/4 **P/N 37746**	1/4-20 x 3/4 **P/N 37786**
6-32 x 1/2 **P/N 37715**	8-32 x 1/2 **P/N 37727**	10-32 x 1/2 **P/N 37760**	10-24 x 1/2 **P/N 37741**	10-24 x 1-1/2 **P/N 37747**	1/4-20 x 1 **P/N 37788**
6-32 x 3/4 **P/N 37717**	8-32 x 3/4 **P/N 37729**	10-32 x 3/4 **P/N 37762**	10-24 x 3/4 **P/N 37743**	1/4-20 NUTS **P/N 21107**	1/4-20 x 1-1/4 **P/N 37789**
6-32 x 1 **P/N 37719**	8-32 x 1 **P/N 37731**	10-32 x 1 **P/N 37764**	10-24 x 1 **P/N 37745**	1/4-20 x 1/2 **P/N 37784**	1/4-20 x 1-1/2 **P/N 37790**

A32-2

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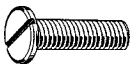
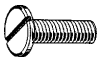
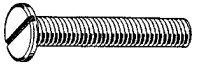
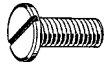
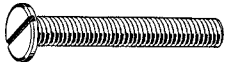
CHROMATE® INDUSTRIAL CORP.

SLOTTED PAN HEAD MACHINE SCREW ASSORTMENT 18-8 STAINLESS STEEL **P/N 7757**

FEATURES:

- *Precision burr-free threads for exact fit*
- *Meets ANSI B18.6.3*
- *Minimum tensile 100,000-125,000 PSI*
- *Yield: 55,000-75,000 PSI*
- *Hardness: 100 Rockwell B*

1370

6-32 NUTS **P/N 14332**	8-32 NUTS **P/N 14334**	10-32 NUTS **P/N 14336**	10-24 NUTS **P/N 14338**	10-24 x 1-1/4 **P/N 14812**	 1/4-20 x 3/4 **P/N 14832**
6-32 x 1/2 **P/N 14724**	8-32 x 1/2 **P/N 14746**	10-32 x 1/2 **P/N 14770**	 10-24 x 1/2 **P/N 14804**	10-24 x 1-1/2 **P/N 14814**	1/4-20 x 1 **P/N 14834**
6-32 x 3/4 **P/N 14728**	8-32 x 3/4 **P/N 14750**	10-32 x 3/4 **P/N 14774**	10-24 x 3/4 **P/N 14808**	1/4-20 NUTS **P/N 14300**	 1/4-20 x 1-1/4 **P/N 14836**
6-32 x 1 **P/N 14730**	8-32 x 1 **P/N 14752**	10-32 x 1 **P/N 14776**	10-24 x 1 **P/N 14810**	 1/4-20 x 1/2 **P/N 14828**	 1/4-20 x 1-1/2 **P/N 14838**

A32-3

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

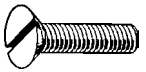
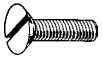
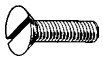
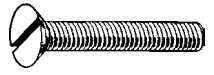
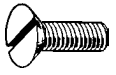
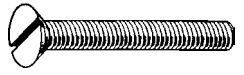
CIC 200™ 18-8 STAINLESS STEEL SLOTTED FLAT HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS

P/N 7758

FEATURES:

- *18-8 stainless steel - excellent in corrosive environments*
- *Meets ANSI B18.6.3*
- *Min. Tensile 100,000 - 125,000 PSI*
- *Yield – 55,000 - 75,000 PSI*
- *Hardness – 100 Rockwell B*

1370

6-32 NUTS **P/N 14332**	8-32 NUTS **P/N 14334**	10-32 NUTS **P/N 14336**	10-24 NUTS **P/N 14338**	10-24 x 1-1/4 **P/N 15012**	 1/4-20 x 3/4 **P/N 15032**
6-32 x 1/2 **P/N 14924**	8-32 x 1/2 **P/N 14946**	 10-32 x 1/2 **P/N 14970**	 10-24 x 1/2 **P/N 15004**	10-24 x 1-1/2 **P/N 15014**	1/4-20 x 1 **P/N 15034**
6-32 x 3/4 **P/N 14928**	8-32 x 3/4 **P/N 14950**	10-32 x 3/4 **P/N 14974**	10-24 x 3/4 **P/N 15008**	1/4-20 NUTS **P/N 14300**	 1/4-20 x 1-1/4 **P/N 15036**
6-32 x 1 **P/N 14930**	8-32 x 1 **P/N 14952**	10-32 x 1 **P/N 14976**	10-24 x 1 **P/N 15010**	 1/4-20 x 1/2 **P/N 15028**	 1/4-20 x 1-1/2 **P/N 15038**

A32-4

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Rev. 040507

CHROMATE® INDUSTRIAL CORP.

18-8 STAINLESS STEEL SOCKET SET SCREW ASSORTMENT

P/N 7760

FEATURES:

- *Meets ANSI B18.3*
- *Minimum tensile 100,000 - 125,000 PSI*
- *Yield – 55,000 - 75,000 PSI*
- *Hardness – 100 Rockwell B*
- *Thread diameter to class 3A fit ANSI B1.1*

325

6-32 x 1/8 **P/N 15342**	8-32 x 1/8 **P/N 15361**	10-32 x 3/16 **P/N 15400**	10-24 x 3/16 **P/N 15380**	1/4-20 x 1/4 **P/N 15423**	5/16-18 x 1/2 **P/N 15446**
6-32 x 3/16 **P/N 15345**	8-32 x 3/16 **P/N 15364**	10-32 x 1/4 **P/N 15403**	10-24 x 1/4 **P/N 15383**	1/4-20 x 3/8 **P/N 15426**	3/8-16 x 3/8 **P/N 15457**
6-32 x 1/4 **P/N 15348**	8-32 x 1/4 **P/N 15367**	10-32 x 3/8 **P/N 15406**	10-24 x 3/8 **P/N 15386**	1/4-20 x 1/2 **P/N 15429**	3/8-16 x 1/2 **P/N 15460**
6-32 x 3/8 **P/N 15351**	8-32 x 3/8 **P/N 15370**	10-32 x 1/2 **P/N 15409**	10-24 x 1/2 **P/N 15389**	5/16-18 x 3/8 **P/N 15443**	1/2-13 x 1/2 **P/N 15474**

A32-5

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

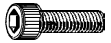
18-8 STAINLESS STEEL HEX SOCKET CAP SCREW ASSORTMENT

P/N 7761

FEATURES:

- *Thread - Class 3A fit. ANSI B1.1*
- *Dimensions to ANSI B18.3*

255

6-32 x 1/4 **P/N 15117**	6-32 x 3/4 **P/N 15129**	8-32 x 3/4 **P/N 15147**	10-32 x 5/8 **P/N 15194**	10-24 x 1/2 **P/N 15166**	10-32 x 1-1/4 **P/N 15206**
6-32 x 3/8 **P/N 15120**	8-32 x 3/8 **P/N 15138**	8-32 x 1 **P/N 15153**	10-32 x 3/4 **P/N 15197**	10-24 x 5/8 **P/N 15169**	10-32 x 1-1/2 **P/N 15209**
6-32 x 1/2 **P/N 15123**	8-32 x 1/2 **P/N 15141**	10-32 x 3/8 **P/N 15188**	10-32 x 1 **P/N 15203**	10-24 x 3/4 **P/N 15172**	10-24 x 1-1/4 **P/N 15178**
6-32 x 5/8 **P/N 15126**	8-32 x 5/8 **P/N 15144**	 10-32 x 1/2 **P/N 15191**	10-24 x 3/8 **P/N 15163**	10-24 x 1 **P/N 15176**	10-24 x 1-1/2 **P/N 15181**

A32-6

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

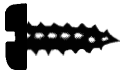
18-8 STAINLESS STEEL PAN HEAD SHEET METAL SCREW ASSORTMENT

P/N 7762

FEATURES:

- *Stainless steel reduces rust and corrosion providing longer life*

985

6 x 3/8 **P/N 14603**	6 x 1 **P/N 14615**	8 x 1 **P/N 14629**	10 x 1 **P/N 14649**	12 x 1 **P/N 14669**	 14 x 3/4 **P/N 14686**
6 x 1/2 **P/N 14606**	8 x 1/2 **P/N 14620**	10 x 1/2 **P/N 14640**	10 x 1-1/4 **P/N 14652**	12 x 1-1/4 **P/N 14672**	14 x 1 **P/N 14689**
6 x 5/8 **P/N 14609**	8 x 5/8 **P/N 14623**	10 x 5/8 **P/N 14643**	12 x 5/8 **P/N 14663**	12 x 1-1/2 **P/N 14675**	14 x 1-1/4 **P/N 14692**
6 x 3/4 **P/N 14612**	8 x 3/4 **P/N 14626**	10 x 3/4 **P/N 14646**	12 x 3/4 **P/N 14666**	14 x 5/8 **P/N 14683**	14 x 1-1/2 **P/N 14695**

A32-7

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ 18-8 STAINLESS STEEL PHILLIPS OVAL HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS

P/N 7795

FEATURES:

- *18-8 Stainless steel - excellent in corrosive environments*
- *Minimum tensile strength 100,000 - 125,000 psi*
- *Yield - 55,000 - 75,000 psi*
- *Hardness - 100 Rockwell B*

1370

6-32 **P/N 14332**	8-32 **P/N 14334**	10-32 **P/N 14336**	10-24 **P/N 14338**	10-24 x 1-1/4 **P/N 25129**	1/4-20 x 3/4 **P/N 25135**
6-32 x 1/2 **P/N 25105**	8-32 x 1/2 **P/N 25112**	10-32 x 1/2 **P/N 25119**	10-24 x 1/2 **P/N 25126**	10-24 x 1-1/2 **P/N 25130**	1/4-20 x 1 **P/N 25136**
6-32 x 3/4 **P/N 25106**	8-32 x 3/4 **P/N 25113**	10-32 x 3/4 **P/N 25120**	10-24 x 3/4 **P/N 25127**	1/4-20 **P/N 14300**	1/4-20 x 1-1/4 **P/N 25137**
6-32 x 1 **P/N 25107**	8-32 x 1 **P/N 25114**	10-32 x 1 **P/N 25121**	10-24 x 1 **P/N 25128**	1/4-20 x 1/2 **P/N 25134**	1/4-20 x 1-1/2 **P/N 25138**

A32-8

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ 18-8 STAINLESS STEEL PHILLIPS PAN HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS

P/N 7789

FEATURES:

- *18-8 stainless steel - excellent in corrosion environments*
- *Meets ANSI B18.6.3*
- *Minimum tensile 100,000-125,000 PSI*
- *Yield – 55,000 - 75,000 PSI*
- *Hardness – 100 Rockwell B*

1370

6-32 **P/N 14332**	8-32 **P/N 14334**	10-32 **P/N 14336**	10-24 **P/N 14338**	10-24 x 1-1/4 **P/N 25042**	1/4-20 x 3/4 **P/N 25049**
6-32 x 1/2 **P/N 25013**	8-32 x 1/2 **P/N 25020**	10-32 x 1/2 **P/N 25029**	10-24 x 1/2 **P/N 25039**	10-24 x 1-1/2 **P/N 25043**	1/4-20 x 1 **P/N 25050**
6-32 x 3/4 **P/N 25014**	8-32 x 3/4 **P/N 25021**	10-32 x 3/4 **P/N 25030**	10-24 x 3/4 **P/N 25040**	1/4-20 **P/N 14300**	1/4-20 x 1-1/4 **P/N 25051**
6-32 x 1 **P/N 25015**	8-32 x 1 **P/N 25022**	10-32 x 1 **P/N 25031**	10-24 x 1 **P/N 25041**	1/4-20 x 1/2 **P/N 25048**	1/4-20 x 1-1/2 **P/N 25052**

A32-9

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ 18-8 STAINLESS STEEL PHILLIPS OVAL HEAD SHEET METAL SCREW ASSORTMENT

P/N 7784

FEATURES:

- *18-8 stainless steel excellent in corrosive environment*
- *Minimum tensile – 100,000-125,000 psi*
- *Yield – 55,000-75,000 psi*
- *Hardness – 100 Rockwell B*

925

6 x 1/2 **P/N 25204**	6 x 1-1/4 **P/N 25208**	8 x 1 **P/N25212**	10 x 3/4 **P/N 25217**	12 x 3/4 **P/N 25224**	14 x 3/4 **P/N 25230**
6 x 5/8 **P/N 25205**	8 x 1/2 **P/N 25209**	8 x 1-1/4 **P/N 25213**	10 x 1 **P/N 25218**	12 x 1 **P/N 25225**	14 x 1 **P/N 25231**
6 x 3/4 **P/N 25206**	8 x 5/8 **P/N 25210**	10 x 1/2 **P/N 25215**	10 x 1-1/4 **P/N 25219**	12 x 1-1/4 **P/N 25226**	14 x 1-1/4 **P/N 25232**
6 x 1 **P/N 25207**	8 x 3/4 **P/N 25211**	10 x 5/8 **P/N 25216**	10 x 1-1/2 **P/N 25220**	12 x 1-1/2 **P/N 25227**	14 x 1-1/2 **P/N 25233**

A32-10

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CHROMATE® INDUSTRIAL CORP.

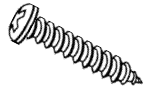
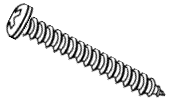
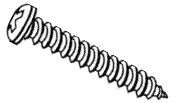
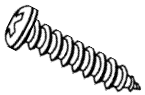
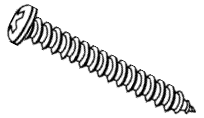
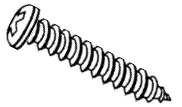
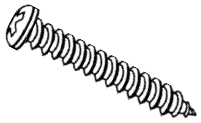
CIC 200™ 18-8 STAINLESS STEEL PHILLIPS PAN HEAD SHEET METAL SCREW ASSORTMENT

P/N 7785

FEATURES:

- *18-8 stainless steel - excellent for corrosion environment*
- *Minimum tensile 100,000 - 125,000 psi*
- *Yield – 55,000 - 75,000 psi*
- *Hardness – 100 Rockwell B*

985

6 x 3/8 **P/N 25303**	6 x 1 **P/N 25307**	8 x 1 **P/N 25314**	10 x 1 **P/N 25323**	 12 x 1 **P/N 25333**	14 x 3/4 **P/N 25342**
6 x 1/2 **P/N 25304**	8 x 1/2 **P/N 25311**	10 x 1/2 **P/N 25320**	 10 x 1-1/4 **P/N 25324**	 12 x 1-1/4 **P/N 25334**	 14 x 1 **P/N 25343**
6 x 5/8 **P/N 25305**	8 x 5/8 **P/N 25312**	10 x 5/8 **P/N 25321**	12 x 5/8 **P/N 25331**	 12 x 1-1/2 **P/N 25335**	 14 x 1-1/4 **P/N 25344**
6 x 3/4 **P/N 25306**	8 x 3/4 **P/N 25313**	10 x 3/4 **P/N 25322**	12 x 3/4 **P/N 25332**	14 x 5/8 **P/N 25341**	 14 x 1-1/2 **P/N 25345**

A32-11

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

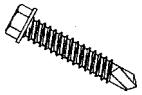
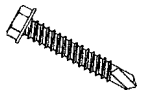
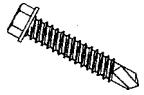
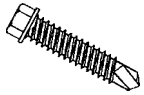
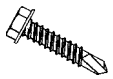
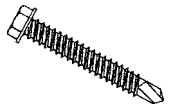
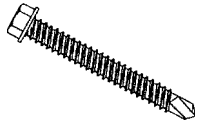
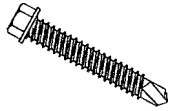
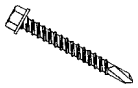
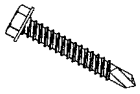
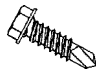
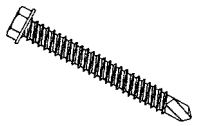
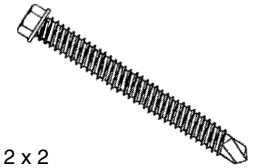
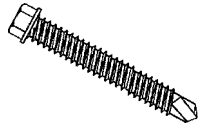
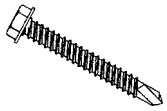
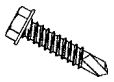
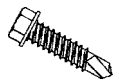
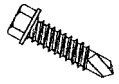
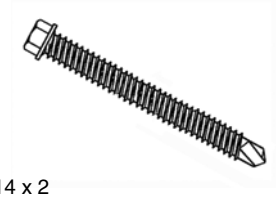
S/S DRILL AND TAP SCREWS
HEX WASHER HEAD

P/N 17763

FEATURES:

- *May be used in many materials such as structured steel, hardwood and masonite*
- *Reduces labor and tooling costs*
- *Eliminates need for drill bits and taps*
- *Manufactured of 410 grade stainless steel for maximum strength*

525

6 x 3/8 **P/N 25350**	8 x 5/8 **P/N 25355**	 8 x 1-1/2 **P/N 25359**	 10 x 1 **P/N 25364**	 12 x 1 **P/N 25369**	 14 x 1 **P/N 25375**
6 x 1/2 **P/N 25351**	 8 x 3/4 **P/N 25356**	10 x 1/2 **P/N 25361**	 10 x 1-1/4 **P/N 25365**	 12 x 1-1/2 **P/N 25371**	 14 x 1-1/4 **P/N 25376**
 6 x 1 **P/N 25353**	 8 x 1 **P/N 25357**	 10 x 5/8 **P/N 25362**	 10 x 1-1/2 **P/N 25366**	 12 x 2 **P/N 25372**	 14 x 1-1/2 **P/N 25377**
8 x 1/2 **P/N 25354**	 8 x 1-1/4 **P/N 25358**	 10 x 3/4 **P/N 25363**	 12 x 3/4 **P/N 25368**	 14 x 3/4 **P/N 25374**	 14 x 2 **P/N 25378**

A32-12

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

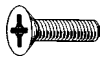
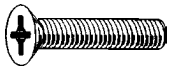
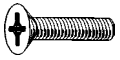
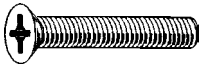
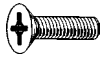
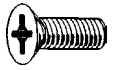
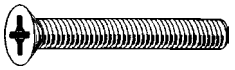
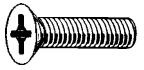
CIC 200™ STAINLESS STEEL PHILLIPS FLAT HEAD MACHINE SCREW ASSORTMENT

P/N 17767

FEATURES:

- *Precision, burr-free threads for exact fit*
- *For faster application without slippage using a screw gun, drill motor or screwdriver*
- *Stainless steel for superior rust and corrosion resistance*

1050

6-32 x 1/2 **P/N 25434**	8-32 x 1/2 **P/N 25447**	 10-24 x 1/2 **P/N 25458**	10-24 x 1-1/4 **P/N 25462**	10-32 x 3/4 **P/N 25471**	 1/4-20 x 1 **P/N 25489**
6-32 x 5/8 **P/N 25435**	8-32 x 5/8 **P/N 25448**	 10-24 x 5/8 **P/N 25459**	10-24 x 1-1/2 **P/N 25463**	10-32 x 1 **P/N 25472**	 1/4-20 x 1-1/4 **P/N 25490**
6-32 x 3/4 **P/N 25436**	8-32 x 3/4 **P/N 25449**	10-24 x 3/4 **P/N 25460**	 10-32 x 1/2 **P/N 25469**	 1/4-20 x 1/2 **P/N 25486**	 1/4-20 x 1-1/2 **P/N 25491**
6-32 x 1 **P/N 25437**	8-32 x 1 **P/N 25450**	10-24 x 1 **P/N 25461**	10-32 x 5/8 **P/N 25470**	 1/4-20 x 3/4 **P/N 25488**	1/4-20 x 2 **P/N 25493**

A32-13

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

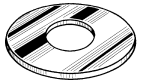
CIC 200™ METRIC STAINLESS STEEL NUTS, FLAT WASHERS AND LOCK WASHERS ASSORTMENT

P/N 17768

FEATURES:

- *Superior corrosion resistance to chemicals and sea water*
- *High molybdenum content, high temperature strength and non-magnetic*

2370

 3mm LOCK WASHER **P/N 15839**	 4mm LOCK WASHER **P/N 15840**	 5mm LOCK WASHER **P/N 15841**	 6mm LOCK WASHER **P/N 15842**	 8mm LOCK WASHER **P/N 15843**	 10mm LOCK WASHER **P/N 15844**
 3mm FLAT WASHER **P/N 15826**	 4mm FLAT WASHER **P/N 15827**	 5mm FLAT WASHER **P/N 15828**	 6mm FLAT WASHER **P/N 15829**	 8mm FLAT WASHER **P/N 15830**	 10mm FLAT WASHER **P/N 15831**
 3mm x 0.50 HEX NUT **P/N 15800**	 4mm x 0.70 HEX NUT **P/N 15801**	 5mm x 0.80 HEX NUT **P/N 15802**	 6mm x 1.00 HEX NUT **P/N 15803**	 8mm x 1.25 HEX NUT **P/N 15804**	 10mm x 1.50 HEX NUT **P/N 15805**
 3mm x 0.50 NYLON INSERT LOCK NUT **P/N 15813**	 4mm x 0.70 NYLON INSERT LOCK NUT **P/N 15814**	 5mm x 0.80 NYLON INSERT LOCK NUT **P/N 15815**	 6mm x 1.00 NYLON INSERT LOCK NUT **P/N 15816**	 8mm x 1.25 NYON INSERT LOCK NUT **P/N 15817**	 10mm x 1.50 NYLON INSERT LOCK NUT **P/N 15818**

A32-14

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL SOCKET HEAD CAP SCREWS (4-40 to 10-32)

P/N 17802

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

595

4-40 x 1/4 **P/N 15102**	4-40 x 3/8 **P/N 15105**	4-40 x 1/2 **P/N 15108**	6-32 x 1/4 **P/N 15117**	6-32 x 3/8 **P/N 15120**	6-32 x 1/2 **P/N 15123**
6-32 x 5/8 **P/N 15126**	8-32 x 3/8 **P/N 15138**	8-32 x 1/2 **P/N 15141**	8-32 x 5/8 **P/N 15144**	8-32 x 3/4 **P/N 15147**	8-32 x 1 **P/N 15153**
10-24 x 3/8 **P/N 15163**	10-24 x 1/2 **P/N 15166**	10-24 x 5/8 **P/N 15169**	10-24 x 3/4 **P/N 15172**	10-24 x 1 **P/N 15176**	10-24 x 1-1/2 **P/N 15181**
10-32 x 3/8 **P/N 15188**	10-32 x 1/2 **P/N 15191**	10-32 x 5/8 **P/N 15194**	10-32 x 3/4 **P/N 15197**	10-32 x 1 **P/N 15203**	10-32 x 1-1/2 **P/N 15209**

A32-15

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

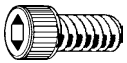
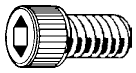
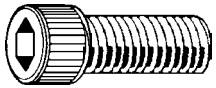
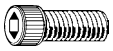
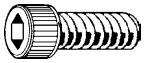
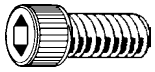
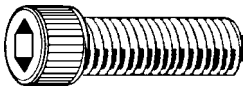
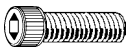
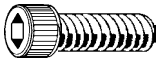
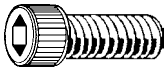
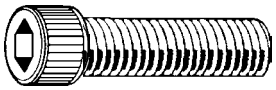
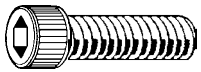
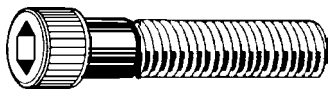
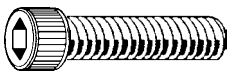
STAINLESS STEEL SOCKET HEAD CAP SCREWS (1/4-20 to 1/2-13)

P/N 17803

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

205

1/4-20 x 3/8 **P/N 15216**	 5/16-18 x 1/2 **P/N 15247**	 3/8-16 x 1/2 **P/N 15272**	 1/2-13 x 1 **P/N 15300**
 1/4-20 x 1/2 **P/N 15219**	 5/16-18 x 5/8 **P/N 15250**	 3/8-16 x 5/8 **P/N 15275**	 1/2-13 x 1-1/4 **P/N 15303**
 1/4-20 x 5/8 **P/N 15222**	 5/16-18 x 3/4 **P/N 15253**	 3/8-16 x 3/4 **P/N 15278**	 1/2-13 x 1-1/2 **P/N 15306**
1/4-20 x 3/4 **P/N 15225**	5/16-18 x 1 **P/N 15256**	 3/8-16 x 1 **P/N 15281**	 1/2-13 x 2 **P/N 15312**
1/4-20 x 1 **P/N 15231**	5/16-18 x 1-1/2 **P/N 15262**	 3/8-16 x 1-1/4 **P/N 15284**	

A32-16

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 516-567-2418 • www.chromate.com

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL FLAT HEAD SOCKET CAP SCREWS (4-40 to 10-32)

P/N 17804

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

855

4-40 x 1/4 **P/N 47800**	4-40 x 3/8 **P/N 47801**	4-40 x 1/2 **P/N 47802**	4-40 x 3/4 **P/N 47803**	4-40 x 1 **P/N 47804**	6-32 x 1/4 **P/N 47805**
6-32 x 3/8 **P/N 47806**	6-32 x 1/2 **P/N 47807**	6-32 x 3/4 **P/N 47808**	6-32 x 1 **P/N 47809**	8-32 x 1/4 **P/N 47810**	8-32 x 3/8 **P/N 47811**
8-32 x 1/2 **P/N 47812**	8-32 x 3/4 **P/N 47813**	8-32 x 1 **P/N 47814**	10-24 x 3/8 **P/N 47815**	10-24 x 1/2 **P/N 47816**	10-24 x 3/4 **P/N 47817**
10-24 x 1 **P/N 47818**	10-32 x 3/8 **P/N 47819**	10-32 x 1/2 **P/N 47820**	10-32 x 3/4 **P/N 47821**	10-32 x 1 **P/N 47822**	

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

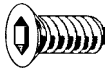
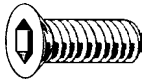
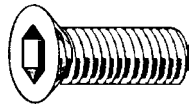
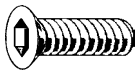
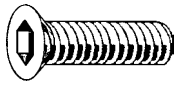
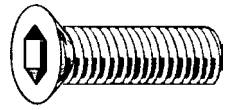
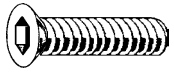
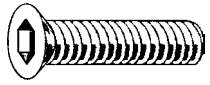
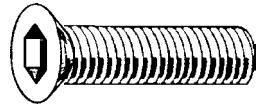
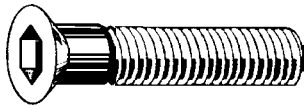
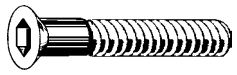
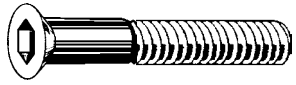
STAINLESS STEEL FLAT HEAD SOCKET CAP SCREWS (1/4-20 to 1/2-13)

P/N 17805

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

205

1/4-20 x 1/2 **P/N 47823**	 5/16-18 x 1/2 **P/N 47829**	 3/8-16 x 3/4 **P/N 47835**	 1/2-13 x 1 **P/N 47841**
1/4-20 x 3/4 **P/N 47824**	 5/16-18 x 3/4 **P/N 47830**	 3/8-16 x 1 **P/N 47836**	 1/2-13 x 1-1/4 **P/N 47842**
1/4-20 x 1 **P/N 47825**	 5/16-18 x 1 **P/N 47831**	 3/8-16 x 1-1/4 **P/N 47837**	 1/2-13 x 1-1/2 **P/N 47843**
1/4-20 x 1-1/4 **P/N 47826**	5/16-18 x 1-1/4 **P/N 47832**	3/8-16 x 1-1/2 **P/N 47838**	 1/2-13 x 2 **P/N 47844**
1/4-20 x 1-1/2 **P/N 47827**	 5/16-18 x 1-1/2 **P/N 47833**	 3/8-16 x 2 **P/N 47839**	

A32-18

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL BUTTON HEAD SOCKET CAP SCREWS (4-40 to 10-32)

P/N 17806

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

855

4-40 x 1/4 **P/N 47850**	4-40 x 3/8 **P/N 47851**	4-40 x 1/2 **P/N 47852**	4-40 x 3/4 **P/N 47853**	4-40 x 1 **P/N 47854**	6-32 x 1/4 **P/N 47855**
6-32 x 3/8 **P/N 47856**	6-32 x 1/2 **P/N 47857**	6-32 x 3/4 **P/N 47858**	6-32 x 1 **P/N 47859**	8-32 x 1/4 **P/N 47860**	8-32 x 3/8 **P/N 47861**
8-32 x 1/2 **P/N 47862**	8-32 x 3/4 **P/N 47863**	8-32 x 1 **P/N 47864**	10-24 x 3/8 **P/N 47865**	10-24 x 1/2 **P/N 47866**	10-24 x 3/4 **P/N 47867**
10-24 x 1 **P/N 47868**	10-32 x 3/8 **P/N 47869**	10-32 x 1/2 **P/N 47870**	10-32 x 3/4 **P/N 47871**	10-32 x 1 **P/N 47872**	

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

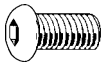
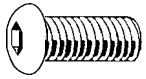
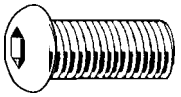
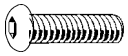
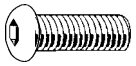
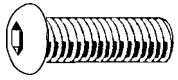
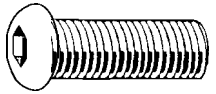
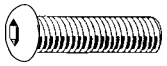
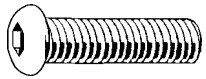
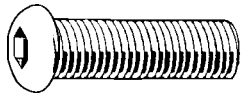
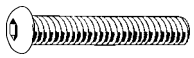
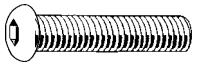
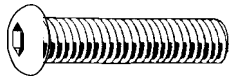
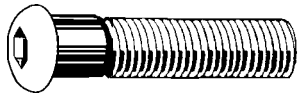
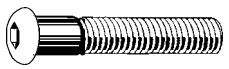
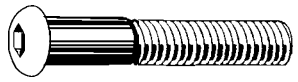
STAINLESS STEEL BUTTON HEAD SOCKET CAP SCREWS (1/4-20 to 1/2-13)

P/N 17807

FEATURES:

- *Deep socket provides stronger hex key engagement*
- *Smooth, chamfered end assures easy threading*
- *Unified 3A thread fit meets ASME/ANSI B18.3*
- *18-8 stainless steel*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *Operating temperature to 800°F*

210

1/4-20 x 1/2 **P/N 47873**	 5/16-18 x 1/2 **P/N 47879**	 3/8-16 x 3/4 **P/N 47885**	 1/2-13 x 1 **P/N 47891**
 1/4-20 x 3/4 **P/N 47874**	 5/16-18 x 3/4 **P/N 47880**	 3/8-16 x 1 **P/N 47886**	 1/2-13 x 1-1/4 **P/N 47892**
1/4-20 x 1 **P/N 47875**	 5/16-18 x 1 **P/N 47881**	 3/8-16 x 1-1/4 **P/N 47887**	 1/2-13 x 1-1/2 **P/N 47893**
 1/4-20 x 1-1/4 **P/N 47876**	 5/16-18 x 1-1/4 **P/N 47882**	 3/8-16 x 1-1/2 **P/N 47888**	 1/2-13 x 2 **P/N 47894**
1/4-20 x 1-1/2 **P/N 47877**	 5/16-18 x 1-1/2 **P/N 47883**	 3/8-16 x 2 **P/N 47889**	

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

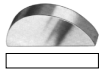
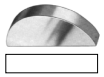
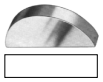
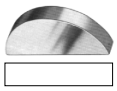
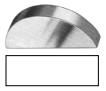
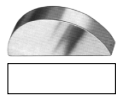
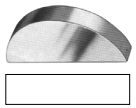
S/S WOODRUFF KEY ASSORTMENT

P/N 17796

FEATURES:

- *Excellent corrosion resistance, withstands many chemicals and non-magnetic*
- *Use to lock pulleys and gears tightly to transmission shafts*
- *Keys provide a bearing surface through the entire length of the shaft*

75

1/16 x 1/2 **P/N 63430**	3/32 x 1/2 **P/N 63431**	1/8 x 1/2 **P/N 63432**	1/8 x 5/8 **P/N 63433**
 1/8 x 3/4 **P/N 63434**	5/32 x 5/8 **P/N 63435**	 5/32 x 3/4 **P/N 63436**	3/16 x 5/8 **P/N 63437**
 3/16 x 3/4 **P/N 63438**	 3/16 x 7/8 **P/N 63439**	 1/4 x 3/4 **P/N 63440**	 1/4 x 7/8 **P/N 63441**
 1/4 x 1 **P/N 63442**			

A32.21

TRAY FRONT

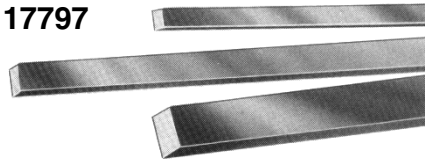
CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL KEYSTOCK ASSORTMENT

FEATURES:

- *Use in corrosive, caustic and sanitary environments*
- *Machine cut ends*
- *Tolerances: –.000 to +.002 in both dimensions*
- *Material 303 stainless*

P/N 17797



14

1/8" x 12"
P/N 63450

3/16" x 12"
P/N 63451

1/4" x 12"
P/N 63452

5/16" x 12"
P/N 63453

3/8" x 12"
P/N 63454

1/2" x 12"
P/N 63455

A32.22

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL SPRING PIN ASSORTMENT

P/N 17815

FEATURES:

- *420 stainless steel for maximum strength and corrosion resistance*

1115

1/16 x 1/4 **P/N 47200**	1/16 x 1/2 **P/N 47202**	1/16 x 3/4 **P/N 47204**	5/64 x 1/4 **P/N 47206**	5/64 x 1/2 **P/N 47208**	5/64 x 3/4 **P/N 47210**
3/32 x 1/4 **P/N 47212**	3/32 x 3/4 **P/N 47218**	3/32 x 1 **P/N 47220**	1/8 x 3/8 **P/N 47222**	1/8 x 1 **P/N 47227**	1/8 x 1-1/2 **P/N 47229**
5/32 x 1/2 **P/N 47230**	5/32 x 1 **P/N 47234**	5/32 x 1-1/2 **P/N 47236**	3/16 x 5/8 **P/N 47238**	3/16 x 1 **P/N 47241**	3/16 x 2 **P/N 47245**
7/32 x 3/4 **P/N 47247**	7/32 x 1-1/2 **P/N 47250**	7/32 x 2 **P/N 47252**	1/4 x 1 **P/N 47255**	1/4 x 2 **P/N 47259**	1/4 x 3 **P/N 47263**

A32-23

TRAY FRONT

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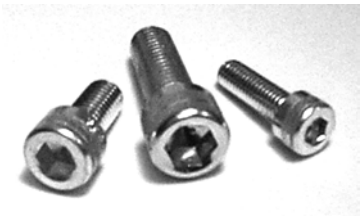


S/S METRIC SOCKET HEAD CAP SCREW ASSORTMENT

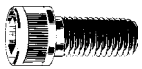
P/N 17818

FEATURES:

- *304 stainless steel*
- *Meets DIN 912-A2*
- *Tensile strength 70,000 to 100,000 psi*

REFERENCE DATA				
DIAMETER	**4mm**	**5mm**	**6mm**	**8mm**
THREAD PITCH	0.70	0.80	1.00	1.25
HEX KEY SIZE	3mm	4mm	5mm	6mm

370

4mm x 8mm **P/N 15679**	4mm x 10mm **P/N 15680**	4mm x 12mm **P/N 15681**	4mm x 16mm **P/N 15682**	4mm x 20mm **P/N 15683**	4mm x 25mm **P/N 15684**
5mm x 10mm **P/N 15691**	5mm x 12mm **P/N 15692**	5mm x 16mm **P/N 15693**	5mm x 20mm **P/N 15694**	5mm x 25mm **P/N 15695**	5mm x 30mm **P/N 15696**
6mm x 10mm **P/N 15706**	6mm x 12mm **P/N 15707**	6mm x 16mm **P/N 15708**	6mm x 20mm **P/N 15709**	6mm x 25mm **P/N 15710**	6mm x 30mm **P/N 15711**
 8mm x 16mm **P/N 15729**	8mm x 20mm **P/N 15730**	8mm x 25mm **P/N 15731**	8mm x 30mm **P/N 15732**	8mm x 35mm **P/N 15733**	8mm x 40mm **P/N 15734**

A32-24

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

STAINLESS STEEL METRIC FLAT SOCKET HEAD CAP SCREW ASSORTMENT

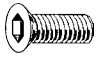
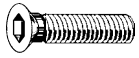
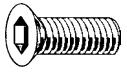
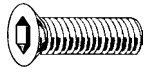
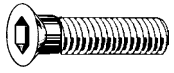
P/N 17819

FEATURES:

- *304 stainless steel*
- *Meets DIN 7991-A2*
- *Tensile strength 70,000 to 100,000 psi*

REFERENCE DATA					
DIAMETER	**3mm**	**4mm**	**5mm**	**6mm**	**8mm**
THREAD PITCH	0.50	0.70	0.80	1.00	1.25
HEX KEY SIZE	2mm	2.5mm	3mm	4mm	5mm

069

3mm x 6mm **P/N 69704**	3mm x 8mm **P/N 69705**	3mm x 10mm **P/N 69706**	3mm x 12mm **P/N 69707**	3mm x 16mm **P/N 69708**	4mm x 8mm **P/N 69710**
4mm x 10mm **P/N 69711**	4mm x 12mm **P/N 69712**	4mm x 16mm **P/N 69713**	4mm x 20mm **P/N 69714**	5mm x 10mm **P/N 69716**	5mm x 12mm **P/N 69717**
5mm x 16mm **P/N 69718**	5mm x 20mm **P/N 69719**	5mm x 25mm **P/N 69720**	 6mm x 12mm **P/N 69723**	6mm x 16mm **P/N 69724**	 6mm x 20mm **P/N 69725**
6mm x 25mm **P/N 69726**	6mm x 30mm **P/N 69727**	 8mm x 16mm **P/N 69731**	 8mm x 20mm **P/N 69732**	 8mm x 25mm **P/N 69733**	8mm x 30mm **P/N 69734**

A32-25

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

STAINLESS STEEL METRIC BUTTON HEAD SOCKET CAP SCREW ASSORTMENT

P/N 17814

FEATURES:

- *304 stainless steel*
- *Meets DIN 7991-A2*
- *Tensile strength 70,000 to 100,000 psi*

REFERENCE DATA					
DIAMETER	**3mm**	**4mm**	**5mm**	**6mm**	**8mm**
THREAD PITCH	0.50	0.70	0.80	1.00	1.25
HEX KEY SIZE	2mm	2.5mm	3mm	4mm	5mm

480

3mm x 6mm **P/N 69754**	3mm x 8mm **P/N 69755**	3mm x 10mm **P/N 69756**	3mm x 12mm **P/N 69757**	3mm x 16mm **P/N 69758**	4mm x 8mm **P/N 69760**
4mm x 10mm **P/N 69761**	4mm x 12mm **P/N 69762**	4mm x 16mm **P/N 69763**	4mm x 20mm **P/N 69764**	5mm x 10mm **P/N 69766**	5mm x 12mm **P/N 69767**
5mm x 16mm **P/N 69768**	5mm x 20mm **P/N 69769**	5mm x 25mm **P/N 69770**	6mm x 12mm **P/N 69773**	6mm x 16mm **P/N 69774**	6mm x 20mm **P/N 69775**
6mm x 25mm **P/N 69776**	6mm x 30mm **P/N 69777**	8mm x 16mm **P/N 69781**	8mm x 20mm **P/N 69782**	8mm x 25mm **P/N 69783**	8mm x 30mm **P/N 69784**

A32-26

TRAY FRONT

MMS LEVEL "B"

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL METRIC SOCKET SET SCREW ASSORTMENT

P/N 17816

FEATURES:

- *304 stainless steel*
- *Cup point*
- *Meets DIN 916-A2*
- *Tensile strength 70,000 to 100,000 psi*

REFERENCE DATA							
DIAMETER	**3mm**	**4mm**	**5mm**	**6mm**	**8mm**	**10mm**	**12mm**
THREAD PITCH	0.50	0.70	0.80	1.00	1.25	1.50	1.7
HEX KEY SIZE	1.5mm	2mm	2.5mm	3mm	4mm	5mm	6mm

469

3mm x 4mm **P/N 69793**	3mm x 6mm **P/N 69794**	3mm x 8mm **P/N 69795**	4mm x 4mm **P/N 69796**	4mm x 6mm **P/N 69797**	4mm x 8mm **P/N 69798**	4mm x 10mm **P/N 69799**	5mm x 5mm **P/N 69800**
5mm x 6mm **P/N 69801**	5mm x 8mm **P/N 69802**	5mm x 10mm **P/N 69803**	6mm x 8mm **P/N 69804**	6mm x 10mm **P/N 69805**	6mm x 12mm **P/N 69806**	6mm x 16mm **P/N 69807**	6mm x 20mm **P/N 69808**
8mm x 10mm **P/N 69809**	8mm x 12mm **P/N 69810**	8mm x 16mm **P/N 69811**	8mm x 20mm **P/N 69812**	8mm x 25mm **P/N 69813**	10mm x 10mm **P/N 69814**	10mm x 12mm **P/N 69815**	10mm x 16mm **P/N 69816**
10mm x 20mm **P/N 69817**	10mm x 25mm **P/N 69818**	10mm x 30mm **P/N 69819**	12mm x 12mm **P/N 69820**	12mm x 16mm **P/N 69821**	12mm x 20mm **P/N 69822**	12mm x 25mm **P/N 69823**	12mm x 30mm **P/N 69824**

A32-27

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

S/S HEX JAM NUT ASSORTMENT

P/N 17823

FEATURES:

- *Coarse and fine threads*
- *2/3 the thickness of a full form nut*
- *Tighten nuts against each other to keep from loosening*
- *Ideal for chemical machine and other corrosive environments*

310

1/4-20 **P/N 15850**	5/8-11 **P/N 15856**	1/4-28 **P/N 15870**	5/8-18 **P/N 15875**
5/16-18 **P/N 15851**	3/4-10 **P/N 15857**	5/16-24 **P/N 15871**	3/4-16 **P/N 15876**
3/8-16 **P/N 15852**	7/8-9 **P/N 15858**	3/8-24 **P/N 15872**	7/8-14 **P/N 15877**
7/16-14 **P/N 15853**	1-8 **P/N 15859**	7/16-20 **P/N 15873**	1-14 **P/N 15878**
1/2-13 **P/N 15854**		1/2-20 **P/N 15874**	

A32-28

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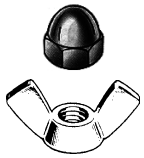
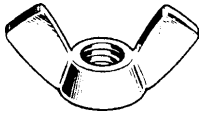
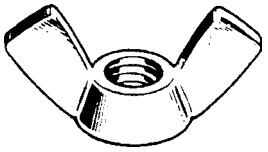
S/S WING NUT & CAP NUT ASSORTMENT



ACORN NUT FEATURES:
- *Hex shape wrenching surface with cap shaped top*
- *Provides protection for projecting threaded parts*
- *Excellent in corrosive environments*
- *Coarse and fine threads*

WING NUT FEATURES: **P/N 17838**
- *Minimum 100,000 - 125,000 psi tensile strength*
- *Rockwell "B" hardness 100*

233

6-32 **P/N 14362**	8-32 **P/N 14364**	10-24 **P/N 14366**	10-32 **P/N 14368**
1/4-20 **P/N 14370**	5/16-18 **P/N 14372**	 3/8-16 **P/N 14374**	 1/2-13 **P/N 14376**
6-32 **P/N 15880**	8-32 **P/N 15881**	10-24 **P/N 15882**	1/4-20 **P/N 15884**
5/16-18 **P/N 15885**	3/8-16 **P/N 15886**	1/2-13 **P/N 15887**	5/8-11 **P/N 15888**

A32-29

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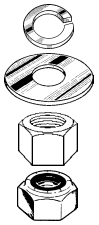


STAINLESS STEEL NUT, LOCK WASHER, FLAT WASHER ASSORTMENT

P/N 17840

LOCK WASHER AND FLAT WASHER FEATURES:
- *Meets ANSI B18.21.1*
- *Hardness – 35 Rockwell "C" minimum*

HEX NUT AND LOCK NUT FEATURES:
- *Minimum tensile 100,000 - 125,000 psi*
- *Hardness – 100 Rockwell "B"*

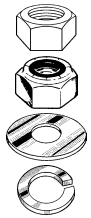
3050

#4 Lock Washer **P/N 14400**	#6 Lock Washer **P/N 14402**	#8 Lock Washer **P/N 14404**	#10 Lock Washer **P/N 14406**	#12 Lock Washer **P/N 14408**	1/4 Lock Washer **P/N 14410**
#4 Flat Washer **P/N 14500**	#6 Flat Washer **P/N 14502**	#8 Flat Washer **P/N 14504**	#10 Flat Washer **P/N 14506**	#12 Flat Washer **P/N 14508**	1/4 Flat Washer **P/N 14510**
4-40 Hex Nut **P/N 14330**	6-32 Hex Nut **P/N 14332**	8-32 Hex Nut **P/N 14334**	10-24 Hex Nut **P/N 14338**	10-32 Hex Nut **P/N 14336**	12-24 Hex Nut **P/N 14339**
1/4-20 Hex Nut **P/N 14300**	6-32 Lock Nut **P/N 14342**	8-32 Lock Nut **P/N 14344**	10-24 Lock Nut **P/N 14348**	10-32 Lock Nut **P/N 14346**	1/4-20 Lock Nut **P/N 14350**

A32-30

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.



STAINLESS STEEL MICRO HEX NUT, LOCK AND FLAT WASHER ASSORTMENT

P/N 17833

FEATURES:

- *Hex Nuts and Nylon Lock Nuts: Hardness – 100 Rockwell B*
- *Lock Washers and Flat Washers: Hardness – 35 Rockwell C Minimum*

1800

0-80 Hex Nut **P/N 14326**	1-72 Hex Nut **P/N 14327**	2-56 Hex Nut **P/N 14328**	3-48 Hex Nut **P/N 14329**	4-40 Hex Nut **P/N 14330**	5-40 Hex Nut **P/N 14331**
2-56 Nylon Lock Nut **P/N 14335**	3-48 Nylon Lock Nut **P/N 14337**	4-40 Nylon Lock Nut **P/N 14340**	5-40 Nylon Lock Nut **P/N 14341**	EXPANSION	EXPANSION
#2 Flat Washer **P/N 14498**	#3 Flat Washer **P/N 14497**	#4 Flat Washer **P/N 14500**	#5 Flat Washer **P/N 14501**	EXPANSION	EXPANSION
#2 Lock Washer **P/N 14398**	#3 Lock Washer **P/N 14399**	#4 Lock Washer **P/N 14400**	#5 Lock Washer **P/N 14401**	EXPANSION	EXPANSION

A32-31

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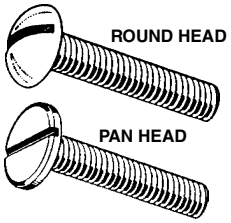


STAINLESS STEEL MICRO SLOTTED MACHINE SCREW ASSORTMENT

P/N 17832

FEATURES:

- *Meets ANSI B18.6.3*
- *Minimum Tensile Strength 100,000 - 125,000 PSI*
- *Yield – 55,000 - 75,000 PSI*
- *Hardness – 100 Rockwell B*

1600

0-80 x 1/8 RH **P/N 25235**	0-80 x 1/4 RH **P/N 25237**	0-80 x 3/8 RH **P/N 25239**	0-80 x 1/2 RH **P/N 25240**	0-80 x 5/8 RH **P/N 25241**	0-80 x 3/4 RH **P/N 25242**	1-72 x 1/8 RH **P/N 25243**	1-72 x 1/4 RH **P/N 25245**
1-72 x 3/8 RH **P/N 25247**	1-72 x 1/2 RH **P/N 25248**	1-72 x 5/8 RH **P/N 25249**	1-72 x 3/4 RH **P/N 25250**	2-56 x 1/4 RH **P/N 25253**	2-56 x 3/8 RH **P/N 25255**	2-56 x 1/2 RH **P/N 25256**	2-56 x 5/8 RH **P/N 25257**
2-56 x 3/4 RH **P/N 25258**	2-56 x 1 RH **P/N 25260**	3-48 x 1/4 RH **P/N 25264**	3-48 x 3/8 RH **P/N 25266**	3-48 x 1/2 RH **P/N 25267**	3-48 x 5/8 RH **P/N 25268**	3-48 x 3/4 RH **P/N 25269**	3-48 x 1 RH **P/N 25270**
4-40 x 1/4 PH **P/N14700**	4-40 x 1/2 PH **P/N 14704**	4-40 x 3/4 PH **P/N 14708**	4-40 x 1 PH **P/N 14710**	5-40 x 1/4 PH **P/N 14711**	5-40 x 1/2 PH **P/N 14715**	5-40 x 3/4 PH **P/N 14717**	5-40 x 1 PH **P/N 14718**

A32-32

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 100 DaVINCI DRIVE, BOHEMIA, NY 11716 • 800-BUY-BOLT • FAX: 516-567-2418 • www.chromate.com

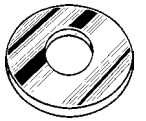
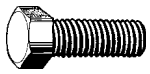
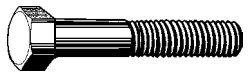
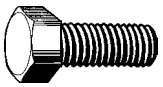
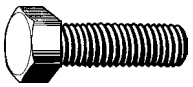
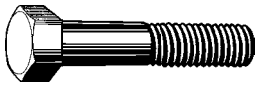
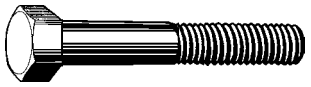
CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL CAP SCREW ASSORTMENT

P/N 17917

FEATURES:

- *Resists rust, corrosion, acids and chemicals*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision threads*
- *Minimum 100,000 - 125,000 psi tensile strength*
- *Hardness – 100 Rockwell B*
- *Meets ANSI B18.6.3*
- *Yield – 55,000 - 75,000 psi*

1/4 Lock Washer **P/N 14410**	5/16 Lock Washer **P/N 14412**	3/8 Lock Washer **P/N 14414**	1/4 USS Commercial Flat Washer **P/N 14510**	5/16 USS Commercial Flat Washer **P/N 14512**	 3/8 USS Commercial Flat Washer **P/N 14514**
1/4-20 Finished Hex Nut **P/N 14300**	1/4-20 x 1/2 **P/N 14100**	1/4-20 x 3/4 **P/N 14106**	1/4-20 x 1 **P/N 14109**	1/4-20 x 1-1/2 **P/N 14115**	1/4-20 x 2 **P/N 14121**
5/16-18 Finished Hex Nut **P/N 14302**	 5/16-18 x 3/4 **P/N 14149**	5/16-18 x 1 **P/N 14152**	5/16-18 x 1-1/4 **P/N 14155**	 5/16-18 x 1-1/2 **P/N 14158**	5/16-18 x 2 **P/N 14164**
3/8-16 Finished Hex Nut **P/N 14304**	 3/8-16 x 3/4 **P/N 14186**	 3/8-16 x 1 **P/N 14189**	3/8-16 x 1-1/4 **P/N 14192**	 3/8-16 x 1-1/2 **P/N 14195**	 3/8-16 x 2 **P/N 14201**

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

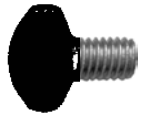
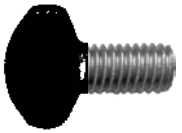
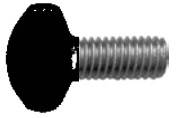
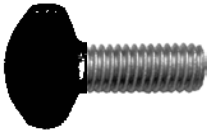
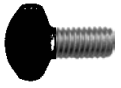
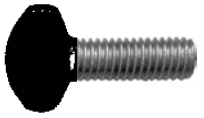
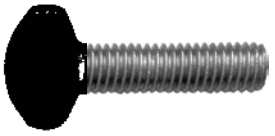
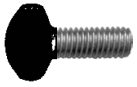
STAINLESS STEEL THUMB SCREW ASSORTMENT

P/N 17918

FEATURES:

- *Precision burr-free threads for exact fit*
- *Minimum tensile strength – 100,000 psi*
- *Yield – 55,000 psi*
- *Hardness – 100 Rockwell B minimum*
- *Known as type "P" or spade head style*
- *Used where frequent tightening and loosening is required*

119

8-32 x 1/2 **P/N 44500**	10-24 x 1/2 **P/N 44504**	10-32 x 3/4 **P/N 44508**	1/4-20 x 1" **P/N 44512**	 5/16-18 x 1/2 **P/N 44516**	 3/8-16 x 3/4 **P/N 44520**
8-32 x 3/4 **P/N 44501**	10-24 x 3/4 **P/N 44505**	10-32 x 1" **P/N 44509**	1/4-20 x 1-1/4 **P/N 44513**	 5/16-18 x 3/4 **P/N 44517**	 3/8-16 x 1" **P/N 44521**
8-32 x 1" **P/N 44502**	10-24 x 1" **P/N 44506**	 1/4-20 x 1/2 **P/N 44510**	1/4-20 x 1-1/2 **P/N 44514**	 5/16-18 x 1" **P/N 44518**	 3/8-16 x 1-1/2 **P/N 44522**
8-32 x 1-1/2 **P/N 44503**	10-32 x 1/2 **P/N 44507**	 1/4-20 x 3/4 **P/N 44511**	1/4-20 x 2" **P/N 44515**	5/16-18 x 2" **P/N 44519**	3/8-16 x 2" **P/N 44523**

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TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL FENDER WASHER ASSORTMENT (3/16" TO 1/2")

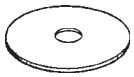
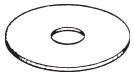
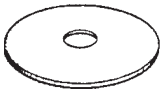
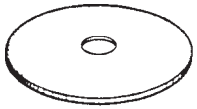
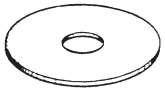
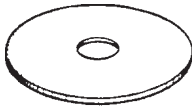
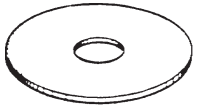
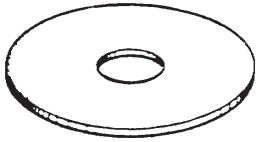
P/N 17924

8 82503 17924 3

FEATURES

- *Fender washers have an extra-wide bearing surface, eliminates the need for hole patching*
- *Precision stamped to exacting tolerances*
- *18-8 Stainless Steel - Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*

675

 8 82503 14430 2 3/16 X 1 ID: 7/32 **P/N 14430**	EXPANSION	EXPANSION
 8 82503 14431 9 1/4 X 1 ID: 9/32 **P/N 14431**	 8 82503 14432 6 1/4 X 1-1/4 ID: 9/32 **P/N 14432**	 8 82503 14433 3 1/4 X 1-1/2 ID: 9/32 **P/N 14433**
 8 82503 14434 0 5/16 X 1-1/4 ID: 11/32 **P/N 14434**	 8 82503 14435 7 5/16 X 1-1/2 ID: 11/32 **P/N 14435**	EXPANSION
8 82503 14436 4 3/8 X 1-1/4 ID: 13/32 **P/N 14436**	 8 82503 14437 1 3/8 X 1-1/2 ID: 13/32 **P/N 14437**	 8 82503 14438 8 1/2 X 2 ID: 17/32 **P/N 14438**

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TRAY FRONT

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051915

CHROMATE®
INDUSTRIAL CORP.

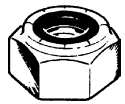
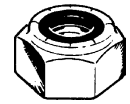
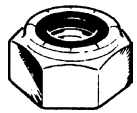
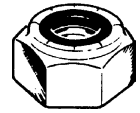
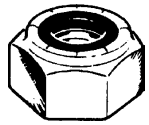
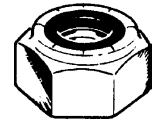
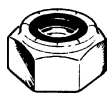
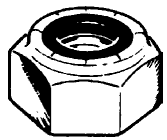
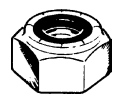
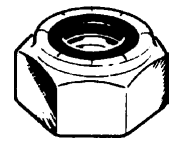
STAINLESS STEEL NYLON INSERT LOCK NUTS

P/N 17937

FEATURES:

- *18-8 Stainless steel – excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*
- *One-piece nylon insert for positive 360° locking*
- *Leak resistant, self-sealing and reusable*
- *Minimum tensile 100,000-125,000 psi*
- *Hardness = 100 Rockwell B*

330

1/4-20 **P/N 14350**	 1/2-13 **P/N 14354**	1/4-28 **P/N 24350**	 1/2-20 **P/N 24354**
5/16-18 **P/N 14351**	 9/16-12 **P/N 14358**	5/16-24 **P/N 24351**	 9/16-18 **P/N 24358**
3/8-16 **P/N 14352**	 5/8-11 **P/N 14355**	3/8-24 **P/N 24352**	 5/8-18 **P/N 24355**
 7/16-14 **P/N 14353**	 3/4-10 **P/N 14356**	 7/16-20 **P/N 24353**	 3/4-16 **P/N 24356**

A32-36

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

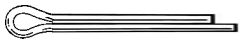
STAINLESS STEEL COTTER PIN ASSORTMENT

P/N 17938

FEATURES:

- *Easy to Insert, Lock, Remove and Reuse*
- *18 - 8 Stainless steel - excellent resistance to rust and corrosion from acids, orgnic substances, salt solutions and atmosphere.*

1310

1/16 x 1/2 **P/N 14538**	3/32 x 1 **P/N 14545**	7/64 x 1-1/2 **P/N 14571**	1/8 x 2-1/2 **P/N 14551**	5/32 x 2-1/2 **P/N 14556**	3/16 x 3 **P/N 14561**
1/16 x 1 **P/N 14540**	3/32 x 1-1/2 **P/N 14547**	1/8 x 1 **P/N 14549**	5/32 x 1 **P/N 14553**	3/16 x 1-1/2 **P/N 14559**	5/32 x 3 **P/N 14557**
1/16 x 1-1/2 **P/N 14541**	3/32 x 2 **P/N 14546**	1/8 x 1-1/2 **P/N 14550**	 5/32 x 1-1/2 **P/N 14555**	3/16 x 2 **P/N 14560**	1/4 x 2 **P/N 14565**
3/32 x 1/2 **P/N 14543**	7/64 x 1 **P/N 14570**	1/8 x 2 **P/N 14552**	5/32 x 2 **P/N 14554**	1/4 x 1-1/2 **P/N 14564**	1/4 x 3 **P/N 14566**

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TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

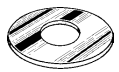
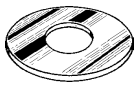
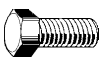
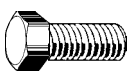
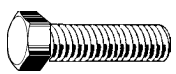
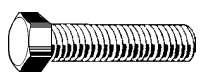
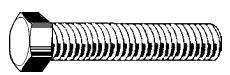
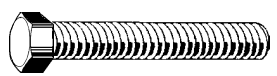
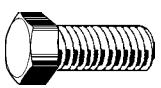
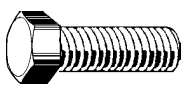
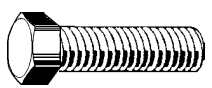
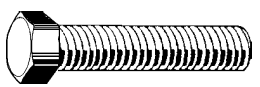
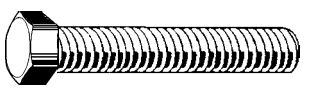
STAINLESS STEEL METRIC HEX HEAD CAP SCREW ASSORTMENT

P/N 17944

FEATURES:

- *Standard thread DIN 933/931 A2 (304) stainless*
- *Superior corrosion resistance to chemicals and sea water*
- *High molybdenum content, high temperature resistance and non-magnetic*
- *100,000 psi tensile strength*

500

6mm S/S Lock Washer **P/N 15842**	8mm S/S Lock Washer **P/N 15843**	10mm S/S Lock Washer **P/N 15844**	6mm S/S Flat Washer **P/N 15829**	 8mm S/S Flat Washer **P/N 15830**	 10mm S/S Flat Washer **P/N 15831**
6mm x 1 Hex Nut S/S **P/N 15803**	 6mm x 10mm S/S **P/N 15953**	6mm x 20mm S/S **P/N 15916**	6mm x 30mm S/S **P/N 15917**	6mm x 40mm S/S **P/N 15918**	6mm x 50mm S/S **P/N 15919**
8mm x 1.25 Hex Nut S/S **P/N 15804**	 8mm x 20mm S/S **P/N 15921**	 8mm x 25mm S/S **P/N 15956**	 8mm x 30mm S/S **P/N 15922**	 8mm x 40mm S/S **P/N 15923**	 8mm x 50mm S/S **P/N 15924**
10mm x 1.5 Hex Nut S/S **P/N 15805**	 10mm x 20mm S/S **P/N 15926**	 10mm x 25mm S/S **P/N 15927**	 10mm x 30mm S/S **P/N 15928**	 10mm x 40mm S/S **P/N 15929**	 10mm x 50mm S/S **P/N 15930**

A32-39

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

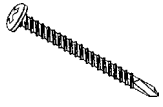
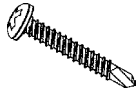
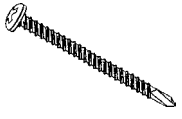
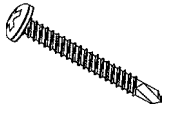
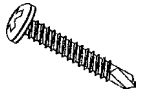
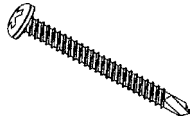
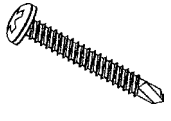
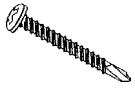
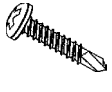
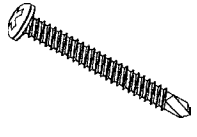
S/S PHILLIPS PAN HEAD SELF-DRILLING METAL SCREW ASSORTMENT

P/N 17975

FEATURES:

- *May be used in many materials such as structured steel, hardwood and masonite*
- *Reduces labor and tooling costs*
- *Eliminates need for drill bits and taps*
- *Manufactured of 410 grade stainless steel for maximum strength*

675

6 x 3/8 **P/N 25700**	 6 x 1-1/4 **P/N 25705**	 8 x 1 **P/N 25711**	10 x 3/4 **P/N 25716**
6 x 1/2 **P/N 25701**	 6 x 1-1/2 **P/N 25706**	 8 x 1-1/4 **P/N 25712**	 10 x 1 **P/N 25717**
6 x 3/4 **P/N 25703**	8 x 1/2 **P/N 25708**	 8 x 1-1/2 **P/N 25713**	 10 x 1-1/4 **P/N 25718**
 6 x 1 **P/N 25704**	 8 x 3/4 **P/N 25710**	10 x 1/2 **P/N 25714**	 10 x 1-1/2 **P/N 25719**

A32-40

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

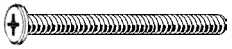
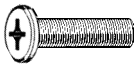
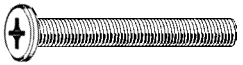
STAINLESS STEEL METRIC PHILLIPS PAN HEAD MACHINE SCREW ASSORTMENT

P/N 17986

FEATURES:

- *DIN 7985*
- *A2 (304) Stainless*
- *Excellent resistance to rust and corrosion from acids, organic substances, salt solutions and atmosphere*

1453

3mm x 8mm **P/N 68001**	3mm x 12mm **P/N 68003**	3mm x 20mm **P/N 68005**	3mm x 30mm **P/N 68007**	3mm S/S LOCKWASHER **P/N 15839**	3mm S/S HEX NUT **P/N 15800**
4mm x 10 mm **P/N 68011**	4mm x 20mm **P/N 68014**	4mm x 30mm **P/N 68016**	 4mm x 40mm **P/N 68018**	4mm S/S LOCKWASHER **P/N 15840**	4mm S/S HEX NUT **P/N 15801**
5mm x 10mm **P/N 68020**	5mm x 20mm **P/N 68023**	5mm x 30mm **P/N 68025**	5mm x 40mm **P/N 68027**	5mm S/S LOCKWASHER **P/N 15841**	5mm S/S HEX NUT **P/N 15802**
6mm x 10mm **P/N 68029**	 6mm x 20mm **P/N 68032**	6mm x 30mm **P/N 68034**	 6mm x 40mm **P/N 68036**	6mm S/S LOCKWASHER **P/N 15842**	6mm S/S HEX NUT **P/N 15803**

A32-41

TRAY FRONT

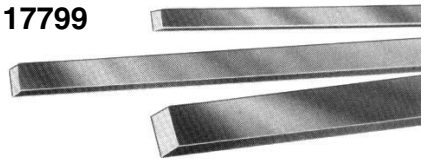
CHROMATE®
INDUSTRIAL CORP.

STAINLESS STEEL KEYSTOCK ASSORTMENT

FEATURES:

- *Use in corrosive, caustic and sanitary environments*
- *Machine cut ends*
- *Tolerances: –.002 to +.000 in both dimensions*
- *Material 303 stainless*

P/N 17799



14

1/8" x 12"
P/N 63460

3/16" x 12"
P/N 63461

1/4" x 12"
P/N 63462

5/16" x 12"
P/N 63463

3/8" x 12"
P/N 63464

1/2" x 12"
P/N 63465

A32.42

TRAY FRONT

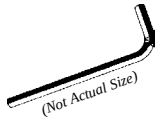
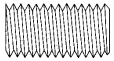
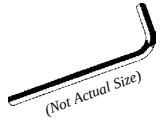
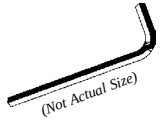
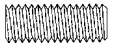
CIC 200™ METRIC SET SCREW ASSORTMENT WITH HEX KEYS

P/N 7768

FEATURES:

- *Alloy steel*
- *Thermal black oxide finish*
- *Multiple heat-treated*
- *Meets ISO grade 12.9 property class specifications*

429

4 x 12mm **P/N 67740**	5 x 12mm **P/N 67768**	6 x 12mm **P/N 67796**	8 x 12mm **P/N 67824**	10 x 30mm **P/N 67860**	 4mm KEY FOR 8mm SCREW **P/N 64307**
4 x 10mm **P/N 67738**	5 x 10mm **P/N 67766**	6 x 10mm **P/N 67794**	8 x 10mm **P/N 67822**	 10 x 20mm **P/N 67856**	 3mm KEY FOR 6mm SCREW **P/N 64306**
4 x 8mm **P/N 67736**	5 x 8mm **P/N 67764**	6 x 8mm **P/N 67792**	8 x 8mm **P/N 67820**	10 x 12mm **P/N 67852**	 2.5mm KEY FOR 5mm SCREW **P/N 64305**
4 x 6mm **P/N 67734**	5 x 6mm **P/N 67762**	6 x 6mm **P/N 67790**	6 x 20mm **P/N 67800**	 8 x 20mm **P/N 67828**	5mm KEY FOR 10mm SCREW **P/N 64308** 2mm KEY FOR 4mm SCREW **P/N 64304**

A33-1

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ METRIC PAN HEAD MACHINE SCREW ASSORTMENT WITH HEX NUTS AND LOCKWASHERS

P/N 7769

FEATURES:

- *Precision, burr-free threads for exact fit*
- *Special chromate plating eliminates rust and corrosion*

1895

6mm x 10mm 1.0 THREAD PITCH **P/N 67980**	6mm x 20mm 1.0 THREAD PITCH **P/N 67986**	6mm x 30mm 1.0 THREAD PITCH **P/N 67990**	6mm x 40mm 1.0 THREAD PITCH **P/N 67994**	6mm x 1.0 **P/N 67312**	6mm **P/N 67372**
5mm x 10mm .80 THREAD PITCH **P/N 67950**	5mm x 20mm .80 THREAD PITCH **P/N 67956**	5mm x 30mm .80 THREAD PITCH **P/N 67960**	5mm x 40mm .80 THREAD PITCH **P/N 67964**	5mm x .80 **P/N 67310**	5mm **P/N 67370**
4mm x 10mm .70 THREAD PITCH **P/N 67922**	4mm x 20mm .70 THREAD PITCH **P/N 67928**	4mm x 30mm .70 THREAD PITCH **P/N 67932**	4mm x 40mm .70 THREAD PITCH **P/N 67936**	4mm x .70 **P/N 67308**	4mm **P/N 67368**
3mm x 8mm .50 THREAD PITCH **P/N 67902**	3mm x 12mm .50 THREAD PITCH **P/N 67906**	3mm x 20mm .50 THREAD PITCH **P/N 67910**	3mm x 30mm .50 THREAD PITCH **P/N 67914**	3mm x .50 **P/N 67304**	3mm **P/N 67364**

A33-2

TRAY FRONT

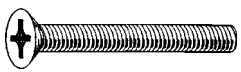
CHROMATE®
INDUSTRIAL CORP.

CIC 200™ METRIC FLAT HEAD MACHINE SCREW ASSORTMENT P/N 17774

FEATURES:

- *Precision, burr-free threads for exact fit*
- *For faster application without slippage using a screw gun, drill motor or screwdriver*
- *Special chromate plating eliminates rust and corrosion for easier removal*

1945

3mm x 8mm **P/N 68045**	3mm x 12mm **P/N 68049**	3mm x 20mm **P/N 68053**	3mm x 30mm **P/N 68057**	3mm LOCKWASHER **P/N 67364**	3mm HEX NUT **P/N 67304**
4mm x 10mm **P/N 68063**	4mm x 20mm **P/N 68069**	4mm x 30mm **P/N 68073**	4mm x 40mm **P/N 68077**	4mm LOCKWASHER **P/N 67368**	4mm HEX NUT **P/N 67308**
5mm x 10mm **P/N 68091**	5mm x 20mm **P/N 68097**	5mm x 30mm **P/N 68101**	5mm x 40mm **P/N 68105**	5mm LOCKWASHER **P/N 67370**	5mm HEX NUT **P/N 67310**
6mm x 10mm **P/N 68121**	6mm x 20mm **P/N 68127**	6mm x 30mm **P/N 68131**	 6mm x 40mm **P/N 68135**	6mm LOCKWASHER **P/N 67372**	6mm HEX NUT **P/N 67312**

A33-3

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

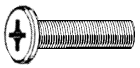
METRIC PHILLIPS PAN HEAD MACHINE SCREW ASSORTMENT

P/N 17773

FEATURES:

- *Manufactured to DIN7985*
- *Property class 4.8*
- *Zinc Plated*

1895

3mm x 8mm **P/N 67903**	3mm x 12mm **P/N 67907**	3mm x 20mm **P/N 67911**	3mm x 30mm **P/N 67915**	3mm LOCKWASHER **P/N 67364**	3mm HEX NUT **P/N 67304**
4mm x 10 mm **P/N 67923**	4mm x 20mm **P/N 67929**	4mm x 30mm **P/N 67933**	4mm x 40mm **P/N 67937**	4mm LOCKWASHER **P/N 67368**	4mm HEX NUT **P/N 67308**
5mm x 10mm **P/N 67951**	5mm x 20mm **P/N 67957**	5mm x 30mm **P/N 67961**	5mm x 40mm **P/N 67965**	5mm LOCKWASHER **P/N 67370**	5mm HEX NUT **P/N 67310**
6mm x 10mm **P/N 67981**	 6mm x 20mm **P/N 67987**	6mm x 30mm **P/N 67991**	6mm x 40mm **P/N 67995**	6mm LOCKWASHER **P/N 67372**	6mm HEX NUT **P/N 67312**

A33-4

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

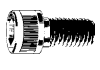
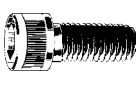
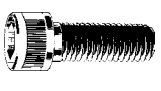
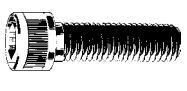
CIC 200 METRIC SOCKET HEAD CAP SCREW ASSORTMENT

P/N 17789

FEATURES:

- *Medium carbon steel*
- *Multiple heat-treated*
- *Meets ISO grade 12.9 property class specifications*
- *ISO Grade 12.9 - DIN 912*

370

4mm x 8mm **P/N 67452**	4mm x 10mm **P/N 67454**	4mm x 12mm **P/N 67456**	4mm x 16mm **P/N 67458**	4mm x 20mm **P/N 67460**	4mm x 25mm **P/N 67462**
5mm x 10mm **P/N 67482**	5mm x 12mm **P/N 67484**	5mm x 16mm **P/N 67486**	)ICFAD|67488V 5mm x 20mm **P/N 67488**	5mm x 25mm **P/N 67490**	5mm x 30mm **P/N 367492**
 6mm x 10mm **P/N 67512**	6mm x 12mm **P/N 67514**	6mm x 16mm **P/N 67516**	6mm x 20mm **P/N 67518**	6mm x 25mm **P/N 67520**	6mm x 30mm **P/N 67522**
 8mm x 16mm **P/N 67544**	 8mm x 20mm **P/N 67546**	 8mm x 25mm **P/N 67548**	8mm x 30mm **P/N 67550**	8mm x 35mm **P/N 67552**	8mm x 40mm **P/N 67554**

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CHROMATE®
INDUSTRIAL CORP.

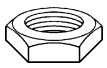
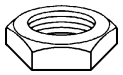
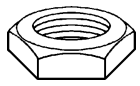
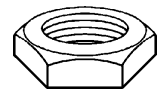
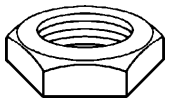
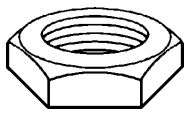
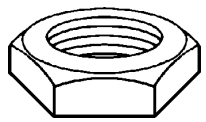
METRIC HEX JAM NUT ASSORTMENT

P/N 17798

FEATURES:

- *Property Class 04*
- *Tolerance 6H*
- *Black Finish*
- *ISO 4035-1979 and DIN 439B*

855

 2mm x 0.40 **P/N 15980**	 2.5mm x 0.45 **P/N 15981**	 3mm x 0.50 **P/N 15982**	 4mm x 0.70 **P/N 15983**
 5mm x 0.80 **P/N 15984**	 6mm x 1.00 **P/N 15985**	 8mm x 1.25 **P/N 15986**	 10mm x 1.50 **P/N 15987**
 12mm x 1.75 **P/N 15988**	 14mm x 2.00 **P/N 15989**	 16mm x 2.00 **P/N 15990**	 18mm x 2.50 **P/N 15991**
 20mm x 2.50 **P/N 15992**	 22mm x 2.50 **P/N 15993**	 24mm x 3.00 **P/N 15994**	

A33.6

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CHROMATE®
INDUSTRIAL CORP.

CIC 150 METRIC BUTTON HEAD SOCKET CAP SCREWS (3mm x 6mm to 6mm x 30mm)

FEATURES:
- *Property Class 10.9 Black Finish*
- *RC 38-44 and DIN 7380*

REFERENCE DATA				
DIAMETER	**3mm**	**4mm**	**5mm**	**6mm**
THREAD PITCH	0.50	0.70	0.80	1.00
HEX KEY SIZE	2mm	2.5mm	3mm	4mm

P/N 17812

575

3mm x 6mm **P/N 69600**	3mm x 8mm **P/N 69601**	3mm x 10mm **P/N 69602**	3mm x 12mm **P/N 69603**
4mm x 8mm **P/N 69605**	4mm x 10mm **P/N 69606**	4mm x 12mm **P/N 69607**	4mm x 16mm **P/N 69608**
5mm x 10mm **P/N 69609**	5mm x 12mm **P/N 69610**	5mm x 16mm **P/N 69611**	5mm x 20mm **P/N 69612**
5mm x 25mm **P/N 69613**	5mm x 30mm **P/N 69614**	6mm x 10mm **P/N 69615**	6mm x 12mm **P/N 69616**
6mm x 16mm **P/N 69617**	6mm x 20mm **P/N 69618**	6mm x 25mm **P/N 69619**	6mm x 30mm **P/N 69620**

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CHROMATE®
INDUSTRIAL CORP.

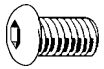
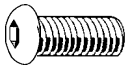
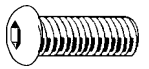
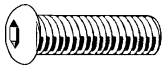
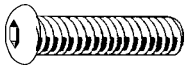
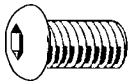
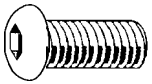
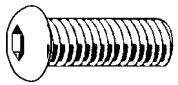
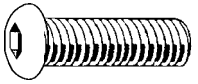
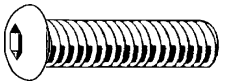
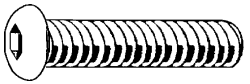
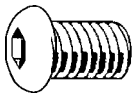
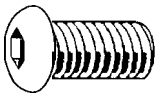
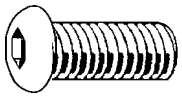
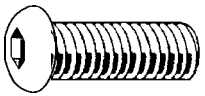
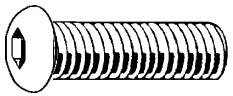
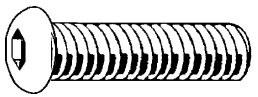
CIC 150 METRIC BUTTON HEAD SOCKET CAP SCREWS (8mm x 10mm to 12mm x 40mm)

FEATURES:
- *Property Class 10.9 Black Finish*
- *RC 38-44 and DIN 7380*

REFERENCE DATA			
DIAMETER	**8mm**	**10mm**	**12mm**
THREAD PITCH	1.25	1.50	1.75
HEX KEY SIZE	5mm	6mm	8mm

P/N 17813

240

8mm x 10mm **P/N 69621**	 8mm x 12mm **P/N 69622**	 8mm x 16mm **P/N 69623**	 8mm x 20mm **P/N 69624**
 8mm x 25mm **P/N 69625**	 8mm x 30mm **P/N 69626**	8mm x 35mm **P/N 69627**	8mm x 40mm **P/N 69628**
 10mm x 16mm **P/N 69629**	 10mm x 20mm **P/N 69630**	 10mm x 25mm **P/N 69631**	 10mm x 30mm **P/N 69632**
 10mm x 35mm **P/N 69633**	 10mm x 40mm **P/N 69634**	 12mm x 16mm **P/N 69635**	 12mm x 20mm **P/N 69636**
 12mm x 25mm **P/N 69637**	 12mm x 30mm **P/N 69638**	 12mm x 35mm **P/N 69639**	 12mm x 40mm **P/N 69640**

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CHROMATE® INDUSTRIAL CORP.

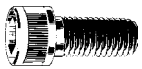
CIC 150 METRIC SOCKET HEAD CAP SCREW ASSORTMENT P/N 17817

FEATURES:

- *Multiple heat-treated black finish*
- *Meets ISO grade 12.9 property class specifications*
- *DIN 912-12 • Coarse thread pitch*

REFERENCE DATA				
DIAMETER	**4mm**	**5mm**	**6mm**	**8mm**
THREAD PITCH	0.70	0.80	1.00	1.25
HEX KEY SIZE	3mm	4mm	5mm	6mm

490

4mm x 8mm **P/N 66724**	4mm x 10mm **P/N 66725**	4mm x 12mm **P/N 66726**	4mm x 16mm **P/N 66727**	4mm x 20mm **P/N 66728**	4mm x 25mm **P/N 66729**
5mm x 10mm **P/N 66734**	5mm x 12mm **P/N 66735**	5mm x 16mm **P/N 66736**	5mm x 20mm **P/N 66737**	5mm x 25mm **P/N 66738**	5mm x 30mm **P/N 66739**
6mm x 10mm **P/N 66745**	6mm x 12mm **P/N 66746**	6mm x 16mm **P/N 66747**	6mm x 20mm **P/N 66748**	6mm x 25mm **P/N 66749**	6mm x 30mm **P/N 66750**
 8mm x 16mm **P/N 66759**	8mm x 20mm **P/N 66760**	8mm x 25mm **P/N 66761**	8mm x 30mm **P/N 66762**	8mm x 35mm **P/N 66763**	8mm x 40mm **P/N 66764**

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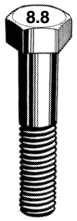
CHROMATE® INDUSTRIAL CORP.



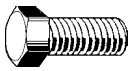
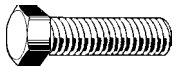
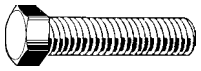
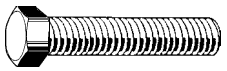
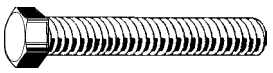
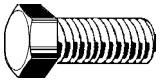
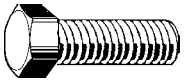
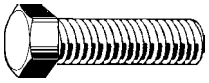
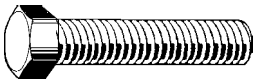
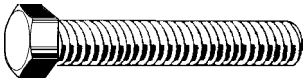
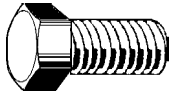
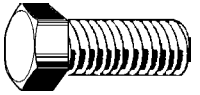
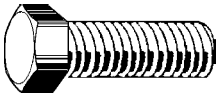
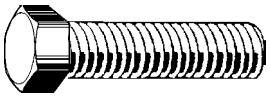
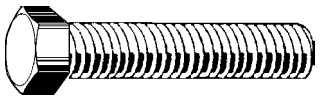
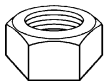
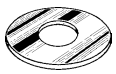
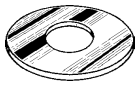
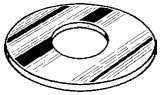
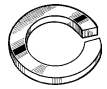
METRIC 8.8 ZINC COARSE THREAD HEX HEAD CAP SCREW ASSORTMENT

P/N 17831

FEATURES:

- *Zinc Plated*
- *Meets ISO property class specifications*

990

 8mm x 1.25 x 16mm **P/N 69185**	 8mm x 1.25 x 25mm **P/N 69188**	 8mm x 1.25 x 30mm **P/N 69189**	 8mm x 1.25 x 40mm **P/N 69191**	 8mm x 1.25 x 50mm **P/N 69193**	 10mm x 1.50 x 20mm **P/N 69216**
 10mm x 1.50 x 25mm **P/N 69217**	 10mm x 1.50 x 30mm **P/N 69218**	 10mm x 1.50 x 40mm **P/N 69220**	 10mm x 1.50 x 50mm **P/N 69222**	 12mm x 1.75 x 20mm **P/N 69244**	 12mm x 1.75 x 25mm **P/N 69245**
 12mm x 1.75 x 30mm **P/N 69246**	 12mm x 1.75 x 40mm **P/N 69248**	 12mm x 1.75 x 50mm **P/N 69250**	8mm x 1.25 Hex Nut **P/N 66889**	10mm x 1.50 Hex Nut **P/N 66890**	 12mm x 1.75 Hex Nut **P/N 66891**
 8mm Flat Washer **P/N 67344**	 10mm Flat Washer **P/N 67346**	 12mm Flat Washer **P/N 67348**	8mm Lock Washer **P/N 67376**	10mm Lock Washer **P/N 67378**	 12mm Lock Washer **P/N 67380**

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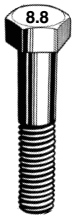


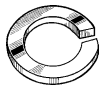
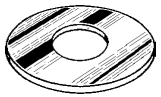
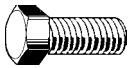
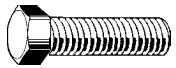
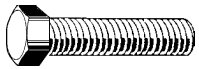
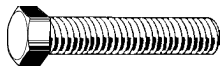
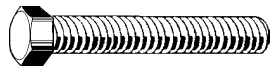
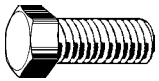
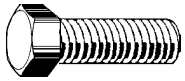
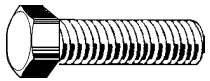
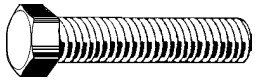
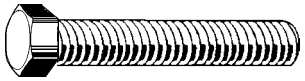
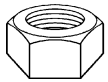
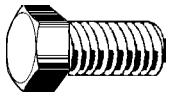
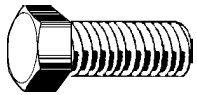
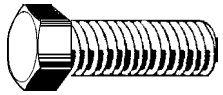
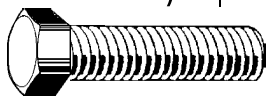
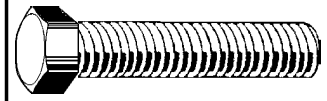
METRIC 8.8 ZINC FINE THREAD HEX HEAD CAP SCREW ASSORTMENT

P/N 17834

FEATURES:

- *Zinc Plated*
- *Meets ISO property class specifications*

825

8mm Lock Washer **P/N 67376**	10mm Lock Washer **P/N 67378**	 12mm Lock Washer **P/N 67380**	8mm Flat Washer **P/N 67344**	10mm Flat Washer **P/N 67346**	 12mm Flat Washer **P/N 67348**
8mm x 1.00 Hex Nut **P/N 66893**	 8mm x 1.00 x 16mm **P/N 69201**	 8mm x 1.00 x 25mm **P/N 69203**	 8mm x 1.00 x 30mm **P/N 69204**	 8mm x 1.00 x 40mm **P/N 69206**	 8mm x 1.00 x 50mm **P/N 69207**
10mm x 1.25 Hex Nut **P/N 66894**	 10mm x 1.25 x 20mm **P/N 69886**	 10mm x 1.25 x 25mm **P/N 69887**	 10mm x 1.25 x 30mm **P/N 69888**	 10mm x 1.25 x 40mm **P/N 69890**	 10mm x 1.25 x 50mm **P/N 69892**
 12mm x 1.50 Hex Nut **P/N 66895**	 12mm x 1.50 x 20mm **P/N 69955**	 12mm x 1.50 x 25mm **P/N 69956**	 12mm x 1.50 x 30mm **P/N 69957**	 12mm x 1.50 x 40mm **P/N 69959**	 12mm x 1.50 x 50mm **P/N 69961**

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TRAY FRONT

METRIC HEX HEAD CAP SCREW ASSORTMENT

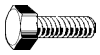
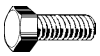
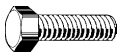
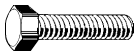
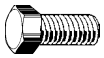
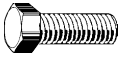
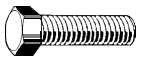
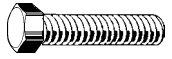
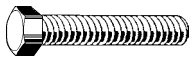
P/N 17865

CAP SCREW FEATURES:
- *Zinc plated*
- *Medium carbon alloy steel*
- *Multiple heat-treated*
- *Meets ISO property class 8.8 specifications*

HEX NUT FEATURES:
- *Zinc plated – DIN 934*
- *Multiple heat-treated carbon steel*
- *Property class 8*

LOCK WASHER AND FLAT WASHER FEATURES:
- *Zinc plated – DIN 127B and 125*
- *Multiple heat-treated carbon steel*

825

4mm Lock Washer **P/N 67368**	5mm Lock Washer **P/N 67370**	6mm Lock Washer **P/N 67372**	4mm Flat Washer **P/N 67336**	5mm Flat Washer **P/N 67338**	6mm Flat Washer **P/N 67340**
4mm x 0.7 Hex Nut **P/N 67308**	 4mm x 12mm **P/N 67034**	4mm x 16mm **P/N 67038**	4mm x 20mm **P/N 67040**	4mm x 25mm **P/N 67042**	4mm x 30mm **P/N 67044**
5mm x 0.8 Hex Nut **P/N 67310**	 5mm x 12mm **P/N 67064**	 5mm x 16mm **P/N 67068**	 5mm x 20mm **P/N 67070**	5mm x 25mm **P/N 67072**	5mm x 30mm **P/N 67074**
6mm x 1.00 Hex Nut **P/N 66888**	 6mm x 12mm **P/N 69153**	 6mm x 16mm **P/N 69155**	 6mm x 20mm **P/N 69157**	 6mm x 25mm **P/N 69388**	 6mm x 30mm **P/N 69159**

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CHROMATE® INDUSTRIAL CORP.

CIC 200™ METRIC SOCKET SET SCREW ASSORTMENT

P/N 17900

FEATURES:

- *Alloy steel*
- *Thermal black oxide finish*
- *Multiple heat-treated*
- *Meets ISO grade 12.9 property class specifications*

523

3 x 3mm **P/N 67700**	4 x 6mm **P/N 67734**	5 x 6mm **P/N 67762**	6 x 6mm **P/N 67790**	6 x 20mm **P/N 67800**	8 x 20mm **P/N 67828**
3 x 4mm **P/N 67702**	4 x 8mm **P/N 67736**	5 x 8mm **P/N 67764**	6 x 8mm **P/N 67792**	8 x 8mm **P/N 67820**	10 x 12mm **P/N 67852**
3 x 6mm **P/N 67706**	4 x 10mm **P/N 67738**	5 x 10mm **P/N 67766**	6 x 10mm **P/N 67794**	8 x 10mm **P/N 67822**	10 x 20mm **P/N 67856**
3 x 10mm **P/N 67710**	4 x 12mm **P/N 67740**	5 x 12mm **P/N 67768**	6 x 12mm **P/N 67796**	8 x 12mm **P/N 67824**	10 x 30mm **P/N 67860**

A33-12

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

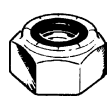
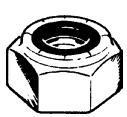
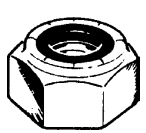
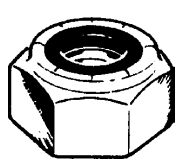
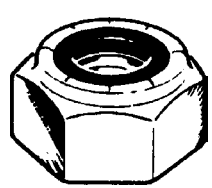
METRIC NYLON INSERT LOCK NUT ASSORTMENT

P/N 17939

FEATURES:

- *Zinc plated*
- *One-piece nylon insert for positive 360º locking*
- *Reusable*
- *Chromate protective plating*
- *Property Class 8 – Din 985*

339

 2.5mm x 0.45 **P/N 67389**	 3mm x 0.50 **P/N 67390**	 4mm x 0.70 **P/N 67392**	 5mm x 0.80 **P/N 67394**
 6mm x 1.00 **P/N 67396**	 8mm x 1.25 **P/N 67398**	 10mm x 1.50 **P/N 67400**	 12mm x 1.75 **P/N 67402**
 14mm x 2.00 **P/N 67404**	 16mm x 2.00 **P/N 67406**	 20mm x 2.50 **P/N 67410**	 24mm x 3.00 **P/N 67412**

A33-13

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

CIC 200™ METRIC FLAT HEAD SOCKET CAP SCREWS (3mm x 6mm to 6mm x 30mm)

FEATURES:
- *Property Class 10.9 Black Finish*
- *RC 38-44 and DIN 7380*

REFERENCE DATA				
DIAMETER	3mm	4mm	5mm	6mm
THREAD PITCH	0.50	0.70	0.80	1.00
HEX KEY SIZE	2mm	2.5mm	3mm	4mm

P/N 17956

373

3mm x 6mm **P/N 68700**	3mm x 8mm **P/N 68701**	3mm x 10mm **P/N 68702**	3mm x 12mm **P/N 68703**
4mm x 8mm **P/N 68707**	4mm x 10mm **P/N 68708**	4mm x 12mm **P/N 68709**	4mm x 16mm **P/N 68710**
5mm x 10mm **P/N 68717**	5mm x 12mm **P/N 68718**	5mm x 16mm **P/N 68719**	5mm x 20mm **P/N 68720**
5mm x 25mm **P/N 68721**	5mm x 30mm **P/N 68722**	6mm x 10mm **P/N 68726**	6mm x 12mm **P/N 68727**
6mm x 16mm **P/N 68728**	6mm x 20mm **P/N 68729**	6mm x 25mm **P/N 68730**	6mm x 30mm **P/N 68731**

A33-14

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 800-BUY-BOLT • FAX: 877-233-3377 • www.chromate.com

CHROMATE® INDUSTRIAL CORP.

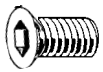
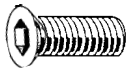
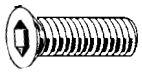
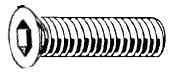
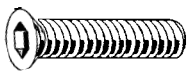
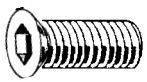
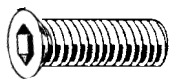
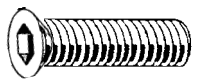
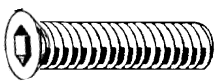
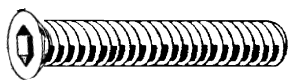
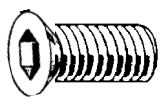
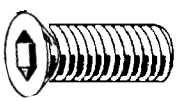
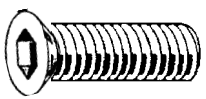
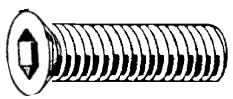
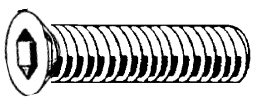
CIC 200™ METRIC FLAT HEAD SOCKET CAP SCREWS (8mm x 12mm to 12mm x 40mm)

FEATURES:
- *Property Class 10.9 Black Finish*
- *RC 38-44 and DIN 7380*

REFERENCE DATA			
DIAMETER	8mm	10mm	12mm
THREAD PITCH	1.25	1.50	1.75
HEX KEY SIZE	5mm	6mm	8mm

P/N 17957

183

 8mm x 12mm **P/N 68736**	 8mm x 16mm **P/N 68737**	 8mm x 20mm **P/N 68738**	 8mm x 25mm **P/N 68739**
 8mm x 30mm **P/N 68740**	8mm x 35mm **P/N 68741**	8mm x 40mm **P/N 68742**	8mm x 50mm **P/N 68744**
10mm x 16mm **P/N 68747**	 10mm x 20mm **P/N 68748**	 10mm x 25mm **P/N 68749**	 10mm x 30mm **P/N 68750**
 10mm x 35mm **P/N 68751**	10mm x 40mm **P/N 68752**	 10mm x 50mm **P/N 68754**	 12mm x 20mm **P/N 68757**
 12mm x 25mm **P/N 68758**	 12mm x 30mm **P/N 68759**	 12mm x 35mm **P/N 68760**	 12mm x 40mm **P/N 68761**

A33-15

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

METRIC NUT/LOCK WASHER/FLAT WASHER ASSORTMENT

P/N 17966

FEATURES:

- *Washers are precision stamped to exacting tolerance*
- *Special Chromate plating for corrosion resistance*

2800

3mm LOCKWASHER **P/N 67364**	4mm LOCKWASHER **P/N 67368**	5mm LOCKWASHER **P/N 67370**	6mm LOCKWASHER **P/N 67372**	8mm LOCKWASHER **P/N 67376**	10mm LOCKWASHER **P/N 67378**
3mm FLATWASHER **P/N 67334**	4mm FLATWASHER **P/N 67336**	5mm FLATWASHER **P/N 67338**	6mm FLATWASHER **P/N 67340**	8mm FLATWASHER **P/N 67344**	10mm FLATWASHER **P/N 67346**
3mm x 0.5 HEX NUT 8.8 ZINC **P/N 67304**	4mm x 0.7 HEX NUT 8.8 ZINC **P/N 67308**	5mm x 0.8 HEX NUT 8.8 ZINC **P/N 67310**	6mm x 1.00 HEX NUT 8.8 ZINC **P/N 66888**	8mm x 1.25 HEX NUT 8.8 ZINC **P/N 66889**	10mm x 1.50 HEX NUT 8.8 ZINC **P/N 66890**
3mm x 0.5 NYLON INSERT LOCK NUT **P/N 67390**	4mm x 0.7 NYLON INSERT LOCK NUT **P/N 67392**	5mm x 0.8 NYLON INSERT LOCK NUT **P/N 67394**	6mm x 1.00 NYLON INSERT LOCK NUT **P/N 67396**	8mm x 1.25 NYLON INSERT LOCK NUT **P/N 67398**	10mm x 1.50 NYLON INSERT LOCK NUT **P/N 67400**

A33-16

TRAY FRONT

DOT FITTINGS

P/N 17998

FEATURES

- Inch tubing connection
- NPT threads
- Fitting Body: Brass
- Collet: Brass
- Tube Support: Stainless Steel
- O-ring: Buna N
- Threads: Brass
- Working pressure: Up to 250 psi
- Working Temp.: -40°F to +200°F
- Compressed air only, lubricated or non-lubricated

DOT Male 1/4" x 1/8" NPT **P/N 44530**	DOT Male 1/4" x 1/4" NPT **P/N 44531**	DOT Male 3/8" x 1/4" NPT **P/N 44534**	DOT Male 3/8" x 3/8" NPT **P/N 44535**
DOT Male, Elbow - Composite 1/4" x 1/8" NPT **P/N 44542**	DOT Male, Elbow - Composite 1/4" x 1/4" NPT **P/N 44543**	DOT Male, Elbow - Composite 1/4" x 3/8" NPT **P/N 44544**	DOT Male, Elbow - Composite 3/8" x 1/4" NPT **P/N 44545**
DOT Male, Elbow - Composite 3/8" x 3/8" NPT **P/N 44546**	DOT Union, Composite 1/4" **P/N 44591**	DOT Union, Composite 3/8" **P/N 44592**	DOT Union Elbow - Composite 3/16" **P/N 44595**
DOT Union Elbow - Composite 1/4" **P/N 44596**	EXPANSION	EXPANSION	EXPANSION

TRAY FRONT

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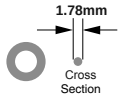
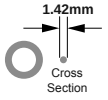
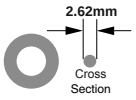
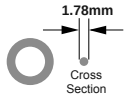
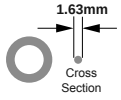
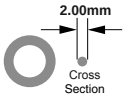
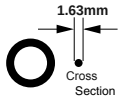
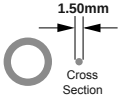
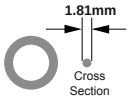
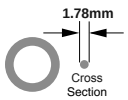
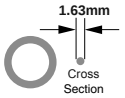
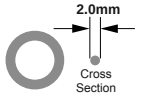
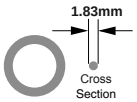
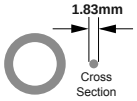
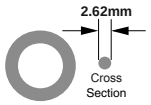
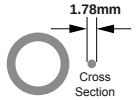
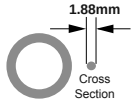
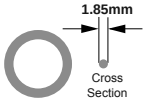
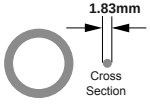
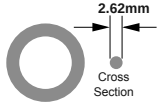
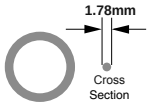
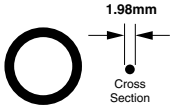
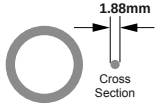
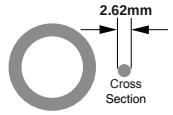
DOMESTIC A/C O-RING ASSORTMENT 1

P/N 17001

240

 Capillary Tube O-Ring **P/N 59745**	 Nissan 6mm STV, Expansion Valve O-Ring **P/N 59746**	 No. 6 GM Captive O-Ring **P/N 59748**	 Nissan 8mm Switch, Liquid Line, STV, Expansion Valve O-Ring **P/N 59750**	 Nissan 16mm Hose Fitting O-Ring **P/N 59749**	 General Motors Orifice Tube O-Ring **P/N 59754**
 GM Metric Orifice Tube O-Ring (OEM #52450547) **P/N 59755**	 7mm Toyota / Import Hose Fitting / Drier O-Ring **P/N 59756**	 Ford & Import No. 6 Metric Springlock Fitting O-Ring **P/N 59758**	 No. 6 Hose Fitting & Filter Drier O-Ring **P/N 59761**	 Ford Orifice Tube O-Ring **P/N 59760**	 Ford R-134a Pressure Cycling Switch O-Ring **P/N 59763**
 GM Low Side Switch/ Accumulator Port O-Ring OEM # 52450548 **P/N 59766**	 Import Service Valve O-Ring **P/N 59767**	 No. 8 GM Captive O-Ring **P/N 59768**	 GM & Ford Pressure Cycling Switch O-Ring (Non-metric) **P/N 59769**	 GM 1/2" Dual Metric O-Ring (#15-3978 Replaces #15-3916) **P/N 59771**	 Ford No. 8 Metric Springlock O-Ring (OEM #391397-S100) **P/N 59772**
 Nippondenso 7SB16C Compressor Discharge Ftg. O-Ring **P/N 59774**	 Nissan 12MM & Hitachi Compressor Discharge O-Ring **P/N 59777**	 No. 8 Hose Fitting O-Ring **P/N 59779**	 General Motors 11mm O-Ring **P/N 59824**	 GM 5/8" Dual Metric O-Ring (#15-3982 Replaces #15-3917) **P/N 59786**	 No. 10 GM Captive O-Ring **P/N 59787**

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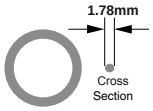
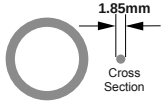
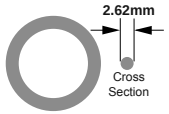
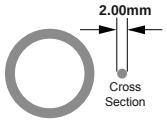
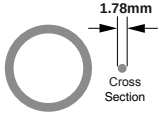
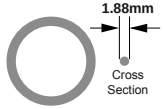
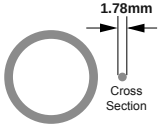
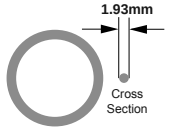
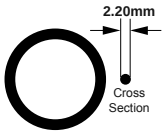
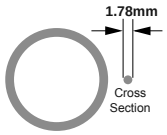
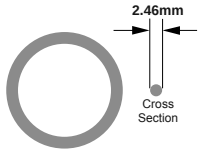
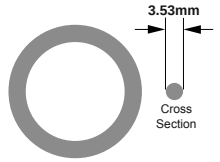
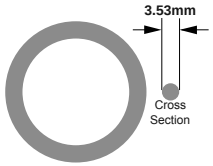
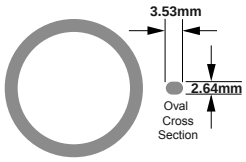
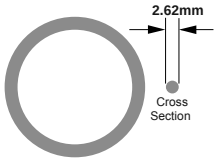
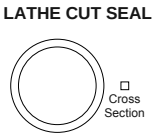
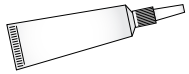
DOMESTIC A/C O-RING ASSORTMENT 2

P/N 17002

210

 No. 8 Compression Fitting O-Ring **P/N 59788**	 Ford No. 10 Metric Springlock O-Ring (OEM #W701994-S) **P/N 59790**	 No. 12 GM Captive O-Ring **P/N 59797**	 Nihon DKV14C Discharge Port O-Ring **P/N 59799**	 No. 10 Hose Fitting O-Ring **P/N 59798**	 GM 3/4" Dual Metric O-Ring (#15-3983 Replaces #15-3918) **P/N 59802**
 General Motors No. 12 Hose Fitting O-Ring **P/N 59805**	 Ford No. 12 Metric Springlock O-Ring (OEM #391305-S100) **P/N 59806**	 Import Service Valve O-Ring **P/N 59807**	 No. 12 Hose Fitting O-Ring **P/N 59811**	 Misc. Import / Domestic Compressor Service Port O-Ring **P/N 59816**	 GM A6, DA6, HR6, V5 Service Valve O-Ring - 1987 & Prior **P/N 59817**
 GM R4 Service Valve O-Ring 1987 & Prior **P/N 59820**	 GM R4, DA6, HR6, HR6HE, V5 Oval Serv. O-Ring - 1988 & Up **P/N 59823**	 Nippon. 7SB16C Suction Fitting, Chrysler RV2 Discharge O-Ring **P/N 59822**	Chrysler, Ford, Import No. 6 Springlock Garter Spring **P/N 59828**	Chrysler, Ford, Import No. 8 Springlock Garter Spring **P/N 59829**	Chrysler, Ford, Import No. 10 Springlock Garter Spring **P/N 59830**
Chrysler, Ford, Import No. 12 Springlock Garter Spring **P/N 59831**	 York & Tecumseh Compressor Rotolock Teflon Seal **P/N 59826**	 R12 / R-134a POE Oil Tube 4cc For O-Rings / Seals / Parts **P/N 59832**	EXPANSION	EXPANSION	EXPANSION

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EUROPEAN A/C O-RING ASSORTMENT

P/N 17003

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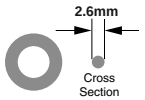
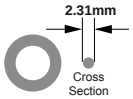
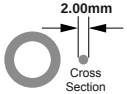
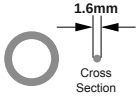
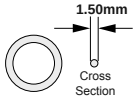
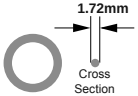
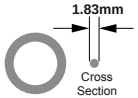
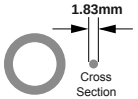
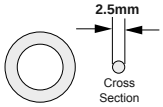
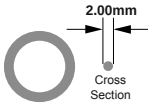
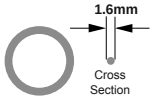
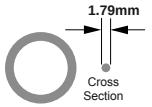
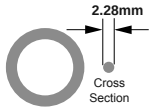
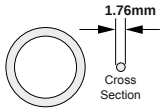
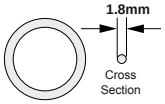
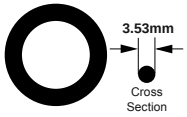
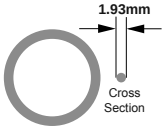
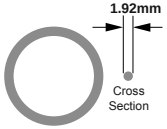
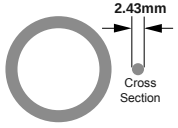
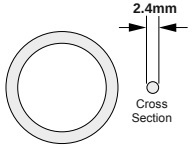
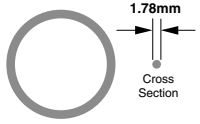
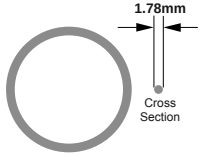
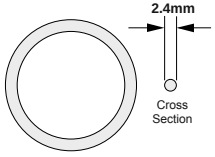
 Jaguar Service O-Ring (OEM #XR810305) **P/N 59753**	 Range Rover Service O-Ring (OEM #JUU100220) **P/N 59757**	 Mercedes R-134a Service O-Ring (OEM #140-997-0645) **P/N 59759**	 Jaguar Service O-Ring (OEM #KSG108116) **P/N 59762**	 Volvo Service O-Ring (OEM #6848027-6) **P/N 59765**	 Jaguar Service O-Ring **P/N 59764**
 Pressure Relief Valve O-Ring **P/N 59766**	 High Pressure Relief Valve O-Ring **P/N 59767**	 Volvo Service O-Ring (OEM #3545628) **P/N 59770**	 Mercedes R-134a Service O-Ring (OEM #140-997-07-45) **P/N 59773**	 Jaguar Service O-Ring (OEM #KSG111116) **P/N 59781**	 VW / Audi Service O-Ring **P/N 59784**
 Condenser 11mm O-Ring for Import Vehicles **P/N 59785**	 Volvo Service O-Ring (OEM #3545416) **P/N 59789**	 Volvo Service O-Ring **P/N 59791**	 Saab Compressor Port O-Ring **P/N 59796**	 Control Valve Lower O-Ring **P/N 59806**	 Control Valve Upper O-Ring **P/N 59808**
 Service Valve O-Ring **P/N 59809**	 Volvo Service O-Ring (OEM #6847526) **P/N 59813**	 Control Valve Upper O-Ring **P/N 59825**	 Audi / Volkswagen Service Port O-Ring **P/N 59819**	 Volvo Service O-Ring (OEM #3545441) **P/N 59821**	Mercedes Suction Discharge Manifold Seal **P/N 59827**

A35-4

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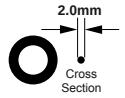
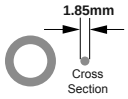
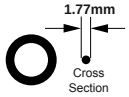
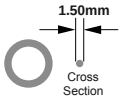
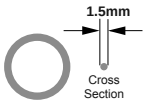
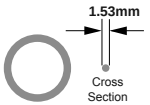
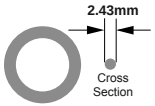
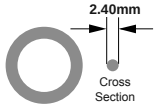
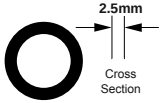
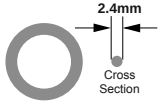
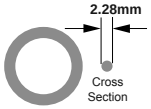
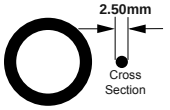
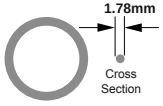
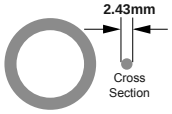
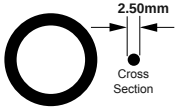
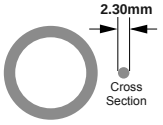
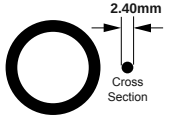
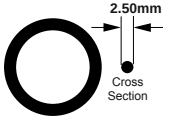
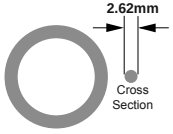
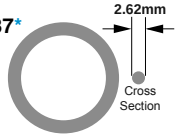
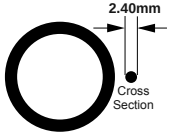
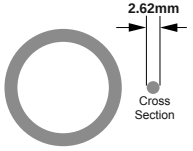
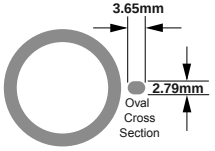
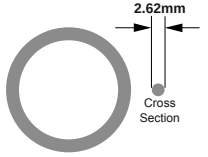
IMPORT A/C O-RING ASSORTMENT

P/N 17004

240

 Hyundai Service O-Ring (OEM #97690-34310) **P/N 59747**	 Nissan, Calsonic Metric Service O-Ring (OEM #92470-N8210) **P/N 59751**	 Subaru / Mazda Filter Drier Service O-Ring **P/N 59752**	 7mm Toyota / Import Hose Fitting Drier O-Ring **P/N 59756**	 Toyota Service O-Ring (OEM #90099-14122) **P/N 59775**	 Toyota Service O-Ring **P/N 59776**
 GM / Suzuki 11mm R-134a Expansion Valve O-Ring **P/N 59778**	 Nissan, Calsonic Metric Service O-Ring (OEM #92472-N8210) **P/N 59780**	 Honda / Acura / Lexus / Toyota Service Valve O-Ring **P/N 59783**	 Nissan, Calsonic R-134a Service O-Ring (OEM #92475-71L00) **P/N 59782**	 Condenser 11mm O-Ring For U.S. & Import Vehicles **P/N 59785**	 Import Service Valve O-Ring **P/N 59792**
 Hyundai Service O-Ring (OEM #97612-29000) **P/N 59794**	 Nissan, Calsonic R-134a Service O-Ring (OEM #92473-N8210) **P/N 59795**	 Import Suction Flange O-Ring **P/N 59793**	 Nissan, Calsonic R-134a Service O-Ring (OEM #92475-72L00) **P/N 59800**	 Import Discharge Flange O-Ring **P/N 59801**	 Nissan Service Valve O-Ring (OEM #N24622) **P/N 59803**
 Sanden Compressor Pad Mount Discharge O-Ring **P/N 59804**	**CP0037***  Diesel Kiki DKS13G, 17G Discharge Port O-Ring **P/N 59810**	 Import Service Valve O-Ring **P/N 59812**	 Nippondenso 10P Comp. Suct. & Discharge Port O-Ring **P/N 59814**	 Ford FS6, Nipp. 10P15 Oval Service Valve O-Ring **P/N 59815**	 Sanden TRF105, TRS105 Suction Port O-Ring **P/N 59818**

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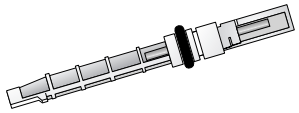
P/N 17005

60



GM Part #
3033879
3033919
15-5151
15-5611

Audi Part #
302-272-679

General Motors & Import
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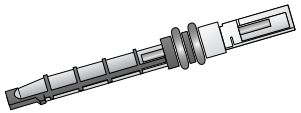
P/N 59845



Ford Part #
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E1FZ-19D990-A
F5SZ-19D990AB
YG-322
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Nissan / Quest Part #
F3XY-19D990-A

Ford & Import
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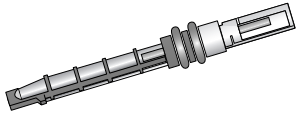
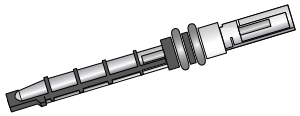
P/N 59846



Ford Part #
F09Z-19D990-A
E69Z-19D990-B
F427-19D990-A
F52Z-19D990AB
YG-319
YG-347

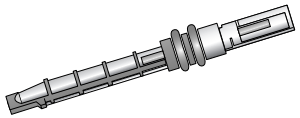
Ford & Import
Green Orifice Tube With 2 Green O-Rings, Orifice Size .052"
P/N 59847



GM Part #
E69Z-19D990-A
F5UZ-19D990AB
YG-321
YG-346

Mazda Part #
F4UZ-19D990-A

Ford & Import
Red Orifice Tube With 2 Green O-Rings, Orifice Size .062"
P/N 59848



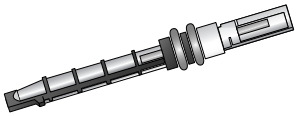
Ford Part #
E8TZ-19D990-A
E8UZ-19D990-A
F5DZ-19D990AB
YG-323
YG-343
F2DZ-19D990-A

Chrysler Part #
4885974AC
04883839AA

Ford, Chrysler & Import
Orange Orifice Tube With 2 Green O-Rings, Orifice Size .057"
P/N 59849

GM Part #
3096068
15-5378

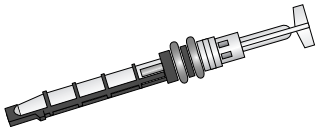
General Motors & Import
Black / White Orifice Tube With Black O-Ring, Orifice Size .072"
(T-Top)
P/N 59850



Ford Part #
F09Z-19D990-A
E69Z-19D990-B
F39Z-19D990A
YG-320

Caterpillar Part #
7X2049

Ford
Brown Orifice Tube With 2 Green O-Rings, Orifice Size .047"
P/N 59851



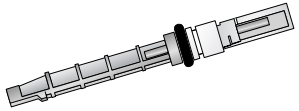
Chrysler Part #
36002432

Jeep Eagle Part #
36002432

Dodge Part #
55036182

International Part #
8548044C1

Chrysler
Purple Orifice Tube With 2 Green O-Rings, Orifice Size .062"
(T-Top)
P/N 59852



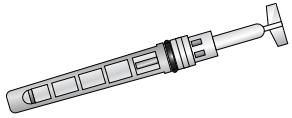
GM Part #
52473660 or 52460909

Volvo Part #
1324829-9

Opel / Vauxhall Part #
15-3079 or 15-30973

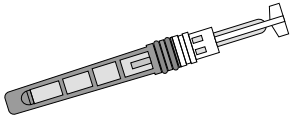
Caterpillar Part #
189-1707

General Motors & Import
Yellow / White Orifice Tube With Black O-Ring, Orifice Size .062"
P/N 59853



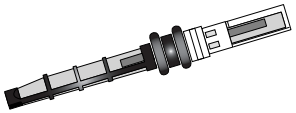
GM Part #
52477004
15-5612

General Motors
Yellow / White Orifice Tube With Black O-Ring, Orifice Size .062"
(T-Top)
P/N 59854



Chrysler / Dodge Part #
5101886AA

Chrysler / Dodge
Orange Orifice Tube, Orifice Size .057"
(T-Top)
P/N 59856



Ford Part #
YG-380
XC4Z-19D990-AA

Ford
Black / White Orifice Tube With 2 Black O-Rings, Orifice Size .072"
P/N 59855

A35-6

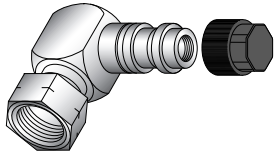
TRAY FRONT

CHROMATE INDUSTRIAL CORP.

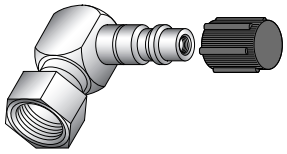
RETRO-FIT A/C ADAPTER ASSORTMENT

P/N 17006

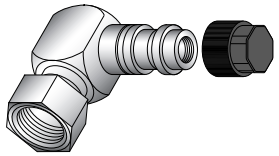
31



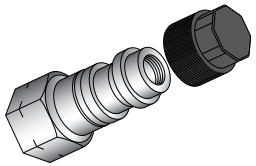
16mm x 3/8-24 (3/16") R-134a Port Adapter
With Red Cap & Valve Core (Steel)
P/N 59865



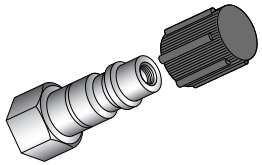
13mm x 7/16-20 (1/4") R-134a Port Adapter
With Blue Cap & Valve Core (Steel)
P/N 59864



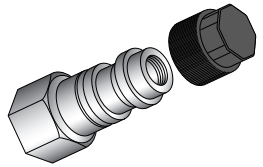
16mm x 7/16-20 (1/4") R-134a Port Adapter
With Red Cap & Valve Core (Steel)
P/N 59863



16mm x 3/8-24 (3/16") R-134a Port Adapter
With Red Cap & Valve Core (Steel)
P/N 59868



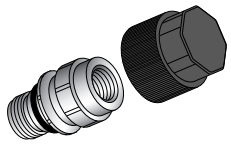
13mm x 7/16-20 (1/4") R-134a Port Adapter
With Blue Cap & Valve Core (Steel)
P/N 59867



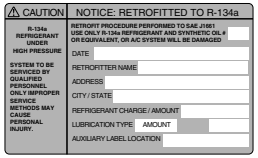
16mm x 7/16-20 (1/4") R-134a Port Adapter
With Red Cap & Valve Core (Steel)
P/N 59866

3/16" Block Off Cap
P/N 59870

1/4" Block Off Cap
P/N 59871



GM 16mm x 7/16-20 Base Thread Retrofit Primary Adapter
With Red Cap & Valve Core
P/N 59862



Standard R-134a Retrofit Label With Clear Plastic Cover
P/N 59869

EXPANSION

EXPANSION

A35-7

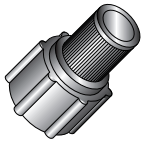
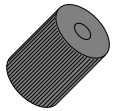
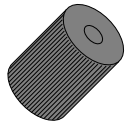
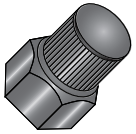
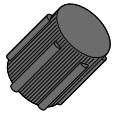
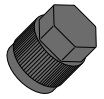
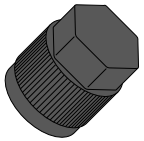
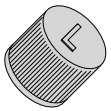
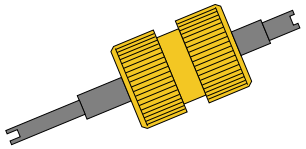
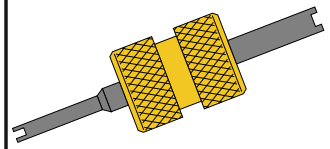
TRAY FRONT

CHROMATE INDUSTRIAL CORP.

A/C CAP & VALVE CORE ASSORTMENT

P/N 17007

152

3/16" Black R-12 Valve Port Plastic Cap With Seal **P/N 59879**	1/4" Black R-12 Valve Port Plastic Cap With Seal **P/N 59880**	 York / Tecumseh Service Valve Cap With Seal **P/N 59899**	 13mm Black R-134a Low Side Valve Port Cap Eaton SSV **P/N 59885**	 16mm Black R-134a High Side Valve Port Cap Eaton SSV **P/N 59886**	M12x1.5 Round Cap With Seal **P/N 59900**
 M10x1.25 Bell Hex Cap With Seal **P/N 59901**	 13mm Blue R-134a Low Side Valve Port Cap OEM/Aftermarket **P/N 59877**	16mm Red R-134a High Side Valve Port Cap OEM/Aftermarket **P/N 59878**	13mm Blue R-134a Low Side Valve Port Cap OEM Type **P/N 59881**	16mm Red R-134a High Side Valve Port Cap OEM Type **P/N 59882**	 13mm Blue R-134a Low Side Valve Port Cap J.R.A. Type **P/N 59883**
 16mm Red R-134a High Side Valve Port Cap J.R.A. Type **P/N 59884**	 OEM Type J.R.A. Low Side Valve Port Cap (M9 -1.0) **P/N 59887**	OEM Type J.R.A. High Side Valve Port Cap (M10 - 1.25) **P/N 59888**	R-12 & R-134a U.S. & Import Standard Flow Valve Core **P/N 59889**	R-134a U.S. Eaton SSV High Flow Valve Core (M8) **P/N 59892**	R-134a U.S. Eaton SSV High Flow Valve Core (M10) **P/N 59893**
R-12 & R-134a GM Large Bore High Flow Valve Core **P/N 59891**	R-134a JRA Import High Flow Valve Core (M6) **P/N 59890**	R-12 & R-134a Renault France Standard Flow Valve Core (M5) **P/N 59896**	R-134a Peugeot & Volvo High Flow Valve Core (M8) **P/N 59894**	 R-12 & R-134a Standard & High Flow Valve Core Tool **P/N 59898**	 Eaton SSV M8 & M10 Valve Core Tool **P/N 59897**

A35-8

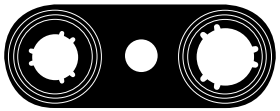
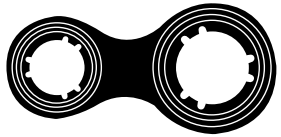
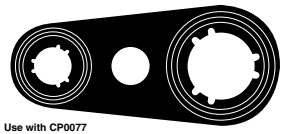
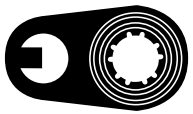
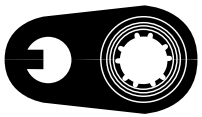
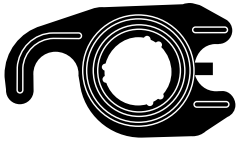
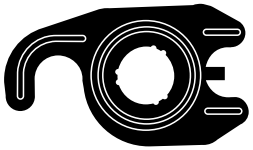
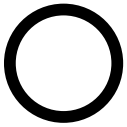
TRAY FRONT

CHROMATE INDUSTRIAL CORP.

A/C METAL GASKET ASSORTMENT

P/N 17008

220

 Chrysler C171 & A590 Service Port Plastic Pilot (OEM #3847147) **P/N 59919**	 Chrysler Block Extension Valve Suction & Discharge Pilot Set **P/N 59923**	 Chrysler Block Extension Valve Suction & Discharge Pilot Set **P/N 59924**	 Chrysler Condenser Block Gasket OEM #3848635 **P/N 59907**	 Use with CP0077 Plastic Pilots Chrysler Std. Block Expansion Valve Gasket OEM #3846836 **P/N 59908**	 Use with CP0077 Plastic Pilots Chrysler Black Block Expansion Valve Gasket W/ Foam Coating (OEM #4677045) **P/N 59914**
 Use with CP0077 Plastic Pilots Chrysler Block Expansion Valve Suction / Liquid Line Gasket OEM #3846834 **P/N 59906**	 Chrysler Standard Block Filter Drier Gasket (1978-95) (OEM #3847083) **P/N 59909**	 Chrysler Filter Drier Block Gasket .377" Small Bolt Hole (1993 & Up) (OEM #4720747) **P/N 59918**	 Chrysler / Sanden Discharge Port gasket **P/N 59925**	 Chrysler 6C17 5/8" I.D. Service Flange Gasket (1989) (OEM #3849730) **P/N 59910**	 Chrysler 6C17 Service Flange Gasket (1991 & Up) (OEM #4638189) **P/N 59912**
 Chrysler 6C17 Service Flange Gasket 1/2" I.D. (1990-89) (OEM #5264373) **P/N 59913**	 Chrysler Sanden Suction Port Gasket 16mm I.D. (OEM #5210223) **P/N 59920**	 Use with CP0076 Plastic Pilots Chrysler C171 & A590 Service Port Gasket (OEM #3847081) **P/N 59911**	 #8 (1/2") GM Dual O-Ring Connection Metal Backup Gaskets (1992 & Up) (OEM #52460714) **P/N 59915**	 #10 (5/5/8") GM Dual O-Ring Connection Metal Backup Gaskets (1992 & Up) (OEM #52460715) **P/N 59916**	 #12 (3/4") GM Dual O-Ring Connection Metal Backup Gaskets (1992 & Up) (OEM #52460716) **P/N 59917**
 CHRYSLER / NIPPONDENSO 10S DISCHARGE GASKET KIT OEM KIT #05066497AA **P/N 59926**	 CHRYSLER / NIPPONDENSO 10S SUCTION GASKET KIT OEM KIT #05066498AA **P/N 59927**	 Cheysler 3/8" LX Drier/Liquid Line Gasket/O-Ring Kit (OEM #05161761AA) **P/N 59922**	 Chrysler 5/8" KJ Hose Gasket/O-Ring Kit (OEM #05072141AA) **P/N 59921**	EXPANSION	EXPANSION

A35-9

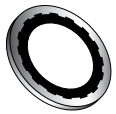
TRAY FRONT

CHROMATE INDUSTRIAL CORP.

A/C SEALING WASHERS ASSORTMENT

P/N 17009

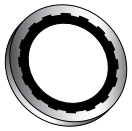
48



General Motors & Opel 5/8" I.D. Thin Stepped Block Sealing Washer
• GM Part #2724952 • Delco Part #15-30917
Chrysler 5/8" I.D. Thin Stepped Block Sealing Washer
• Chrysler Part #05012979AA
P/N 59941

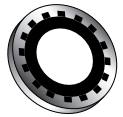
General Motors 8mm Slim Line Block Fitting Sealing Washer
• GM Part #5247087 • Delco Part #15-31054
P/N 59942

General Motors 11mm Slim Line Block Fitting Sealing Washer
• GM Part #52474373 • Delco Part #15-31055
Chrysler & Opel 11mm Slim Line Block Fitting Sealing Washer
• Chrysler Part #5012980AA
P/N 59943

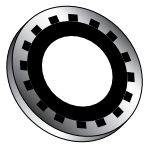


General Motors 17mm Slim Line Block Fitting Sealing Washer
• GM Part #27249661, 52474375
• Delco Part #15-31056, 15-31101
P/N 59944

General Motors 5/8" I.D. Thick Sealing Washer - Black
• GM Part #5247910
P/N 59933



General Motors 5/8" I.D. Thin Sealing Washer - Silver
• GM Part #5245572
Chrysler (Replaces Green HNBR Version)
• Chrysler Part #4761737
P/N 59934



General Motors 3/4" I.D. Thin Sealing Washer - Silver
• GM Part #52455756
P/N 59935

General Motors Thick Retrofit Sealing Washer - Green
• GM Part #2724890
P/N 59336

General Motors Thick Retrofit Sealing Washer - Red
• GM Part #2724889
P/N 59937

General Motors Thick Retrofit Sealing Washer - Yellow
• GM Part #2724888
P/N 59938

Dodge Suction Port Sealing Washer
• Dodge Part #56003881
P/N 59939

Dodge Discharge Port Sealing Washer
• Dodge Part #56005915
P/N 59940

A35-10

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

D.O.T. AIR BRAKE BRASS PUSH-IN FITTINGS

P/N 17018

FEATURES:
- All brass body
- Stainless steel tube support assures maximum flow and performance characteristics
- Elbows and tees available in swivel or rigid dryseal pipe threads.
- Lubricated O-Ring Seal (Buna N) insures a quick, easy and positive seal
- Innovative Collet design insures positive grip on tubing
- Release button offers quick and easy disconnections

 STRAIGHT UNION 1/4" **P/N 44779**	 STRAIGHT UNION 3/8" **P/N 44780**	 MALE CONNECTOR 1/4" x 1/4" NPT **P/N 44740**	 MALE CONNECTOR 3/8" x 1/4" NPT **P/N 44745**
 MALE CONNECTOR 3/8" x 3/8" NPT **P/N 44746**	 MALE SWIVEL ELBOW 1/4" x 1/4" NPT **P/N 44764**	 MALE SWIVEL ELBOW 3/8" x 1/4" NPT **P/N 44767**	 MALE SWIVEL ELBOW 3/8" x 3/8" NPT **P/N 44768**
 45˚ MALE ELBOW 1/4" x 1/4" NPT **P/N 44791**	 45˚ MALE ELBOW 3/8" x 1/4" NPT **P/N 44793**	 45˚ MALE ELBOW 3/8" x 3/8" NPT **P/N 44794**	 MALE SWIVEL BRANCH TEE 1/4" x 1/4" NPT **P/N 44771**
 MALE SWIVEL BRANCH TEE 3/8" x 1/4" NPT **P/N 44772**	 MALE SWIVEL BRANCH TEE 3/8" x 3/8" NPT **P/N 44773**	 UNION TEE 1/4" **P/N 44775**	 UNION TEE 3/8" **P/N 44776**

TRAY FRONT

CHROMATE INDUSTRIAL CORP. • 5250-A NAIMAN PARKWAY, SOLON, OH 44139 • 1-800-BUY-BOLT • FAX: 631-567-2418 • www.chromate.com

D.O.T. AIR BRAKE BRASS PUSH-IN FITTINGS, 5 / 8"

P/N 17034

FEATURES:
- All brass body
- Stainless steel tube support assures maximum flow and performance characteristics
- Elbows and tees available in swivel or rigid dryseal pipe threads.
- Lubricated O-Ring Seal (Buna N) insures a quick, easy and positive seal
- Innovative Collet design insures positive grip on tubing
- Release button offers quick and easy disconnections

 MALE CONNECTOR 5/8" x 3/8" NPT **P/N 44906**	 MALE CONNECTOR 5/8" x 1/2" NPT **P/N 44907**	 STRAIGHT UNION 5/8" **P/N 44908**	 UNION TEE 5/8" **P/N 44909**
 MALE ELBOW 5/8" x 3/8" NPT **P/N 44910**	 MALE ELBOW 5/8" x 1/2" NPT **P/N 44911**	 45˚ MALE SWIVEL ELBOW 5/8" x 1/2" NPT **P/N 44912**	 MALE SWIVEL ELBOW 5/8" x 3/8" NPT **P/N 44913**
 MALE SWIVEL ELBOW 5/8" x 1/2" NPT **P/N 44914**	 45˚ MALE ELBOW 5/8" x 3/8" NPT **P/N 44915**	 45˚ MALE ELBOW 5/8" x 1/2" NPT **P/N 44916**	EXPANSION

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CHROMATE® INDUSTRIAL CORP.

WINDSHIELD REPAIR SYSTEM ASSORTMENT

P/N 17913

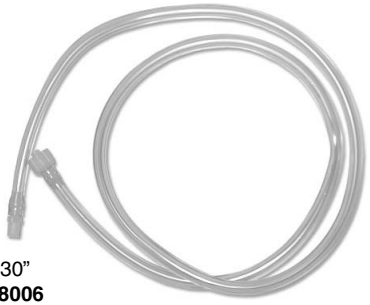
FEATURES:

- *Repairs common windshield damage avoiding visibility hazards and replacement costs*
- *Forms a clear permanent repair*
- *Stops damage from spreading or cracks from developing*
- *No mixing – fast and easy to use*

30

Adhesive Alignment Seals
P/N 78004

UV Quick Cure Resin 1/2 oz.
P/N 78000



Hose 30”
P/N 78006

Mylar Square Curing Film
P/N 78010

Scraper
P/N 66403

Flow Regulator
P/N 78007

Cure Guard
P/N 78008

Pedestal Resin Chambers
P/N 78005

Carbide Probe
P/N 78009

Manual
P/N 78013

Injector Assembly
P/N 78001

OPTIONAL:
Video
P/N 78012

OPTIONAL:
UV Light **P/N 78002**
Charger **P/N 78003**

A35-13

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

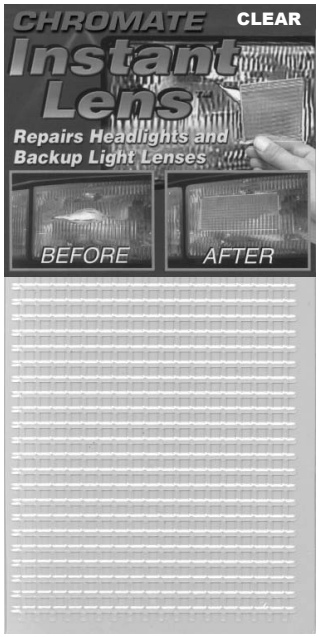
HEADLIGHT / TAIL LIGHT / MIRROR REPAIR

INSTANT LENS REPAIR FEATURES:
- *Repairs headlight, tail light and backup light lenses*
- *Fast and easy to apply – repairs without removing housing*
- *Prevents lights from burning out*

REAR VIEW MIRROR FEATURES:
- *Standard button attachment and reattachment over chipped glass*

P/N 17914

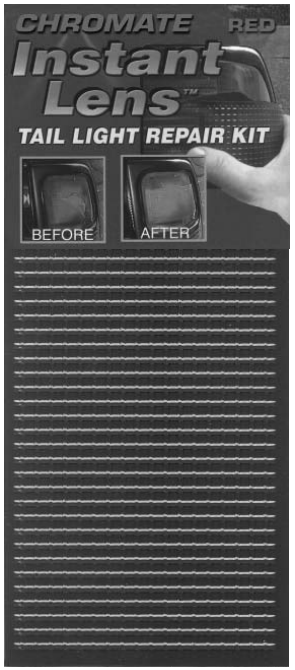
8



INSTANT LENS REPAIR INSTRUCTIONS

1. Remove all loose and broken pieces around damaged area. Clean lens around area thoroughly with dry cloth or paper towel.
2. Place Repair Panel (flat side up) on a level surface. Note: Flat surface side of the repair panel is the surface that receives the adhesive gasket.
3. Remove the liner from one side of the adhesive gasket and apply it to the flat surface of the panel. Match the edges of gasket to the edges of the panel. Press gasket to panel. Run fingers round insuring a good bond.
4. Hold panel over damaged area to determine size of lens repair panel. Position the Panel allowing a 1/2 inch overlap on all sides of damage. If size selected needs to be smaller trim along the inner grid lines.
5. Remove remaining liner off adhesive gasket. Position panel over damaged area with a 1/2 inch overlap on all sides of the damage and press to lens. Run your fingers around the solid area insuring a good bond.

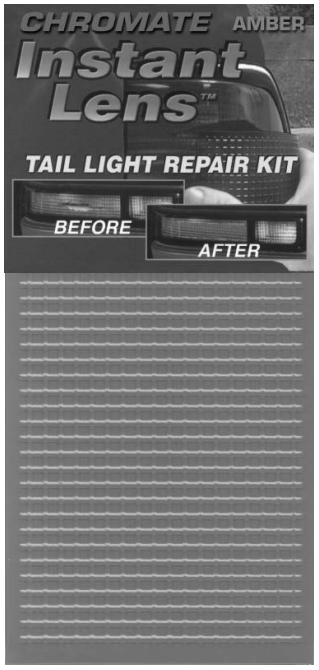
Instant Lens (Clear) – 3-3/4'' x 7-3/4''
P/N 78032



INSTANT LENS REPAIR INSTRUCTIONS

1. Remove all loose and broken pieces around damaged area. Clean lens around area thoroughly with dry cloth or paper towel.
2. Place Repair Panel (flat side up) on a level surface. Note: Flat surface side of the repair panel is the surface that receives the adhesive gasket.
3. Remove the liner from one side of the adhesive gasket and apply it to the flat surface of the panel. Match the edges of gasket to the edges of the panel. Press gasket to panel. Run fingers round insuring a good bond.
4. Hold panel over damaged area to determine size of lens repair panel. Position the Panel allowing a 1/2 inch overlap on all sides of damage. If size selected needs to be smaller, trim along the inner grid lines.
5. Remove remaining liner off adhesive gasket. Position panel over damaged area with a 1/2 inch overlap on all sides of the damage and press to lens. Run your fingers around the solid area insuring a good bond.

Instant Lens (Red) – 7" x 10"
P/N 78031



INSTANT LENS REPAIR INSTRUCTIONS

1. Remove all loose and broken pieces around damaged area. Clean lens around area thoroughly with dry cloth or paper towel.
2. Place Repair Panel (flat side up) on a level surface. Note: Flat surface side of the repair panel is the surface that receives the adhesive gasket.
3. Remove the liner from one side of the adhesive gasket and apply it to the flat surface of the panel. Match the edges of gasket to the edges of the panel. Press gasket to panel. Run fingers round insuring a good bond.
4. Hold panel over damaged area to determine size of lens repair panel. Position the Panel allowing a 1/2 inch overlap on all sides of damage. If size selected needs to be smaller, trim along the inner grid lines.
5. Remove remaining liner off adhesive gasket. Position panel over damaged area with a 1/2 inch overlap on all sides of the damage and press to lens. Run your fingers around the solid area insuring a good bond.

Instant Lens (Amber) – 3-3/4" x 7-3/4"
P/N 78030

REAR VIEW MIRROR SAVER INSTRUCTIONS

STANDARD BUTTON ATTACHMENT

1. Hold mirror assembly and scrape off old resin using safety razor. Once button is clean, detach it from bracket assembly.
2. Mark outside of windshield for proper placement of button before cleaning inside windshield of old adhesive.
3. Thoroughly remove all traces of old resins from windshield with a safety razor.
4. Apply adhesive to the smaller surface of the button by pushing plunger in slowly, allowing adhesive to flow evenly over entire surface of the button. (Apply 1/2 the adhesive, leaving remainder for a second button repair.)
5. Place button activator screen over adhesive dispensed on button.
6. Immediately mount button on windshield, ensuring rounded edge of button is facing upward. Press button to glass and hold in place for 2 minutes. Hold longer if temperature is below 50°F. Release and allow to set for 20 minutes.
7. Use a razor blade to remove any excess adhesive or activator screen from around button. Mirror bracket is now ready to be mounted onto mirror button.

   (SEE PACKAGE FOR INSTRUCTIONS FOR CHIPPED GLASS REPAIR AND FULL DETAIL INSTRUCTIONS)

Rear View Mirror Saver Kit **P/N 78025**

All-Purpose Shears
P/N 78033

A35-14

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

UNIVERSAL NYLON RETAINERS, BLACK AND BLUE

P/N 17717

8 82503 11152 6

FEATURES

- *Covers 2.5 mm to 10 mm hole sizes*
- *Nylon Shield Retainers*
- *Weatherstrip Retainers*
- *Dash Panel Retainers*
- *Rear Hood Seal Retainers*
- *Bumper Filler Retainers*
- *Fascia Panel Retainers*
- *Textured Head Panel Retainers*
- *Trim Panel Retainers*
- *Radiator Panel Retainers*
- *Fascia Bumper Retainers*

465

8 82503 11107 6 7/64" (2.5 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9720**	8 82503 11109 0 5/32" (4 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9721**	8 82503 11116 8 3/16" (4.5 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9722**	8 82503 11117 5 3/16" (4.5 mm) Hole Size Universal Weatherstrip Retainers, Black **P/N 9723**	8 82503 11118 2 3/16" (4.5 mm) Hole Size Dash Panel Retainers, Black **P/N 9724**	8 82503 11125 0 1/4" (6.4 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9731**
8 82503 11120 5 13/64" (5.3 mm) Hole Size Short Weatherstrip Retainers, Black **P/N 9726**	8 82503 11121 2 13/64" (5.3 mm) Hole Size Long Weatherstrip Retainers, Black **P/N 9727**	8 82503 11119 9 13/64" (5.3 mm) Hole Size Universal Nylon Shield Retainers, Blue **P/N 9725**	8 82503 11122 9 7/32" (5.5 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9728**	8 82503 11123 6 7/32" (5.5 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9729**	8 82503 11134 2 5/16" (7.8 mm) Hole Size Rear Hood Seal Retainers, Black **P/N 9740**
8 82503 11124 3 15/64" (6 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9730**	8 82503 11129 8 1/4" (6.4 mm) Hole Size Bumper Filler Retainers, Black **P/N 9735**	8 82503 11126 7 1/4" (6.4 mm) Hole Size Short Universal Nylon Shield Retainers, Black **P/N 9732**	8 82503 11127 4 1/4" (6.4 mm) Hole Size Long Universal Nylon Shield Retainers, Black **P/N 9733**	8 82503 11128 1 1/4" (6.4 mm) Hole Size Fascia panel Retainers, Black **P/N 9734**	8 82503 11130 4 9/32" (7.1 mm) Hole Size Textured Head Panel Retainers, Black **P/N 9736**
8 82503 11131 1 5/16" (7.8 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9737**	8 82503 11132 8 5/64" (7.8 mm) Hole Size Universal Nylon Shield Retainers, Black **P/N 9738**	8 82503 11133 5 5/16" (7.8 mm) Hole Size Trim Panel Retainers, Black **P/N 9739**	8 82503 11135 9 23/64" (9 mm) Hole Size Trim Panel Retainers, Black **P/N 9741**	8 82503 11136 6 3/8" (9.5 mm) Hole Size Radiator Panel Retainers, Black **P/N 9742**	8 82503 11137 3 25/64" (10 mm) Hole Size Fascia Bumper Retainers, Black **P/N 9743**

A35-15

TRAY FRONT

ERGO TUFLOKS NYLON PUSH-TYPE RETAINERS, BLACK

P/N 17718

FEATURES

- *Hole Sizes: 6.5 mm to 10 mm*
- *Flange Sizes: 14 mm to 25 mm*
- *Panel Rages: 2 mm to 10 mm*

255

 Hole Size: 6.5 mm Flange Size: 18 mm Panel Range: 2.0 to 4.5 mm **P/N 9760**	 Hole Size: 8 mm Flange Size: 19 mm Panel Range: 5.0 to 7.0 mm **P/N 9763**	 Hole Size: 8.5 mm Flange Size: 20 mm Panel Range: 4.5 to 7.0 mm **P/N 9766**	 Hole Size: 10.5 mm Flange Size: 25 mm Panel Range: 3.0 to 6.0 mm **P/N 9769**
 Hole Size: 6.5 mm Flange Size: 18 mm Panel Range: 4.5 to 7.0 mm **P/N 9761**	 Hole Size: 8.5 mm Flange Size: 20 mm Panel Range: 2.0 to 4.5 mm **P/N 9764**	 Hole Size: 8.5 mm Flange Size: 20 mm Panel Range: 7.0 to 10.0 mm **P/N 9767**	 Hole Size: 10.5 mm Flange Size: 25 mm Panel Range: 6.0 to 9.0 mm **P/N 9770**
 Hole Size: 6.5 mm Flange Size: 14 mm Panel Range: 7.0 to 9.5 mm **P/N 9762**	 Hole Size: 8.5 mm Flange Size: 19 mm Panel Range: 2.7 to 5.3 mm **P/N 9765**	 Hole Size: 9.5 mm Flange Size: 18 mm Panel Range: 2.95 to 5.75 mm **P/N 9768**	EXPANSION

A35-16

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

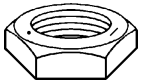
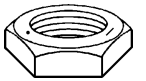
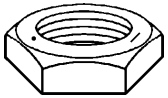
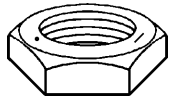
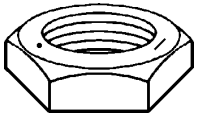
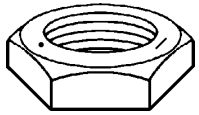
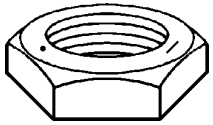
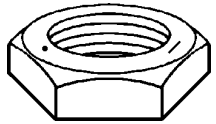
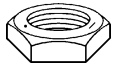
CIC 200™ JAM NUT ASSORTMENT

P/N 17780

FEATURES:

- *Thinner than standard nuts – designed to be "jammed" together to prevent loosening*
- *Designed for grade 5 cap screws*
- *Protected with special chromate plating*

400

1/4-20 **P/N 6001**	 5/8-11 **P/N 6009**	1/4-28 **P/N 6021**	 5/8-18 **P/N 6029**
5/16-18 **P/N 6002**	 3/4-10 **P/N 6011**	5/16-24 **P/N 6022**	 3/4-16 **P/N 6031**
3/8-16 **P/N 6003**	 7/8-9 **P/N 6012**	3/8-24 **P/N 6023**	 7/8-14 **P/N 6032**
7/16-14 **P/N 6004**	 1-8 **P/N 6013**	7/16-20 **P/N 6024**	 1-14 **P/N 6033**
1/2-13 **P/N 6006**		 1/2-20 **P/N 6026**	

A38-1

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

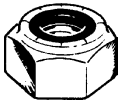
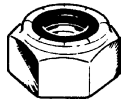
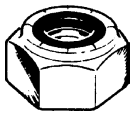
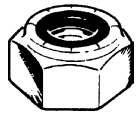
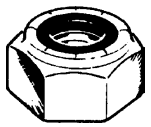
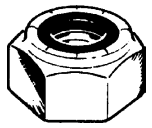
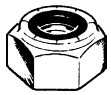
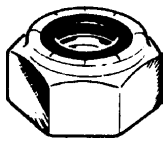
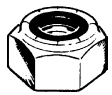
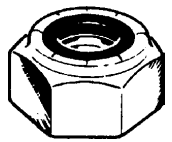
NYLON INSERT LOCK NUTS

P/N 17786

FEATURES:

- *Special prime steel*
- *One-piece nylon insert for positive 360º locking*
- *Chemical resistant and reusable*
- *Chromate protective plating*
- *Helps reduce corrosion of nut and mating thread*
- *Leak resistant and self-sealing*
- *Maximum temperature is 250ºF*

370

1/4-20 **P/N 6020**	 1/2-13 **P/N 6040**	1/4-28 **P/N 5020**	 1/2-20 **P/N 5040**
5/16-18 **P/N 6025**	 9/16-12 **P/N 6045**	5/16-24 **P/N 5025**	 9/16-18 **P/N 5045**
3/8-16 **P/N 6030**	 5/8-11 **P/N 6050**	3/8-24 **P/N 5030**	 5/8-18 **P/N 5050**
 7/16-14 **P/N 6035**	 3/4-10 **P/N 6055**	 7/16-20 **P/N 5035**	 3/4-16 **P/N 5055**

A38-2

TRAY FRONT

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CHROMATE® INDUSTRIAL CORP.

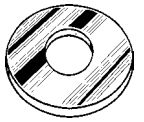
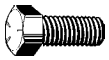
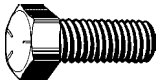
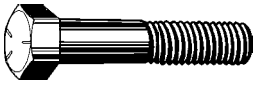
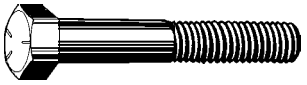
GRADE 5 CAP SCREW ASSORTMENT (USS)

P/N 17808

FEATURES:

- *Medium carbon alloy steel, through hardened*
- *Durable chromate plating*
- *Excellent elongation properties*
- *U.S. made with U.S. steel and U.S. labor*
- *Minimum 120,000 psi tensile strength*
- *Rockwell "C" hardness 33-39*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision rolled threads manufactured to SAE J429 and meets ASTM A354*

1275

1/4 Lock Washer **P/N 71210**	5/16 Lock Washer **P/N 71212**	3/8 Lock Washer **P/N 71214**	1/4 Flat Washer **P/N 66432**	5/16 Flat Washer **P/N 66433**	 3/8 Flat Washer **P/N 66435**
1/4-20 Finished Hex Nut **P/N 52300**	 1/4-20 x 1/2 **P/N 50510**	1/4-20 x 3/4 **P/N 50514**	1/4-20 x 1 **P/N 50516**	1/4-20 x 1-1/2 **P/N 50520**	1/4-20 x 2 **P/N 50524**
5/16-18 Finished Hex Nut **P/N 52302**	5/16-18 x 3/4 **P/N 50536**	5/16-18 x 1 **P/N 50538**	5/16-18 x 1-1/4 **P/N 50540**	5/16-18 x 1-1/2 **P/N 50542**	5/16-18 x 2 **P/N 50546**
3/8-16 Finished Hex Nut **P/N 52304**	 3/8-16 x 3/4 **P/N 50558**	3/8-16 x 1 **P/N 50560**	3/8-16 x 1-1/4 **P/N 50562**	 3/8-16 x 1-1/2 **P/N 50564**	 3/8-16 x 2 **P/N 50568**

A38-3

TRAY FRONT

CHROMATE® INDUSTRIAL CORP.

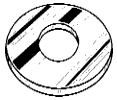
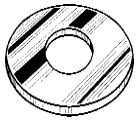
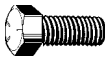
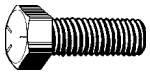
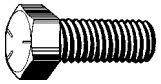
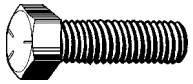
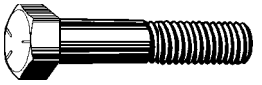
GRADE 5 SAE CAP SCREW ASSORTMENT

FEATURES:

- *Medium carbon alloy steel, through hardened*
- *Durable chromate plating*
- *Excellent elongation properties*
- *U.S. made with U.S. steel and U.S. labor*
- *Minimum 120,000 psi tensile strength*
- *Rockwell "C" hardness 33-39*
- *Smooth, chamfered end assures easy threading*
- *Class 2A precision rolled threads manufactured to SAE J429 and meets ASTM A354*

P/N 17855

1275

1/4 Lock Washer **P/N 71210**	5/16 Lock Washer **P/N 71212**	3/8 Lock Washer **P/N 71214**	1/4 Uni-Fit™ Flat Washer **P/N 6500**	 5/16 Uni-Fit™ Flat Washer **P/N 6501**	 3/8 Uni-Fit™ Flat Washer **P/N 6502**
1/4-28 Finished Hex Nut **P/N 42200**	 1/4-28 x 1/2 **P/N 40510**	1/4-28 x 3/4 **P/N 40514**	1/4-28 x 1 **P/N 40516**	1/4-28 x 1-1/2 **P/N 40520**	1/4-28 x 2 **P/N 40524**
5/16-24 Finished Hex Nut **P/N 42202**	 5/16-24 x 3/4 **P/N 40536**	5/16-24 x 1 **P/N 40538**	5/16-24 x 1-1/4 **P/N 40540**	5/16-24 x 1-1/2 **P/N 40542**	5/16-24 x 2 **P/N 40546**
3/8-24 Finished Hex Nut **P/N 42204**	 3/8-24 x 3/4 **P/N 40558**	 3/8-24 x 1 **P/N 40560**	3/8-24 x 1-1/4 **P/N 40562**	 3/8-24 x 1-1/2 **P/N 40564**	3/8-24 x 2 **P/N 40568**

A38-4

TRAY FRONT

SLOTTED HEX NUTS, GRADE 5 WITH SAE THREADS (FINE)

P/N 17692

8 82503 11156 4

FEATURES

- *Hex nut with opposed slots cut into the top of the nut*
- *Slots allow the insertion of a cotter pin*
- *Commonly used in automotive industry to secure wheel bearings / hubs to spindles*
- *Zinc clear finish on hex nuts*
- *Slotted Hex Nuts: 1/4-28 to 1-14*
- *Hammerlock Cotter Pins: 1/16" x 1-1/2" to 3/16" x 3"*
- *Cotter pins made from low carbon steel with zinc plating*

145

8 82503 11094 9 1/4-28 **P/N 42229**	8 82503 11098 7 1/2-20 **P/N 42233**	8 82503 11105 2 1-14 **P/N 42237**	8 82503 90120 2 7/64" x 2" **P/N 90120**
8 82503 11095 6 5/16-24 **P/N 42230**	8 82503 11099 4 5/8-18 **P/N 42234**	8 82503 90104 2 1/16 x 1-1/2" **P/N 90104**	8 82503 90127 1 1/8" x 2" **P/N 90127**
8 82503 11096 3 3/8-24 **P/N 42231**	8 82503 11101 4 3/4-16 **P/N 42235**	8 82503 90105 9 1/16" x 2" **P/N 90105**	8 82503 90138 7 5/32" x 2-1/4" **P/N 90138**
8 82503 11097 0 7/16-20 **P/N 42232**	8 82503 11103 8 7/8-14 **P/N 42236**	8 82503 90114 1 3/32" x 2" **P/N 90114**	8 82503 90148 6 3/16" x 3" **P/N 90148**

A38-5

TRAY FRONT

SLOTTED HEX NUTS, GRADE 5 WITH USS THREADS (COARSE)

P/N 17693

8 82503 11157 1

FEATURES

- *Hex nut with opposed slots cut into the top of the nut*
- *Slots allow the insertion of a cotter pin*
- *Commonly used in automotive industry to secure wheel bearings / hubs to spindles*
- *Zinc clear finish on hex nuts*
- *Slotted Hex Nuts: 1/4-20 to 1-8*
- *Hammerlock Cotter Pins: 1/16" x 1-1/2" to 3/16" x 3"*
- *Cotter pins made from low carbon steel with zinc plating*

145

8 82503 11085 7 1/4-20 **P/N 42220**	8 82503 11089 5 1/2-13 **P/N 42224**	8 82503 11093 2 1-8 **P/N 42228**	8 82503 90120 2 7/64" x 2" **P/N 90120**
8 82503 11086 4 5/16-18 **P/N 42221**	8 82503 11090 1 5/8-11 **P/N 42225**	8 82503 90104 2 1/16 x 1-1/2" **P/N 90104**	8 82503 90127 1 1/8" x 2" **P/N 90127**
8 82503 11087 1 3/8-16 **P/N 42222**	8 82503 11091 8 3/4-10 **P/N 42226**	8 82503 90105 9 1/16" x 2" **P/N 90105**	8 82503 90138 7 5/32" x 2-1/4" **P/N 90138**
8 82503 11088 8 7/16-14 **P/N 42223**	8 82503 11092 5 7/8-9 **P/N 42227**	8 82503 90114 1 3/32" x 2" **P/N 90114**	8 82503 90148 6 3/16" x 3" **P/N 90148**

A38-6

TRAY FRONT

CHROMATE®
INDUSTRIAL CORP.

AURALLOY™
WELDING ELECTRODE ASSORTMENT
ALL STEELS, CAST IRON

P/N 17764

11 lbs.

AURALLOY 900

Abrasion Resistant Hard Surfacing Electrode
Welding carbon and alloy steels, manganese steels and cast iron. Flux coated.

P/N	DIA.	AMPS	CURRENT	TENSILE STRENGTH
8735	**1/8"**	**80-135**	AC or DC RP (+) Flat and Horizontal	Rockwell "C" Hardness 56-60
8736	5/32"	120-160		

AURALLOY 300

Ductile Cast Iron Electrode
Welding all grades of cast iron and alloyed cast iron. Flux coated.

8720	3/32"	50-80	AC or DC RP (+) Flat, Horizontal, Vertical Up and Overhead	70,000 psi 40% elongation
8721	**1/8"**	**70-110**		
8722	5/32"	100-140		
8723	3/16"	130-175		

AURALLOY 250

Universal Stainless Steel Electrode
Welding most grades of S/S, carbon steels, alloy steels and S/S of unknown analysis. Flux coated.

8714	1/16"	30-60	AC or DC RP (+) Flat, Horizontal, Vertical Up and Overhead	95,000 psi 45% elongation
8715	3/32"	60-90		
8716	**1/8"**	**90-120**		
8717	5/32"	120-160		

AURALLOY 225

High Tensile Strength Steel Electrode
Welding all types and grades of similar and dissimilar steels. Flux coated.

8709	1/16"	30-40	AC or DC Flat, Horizontal, Vertical Up and Overhead	128,000 psi 36% elongation
8710	3/32"	40-90		
8711	**1/8"**	**70-110**		
8712	5/32"	90-160		

AURALLOY 220

Superior Strength Steel Electrode
Welding low alloy, carbon and cast steels. Flux coated.

8705	3/32"	80-110	DC RP (+) only All Position	120,000 psi 28% elongation
8706	**1/8"**	**110-150**		
8707	5/32"	140-210		
8708	3/16"	200-280		

AURALLOY 210

General Purpose Steel Electrode
Welding all mild steels. Flux coated.

8700	3/32"	50-100	AC or DC All Position	85,000 psi 29% elongation
8701	**1/8"**	**70-125**		
8702	5/32"	90-160		

A40-1

TRAY FRONT

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CHROMATE®
INDUSTRIAL CORP.

AURALLOY™ WELDING ELECTRODE ASSORTMENT HIGH PERFORMANCE MRO

P/N 17765

7.5 lbs

AURALLOY 600

Aluminum Arc Welding / Brazing Rod
Welding all types and grades of aluminum.

P/N	DIA.	AMPS	CURRENT	TENSILE STRENGTH
8731	**1/8"**	**70-110**	DC RP (+) only Flat and Horizontal	34,000 psi
8732	5/32"	100-150		

AURALLOY 400

Cutting and Chamfering Electrode
Rapid metal removal on cast iron, stainless steel, inconel, manganese and aluminum. Flux coated.

8724	3/32"	90-170	AC or DC SP (–) All Position	N/A
8725	**1/8"**	**150-300**		
8726	5/32"	175-400		

AURALLOY 310

Machinable Cast Iron Electrode
Welding all grades of cast iron and alloyed cast iron. Special non-conductive flux coating.

8746	3/32"	60-90	AC or DC RP (+) All Position	55,000 psi
8747	**1/8"**	**85-120**		

AURALLOY 255

Vertical Position Stainless Steel Electrode
Vertical down/up welding of stainless steels. Flux coated.

8737	**3/32"**	**60-80**	AC or DC RP (+) All Position	80,000 psi 42% elongation
8738	1/8"	90-110		

AURALLOY 225-V

Vertical Position High Strength Electrode
Vertical down/up welding of all types and grades of similar and dissimilar steels. Flux coated.

8718	3/32"	35-70	DC RP (+) only All Position	128,000 psi 32% elongation
8719	**1/8"**	**60-110**		

AURALLOY 225

High Tensile Strength Steel Electrode
Welding all types and grades of similar and dissimilar steels. Flux coated.

8709	**1/16"**	**30-40**	AC or DC Flat, Horizontal Vertical Up and Overhead	128,000 psi 36% elongation
8710	3/32"	40-90		
8711	1/8"	70-110		
8712	5/32"	90-160		

A40-2

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CHROMATE®
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DRIVER BIT PORTA-PACK

27

6F-8R SLOTTED INSERT BIT **P/N 83072**	8F-10R SLOTTED INSERT BIT **P/N 83073**	10F-12R SLOTTED INSERT BIT **P/N 83074**
6-8 PHILLIPS INSERT BIT **P/N 83021**	8-10 PHILLIPS INSERT BIT **P/N 83022**	12-14 PHILLIPS INSERT BIT **P/N 83023**
T10 TORX INSERT BIT **P/N 83054**	T15 TORX INSERT BIT **P/N 83055**	T20 TORX INSERT BIT **P/N 83056**

P/N #19523

CHROMATE®
INDUSTRIAL CORP.

ONE-WAY SCREW REMOVER/INSTALLER

10

#6 One Way Screw Remover/Installer **P/N 81325**	#8 One Way Screw Remover/Installer **P/N 81326**
#10 One Way Screw Remover/Installer **P/N 81327**	#12 One Way Screw Remover/Installer **P/N 81328**
#14 One Way Screw Remover/Installer **P/N 81329**	Hex Keys

P/N 19527

MAGNETIC NUTSETTER PORTA-PAK P/N 19531

 Magnetic Nutsetter / 1/4" x 2-9/16" **P/N 83005**	 Magnetic Nutsetter / 7/16" x 2-9/16" **P/N 83008**
 Magnetic Nutsetter / 5/16" x 2-9/16" **P/N 83006**	 Bit Holder Adapter / 1/4" x 3" **P/N 83020**
 Magnetic Nutsetter / 3/8" x 2-9/16" **P/N 83007**	EXPANSION

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INDUSTRIAL CORP.

HD LOBULAR MAGNETIC NUTSETTERS P/N 19533

5

P/N 82991 - 3/16" x 2-9/16"

P/N 82992 - 1/4" x 2-9/16"

P/N 82993 - 5/16" x 2-9/16"

P/N 82994 - 3/8" x 2-9/16"

P/N 82995 - 7/16" x 2-9/16"

EXPANSION

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CHROMATE®
INDUSTRIAL CORP.

TWIST-LOK WIRE NUT PORTA-PAK

100

Max. 2 #14
Twist-Lok
Wire Connector - Red
P/N 2808

Max. 4 #14
Twist-Lok
Wire Connector - Yellow
P/N 2807

22-14
Twist-Lok
Wire Connector - Orange
P/N 2805

22-14
Twist-Lok
Wire Connector - Blue
P/N 2803

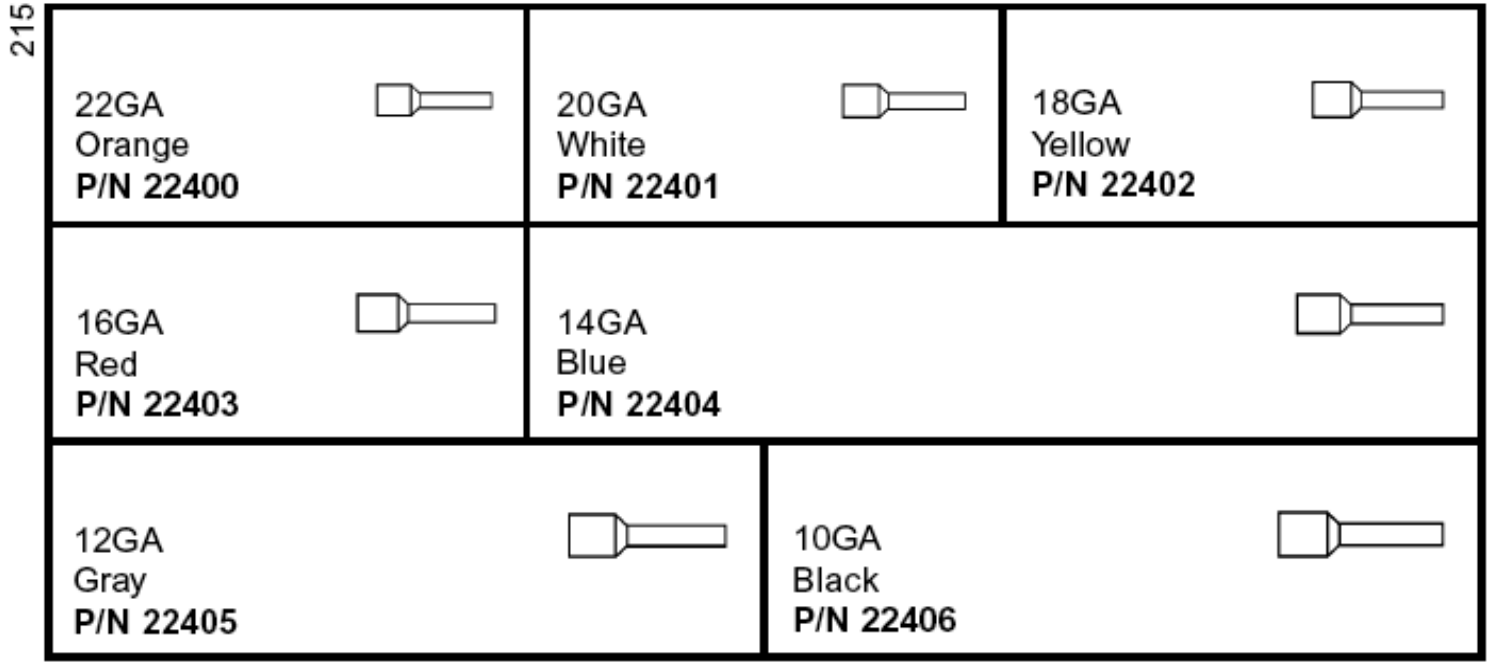
22-16
Twist-Lok
Wire Connector - Grey
P/N 2801

P/N 17860

CHROMATE®
INDUSTRIAL CORP.

HOLLOW PIN CONNECTOR PORTA-PAK

215



P/N 17885

CHROMATE®
INDUSTRIAL CORP.

PUSH-CON / SNAP-CON PORTA-PACK

67

2 Conductor Push-Con
Wire Nut (Yellow)
P/N 2521

4 Conductor Push-Con
Wire Nut (Orange)
P/N 2522

6 Conductor
Push-Con
Wire Nut (Purple)
P/N 2523

Snap-Con
Wire
Connector
P/N 2518

P/N #19500

CHROMATE®
INDUSTRIAL CORP.

POSI-LOCK CONNECTORS PORTA-PACK

67

18-24 AWG
Posi-Lock™ Connector (Red)
P/N 20600

12-18 AWG
Posi-Lock™ Connector (Blue)
P/N 20601

08-10 AWG
Posi-Lock™
Connector (Yellow)
P/N 20602

6-8 AWG
Posi-Lock™
Connector (Green)
P/N 20617

P/N #19514

CHROMATE®
INDUSTRIAL CORP.

ATM BLOW ALERT FUSE PORTA-PAK

36

5 Amp ATM Mini - Tan **P/N 6281**	10 Amp ATM Mini - Red **P/N 6283**
15 Amp ATM Mini - Blue **P/N 6284**	20 Amp ATM Mini - Yellow **P/N 6285**
25 Amp ATM Mini - Natural **P/N 6286**	30 Amp ATM Mini - Green **P/N 6287**

P/N 19516

CHROMATE®
INDUSTRIAL CORP.

ATC BLOW ALERT FUSE PORTA-PAK

42

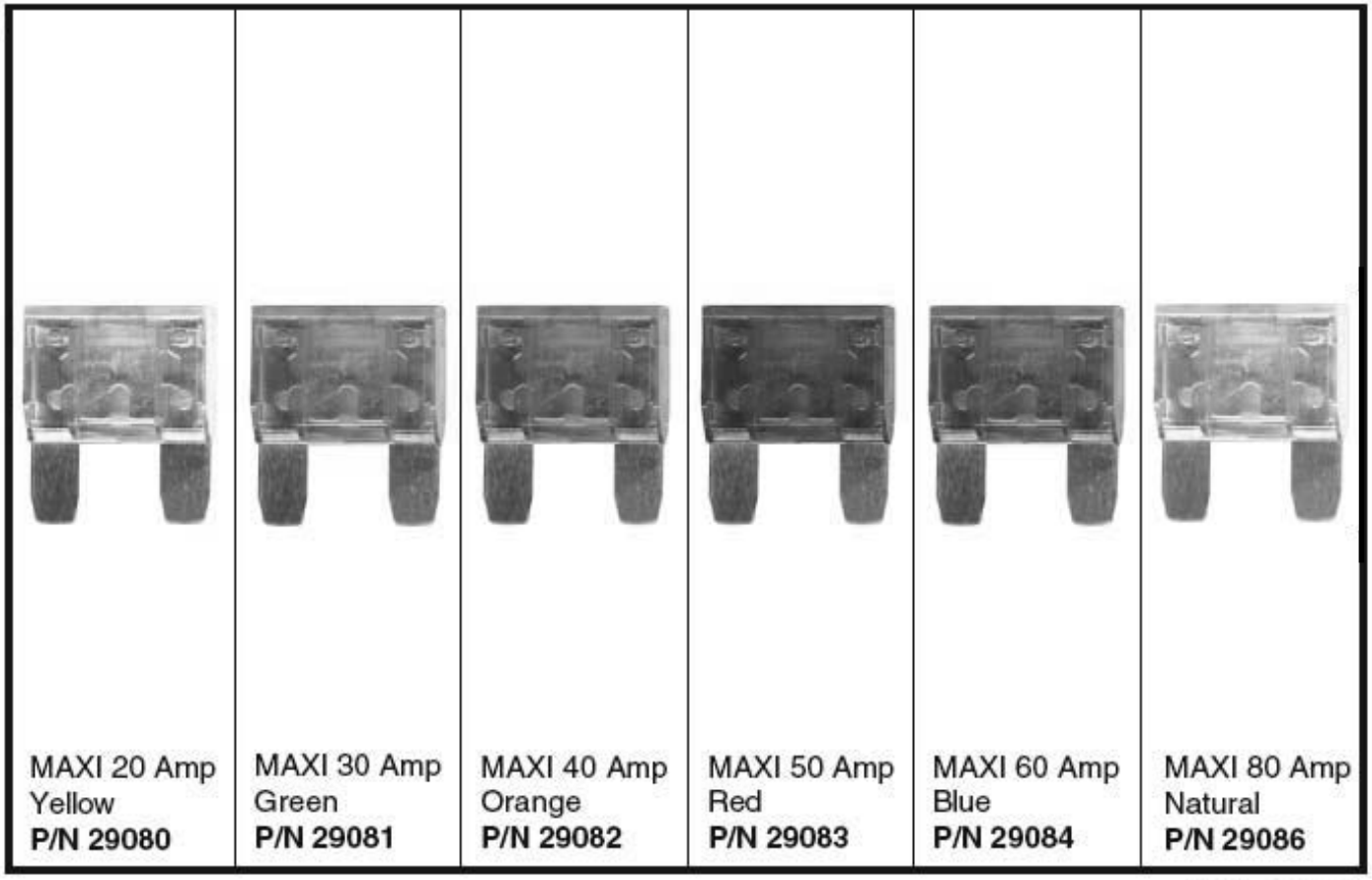
5 Amp ATC – Tan **P/N 29071**	10 Amp ATC – Red **P/N 29073**
15 Amp ATC – Blue **P/N 29074**	20 Amp ATC – Yellow **P/N 29075**
25 Amp ATC – Natural **P/N 29076**	30 Amp ATC – Green **P/N 29077**

P/N 19519

CHROMATE®
INDUSTRIAL CORP.

MAXI BLOW ALERT FUSE PORTA-PAK

18



MAXI 20 Amp Yellow **P/N 29080**	MAXI 30 Amp Green **P/N 29081**	MAXI 40 Amp Orange **P/N 29082**	MAXI 50 Amp Red **P/N 29083**	MAXI 60 Amp Blue **P/N 29084**	MAXI 80 Amp Natural **P/N 29086**

P/N #19521

CHROMATE®
INDUSTRIAL CORP.

22-24GA SUR-SEAL SOLDER LINK TERMINAL PORTA-PACK

35

22-24 #2 RING SOLDER LINK
P/N 2119

22-24 #2 SPADE SOLDER LINK
P/N 2112

22-24 #4 RING SOLDER LINK
P/N 2121

22-24 #4 SPADE SOLDER LINK
P/N 2113

22-24 #6 RING SOLDER LINK
P/N 2122

22-24 SOLDER LINK BUTT SPLICE
P/N 2064

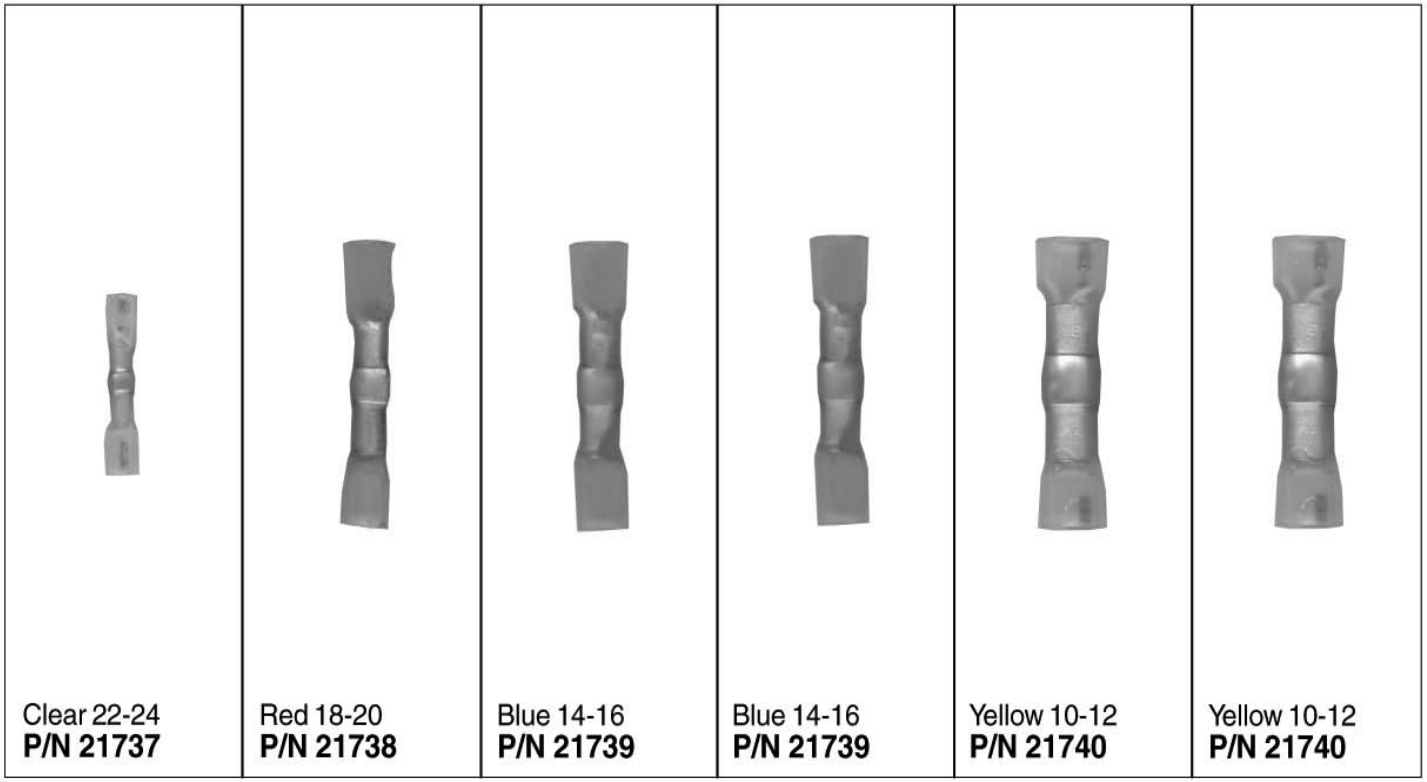
22-24 #6 SPADE SOLDER LINK
P/N 2114

P/N #19524

CHROMATE®
INDUSTRIAL CORP.

CSS BUTT CONNECTOR PORTA-PAK

(CRIMP - SOLDER - SEAL)

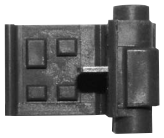
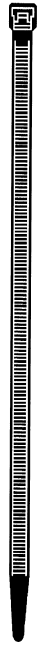
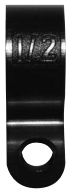
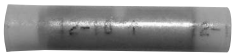
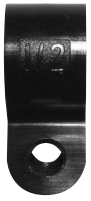


Clear 22-24	Red 18-20	Blue 14-16	Blue 14-16	Yellow 10-12	Yellow 10-12
P/N 21737	**P/N 21738**	**P/N 21739**	**P/N 21739**	**P/N 21740**	**P/N 21740**

ASSORTMENT 17988 **CHROMATE INDUSTRIAL CORP.** **Label #168394**

COOL CONNECT ELECTRICAL PORTA-PAK P/N 17766

165

Cool Seal Butt Connector 22-18 Ga **P/N 2652**	Pigtail Butt Splice 2 Wire **P/N 2510**	 Inline Tap “Moistureproof” 14-18 Ga **P/N 2795**	Nylon Clamp – Black 3/8" x 5/16" **P/N 2612**	 Cable Tie – Black 3/32" x 4" **P/N 8431**	Cable Tie – Black 3/32" x 5-1/2" **P/N 8432**
Cool Seal Butt Connector 16-14 Ga **P/N 2653**	Pigtail Butt Splice 2/3 Wire **P/N 2505**	1/4" Tab T-Tap 18-14 Ga **P/N 2043**	 Nylon Clamp – Black 3/8" x 1/2" **P/N 2618**		
 Cool Seal Butt Connector 12-10 Ga **P/N 2654**	Pigtail Butt Splice With Sealant **P/N 2520**	1/4" Tab – Fully Insulated Male Quick Slide 16-14 Ga **P/N 2058**	 Nylon Clamp – Black 1/2" x 1/2" **P/N 2640**		

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SUPER-CLEAR HEAT SHRINK TUBING / WINDOW-VIEW BUTT CONNECTOR PORTA-PAK

P/N 17703

RED STRIPES
LENGTH: 1.5"
WIRE GAUGE: 22-18
P/N 2924

BLUE STRIPES
LENGTH: 1.5"
WIRE GAUGE: 16-14
P/N 2925

YELLOW STRIPES
LENGTH: 1.625"
WIRE GAUGE: 12-10
P/N 2926

SUPER-CLEAR
LENGTH: 6"
WIRE GAUGE: 22-18
P/N 26097

SUPER-CLEAR
LENGTH: 6"
WIRE GAUGE: 16-14
P/N 26098

SUPER-CLEAR
LENGTH: 6"
WIRE GAUGE: 12-10
P/N 26099

WINDOW-VIEW BUTT CONNECTOR PORTA-PAK P/N 17704

RED STRIPES
LENGTH: 1.5"
WIRE GAUGE: 22-18
P/N 2924

BLUE STRIPES
LENGTH: 1.5"
WIRE GAUGE: 16-14
P/N 2925

YELLOW STRIPES
LENGTH: 1.625"
WIRE GAUGE: 12-10
P/N 2926

CHROMATE®
INDUSTRIAL CORP.

COOL SEAL PORTA-PAK

8 82503 11715 3

P/N 17706

150

Cool Seal Butt Connector 22-18 Ga **P/N 2652**		8 82503 05806 7
Cool Seal Butt Connector 16-14 Ga **P/N 2653**		8 82503 05807 4
Cool Seal Butt Connector 12-10 Ga **P/N 2654**		8 82503 05808 1

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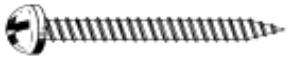
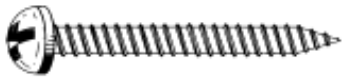
CHROMATE®
INDUSTRIAL CORP.

SUPER HOLD ANCHOR PORTA-PAK

180

4-6 x 1 Super Hold Anchor Hole Size 3/16 **P/N 88630**	6 x 1-1/4 Phillips Bind Metal Screw **P/N 1512** 
10 x 1-1/2 Phillips Bind Metal Screw **P/N 1532** 	8-10 x 1-1/4 Super Hold Anchor Hole Size 1/4 **P/N 88631**
12-14 x 1-1/2 Super Hold Anchor Hole Size 5/16 **P/N 88632**	14 x 1-3/4 Phillips Bind Metal Screw **P/N 1551**

P/N 17849

CHROMATE®
INDUSTRIAL CORP.

NYLON FLANGED ANCHORS PORTA-PAK P/N 17848

3 Sizes of Anchors & Screws • 6-8 x 1" to 12-14 x 1-1/2" Nylon Flanged Anchors • 6 x 1" to 14 x 1-1/2" Phillips Binding Metal Screws

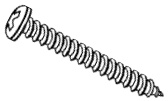
160

8 82503 00680 8

Nylon Flanged Anchor,
6-8 x 1"
3/16" Hole Size
P/N 680

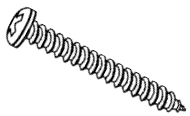
8 82503 01511 4

Phillips Binding
Metal Screws
6 x 1"
P/N 1511



8 82503 01531 2

Phillips Binding
Metal Screws
10 x 1-1/4"
P/N 1531



8 82503 00681 5

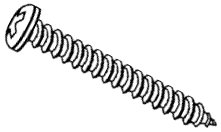
Nylon Flanged Anchor,
8-10 x 1-1/4"
1/4" Hole Size
P/N 681

8 82503 00682 2

Nylon Flanged Anchor,
12-14 x 1-1/2"
5/16" Hole Size
P/N 682

8 82503 01550 3

Phillips Binding
Metal Screws
14 x 1-1/2"
P/N 1550



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CHROMATE®
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PLASTIC ANCHOR PORTA-PAK

158

6-10 x 7/8 Plastic Anchor Hole Size 3/16 **P/N 5396**	8 x 1 Phillips Binding Head Metal Screw **P/N 1520**
12 x 1-1/4 Phillips Binding Head Metal Screw **P/N 1540**	10-12 x 1 Plastic Anchor Hole Size 1/4 **P/N 5397**
14-16 x 1-3/8 Plastic Anchor Hole Size 5/16 **P/N 5398**	14 x 1-1/2 Phillips Binding Head Metal Screw **P/N 1550**

P/N 17867

CHROMATE®
INDUSTRIAL CORP.

WALL HANGER PORTA-PAK

155

10 lb.
Wall Hanger
P/N 88715

20 lb.
Wall Hanger
P/N 88716

30 lb.
Wall Hanger
P/N 88717

50 lb.
Wall Hanger
P/N 88718

P/N 17868

CHROMATE®
INDUSTRIAL CORP.

TURBO-DRIVE™ ANCHOR PORTA-PACK

121

3/16 x 1-1/4
Pan Head Chrome
P/N 88656

3/16 x 1-1/4
Oval Head Chrome
P/N 88658

3/16 x 1-1/4
Pan Head White
P/N 88657

3/16 x 1-1/4
Oval Head White
P/N 88659

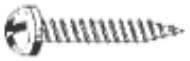
1-15/16 Phillips Power Bit
P/N 83026

P/N 17930

CHROMATE®
INDUSTRIAL CORP.

ALLIGATOR ANCHOR PORTA-PACK

120

3/16 TOGGLER ALLIGATOR **P/N 5376** 	#6 x 3/4 PHILLIPS BH METAL SCREW **P/N 1509** 
#8 x 1 PHILLIPS BH METAL SCREW **P/N 1520** 	1/4 TOGGLER ALLIGATOR **P/N 5377**
5/16 TOGGLER ALLIGATOR **P/N 5378** 	#10 x 1-1/2 PHILLIPS BH METAL SCREW **P/N 1532**

P/N #19525

TRIPLE-GRIP™ ANCHORS #6 PORTA-PAK P/N 17695

200

#6 - 1/4" DRILL DIA.
BEIGE
P/N 88636

#6 - 1/4" DRILL DIA.
BEIGE
P/N 88636

HEX WASHER HEAD SLOTTED METAL SCREW
6 x 1
P/N 859

TRIPLE-GRIP™ ANCHORS #8 PORTA-PAK P/N 17696

200

#8 - 1/4" DRILL DIA.
GREY
P/N 88637

#8 - 1/4" DRILL DIA.
GREY
P/N 88637

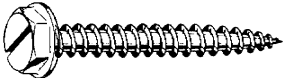
HEX WASHER HEAD SLOTTED METAL SCREW
8 x 1-1/4
P/N 864

TRIPLE-GRIP™ ANCHORS #10 PORTA-PAK P/N 17697

100

#10 - 5/16" DRILL DIA.
BLUE
P/N 88638

#10 - 5/16" DRILL DIA.
BLUE
P/N 88638



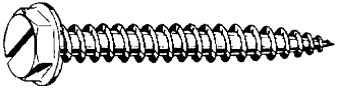
HEX WASHER HEAD SLOTTED METAL SCREW
10 x 1-1/4
P/N 870

TRIPLE-GRIP™ ANCHORS #12 PORTA-PAK P/N 17698

50

#12 - 3/8" DRILL DIA.
GREEN
P/N 88639

#12 - 3/8" DRILL DIA.
GREEN
P/N 88639



HEX WASHER HEAD SLOTTED METAL SCREW
12 x 1-1/2
P/N 878

CHROMATE®
INDUSTRIAL CORP.

NYLON FLANGED ANCHORS W/ DRILLS PORTA-PAK P/N 17690

3 Sizes of Anchors, Screws and Drills • 6-8 x 1" to 12-14 x 1-1/2" Nylon Flanged Anchors • 6 x 1" to 14 x 1-1/2" Phillips Binding Metal Screws • 3/16" to 5/16" CIC 200™ Carbide Masonry Drills

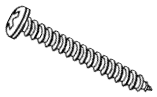
8 82503 12083 2

163

8 82503 00680 8

Nylon Flanged Anchor,
6-8 x 1"
3/16" Hole Size
P/N 680

8 82503 01511 4



Phillips Binding
Metal Screws
6 x 1"
P/N 1511

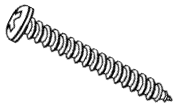
8 82503 77504 9

Carbide Masonry Drill
Drill Dia: 3/16"
Shank Dia: 3/16"
Length: 3-1/2"
P/N 77504

8 82503 00681 5

Nylon Flanged Anchor,
8-10 x 1-1/4"
1/4" Hole Size
P/N 681

8 82503 01531 2



Phillips Binding
Metal Screws
10 x 1-1/4"
P/N 1531

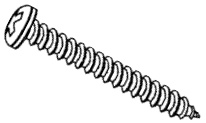
8 82503 77509 4

Carbide Masonry Drill
Drill Dia: 1/4"
Shank Dia: 4/4"
Length: 4"
P/N 77509

8 82503 00682 2

Nylon Flanged Anchor,
12-14 x 1-1/2"
5/16" Hole Size
P/N 682

8 82503 01550 3



Phillips Binding
Metal Screws
14 x 1-1/2"
P/N 1550

8 82503 77518 6

Carbide Masonry Drill
Drill Dia: 5/16"
Shank Dia: 5/16"
Length: 4-3/4"
P/N 77518

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CHROMATE®
INDUSTRIAL CORP.

COARSE RECIPROCATING SAW BLADE PORTA-PACK

11

6" x 10" TPI BI-METAL
P/N 19410

6" x 10/14 TPI BI-METAL
P/N 19405

6" x 5/8 TPI BI-METAL
P/N 19455

P/N 17896

CHROMATE®
INDUSTRIAL CORP.

FINE RECIPROCATING SAW BLADE PORTA-PACK

11

6" x 14 TPI BI-METAL
P/N 19414

6" x 18 TPI BI-METAL
P/N 19417

6" x 24 TPI BI-METAL
P/N 19420

P/N 17897

CHROMATE®
INDUSTRIAL CORP.

BOSCH SABER SAW BLADE PORTA-PACK

12

3" x 14 TPI BI-METAL
P/N 19212

3" x 18 TPI BI-METAL
P/N 19213

3" x 24 TPI BI-METAL
P/N 19216

4" x 8 TPI BI-METAL
P/N 19217

P/N 17894

CHROMATE®
INDUSTRIAL CORP.

JIG/SABER SAW BLADE PORTA-PACK

14

2-3/4" x 18 TPI BI-METAL
P/N 19202

2-3/4" x 24 TPI BI-METAL
P/N 19203

3-5/8" x 10 TPI BI-METAL
P/N 19200

3-5/8" x 14 TPI BI-METAL
P/N 19201

P/N 17895

CHROMATE®
INDUSTRIAL CORP.

4" RECIPROCATING SAW BLADE PORTA-PACK

14

4" x 14 TPI BI-METAL
P/N 19413

4" x 18 TPI BI-METAL
P/N 19416

4" x 24 TPI BI-METAL
P/N 19419

P/N 17898

CHROMATE®
INDUSTRIAL CORP.

TCG RECIPROCATING SAW BLADE PORTA-PACK

5

3-1/2 x 1/4 SCR CARB RECIP BLD
P/N 22760

4 x 5/8 COARSE CARB RECIP BLD
P/N 22740

6 x 5/8 COARSE CARB RECIP BLD
P/N 22780

P/N 17899

CHROMATE®
INDUSTRIAL CORP.

RECIPROCATING SAW HANDLE PORTA-PACK

10

Recip Holder **P/N 30385H**	6"-6TPI CIC200 Bi-Metal Recip Blade **P/N 19408**	6"-10TPI CIC200 Bi-Metal Recip Blade **P/N 19410**	6"-18TPI CIC200 Bi-Metal Recip Blade **P/N 19417**	6"-24TPI CIC200 Bi-Metal Recip Blade **P/N 19420**	Magnetic Bit Holder **P/N 83020**

P/N #19511

CHROMATE® INDUSTRIAL CORP.

DIAMOND HOLE SAW PORTA-PAK P/N 8808

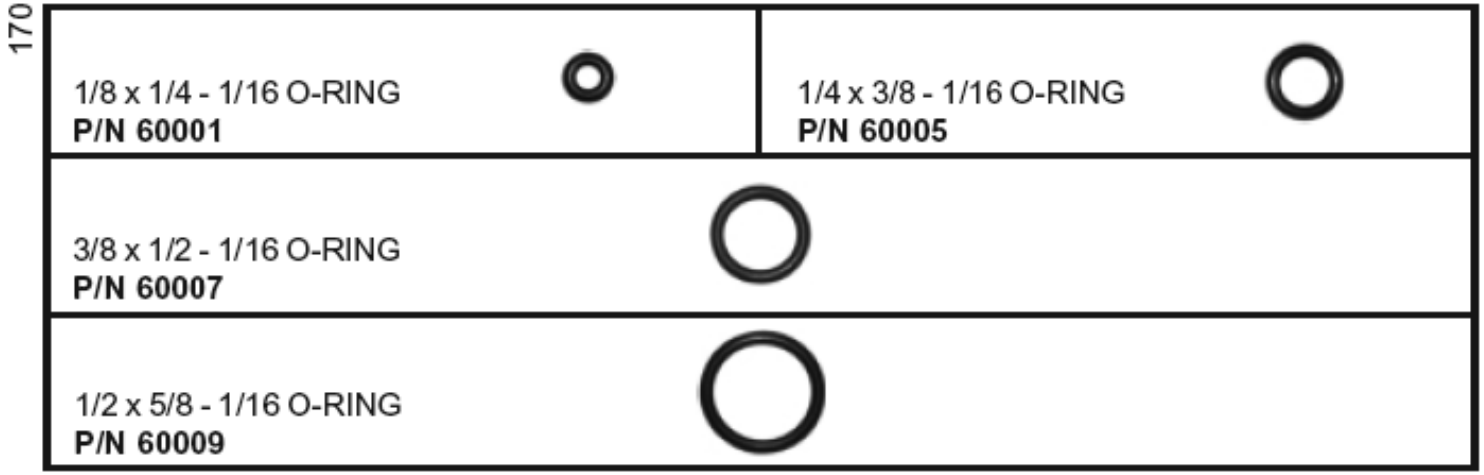
VERTICAL SURFACE: Use spray bottle, wet sponge or water cooling system. • **HORIZONTAL SURFACE:** Pool water on surface and drill through water. • **CORDLESS DRILL RECOMMENDED**

Diamond Hole Saw 3/16" / 5 mm **P/N 51755**	Diamond Hole Saw 1/4" / 6 mm **P/N 51756**	Diamond Hole Saw 5/16" / 8 mm **P/N 51757**	Diamond Hole Saw 3/8" / 10 mm **P/N 51758**	Diamond Hole Saw 1/2" / 13 mm **P/N 51759**	Diamond Hole Saw 5/8" / 15 mm **P/N 51760**
			EXPANSION	EXPANSION	EXPANSION
Diamond Hole Saw 3/4" / 19 mm **P/N 51761**	Diamond Hole Saw 1" / 25 mm **P/N 51762**	Diamond Hole Saw 1-3/8" / 35 mm **P/N 51763**			

CHROMATE®
INDUSTRIAL CORP.

1/16 O-RING PORTA-PAK

170



P/N 19501

CHROMATE®
INDUSTRIAL CORP.

P/N 19501

3/32 O-RING PORTA-PAK

170

1/8 x 5/16 - 3/32 O-RING
P/N 63104

1/4 x 7/16 - 3/32 O-RING
P/N 63108

3/8 x 9/16 - 3/32 O-RING
P/N 60026

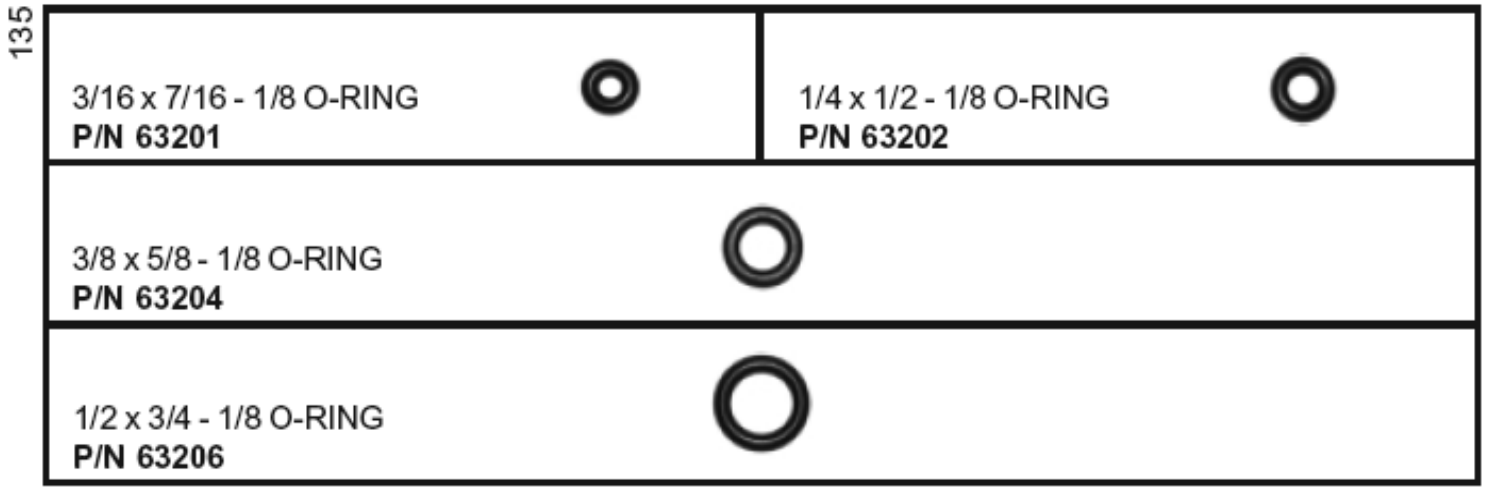
1/2 x 11/16 - 3/32 O-RING
P/N 60028

P/N 19502

CHROMATE®
INDUSTRIAL CORP.

1/8 O-RING PORTA-PAK

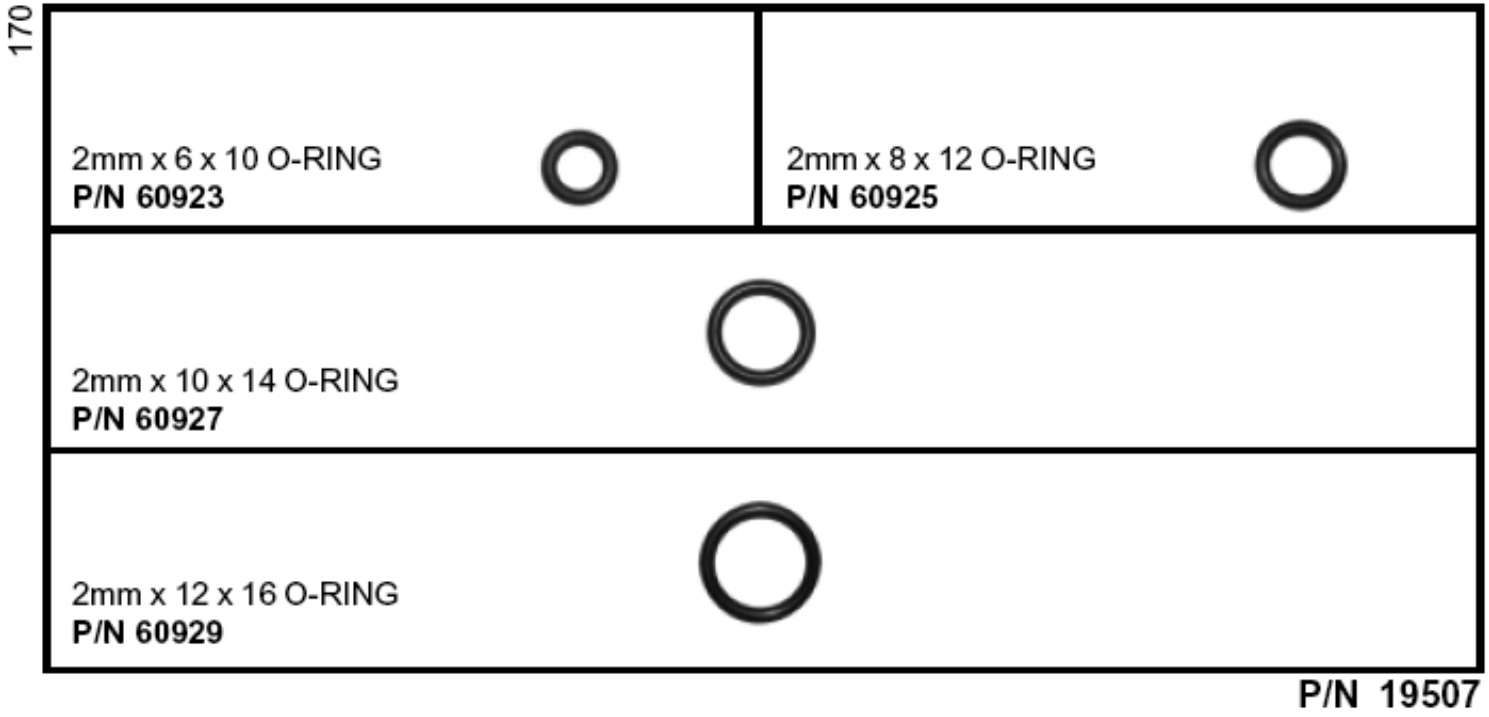
135



P/N 19506

CHROMATE®
INDUSTRIAL CORP.

METRIC BUNA-N O-RING PORTA-PAK



CHROMATE®
INDUSTRIAL CORP.

BRASS FITTING PORTA-PAK

31

1/8 PLUG HEX HEAD - PIPE **P/N 54422**	1/4 PLUG HEX HEAD - PIPE **P/N 54423**
1/4 x 1/8 REDUCING COUPLING - PIPE **P/N 54233**	3/8 x 1/8 REDUCING COUPLING - PIPE **P/N 54234**
1/8 COUPLING - PIPE **P/N 54273**	1/4 COUPLING - PIPE **P/N 54274**

P/N 19510

CHROMATE®
INDUSTRIAL CORP.

TRAY FRONT

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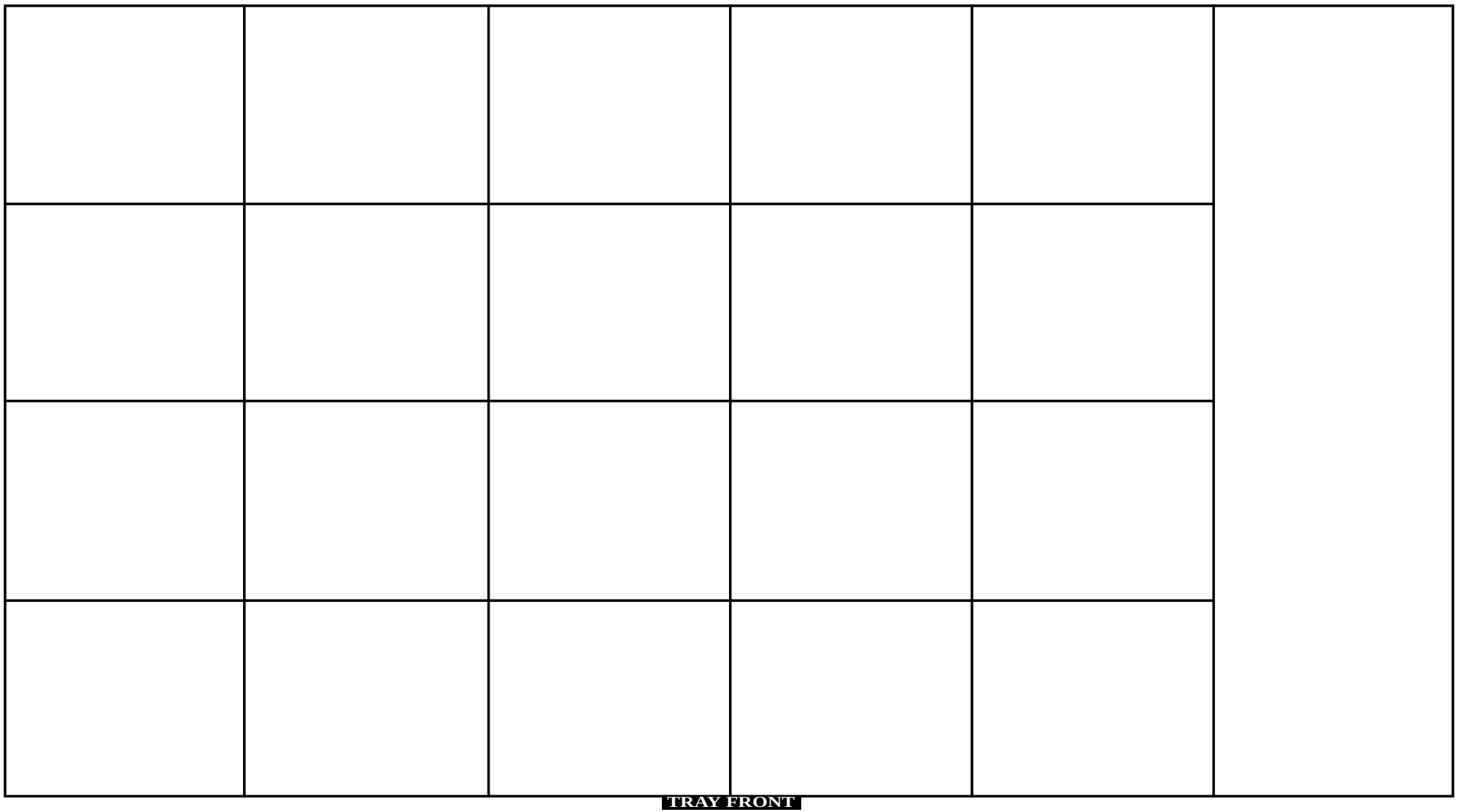

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040199

ALLOY 200 FASTENERS

- **Up to 180,000 PSI Tensile Strength Minimum**
- **20% Stronger Than Grade 8 Specifications**
- **20% Higher Head and 30% Thicker Nuts for Easier Torquing and Less Wrench Slippage**
- **Alloy Steel Washers Provide Higher Strength Load Bearing Surface**
- **Cold Forged with Precision Rolled Threads**
- **Precision Heat Treated**
- **Zinc Dichromate Finish for Superior Corrosion Resistance**

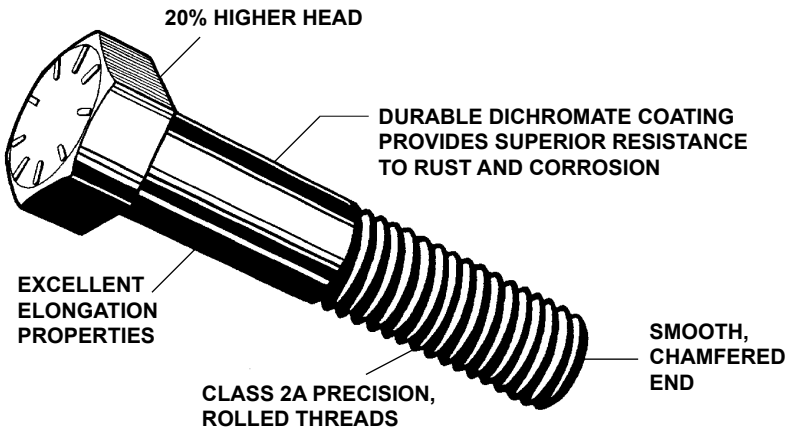
Tested and proven to be the toughest preventive maintenance fastening system available. All components are manufactured to exacting specifications, precision heat treated for shock absorbing, fatigue resistant ductility and then plated for corrosion resistance and durability.

ALLOY 200 CAP SCREWS

THE PREVENTIVE MAINTENANCE CAP SCREW

Triple heat treated alloy steel. U.S. made with U.S. steel and U.S. Labor. 180,000 psi minimum tensile strength. Thicker head for easier torquing and less wrench slippage. Rockwell "C" hardness 38 - 43.

- **GRADE 9**
- **180,000 PSI MINIMUM TENSILE STRENGTH**
  Provides superior clamping force to withstand extreme loads and severe vibration
- **PRECISION HEAT TREATING**
  Produces strength and toughness
- **COLD ROLLED THREADS AND CHAMFERED POINT**
  Assures easier and smoother thread engagement and greater holding power
- **20% HIGHER HEAD**
  Allows full wrench grip – assuring even more torque distribution and eliminating slippage
- **SMOOTH PRECISION-FORMED WASHER FACE AND FILLET**
  Distributes loads evenly, maintaining proper clamping force and minimizing head stress



MADE IN THE U.S.A. WITH AMERICAN STEEL
Highest quality materials made to exacting specifications for quality and reliability.

LENGTH (INCHES)	1/4" DIA.				5/16" DIA.				3/8" DIA.				7/16" DIA.			
	USS 20		SAE 28		USS 18		SAE 24		USS 16		SAE 24		USS 14		SAE 20	
1/2	T	4005	T	3005	T	4060	T	3060	T	4115	T	3115		–		–
5/8	T	4007	T	3007	T	4062	T	3062	T	4116	T	3116		–		–
7/8		–		–		–		–		–		–		–		–
3/4	T	4010	T	3010	T	4065	T	3065	T	4120	T	3120	R	4180	R	3180
1	T	4015	T	3015	T	4070	T	3070	T	4125	T	3125	R	4185	R	3185
1-1/4	T	4020	T	3020	T	4075	T	3075	R	4130	R	3130	R	4190	R	3190
1-1/2	T	4025	T	3025	T	4080	T	3080	R	4135	R	3135	R	4195	R	3195
1-3/4	T	4030	T	3030	T	4085	T	3085	R	4140	R	3140	R	4200	R	3200
2	T	4035	T	3035	T	4090	T	3090	R	4145	R	3145	R	4205	R	3205
2-1/4	R	4037	R	3037	R	4093	R	3093	R	4148	R	3148	R	4208	R	3208
2-1/2	R	4040	R	3040	R	4095	R	3095	R	4150	R	3150	N	4210	N	3210
2-3/4	R	4043	R	3043	R	4097	R	3097	R	4152	R	3152		–		–
3	R	4045	R	3045	R	4100	R	3100	R	4155	R	3155	N	4215	N	3215
3-1/4		–		–		–		–		–		–		–		–
3-1/2	R	4050	R	3050	R	4105	R	3105	N	4160	N	3160	L	4220	L	3220
3-3/4		–		–		–		–		–		–		–		–
4	N	4055	N	3055	N	4110	N	3110	N	4165	N	3165	L	4225	L	3225
4-1/4		–		–		–		–		–		–		–		–
4-1/2	N	4056	N	3056	L	4111	L	3111	L	4167	L	3167	L	4227	L	3227
4-3/4		–		–		–		–		–		–		–		–
5	N	4057	N	3057	L	4112	L	3112	L	4170	L	3170	I	4230	I	3230
5-1/4		–		–		–		–		–		–		–		–
5-1/2	L	4058	L	3058	L	4113	L	3113	L	4172	L	3172	I	4232	I	3232
5-3/4		–		–		–		–		–		–		–		–
6	L	4059	L	3059	L	4114	L	3114	L	4175	L	3175	I	4234	I	3234

ALLOY 200 CAP SCREWS

THE PREVENTIVE MAINTENANCE CAP SCREW

LENGTH (INCHES)	1/2" DIA.		9/16" DIA.		5/8" DIA.		3/4" DIA.	
	USS 13	SAE 20	USS 12	SAE 18	USS 11	SAE 18	USS 10	SAE 16
3/4	R 4240	R 3240	–	–	–	–	–	–
1	R 4245	R 3245	L 4310	L 3310	L 4345	L 3345	–	–
1-1/4	R 4250	R 3250	L 4315	L 3315	L 4350	L 3350	I 4412	–
1-1/2	N 4255	N 3255	L 4320	L 3320	L 4355	L 3355	I 4415	I 3415
1-3/4	N 4260	N 3260	L 4323	L 3323	L 4357	L 3357	I 4417	I 3417
2	N 4265	N 3265	L 4325	L 3325	L 4360	L 3360	I 4420	I 3420
2-1/4	N 4267	N 3267	L 4328	L 3328	L 4363	L 3363	I 4423	I 3423
2-1/2	N 4270	N 3270	L 4330	L 3330	L 4365	L 3365	I 4425	I 3425
2-3/4	N 4272	N 3272	–	–	L 4366	L 3366	I 4427	I 3427
3	N 4275	N 3275	L 4335	L 3335	L 4370	L 3370	I 4430	I 3430
3-1/4	–	–	–	–	–	–	–	–
3-1/2	L 4280	L 3280	I 4337	I 3337	I 4375	I 3375	I 4435	I 3435
3-3/4	–	–	–	–	–	–	–	–
4	L 4285	L 3285	I 4340	I 3340	I 4380	I 3380	I 4440	I 3440
4-1/4	–	–	–	–	–	–	–	–
4-1/2	L 4290	L 3290	I 4341	I 3341	I 4385	I 3385	E 4445	E 3445
4-3/4	–	–	–	–	–	–	–	–
5	I 4295	I 3295	I 4342	I 3342	I 4390	I 3390	E 4450	E 3450
5-1/4	–	–	–	–	–	–	–	–
5-1/2	I 4300	I 3300	I 4343	I 3343	E 4392	E 3392	A 4453	A 3453
5-3/4	–	–	–	–	–	–	–	–
6	E 4305	E 3305	I 4344	I 3344	A 4395	A 3395	A 4455	A 3455
6-1/2	E 4303	E 3303	–	–	A 4396	A 3396	A 4456	A 3456
7	E 4306	E 3306	–	–	A 4397	A 3397	A 4457	A 3457
7-1/2	E 4304	E 3304	–	–	A 4399	A –	A 4459	A 3459
8	E 4307	E 3307	–	–	A 4398	A 3398	A 4458	A 3458
8-1/2	–	–	–	–	A 4401	A 3401	–	–
9	–	–	–	–	A 4402	A 3402	A 4463	A 3463
9-1/2	–	–	–	–	–	–	A 4464	A –
10	–	–	–	–	A 4404	–	A 4465	A 3465

MADE IN THE U.S.A. WITH AMERICAN STEEL
Highest quality materials made to exacting specifications for quality and reliability.

ALLOY 200 CAP SCREWS

THE PREVENTIVE MAINTENANCE CAP SCREW

LENGTH (INCHES)	7/8" DIA.				1" DIA.				1-1/8" DIA.				1-1/4" DIA.			
	USS 9		SAE 14		USS 8		SAE 14		USS 7		SAE 12		USS 7		SAE 12	
2	B	4470	B	3470	A	4515	A	3515		–	A	3578		–		–
2-1/4		–		–		–		–		–	A	3579		–	A	3532
2-1/2	B	4475	B	3475	A	4520	A	3520		–	A	3580		–	A	3533
2-3/4		–		–		–		–		–	A	3581		–	A	3534
3	B	4480	B	3480	A	4525	A	3525	A	4582	A	3582	A	4536	A	3536
3-1/4		–		–		–		–	A	4583	A	3583	A	4537	A	3537
3-1/2	A	4485	A	3485	A	4530	A	3530	A	4584	A	3584	A	4538	A	3538
3-3/4		–		–		–		–	A	4585	A	3585	A	4539	A	3539
4	A	4490	A	3490	A	4535	A	3535	A	4586	A	3586	A	4541	A	3541
4-1/4		–		–		–		–		–		–		–		–
4-1/2	A	4495	A	3495	A	4540	A	3540	A	4587	A	3587	A	4542	A	3542
4-3/4		–		–		–		–		–		–		–		–
5	A	4500	A	3500	A	4545	A	3545	A	4588	A	3588	A	4543	A	3543
5-1/4		–		–		–		–		–		–		–		–
5-1/2	A	4505	A	3505	A	4550	A	3550	A	4589	A	3589	A	4544	A	3544
5-3/4		–		–		–		–		–		–		–		–
6	A	4510	A	3510	A	4555	A	3555	A	4590	A	3590	A	4546	A	3546
6-1/2	A	4503	A	3503	A	4559	A	3559	A	4591	A	3591	A	4547	A	3547
7	A	4511	A	3511	A	4557	A	3557	A	4592	A	3592	A	4571	A	3571
7-1/2	A	4504		–	A	4549	A	3549	A	4593	A	3593	A	4572	A	3572
8	A	4512	A	3512	A	4558	A	3558	A	4594	A	3594	A	4573	A	3573
8-1/2	A	4506		–	A	4551	A	3551	A	4595	A	3595	A	4574	A	3574
9	A	4507		–	A	4552	A	3552	A	4596	A	3596	A	4575	A	3575
9-1/2		–		–	A	4553	A	3553	A	4597	A	3597	A	4576	A	3576
10	A	4509		–	A	4554	A	3554	A	4598	A	3598	A	4577	A	3577

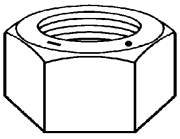
MADE IN THE U.S.A. WITH AMERICAN STEEL
Highest quality materials made to exacting specifications for quality and reliability.

ALLOY 200 HEX NUTS

DEVELOPED FOR HIGHER STRENGTH APPLICATIONS

Chromate ALLOY 200 series hex nuts provide superior performance for all critical applications.

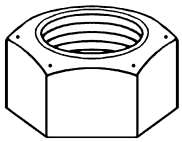
FINISHED THICK HEX NUTS



- USE WITH ALLOY 200 CAP SCREWS FOR BALANCED ASSEMBLY
- EXCEEDS GRADE 8 SPECIFICATIONS BY 20%
- TRIPLE HEAT TREATED
- 30% THICKER FOR GREATER HOLDING/WRENCHING POWER
- 180,000 PSI MINIMUM TENSILE STRENGTH
- DICHROMATE PLATING AND WAXED

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	9/32	4700	3700
T	5/16	18	24	1/2	21/64	4705	3705
T	3/8	16	24	9/16	13/32	4710	3710
R	7/16	14	20	11/16	29/64	4715	3715
R	1/2	13	20	3/4	9/16	4720	3720
N	9/16	12	18	7/8	39/64	4725	3725
N	5/8	11	18	15/16	23/32	4730	3730
L	3/4	10	16	1-1/8	13/16	4735	3735
I	7/8	9	14	1-5/16	27/32	4740	3740
E	1	8	14	1-1/2	1	4745	3745
B	1-1/8	7	12	1-11/16	1-3/16	4746	-
B	1-1/4	7	12	1-7/8	1-1/4	4747	3747
B	1-1/2	6	12	2-1/4	1-1/2	4748	-

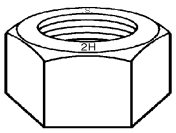
PREVAILING TORQUE TAPER LOCK NUTS



- USE WITH ALLOY 200 AND GRADE 8 CAP SCREWS
- GRADE C SPECIFICATIONS
- TRIPLE HEAT TREATED
- SUPERIOR VIBRATION AND SHOCK RESISTANCE
- 150,000 PSI
- CLEAR PLATING ZINC

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	1/4	6800	5800
T	5/16	18	24	1/2	19/64	6805	5805
T	3/8	16	24	9/16	3/8	6810	5810
R	7/16	14	20	11/16	27/64	6815	5815
R	1/2	13	20	3/4	1/2	6820	5820
N	9/16	12	18	7/8	35/64	6825	5825
N	5/8	11	18	15/16	41/64	6830	5830
L	3/4	10	16	1-1/8	47/64	6835	5835
I	7/8	9	14	1-5/16	27/32	6840	5840
E	1	8	14	1-1/2	15/16	6845	5845
B	1-1/8	7	12	1-11/16	1-3/16	6846	5846
B	1-1/4	7	12	1-7/8	1-9/32	6847	5847
B	1-3/8	6	12	2-1/16	1-13/32	6842	-
B	1-1/2	6	12	2-1/4	1-17/32	6848	-

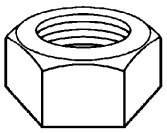
USS 2H HEAVY HEX NUTS



- EXTRA WIDTH FOR OVERSIZE WRENCHING
- MEETS ASTM 194-2H
- ANSI /ASME B18.2.1 1981
- PLAIN FINISH

SIZE	WAF	HEIGHT		USS
3/8 - 16	11/16	23/64	R	4840
1/2 - 13	7/8	31/64	R	4850
5/8 - 11	1-1/16	39/64	N	4855
3/4 - 10	1-1/4	47/64	L	4860
7/8 - 9	1-7/16	55/64	I	4865
1 - 8	1-5/8	63/64	I	4870
1-1/4 - 7	2	1-7/32	B	4878
1-3/8 - 7	2-3/16	1-11/32	B	4882
1-1/2 - 6	2-3/8	1-15/32	B	4885

GRADE 8 FINISHED NUTS



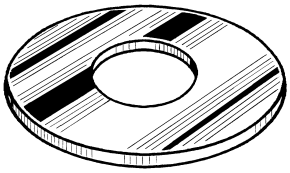
- TRIPLE HEAT TREATED
- MEETS GRADE 8 SPECIFICATIONS
- DICHROMATE PLATING

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	7/32	8926	8905
T	5/16	18	24	1/2	17/64	8927	8906
T	3/8	16	24	9/16	21/64	8928	8907
R	7/16	14	20	11/16	3/8	8929	8908
R	1/2	13	20	3/4	7/16	8930	8909
R	9/16	12	18	7/8	31/64	8931	8910
R	5/8	11	18	15/16	35/64	8932	8911
N	3/4	10	16	1-1/8	41/64	8933	8912
I	7/8	9	14	1-5/16	3/4	8934	8913
I	1	8	14	1-1/2	55/64	8935	8914
E	1-1/8	7	12	1-11/16	31/32	13571	4771
E	1-1/4	7	12	1-7/8	1-1/16	13572	4772
B	1-3/8	6	12	2-1/16	1-11/64	13573	4773
B	1-1/2	6	12	2-1/4	1-9/32	13574	4774

ALLOY 200 WASHERS

WIDE BAND, NARROW BAND, FLAT AND LOCK

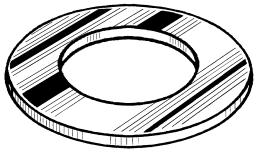
USS WIDE BAND FLAT WASHERS



- TRIPLE HEAT TREATED
- USS DIMENSIONS
- SMOOTH BEARING SURFACE
- DICHROMATE PLATING

	SIZE	I.D.	O.D.	PART
T	1/4	5/16	3/4	8000
T	5/16	3/8	7/8	8001
T	3/8	7/16	1	8002
T	7/16	1/2	1-1/4	8003
T	1/2	9/16	1-3/8	8004
R	9/16	5/8	1-1/2	8005
R	5/8	11/16	1-3/4	8006
N	3/4	13/16	2	8007
N	7/8	15/16	2-1/4	8008
N	1	1-1/16	2-1/2	8009
I	1-1/8	1-1/4	2-3/4	8010
I	1-1/4	1-3/8	3	8011
I	1-3/8	1-1/2	3-1/4	8027
E	1-1/2	1-5/8	3-1/2	8012

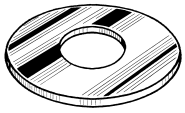
SAE NARROW BAND FLAT WASHERS



- TRIPLE HEAT TREATED
- SAE DIMENSIONS
- SMOOTH BEARING SURFACE
- DICHROMATE PLATING

	SIZE	I.D.	O.D.	PART
T	1/4	9/32	5/8	9000
T	5/16	11/32	11/16	9001
T	3/8	13/32	13/16	9002
T	7/16	15/32	59/64	9003
T	1/2	17/32	1-1/16	9004
R	9/16	19/32	1-3/16	9005
R	5/8	11/16	1-5/16	9006
N	3/4	13/16	1-15/32	9007
N	7/8	15/16	1-3/4	9008
N	1	1-1/8	2	9009
I	1-1/8	1-1/4	2-1/4	9010
I	1-1/4	1-3/8	2-1/2	9011
I	1-3/8	1-1/2	2-3/4	9013
I	1-1/2	1-5/8	3	9012
E	1-3/4	1-7/8	3-3/8	9014

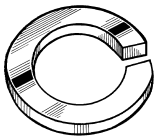
STRUCTURAL FLAT WASHERS



- HIGH STRENGTH MATERIAL
- FOR USE WITH A325 STRUCTURAL BOLTS
- PLAIN FINISH

SIZE	PART	SIZE	PART	SIZE	PART
1/2	T 1124	7/8	N 1128	1-1/4	N 1131
5/8	R 1126	1	N 1129	1-3/4	I 1133
3/4	R 1127	1-1/8	N 1130	2	E 1134

LOCK WASHERS



- TRIPLE HEAT TREATED
- RETAINS STRENGTH UNDER HIGH LOAD CONDITIONS
- MECHANICAL DICHROMATE PLATING TO AVOID HYDROGEN EMBRITTLEMENT

SIZE	PART	SIZE	PART
1/4	U 6300	3/4	R 6335
5/16	U 6305	7/8	R 6340
3/8	U 6310	1	N 6345
7/16	T 6315	1-1/8	I 6350
1/2	T 6320	1-1/4	I 6355
9/16	T 6325	1-1/2	E 6360
5/8	R 6330	-	-

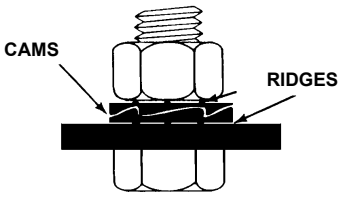
ALLOY 200 VI-LOC WASHERS

THE MOST RELIABLE VIBRATION-RESISTANT LOCKING DEVICE AVAILABLE

THE MORE THEY VIBRATE — THE TIGHTER THEY LOCK

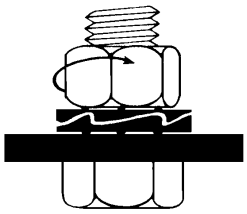
Meets military specification
- MSN-5310-01-051-4149

Special Chromate protective plating eliminates rust and corrosion.

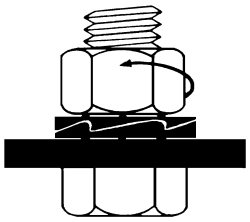


The Vi-LOC principle calls for two washer shaped pieces that have inclined cams on one side and a series of ridges on the other. When the inclined cams are mated and set-up as shown in the diagram, one washer seizes to the joint material and the other washer to the nut or capscrew.

When the bolt contracts, the inclined planes of the cams cause the nut or capscrew to rotate back to its original position. This creates a fastening system that is vibration proof and meets military specifications. The Vi-LOC fastening system may be loosened by exerting approximately 50% more torque than required for tightening.

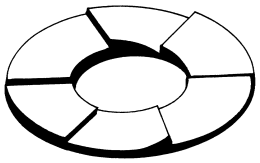


When a bolt elongates due to vibration or shock, the nut or capscrew starts to rotate loose. The Vi-LOC system prevents this since the cam rise angle is greater than the lead angle of the thread. As one piece of the Vi-LOC attempts to rotate with the nut or capscrew, the preload is actually increased, forcing the assembly back to a tight fitting unit.



ALLOY 200 VI-LOC WASHERS

- **USE ONLY IN PAIRS**
- **SELF-MATING**
- **RIDGES ON OUTSIDE**



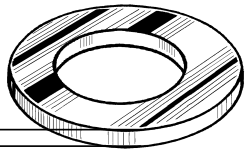
RESISTS:
- **VIBRATION**
- **LOST HOLDING POWER**
- **SLIPPAGE**
- **WEAR**
- **EQUIPMENT BREAKDOWN**

SIZE	INSIDE DIA.	OUTSIDE DIA.	PART		SIZE	INSIDE DIA.	OUTSIDE DIA.	PART	
3/16 (5mm)	.203"	.401"	T	6100	9/16 (14mm)	.572"	1.128"	L	6106
1/4 (6mm)	.262"	.495"	T	6101	5/8 (16mm)	.651"	1.247"	L	6107
5/16 (8mm)	.326"	.628"	T	6102	3/4 (20mm)	.820"	1.381"	L	6110
3/8 (10mm)	.409"	.705"	R	6103	7/8 (22mm)	.883"	1.470"	I	6111
7/16 (11mm)	.450"	.880"	R	6104	1" (25mm)	1.015"	1.626"	I	6112
1/2 (12mm)	.510"	1.005"	Q	6105	-	-	-		-

ALLOY 200 XT™ FLAT WASHERS

FOR ULTRA-HIGH STRENGTH APPLICATIONS

ALLOY 200 XT™ FLAT WASHERS PROVIDE THE ULTIMATE IN LOAD BEARING PERFORMANCE



- **EXTRA THICK PATTERN**
  75% THICKER THAN STANDARD SAE WASHERS – ELIMINATING DISHING, BENDING AND GALLING.
- **MANUFACTURED FROM HIGH STRENGTH,HEAT-TREATED ALLOY STEEL**
  PROVIDES SUPERIOR STRENGTH TO ACHIEVEHIGHEST CLAMPING LOADS AVAILABLE.
- **YELLOW DICHROMATE PLATING**
  ASSURES SUPERIOR RESISTANCE TO RUST AND CORROSION FOR LONGER LIFE.

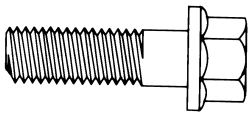
SIZE	THICKNESS	ID	OD	PART
1/4	3/32 - 7/64	9/32	5/8	T 5900
5/16	3/32 - 7/64	11/32	11/16	T 5901
3/8	3/32 - 7/64	13/32	13/16	T 5902
7/16	3/32 - 7/64	15/32	59/64	T 5903
1/2	5/32 - 3/16	17/32	1-1/16	R 5904
5/8	11/64 - 13/64	11/16	1-5/16	R 5906
3/4	11/64 - 13/64	13/16	1-15/32	N 5907
7/8	15/64 - 17/64	15/16	1-3/4	N 5908
1	15/64 - 17/64	1-1/8	2	L 5909

HEX FLANGE BOLTS AND LOCK NUTS

WHEN A STRONG BEARING SURFACE IS REQUIRED

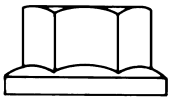
- Triple heat treated alloy steel. U.S. made with U.S. steel and U.S. Labor.
- Minimum 150,000 psi tensile strength
- For use on Autocar, International Harvester, Mack, Peterbilt, Western, White and many other types of heavy equipment
- Eliminates the need for washers
- Grade "GT" Hex Flange Locknuts recommended for use with flange bolts
  - ALLOY 200 and Grade 8.2 applications
- Improves bearing load surface
- Meets IFI-107 specifications
- USS class 2 Threads
- 30% stronger than standard nuts

HEX FLANGE BOLTS



LENGTH	3/8-16	1/2-13	5/8-11	3/4-10
1	L 19503	-	-	-
1-1/4	L 19504	L 19517	-	-
1-1/2	L 19505	L 19518	I 19536	-
1-3/4	L 19508	-	-	-
2	L 19509	L 19522	I 19540	I 19550
2-1/4	L 19512	-	I 19541	E 19552
2-1/2	-	L 19526	I 19544	E 19554
3	-	I 19528	I 19546	-
3-1/2	-	-	I 19548	-
4	-	I 19532	I 19549	E 19560

HEX FLANGE LOCK NUTS

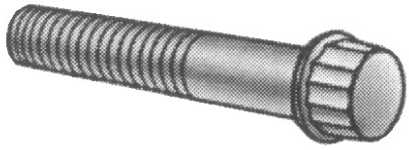


SIZE	WAF	USS	SAE
1/4	7/16	R 19589	–
3/8	9/16	R 19590	–
1/2	3/4	N 19592	R 19582
5/8	15/16	L 19594	L 19584
3/4	1 - 1/8	I 19596	E 19585

12-POINT FLANGE SCREWS

EXCEEDS GRADE 8 STRENGTHS

The 12-Point Flange Screw can use a standard 12-point socket wrench equal to the screw size. Exceeds grade 8 strengths and allows for high torque driving.



- **TENSILE STRENGTH – 170,000 PSI MINIMUM**
- **YIELD – 153,000 PSI MINIMUM**
- **PROOF LOAD – 140,000 PSI MINIMUM**
- **HARDNESS – 37-43 Rc**
- **CLASS 3A THREAD FIT**
- **PLAIN FINISH**

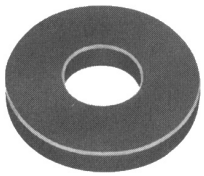
LENGTH (INCH)	1/4 DIA.		5/16 DIA.		3/8 DIA.		7/16 DIA.	
	USS 20		USS 18		USS 16		USS 14	
1/2	T	19386		-		-		-
3/4	T	19340	T	19346		-		-
7/8		-	T	19347		-		-
1	T	19341	T	19348	R	19353		-
1-1/4	T	19342	R	19349	R	19354		-
1-1/2	T	19343	R	19350	R	19355	N	19362
1-3/4		-		-	R	19356		-
2	R	19344	R	19351	N	19357	N	19363
2-1/4		-		-	N	19358		-
2-1/2	R	19345	R	19352	N	19359	L	19364
2-3/4		-		-	N	19385		-
3		-		-	N	19360		-
3-1/2		-		-	N	19361		-

LENGTH (INCH)	1/2 DIA.		5/8 DIA.		3/4 DIA.	
	USS 13		USS 11		USS 10	
1	L	19365		-		-
1-1/4	L	19366		-		-
1-1/2	L	19367	I	19373		-
1-3/4		-	I	19374		-
2	L	19368	I	19375	E	19380
2-1/4		-		-		-
2-1/2	I	19369	I	19376	E	19381
3	I	19370	I	19377	E	19382
3-1/2	I	19371	I	19378	E	19383
4	I	19372	I	19379	E	19384

COMPONENT WASHERS

THE STANDARD WASHER

USED IN THE TOOL AND DIE INDUSTRIES, MANUFACTURING & MACHINE SHOPS

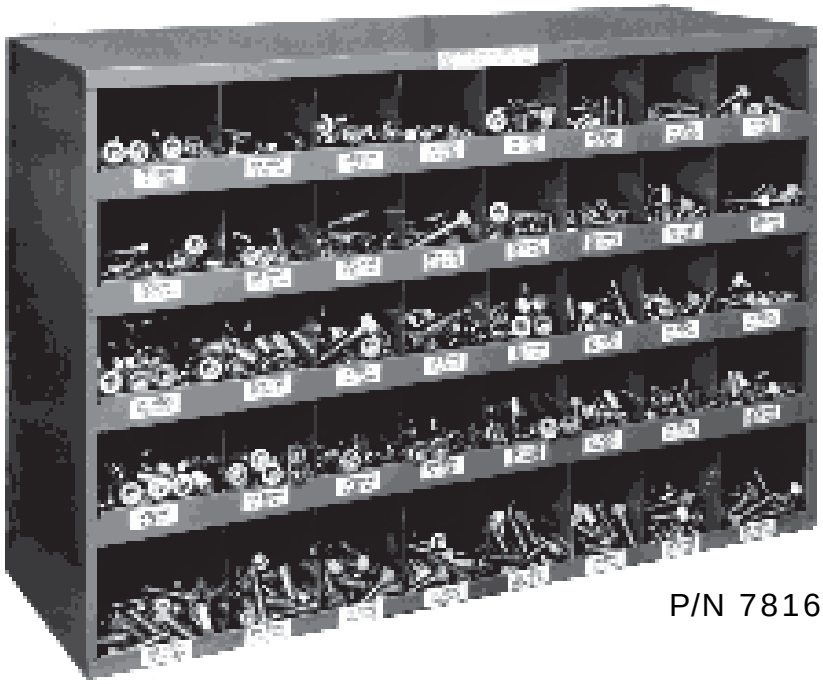


- CASE HARDENED STEEL
- BLACK OXIDE FINISH
- THICKER THAN STANDARD WASHERS

SIZE	THICKNESS	ID	OD		PART
1/4	1/8	9/32	5/8	R	14489
5/16	1/8	11/32	3/4	R	14490
3/8	1/8	13/32	7/8	R	14491
7/16	1/8	15/32	1	N	14492
1/2	1/8	17/32	1-1/8	N	14493
5/8	1/8	21/32	1-3/8	N	14494
3/4	5/32	25/32	1-5/8	N	14495
7/8	5/32	29/32	1-3/4	N	14496
1	3/16	1-1/32	2	I	14487
1-1/8	7/32	1-5/32	2-1/4	E	14488
1-1/4	9/32	1-9/32	2-1/2	B	14499

ALLOY 200 USS FASTENERS

40 HOLE USS BIN ASSORTMENT



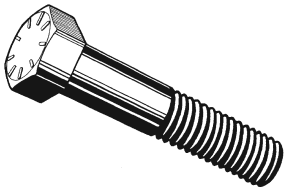
P/N 7816

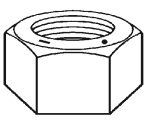
This assortment is filled and labeled with 40 of the fastest moving fastener sizes for all your maintenance needs!

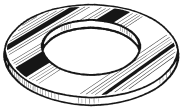
ASSORTMENT CONTAINS

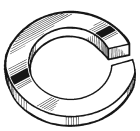
- 25 Sizes Alloy Cap Screws ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Flat Washers ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Lock Washers ..... 1/4" thru 1/2" Diameter
- 1 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









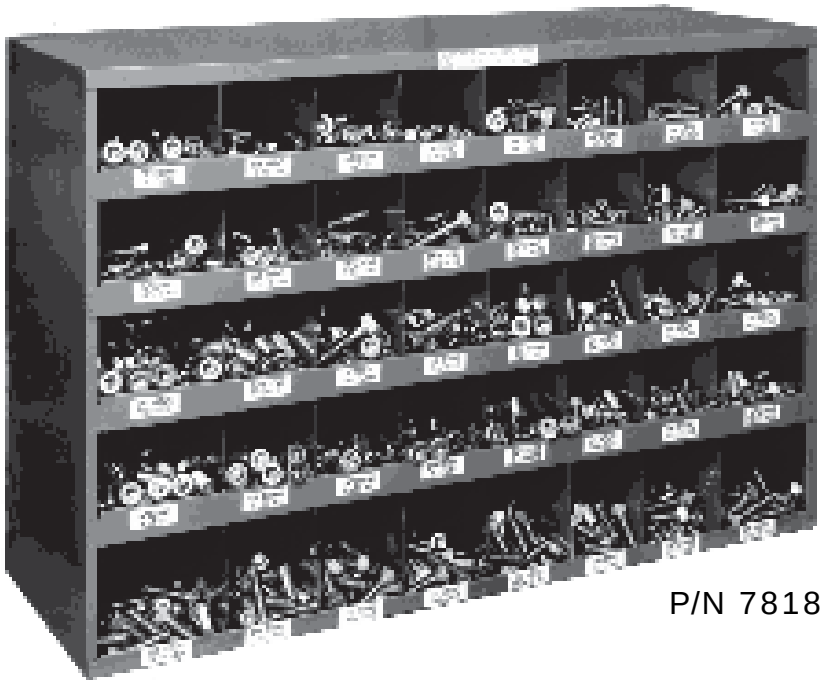
ALLOY 200 USS FASTENER ASSORTMENT

P/N 7816 — USS SIZES — 40 ITEMS / 40 HOLES

1/4-20 FIN. THICK HEX NUT 4700	1/4 UNI-FIT™ FLAT WASHER 5400	1/4 LOCK WASHER 6300	1/4 x 1/2 CAP SCREW 4005	1/4 x 3/4 CAP SCREW 4010	1/4 x 1 CAP SCREW 4015	1/4 x 1-1/2 CAP SCREW 4025	1/4 x 2 CAP SCREW 4035
5/16-18 FIN. THICK HEX NUT 4705	5/16 UNI-FIT™ FLAT WASHER 5401	5/16 LOCK WASHER 6305	5/16 x 1/2 CAP SCREW 4060	5/16 x 3/4 CAP SCREW 4065	5/16 x 1 CAP SCREW 4070	5/16 x 1-1/2 CAP SCREW 4080	5/16 x 2 CAP SCREW 4090
3/8-16 FIN. THICK HEX NUT 4710	3/8 UNI-FIT™ FLAT WASHER 5402	3/8 LOCK WASHER 6310	3/8 x 3/4 CAP SCREW 4120	3/8 x 1 CAP SCREW 4125	3/8 x 1-1/4 CAP SCREW 4130	3/8 x 1-1/2 CAP SCREW 4135	3/8 x 2 CAP SCREW 4145
7/16-14 FIN. THICK HEX NUT 4715	7/16 UNI-FIT™ FLAT WASHER 5403	7/16 LOCK WASHER 6315	7/16 x 1 CAP SCREW 4185	7/16 x 1-1/4 CAP SCREW 4190	7/16 x 1-1/2 CAP SCREW 4195	7/16 x 2 CAP SCREW 4205	7/16 x 2-1/2 CAP SCREW 4210
1/2-13 FIN. THICK HEX NUT 4720	1/2 UNI-FIT™ FLAT WASHER 5404	1/2 LOCK WASHER 6320	1/2 x 1 CAP SCREW 4245	1/2 x 1-1/2 CAP SCREW 4255	1/2 x 2 CAP SCREW 4265	1/2 x 2-1/2 CAP SCREW 4270	1/2 x 3 CAP SCREW 4275

ALLOY 200 SAE FASTENERS

40 HOLE SAE BIN ASSORTMENT



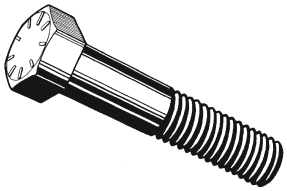
P/N 7818

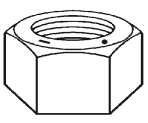
This assortment is filled and labeled with 40 of the fastest moving fastener sizes for all your maintenance needs!

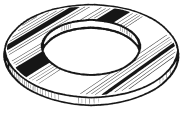
ASSORTMENT CONTAINS

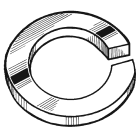
- 25 Sizes Alloy Cap Screws ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Flat Washers ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Lock Washers ..... 1/4" thru 1/2" Diameter
- 1 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









ALLOY 200 SAE FASTENER ASSORTMENT

P/N 7818 — SAE SIZES — 40 ITEMS / 40 HOLES

1/4-28 FIN. THICK HEX NUT 3700	1/4 UNI-FIT™ FLAT WASHER 5400	1/4 LOCK WASHER 6300	1/4 x 1/2 CAP SCREW 3005	1/4 x 3/4 CAP SCREW 3010	1/4 x 1 CAP SCREW 3015	1/4 x 1-1/2 CAP SCREW 3025	1/4 x 2 CAP SCREW 3035
5/16-24 FIN. THICK HEX NUT 3705	5/16 UNI-FIT™ FLAT WASHER 5401	5/16 LOCK WASHER 6305	5/16 x 1/2 CAP SCREW 3060	5/16 x 3/4 CAP SCREW 3065	5/16 x 1 CAP SCREW 3070	5/16 x 1-1/2 CAP SCREW 3080	5/16 x 2 CAP SCREW 3090
3/8-24 FIN. THICK HEX NUT 3710	3/8 UNI-FIT™ FLAT WASHER 5402	3/8 LOCK WASHER 6310	3/8 x 3/4 CAP SCREW 3120	3/8 x 1 CAP SCREW 3125	3/8 x 1-1/4 CAP SCREW 3130	3/8 x 1-1/2 CAP SCREW 3135	3/8 x 2 CAP SCREW 3145
7/16-20 FIN. THICK HEX NUT 3715	7/16 UNI-FIT™ FLAT WASHER 5403	7/16 LOCK WASHER 6315	7/16 x 1 CAP SCREW 3185	7/16 x 1-1/4 CAP SCREW 3190	7/16 x 1-1/2 CAP SCREW 3195	7/16 x 2 CAP SCREW 3205	7/16 x 2-1/2 CAP SCREW 3210
1/2-20 FIN. THICK HEX NUT 3720	1/2 UNI-FIT™ FLAT WASHER 5404	1/2 LOCK WASHER 6320	1/2 x 1 CAP SCREW 3245	1/2 x 1-1/2 CAP SCREW 3255	1/2 x 2 CAP SCREW 3265	1/2 x 2-1/2 CAP SCREW 3270	1/2 x 3 CAP SCREW 3275

ALOY 200 USS FASTENERS

80 HOLE USS BIN ASSORTMENT

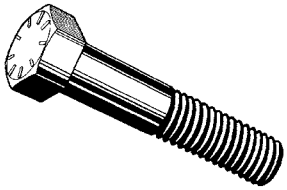
This assortment is filled and labeled with 70 of the fastest moving fastener sizes for all your maintenance needs... In 2 all steel 40 hole bins!

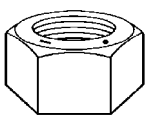
P/N 7801

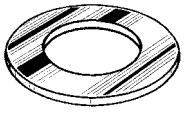
ASSORTMENT CONTAINS

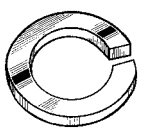
- 49 Sizes Alloy Cap Screws ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Flat Washers ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Lock Washers ..... 1/4" thru 3/4" Diameter
- 2 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









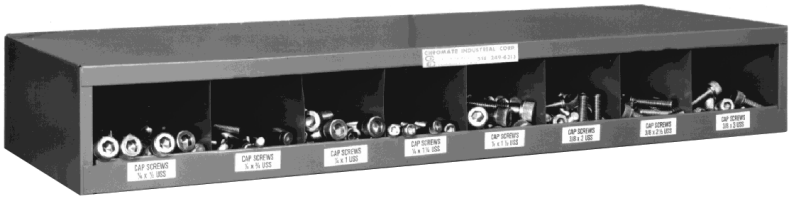
ALLOY 200 USS FASTENER ASSORTMENT

P/N 7801 — USS SIZES — 70 ITEMS / 80 HOLES

1/4-20 FINISHED HEX NUT 4700	5/16-18 FINISHED HEX NUT 4705	3/8-16 FINISHED HEX NUT 4710	7/16-14 FINISHED HEX NUT 4715	1/2-13 FINISHED HEX NUT 4720	EXPANSION	5/8-11 FINISHED HEX NUT 4730	3/4-10 FINISHED HEX NUT 4735
1/4 UNI-FIT™ FLAT WASHER 5400	5/16 UNI-FIT™ FLAT WASHER 5401	3/8 UNI-FIT™ FLAT WASHER 5402	7/16 UNI-FIT™ FLAT WASHER 5403	1/2 UNI-FIT™ FLAT WASHER 5404	EXPANSION	5/8 UNI-FIT™ FLAT WASHER 5406	3/4 UNI-FIT™ FLAT WASHER 5407
1/4 LOCK WASHER 6300	5/16 LOCK WASHER 6305	3/8 LOCK WASHER 6310	7/16 LOCK WASHER 6315	1/2 LOCK WASHER 6320	EXPANSION	5/8 LOCK WASHER 6330	3/4 LOCK WASHER 6335
1/4 x 1/2 CAP SCREW 4005	5/16 x 1/2 CAP SCREW 4060	3/8 x 3/4 CAP SCREW 4120	7/16 x 1 CAP SCREW 4185	1/2 x 1 CAP SCREW 4245	EXPANSION	5/8 x 1 CAP SCREW 4345	3/4 x 1-1/2 CAP SCREW 4415
1/4 x 3/4 CAP SCREW 4010	5/16 x 3/4 CAP SCREW 4065	3/8 x 1 CAP SCREW 4125	7/16 x 1-1/2 CAP SCREW 4195	1/2 x 1-1/2 CAP SCREW 4255	EXPANSION	5/8 x 1-1/2 CAP SCREW 4355	3/4 x 2 CAP SCREW 4420
1/4 x 1 CAP SCREW 4015	5/16 x 1 CAP SCREW 4070	3/8 x 1-1/4 CAP SCREW 4130	7/16 x 2 CAP SCREW 4205	1/2 x 2 CAP SCREW 4265	EXPANSION	5/8 x 2 CAP SCREW 4360	3/4 x 2-1/2 CAP SCREW 4425
1/4 x 1-1/2 CAP SCREW 4025	5/16 x 1-1/2 CAP SCREW 4080	3/8 x 1-1/2 CAP SCREW 4135	7/16 x 2-1/2 CAP SCREW 4210	1/2 x 2-1/2 CAP SCREW 4270	EXPANSION	5/8 x 2-1/2 CAP SCREW 4365	3/4 x 3 CAP SCREW 4430
1/4 x 2 CAP SCREW 4035	5/16 x 2 CAP SCREW 4090	3/8 x 2 CAP SCREW 4145	7/16 x 3 CAP SCREW 4215	1/2 x 3 CAP SCREW 4275	EXPANSION	5/8 x 3 CAP SCREW 4370	3/4 x 3-1/2 CAP SCREW 4435
1/4 x 2-1/2 CAP SCREW 4040	5/16 x 2-1/2 CAP SCREW 4095	3/8 x 2-1/2 CAP SCREW 4150	7/16 x 3-1/2 CAP SCREW 4220	1/2 x 3-1/2 CAP SCREW 4280	EXPANSION	5/8 x 3-1/2 CAP SCREW 4375	3/4 x 4 CAP SCREW 4440
1/4 x 3 CAP SCREW 4045	5/16 x 3 CAP SCREW 4100	3/8 x 3 CAP SCREW 4155	7/16 x 4 CAP SCREW 4225	1/2 x 4 CAP SCREW 4285	EXPANSION	5/8 x 4 CAP SCREW 4380	3/4 x 5 CAP SCREW 4450

SINGLE ROW BIN
NUT ASSORTMENT

8-Compartment Single Row Steel Bin



PART NO. 7881

ONE STEEL SINGLE ROW BIN

33-3/4" wide, 5-1/4" high, 12" deep*

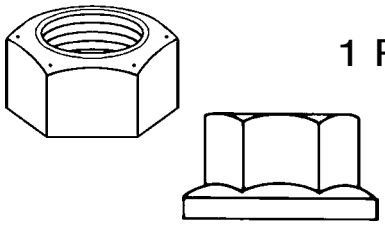
*Can be shipped via UPS

You Receive an 8-Compartment Single Row Bin Add-on Nut Assortment of the Fastest Moving Sizes Needed in Maintenance!

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 8 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

ASSORTMENT CONTAINS:

4 Sizes Free Spinning Flange Lock Nuts .... 1/4" thru 1/2" Diameter
4 Sizes Alloy 200 Taper Lock Nuts ..... 1/4" thru 1/2" Diameter



1 P/N 7995 – 8 Compartment Single Row Bin

SINGLE ROW ADD-ON NUT ASSORTMENT

P/N 7881 — USS SIZES — 8 ITEMS / 8 HOLES

1/4-20 FREE SPINNING FLANGE NUT 6801PS	5/16-18 FREE SPINNING FLANGE NUT 6806PS	3/8-16 FREE SPINNING FLANGE NUT 6811PS	1/2-13 FREE SPINNING FLANGE NUT 6821PS	1/4-20 ALLOY 200 TAPER LOCK NUT 6800	5/16-18 ALLOY 200 TAPER LOCK NUT 6805	3/8-16 ALLOY 200 TAPER LOCK NUT 6810	1/2-13 ALLOY 200 TAPER LOCK NUT 6820

GRADE 8 FASTENERS

- Minimum 150,000 psi Tensile Strength
- Meets Grade 8 Strength Specifications
- 30% Thicker Nuts for Easier Torquing and Less Wrench Slippage
- Alloy Steel Washers Provide Higher Strength Load Bearing Surface
- Cold Forged with Precision Rolled Threads
- Triple Heat Treated
- Zinc Dichromate Plating

CHROMATE GRADE 8 FASTENING SYSTEM MEETS ALL GRADE 8 SPECIFICATIONS.

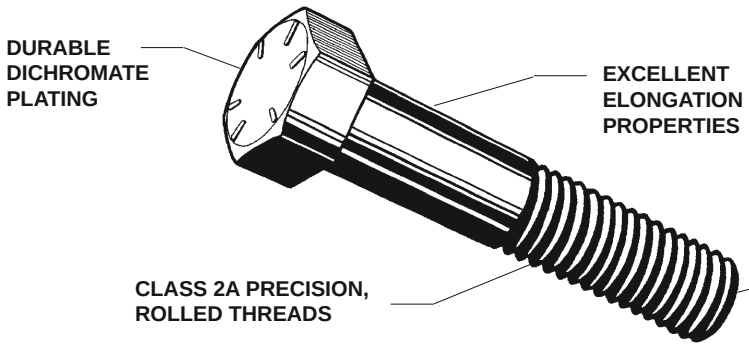
Tested and proven to be one of the tough preventive maintenance fastening systems available. All components are manufactured to exacting specifications, triple heat treated for shock absorbing, fatigue resistant ductility and then zinc dichromate plated for corrosion resistance and durability. Always use the Chromate Grade 8 Fastening System when failure *cannot* be tolerated.

GRADE 8 CAP SCREWS

THE PREVENTIVE MAINTENANCE CAP SCREW

Medium carbon alloy steel, through hardened. U.S. made with U.S. steel and U.S. Labor. Minimum 150,000 psi tensile strength. Rockwell "C" hardness 33-39.

- **MANUFACTURED TO SAE J429**
- **MEETS ASTM A354**



LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		7/16 DIA.	
	USS 20	SAE 28	USS 18	SAE 24	USS 16	SAE 24	USS 14	SAE 20
1/2	T **40700**	T **41000**	T **40726**	T **41026**	T **40752**	T **41052**	—	—
5/8	T *40701*	T *41001*	T *40727*	T *41027*	T *40753*	T *41053*	—	—
3/4	T **40702**	T **41002**	T **40728**	T **41028**	T **40754**	T **41054**	R **40782**	R **41082**
7/8	T *40703*	T *41003*	T *40729*	T *41029*	T *40755*	T *41055*	R *40783*	R *41083*
1	T **40704**	T **41004**	T **40730**	T **41030**	T **40756**	T **41056**	R **40784**	R **41084**
1-1/4	T **40706**	T **41006**	T **40732**	T **41032**	R **40758**	R **41058**	R **40785**	R **41085**
1-1/2	T **40707**	T **41007**	T **40733**	T **41033**	R **40759**	R **41059**	R **40786**	R **41086**
1-3/4	T **40708**	T **41008**	T **40734**	T **41034**	R **40760**	R **41060**	R **40787**	R **41087**
2	T **40709**	T **41009**	T **40735**	R **41035**	R **40761**	R **41061**	R **40788**	N **41088**
2-1/4	R **40710**	T **41010**	R **40736**	R **41036**	R **40762**	R **41062**	N **40789**	N *41089*
2-1/2	R **40711**	T **41011**	R **40737**	R **41037**	R **40763**	R **41063**	N **40790**	N **41090**
2-3/4	R **40712**	R **41012**	R **40738**	R **41038**	R **40764**	R **41064**	N **40791**	N *41091*
3	R **40713**	R **41013**	R **40739**	R **41039**	R **40765**	R **41065**	N **40792**	N **41092**
3-1/4	R *40714*	R *41014*	R *40740*	R *41040*	N *40766*	N *41066*	N *40793*	N *41093*
3-1/2	R **40715**	R **41015**	R **40741**	N **41041**	N **40767**	N **41067**	N **40794**	N **41094**
3-3/4	R *40716*	R **41016**	N *40742*	N *41042*	N *40768*	N *41068*	N *40795*	N *41095*
4	R **40717**	N **41017**	N **40743**	N **41043**	N **40769**	N **41069**	N **40796**	I **41096**
4-1/4	—	—	—	—	I *40770*	I *41070*	—	—
4-1/2	N **40718**	N *41018*	N **40744**	N *41044*	I **40771**	I *41071*	I **40797**	I *41097*
4-3/4	—	—	—	—	I *40772*	I *41072*	—	—
5	N **40719**	I *41019*	N **40745**	I *41045*	I **40773**	I *41073*	I **40798**	I **41098**
5-1/4	—	—	—	—	I *40774*	I *41074*	—	—
5-1/2	N *40720*	I *41020*	I **40746**	I *41046*	I **40775**	I *41075*	I **40799**	I *41099*
5-3/4	—	—	—	—	I *40776*	I *41076*	—	—
6	I *40721*	I *41021*	I **40747**	I *41047*	I **40777**	I *41077*	I **40800**	I **41100**
6-1/2	I *40722*	I *41022*	I *40748*	I *41048*	I *40778*	I *41078*	E *40801*	E *41101*
7	I *40723*	I *41023*	I *40749*	I *41049*	E *40779*	E *41079*	E *40802*	E *41102*
7-1/2	I *40724*	I *41024*	E *40750*	E *41050*	E *40780*	E *41080*	E *40803*	E *41103*
8	I *40725*	I *41025*	E *40751*	E *41051*	E *40781*	E *41081*	E *40804*	E *41104*

NOTE: NUMBERS IN ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.

GRADE 8 CAP SCREWS (Cont'd)

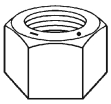
LENGTH	1/2 DIA.		9/16 DIA.		5/8 DIA.		3/4 DIA.	
	USS 13	SAE 20	USS 12	SAE 18	USS 11	SAE 18	USS 10	SAE 16
3/4	R **40805**	R *41105*	–	–	–	–	–	–
7/8	R *40806*	R *41106*	–	–	–	–	–	–
1	R **40807**	R **41107**	N **40831**	N *41131*	N **40852**	I **41152**	I *40879*	I *41179*
1-1/4	R **40809**	N **41109**	N **40832**	N *41132*	N **40853**	I **41153**	I *40880*	I *41180*
1-1/2	R **40810**	N **41110**	N **40833**	N *41133*	N **40854**	I **41154**	I **40881**	I **41181**
1-3/4	N **40811**	N **41111**	N **40834**	N *41134*	N **40855**	I **41155**	I **40882**	I **41182**
2	N **40812**	N **41112**	I **40835**	I *41135*	N **40856**	I **41156**	I **40883**	I **41183**
2-1/4	N **40813**	N **41113**	I *40836*	I *41136*	I **40857**	I **41157**	I *40884*	E *41184*
2-1/2	N **40814**	N **41114**	I **40837**	I *41137*	I **40858**	I **41158**	I **40885**	E **41185**
2-3/4	N *40815*	N **41115**	I *40838*	I *41138*	I **40859**	I **41159**	I *40886*	E *41186*
3	N **40816**	N **41116**	I **40839**	I *41139*	I **40860**	I **41160**	I **40887**	E **41187**
3-1/4	N *40817*	N *41117*	I *40840*	I *41140*	I *40861*	I *41161*	E **40888**	E *41188*
3-1/2	N **40818**	N **41118**	I **40841**	I *41141*	I **40862**	I **41162**	E **40889**	E **41189**
3-3/4	N *40819*	I *41119*	I *40842*	I *41142*	I *40863*	I *41163*	E *40890*	E *41190*
4	I **40820**	I **41120**	I **40843**	I *41143*	I **40864**	I **41164**	E **40891**	E **41191**
4-1/4	I *40821*	I *41121*	–	–	I *40865*	I *41165*	E *40892*	–
4-1/2	I **40822**	I *41122*	I **40844**	I *41144*	I **40866**	I **41166**	E **40893**	E *41193*
4-3/4	I *40823*	I *41123*	–	–	I *40867*	I *41167*	–	–
5	I **40824**	I **41124**	I **40845**	I *41145*	I **40868**	I **41168**	E **40894**	E **41194**
5-1/2	I **40825**	I *41125*	I *40846*	I *41146*	E **40869**	I *41169*	E **40895**	E *41195*
6	I **40826**	I **41126**	E **40847**	E *41147*	E **40870**	E **41170**	E **40896**	E **41196**
6-1/2	E **40827**	E *41127*	E *40848*	E *41148*	E **40871**	E *41171*	E **40897**	B *41197*
7	E **40828**	E *41128*	E *40849*	E *41149*	E **40872**	E *41172*	B **40898**	B *41198*
7-1/2	E *40829*	E *41129*	E *40850*	E *41150*	E **40873**	E *41173*	B **40899**	B *41199*
8	E *40830*	E *41130*	B *40851*	B *41151*	E **40874**	E **41174**	B **40900**	B **41200**
8-1/2	–	–	–	–	E *40875*	B *41175*	B *40901*	B *41201*
9	–	–	–	–	B *40876*	B *41176*	B *40902*	B *41202*
9-1/2	–	–	–	–	B *40877*	B *41177*	B *40903*	B *41203*
10	–	–	–	–	B *40878*	B *41178*	B *40904*	B *41204*

LENGTH	7/8 DIA		1 DIA.		1-1/8 DIA.		1-1/4 DIA.	
	USS 9	SAE 14	USS 8	SAE 14	USS 7	SAE 12	USS 7	SAE 12
1-1/2	E *40905*	E *41205*	E *40929*	E *41229*	–	–	–	–
1-3/4	E *40906*	E *41206*	E *40930*	E *41230*	–	–	–	–
2	E **40907**	E *41207*	E *40931*	E *41231*	B *40953*	B *41253*	B *40974*	B *41274*
2-1/4	E *40908*	E *41208*	E *40932*	E *41232*	B *40954*	B *41254*	B *40975*	B *41275*
2-1/2	E **40909**	E *41209*	E *40933*	E *41233*	B *40955*	B *41255*	B *40976*	B *41276*
2-3/4	E *40910*	E *41210*	E *40934*	E *41234*	B *40956*	B *41256*	B *40977*	B *41277*
3	E **40911**	E *41211*	E *40935*	B *41235*	B *40957*	B *41257*	B *40978*	B *41278*
3-1/4	E *40912*	E *41212*	E *40936*	B *41236*	B *40958*	B *41258*	B *40979*	B *41279*
3-1/2	E **40913**	E *41213*	E *40937*	B *41237*	B *40959*	B *41259*	B *40980*	B *41280*
3-3/4	E *40914*	E *41214*	B *40938*	B *41238*	B *40960*	B *41260*	B *40981*	B *41281*
4	E **40915**	E *41215*	B *40939*	B *41239*	B *40961*	B *41261*	B *40982*	B *41282*
4-1/4	B *40916*	B *41216*	B *40940*	B *41240*	–	–	–	–
4-1/2	E **40917**	B *41217*	B *40941*	B *41241*	B *40962*	B *41262*	A *40983*	A *41283*
5	E **40918**	B *41218*	B *40942*	B *41242*	B *40963*	B *41263*	A *40984*	A *41284*
5-1/2	E **40919**	B *41219*	B *40943*	B *41243*	B *40964*	B *41264*	A *40985*	A *41285*
6	B **40920**	B *41220*	B *40944*	B *41244*	B *40965*	A *41265*	A *40986*	A *41286*
6-1/2	B **40921**	B *41221*	B *40945*	B *41245*	A *40966*	A *41266*	A *40987*	A *41287*
7	B **40922**	B *41222*	B *40946*	B *41246*	A *40967*	A *41267*	A *40988*	A *41288*
7-1/2	B **40923**	B *41223*	B *40947*	B *41247*	A *40968*	A *41268*	A *40989*	A *41289*
8	B **40924**	B *41224*	B *40948*	A *41248*	A *40969*	A *41269*	A *40990*	A *41290*
8-1/2	B *40925*	A *41225*	A *40949*	A *41249*	A *40970*	A *41270*	A *40991*	A *41291*
9	B *40926*	A *41226*	A *40950*	A *41250*	A *40971*	A *41271*	A *40992*	A *41292*
9-1/2	B *40927*	A *41227*	A *40951*	A *41251*	A *40972*	A *41272*	A *40993*	A *41293*
10	B *40928*	A *41228*	A *40952*	A *41252*	A *40973*	A *41273*	A *40994*	A *41294*

NOTE: *NUMBERS IN ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.*

GRADE 8 HEX NUTS

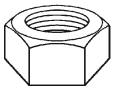
FINISHED THICK HEX NUTS



- USE WITH GRADE 8 AND ALLOY 200 CAP SCREWS FOR BALANCED ASSEMBLY
- EXCEEDS GRADE 8 SPECIFICATIONS BY 20%
- TRIPLE HEAT TREATED
- 30% THICKER FOR GREATER HOLDING/WRENCHING POWER
- 180,000 PSI MINIMUM TENSILE STRENGTH
- DICHROMATE PLATING AND WAXED

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	9/32	4700	3700
T	5/16	18	24	1/2	21/64	4705	3705
T	3/8	16	24	9/16	13/32	4710	3710
R	7/16	14	20	11/16	29/64	4715	3715
R	1/2	13	20	3/4	9/16	4720	3720
N	9/16	12	18	7/8	39/64	4725	3725
N	5/8	11	18	15/16	23/32	4730	3730
L	3/4	10	16	1-1/8	13/16	4735	3735
I	7/8	9	14	1-5/16	27/32	4740	3740
E	1	8	14	1-1/2	1	4745	3745
B	1-1/8	7	12	1-11/16	1-3/16	4746	–
B	1-1/4	7	12	1-7/8	1-1/4	4747	3747
B	1-1/2	6	12	2-1/4	1-1/2	4748	–

GRADE 8 FINISHED NUTS

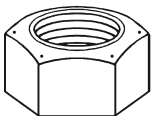


- MEETS GRADE 8 SPECIFICATIONS
- TRIPLE HEAT TREATED
- DICHROMATE PLATING

17795

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	7/32	8926	8905
T	5/16	18	24	1/2	17/64	8927	8906
T	3/8	16	24	9/16	21/64	8928	8907
R	7/16	14	20	11/16	3/8	8929	8908
R	1/2	13	20	3/4	7/16	8930	8909
R	9/16	12	18	7/8	31/64	8931	8910
R	5/8	11	18	15/16	35/64	8932	8911
N	3/4	10	16	1-1/8	41/64	8933	8912
I	7/8	9	14	1-5/16	3/4	8934	8913
I	1	8	14	1-1/2	55/64	8935	8914
I	1-1/8	7	12	1-11/16	31/32	13571	4771
I	1-1/4	7	12	1-7/8	1-1/16	13572	4772
I	1-3/8	6	12	2-1/16	1-11/64	13573	4773
I	1-1/2	6	12	2-1/4	1-9/32	13574	4774

PREVAILING TORQUE TAPER LOCK NUTS

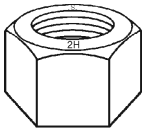


- USE WITH GRADE 8 AND ALLOY 200 CAP SCREWS
- GRADE C SPECIFICATIONS
- TRIPLE HEAT TREATED
- SUPERIOR VIBRATION AND
- SHOCK RESISTANCE
- 150,000 PSI
- CLEAR PLATING ZINC

7747

SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	1/4	6800	5800
T	5/16	18	24	1/2	19/64	6805	5805
T	3/8	16	24	9/16	3/8	6810	5810
R	7/16	14	20	11/16	27/64	6815	5815
R	1/2	13	20	3/4	1/2	6820	5820
N	9/16	12	18	7/8	35/64	6825	5825
N	5/8	11	18	15/16	41/64	6830	5830
L	3/4	10	16	1-1/8	47/64	6835	5835
I	7/8	9	14	1-5/16	27/32	6840	5840
E	1	8	14	1-1/2	15/16	6845	5845
B	1-1/8	7	12	1-11/16	1-3/16	6846	5846
B	1-1/4	7	12	1-7/8	1-9/32	6847	5847
B	1-3/8	6	12	2-1/16	1-13/32	6842	–
B	1-1/2	6	12	2-1/4	1-17/32	6848	–

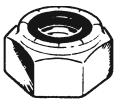
USS 2H HEAVY HEX NUTS



- EXTRA WIDTH FOR OVERSIZE WRENCHING
- MEETS ASTM 194-2H
- ANSI/ASME B18.2.1 1981
- PLAIN FINISH

SIZE		TPI USS	WAF	HGT	USS
R	3/8	16	11/16	23/64	4840
R	1/2	13	7/8	31/64	4850
N	5/8	11	1-1/16	39/64	4855
L	3/4	10	1-1/4	47/64	4860
I	7/8	9	1-7/16	55/64	4865
I	1	8	1-5/8	63/64	4870
B	1-1/4	7	2	1-7/32	4878
B	1-3/8	7	2-3/16	1-11/32	4882
B	1-1/2	6	2-3/8	1-15/32	4885

GRADE 8 ZINC YELLOW NYLON HEX NUTS



- SPECIAL PRIME STEEL
- ONE-PIECE NYLON INSERT FOR POSITIVE 360° LOCKING
- REUSABLE
- DICHROMATE PROTECTIVE PLATING

17955

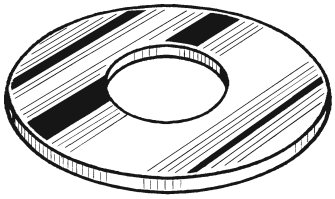
SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE	SIZE		TPI USS	TPI SAE	WAF	HGT	USS	SAE
T	1/4	20	28	7/16	7/32	22020	22021	L	9/16	12	18	7/8	31/64	22030	22031
T	5/16	18	24	1/2	17/64	22022	22023	L	5/8	11	18	15/16	35/64	22032	22033
T	3/8	16	24	9/16	21/64	22024	22025	I	3/4	10	16	1-1/8	41/64	22034	22035
R	7/16	14	20	11/16	3/8	22026	22027	E	7/8	9	14	1-5/16	3/4	22036	22037
N	1/2	13	20	3/4	7/16	22028	22029	B	1	8	14	1-1/2	55/64	22038	22039

GRADE 8 ALLOY WASHERS

DESIGNED FOR HIGH STRENGTH LOAD BEARING APPLICATIONS

Grade 8 washers provide superior performance for all critical applications.

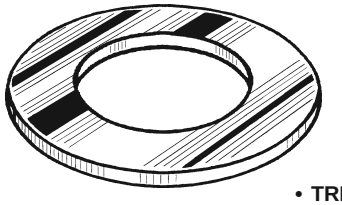
USS WIDE BAND FLAT WASHERS



- **DIMENSIONS ARE TO ANSI SPECIFICATIONS**
- **FABRICATED FROM QUALITY MEDIUM CARBON STEEL**
- **RC 38-45**
- **TRIPLE HEAT TREATED**
- **USS DIMENSIONS**
- **SMOOTH BEARING SURFACE**
- **DICHROMATE PLATING**

	SIZE	I.D.	O.D.	PART
T	1/4	5/16	3/4	8000
T	5/16	3/8	7/8	8001
T	3/8	7/16	1	8002
T	7/16	1/2	1-1/4	8003
T	1/2	9/16	1-3/8	8004
R	9/16	5/8	1-1/2	8005
R	5/8	11/16	1-3/4	8006
N	3/4	13/16	2	8007
N	7/8	15/16	2-1/4	8008
N	1"	1-1/16	2-1/2	8009
I	1-1/8	1-1/4	2-3/4	8010
I	1-1/4	1-3/8	3	8011
I	1-3/8	1-1/2	3-1/4	8027
E	1-1/2	1-5/8	3-1/2	8012

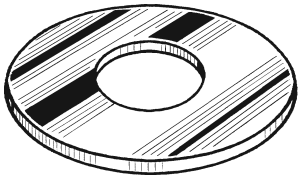
SAE NARROW BAND FLAT WASHERS



- **DIMENSIONS ARE TO ANSI SPECIFICATIONS**
- **FABRICATED FROM QUALITY MEDIUM CARBON STEEL**
- **RC 38-45**
- **TRIPLE HEAT TREATED**
- **SAE DIMENSIONS**
- **SMOOTH BEARING SURFACE**
- **DICHROMATE PLATING**

	SIZE	I.D.	O.D.	PART
T	1/4	9/32	5/8	9000
T	5/16	11/32	11/16	9001
T	3/8	13/32	13/16	9002
T	7/16	15/32	59/64	9003
T	1/2	17/32	1-1/16	9004
R	9/16	19/32	1-3/16	9005
R	5/8	11/16	1-5/16	9006
N	3/4	13/16	1-15/32	9007
N	7/8	15/16	1-3/4	9008
N	1"	1-1/8	2	9009
I	1-1/8	1-1/4	2-1/4	9010
I	1-1/4	1-3/8	2-1/2	9011
I	1-3/8	1-1/2	2-3/4	9013
I	1-1/2	1-5/8	3	9012
E	1-3/4	1-7/8	3-3/8	9014

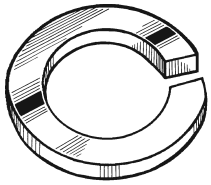
STRUCTURAL FLAT WASHERS



- **HIGH STRENGTH MATERIAL**
- **FOR USE WITH A325 STRUCTURAL BOLTS**
- **PLAIN FINISH**

SIZE	PART	SIZE	PART
1/2	T 1124	1-1/8	N 1130
5/8	R 1126	1-1/4	N 1131
3/4	R 1127	1-3/4	N 1133
7/8	N 1128	2	E 1134
1	N 1129	–	–

LOCK WASHERS



- **TRIPLE HEAT TREATED**
- **RETAINS STRENGTH UNDER HIGH LOAD CONDITIONS**
- **MECHANICAL DICHROMATE PLATING TO AVOID HYDROGEN EMBRITTLEMENT**
- **RC 38-46**

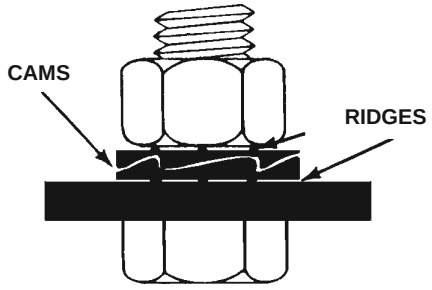
SIZE	PART	SIZE	PART
1/4	U 6300	3/4	R 6335
5/16	U 6305	7/8	R 6340
3/8	U 6310	1	N 6345
7/16	T 6315	1-1/8	L 6350
1/2	T 6320	1-1/4	I 6355
9/16	T 6325	1-1/2	I 6360
5/8	R 6330		

Vi-LOCK WASHERS

THE MOST RELIABLE VIBRATION-RESISTANT LOCKING DEVICE AVAILABLE

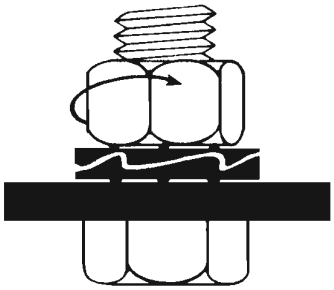
Meets military specification – MSN-5310-01-051-4149. Special Chromate protective plating eliminates rust and corrosion.

THE MORE THEY VIBRATE — THE TIGHTER THEY LOCK

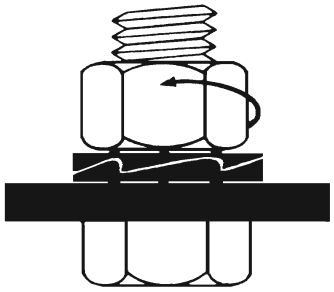


The Vi-LOC principle calls for two washer-shaped pieces that have inclined cams on one side and a series of ridges on the other. When the inclined cams are mated and set-up as shown in the diagram, one washer seizes to the joint material and the other washer to the nut or capscrew.

When the bolt contracts, the inclined planes of the cams cause the nut or capscrew to rotate back to its original position. This creates a fastening system that is vibration proof and meets military specifications. The Vi-LOC fastening system may be loosened by exerting approximately 50% more torque than required for tightening.

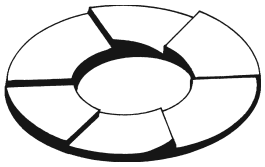


When a bolt elongates due to vibration or shock, the nut or capscrew starts to rotate loose. The Vi-LOC system prevents this since the cam rise angle is greater than the lead angle of the thread. As one piece of the Vi-LOC attempts to rotate with the nut or capscrew, the preload is actually increased, forcing the assembly back to a tight fitting unit.



VI-LOCK WASHERS

- **USE ONLY IN PAIRS**
- **SELF-MATING**
- **RIDGES ON OUTSIDE**



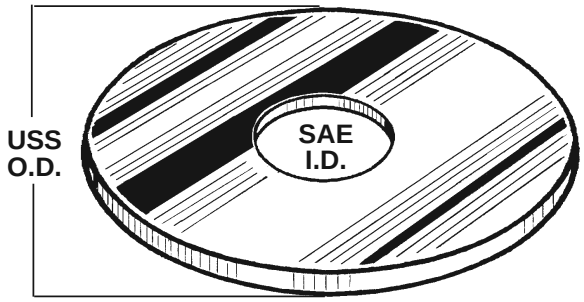
RESISTS:
- **VIBRATION**
- **LOST HOLDING POWER**
- **SLIPPAGE**
- **WEAR**
- **EQUIPMENT BREAKDOWN**

SIZE	INSIDE DIAMETER	OUTSIDE DIAMETER	PART	
3/16 (5mm)	.203"	.401"	U	6100
1/4 (6mm)	.262"	.495"	U	6101
5/16 (8mm)	.326"	.628"	U	6102
3/8 (10mm)	.409"	.705"	T	6103
7/16 (11mm)	.450"	.880"	T	6104
1/2 (12mm)	.510"	1.005"	R	6105
9/16 (14mm)	.572"	1.128"	O	6106
5/8 (16mm)	.651"	1.247"	O	6107
3/4 (20mm)	.820"	1.381"	O	6110
7/8 (22mm)	.883"	1.470"	L	6111
1" (25mm)	1.015"	1.626"	L	6112

GRADE 8 UNI-FIT™ FLAT WASHERS

TIGHTER TOLERANCE WITH INCREASED BEARING SURFACE

A superior strength flat washer combining the closer inside diameter tolerance of an SAE washer with the greater load bearing surface of a USS washer.



- **THICKER, WIDER PATTERN**
  IMPROVED STRENGTH AND INCREASED BEARING SURFACE FOR MORE UNIFORM TORQUE TENSION PERFORMANCE.
- **MARKED WITH CIC LOGO AND SIZE**
  FOR TRACEABILITY AND EASY IDENTIFICATION.
- **FEWER SIZES NEEDED**
  LOWERS INVENTORY COSTS.
- **YELLOW DICHROMATE MECHANICAL PLATING**
  ASSURES SUPERIOR RESISTANCE TO RUST AND CORROSION FOR LONGER LIFE.
- **MANUFACTURED FROM HIGH STRENGTH, HEAT-TREATED ALLOY STEEL**
  ASSURES HIGHEST CLAMPING LOAD WITHOUT DISHING, BENDING OR GALLING.

SIZE	THICKNESS	ID	OD	PART
1/4	.086	9/32	3/4	U 5400
5/16	.086	11/32	7/8	U 5401
3/8	.086	13/32	1	U 5402
7/16	.098	15/32	1-1/4	T 5403
1/2	.132	17/32	1-3/8	T 5404
5/8	.146	11/16	1-3/4	R 5406
3/4	.146	13/16	2	O 5407

GRADE 8 USS ALLOY FASTENERS

80 HOLE USS BIN ASSORTMENT

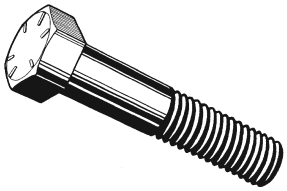
This assortment is filled and labeled with 70 of the fastest moving fastener sizes for all your maintenance needs... In 2 all steel 40 hole bins!

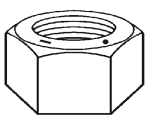
P/N 7835

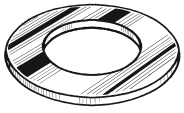
ASSORTMENT CONTAINS

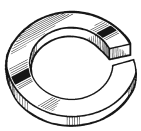
- 49 Sizes Alloy Cap Screws ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Uni-Fit™ Flat Washers ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Lock Washers ..... 1/4" thru 3/4" Diameter
- 2 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









FOR MORE INFORMATION ON OUR PRODUCTS OR SYSTEMS, CALL 1-800-BUY-BOLT

GRADE 8 USS ALLOY FASTENER ASSORTMENT

P/N 7835 — USS SIZES — 70 ITEMS / 80 HOLES

1/4-20 FINISHED HEX NUT 8926	5/16-18 FINISHED HEX NUT 8927	3/8-16 FINISHED HEX NUT 8928	7/16-14 FINISHED HEX NUT 8929	1/2-13 FINISHED HEX NUT 8930	EXPANSION	5/8-11 FINISHED HEX NUT 8932	3/4-10 FINISHED HEX NUT 8933
1/4 UNI-FIT™ FLAT WASHER 5400	5/16 UNI-FIT™ FLAT WASHER 5401	3/8 UNI-FIT™ FLAT WASHER 5402	7/16 UNI-FIT™ FLAT WASHER 5403	1/2 UNI-FIT™ FLAT WASHER 5404	EXPANSION	5/8 UNI-FIT™ FLAT WASHER 5406	3/4 UNI-FIT™ FLAT WASHER 5407
1/4 LOCK WASHER 6300	5/16 LOCK WASHER 6305	3/8 LOCK WASHER 6310	7/16 LOCK WASHER 6315	1/2 LOCK WASHER 6320	EXPANSION	5/8 LOCK WASHER 6330	3/4 LOCK WASHER 6335
1/4 x 1/2 CAP SCREW 40700	5/16 x 1/2 CAP SCREW 40726	3/8 x 3/4 CAP SCREW 40754	7/16 x 1 CAP SCREW 40784	1/2 x 1 CAP SCREW 40807	EXPANSION	5/8 x 1 CAP SCREW 40852	3/4 x 1-1/2 CAP SCREW 40881
1/4 x 3/4 CAP SCREW 40702	5/16 x 3/4 CAP SCREW 40728	3/8 x 1 CAP SCREW 40756	7/16 x 1-1/2 CAP SCREW 40786	1/2 x 1-1/2 CAP SCREW 40810	EXPANSION	5/8 x 1-1/2 CAP SCREW 40854	3/4 x 2 CAP SCREW 40883
1/4 x 1 CAP SCREW 40704	5/16 x 1 CAP SCREW 40730	3/8 x 1-1/4 CAP SCREW 40758	7/16 x 2 CAP SCREW 40788	1/2 x 2 CAP SCREW 40812	EXPANSION	5/8 x 2 CAP SCREW 40856	3/4 x 2-1/2 CAP SCREW 40885
1/4 x 1-1/2 CAP SCREW 40707	5/16 x 1-1/2 CAP SCREW 40733	3/8 x 1-1/2 CAP SCREW 40759	7/16 x 2-1/2 CAP SCREW 40790	1/2 x 2-1/2 CAP SCREW 40814	EXPANSION	5/8 x 2-1/2 CAP SCREW 40858	3/4 x 3 CAP SCREW 40887
1/4 x 2 CAP SCREW 40709	5/16 x 2 CAP SCREW 40735	3/8 x 2 CAP SCREW 40761	7/16 x 3 CAP SCREW 40792	1/2 x 3 CAP SCREW 40816	EXPANSION	5/8 x 3 CAP SCREW 40860	3/4 x 3-1/2 CAP SCREW 40889
1/4 x 2-1/2 CAP SCREW 40711	5/16 x 2-1/2 CAP SCREW 40737	3/8 x 2-1/2 CAP SCREW 40763	7/16 x 3-1/2 CAP SCREW 40794	1/2 x 3-1/2 CAP SCREW 40818	EXPANSION	5/8 x 3-1/2 CAP SCREW 40862	3/4 x 4 CAP SCREW 40891
1/4 x 3 CAP SCREW 40713	5/16 x 3 CAP SCREW 40739	3/8 x 3 CAP SCREW 40765	7/16 x 4 CAP SCREW 40796	1/2 x 4 CAP SCREW 40820	EXPANSION	5/8 x 4 CAP SCREW 40864	3/4 x 5 CAP SCREW 40894

GRADE 8 SAE ALLOY FASTENERS

80 HOLE SAE BIN ASSORTMENT

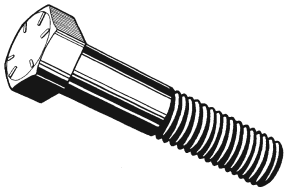
This assortment is filled and labeled with 70 of the fastest moving fastener sizes for all your maintenance needs... In 2 all steel 40 hole bins!

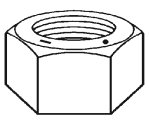
P/N 7836

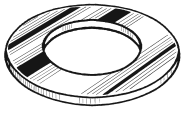
ASSORTMENT CONTAINS

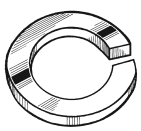
- 49 Sizes Alloy Cap Screws ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Uni-Fit™ Flat Washers ..... 1/4" thru 3/4" Diameter
- 7 Sizes Alloy Lock Washers ..... 1/4" thru 3/4" Diameter
- 2 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









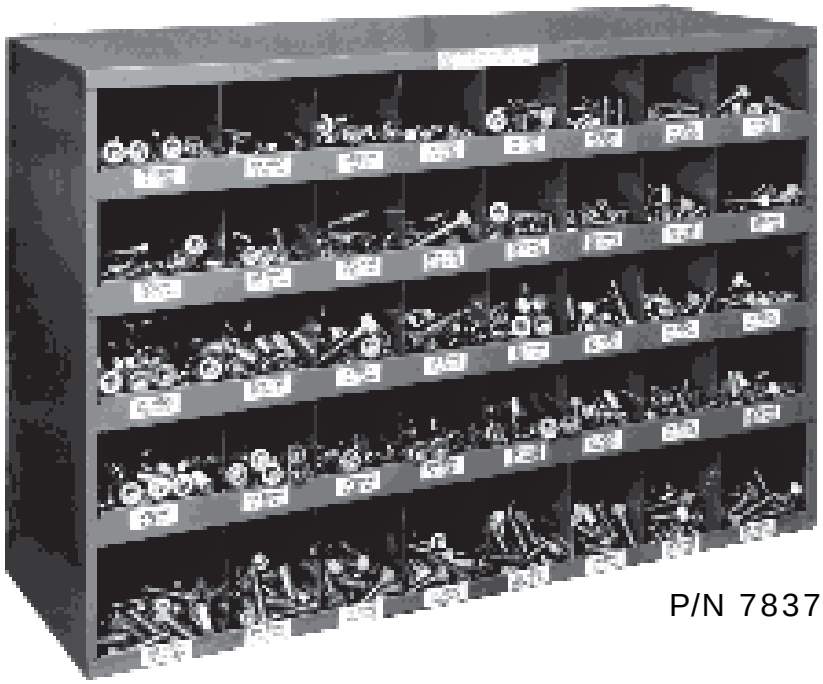
GRADE 8 SAE ALLOY FASTENER ASSORTMENT

P/N 7836 — SAE SIZES — 70 ITEMS / 80 HOLES

1/4-28 FINISHED HEX NUT 8905	5/16-24 FINISHED HEX NUT 8906	3/8-24 FINISHED HEX NUT 8907	7/16-20 FINISHED HEX NUT 8908	1/2-20 FINISHED HEX NUT 8909	EXPANSION	5/8-18 FINISHED HEX NUT 8911	3/4-16 FINISHED HEX NUT 8912
1/4 UNI-FIT™ FLAT WASHER 5400	5/16 UNI-FIT™ FLAT WASHER 5401	3/8 UNI-FIT™ FLAT WASHER 5402	7/16 UNI-FIT™ FLAT WASHER 5403	1/2 UNI-FIT™ FLAT WASHER 5404	EXPANSION	5/8 UNI-FIT™ FLAT WASHER 5406	3/4 UNI-FIT™ FLAT WASHER 5407
1/4 LOCK WASHER 6300	5/16 LOCK WASHER 6305	3/8 LOCK WASHER 6310	7/16 LOCK WASHER 6315	1/2 LOCK WASHER 6320	EXPANSION	5/8 LOCK WASHER 6330	3/4 LOCK WASHER 6335
1/4 x 1/2 CAP SCREW 41000	5/16 x 1/2 CAP SCREW 41026	3/8 x 3/4 CAP SCREW 41054	7/16 x 1 CAP SCREW 41084	1/2 x 1 CAP SCREW 41107	EXPANSION	5/8 x 1 CAP SCREW 41152	3/4 x 1-1/2 CAP SCREW 41181
1/4 x 3/4 CAP SCREW 41002	5/16 x 3/4 CAP SCREW 41028	3/8 x 1 CAP SCREW 41056	7/16 x 1-1/2 CAP SCREW 41086	1/2 x 1-1/2 CAP SCREW 41110	EXPANSION	5/8 x 1-1/2 CAP SCREW 41154	3/4 x 2 CAP SCREW 41183
1/4 x 1 CAP SCREW 41004	5/16 x 1 CAP SCREW 41030	3/8 x 1-1/4 CAP SCREW 41058	7/16 x 2 CAP SCREW 41088	1/2 x 2 CAP SCREW 41112	EXPANSION	5/8 x 2 CAP SCREW 41156	3/4 x 2-1/2 CAP SCREW 41185
1/4 x 1-1/2 CAP SCREW 41007	5/16 x 1-1/2 CAP SCREW 41033	3/8 x 1-1/2 CAP SCREW 41059	7/16 x 2-1/2 CAP SCREW 41090	1/2 x 2-1/2 CAP SCREW 41114	EXPANSION	5/8 x 2-1/2 CAP SCREW 41158	3/4 x 3 CAP SCREW 41187
1/4 x 2 CAP SCREW 41009	5/16 x 2 CAP SCREW 41035	3/8 x 2 CAP SCREW 41061	7/16 x 3 CAP SCREW 41092	1/2 x 3 CAP SCREW 41116	EXPANSION	5/8 x 3 CAP SCREW 41160	3/4 x 3-1/2 CAP SCREW 41189
1/4 x 2-1/2 CAP SCREW 41011	5/16 x 2-1/2 CAP SCREW 41037	3/8 x 2-1/2 CAP SCREW 41063	7/16 x 3-1/2 CAP SCREW 41094	1/2 x 3-1/2 CAP SCREW 41118	EXPANSION	5/8 x 3-1/2 CAP SCREW 41162	3/4 x 4 CAP SCREW 41191
1/4 x 3 CAP SCREW 41013	5/16 x 3 CAP SCREW 41039	3/8 x 3 CAP SCREW 41065	7/16 x 4 CAP SCREW 41096	1/2 x 4 CAP SCREW 41120	EXPANSION	5/8 x 4 CAP SCREW 41164	3/4 x 5 CAP SCREW 41194

GRADE 8 USS ALLOY FASTENERS

40 HOLE USS BIN ASSORTMENT



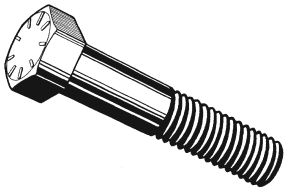
P/N 7837

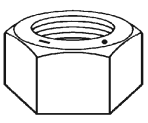
This assortment is filled and labeled with 40 of the fastest moving fastener sizes for all your maintenance needs!

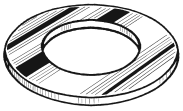
ASSORTMENT CONTAINS

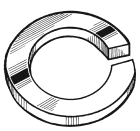
- 25 Sizes Alloy Cap Screws ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Flat Washers ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Lock Washers ..... 1/4" thru 1/2" Diameter
- 1 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









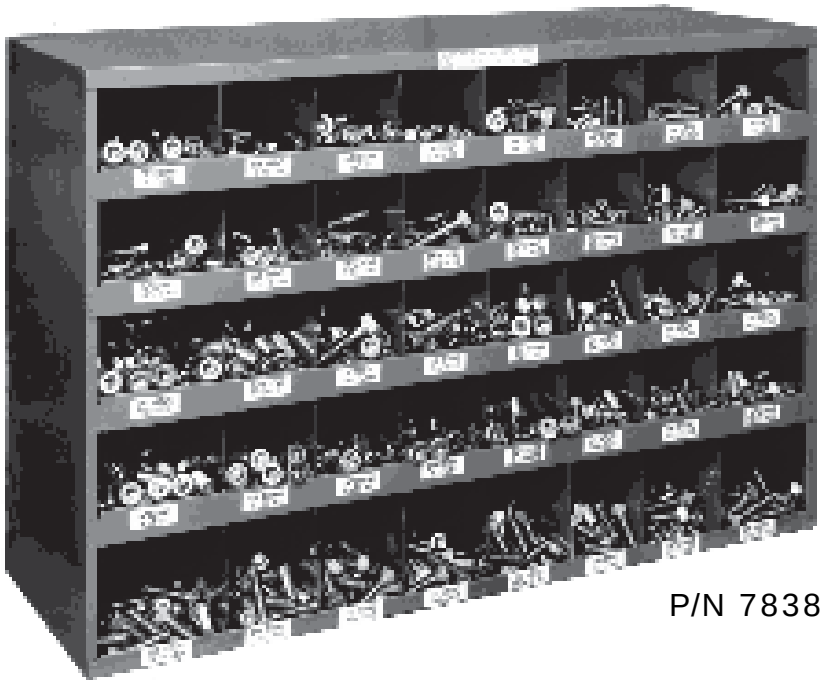
GRADE 8 USS ALLOY FASTENER ASSORTMENT

P/N 7837 — USS SIZES — 40 ITEMS / 40 HOLES

1/4-20 FINISHED HEX NUT 8926	1/4 UNI-FIT™ FLAT WASHER 5400	1/4 LOCK WASHER 6300	1/4 x 1/2 CAP SCREW 40700	1/4 x 3/4 CAP SCREW 40702	1/4 x 1 CAP SCREW 40704	1/4 x 1-1/2 CAP SCREW 40707	1/4 x 2 CAP SCREW 40709
5/16-18 FINISHED HEX NUT 8927	5/16 UNI-FIT™ FLAT WASHER 5401	5/16 LOCK WASHER 6305	5/16 x 1/2 CAP SCREW 40726	5/16 x 3/4 CAP SCREW 40728	5/16 x 1 CAP SCREW 40730	5/16 x 1-1/2 CAP SCREW 40733	5/16 x 2 CAP SCREW 40735
3/8-16 FINISHED HEX NUT 8928	3/8 UNI-FIT™ FLAT WASHER 5402	3/8 LOCK WASHER 6310	3/8 x 3/4 CAP SCREW 40754	3/8 x 1 CAP SCREW 40756	3/8 x 1-1/4 CAP SCREW 40758	3/8 x 1-1/2 CAP SCREW 40759	3/8 x 2 CAP SCREW 40761
7/16-14 FINISHED HEX NUT 8929	7/16 UNI-FIT™ FLAT WASHER 5403	7/16 LOCK WASHER 6315	7/16 x 1 CAP SCREW 40784	7/16 x 1-1/2 CAP SCREW 40786	7/16 x 2 CAP SCREW 40788	7/16 x 2-1/2 CAP SCREW 40790	7/16 x 3 CAP SCREW 40792
1/2-13 FINISHED HEX NUT 8930	1/2 UNI-FIT™ FLAT WASHER 5404	1/2 LOCK WASHER 6320	1/2 x 1 CAP SCREW 40807	1/2 x 1-1/2 CAP SCREW 40810	1/2 x 2 CAP SCREW 40812	1/2 x 2-1/2 CAP SCREW 40814	1/2 x 3 CAP SCREW 40816

GRADE 8 SAE ALLOY FASTENERS

40 HOLE SAE BIN ASSORTMENT



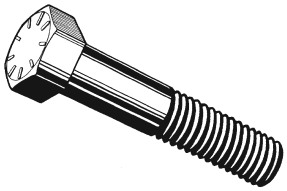
P/N 7838

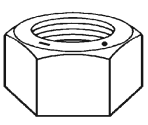
This assortment is filled and labeled with 40 of the fastest moving fastener sizes for all your maintenance needs!

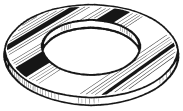
ASSORTMENT CONTAINS

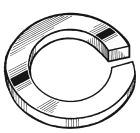
- 25 Sizes Alloy Cap Screws ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Finished Thick Hex Nuts ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Flat Washers ..... 1/4" thru 1/2" Diameter
- 5 Sizes Alloy Lock Washers ..... 1/4" thru 1/2" Diameter
- 1 Steel 40 Hole Bin - P/N 7903 ..... 33-3/4" W x 22-1/2" H x 12" D

See Bin Assortment layout on reverse side for complete details.









GRADE 8 SAE ALLOY FASTENER ASSORTMENT

P/N 7838 — SAE SIZES — 40 ITEMS / 40 HOLES

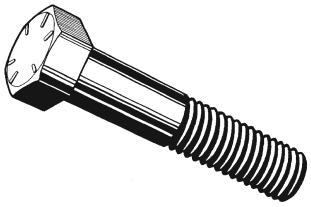
1/4-28 FINISHED HEX NUT 8905	1/4 UNI-FIT™ FLAT WASHER 5400	1/4 LOCK WASHER 6300	1/4 x 1/2 CAP SCREW 41000	1/4 x 3/4 CAP SCREW 41002	1/4 x 1 CAP SCREW 41004	1/4 x 1-1/2 CAP SCREW 41007	1/4 x 2 CAP SCREW 41009
5/16-24 FINISHED HEX NUT 8906	5/16 UNI-FIT™ FLAT WASHER 5401	5/16 LOCK WASHER 6305	5/16 x 1/2 CAP SCREW 41026	5/16 x 3/4 CAP SCREW 41028	5/16 x 1 CAP SCREW 41030	5/16 x 1-1/2 CAP SCREW 41033	5/16 x 2 CAP SCREW 41035
3/8-24 FINISHED HEX NUT 8907	3/8 UNI-FIT™ FLAT WASHER 5402	3/8 LOCK WASHER 6310	3/8 x 3/4 CAP SCREW 41054	3/8 x 1 CAP SCREW 41056	3/8 x 1-1/4 CAP SCREW 41058	3/8 x 1-1/2 CAP SCREW 41059	3/8 x 2 CAP SCREW 41061
7/16-20 FINISHED HEX NUT 8908	7/16 UNI-FIT™ FLAT WASHER 5403	7/16 LOCK WASHER 6315	7/16 x 1 CAP SCREW 41084	7/16 x 1-1/2 CAP SCREW 41086	7/16 x 2 CAP SCREW 41088	7/16 x 2-1/2 CAP SCREW 41090	7/16 x 3 CAP SCREW 41092
1/2-20 FINISHED HEX NUT 8909	1/2 UNI-FIT™ FLAT WASHER 5404	1/2 LOCK WASHER 6320	1/2 x 1 CAP SCREW 41107	1/2 x 1-1/2 CAP SCREW 41110	1/2 x 2 CAP SCREW 41112	1/2 x 2-1/2 CAP SCREW 41114	1/2 x 3 CAP SCREW 41116

SERVICE MODULES

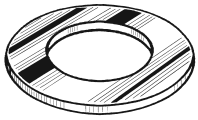
GRADE 8 USS ALLOY FASTNERS

EACH MODULE CONTAINS

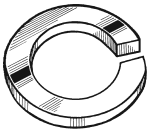
Cap Screws



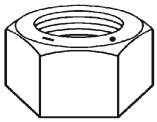
Flat Washers



LockWashers



Hex Nuts



Our SERVICE MODULES make ordering fasteners fast and easy while saving you money!

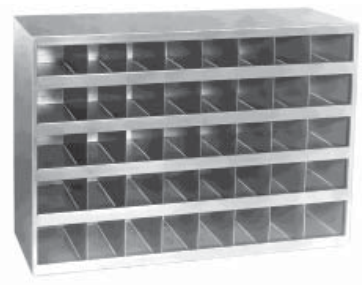
Why order eight individual part numbers for a single diameter when you can use one.

One Service Module part number gives you five of the most popular cap screw lengths and the appropriate nuts, lock washers and flat washers.

- *1/4 Service Module P/N 914008*
- *5/16 Service Module P/N 956008*
- *3/8 Service Module P/N 938008*
- *7/16 Service Module P/N 976008*
- *1/2 Service Module P/N 912008*
- *5/8 Service Module P/N 958008*
- *3/4 Service Module P/N 934008*

STORAGE BINS

Convenient and rugged. Made from heavy gauge steel with a durable baked enamel finish.



40 HOLE BIN
P/N 7903

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
4" W x 11-7/8" D x 4-1/2" H

USE BASE: P/N 7909

24 HOLE BIN
P/N 7901

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909

GRADE 8 USS ALLOY FASTNERS

1/4 SERVICE MODULE • P/N 914008

QTY.	DESCRIPTION	P/N
200	Lock Washer	6300
100	Flat Washer	5400
100	Hex Nut	8926
100	1/4-20 x 1/2 Gr 8 HHCS	40700
100	1/4-20 x 3/4 Gr 8 HHCS	40702
100	1/4-20 x 1 Gr 8 HHCS	40704
100	1/4-20 x 1-1/2 Gr 8 HHCS	40707
100	1/4-20 x 2 Gr 8 HHCS	40709

5/16 SERVICE MODULE • P/N 956008

QTY.	DESCRIPTION	P/N
200	Lock Washer	6305
100	Flat Washer	5401
100	Hex Nut	8927
100	5/16-18 x 1/2 Gr 8 HHCS	40726
100	5/16-18 x 3/4 Gr 8 HHCS	40728
100	5/16-18 x 1 Gr 8 HHCS	40730
100	5/16-18 x 1-1/2 Gr 8 HHCS	40733
100	5/16-18 x 2 Gr 8 HHCS	40735

3/8 SERVICE MODULE • P/N 938008

QTY.	DESCRIPTION	P/N
200	Lock Washer	6310
100	Flat Washer	5402
100	Hex Nut	8928
100	3/8-16 x 3/4 Gr 8 HHCS	40754
100	3/8-16 x 1 Gr 8 HHCS	40756
50	3/8-16 x 1-1/4 Gr 8 HHCS	40758
50	3/8-16 x 1-1/2 Gr 8 HHCS	40759
50	3/8-16 x 2 Gr 8 HHCS	40761

7/16 SERVICE MODULE • P/N 976008

QTY.	DESCRIPTION	P/N
100	Lock Washer	6315
50	Flat Washer	5403
50	Hex Nut	8929
50	7/16-14 x 1 Gr 8 HHCS	40784
50	7/16-14 x 1-1/2 Gr 8 HHCS	40786
50	7/16-14 x 2 Gr 8 HHCS	40788
25	7/16-14 x 2-1/2 Gr 8 HHCS	40790
25	7/16-14 x 3 Gr 8 HHCS	40792

1/2 SERVICE MODULE • P/N 912008

QTY.	DESCRIPTION	P/N
100	Lock Washer	6320
50	Flat Washer	5404
50	Hex Nut	8930
50	1/2-13 x 1 Gr 8 HHCS	40807
25	1/2-13 x 1-1/2 Gr 8 HHCS	40810
25	1/2-13 x 2 Gr 8 HHCS	40812
25	1/2-13 x 2-1/2 Gr 8 HHCS	40814
25	1/2-13 x 3 Gr 8 HHCS	40816

5/8 SERVICE MODULE • P/N 958008

QTY.	DESCRIPTION	P/N
50	Lock Washer	6330
50	Flat Washer	5406
25	Hex Nut	8932
20	5/8-11 x 1 Gr 8 HHCS	40852
20	5/8-11 x 1-1/2 Gr 8 HHCS	40854
20	5/8-11 x 2 Gr 8 HHCS	40856
10	5/8-11 x 2-1/2 Gr 8 HHCS	40858
10	5/8-11 x 3 Gr 8 HHCS	40860

3/4 SERVICE MODULE • P/N 934008

QTY.	DESCRIPTION	P/N
50	Lock Washer	6335
25	Flat Washer	5407
20	Hex Nut	8933
10	3/4-10 x 1-1/2 Gr 8 HHCS	40881
10	3/4-10 x 2 Gr 8 HHCS	40883
10	3/4-10 x 2-1/2 Gr 8 HHCS	40885
10	3/4-10 x 3 Gr 8 HHCS	40887
10	3/4-10 x 4 Gr 8 HHCS	40891

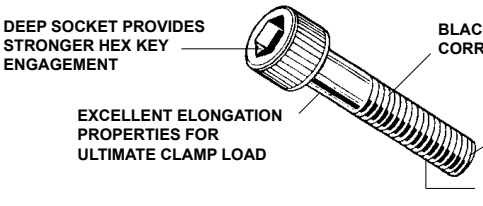
HEX SOCKET PRODUCTS

- **Triple Heat Treated, High Strength Alloy Steel**
- **Deep Sockets For Full Wrench Engagement**
- **Cold Forged with Precision Rolled Threads**
- **Socket Head, Flat Head, Button Head, Square Head, Shoulder Screw and Set Screw designs**
- **Special Chromate Plating or Thermal Black Oxide Finish**
- **Full Range of Hardened and Tempered Hex Socket Wrenches and Wrench Sets**

CHROMATE CIC 200 AND CIC 150 HEX SOCKET FASTENERS ARE TESTED AND PROVEN TOUGH! All components are manufactured to exacting specifications, heat treated for shock absorbing, fatigue resistant ductility and then plated with special chromate plating or thermally coated with black oxide for corrosion resistance and durability. Always use Chromate CIC 200™ and CIC™ 150 Socket Fasteners when failure *cannot* be tolerated.

CIC 200™ HEX SOCKET CAP SCREWS

BLACK FINISH



- **MEETS ASME/ANSI B18.3**

  ***180,000 PSI MINIMUM FOR 1/2" AND SMALLER; 170,000 PSI MINIMUM FOR 5/8" AND LARGER.**

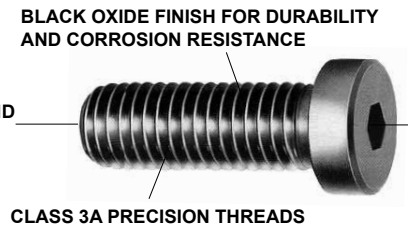
LENGTH	NO. 4	NO. 5	NO. 6		NO. 8	NO. 10		1/4 DIA.		5/16 DIA.	
	USS 40	USS 40	USS 32	SAE 40	USS 32	USS 24	SAE 32	USS 20	SAE 28	USS 18	SAE 24
3/16	T 35501	-	-	-	-	-	-	-	-	-	-
1/4	T 35502	T 35513	T 35520	-	T 35555	T -	36599	R 35644	-	-	-
5/16	T 35503	-	-	-	-	-	-	-	-	-	-
3/8	T 35504	T 35514	T 35525	36669	T 35560	T 35600	36600	R 35610	36610	R 35624	-
1/2	T 35506	T 35515	T 35530	36670	T 35565	T 35601	36601	R 35611	36611	R 35625	36625
5/8	T 35508	T 35516	T 35535	-	T 35570	R 35602	36602	R 35612	36612	R 35626	36626
3/4	T 35510	R 35517	R 35540	-	R 35575	R 35603	36603	R 35613	36613	R 35627	36627
7/8	T 35511	-	R 35545	-	R 35580	R 35604	36604	R 35614	36614	R 35628	36628
1	T 35512	-	R 35550	-	R 35585	R 35605	36605	R 35615	36615	R 35629	36629
1-1/4	-	-	R 35551	-	R 35590	R 35606	36606	R 35616	36616	R 35630	36630
1-1/2	-	-	R 35552	-	R 35595	R 35607	36607	R 35617	36617	R 35631	36631
1-3/4	-	-	R 35553	-	-	R 35608	36608	R 35618	36618	R 35632	36632
2	-	-	R 35554	-	R 35597	R 35609	36609	R 35619	36619	N 35633	36633
2-1/4	-	-	-	-	-	R 35642	-	N 35620	36620	N 35634	36634
2-1/2	-	-	-	-	R 35599	R 35643	36621	N 35621	-	N 35635	36635
2-3/4	-	-	-	-	-	-	-	N 35622	-	L 35636	-
3	-	-	-	-	-	R -	36623	N 35623	-	L 35637	-
3-1/4	-	-	-	-	-	-	-	-	-	L 35638	-
3-1/2	-	-	-	-	-	-	-	L 35640	-	L 35639	-
4	-	-	-	-	-	-	-	L 35641	-	-	-

LENGTH	3/8 DIA.		7/16 DIA.		1/2 DIA.		5/8 DIA.		3/4 D.	7/8 D.	1 DIA.
	USS 16	SAE 24	USS 14	SAE 20	USS 13	SAE 20	USS 11	SAE 18	USS 10	USS 9	USS 8
1/2	R 35650	36650	N 35645	-	N 35690	-	-	-	-	-	-
5/8	R 35651	36651	N 35646	-	N 35691	-	-	-	-	-	-
3/4	R 35652	36652	N 35672	-	N 35692	-	-	-	-	-	-
7/8	R 35653	36653	N 35673	-	N 35693	-	-	-	-	-	-
1	R 35654	36654	N 35674	36674	N 35694	36694	I 35715	36715	-	-	-
1-1/4	R 35655	36655	N 35675	36675	N 35695	36695	I 35716	36716	E 35735	-	-
1-1/2	N 35656	36656	L 35676	36676	L 35696	36696	I 35717	36717	E 35736	-	-
1-3/4	N 35657	36657	L 35677	-	L 35697	36697	I 35718	36718	E 35737	-	-
2	N 35658	36658	L 35678	36678	L 35698	36698	I 35719	36719	E 35738	B 35753	B 35769
2-1/4	N 35659	36659	L 35679	-	L 35699	36699	I 35720	-	E 35739	-	-
2-1/2	N 35660	36660	L 35680	-	L 35700	36700	I 35721	36721	E 35740	B 35755	B 35770
2-3/4	L 35661	-	L 35681	-	L 35701	-	E 35722	-	E 35741	-	-
3	L 35662	36662	L 35682	-	L 35702	36702	E 35723	-	B 35742	B 35757	B 35772
3-1/4	L 35663	-	-	-	I 35703	-	E 35724	-	B 35743	-	A 35773
3-1/2	L 35664	-	I 35684	-	I 35704	-	E 35725	-	B 35744	B 35759	A 35774
4	I 35665	-	I 35686	-	I 35705	-	E 35726	-	B 35745	A 35760	A 35775
4-1/2	I 35666	-	-	-	I 35706	-	E 35727	-	B 35746	A 35761	A 35776
5	I 35667	-	-	-	E 35707	-	E 35728	-	B 35747	A 35762	A 35777
5-1/2	-	-	-	-	E 35708	-	E 35729	-	B 35748	-	-
6	E 35668	-	-	-	B 35709	-	B 35730	-	B 35749	A 35764	A 35779
6-1/2	-	-	-	-	B 35710	-	B 35731	-	B 35750	-	A 35780
7	-	-	-	-	B 35711	-	B 35732	-	A 35751	A 35766	A 35781
8	-	-	-	-	B 35713	-	B 35733	-	A 35752	A 35767	A 35782

CIC 200™ LOW HEAD SOCKET CAP SCREWS

THERMAL BLACK OXIDE FINISH

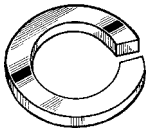
- USE WHERE STANDARD HEIGHT SOCKET HEAD CAP SCREWS ARE TOO HIGH AND FOR APPLICATIONS WITH LIMITED CLEARANCE
- RC HARDNESS 38-43
- 170,000 PSI MIN. TENSILE STRENGTH



LENGTH	NO. 8 5/64 Hex Key	NO. 10 3/32 Hex Key		1/4 DIA. 1/8 Hex Key	5/16 DIA. 5/32 Hex Key	3/8 DIA. 3/16 Hex Key	1/2 DIA. 1/4 Hex Key
	USS 32	USS 24	SAE 32	USS 20	USS 18	USS 16	USS 13
3/8	R 63400	R 63404	R 63407	R 63411	-	-	-
1/2	R 63401	R 63405	R 63408	R 63412	R 63416	N 63421	-
5/8	-	-	R 63409	R 63413	-	-	-
3/4	R 63402	R 63406	R 63410	R 63414	R 63417	N 63422	
1	R 63403	-	-	R 63415	N 63418	N 63423	I 63426
1-1/4	-	-	-	-	N 63419	N 63424	I 63427
1-1/2	-	-	-	-	N 63420	N 63425	I 63428

HIGH COLLAR LOCK WASHERS

DESIGNED FOR HIGH STRENGTH LOAD BEARING APPLICATIONS



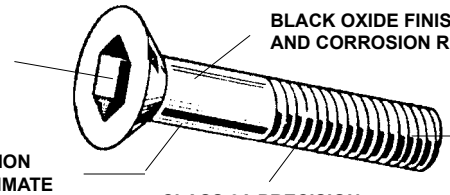
- MEETS SAE J-489 SPECIFICATIONS
- RETAINS STRENGTH UNDER HIGHLOAD CONDITIONS

SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART
4	U 4889	8	U 4891	5/16	U 4894	1/2	T 4897
5	U 4888	10	U 4892	3/8	U 4895	5/8	R 4898
6	U 4890	1/4	U 4893	7/16	T 4896	3/4	R 4899

CIC 200™ HEX SOCKET FLAT HEAD CAP SCREWS

THERMAL BLACK OXIDE FINISH

- TRIPLE HEAT-TREATED ALLOY STEEL
- MINIMUM 160,000 PSI TENSILE STRENGTH
- MEETS ASME/ANSI B18.3



LENGTH	NO. 4	NO. 5	NO. 6	NO. 8	NO. 10		1/4 DIA.	
	USS 40	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28
1/4	R 2380	R 2376	R 2400	-	-	-	-	-
3/8	R 2381	R 2377	R 2401	R 2405	R 2410	4600	R 2388	4614
1/2	R 2382	R 2378	R 2402	R 2406	R 2411	4602	R 2414	4616
5/8	R 2383	R 2379	R 2404	R 2409	R 2385	4604	R 2416	4618
3/4	R 2384	R 2489	R 2403	R 2407	R 2412	4606	R 2417	4620
1	-	-	-	R 2408	R 2413	4608	R 2418	4622
1-1/4	-	-	-	-	R 2386	4610	R 2419	4624
1-1/2	-	-	-	-	R 2387	4612	O 2421	4626
1-3/4	-	-	-	-	-	-	O 2422	-
2	-	-	-	-	-	-	O 2423	-

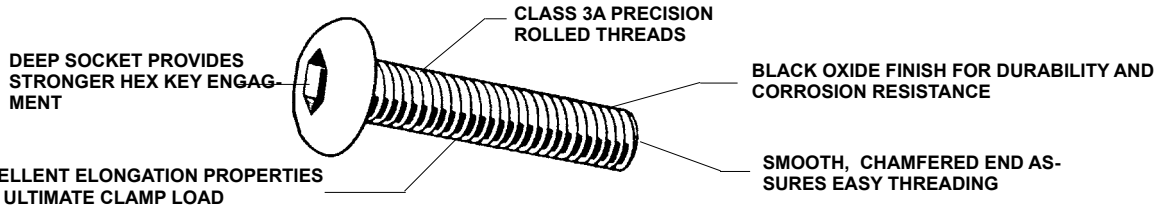
LENGTH	5/16 DIA.		3/8 DIA.		7/16 DIA.	1/2 DIA.		5/8 DIA.	3/4 DIA.
	USS 18	SAE 24	USS 16	SAE 24	USS 14	USS 13	SAE 20	USS 11	USS 10
1/2	R 2424	4628	R 2432	-	-	-	-	-	-
5/8	R 2426	4630	R 2433	4642	-	-	-	-	-
3/4	R 2427	4632	O 2434	4644	L 2370	L 2439	4652	-	-
1	R 2428	4634	O 2436	4646	L 2371	L 2441	4654	-	-
1-1/4	O 2429	4636	O 2437	4648	L 2372	L 2442	4656	I 2449	E 2398
1-1/2	O 2431	4638	O 2438	4650	L 2373	L 2443	4658	I 2450	E 2455
1-3/4	O 2389	-	L 2393	-	L 2374	L 2444	4660	I 2451	E 2456
2	L 2390	-	L 2394	-	L 2375	L 2446	4662	I 2452	E 2457
2-1/4	L 2391	-	L 2395	-	-	I 2440	-	I 2445	-
2-1/2	L 2392	-	L 2396	-	-	I 2447	-	E 2453	E 2458
3	-	-	L 2397	-	-	I 2448	-	E 2454	E 2459

CIC 200™ BUTTON HEAD CAP SCREWS

THERMAL BLACK OXIDE FINISH

Deep socket assures full wrench engagement. Triple heat-treated alloy steel. Minimum 160,000 psi tensile strength.

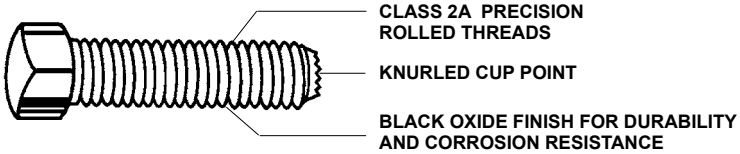
• MEETS ASME/ANSI B18.3



LENGTH	NO. 4	NO. 6	NO. 8	NO. 10		1/4 DIA.		5/16 DIA.		3/8 DIA.		1/2 DIA.	5/8 DIA.
	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28	USS 18	SAE 24	USS 16	SAE 24	USS 13	USS 11
1/4	T 3901	T 3906	T 3911	T 3918	4918	-	-	-	-	-	-	-	-
3/8	T 3902	T 3907	T 3912	R 3919	4919	R 3926	4926	R 3932	-	-	-	-	-
1/2	T 3903	T 3908	R 3913	R 3920	4920	R 3927	4927	R 3933	4933	O 3938	4938	-	-
5/8	-	T 3909	R 3914	R 3921	4921	R 3928	4928	R 3934	4934	O 3939	-	-	-
3/4	-	-	R 3915	R 3922	4922	R 3929	4929	R 3935	4935	O 3940	4940	-	-
7/8	-	-	-	-	-	R 3931	-	R 3937	-	-	-	-	-
1	-	-	R 3916	R 3923	4923	R 3930	4930	R 3936	4936	O 3941	4941	L 3945	-
1-1/4	-	-	-	-	-	-	-	-	-	O 3942	-	L 3946	I 3951
1-1/2	-	-	-	-	-	-	-	-	-	-	-	L 3947	I 3952
2	-	-	-	-	-	-	-	-	-	-	-	I 3948	I 3953

CIC 200™ SQUARE HEAD SET SCREWS

• THERMAL BLACK OXIDE FINISH
• TRIPLE HEAT-TREATED ALLOY STEEL WITH A UNIQUE KNURLED CUP POINT
• HEAT TREATMENT: RC 45 MIN.



LENGTH	1/4 DIA.	5/16 DIA.	3/8 DIA.	1/2 DIA.
	USS 20	USS 18	USS16	USS 13
1/2	O 4801	L 4809	L 4818	-
5/8	O 4802	L 4810	L 4819	-
3/4	L 4803	L 4811	L 4820	I 4825
1	L 4804	L 4812	L 4821	I 4826
1-1-4	L 4805	L 4813	L 4822	I 4827
1-1/2	L 4806	L 4814	L 4823	I 4828
2	-	-	I 4824	I 4829
2-1/2	-	-	-	E 4830
3	-	-	-	E 4831

CIC 150™ HEX SOCKET SET SCREWS

THERMAL BLACK OXIDE FINISH

Triple heat-treated alloy steel. Rockwell "C" hardness 45-53. Knurled cup point.

• MEETS ASME/ANSI B18.3

17987

LENGTH	NO. 4	NO. 5	NO. 6	NO. 8	NO. 10		1/4 DIA.		5/16 DIA.	
	USS 40	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28	USS 18	SAE 24
1/8	T 61270	T 61279	T 61266	T 61274	-	-	-	-	-	-
3/16	T 61271	T 61280	T 61267	T 61275	T 61282	61355	-	***61351***	-	-
1/4	T 61272	T 61281	T 61268	T 61304	T 61283	61356	T 61290	61352	R 61298	-
5/16	T 61273	T 61286	T 61295	T 61276	T 61326	61341	T 61359	61353	R 61390	61398
3/8	T 61278	T 61287	T 61269	T 61277	T 61284	61357	T 61291	61354	R 61299	61399
1/2	-	T 61288	T 61296	T 61305	T 61285	61358	T 61292	61385	R 61300	61400
5/8	-	T 61289	T 61297	T 61306	T 61327	61342	T 61345	61386	R 61391	61954
3/4	-	T 61293	R 61301	T 61307	T 61338	61343	R 61294	61387	R 61392	61955
7/8	-	-	R 61302	T 61308	R 61339	-	R -	-	R 61393	-
1	-	-	R 61303	R 61325	R 61340	61344	R 61346	61388	R 61394	61956
1-1/4	-	-	-	-	-	-	R 61347	61389	O -	61957
1-1/2	-	-	-	-	-	-	R ***61348***	-	O ***61395***	-
1-3/4	-	-	-	-	-	-	O ***61349***	-	O ***61396***	-
2	-	-	-	-	-	-	O ***61350***	-	O ***61397***	-

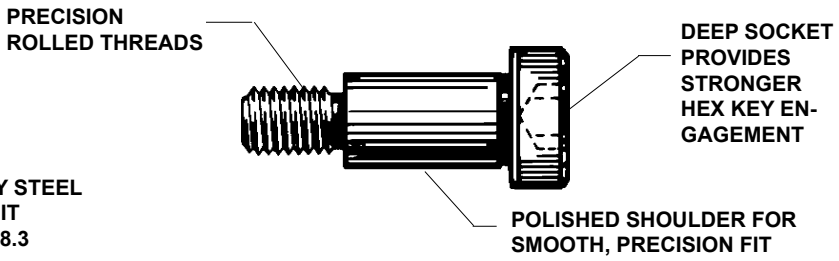
LENGTH	3/8 DIA.		7/16 DIA.		1/2 DIA.		5/8 DIA.		3/4 D.	1 DIA.
	USS 16	SAE 24	USS 14	SAE 20	USS 13	SAE 20	USS 11	SAE 18	USS 10	USS 8
1/4	R ***61962***	-	-	-	-	-	-	-	-	-
5/16	R 61963	63326	-	-	-	-	-	-	-	-
3/8	R 61310	63327	O -	***63378***	-	-	-	-	-	-
1/2	R 61311	63328	O ***63373***	***63379***	O 61318	***63384***	-	-	-	-
5/8	R 61964	63329	O ***63374***	-	O 61319	-	-	-	I ***63394***	-
3/4	R 61965	63370	O ***63375***	-	O 61320	***63385***	I ***63387***	-	I ***63395***	-
7/8	O 61966	-	O ***63376***	-	-	-	-	-	-	-
1	O 61967	63371	O ***63377***	-	I 63380	***63386***	I ***63388***	-	I ***63396***	B ***63398***
1-1/4	-	-	-	-	-	-	I ***63389***	-	-	-
1-1/2	O ***61968***	***63372***	-	-	I ***63381***	-	I ***63390***	-	-	-
1-3/4	O ***61969***	-	-	-	I ***63382***	-	I ***63391***	-	-	-
2	O ***63325***	-	-	-	I ***63383***	-	E ***63392***	-	-	B ***63399***
2-1/2	-	-	-	-	-	-	E ***63393***	-	E ***63397***	-

NOTE: *Part numbers in bold italic are* ***NOT*** *available with knurled cup point.*

CIC 200™ HEX SOCKET SHOULDER SCREWS

STRIPPER BOLTS

Deep socket for full wrench engagement. Heated-treated alloy steel. Minimum 160,000 psi tensile strength. Polished and plated shoulder. Rockwell "C" hardness 45-53.



- HEAT TREATED ALLOY STEEL
- UNIFIED 3A THREAD FIT
- MEETS ASME/ANSI B18.3

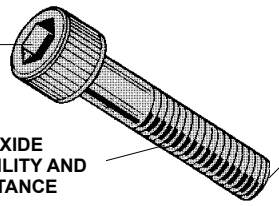
SHOULDER LENGTH	1/4 DIA. SHOULDER		5/16 DIA. SHOULDER	
	10-24 x 3/8 THREAD		1/4-20 x 7/16 THREAD	
3/8	L	3602	L	3610
1/2	L	3603	L	3611
5/8	L	3604	L	3612
3/4	L	3605	L	3613
1	L	3606	L	3614
1-1/4	L	3607	L	3615
1-1/2	L	3608	L	3616
1-3/4		-	L	3617
2		-	L	3618

SHOULDER LENGTH	3/8 DIA. SHOULDER		1/2 DIA. SHOULDER		5/8 DIA. SHOULDER		3/4 DIA. SHOULDER	
	5/16-18 x 1/2 THREAD		3/8-16 x 5/8 THREAD		1/2-13 x 3/4 THREAD		5/8-11 x 7/8 THREAD	
3/8	L	3620		-		-		-
1/2	L	3621	I	3637		-		-
5/8	L	3622	I	3638		-		-
3/4	L	3623	I	3639		-		-
1	L	3624	I	3640		-		-
1-1/4	L	3625	I	3641	E	3657		-
1-1/2	L	3626	I	3642	E	3658	E	3678
1-3/4	L	3627	I	3643	E	3660	E	3679
2	L	3628	I	3644	E	3661	E	3680
2-1/4	L	3629	I	3645	E	3662	E	3681
2-1/2	I	3630	I	3646	E	3663	E	3682
2-3/4	I	3631	I	3647	E	3664	E	3683
3	I	3632	E	3648	E	3665	E	3684
3-1/4	I	3633	E	3649	E	3666	E	3685
3-1/2	I	3634	E	3650	E	3667	E	3686
3-3/4		-	E	3651	E	3668	E	3687
4	I	3636	E	3652	E	3669	E	3688
4-1/4		-	E	3653	E	3670	E	3689
4-1/2		-	E	3654	E	3671	E	3690
4-3/4		-	E	3655	E	3672	A	3691
5		-	E	3656	E	3673	A	3692
5-1/2		-		-	A	3674	A	3693
6		-		-	A	3675	A	3694

CIC 150™ HEX SOCKET CAP SCREWS

- **HEAT-TREATED, HIGH-STRENGTH ALLOY STEEL WITH DEEP SOCKET FOR FULL WRENCH ENGAGEMENT**
- **MINIMUM 180,000* PSI TENSILE STRENGTH**

***180,000 PSI MIN 1/2" AND SMALLER; 170,000 PSI MIN 5/8" AND LARGER.**



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LENGTH	NO. 2	NO. 4	NO. 5	NO. 6	NO. 8	NO. 10		1/4 DIA.		5/16 DIA.	
	USS 56	USS 40	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28	USS 18	SAE 24
1/8	T 61196	-	-	-	-	-	-	-	-	-	-
1/4	T 61197	T 61211	T 61216	T 61105	T 61112	T 63331	63364	-	-	-	-
3/8	T 61198	T 61212	T 61217	T 61106	T 61113	T 61121	61201	T 61221	61228	T 61140	-
1/2	T 61199	T 61213	T 61218	T 61107	T 61114	T 61122	61202	T 61131	61229	T 61141	61245
5/8	T 61200	T 61214	T 61219	T 61108	T 61115	T 61123	61203	T 61132	61230	T 61142	61246
3/4	-	T 61215	T 61220	T 61109	T 61116	T 61124	61204	T 61133	61231	T 61143	61247
7/8	-	-	-	T 61110	T 61117	T 61125	61205	T 61222	61232	T 61239	61248
1	-	T 61256	T 61257	T 61111	T 61118	T 61126	61206	T 61134	61233	T 61144	61249
1-1/4	-	-	-	T 61258	T 61119	T 61127	61207	R 61135	61234	T 61145	61250
1-1/2	-	-	-	T 61259	T 61120	R 61128	61208	R 61136	61235	T 61146	61251
1-3/4	-	-	-	R 61260	R 61262	R 61129	61210	R 61137	61236	T 61147	61252
2	-	-	-	R 61261	R 61263	R 61130	61209	R 61138	61237	R 61148	61253
2-1/4	-	-	-	-	R 61264	-	-	R 61139	61238	R 61240	61254
2-1/2	-	-	-	-	R 61265	N 63332	63334	R 61223	-	R 61149	61255
2-3/4	-	-	-	-	-	-	-	R 61224	-	R 61241	-
3	-	-	-	-	N 63330	N 63333	63335	R 61225	-	R 61242	-
3-1/4	-	-	-	-	-	-	-	-	-	R 61243	-
3-1/2	-	-	-	-	-	-	-	R 61226	-	R 61244	-
4	-	-	-	-	-	-	-	R 61227	-	N 63338	-
4-1/2	-	-	-	-	-	-	-	I 63336	-	I 63339	-
5	-	-	-	-	-	-	-	I 63337	-	I 63340	-

LENGTH	3/8 DIA.		7/16 DIA.		1/2 DIA.		5/8 DIA.		3/4 D.	7/8 D.	1 DIA.
	USS 16	SAE 24	USS 14	SAE 20	USS 13	SAE 20	USS 11	SAE 18	USS 10	USS 9	USS 8
1/2	R 61151	61800	-	-	R 61165	-	-	-	-	-	-
5/8	R 61152	61801	-	-	R 61166	-	-	-	-	-	-
3/4	R 61153	61802	R 61812	-	R 61167	-	-	-	-	-	-
7/8	R 61194	61803	R 61813	-	R 61168	-	-	-	-	-	-
1	R 61154	61804	R 61814	61826	N 61169	61186	L 61835	61854	-	-	-
1-1/4	R 61155	61805	R 61815	61827	N 61170	61187	L 61836	61855	L 61860	-	-
1-1/2	R 61156	61806	R 61816	61828	N 61171	61188	L 61837	61856	L 61861	-	-
1-3/4	R 61157	61807	R 61817	-	N 61172	61189	L 61838	61857	L 61862	-	-
2	R 61158	61808	N 61818	61829	N 61173	61190	L 61839	61858	I 61863	E 61878	E 61888
2-1/4	R 61195	61809	N 61819	-	N 61833	61191	L 61840	-	I 61864	-	-
2-1/2	R 61159	61810	N 61820	-	N 61174	61192	L 61841	61859	I 61865	E 61879	E 61889
2-3/4	R 61160	-	N 61821	-	N 61834	-	L 61842	-	I 61866	-	-
3	R 61161	61811	N 61822	-	L 61175	61193	L 61843	-	I 61867	E 61880	E 61890
3-1/4	N 61162	-	N 61823	-	L 61176	-	I 61844	-	I 61868	-	-
3-1/2	N 61163	-	N 61824	-	L 61177	-	I 61845	-	I 61869	E 61881	B 61891
4	N 61164	-	L 61825	-	L 61178	-	I 61846	-	I 61870	E 61882	B 61892
4-1/2	N 61830	-	-	-	L 61179	-	I 61847	-	E 61871	B 61883	B 61893
5	L 61831	-	-	-	I 61180	-	I 61848	-	E 61872	B 61884	B 61894
5-1/2	-	-	-	-	I 61181	-	I 61849	-	E 61873	-	-
6	I 61832	-	-	-	I 61182	-	I 61850	-	E 61874	B 61885	B 61895
6-1/2	-	-	-	-	E 61183	-	E 61851	-	B 61875	-	-
7	-	-	-	-	E 61184	-	E 61852	-	B 61876	B 61886	B 61896
8	-	-	-	-	E 61185	-	E 61853	-	B 61877	B 61887	B 61897
9	-	-	-	-	B 63366	-	B 63341	-	A 63345	A 63349	A 63353
10	-	-	-	-	B 63367	-	B 63342	-	A 63346	A 63350	A 63354
11	-	-	-	-	B 63368	-	B 63343	-	A 63347	A 63351	A 63355
12	-	-	-	-	B 63369	-	B 63344	-	A 63348	A 63352	A 63356

CIC 150™ HEX SOCKET CAP SCREWS (Cont.)

LENGTH	1-1/4 DIA.	1-1/2 DIA.
	USS 7	USS 6
	A 63357	A 63361
	A 63358	A 63362

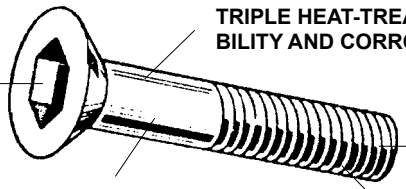
LENGTH	1-1/4 DIA.	1-1/2 DIA.
	USS 7	USS 6
10	A 63359	A 63363
12	A 63360	A 63365

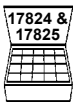
CIC 150™ HEX SOCKET FLAT HEAD CAP SCREWS

THERMAL BLACK OXIDE FINISH

Deep socket assures full wrench engagement. Minimum 160,000 psi tensile strength.

- MEETS ASME/ANSI B18.3



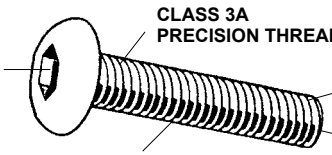


LENGTH	NO. 4	NO. 6	NO. 8	NO. 10		1/4 DIA.	
	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28
1/4	T 61700	T 61710	-	-	-	-	-
3/8	T 61701	T 61711	T 61715	T 61720	61727	T 61734	61743
1/2	T 61702	T 61712	T 61716	T 61721	61728	T 61735	61744
5/8	T 61703	T 61713	T 61717	T 61722	61729	T 61736	61745
3/4	T 61704	T 61714	T 61718	T 61723	61730	T 61737	61746
1	-	-	T 61719	T 61724	61731	T 61738	61747
1-1/4	-	-	-	T 61725	61732	R 61739	61748
1-1/2	-	-	-	T 61726	61733	R 61740	61749
1-3/4	-	-	-	-	-	R 61741	-
2	-	-	-	-	-	R 61742	-

LENGTH	5/16 DIA.		3/8 DIA.		7/16 DIA.	1/2 DIA.		5/8 DIA.	3/4 DIA.
	USS 18	SAE 24	USS 16	SAE 24	USS 14	USS 13	SAE 20	USS 11	USS 10
1/2	R 61750	61761	R 61767	-	-	-	-	-	-
5/8	R 61751	61762	R 61772	-	-	-	-	-	-
3/4	R 61752	61763	R 61768	60741	N 61777	N 61788	60747	-	-
1	R 61753	61764	R 61769	60742	N 61778	N 61789	60748	-	-
1-1/4	N 61754	61765	R 61770	60743	N 61779	N 61790	60749	I 60720	E 60731
1-1/2	N 61755	61766	R 61771	60744	N 61780	N 61791	60750	I 60721	E 60732
1-3/4	N 61756	61797	R 61774	60745	N 61781	N 61792	60751	I 60722	E 60733
2	N 61757	61798	R 61773	60746	N 61782	N 61793	60752	I 60723	E 60734
2-1/4	-	-	-	-	-	-	-	I 60724	-
2-1/2	N 61759	-	N 61775	-	-	N 61795	-	E 60725	E 60735
3	R 61760	-	N 61776	-	-	I 61796	-	E 60726	B 60736
3-1/2	-	-	-	-	-	-	-	B 60727	B 60737
4	-	-	-	-	-	-	-	B 60728	B 60738
4-1/2	-	-	-	-	-	-	-	B 60729	B 60739
5	-	-	-	-	-	-	-	B 60730	A 60740

CIC 150™ BUTTON HEAD CAP SCREWS

- THERMAL BLACK OXIDE FINISH
- MEETS ASME/ANSI B18.3
- MINIMUM 160,000 PSI TENSILE STRENGTH



12

LENGTH	NO. 4	NO. 6	NO. 8	NO. 10		1/4 DIA.		5/16 DIA.		3/8 DIA.	1/2 DIA.
	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	SAE 28	USS 18	SAE 24	USS 16	USS 13
1/4	T 61900	T 61903	T 61907	T 61912	61919	-	-	-	-	-	-
3/8	T 61901	T 61904	T 61908	T 61913	61920	T 61926	61932	R 61937	61943	-	-
1/2	T 61902	T 61905	T 61909	T 61914	61921	T 61927	61933	R 61938	61944	R 61948	-
5/8	-	T 61906	T 61910	T 61915	61922	T 61928	61934	R 61939	61945	R 61949	-
3/4	-	-	T 61911	T 61916	61923	T 61929	61935	R 61940	61946	R 61950	-
7/8	-	-	-	-	-	T 61930	-	-	-	R 61951	-
1	-	-	-	T 61918	61925	T 61931	61936	R 61942	61947	R 61952	R 61958
1-1/4	-	-	-	-	-	-	-	-	-	R 61953	R 61959
1-1/2	-	-	-	-	-	-	-	-	-	-	R 61960
2	-	-	-	-	-	-	-	-	-	-	R 61961

HEX BIT SOCKETS

3/8 SQUARE DRIVE

- PRECISION TOLERANCES, HEAT TREATED ALLOY STEEL
- BLACK FINISH

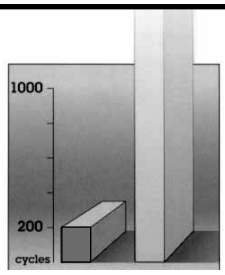
SIZE	PART	SIZE	PART	SIZE	PART
7/64	A 70380	5/32	A 70383	1/4	A 70386
1/8	A 70381	3/16	A 70384	5/16	A 70387
9/64	A 70382	7/32	A 70385	3/8	A 70388

1/2 SQUARE DRIVE

- PRECISION TOLERANCES, HEAT TREATED ALLOY STEEL
- BLACK FINISH

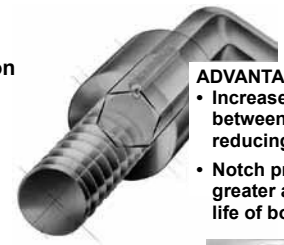
SIZE	PART	SIZE	PART	SIZE	PART
1/4	A 70400	7/16	A 70403	9/16	A 70405
5/16	A 70401	1/2	A 70404	5/8	A 70406
3/8	A 70402	-	-	-	-

HEX-PLUS® HEX KEYS



Number of tightening and loosening cycles before fastener rounding occurs

Hex-Plus® Key Section
Conventional Key Section



ADVANTAGES
- Increased contact surface between key and fastener – reducing rounding and slippage.
- Notch pressure spread over a greater area – extends the service life of both key and fastener.

NOTCHING ACTION WITH A CONVENTIONAL KEY

REDUCE NOTCH PRESSURE WITH A HEX-PLUS® KEY

- REDUCES FASTENER ROUNDING
- MANUFACTURED WITH HEAT-TREATED ALLOY STEEL TO PRECISION TOLERANCES
- OUTPERFORMS CONVENTIONAL KEYS BY DISTRIBUTING PRESSURE ON THE FLAT SIDES OF FASTENERS, EXTENDING SERVICE LIFE OF BOTH KEY AND FASTENER

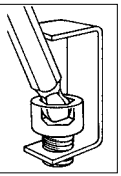
DESCRIPTION	PART
LONG SERIES - 13 keys - .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8	A 70331

HEX KEYS (Cont'd.)

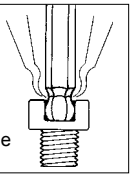
BALL END HEX KEY SETS

- **PATENTED BALL DESIGN ALLOWS FOR A THICKER NECK DIAMETER, INCREASING TORQUE CAPACITY UP TO 100% WHILE MAINTAINING OPERATIONAL ANGLES TO 25°**
- **SET CONTAINS MOST POPULAR SIZES – IDEAL WHERE A VARIETY OF TOOL SIZES ARE REQUIRED**
- **PATENTED CARRYING CASE – WRENCHES SLIP EASILY INTO INDIVIDUALLY MARKED SLOTS AND TWIST TO LOCK SECURELY IN PLACE. PREVENTS LOOSE OR LOST KEYS**
- **ALL HEX KEYS HAVE AN EXCLUSIVE CORROSION RESISTANT DRY FINISH**
- **HEAT-TREATED ALLOY STEEL PROVIDES OPTIMUM HARDNESS AND ELIMINATES SHATTERING**

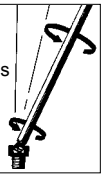
➤ **Angle entry to 25°**
- Works in hard to reach areas
- Faster insertion and removal



➤ **Ergonomic design**
- Allows natural hand and wrist rotation
- Turns full 360° in location
- Reduces user fatigue



➤ **Fast funnel entry**
- Eliminates wasted time even in blind applications
- Full depth engagement
- Reduces "stripping" problems



SIZE		PART	SIZE		PART	SIZE		PART
.050	E	70350	7/64	E	70354	7/32	E	70359
1/16	E	70351	1/8	E	70355	1/4	E	70360
5/64	E	70352	9/64	E	70356	5/16	B	70361
3/32	E	70353	5/32	E	70357	3/8	B	70362
			3/16		70358			
13 Key Standard Set – .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8							A	70333

RETAINING L HEX HEY

SPECIAL SLIDE AND TIP-OUT L-KEY HOLDER FOR FASTEST KEY ACCESS

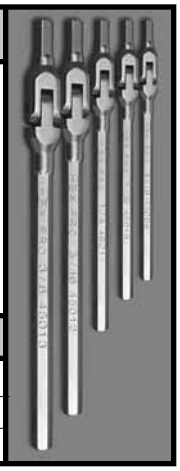
- **HARDENED SPRING STEEL RETAINING RING HOLDS SCREWS TIGHTLY**
- **SATIN HARD CHROME FINISH IS CORROSION RESISTANT**
- **PRECISION MACHINED FOR EXACT FIT NO CUT-OFF DISTORTIONS**
- **MADE FROM EXCLUSIVE CVM HARDENED TOOL STEEL**
- **SPECIAL SLIDE AND TIP-OUT L-KEY HOLDER FOR FASTEST KEY ACCESS**
- **MAKES WORKING IN TIGHT OR LIMITED ACCESS APPLICATIONS A SNAP!**
- **SAVES VALUE TIME . . . IMPROVES PRODUCTIVITY!**

3 TOOLS IN ONE!
1. *Standard hex tool*
2. *Ball end for angle entry*
3. *Screw holding for time savings*

SIZE		PART	SIZE		PART	SIZE		PART
.050	A	70170	7/64	A	70174	7/32	A	70179
1/16	A	70171	1/8	A	70175	1/4	A	70180
5/64	A	70172	9/64	A	70176	5/16	A	70181
3/32	A	70173	5/32	A	70177	3/8	A	70182
			3/16		70178		A	
13 KEY INCH SET INCLUDES: *Standard:* .050, 1/16, 5/64, 3/32, 7/64 *Retaining L:* 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8							A	70339

HEX-PRO™ HEX KEYS

- **A VERSATILE HEX KEY WRENCH WITH A UNIQUE PATENTED PIVOTAL JOINT THAT SAVES YOU TIME AND ALLOWS YOU TO WORK EFFICIENTLY IN THOSE LIMITED SPACE LOCATIONS**
- **HIGH QUALITY INDUSTRIAL STEEL**
- **LONG HANDLES FOR EXTRA REACH AND MORE LEVERAGE**
- **CANVAS POUCH / HOLDER INCLUDED WITH SET**
- **LIMITED LIFETIME WARRANTY**
- **AVAILABLE IN MOST COMMON SIZES ONLY**

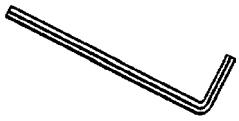
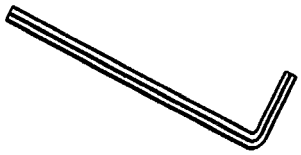


SIZE		PART	SIZE		PART
3/16	L	70152	5/16	L	70155
7/32	L	70153	3/8	L	70156
1/4	L	70154	5-Pc. SAE Hex Key Set	A	70150

CIC 200™ HEX SOCKET WRENCHES

INDIVIDUAL WRENCHES AND SETS

Heat treated alloy steel, hardened and tempered for durability and strength.

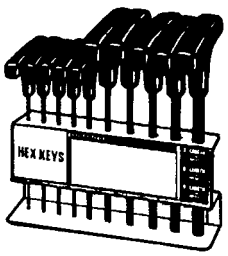
"T" HANDLE				STANDARD		EXTRA LONG	
							
LENGTH	6" BLADE	9" BLADE		SHORT	LONG	6" LONG	12" LONG
.028	-	-	L	70200	-	-	-
.035	-	-	L	70201	70227	-	-
.050	-	-	L	70202	70228	-	-
1/16	-	-	L	70203	70229	-	-
5/64	-	-	L	70204	70230	I 70253	I 70269
3/32	E 70281	F 70296	L	70205	70231	I 70254	I 70270
7/64	E 70282	F 70297	L	70206	70232	I 70255	-
1/8	E 70283	F 70298	L	70207	70233	I 70256	I 70271
9/64	E 70284	F 70299	L	70208	70234	I 70257	-
5/32	E 70285	F 70300	L	70209	70235	I 70258	E 70272
3/16	E 70286	F 70301	L	70210	70236	I 70259	E 70273
7/32	E 70287	F 70302	L	70211	70237	I 70260	E 70274
1/4	E 70288	F 70303	L	70212	70238	I 70261	E 70275
5/16	E 70289	F 70304	I	70213	70239	E 70262	-
3/8	E 70290	F 70305	E	70214	70240	E 70263	-
7/16	-	-	E	70215	70241	-	-
1/2	-	-	E	70216	70242	-	-
9/16	-	-	E	70217	70243	-	-
5/8	-	-	A	70218	70244	-	-
3/4	-	-	A	70219	70245	-	-
7/8	-	-	A	70220	70246	-	-
1	-	-	A	70221	70247	-	-

CIC 200™ HEX SOCKET WRENCH SETS

T-HANDLE SETS

DESCRIPTION	PART
10 Piece Set - 6" Blade	A 70326
10 Piece Set - 9" Blade	A 70330

Sizes include: 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8



HEX KEY SETS WITH PLASTIC CASE

DESCRIPTION	PART
SHORT SERIES - 13 keys - .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8.	A 70312
LONG SERIES - 13 keys: .050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8.	A 70316
EXTRA LONG 6" SERIES - 9 keys: 5/64, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8.	A 70322
EXTRA LONG 12" SERIES - 7 keys: 5/64, 3/32, 1/8, 5/32, 3/16, 7/32 and 1/4 (case not included).	A 70324

DESCRIPTION	PART
FOLDING HEX KEY SET - 9 keys - 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32 and 1/4	A 70319

BIN ASSORTMENTS

CIC 200 USS HEX SOCKET CAP SCREWS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 5790

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 20 DIFFERENT ITEMS AND 20 COMPARTMENTS FOR FUTURE EXPANSION. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL.

COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details)

ASSORTMENT CONTAINS:

20 Sizes USS Hex Socket Cap Screws ..... 1/4" thru 1/2" Diameter

1 P/N 7903 — 40 Compartment Bin

CHROMATE 200™ HEX SOCKET CAP SCREW ASSORTMENT

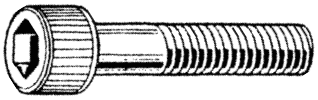
P/N 5790 — USS SIZES — 20 ITEMS / 40 HOLES

1/4 x 1/2 HEX SOCKET CAP SCREW 5611	1/4 x 3/4 HEX SOCKET CAP SCREW 5613	1/4 x 1 HEX SOCKET CAP SCREW 5615	1/4 x 1-1/4 HEX SOCKET CAP SCREW 5616	1/4 x 1-1/2 HEX SOCKET CAP SCREW 5617			
5/16 x 1/2 HEX SOCKET CAP SCREW 5625	5/16 x 3/4 HEX SOCKET CAP SCREW 5627	5/16 x 1 HEX SOCKET CAP SCREW 5629	5/16 x 1-1/4 HEX SOCKET CAP SCREW 5630	5/16 x 1-1/2 HEX SOCKET CAP SCREW 5631			
3/8 x 3/4 HEX SOCKET CAP SCREW 5652	3/8 x 1 HEX SOCKET CAP SCREW 5654	3/8 x 1-1/4 HEX SOCKET CAP SCREW 5655	3/8 x 1-1/2 HEX SOCKET CAP SCREW 5656	3/8 x 2 HEX SOCKET CAP SCREW 5658			
1/2 x 1 HEX SOCKET CAP SCREW 5694	1/2 x 1-1/4 HEX SOCKET CAP SCREW 5695	1/2 x 1-1/2 HEX SOCKET CAP SCREW 5696	1/2 x 2 HEX SOCKET CAP SCREW 5698	1/2 x 2-1/2 HEX SOCKET CAP SCREW 5700			

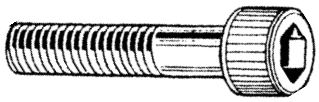
CIC 200™ HEX SOCKET CAP SCREW ASSORTMENT

HEX KEY INTERCHANGEABILITY

					SCREW DIAMETER					
SHORT SERIES PART NO.	LONG SERIES PART NO.	EXTRA LONG — 6" PART NO.	FOOT LONG SERIES PART NO.	HEX ACROSS FLAT	SOCKET SET SCREWS	1960 SERIES SOCKET HEAD CAP SCREWS	FLAT HEAD SOCKET CAP SCREWS	BUTTON HEAD SOCKET CAP SCREWS	SOCKET HEAD SHOULDER CAP SCREWS	SOCKET PRESSURE CAP SCREWS
70202	70228	—	—	.050	#3 & #4	#0	—	—	—	—
70203	70229	—	—	1/16	#5 & #6	#1	#4	#4	—	—
70204	70230	70253	70269	5/64	#8	#2 & #3	#5 & #6	#5 & #6	—	—
70205	70231	70254	70270	3/32	#10 & #12	#4 & #5	#8	#8	—	—
70206	70232	70255	—	7/64	—	#6	—	—	—	—
70207	70233	70256	70271	1/8	1/4	—	#10	#10	1/4	—
70208	70234	70257	—	9/64	—	#8	—	—	—	—
70209	70235	70258	70272	5/32	5/16	#10	1/4	1/4	5/16	1/16
70210	70236	70259	70273	3/16	3/8	1/4	5/16	5/16	3/8	1/8
70211	70237	70260	70274	7/32	7/16	—	3/8	3/8	—	—
70212	70238	70261	70275	1/4	1/2 & 9/16	5/16	7/16	—	1/2	1/4
70213	70239	70262	—	5/16	5/8	3/8	1/2	1/2	5/8	3/8
70214	70240	70263	—	3/8	3/4	7/16 & 1/2	5/8	5/8	3/4	1/2
70215	70241	—	—	7/16	—	9/16	—	—	—	—
70216	70242	—	—	1/2	7/8	5/8	3/4	—	7/8 and 1	—
70217	70243	—	—	9/16	1 & 1-1/8	—	7/8	—	—	3/4
70218	70244	—	—	5/8	1-1/4 & 1-3/8	3/4	1	—	1-1/4	1
70219	70245	—	—	3/4	1-1/2	7/8 & 1	—	—	—	1-1/4



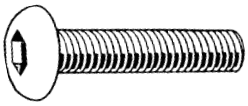
TORQUE DATA



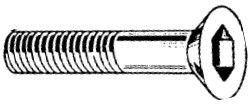
SOCKET HEAD CAP SCREWS					
NOMINAL SIZE	HEX KEY SIZE	RECOMMENDED TENSION (POUNDS)		RECOMMENDED TORQUE (INCH - POUNDS)*	
		UNRC	UNRF	UNRC	UNRF
0 (0.0600)	—	—	190	—	2.6
1 (0.0730)	1/16	280	290	4.5	4.8
2 (0.0860)	5/64	390	410	7.5	8.0
3 (0.0990)	5/64	510	550	11.0	12.0
4 (0.1120)	3/32	630	690	16.0	18.0
5 (0.1250)	3/32	830	870	24.0	24.0
6 (0.1380)	7/64	950	1,070	30.0	34.0
8 (0.1640)	9/64	1,460	1,550	55.0	58.0
10 (0.1900)	5/32	1,840	2,100	79.0	90.0
				(FOOT - POUNDS)*	
1/4 (0.2500)	3/16	3,530	4,040	17	19
5/16 (0.3125)	1/4	5,820	6,450	35	38
3/8 (0.3750)	5/16	8,620	9,770	62	70
7/16 (0.4375)	3/8	11,830	13,180	100	109
1/2 (0.5000)	3/8	15,760	17,800	150	172
5/8 (0.6250)	1/2	23,740	26,890	283	317
3/4 (0.7500)	5/8	35,080	39,150	500	562
7/8 (0.8750)	3/4	41,590	45,830	688	767
1 (1.0000)	3/4	54,350	59,662	1,040	1,080
1-1/4 (1.2500)	7/8	87,225	96,600	2,080	2,310
1-1/2 (1.5000)	1	126,450	142,280	3,625	4,080

**Listed torques are 75 percent of the torque to yield based on ASTM574. Specification listing tensile strength of 180,000 psi for screw size 1/2" and smaller and 170,000 psi for screw size 5/8" and larger.*

CAUTION: The above data should only be used as a reference guide. The proper torque can only be determined by analyzing the design parameters which include temperature, plating, lubrication, etc. Short time tensile, creep and stress relaxation should be considered for applications where the temperature exceeds 400°F (204°C). Lower ductility, impact strength and fatigue life must be considered for screws subject to temperatures below -20°F (-29°C). All socket screw products are class 3A fit except size 1-1/4" and larger which are class 2A fit.



TORQUE DATA (Continued)



BUTTON HEAD AND FLAT HEAD CAP SCREWS

NOMINAL SIZE	HEX KEY SIZE	BUTTON HEAD			FLAT HEAD			
		TENSILE STRENGTH (Lbs Min.)	SHEAR STRENGTH (Lbs Min.)	TIGHTENING TORQUE (Inch - Lbs)	TENSILE STRENGTH (Lbs Min.)	SHEAR STRENGTH (Lbs Min.) Body	SHEAR STRENGTH (Lbs Min.) Thread	TIGHTENING TORQUE (Inch - Lbs)
4 (0.1120)	1/16	880	620	8	880	1,100	620	9.5
5 (0.1250)	5/64	—	—	—	1,150	1,370	820	14
6 (0.1380)	5/64	1,320	940	15	1,320	1,670	940	18
8 (0.1640)	3/32	2,030	1,450	30	2,030	2,360	1,450	32
10 (0.1900)	1/8	2,540	1,810	65	2,540	3,180	1,810	75
1/4 (0.2500)	5/32	4,610	3,300	125	4,610	5,500	3,300	140
5/16 (0.3125)	3/16	7,600	5,430	200	7,600	8,590	5,430	245
3/8 (0.3750)	7/32	11,200	8,040	360	11,200	12,350	8,040	400
7/16 (0.4375)	1/4	—	—	—	15,400	16,800	11,000	600
1/2 (0.5000)	5/16	20,600	14,700	1,000	20,600	22,000	14,700	1200
5/8 (0.6250)	3/8	32,500	23,400	1,750	32,800	34,350	23,400	2000
3/4 (0.7500)	1/2	—	—	—	45,100	49,500	34,600	4000
7/8 (0.8750)	9/16	—	—	—	62,400	61,000	47,900	6000
1 (1.0000)	5/8	—	—	—	81,800	80,100	62,850	8500

SHOULDER SCREWS (STRIPPER BOLTS)

NOMINAL SHOULDER SIZE	NOMINAL THREAD SIZE	HEX KEY SIZE	THREAD SECTION TENSILE STRENGTH (LBS MIN.)	SINGLE SHEAR STRENGTH (LBS MIN.)		TIGHTENING TORQUE (INCH - LBS.)
				THREAD NECK	SHOULDER	
1/4	10-24	1/8	2,540	1,250	4,515	50
5/16	1/4-20	5/32	4,610	2,340	7,100	125
3/8	5/16-18	3/16	7,600	3,970	10,280	265
1/2	3/8-16	1/4	11,240	5,985	18,350	470
5/8	1/2-13	5/16	20,570	11,140	28,785	1,150
3/4	5/8-11	3/8	32,770	17,800	41,515	2,000
1	3/4-10	1/2	48,430	26,800	74,000	4,000

CAUTION: The above data should only be used as a reference guide. The proper torque can only be determined by analyzing the design parameters which include temperature, plating, lubrication, etc. Short time tensile, creep and stress relaxation should be considered for applications where the temperature exceeds 400°F (204°C). Lower ductility, impact strength and fatigue life must be considered for screws subject to temperatures below -20°F (-29°C). All socket screw products are class 3A fit except size 1-1/4" and larger which are class 2A fit.

BIN ASSORTMENTS

CIC 200 HEX SOCKET CAP SCREWS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7830

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL.

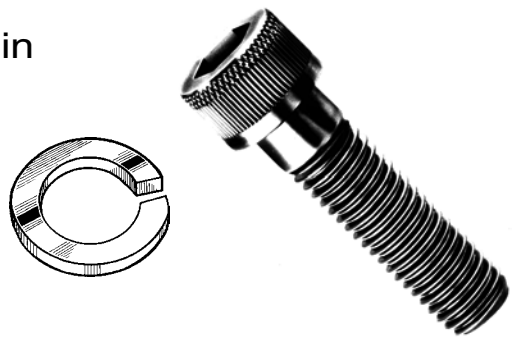
COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #168081***

ASSORTMENT CONTAINS:

35 Sizes USS Hex Socket Cap Screws ..... 1/4" thru 5/8" Diameter
5 Sizes High Collar Washers ..... 1/4" thru 5/8" Diameter

1 P/N 7903 – 40 Compartment Bin



CIC 200 HEX SOCKET CAP SCREW ASSORTMENT

P/N 7830 — USS SIZES — 40 ITEMS / 40 HOLES

1/4 HIGH COLLAR LOCK WASHER 4893	1/4-20 x 1/2 SOCKET HEAD CAP SCREW 35611	1/4-20 x 3/4 SOCKET HEAD CAP SCREW 35613	1/4-20 x 1 SOCKET HEAD CAP SCREW 35615	1/4-20 x 1-1/2 SOCKET HEAD CAP SCREW 35617	1/4-20 x 2 SOCKET HEAD CAP SCREW 35619	1/4-20 x 2-1/2 SOCKET HEAD CAP SCREW 35621	1/4-20 x 3 SOCKET HEAD CAP SCREW 35623
5/16 HIGH COLLAR LOCK WASHER 4894	5/16-18 x 1/2 SOCKET HEAD CAP SCREW 35625	5/16-18 x 3/4 SOCKET HEAD CAP SCREW 35627	5/16-18 x 1 SOCKET HEAD CAP SCREW 35629	5/16-18 x 1-1/2 SOCKET HEAD CAP SCREW 35631	5/16-18 x 2 SOCKET HEAD CAP SCREW 35633	5/16-18 x 2-1/2 SOCKET HEAD CAP SCREW 35635	5/16-18 x 3 SOCKET HEAD CAP SCREW 35637
3/8 HIGH COLLAR LOCK WASHER 4895	3/8-16 x 1/2 SOCKET HEAD CAP SCREW 35650	3/8-16 x 3/4 SOCKET HEAD CAP SCREW 35652	3/8-16 x 1 SOCKET HEAD CAP SCREW 35654	3/8-16 x 1-1/2 SOCKET HEAD CAP SCREW 35656	3/8-16 x 2 SOCKET HEAD CAP SCREW 35658	3/8-16 x 2-1/2 SOCKET HEAD CAP SCREW 35660	3/8-16 x 3 SOCKET HEAD CAP SCREW 35662
1/2 HIGH COLLAR LOCK WASHER 4897	1/2-13 x 1 SOCKET HEAD CAP SCREW 35694	1/2-13 x 1-1/4 SOCKET HEAD CAP SCREW 35695	1/2-13 x 1-1/2 SOCKET HEAD CAP SCREW 35696	1/2-13 x 2 SOCKET HEAD CAP SCREW 35698	1/2-13 x 2-1/2 SOCKET HEAD CAP SCREW 35700	1/2-13 x 3 SOCKET HEAD CAP SCREW 35702	1/2-13 x 3-1/2 SOCKET HEAD CAP SCREW 35704
5/8 HIGH COLLAR LOCK WASHER 4898	5/8-11 x 1-1/4 SOCKET HEAD CAP SCREW 35716	5/8-11 x 1-1/2 SOCKET HEAD CAP SCREW 35717	5/8-11 x 2 SOCKET HEAD CAP SCREW 35719	5/8-11 x 2-1/2 SOCKET HEAD CAP SCREW 35721	5/8-11 x 3 SOCKET HEAD CAP SCREW 35723	5/8-11 x 3-1/2 SOCKET HEAD CAP SCREW 35725	5/8-11 x 4 SOCKET HEAD CAP SCREW 35726

BIN ASSORTMENTS

CIC 150 HEX SOCKET CAP SCREWS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7831

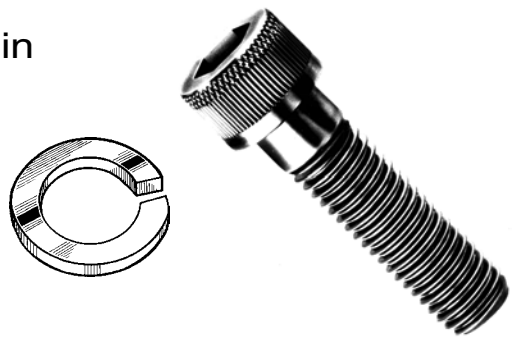
ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL.
COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details) ***Use Bin Label Set #168105***

ASSORTMENT CONTAINS:
35 Sizes USS Hex Socket Cap Screws ..... 1/4" thru 5/8" Diameter
5 Sizes High Collar Washers ..... 1/4" thru 5/8" Diameter

1 P/N 7903 – 40 Compartment Bin



CIC 150 HEX SOCKET CAP SCREW ASSORTMENT

P/N 7831 — USS SIZES — 40 ITEMS / 40 HOLES

1/4 HIGH COLLAR LOCK WASHER 4893	1/4-20 x 1/2 SOCKET HEAD CAP SCREW 61131	1/4-20 x 3/4 SOCKET HEAD CAP SCREW 61133	1/4-20 x 1 SOCKET HEAD CAP SCREW 61134	1/4-20 x 1-1/2 SOCKET HEAD CAP SCREW 61136	1/4-20 x 2 SOCKET HEAD CAP SCREW 61138	1/4-20 x 2-1/2 SOCKET HEAD CAP SCREW 61223	1/4-20 x 3 SOCKET HEAD CAP SCREW 61225
5/16 HIGH COLLAR LOCK WASHER 4894	5/16-18 x 1/2 SOCKET HEAD CAP SCREW 61141	5/16-18 x 3/4 SOCKET HEAD CAP SCREW 61143	5/16-18 x 1 SOCKET HEAD CAP SCREW 61144	5/16-18 x 1-1/2 SOCKET HEAD CAP SCREW 61146	5/16-18 x 2 SOCKET HEAD CAP SCREW 61148	5/16-18 x 2-1/2 SOCKET HEAD CAP SCREW 61149	5/16-18 x 3 SOCKET HEAD CAP SCREW 61242
3/8 HIGH COLLAR LOCK WASHER 4895	3/8-16 x 1/2 SOCKET HEAD CAP SCREW 61151	3/8-16 x 3/4 SOCKET HEAD CAP SCREW 61153	3/8-16 x 1 SOCKET HEAD CAP SCREW 61154	3/8-16 x 1-1/2 SOCKET HEAD CAP SCREW 61156	3/8-16 x 2 SOCKET HEAD CAP SCREW 61158	3/8-16 x 2-1/2 SOCKET HEAD CAP SCREW 61159	3/8-16 x 3 SOCKET HEAD CAP SCREW 61161
1/2 HIGH COLLAR LOCK WASHER 4897	1/2-13 x 1 SOCKET HEAD CAP SCREW 61169	1/2-13 x 1-1/4 SOCKET HEAD CAP SCREW 61170	1/2-13 x 1-1/2 SOCKET HEAD CAP SCREW 61171	1/2-13 x 2 SOCKET HEAD CAP SCREW 61173	1/2-13 x 2-1/2 SOCKET HEAD CAP SCREW 61174	1/2-13 x 3 SOCKET HEAD CAP SCREW 61175	1/2-13 x 3-1/2 SOCKET HEAD CAP SCREW 61177
5/8 HIGH COLLAR LOCK WASHER 4898	5/8-11 x 1-1/4 SOCKET HEAD CAP SCREW 61836	5/8-11 x 1-1/2 SOCKET HEAD CAP SCREW 61837	5/8-11 x 2 SOCKET HEAD CAP SCREW 61839	5/8-11 x 2-1/2 SOCKET HEAD CAP SCREW 61841	5/8-11 x 3 SOCKET HEAD CAP SCREW 61843	5/8-11 x 3-1/2 SOCKET HEAD CAP SCREW 61845	5/8-11 x 4 SOCKET HEAD CAP SCREW 61846

CARRIAGE AND PLOW BOLTS

FEATURES:

- **Standard Carriage Bolts**
- **Flat Head Elevator Bolts**
- **High Strength Fully Threaded Grade 5 Shaker Screen Bolts**
- **Ultimate High Strength 150,000 PSI #3 Dome Head Plow Bolts**
- **Full Diameter Shanks**
- **Fully Formed Heads**
- **Sharp Accurate Threads**
- **Special Chromate Plating**

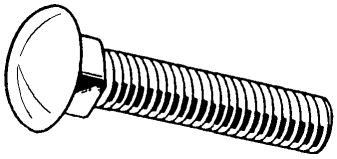
CHROMATE SPECIAL FASTENERS – THE SOLUTION FOR ALL YOUR SPECIAL APPLICATIONS. All Chromate carriage, elevator, shaker screen and plow bolts are manufactured to exacting specifications. They feature a unique square neck with sharp edges that prevents the bolt from turning when the nut is tightened. Special chromate plating provides corrosion resistance and durability. Use Chromate Special Fastening Systems when the *proper* fastener is the only acceptable solution.

CARRIAGE AND ELEVATOR BOLTS

ROUND HEAD CARRIAGE BOLTS

CARRIAGE BOLTS

- SQUARE NECK AND CLEAN, SHARP USS THREADS
- DURABLE CHROMATE PLATING
- NUTS NOT INCLUDED



17919

BIN 7827

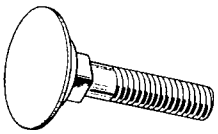
13

LENGTH	3/16 DIA.	1/4 DIA.	5/16 DIA.	3/8 DIA.	7/16 DIA.	1/2 DIA.	5/8 DIA.	3/4 DIA.
3/4	T 22811	T 22825	T 22822	-	-	-	-	-
1	T 22815	T 22826	T 22840	T 22855	-	-	-	-
1-1/4	T 22816	T 22827	T 22841	T 22856	R 22870	-	-	-
1-1/2	-	T 22828	T 22842	T 22857	-	N 22878	N 22892	-
1-3/4	T 22813	T 22823	T 22854	T 22869	-	-	-	-
2	T 22818	T 22829	T 22843	T 22858	N 22871	N 22879	N 22893	-
2-1/4	-	T 22824	R 22819	-	-	-	-	-
2-1/2	-	T 22830	T 22844	R 22859	N 22872	N 22880	-	-
3	-	T 22831	T 22845	R 22860	N 22873	N 22881	I 22895	
3-1/2	-	T 22832	R 22846	R 22861	I 22874	N 22882	I 22896	
4	-	R 22833	R 22847	R 22862	I 22875	L 22883		
4-1/2	-	N 22834	N 22848	N 22863	-	I 22884	-	E 22820
5	-	N 22835	N 22849	N 22864	-	I 22885		
5-1/2	-	N 22836	N 22850	N 22865	-	I 22886		
6	-	N 22837	N 22851	I 22866	-	I 22887		
6-1/2	-	-	-	I 22812	-	-	-	-
7	-	I 22838	I 22852	I 22867	-	E 22888		
7-1/2	-	-	-	I 22814	-	-	-	-
8	-	I 22839	I 22853	I 22868	-	E 22889	-	-
9	-	-	-	I 22817	-	-	-	-
10	-	-	-	-	-	E 22890	-	-
11	-	-	-	-	-	E 22891	-	-

FLAT HEAD ELEVATOR BOLTS AND FINISHED HEX NUTS

Flat head elevator bolts with square neck and clean, sharp USS threads. Durable Chromate plating.

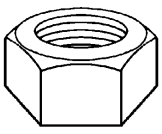
ELEVATOR BOLTS



NUTS NOT INCLUDED

LENGTH	1/4 DIA.	5/16 DIA.	3/8-16
1	T 22950	-	-
1-1/4	-	R 22956	-
1-1/2	T 22951	R 22953	L 22961
2	R 22952	R 22954	L 22962
2-1/2	-	R 22955	-
3	T 22949	-	-

FINISHED HEX NUTS



7726, 17736 & 17723

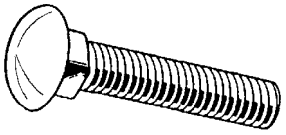
HEX NUT SIZE	PART
3/16 (10-24)	T 5210
1/4-20	T 52300
5/16-18	T 52302
3/8-16	T 52304
7/16-14	R 52306
1/2-13	R 52308

SHAKER SCREEN AND PLOW BOLTS

HEAT-TREATED GRADE 5 BOLTS FOR HIGH STRENGTH

High carbon content, 120,000 PSI bolts with U.S.S. threads and square neck. Nuts not included.

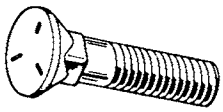
FULLY THREADED SHAKER SCREEN BOLTS



- DURABLE CHROMATE PLATING
- GRADE 5 CARRIAGE BOLT

LENGTH	1/2 DIA.	5/8 DIA.	3/4 DIA.
1-1/2	L 22899	-	-
2	L 22900	I 22911	-
2-1/2	L 22901	I 22912	-
3	L 22902	I 22913	-
3-1/2	L 22903	I 22914	E 22918
4	L 22904	I 22915	E 22920
4-1/2	L 22905	I 22916	E 22921
5	I 22906	E 22917	E 22922
5-1/2	I 22907	-	E 22923
6	I 22908	E 22919	E 22924
8	E 22910	-	-

#3 HEAD PLOW BOLTS



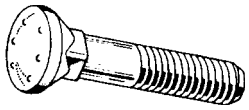
LENGTH	7/16 DIA.	1/2 DIA.
1	O 99412	O 99421
1-1/4	99413	O 99422
1-1/2	O 99414	O 99423
1-3/4	O 99415	L 99424
2	O 99416	L 99425
2-1/2	O 99418	L 99427
2-3/4	-	L 99428
3	L 99420	L 99429
3-1/2	-	L 99430
4	-	L 99431
	-	-

#3 DOME HEAD PLOW BOLTS & FINISHED HEX NUTS

HEAT-TREATED GRADE 8 BOLTS FOR ULTIMATE HIGH STRENGTH

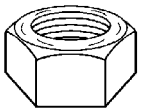
High carbon content, 150,000 PSI bolts with U.S.S. threads and square neck. Nuts not included.

#3 DOME HEAD PLOW BOLTS



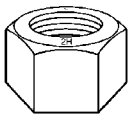
LENGTH	5/8 DIA.	3/4 DIA.	7/8 DIA.	1 DIA.	1-1/4 DIA.
1-1/2	L 99432	-	-	-	-
1-3/4	L 99433	I 99443	-	-	-
2	L 99434	I 99444	E 99453	-	-
2-1/4	L 99407	I 99411	-	-	-
2-1/2	L 99435	I 99445	E 99454	E 99464	-
3	I 99436	I 99446	E 99455	E 99465	-
3-1/4	-	-	-	99410	-
3-1/2	I 99437	I 99447	E 99456	E 99466	-
4	I 99438	E 99448	E 99457	E 99467	-
4-1/2	I 99439	E 99449	E 99458	E 99468	A 99408
5	I 99440	E 99450	E 99459	E 99469	A 99409
5-1/2	-	E 99451	E 99460	E 99470	-
6	E 99442	E 99452	E 99461	E 99471	-
6-1/2	-	-	-	E 99472	-
7	-	-	E 99463	A 99473	-

GRADE 8 HEX NUTS



SIZE	PART	SIZE	PART
7/16-14	R 8929	3/4-10	N 8933
1/2-13	R 8930	7/8-9	I 8934
5/8-11	R 8932	1-8	I 8935

2H HEX NUTS



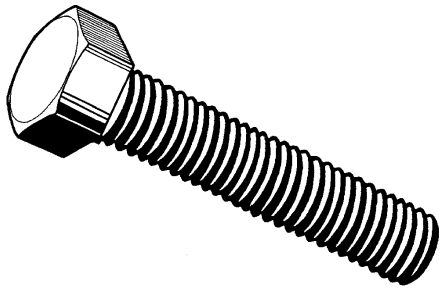
SIZE	PART	SIZE	PART
1/2-13	R 4850	7/8-9	I 4865
5/8-11	N 4855	1-8	I 4870
3/4-10	L 4860		

GRADE 2 HEX TAP BOLTS

THE PREVENTIVE MAINTENANCE HEX TAP BOLT

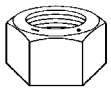
A low carbon, hex head bolt with a machined point which is threaded to the head.

- USE IN DRILLED AND TAPPED HOLES THREADED FULL LENGTH
- USE INSTEAD OF A STUD AND A NUT
- MEETS AISI 1006 - 1025 OR EQUIVALENT STEEL
- ROCKWELL B80 - B100
- 55,000 PSI PROOF LOAD
- 57,000 PSI MINIMUM YIELD STRENGTH
- 74,000 PSI MINIMUM TENSILE STRENGTH
- 18% MINIMUM ELONGATION



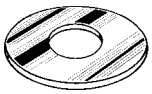
LENGTH	1/4 DIA.	5/16 DIA.	3/8 DIA.	7/16 DIA.	1/2 DIA.	5/8 DIA.	3/4 DIA.
	USS 20	USS 18	USS 16	USS 14	USS 13	USS 11	USS 10
1/2	T 23000	T 23019	T 23038	–	–	–	–
5/8	T 23001	T 23020	T 23039	–	–	–	–
3/4	T 23002	T 23021	T 23040	–	R 23068	–	–
1	T 23003	T 23022	T 23041	R 23057	R 23069	N 23084	–
1-1/4	T 23004	T 23023	T 23042	R 23058	R 23070	N 23085	I 23101
1-1/2	T 23005	T 23024	T 23043	R 23059	R 23071	N 23086	I 23102
1-3/4	T 23006	T 23025	R 23044	R 23060	N 23072	N 23087	I 23103
2	T 23007	T 23026	R 23045	R 23061	N 23073	I 23088	I 23104
2-1/4	T 23008	T 23027	R 23046	R 23062	N 23074	I 23089	I 23105
2-1/2	T 23009	R 23028	R 23047	N 23063	N 23075	I 23090	I 23106
2-3/4	T 23010	R 23029	R 23048	N 23064	N 23076	I 23091	I 23107
3	T 23011	R 23030	R 23049	–	N 23077	I 23092	I 23108
3-1/4	T 23012	–	N 23050	–	–	I 23093	I 23109
3-1/2	T 23013	R 23031	N 23051	N 23066	N 23078	I 23094	E 23110
3-3/4	–	R 23032	–	–	–	I 23095	E 23111
4	R 23014	R 23033	N 23052	N 23067	I 23079	I 23096	E 23112
4-1/2	R 23015	R 23034	N 23053	–	I 23080	I 23097	E 23113
5	R 23016	N 23035	N 23054	–	I 23081	I 23098	E 23114
5-1/2	R 23017	N 23036	N 23055	–	I 23082	I 23099	E 23115
6	R 23018	N 23037	N 23056	–	I 23083	E 23100	E 23116

FINISHED HEX NUTS



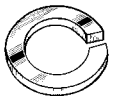
SIZE	PART
1/4-20	T 52300
5/16-18	T 52302
3/8-16	T 52304
7/16-14	T 52306
1/2-13	T 52308
5/8-11	T 52312
3/4-10	T 52314

UNIFIT™ FLATWASHERS



SIZE	PART
1/4	U 6500
5/16	U 6501
3/8	U 6502
7/16	U 6503
1/2	T 6504
5/8	T 6506
3/4	T 6507

LOCK WASHERS



SIZE	PART
1/4	U 71210
5/16	U 71212
3/8	U 71214
7/16	U 71216
1/2	U 71218
5/8	U 71222
3/4	U 71224

BIN ASSORTMENTS
CARRIAGE BOLTS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7827

ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

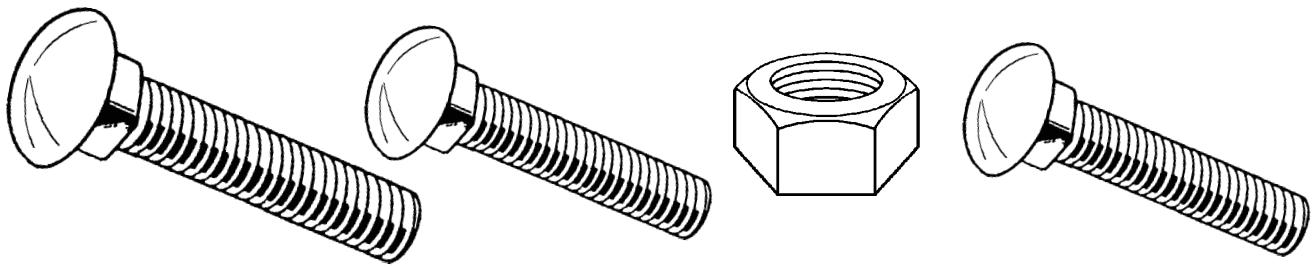
*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

ASSORTMENT CONTAINS:

36 Sizes Carriage Bolts ..... 1/4" thru 1/2" Diameter
4 Sizes Alloy Finished Hex Nuts ..... 1/4" thru 1/2" Diameter

1 P/N 7903 — 40-Compartment Bin



CARRIAGE BOLT BIN ASSORTMENT

P/N 7827 — 40 ITEMS / 40 HOLES

1/4-20 HEX NUT 52300	1/4 x 3/4 CARRIAGE BOLT 22825	1/4 x 1 CARRIAGE BOLT 22826	1/4 x 1-1/4 CARRIAGE BOLT 22827	1/4 x 1-1/2 CARRIAGE BOLT 22828	1/4 x 1-3/4 CARRIAGE BOLT 22823	1/4 x 2 CARRIAGE BOLT 22829	1/4 x 2-1/2 CARRIAGE BOLT 22830
5/16-18 HEX NUT 52302	1/4 x 3 CARRIAGE BOLT 22831	1/4 x 3-1/2 CARRIAGE BOLT 22832	1/4 x 4 CARRIAGE BOLT 22833	1/4 x 4-1/2 CARRIAGE BOLT 22834	1/4 x 5 CARRIAGE BOLT 22835	5/16 x 1 CARRIAGE BOLT 22840	5/16 x 1-1/4 CARRIAGE BOLT 22841
3/8-16 HEX NUT 52304	5/16 x 1-1/2 CARRIAGE BOLT 22842	5/16 x 1-3/4 CARRIAGE BOLT 22854	5/16 x 2 CARRIAGE BOLT 22843	5/16 x 2-1/2 CARRIAGE BOLT 22844	5/16 x 3 CARRIAGE BOLT 22845	5/16 x 3-1/2 CARRIAGE BOLT 22846	5/16 x 4 CARRIAGE BOLT 22847
1/2-13 HEX NUT 52308	3/8 x 1 CARRIAGE BOLT 22855	3/8 x 1-1/4 CARRIAGE BOLT 22856	3/8 x 1-1/2 CARRIAGE BOLT 22857	3/8 x 1-3/4 CARRIAGE BOLT 22869	3/8 x 2 CARRIAGE BOLT 22858	3/8 x 2-1/2 CARRIAGE BOLT 22859	3/8 x 3 CARRIAGE BOLT 22860
3/8 x 3-1/2 CARRIAGE BOLT 22861	3/8 x 4 CARRIAGE BOLT 22862	1/2 x 1-1/2 CARRIAGE BOLT 22878	1/2 x 2 CARRIAGE BOLT 22879	1/2 x 2-1/2 CARRIAGE BOLT 22880	1/2 x 3 CARRIAGE BOLT 22881	1/2 x 3-1/2 CARRIAGE BOLT 22882	1/2 x 4 CARRIAGE BOLT 22883

BIN ASSORTMENTS
GRADE 2 HEX TAP BOLTS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7839

ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

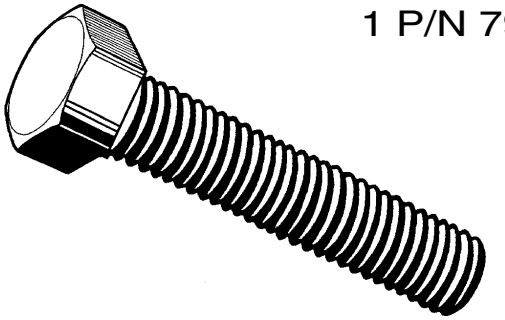
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

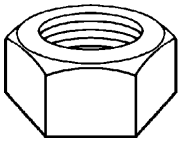
(See Plan-A-Graph for complete details) ***Use Bin Label Set #168224***

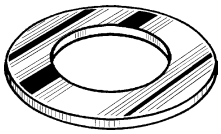
ASSORTMENT CONTAINS:

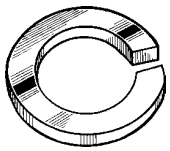
25 Sizes Grade 2 Hex Tap Bolts ..... 1/4" thru 1/2" Diameter
5 Sizes Finished Hex Nuts ..... 1/4" thru 1/2" Diameter
5 Sizes UniFit™ Flat Washers ..... 1/4" thru 1/2" Diameter
5 Sizes Lock Washers ..... 1/4" thru 1/2" Diameter

1 P/N 7903 — 40-Compartment Bin







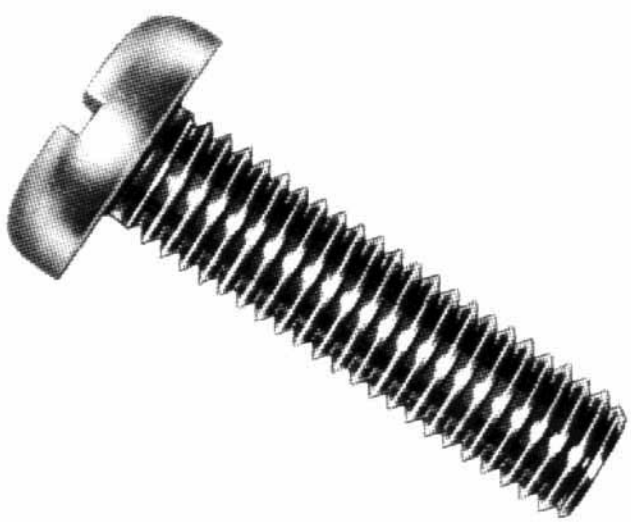


GRADE 2 HEX TAP BOLTS ASSORTMENT

P/N 7839 — USS SIZES — 40 ITEMS / 40 HOLES

1/4-20 FINISHED HEX NUT 52300	1/4 UNI-FIT™ FLAT WASHER 6500	1/4 LOCK WASHER 71210	1/4 x 1/2 CAP SCREW 23000	1/4 x 3/4 CAP SCREW 23002	1/4 x 1 CAP SCREW 23003	1/4 x 1-1/2 CAP SCREW 23005	1/4 x 2 CAP SCREW 23007
5/16-18 FINISHED HEX NUT 52302	5/16 UNI-FIT™ FLAT WASHER 6501	5/16 LOCK WASHER 71212	5/16 x 1/2 CAP SCREW 23019	5/16 x 3/4 CAP SCREW 23021	5/16 x 1 CAP SCREW 23022	5/16 x 1-1/2 CAP SCREW 23024	5/16 x 2 CAP SCREW 23026
3/8-16 FINISHED HEX NUT 52304	3/8 UNI-FIT™ FLAT WASHER 6502	3/8 LOCK WASHER 71214	3/8 x 3/4 CAP SCREW 23040	3/8 x 1 CAP SCREW 23041	3/8 x 1-1/4 CAP SCREW 23042	3/8 x 1-1/2 CAP SCREW 23043	3/8 x 2 CAP SCREW 23045
7/16-14 FINISHED HEX NUT 52306	7/16 UNI-FIT™ FLAT WASHER 6503	7/16 LOCK WASHER 71216	7/16 x 1 CAP SCREW 23057	7/16 x 1-1/2 CAP SCREW 23059	7/16 x 2 CAP SCREW 23061	7/16 x 2-1/2 CAP SCREW 23063	7/16 x 3 CAP SCREW 23065
1/2-13 FINISHED HEX NUT 52308	1/2 UNI-FIT™ FLAT WASHER 6504	1/2 LOCK WASHER 71218	1/2 x 1 CAP SCREW 23069	1/2 x 1-1/2 CAP SCREW 23071	1/2 x 2 CAP SCREW 23073	1/2 x 2-1/2 CAP SCREW 23075	1/2 x 3 CAP SCREW 23077

MACHINE SCREWS



- **Precision, Burr-Free Threads For Exact Fit**
- **Available in All Popular Head Styles Including: Binding, Round, Flat, Truss and Fillister**
- **Phillips and Slotted Drive**
- **Full Line of Specialty Nuts and Washers**
- **Special Chromate Plating**

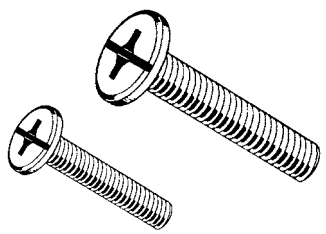
CHROMATE MACHINE SCREWS, NUTS AND WASHERS PROVIDE CONSISTENT QUALITY AND RELIABILITY. Stronger head and deeper recess assures a fast, sure drive without stripping. Special chromate plating provides corrosion resistance and durability. Chromate Machine Screws outperform the others, time and time again.

CIC 200™ SUPER MACHINE SCREWS

STRENGTH AND DURABILITY UNMATCHED BY ANY OTHER MACHINE SCREW

Special Chromate plating provides for fast, smooth installation and easy, corrosion-free removal.

- **120,000 PSI MINIMUM TENSILE STRENGTH**
  - **EXCEEDS GRADE 5 CAP SCREW STRENGTH SPECIFICATIONS**
- **SUPER TOUGH THROUGH-HARDENING PROCESS**
  - **REDUCES POSSIBILITYOF SNAPPING, SHEARING, STRETCHING OR BENDING**
- **COMBINATION PHILLIPS AND SLOTTED HEAD**
  - **ASSURES YOU HAVE THE RIGHT SCREWDRIVER EVERY TIME**
- **HEAT TREATED AND BAKED OUT**
  - **TO PREVENT DISTORTING SLOTTED/PHILLIPS DRIVE**
- **BLUE ZINC DICHROMATE PLATING**
  - **FOR CORROSION RESISTANCE AND LONG LIFE**



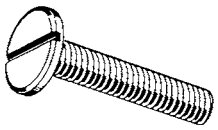
MADE IN U.S.A.

SIZE		PART	SIZE		PART	SIZE		PART
6-32 x 1/4	U	56111	–		–	10-24 x 1	T	56165
6-32 x 3/8	U	56112	8-32 x 1-1/2	T	56128	10-24 x 1-1/4	T	56166
6-32 x 1/2	U	56113	–		–	10-24 x 1-1/2	T	56167
6-32 x 5/8	U	56114	10-32 x 1/4	U	56131	10-24 x 2	T	56169
6-32 x 3/4	U	56115	10-32 x 3/8	U	56132	10-24 x 2-1/2	T	56170
6-32 x 1	U	56116	10-32 x 1/2	U	56133	10-24 x 2-3/4	T	56172
6-32 x 1-1/4	U	56117	10-32 x 5/8	U	56134	1/4-20 x 1/2	U	56150
6-32 x 1-1/2	U	56118	10-32 x 3/4	U	56135	1/4-20 x 5/8	T	56151
6-32 x 2	T	56119	10-32 x 1	U	56136	1/4-20 x 3/4	T	56152
8-32 x 1/4	U	56121	10-32 x 1-1/2	T	56138	1/4-20 x 1	T	56153
8-32 x 3/8	U	56122	10-32 x 2	T	56139	1/4-20 x 1-1/4	T	56154
8-32 x 1/2	U	56123	10-24 x 3/8	U	56161	1/4-20 x 1-1/2	T	56155
8-32 x 5/8	U	56124	10-24 x 1/2	U	56162	1/4-20 x 2	T	56156
8-32 x 3/4	U	56125	10-24 x 5/8	U	56163	1/4-20 x 2-1/2	R	56157
8-32 x 1	U	56126	10-24 x 3/4	U	56164	1/4-20 x 3	R	56158

SLOTTED MACHINE SCREWS

BINDING HEAD

- **PRECISION, BURR-FREE THREADS FOR EXACT FIT**
- **SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION FOR EASIER REMOVAL**

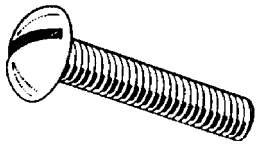


LENGTH	4-40		6-32		8-32		10-32		10-24		1/4-20	
1/4	T	301	T	310	T	321	T	334	T	347		-
3/8	T	302	T	311	T	322	T	335	T	348		-
1/2	T	303	T	312	T	323	T	336	T	349	T	372
5/8	T	304	T	313	T	324	T	337	T	350	T	373
3/4	T	305	T	314	T	325	T	338	T	351	T	374
7/8	T	306	T	315	T	326	T	339	T	352		-
1	T	307	T	316	T	327	T	340	T	353	T	376
1-1/4		-	T	317	T	328	T	341	T	354	R	377
1-1/2		-	T	318	R	329	R	342	R	355	R	378
1-3/4		-	R	319	R	330	R	343	R	356	R	379
2		-	R	320	R	331	R	344	R	357	R	380
2-1/2		-		-	R	332	R	345	R	358		-
3		-		-	R	333	R	346	R	359	R	382

SLOTTED MACHINE SCREWS (Cont'd.)

ROUND HEAD

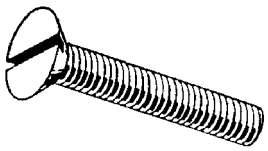
- PRECISION, BURR-FREE THREADS FOR EXACT FIT
- SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION FOR EASIER REMOVAL



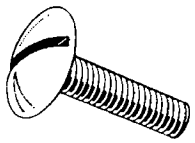
LENGTH	6-32	8-32	10-24	10-32	12-24	1/4-20	5/16-18	3/8-16	1/2-13
1/4	-	T 1730	-	-	-	T 1716	-	-	-
5/16	-	-	-	-	T 1768	-	-	-	-
3/8	-	T 1732	-	T 1765	-	T 1714	-	-	-
1/2	-	-	-	T 1766	T 1774	T 1771	R 1727	-	-
5/8	T 1706	-	-	-	T 1775	-	R 1729	-	-
3/4	-	R 1734	-	T 1767	T 1776	T 1772	R 1731	-	-
7/8	-	-	-	-	-	-	-	-	-
1	T 1708	R 1736	T 1712	R 1783	T 1777	R 1773	R 1733	-	-
1-1/4	-	-	T 1770	-	T 1778	-	R 1735	-	-
1-1/2	-	R 1740	-	R 1722	T 1779	-	R 1737	-	-
1-3/4	-	-	-	R 1724	T 1780	-	R 1738	-	-
2	R 1705	-	-	-	T 1781	-	R 1739	N 1782	-
2-1/2	-	-	-	-	-	R 1718	R 1741	-	-
3	R 1707	-	R 1711	-	-	R 1719	R 1743	N 1750	-
4	R 1709	-	R 1713	R 1720	-	R 1721	N 1745	N 1751	I 1754
5	-	-	R 1715	-	-	N 1723	N 1747	N 1752	I 1755
6	-	-	R 1717	-	-	N 1725	N 1749	N 1753	I 1756

FLAT HEAD

- PRECISION, BURR-FREE THREADS FOR EXACT FIT
- SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION FOR EASIER REMOVAL



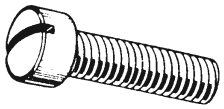
TRUSS HEAD



LENGTH	4-40	6-32	8-32	10-32	10-24	12-24	1/4-20	5/16-18	3/8-16	10-24	1/4-20
1/4	T 401	T 410	T 421	T 434	T 447	-	-	-	-	-	-
3/8	T 402	T 411	T 422	T 435	T 448	T 462	-	-	-	-	-
1/2	T 403	T 412	T 423	T 436	T 449	T 463	T 472	T 1827	T 1863	T 2660	T 2674
5/8	-	T 413	T 424	T 437	T 450	-	T 473	T 1829	-	-	T 2676
3/4	T 405	T 414	T 425	T 438	T 451	T 465	T 474	T 1831	T 1864	T 2664	T 2678
7/8	-	T 415	T 426	T 439	T 452	-	T 475	-	-	-	-
1	T 407	T 416	T 427	T 440	T 453	T 466	T 476	T 1833	T 1865	T 2666	T 2680
1-1/4	T 408	T 417	T 428	R 441	R 454	R 467	R 477	R 1835	R 1866	T 2668	T 2682
1-1/2	T 409	T 418	R 429	R 442	R 455	R 468	R 478	R 1837	R 1877	T 2670	T 2684
1-3/4	-	R 419	R 430	R 443	R 456	-	R 479	-	-	-	-
2	-	R 420	R 431	R 444	R 457	R 470	R 480	R 1839	R 1878	T 2672	T 2686
2-1/2	-	T 471	R 432	R 445	R 458	-	R 481	R 1841	-	-	-
3	-	R 1807	R 433	R 446	R 459	-	R 482	R 1843	R 1879	-	-
4	-	-	N 461	-	R 1813	-	R 1821	R 1845	R 1880	T 2673	-
5	-	-	-	-	-	-	N 1823	-	-	-	-
6	-	-	-	-	-	-	N 1825	-	-	-	-

SLOTTED MACHINE SCREWS (Cont'd.)

SLOTTED FILLISTER HEAD



LENGTH	4-40	6-32	8-32	10-32	10-24	12-24	1/4-20
1/4	U 501	U 510	U 521	-	-	-	-
3/8	U 502	U 511	U 522	U 535	U 548	-	-
1/2	U 503	U 512	U 523	U 536	U 549	U 562	U 572
5/8	U 504	U 513	U 524	U 537	-	U 563	U 573
3/4	U 505	U 514	U 525	U 538	U 551	U 564	U 574
7/8	-	-	-	-	-	-	T 575
1	U 507	U 516	U 527	U 540	U 553	U 566	T 576
1-1/4	-	U 517	U 528	U 541	U 554	T 567	T 577
1-1/2	-	U 518	U 529	T 542	-	T 568	T 578
1-3/4	-	-	-	T 543	-	-	-
2	-	-	-	-	T 557	-	T 580

COMBINATION SLOTTED/PHILLIPS MS

ROUND COMBINATION

LENGTH	6-32	10-24	1/4-20	3/8-16
2	T 26220	T 26223	-	-
3	T 26221	T 26224	T 26228	-
4	T 26222	T 26225	T 26229	R 26237
5	-	T 26226	-	-
6	-	-	R 26231	-

TRUSS COMBINATION

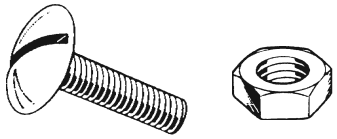
6-32	10-24	1/4-20
T 26243	T 26246	-
T 26244	T 26247	T 26249
T 26245	T 26248	R 26250
-	-	-
-	-	-

LICENSE PLATE SCREWS WITH HEX NUTS

UNIVERSAL SIZES FIT MOST APPLICATIONS

SCREWS AND NUTS

- **LARGE, SLOTTED PAN HEAD MACHINE SCREWS SECURELY HOLD LICENSE PLATES TO BRACKETS OR HOLDERS**
- **PRECISION THREADS AND CHROMATE PLATING ELIMINATES RUST AND CORROSION ASSURING EASY REMOVAL**



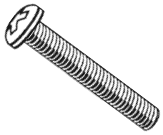
LENGTH	1/4 DIA.	LENGTH	1/4 DIA.
1/2	U 3886	3/4	T 3888
5/8	T 3887	–	-

PHILLIPS MACHINE SCREWS

PRECISION, BURR-FREE THREADS FOR EXACT FIT

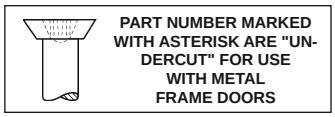
For faster application without slippage using a screw gun, drill motor or screwdriver.
Special Chromate plating eliminates rust and corrosion for easier removal.

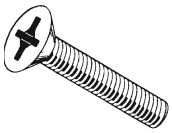
PAN HEAD



LENGTH	4-40	6-32	8-32	10-24	10-32	12-24	1/4-20
1/4	T 26101	T 26111	T 26121	T 26160	T 26131	T 26195	-
3/8	T 26103	T 26112	T 26122	T 26161	T 26132	T 26196	T 26148
1/2	T 26105	T 26113	T 26123	T 26162	T 26133	T 26197	T 26150
5/8	T 26107	T 26114	T 26124	T 26163	T 26134	T 26198	T 26149
3/4	T 26108	T 26115	T 26125	T 26164	T 26135	T 26199	T 26151
1	T 26110	T 26116	T 26126	T 26165	T 26136	T 26200	R 26152
1-1/4	T 26186	T 26117	R 26127	R 26166	R 26137	R 26201	R 26153
1-1/2	T 26187	R 26118	R 26128	R 26167	R 26138	R 26202	R 26154
1-3/4	T 26188	R 26119	R 26129	R 26168	R 26139	R 26203	-
2	T 26189	R 26120	R 26130	R 26169	R 26140	R 26204	R 26156
2-1/2	T 26190	R 26191	R 26180	R 26172	R 26142	-	R 26157
3	-	R 26192	R 26182	R 26175	R 26145	N 26205	R 26159
3-1/2	-	R 26193	N 26183	N 26176	N 26146	-	N 26206
4	-	R 26194	N 26184	N 26177	N 26147	-	N 26207
4-1/2	-	-	-	N 26178	-	-	-
5	-	-	N 26185	N 26179	-	-	-

FLAT HEAD





OVAL HEAD

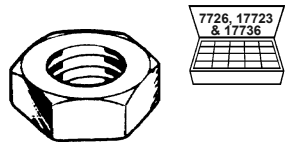
LENGTH	4-40	6-32	8-32	10-24	10-32	12-24	1/4-20	6-32	8-32	10-24	10-32	1/4-20
1/4	T 36104	T 36111	T 36121*	-	-	-	-	-	-	-	-	-
3/8	T 36105	T 36112	T 36122	T 36161	T 36132	R 36185*	T 36148	T 46112	T 46122	T 46161	T 46132	-
1/2	T 36106	T 36113	T 36123	T 36162	T 36133	R 36186*	T 36150	T 46113	T 46123	T 46162	T 46133	T 46150
5/8	T 36107	T 36114	T 36124	T 36163	T 36134	R 36187	T 36149	T 46114	T 46124	T 46163	T 46134	-
3/4	T 36108	T 36115	T 36125	T 36164	T 36135	R 36188	T 36151	T 46115	T 46125	T 46164	T 46135	T 46151
1	T 36109	T 36116	T 36126	T 36165	T 36136	R 36189	R 36152	T 46116	T 46126	T 46165	T 46136	T 46152
1-1/4	-	-	R 36127	R 36166	R 36137	R 36190	R 36153	-	-	-	-	R 46153
1-1/2	T 36110	T 36117	R 36128	R 36167	R 36138	R 36191	R 36154	-	-	-	-	R 46154
1-3/4	-	-	R 36129	R 36168	R 36139	R 36192	R 36155	-	-	-	-	-
2	-	T 36118	R 36130	R 36169	R 36140	R 36193	R 36156	-	-	-	-	R 46156
2-1/2	-	T 36119	R 36180	R 36172	R 36142	R 36194	R 36157	-	-	-	-	-
3	-	T 36120	R 36182	R 36175	R 36145	R 36195	R 36159	-	-	-	-	-
3-1/2	-	-	-	N 36176	N 36146	-	-	-	-	-	-	-
4	-	-	-	N 36177	N 36147	-	N 36196	-	-	-	-	-
4-1/2	-	-	-	-	-	-	N 36197	-	-	-	-	-
5	-	-	-	-	-	-	N 36198	-	-	-	-	-
6	-	-	-	N 36178	-	-	N 36199	-	-	-	-	-

MACHINE SCREW NUTS, LOCKNUTS, SPRING NUTS

SPECIALTY NUTS FOR ALL MACHINE SCREW APPLICATIONS

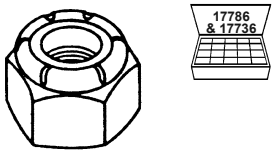
Precision burr-free threads and special Chromate plating provides for fast, smooth installation and easy, corrosion-free removal.

HEX MACHINE NUTS



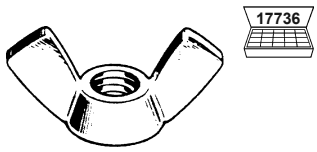
SIZE		PART
2-56	T	5189
3-48	T	5190
4-40	T	5195
5-40	T	5198
6-32	T	5200
8-32	T	5205
10-24	T	5210
10-32	T	6210
12-24	T	5220
1/4-20	T	5225
5/16-18	T	5230
-		-

NYLON LOCKNUTS



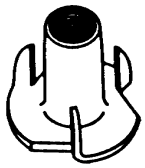
SIZE		PART
4-40	T	6000
6-32	T	6005
8-32	T	6010
10-24	T	6015
10-32	T	5015
12-24	T	6017
1/4-20	T	6020
5/16-18	T	6025
3/8-16	T	6030
-		-
-		-
-		-

WING NUTS



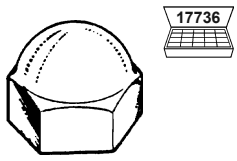
SIZE		PART
4-40	R	5131
6-32	T	5130
8-32	T	5135
10-24	T	5142
10-32	T	5140
12-24	R	5144
1/4-20	R	5145
5/16-18	R	5150
3/8-16	N	5155
1/2-13	N	5156
5/8-11	E	5157
3/4-10	E	5158

PRONG TEE NUTS



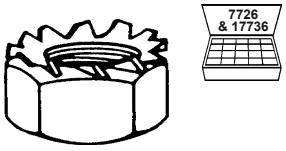
SIZE		PART
6-32	T	6960
8-32	T	6964
10-24	T	6968
10-32	T	6970
1/4-20	T	6974
5/16-18	R	6978
3/8-16	R	6982
-		-
-		-
-		-
-		-

CAP NUTS



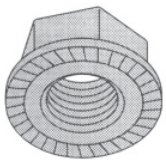
SIZE		PART
6-32	T	6930
8-32	T	6934
10-24	T	6938
10-32	T	6940
1/4-20	T	6944
5/16-18	R	6948
3/8-16	R	6950
1/2-13	N	6954
-		-

KEP NUTS



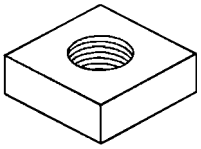
SIZE		PART
4-40	T	6901
6-32	T	6900
8-32	T	6904
10-24	T	6908
10-32	T	6912
12-24	T	6913
1/4-20	T	6914
5/16-18	R	6916
3/8-16	R	6920

FLANGRIP LOCKNUTS



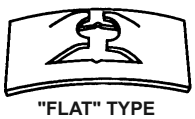
SIZE		PART
8-32	T	5241
10-24	T	6965
1/4-20	T	6990
5/16-18	T	6995
3/8-16	T	6998
7/16-14	R	5247
1/2-13	R	5248
-		-
-		-

SQUARE MACH. NUTS



SIZE		PART
4-40	T	62900
6-32	T	62901
8-32	T	62902
10-24	T	62903
10-32	T	62904
12-24	T	62905
-		-
-		-

STEEL SPRING NUTS FOR MACHINE SCREWS



"FLAT" TYPE

SIZE		PART
6-32	T	62501
8-32	T	62503
10-24	T	62504
10-32	T	62505

"J" TYPE

SIZE		PART
6-32	T	62510
8-32	T	62515
10-24 (9/16")	T	62519
10-24 (15/16")	T	62524

"U" TYPE

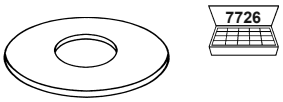
SIZE		PART
8-32	T	62526
10-24	T	62528
-		-
-		-

MACHINE SCREW WASHERS

SPECIALTY WASHERS FOR ALL MACHINE SCREW APPLICATIONS

Precision stamped to exacting tolerances. Special Chromate plating for durability.

USS WIDE BAND FLATWASHERS

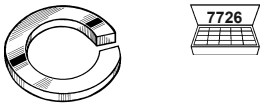


SIZE		USS
3/16 (#10)	U	66431
1/4	T	66432
5/16	T	66433
3/3	T	66435
–		–
–		–
–		–
–		–

SAE NARROW BAND FLATWASHERS

SIZE		SAE
#4	U	31235
#6	U	31236
#8	U	31237
#10 (3/16)	U	31238
#12	U	31239
1/4	T	31240
5/16	T	31242
3/8	T	31244

SPRING TEMPERED LOCK WASHERS



SIZE		PART
#4	U	71200
#6	U	71202
#8	U	71204
#10 (3/16)	U	71206
#12	U	71208
1/4	U	71210
5/16	U	71212
3/8	U	71214

COUNTERSUNK FINISHING WASHERS

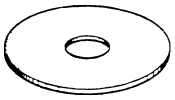
SIZE		PART
#6	U	291
#8	U	292
#10 (3/16)	U	293
#12	U	294
1/4	U	295
–		–
–		–
–		–

OVERSIZE FENDER WASHERS

SIZE	O.D.	I.D.		PART
3/16	3/4	7/32	R	987
3/16	1	7/32	R	990
3/16	1-1/4	7/32	R	988
1/4	1	9/32	R	989
1/4	1-1/4	9/32	R	991
1/4	1-1/2	9/32	R	992
–	–	–		–

SIZE	O.D.	I.D.		PART
5/16	1-1/4	11/32	R	993
5/16	1-1/2	11/32	R	994
3/8	1-1/4	13/32	R	996
3/8	1-1/2	13/32	R	995
3/8	1-5/8	27/64	R	998
1/2	2	17/32	R	997
–	–	–		–

XT FENDER WASHERS



SIZE	THICKNESS	O.D.	I.D.		PART
1/4	.120	1	9/32	N	23989
1/4	.120	1-1/2	9/32	N	23992
5/16	.120	1-1/4	11/32	N	23993
5/16	.120	1-3/4	11/32	N	23994
3/8	.120	1-1/4	13/32	N	23996
3/8	.120	1-3/4	13/32	N	23995
1/2	.120	2	13/32	N	23997

STARWASHERS

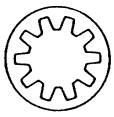
HIGH CARBON SPRING TEMPERED STEEL FOR STRENGTH & RESILIENCY

Positive "spring action" keeps assemblies under tension, eliminating failures.

EXTERNAL

SIZE		PART
#6	T	5101
#8	T	5102
#10 (3/16)	T	5103
#12	T	5104
1/4	T	5105
5/16	T	5106
3/8	T	5107
7/16	T	5108
1/2	T	5109
-		-
-		-
5/8	R	5111
3/4	R	5112

INTERNAL

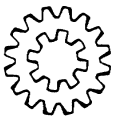


SIZE		PART
#4	T	5170
#6	T	5171
#8	T	5172
#10 (3/16)	T	5173
#12	T	5174
1/4	T	5175
5/16	T	5176
3/8	T	5177
7/16	T	5178
1/2	T	5179
9/16	R	5180
5/8	R	5181
3/4	R	5182

COUNTERSUNK

SIZE		PART
-		-
-		-
#10 (3/16)	T	5160
#12	T	5161
1/4	T	5162
-		-
-		-
-		-
-		-
-		-
-		-

INT. / EXT.

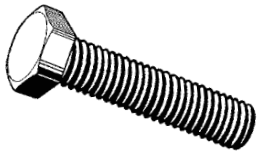


SIZE		PART
#8	T	975
#10 (3/16)	T	976
1/4	R	978
5/16	R	979
3/8	R	980
7/16	R	981
1/2	R	982
5/8	R	983
-		-
-		-
-		-
-		-

HEX HEAD MACHINE SCREWS

INDENTED HEX HEAD

- **INDENTED HEX HEAD AND CASE HARDENED STRENGTH OFFER SUPERIOR CLAMPING FORCE AND DURABILITY**



17907

LENGTH	6-32		8-32		10-24		10-32		12-24	
1/4	T	23200	T	23209	T	23218	T	23229	T	23240
3/8	T	23201	T	23210	T	23219	T	23230	T	23241
1/2	T	23202	T	23211	T	23220	T	23231	T	23242
3/4	T	23203	T	23212	T	23221	T	23232	T	23243
1	T	23204	T	23213	T	23222	T	23233	T	23244
1-1/2	T	23205	T	23214	T	23223	T	23234	T	23245
2	T	23206	T	23215	T	23224	T	23235	T	23246
2-1/2	T	23207	T	23216	T	23225	T	23236		–
3	R	23208	R	23217	T	23226	R	23237		–
3-1/2		–		–	R	23227	R	23238		–
4		–		–	R	23228	R	23239		–

15

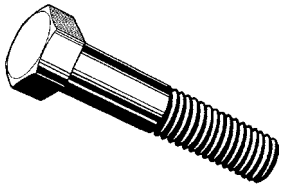
NYLON MACHINE SCREWS

6/6 NYLON

Nylon fasteners are tough, resistant to corrosion, lightweight and good electrical insulators.

HEX CAPS

- **NON-CONDUCTIVE AND CORROSION RESISTANT**
- **RESISTS CHEMICALS AND SOLVENTS (EXCEPT MINERAL ACIDS)**
- **TEMPERATURE RANGE 0°F TO 300°F**
- **CONFORMS TO IRREGULAR SURFACES AND PROVIDES GOOD VIBRATION DAMPENING**



17874

LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		1/2 DIA.		5/8 DIA.	
	USS 20		USS 18		USS 16		USS 13		USS 11	
3/8	T	26600		–		–		–		–
1/2	T	26601	R	26616	R	26632	R	26647	R	26662
5/8	T	26602		–		–		–		–
3/4	T	26603	R	26617	R	26633	R	26648	R	26663
1	T	26604	R	26618	R	26634	R	26650	R	22664
1-1/4	T	26605	R	26619	R	26635	R	26651		–
1-3/8	T	–	R	26620		–		–		–
1-1/2	T	26606	R	26621	R	26636	R	26652	R	26665
2	T	26607	R	26622	R	26637	R	26653	I	26666
2-1/2	T	26608	R	26623	N	26638	R	26654	I	26667
3	T	26609	R	26624	N	26639	R	26655	I	26668
3-1/2	N	26610	N	26625	I	26640	I	26656	E	26669
4	N	26611	N	26626	I	26641	E	26657	E	26670
4-1/2	N	26612	N	26627	I	26642	E	26658	E	26671
5	N	26613	N	26628	I	26643	E	26659	E	26672
5-1/2	I	26614	N	26629	I	26644	E	26660	E	26673
6	I	26615	N	26630	I	26645	E	26661	E	26674

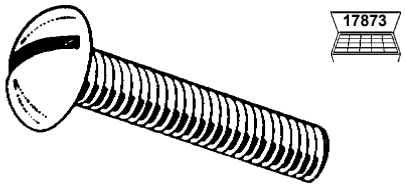
NYLON MACHINE SCREWS (Cont'd.)

6/6 NYLON

Nylon fasteners are tough, resistant to corrosion, lightweight and good electrical insulators.

SLOTTED ROUND HEAD

- NON-CONDUCTIVE AND CORROSION RESISTANT
- RESISTS CHEMICALS AND SOLVENTS (EXCEPT MINERAL ACIDS)
- TEMPERATURE RANGE 0°F TO 300°F
- CONFORMS TO IRREGULAR SURFACES AND PROVIDES GOOD VIBRATION DAMPENING



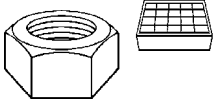
LENGTH	6-32	8-32	10-24	10-32	1/4-20
1/8	–	T 26523	T 26542	T 26553	
1/4	T 26500	T 26525	T 26544	T 26555	T 26570
3/8	T 26502	T 26528	T 26546	T 26557	T 26572
1/2	T 26504	T 26530	T 26547	T 26559	T 26573
5/8	T 26506	T 26531	T 26548	T 26560	T 26574
3/4	T 26508	T 26532	T 26549	T 26561	T 26575
7/8	T 26509	T 26533	–	T 26563	T 26576
1	T 26510	T 26534	T 26550	T 26564	T 26577
1-1/4	T 26512	T 26536	T 26551	T 26566	T 26578
1-1/2	T 26513	T 26538	T 26552	T 26567	T 26579
1-3/4	T 26515	T 26539	–	T 26568	T 26580
2	T 26517	T 26541	–	T 26569	T 26581
2-1/2	–	–	–	–	T 26582
3	–	–	–	–	T 26583

NYLON NUTS AND WASHERS

FOR NYLON MACHINE SCREWS

NYLON HEX NUTS

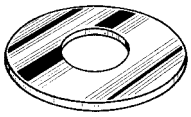
- NON-CONDUCTIVE AND CORROSION RESISTANT
- RESISTS CHEMICALS AND SOLVENTS (EXCEPT MINERAL ACIDS)
- TEMPERATURE RANGE 0°F TO 300°F
- CONFORMS TO IRREGULAR SURFACES AND PROVIDES GOOD VIBRATION DAMPENING



SIZE	PART
6-32	T 26703
8-32	T 26705
10-24	T 26706
10-32	T 26707
1/4-20	T 26709
5/16-18	T 26711
3/8-16	R 26713
1/2-13	R 26718
5/8-11	N 26720

NYLON FLATWASHERS

- NON-CONDUCTIVE AND CORROSION RESISTANT
- RESISTS CHEMICALS AND SOLVENTS (EXCEPT MINERAL ACIDS)
- TEMPERATURE RANGE 0°F TO 300°F
- CONFORMS TO IRREGULAR SURFACES AND PROVIDES GOOD VIBRATION DAMPENING



SIZE	PART
#6	T 26730
#8	T 26731
#10	T 26732
1/4	T 26733
5/16	T 26734
3/8	R 26735
1/2	R 26736

PORTA-PAK Specials

ONE-WAY SCREW REMOVER/ INSTALLER

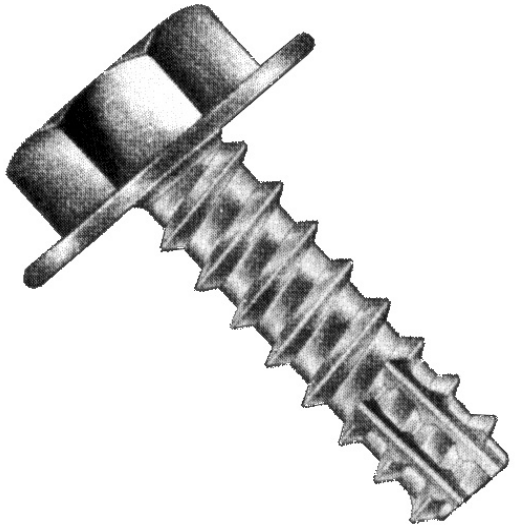
P/N 19527

ONE-WAY SCREW REMOVER / INSTALLER

- Patented one way screw remover and installer
- Makes installation of one-way screws fast and easy
- Allen set screw for adjustment of bit depth (hex keys included)
- Use with corded or cordless screwguns and drills

QTY	WIRE CONNECTOR	PART #	QTY	WIRE CONNECTOR	PART #
1	#6 On Way Screw Remover/Installer	81325	1	#8 On Way Screw Remover/Installer	81326
1	#10 On Way Screw Remover/Installer	81327	1	#12 On Way Screw Remover/Installer	81328
1	#14 On Way Screw Remover/Installer	81329	5	Hex Keys	

MISCELLANEOUS SCREWS



- High Performance Bi-Cut Screws For Plastic, Fiberglass, Wood and Masonite
- Drywall Screws
- Security Screws
- Thread Cutting Type F Point Screws
- Tamperproof Shoulder Screws
- Nutsetters, Bits and Bit Holders

CHROMATE SPECIALTY SCREWS HELP SOLVE ALL YOUR SPECIAL APPLICATION PROBLEMS. **Designed and engineered for those unique situations where standard fasteners are inadequate. Look to Chromate for all your fastener needs.**

DRIVER BITS

NUTSETTERS AND BITS FOR DRILLS AND SCREW GUNS

Made from shock resistant tool steel and heat treated for maximum strength and hardness.
For longest life, always use the correct size bit for the screw you are driving.

QUICK CHANGE CHUCK ADAPTER

- Convert your speed control drill to A 1/4" "quick change" power screwgun
- Allows "quick change" 1/4" Hex power bits
- 3/8" Shank

DESCRIPTION		PART
1/4" QC Chuck Adapter	A	83066

TORX® INSERT BIT – 1/4" HEX

SIZE	SCREW		1" LENGTH
T6	#2	B	83050
T7	#3	C	83051
T8	#4	C	83052
T9	#5	C	83053
T10	#6	C	83054
T15	#6 - #8	C	83055
T20	#8	C	83056
T25	#10 - #12	C	83057
T27	#12 -1/4	C	83058
T30	#14 -1/4	C	83059
T40	5/16 -3/8	C	83064

TORX® SECURITY INSERT BIT

- 1/4 HEX

SIZE	SCREW		1" LENGTH
T8	#4	B	83099
T9	#5 - #6	B	83091
T10	#6 - #8	B	83092
T15	#8 - #10	B	83093
T20	#8	B	83094
T25	#10 - #12	B	83095
T27	#12 - 1/4	B	83096
T30	#14 -1/4	B	83097
T40	5/16 - 3/8	B	83098

HD LOBULAR MAGNETIC NUTSETTERS - 1/4" HEX SHANK

- S2 Tool Steel material, hardened with a proprietary coating
- Lobular hex bit design minimizes the "rounding out" of the fastener head
- Lobular design provides more clearance on the corners
- Made in the USA

SIZE	LENGTH	SCREW		PART
3/16"	**2-9/16"**	**2-4**	A	**82991**
1/4"	**2-9/16"**	**6-8**	A	**82992**
5/16"	**2-9/16"**	**10-12**	A	**82993**
3/8"	**2-9/16"**	**14-1/4**	A	**82994**
7/16"	**2-9/16"**	**14**	A	**82995**
1/4"	6"	6-8	A	82980*
5/16"	6"	10-12	A	82981*
3/8"	6"	14-1/4	A	82982*
3/16"	1-5/8"	2-4	A	82983*
1/4"	1-5/8"	6-8	A	82984*
5/16"	1-5/8"	10-12	A	82985*
3/8"	1-3/4"	6-8	A	82986*
7/16"	1-3/4"	14	A	82987*
1/4"	4"	6-8	A	82988*
5/16"	4"	10-12	A	82989*
3/8"	4"	14-1/4	A	82990*

* Items with an asterisk are non-stocking (10 day delivery ARO).

NUTSETTER 1/4" HEX SHANK x 6" LONG

SIZE	SCREW		MAGNETIC
1/4"	6-8	A	82996
5/16"	10-12	A	82997
3/8"	14-1/4	A	82998
7/16"	14	A	82999

NUTSETTER 1/4" HEX SHANK x 2-9/16" LONG

SIZE	SCREW		MAGNETIC		NON-MAG.
1/4"	6-8	A	83005	A	83015
5/16"	10-12	A	83006	A	83016
3/8"	14-1/4	A	83007	A	83017
7/16"	14	A	83008	A	–

PHILLIPS PIN HEAD INSERT BIT

SIZE	SCREW		PART
#2	#5 - 10	B	83120
#3	#12 - 16	B	83121

TRI-WING INSERT BIT

SIZE	SCREW		PART
W3	#6	B	83122
W4	#8	B	83123
W5	#10	B	83124

LOCK-N-LOAD® QUICK CHANGE EXTENSION

- Carbon steel construction sleeve And body for durability and life
- Lock-n-load® system for one-handed release
- Patented jaw design holds bits securely on 6-flatted shanks, as well as ball detent bits
- 1/4" Quick change range now holds insert bits; magnetic for holding

SHANK SIZE	LENGTH (OAL)		PART
1/4"	2"	A	83132
1/4"	6"	A	83133
1/4"	12"	A	83134
3/8"	2"	A	83135
3/8"	5-1/2"	A	83136
3/8"	12"	A	83137
7/16"	5-1/2"	A	83138
7/16"	12"	A	83139
7/16"	18"	A	83140

NUTSETTER 1/4" HEX SHANK x 1-7/8" LONG

SIZE	SCREW	MAG-NETIC		NON-MAG.
1/4"	6-8	A 83000	A	83010
5/16"	10-12	A 83001	A	83011
3/8"	1/4	A 83002	A	83012

DRIVER BITS

NUTSETTERS AND BITS FOR DRILLS AND SCREW GUNS

PHILLIPS POWER BITS

- 1/4 HEX

17758 & 17965

SIZE	SCREW	1-15/16"	2-3/4"	6"
1	2-4	C 83025	C 83030	C 83041
2	5-10	C 83026	C 83031	C 83042
3	12-16	C 83027	C 83032	C 83043

PHILLIPS INSERT BITS

- 1/4 HEX

17758

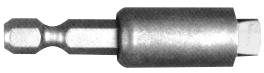
SIZE	SCREW	1" LENGTH
1	2-4	C 83021
2	5-10	C 83022
3	12-16	C 83023

WING NUT DRIVER 1/4"

- NEW PATENTED DESIGN WHICH TIGHTENS WING NUTS

DESCRIPTION	PART
1/4" Wing Nut Driver	A 83090

SLOTTED POWER BIT W/FINDER



17758

SIZE	SCREW	3-3/4" LGTH
5F-6R	#5 - #6	C 83060
6F-8R	#6 - #8	C 83061
10F-12R	#10 - #12	C 83062

SLOTTED POWER BITS

- 1/4 HEX

17965

BLADE SIZE	SCREW	2-3/4" LGTH	6" LGTH
1/4	6F-8R	A 83046	A 83047
5/16	10F-12R	A 83048	A 83049

MAGNETIC BIT HOLDER – 1/4" HEX

- MADE OF INDUSTRIAL QUALITY STAINLESS STEEL

17758 & 17965

SIZE	2-1/4" LENGTH	3" LENGTH	6" LENGTH
1/4	A 83018	A 83020	C 83019

SLOTTED INSERT BITS – 1/4" HEX

SIZE	SCREW	1" LENGTH	SIZE	SCREW	1" LENGTH
3F-4R	#4	C 83070	8F-10R	#8	C 83073
4F-5R	#5	C 83071	10F-12R	#10	C 83074
5F-8R	#6	C 83072	12F-14R	#12	C 83075

DRYWALL SCREW SETTER

- SETS DRYWALL SCREW INTO DRYWALL
- EASY TO USE IN DRILLS OR SCREW GUNS

DESCRIPTION	PART
Drywall Screw Setter	C 83065

SQUARE INSERT BITS – 1/4" HEX

1" LONG

2" LONG

SIZE	SCREW	1" LGTH	2" LGTH	3" LGTH
#1	6	D 7065	D 7069	D 7072
#2	8-10	D 7066	D 7070	D 7073
#3	12-14	D 7067	D 7071	D 7074

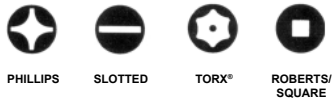
SPANNER SECURITY INSERT BIT – 1/4" HEX

17964

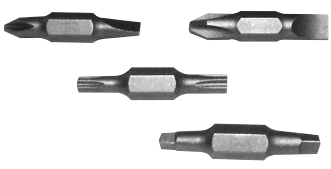
SIZE	SCREW	1" LGTH	SIZE	SCREW	1" LGTH
#4 x 1	#4	B 83080	#10 x 1	#10	B 83083
#6 x 1	#6	B 83081	#12 x 1	#12	B 83084
#8 x 1	#8	B 83082	1/4 x 1	1/4	B 83085

REPLACEMENT BITS FOR 10-IN-1 SCREWDRIVER

P/N 83125 #1 Phillips x 3/16" Slotted Bit
P/N 83126 #2 Phillips x 1/4" Slotted Bit
P/N 83127 #1 x #2 Square Recessed Bit
P/N 83128 T15 x T20 TORX® Bit



PHILLIPS SLOTTED TORX® ROBERTS/ SQUARE



DRIVER BITS

NUTSETTERS AND BITS FOR DRILLS AND SCREW GUNS

DOUBLE ENDED INSERT BITS PHILLIPS/SLOTTED – 1/4" HEX

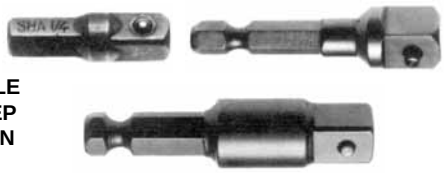
SIZE	SCREW	LENGTH	PART	
1 Phil / 6 Slotted	2-4 and 6-8	1-1/2	C	83100
2 Phil / 4 Slotted	5-10 and 4-6	1-1/2	C	83101
3 Phil / 10 Slotted	12-16 and 10-12	1-1/2	C	83102

DOUBLE ENDED INSERT BITS – 5/16" HEX

SIZE	SCREW	LENGTH	PART	
1 Phil / 2 Phil	2-4 and 5-10	3	A	83106
3/16 Slot / 5/16 Slot	6-8 and 10-12	3	A	83107
1 Square / 2 Square	6 and 8-10	3	A	83108

SOCKET DRIVE ADAPTERS

- **ALL SHANK EXTENSIONS EQUIPPED WITH BALL OR DURABLE PIN LOCK TO KEEP SOCKET FIRMLY IN PLACE**



SIZE	FITS SOCKETS	LENGTH	PART	
1/4" Hex	1/4" Square Drive	2"	C	83067
1/4" Hex	3/8" Square Drive	2"	C	83068
7/16" Hex	1/2" Squre Drive	3"	B	83069

DOUBLE ENDED INSERT BITS SQUARE/SQUARE – 1/4" HEX

SIZE	SCREW	LENGTH	PART	
1 Square / 2 Square	6 and 8-10	1-1/2	C	83103

DOUBLE ENDED INSERT BITS PHILLIPS/PHILLIPS – 1/4" HEX

SIZE	SCREW	LENGTH	PART	
2 Phil / 2 Phil	8-10 and 8-10	1-3/4	C	83104
2 Phil / 2 Phil	5-10 and 5-10	2-1/2	C	83105

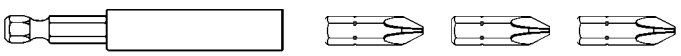
PHILLIPS / ACR BITS

- **ACR OR ANTI CAM-OUT RECESS IS A SPECIALLY RIBBED TIP TO GRIP THE SCREW HEAD TIGHTLY REDUCING THE PRESSURE REQUIRED AND SLIPPAGE WHEN DRIVING OR REMOVING SCREWS**
- **SPECIAL RIDGES HELP IN THE REMOVAL OF RUSTED, STRIPPED OR DAMAGED SCREW HEADS**
- **RIDGES ALSO HOLD THE SCREW ONTO THE BIT MAKING INSTALLATION EASIER AND LESS CHANCE OF DROPPING THE SCREW DURING REMOVAL**

1" INSERT BITS			1-15/16'' POWER BITS		
SIZE		PART	SIZE		PART
6-8	I	83077	6-8	I	83087
8-10	I	83078	8-10	I	83088
12-14	I	83079	12-24	I	83089

CIC 200™ NUTSETTER AND BIT SETS

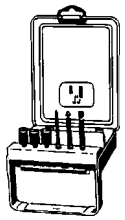
ECONOMY POWER DRIVE KITS



DESCRIPTION		PART
3-Pc Mag. Nutsetter Set (1-3/4" long) 1/4, 5/16 and 3/8	A	83034
3-Pc Mag. Nutsetter Set (2-9/16" long) 1/4, 5/16 and 3/8	A	83035
3-Pc Non Mag. Nutsetter Set (1-3/4" long) 1/4, 5/16 & 3/8	A	83036
3-Pc Non Mag. Nutsetter Set (2-9/16" long) 1/4, 5/16 & 3/8	A	83037
3-Pc Phillips Bit Set(1-15/16" long) – #1, #2 and #3	A	83038
3-Pc Phillips Bit Set (2-3/4" long) – #1, #2 and #3	A	83039
3-Pc Phillips Insert Bits (1" Long) – #1, #2 and #3 1-Pc Magnetic Bit Holder (3" Long)	A	83040

CIC 200 DELUXE POWER DRIVE SET

CONTAINS SIX OF THE MOST POPULAR DRIVERS IN A CONVENIENT, HEAVY-DUTY STEEL CARRYING CASE.



DESCRIPTION		PART
6 Piece Set – 1/4, 5/16 and 3/8 magnetic nutsetter, #1 and #2 phillips bit and 1/4 slotted bit	A	8825

TORX® SECURITY SCREWS

TAMPER-RESISTANT / STAINLESS STEEL

BUTTON HEAD MACHINE SCREWS

18-8 STAINLESS STEEL

- For general purposes. With a lower crown and shallower recess than round head screws.

DIAMETER	LENGTH		PART NO.	DRIVER SIZE
4-40	1/4	R	43800	T-8
	3/8	R	43801	
	1/2	R	43802	
	3/4	R	43803	
	1	R	43804	
6-32	1/4	R	43805	T-10
	3/8	R	43806	
	1/2	R	43807	
	5/8	R	43808	
	3/4	R	43809	
	1	R	43810	
	1-1/2	R	43811	
8-32	1/4	R	43812	T-15
	5/16	R	43813	
	3/8	R	43814	
	1/2	R	43815	
	3/4	R	43816	
	1	N	43817	
	1-1/4	N	43818	
	1-1/2	N	43819	
	1-3/4	N	43820	
	2	N	43821	
10-24	3/8	R	43822	T-25
	1/2	R	43823	
	5/8	R	43824	
	3/4	R	43825	
	1	N	43826	
	1-1/4	N	43827	
	1-1/2	N	43828	
10-32	3/16	R	43829	T-25
	3/8	R	43830	
	1/2	R	43831	
	5/8	R	43832	
	3/4	R	43833	
	1	N	43834	
	1-1/4	N	43835	
	1-1/2	N	43836	
1/4-20	1/4	N	43837	T-27
	3/8	N	43838	
	1/2	N	43839	
	5/8	N	43840	
	3/4	N	43841	
	1	N	43842	
	1-1/4	N	43843	
	1-1/2	N	43844	
	1-3/4	N	43845	
	2	N	43846	
	2-1/2	N	43847	

BUTTON HEAD SHEET METAL SCREWS

18-8 STAINLESS STEEL

- For general purposes. With a lower crown and shallower recess than round head screws.

DIAMETER	LENGTH		PART NO.	DRIVER SIZE
#6	1/2	R	43850	T-10
	3/4	R	43851	
	1	N	43852	
	1-1/2	N	43853	
	2	N	43854	
#8	3/8	R	43855	T-15
	1/2	R	43856	
	3/4	R	43857	
	1	N	43858	
	1-1/3	N	43859	
	1-1/2	N	43860	
#10	1/2	R	43861	T-25
	5/8	R	43862	
	3/4	R	43863	
	1	N	43864	
	1-1/4	N	43865	
	1-1/2	N	43866	
#12	1/2	R	43867	T-27
	3/4	R	43868	
	1	N	43869	
	1-1/4	N	43870	
	1-1/2	N	43871	
#14	1/2	N	43872	T-27
	3/4	N	43873	
	1	N	43874	
	1-1/4	N	43875	
	1-1/2	N	43876	
	2	N	43877	

TORX® INSERT BITS

1/4'' HEX

SIZE	SCREW SIZE		PART NO.
T8	#4	B	83099
T9	#5 - #6	B	83091
T10	#6 - #8	B	83092
T15	#8 - #10	B	83093
T20	#8	B	83094
T25	#10 - #12	B	83095
T27	#12 - 1/4	B	83096
T30	#14 -1/4	B	83097
T40	5/16 - 3/8	B	83098

TORX® SECURITY SCREWS

TAMPER-RESISTANT / STAINLESS STEEL

FLAT HEAD MACHINE SCREWS

18-8 STAINLESS STEEL

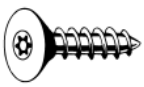
- Installs flush with metal surfaces or countersinks with softer materials for clean appearance.

DIAMETER	LENGTH		PART NO.	DRIVER SIZE
6-32	1/4*	R	43880	T-10
	3/8	R	43881	
	1/2	R	43882	
	3/4	R	43883	
	1	N	43884	
	1-1/2	N	43885	
8-32	1/4*	R	43886	T-15
	3/8	R	43887	
	1/2	R	43888	
	5/8	R	43889	
	3/4	R	43890	
	1	N	43891	
	1-1/4	N	43892	
	1-1/2	N	43893	
	2	N	43894	
10-24	3/8	R	43895	T-20
	1/2	R	43896	
	5/8	R	43897	
	3/4	R	43898	
	1	N	43899	
	1-1/4	N	43900	
	1-1/2	N	43901	
10-32	3/8	R	43902	T-20
	1/2	R	43903	
	3/4	R	43904	
	1	N	43905	
	1-1/4	N	43906	
	1-1/2	N	43907	
12-24	1/2*	N	43908	T-25
	3/4	N	43909	
	1	N	43910	
1/4-20	3/8*	N	43911	T-27
	1/2*	N	43912	
	5/8	N	43913	
	3/4	N	43914	
	1	N	43915	
	1-1/4	N	43916	
	1-1/2	N	43917	
	1-3/4	N	43918	
	2	N	43919	
	2-1/2	N	43920	

* Undercut

FLAT HEAD SHEET METAL SCREWS

18-8 STAINLESS STEEL



- Installs flush with metal surfaces or countersinks with softer materials for clean appearance.

DIAMETER	LENGTH		PART NO.	DRIVER SIZE
#6	1/2	R	43925	T-10
	5/8	R	43926	
	3/4	R	43927	
	1	R	43928	
	1-1/2	R	43929	
#8	1/2	R	43930	T-15
	5/8	R	43931	
	3/4	R	43932	
	1	R	43933	
	1-1/4	N	43934	
	1-1/2	N	43935	
	2	N	43936	
#10	1/2	R	43937	T-20
	3/4	R	43938	
	1	N	43939	
	1-1/4	N	43940	
	1-1/2	N	43941	
#14	5/8	N	43942	T-30
	3/4	N	43943	
	1	N	43944	
	1-1/4	N	43945	
	1-1/2	N	43946	

PAN HEAD SELF DRILLING SHEET METAL SCREWS

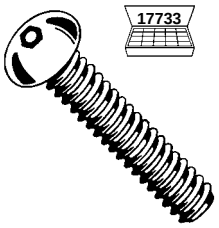
410 STAINLESS STEEL

- Low profile large diameter head with a high-edged crown for increased strength.

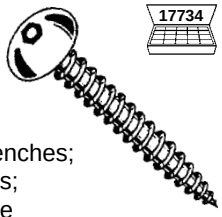
DIAMETER	LENGTH		PART NO.	DRIVER SIZE
8-18	1/2	N	43950	T-20
	3/4	N	43951	
	1	N	43952	
	1-1/4	N	43953	
10-16	1/2	N	43954	T-25
	3/4	N	43955	
	1	I	43956	
	1-1/4	I	43957	
	1-1/2	I	43958	

CIC 200™ HEX-LOCK™ SECURITY SCREWS

TAMPER-RESISTANT STAINLESS STEEL



- 18-8 stainless steel – for corrosion resistance and durability
- Prevents pilferage, vandalism and unauthorized access
- Unique hex key/pin lock design – makes removal virtually impossible without specially machined keys
- Use for computers, videos, typewriters and office equipment; alarm systems, smoke detectors and lighting; bathroom fixtures and faucets; auditorium seats; benches; traffic lights; industrial safety guards; exhibits and displays; window and door locks; switch plates; hotel radios, clocks and televisions; thermostats and hundreds more



LENGTH	MACHINE SCREWS 6-32	8-32	10-24	10-32	1/4-20	SHEET METAL SCREWS NO. 6	NO. 8	NO. 10
1/4	—	—	—	—	—	—	—	—
3/8	R 44101	—	—	—	—	R 44000	R 44006	—
1/2	R 44102	R 44110	R 44119	R 44127	—	R 44001	R 44007	R 44014
5/8	—	—	—	—	—	—	—	—
3/4	R 44104	R 44112	R 44121	R 44129	R 44137	R 44003	R 44009	R 44016
1	—	R 44113	R 44122	R 44130	R 44138	R 44004	R 44010	R 44017
1-1/4	R 44106	—	—	—	—	—	R 44011	R 44018
1-1/2	—	R 44115	—	—	R 44140	—	R 44012	R 44019
2	—	—	—	—	—	—	—	R 44020

CIC 200™ HEX-LOCK SECURITY DRIVERS AND NUTS

Hex-Lock drivers are the only tools for installing or removing Hex-Lock security screws. Break-away nuts have a pre-designed break-away torque that leaves a tamper-resistant nut on machine screws.

HEX-LOCK DRIVER BITS

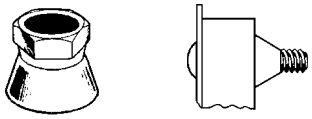
1/4" HEX DRIVE

SIZE	SCREW	PART
3/32	4-40	B 44203
1/8	6-32	D 44204
5/32	8-32 to 1/4-20	D 44206
3/16	5/16	B 44207
7/32	3/8	B 44208

HEX-LOCK KEYS

SIZE	SCREW	PART
1/8	6-32	D 44200
5/32	8-32 to 1/4-20	D 44202

BREAK-AWAY NUTS



SIZE	BREAK-OFF TORQUE	PART
10-24	25-35 in. lbs.	R 44190
1/4-20	60-80 in. lbs.	R 44194

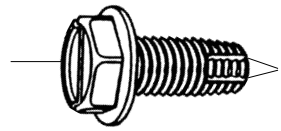
CIC 200™ THREAD CUTTING SCREWS

ELIMINATES EXPENSIVE TAPPING COSTS

Specially designed to thread their own hole through strong, sharp threads with a minimum amount of torque. The type F point provides cleaner threads and positive chip ejection.

SLOTTED HEX WASHER HEAD WITH TYPE F POINT

SLOTTED, INDENTED HEX WASHER HEAD PROVIDES FOR INSTALLATION VERSATILITY



THREAD CUTTING SLOTS PROVIDE POSITIVE CHIP EJECTION

FEATURES:

- Eliminates expensive tapping costs
- One side installation with no need for nuts
- Special hardening process provides maximum resistance to breakage
- Washer head provides an even load bearing surface

LENGTH	6-32	8-32	10-24	10-32	12-24	1/4-20	5/16-18	3/8-16
1/4	T 7033	T 7038	–	–	–	–	–	
3/8	T 7034	T 7039	T 7004	T 7046	–	–	–	
1/2	T 7035	T 7040	T 7005	T 7007	–	T 7009	–	
3/4	T 7036	T 7041	T 7006	T 7008	T 7054	T 7011	R 7020	N 7026
1	T 7037	T 7000	T 7042	T 7047	T 7055	T 7012	R 7021	N 7027
1-1/4	–	T 7001	T 7043	T 7048	–	T 7010	N 7017	N 7028
1-1/2	–	T 7002	T 7044	T 7049	–	T 7013	N 7018	N 7029
2	–	T 7003	T 7045	T 7053	–	R 7014	N 7019	I 7030
2-1/2	–	–	–	–	–	R 7015	N 7024	I 7031
3	–	–	–	–	–	R 7016	N 7025	I 7032

RECOMMENDED DRILL SIZES FOR THREAD CUTTING SCREWS (60%)

SCREW	DRILL	DRILL PART	SCREW	DRILL	DRILL PART
6-32	34	10034	12-24	16	10016
8-32	29	10029	1/4-20	5	10005
10-24	23	10023	5/16-18	G	10207
10-32	20	10020	3/8-16	O	10215

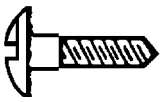
TAMPERPROOF SCREWS

TRUSS HEAD BARREL NUTS AND SHOULDER SCREWS

BARREL NUTS

SIZE	THREAD	PART
1/4 x 1/2	10-24	T 10634
1/4 x 5/8	10-24	T 10636

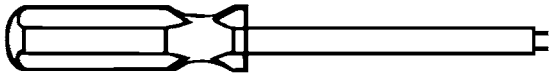
SHOULDER SCREWS



SIZE	THREAD	PART
1/4 x 15/16	10-24	T 10650
1/4 x 1-1/16	10-24	T 10652
1/4 x 1-3/16	10-24	T 10654
1/4 x 1-5/16	10-24	T 10656

TAMPERPROOF UN-DO-IT MANUAL DRIVER

SIZE	SCREW	PART
#1	6-8	A 20101
#2	8-10	A 20105
#3	10-14	A 20110

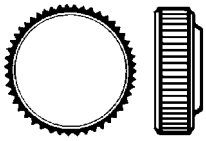


CIC 200™ THUMB SCREWS

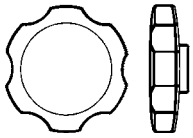
THUMB SCREW KNOBS

Instantly produce any size/style thumb screw. Make thousands of different screw, knob and color combinations.

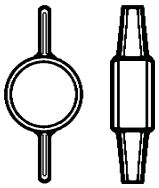
- **ACETAL RESIN CONSTRUCTION FOR STRENGTH AND DURABILITY**
- **COLOR-CODED FOR EASY IDENTIFICATION**
- **FOUR STYLES ACCOMMODATE DIFFERENT LEVERAGE/SPEED REQUIREMENTS**



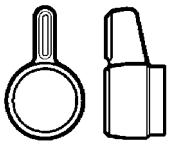
KNURLED KNOB



ROSETTE KNOB



TEE KNOB



"L" KNOB

EASY AS 1, 2, 3!

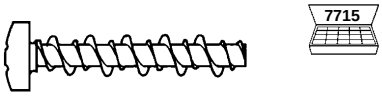
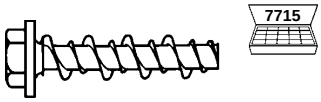
1. **SELECT A THUMB SCREW KNOB.**
2. **SELECT A CIC 150 OR CIC 200 SOCKET HEAD CAP SCREW (SEE CATALOG SECTION 12).**
3. **PRESS TOGETHER IN VISE, PRESS OR WITH PLIERS.**

SOCKET HEAD CAP SCREW SIZE	COLOR	DIAMETER	THICKNESS		PART
KNURLED KNOB					
#4	Black	5/16	11/64	R	44040
#4	Red	5/16	11/64	R	44041
#6	Black	3/8	3/16	R	44044
#6	Red	3/8	3/16	R	44045
#8	Black	1/2	7/32	R	44048
#8	Red	1/2	7/32	R	44049
#10	Black	5/8	1/4	R	44052
#10	Red	5/8	1/4	R	44053
1/4	Black	3/4	5/16	R	44056
1/4	Red	3/4	5/16	R	44057
1/4	Black	1	5/16	N	44060
1/4	Red	1	5/16	N	44061
ROSETTE KNOB					
1/4	Black	1-1/2	15/32	L	44064
1/4	Red	1-1/2	15/32	L	44065
5/16	Black	1-1/2	13/32	L	44068
5/16	Red	1-1/2	13/32	L	44069
3/8	Black	1-1/2	15/32	L	44072
3/8	Red	1-1/2	15/32	L	44073
TEE KNOB					
#10	Black	1	1/4	R	44076
#10	Red	1	1/4	R	44077
1/4	Black	1-1/4	5/16	R	44080
1/4	Red	1-1/4	5/16	R	44081
5/16	Black	1-1/2	13/32	R	44084
5/16	Red	1-1/2	13/32	R	44085
3/8	Black	1-3/4	15/32	R	44088
3/8	Red	1-3/4	15/32	N	44089
"L" KNOB					
#10	Black	9/16	11/32	R	44092
#10	Red	9/16	11/32	R	44093
1/4	Black	11/16	7/16	R	44096
1/4	Red	11/16	7/16	R	44097

CIC 200™ BI-CUT SCREWS

PHILLIPS BINDING AND HEX WASHER HEAD

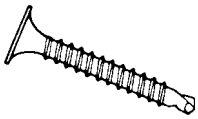
High performance double-thread design for plastic, fiberglass, wood, masonite and other low density materials. Lower driving torque, greater pull-out strength and maximum protection against stripping, cracking and splitting. High 30° and low 60° included angle threads.

BINDING HEAD					HEX WASHER HEAD				SUGG. DRILL SIZE		
											
LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 4	NO. 6	NO. 8	NO. 10	SCREW	DRILL	PART
1/4	T 95000	T 95006	-	-	T 95100	T 95106	-	-	No. 4	5/64	91005
3/8	T 95002	T 95008	T 95012	-	T 95102	T 95108	T 95112	-	No. 6	3/32	91006
1/2	T 95004	T 95010	T 95014	T 95018	T 95104	T 95110	T 95114	T 95118	No. 8	1/8	91008
5/8	-	-	-	T 95020	-	-	-	T 95120	No. 10	9/64	91009
3/4	-	-	T 95016	T 95022	-	-	T 95116	T 95122	-	-	-

DRYWALL SCREWS

HEAVY FRAME – DRILL POINT

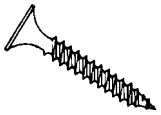
- **ATTACHES DRYWALL, INSULATION BOARD, WOOD, ETC. TO 14-20 GAUGE METAL STUDS**
- **UNIQUE HEAD DESIGN MINIMIZES PAPER BURRS**
- **NO. 2 PHILLIPS DRIVE**
- **ZINC PLATED**



SIZE	PART	SIZE	PART
6 x 1	T 13036	8 x 2-3/8	T 13042
6 x 1-1/4	T 13038	8 x 2-5/8	T 13044
6 x 1-5/8	T 13040	8 x 3	T 13046
7 x 1-7/8	T 13041	–	–

LIGHT FRAME – "S" POINT

- **ATTACHES DRYWALL TO 20-25 GAUGE STEEL**
- **UNIQUE HEAD DESIGN MINIMIZES PAPER BURRS**
- **NO. 2 PHILLIPS DRIVE**
- **ZINC PLATED**



SIZE	PART	SIZE	PART
6 x 1	T 13043	8 x 2-1/2	T 13020
6 x 1-1/8	T 13045	8 x 3	T 13022
6 x 1-1/4	T 13047	10 x 3-1/2	T 13026
7 x 2	T 13053	10 x 4	T 13028
7 x 2-1/4	T 13056	–	–

DRYWALL SCREW SETTER

- **SETS DRYWALL SCREW INTO DRYWALL**
- **EASY TO USE IN DRILLS OR SCREW GUNS**

DESCRIPTION	PART
Drywall Screw Setter	C 83065

COARSE THREAD – YELLOW ZINC

- **ATTACHES DRYWALL TO WOOD**
- **SUPERIOR HOLDING POWER**
- **EASY PENETRATION**
- **UNIQUE HEAD DESIGN MINIMIZES PAPER BURRS**
- **NO. 2 PHILLIPS DRIVE**
- **YELLOW ZINC PLATED FOR EASY IDENTIFICATION AND DURABILITY**

SIZE	PART	SIZE	PART
6 x 1	T 13010	7 x 2-1/4	T 13015
6 x 1-1/8	T 13011	8 x 2-1/2	T 13016
6 x 1-1/4	T 13012	8 x 3	T 13017
6 x 1-5/8	T 13013	10 x 3-1/2	T 13018
7 x 2	T 13014	10 x 4	T 13019

COARSE THREAD – BLACK

- **ATTACHES DRYWALL TO WOOD**
- **SUPERIOR HOLDING POWER**
- **EASY PENETRATION**
- **UNIQUE HEAD DESIGN MINIMIZES PAPER BURRS**
- **NO. 2 PHILLIPS DRIVE**
- **BLACK PHOSPHATE FINISH**

SIZE	PART	SIZE	PART
6 x 1	X 13000	7 x 2-1/4	W 13005
6 x 1-1/8	X 13001	8 x 2-1/2	V 13006
6 x 1-1/4	X 13002	8 x 3	V 13007
6 x 1-5/8	X 13003	10 x 3-1/2	T 13008
7 x 2	W 13004	10 x 4	T 13009

TRIM SCREWS

IDEAL FOR TRIM AND FINISH WORK

PHILLIPS DRIVE

- ATTACHES WOOD TRIM OVER SINGLE OR DOUBLE LAYER GYPSUM BOARD TO 20-25 GAUGE STEEL
- SUPERIOR HOLDING POWER
- EASY PENETRATION
- UNIQUE HEAD DESIGN MINIMIZES THE NEED TO FILL HOLES
- NO. 2 PHILLIPS DRIVE
- BLACK PHOSPHATE FINISH

SIZE		PART
6 x 1-5/8	T	13090
6 x 2-1/4	T	13091

SQUARE DRIVE

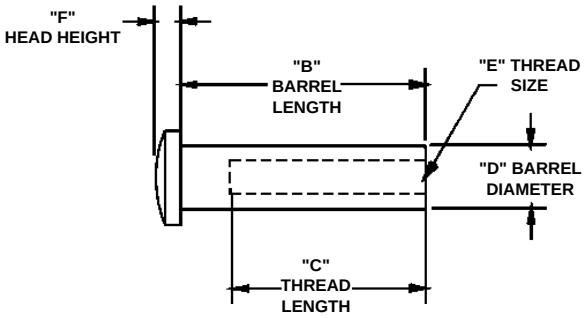
- ATTACHES WOOD TRIM OVER SINGLE OR DOUBLE LAYER GYPSUM BOARD TO 20-25 GAUGE STEEL
- SUPERIOR HOLDING POWER
- EASY PENETRATION
- UNIQUE HEAD DESIGN MINIMIZES THE NEED TO FILL HOLES
- SQUARE DRIVE
- BLACK PHOSPHATE FINISH

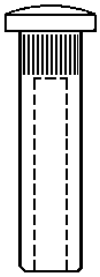
SIZE		PART	SIZE		PART
6 x 1	T	13092	6 x 2-1/4	T	13094
6 x 1-5/8	T	13093	8 x 3	T	13095

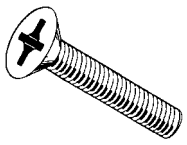
CIC 200™ SEX BOLTS

SMOOTH TRUSS HEADS – NO DRIVE

The knurled barrel keeps the sex bolt from spinning while the flat head screw is tightened from the other side. These parts are secure as there is no way to turn the sex bolt without a drive in the head. Mating screw is phillips flat head, steel and plated to match the finish on the barrel.







D BARREL DIAMETER	B BARREL LENGTH	C THREAD DEPTH	A HEAD DIAMETER	F HEAD HEIGHT	E THREAD SIZE	PLATING	PHIL FLAT HD MACHINE SCREW		PART
BRASS MATERIAL									
5/16"	1-3/16	3/4	1/2	1/8	10-32	Chrome	10-32 x 1	E	10660
5/16"	1-3/16	3/4	1/2	1/8	10-32	Clear	10-32 x 1	E	10661
5/16"	1-9/16	3/4	1/2	1/8	10-32	Chrome	10-32 x 1	E	10663
5/16"	1-9/16	3/4	1/2	1/8	10-32	Clear	10-32 x 1	E	10664
3/8"	1-9/16	1-1/4	9/16	5/32	1/4-20	Chrome	1/4-20 x 1-1/2	E	10666
3/8"	1-9/16	1-1/4	9/16	5/32	1/4-20	Clear	1/4-20 x 1-1/2	E	10667
STAINLESS STEEL MATERIAL									
5/16"	1-3/16	3/4	1/2	1/8	10-32	None	10-32 x 1	E	10662
5/16"	1-9/16	3/4	1/2	1/8	10-32	None	10-32 x 1	E	10665
3/8"	1-9/16	3/4	9/16	5/32	1/4-20	None	1/4-20 x 1	B	10669
3/8"	2-1/16	3/4	9/16	5/32	1/4-20	None	1/4-20 x 1	B	10670

ONE-WAY SCREW REMOVER / INSTALLER

MAKES INSTALLATION OF ONE-WAY SCREWS FAST AND EASY

- **PATENTED ONE WAY SCREW REMOVER AND INSTALLER**
- **MAKES INSTALLATION OF ONE-WAY SCREWS FAST AND EASY**
- **ALLEN SET SCREW FOR ADJUSTMENT OF BIT DEPTH (HEX KEY INCLUDED)**
- **USE WITH CORDED OR CORDLESS SCREWGUNS AND DRILLS**

19527

DESCRIPTION	FOR SCREW HEAD DIAMETER	PART	
#6 One Way Screw Remover / Installer	.225"	A	81325
#8 One Way Screw Remover / Installer	.260"	A	81326
#10 One Way Screw Remover / Installer	.339"	A	81327
#12 One Way Screw Remover / Installer	.392"	A	81328
#14 One Way Screw Remover / Installer	.443"	A	81329

SCREW GUIDES

MAGNET HOLDS AND GUIDES SCREWS IN THE CORRECT POSITION

- **HIGH STRENGTH NEODYMIUM MAGNET**
- **HOLDS AND GUIDES SCREWS IN THE CORRECT POSITION WITHOUT WOBBLING OR DISENGAGING FROM THE BIT**
- **BODY OF SCREW GUIDE SPINS FREELY FOR IMPROVED STABILITY**

1. Place correct size driver bit into Screw Guide. Then place screw on bit (the guide is magnetic and holds screw on driver bit).

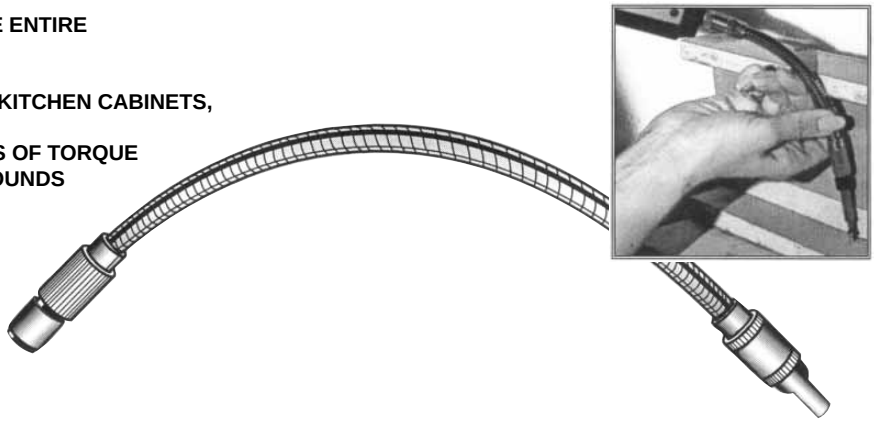
2. Slide Screw Guide over screw to hold screw in place while driving.

SIZE	OVERALL LENGTH	PART	
Compact	3-1/16"	C	83028
Standard	4-5/16"	A	83029

FLEX-A-BIT® FLEXIBLE EXTENSIONS

FLEX-A-BIT®

- **THE ONLY FLEXIBLE EXTENSION WHERE THE ENTIRE OUTER SURFACE DOES NOT ROTATE**
- **FLEXES TO 90°**
- **USE IN HARD TO REACH PLACES – IN CARS, KITCHEN CABINETS, FURNITURE, APPLIANCES, ETC.**
- **LIGHT DUTY IS RATED FOR 3.5 FOOT POUNDS OF TORQUE**
- **INDUSTRIAL DUTY IS RATED FOR 13 FOOT POUNDS OF TORQUE**
- **FLEX-A-BIT® PLUS IS DESIGNED FOR USE IN ELECTRIC OR HEAVY DUTY RECHARGEABLE DRILLS**



DESCRIPTION		PART
Flex-a-Bit® 7-1/2", Light Duty 1/4" Hex	A	83130
Flex-a-Bit® Plus 11", Industrial Duty, 1/4" Hex	A	83131

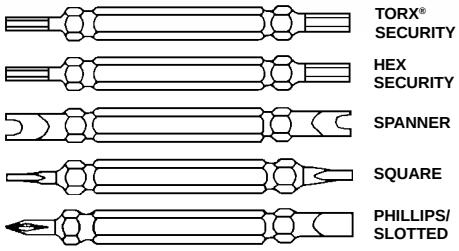
SCREWDRIVERS

SECURITY SELECT-A-BIT 16-IN-1 MULTI-DRIVER

- **16 BITS IN THE HANDLE AND A 1/4" NUT DRIVER IN THE NOSEPIECE FOR MAXIMUM VERSATILITY**
- **EXTRA-LONG (3") DOUBLE ENDED BITS ARE MADE OF HARDENED S2 STEEL AND ARE UNIVERSALLY SIZED FOR SUPERIOR STRENGTH**
- **PATENTED END-CAP ALLOWS INDIVIDUAL BIT REMOVAL, YET WON'T TURN DURING USE**
- **INDUSTRIAL-QUALITY DRIVERS FOR LONG LIFE**

SCREWDRIVER INCLUDES THESE SECURITY BITS:

- SPANNER 4, 6, 8 AND 10
- TORX® SECURITY 10, 15, 20 AND 25
- HEX SECURITY 1/8", 9/64", 5/32" AND 3/16"
- ROBERTS/SQUARE SECURITY 1 AND 2
- PHILLIPS 2 AND SLOTTED 7/32"



DESCRIPTION		PART	DESCRIPTION		PART
Screwdriver	A	8025	Replacement Spanner 4-6 Bit	A	83114
Replacement Torx T10-T15 Bit	A	83110	Replacement Spanner 8-10 Bit	A	83115
Replacement Torx T20-T25 Bit	A	83111	Replacement Square 1-2 Bit	A	83116
Replacement Hex 3/16-5/32 Bit	A	83112	Replacement Phillips/Slotted Bit	A	83117
Replacement Hex 1/8-9/64 Bit	A	83113			

SCREWDRIVERS

10-IN-1 SCREWDRIVER

- **INCLUDES:**
  - **2 PHILLIPS BITS**
  - **2 SLOTTED BITS**
  - **2 TORX® BITS**
  - **2 SQUARE BITS**
- **SHAFT AND BIT HOLDER DOUBLE AS HEX DRIVERS**
- **BITS STORE CONVENIENTLY IN THE SHAFT WHEN NOT IN USE**
- **HIGH-IMPACT PLASTIC HANDLE**
- **7.5" L X 1.0" W**

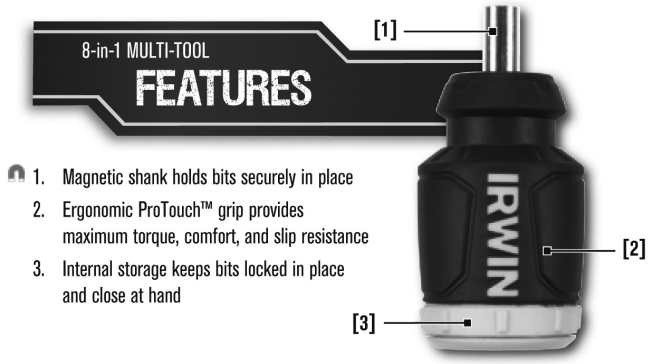
The 10-in-1 Screwdriver includes these bits:

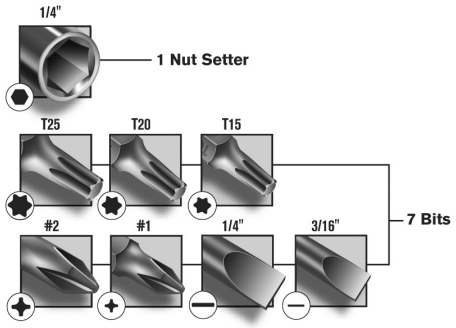
- Phillips: #1 and #2
- Slotted: 3/16" and 1/4"
- TORX®: T15 and T20
- Roberts/Square: #1 and #2
- HEX: 1/4" and 5/16"

DESCRIPTION		PART
10-in-1 Screwdriver	A	8020
#1 Phillips x 3/16" Slotted Bit - Replacement	A	83125
#2 Phillips x 1/4" Slotted Bit - Replacement	A	83126
#1 x #2 Square Recessed Bit - Replacement	A	83127
T15 x T20 TORX® Bit - Replacement	A	83128

8-IN-1 MULTI-TOOL STUBBY SCREWDRIVER

- Ideal for hard-to-reach areas
- Professional-grade tool includes seven (7) of the most common sized screwdriving bits
- All bits are conveniently and securely stored inside the tool
- The shank functions as a 1/4" nut driver
- Shank is magnetic, so bits are held securely in place
- Non-slip protouch™ grip, provides maximum torque, with incredible comfort and control





DESCRIPTION		PART
8-in-1 Multi-Tool Stubby Screwdriver	A	8028

SCREWDRIVERS

DIAL-N-LOAD AUTO SCREWDRIVER

- **All high grade metal component construction**
- **Chemical and shock resistant plastics**
- **Comfortable, attractive, anti-roll handle**
- **Rotating front collar for fine adjustment**
- **Comes loaded with 6 commonly used industrial grade bits - Phillips: PH1, PH2, PH3; Slotted: 1/8", 3/16", 1/4"**
- **No contact bit changes**
- **Bit loads can be fully customized (1" length bits only)**
- **Bit tips are magnetic**

Exclusive pump action mechanism changes bits within seconds

1

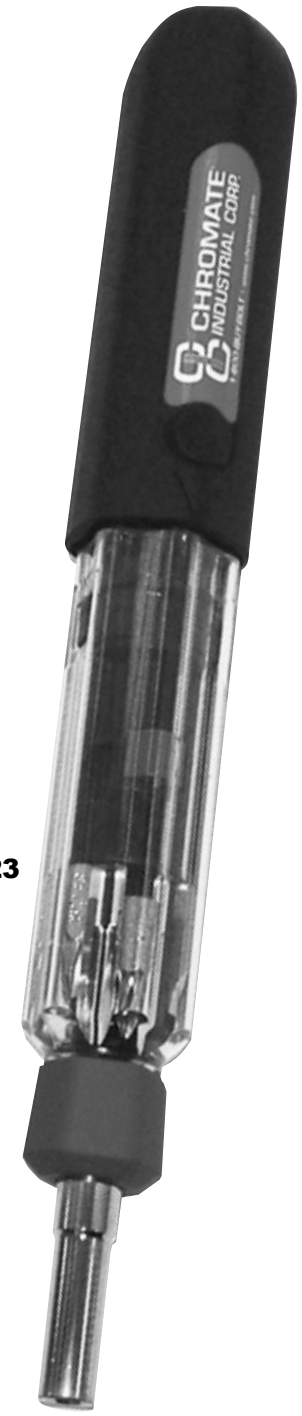
Pull back to "Click".

2

Point arrow to select bit.

3

Push forward to load bit.



P/N 8023

31 Piece Bit Set - P/N 83129

Includes the following:

- **Phillips: P0, P1, PHR2, P3**
- **Slotted: 5/32" (2 pieces), 7/32", 1/4", 9/32"**
- **TORX®: T10, T15, T20, T25, T27, T30, T40**
- **Square: 1, 2, 3**
- **Hex: 5/64", 3/32", 7/54", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4"**
- **Quick change locking bit adapter (*bonus piece)**

*** Not specifically intended as an extension to Dial-N-Load Auto Screwdriver... gives you flexibility to move back and forth with these bits in your driver and power tool.**

PHILLIPS SLOTTED TORX® SQUARE HEX

DESCRIPTION		PART
Dial-N-Load Auto Screwdriver	A	8023
31 Piece Bit Set	A	83129

SCREWDRIVERS

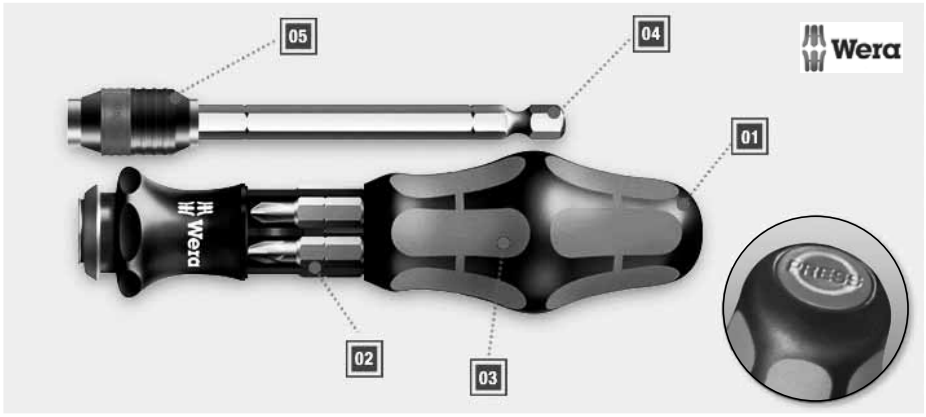
COMPACT 7 PIECE SCREWDRIVER SET WITH BELT POUCH

Includes
- 3 Phillips bits (P/Ns 83172–83174)
- 3 Slotted bits (P/Ns 83175–83177)
- 1/4" Universal bit holder (P/N 83171)
- Handle with integrated bit storage
- Belt pouch

Application
- Suitable for 1/4" DIN 3126-C 6.3 and E 6.3 (ISO 1173) hexagon socket insert bits

Features
- The miracle tool for manual and power tool applications
- Includes bits that can be stored in the handle
- 1/4" universal bit holder can be used as a power tool adaptor
- Quick release chuck
- Supplied in a rugged belt pouch

Benefits
- Screwdriver tip made from powerbit grade steel for unbeatable strength
- Handle uniquely fits the contour of hands during use
- Handle has non-roll feature



01 Spring-loaded opening mechanism allows access to bit storage

02 6-bit magazine integrated in the handle

03 Ergonomic, non-roll handle

04 1/4" universal bit holder that can be used as a power tool adaptor

05 Quick release chuck

DESCRIPTION		PART
7 Piece Screwdriver Set	A	83170
1/4" Universal Bit Holder	A	83171
Phillips Bit - #1	A	83172
Phillips Bit - #2	A	83173
Phillips Bit - #3	A	83174
Slotted Bit - 0.6 x 4.5 x 25mm	A	83175
Slotted Bit - 1.0 x 5.5 x 25mm	A	83176
Slotted Bit - 1.2 x 6.5 x 25mm	A	83177

SCREWDRIVERS - INSULATED

1000V INSULATED SCREWDRIVER SET

- **18 Piece Set includes:**
  - Slotted
  - Phillips
  - Pozidriv
  - PlusMinus/MCB
  - Switchboard Cabinet Blades
- Individually tested for dielectric strength under a 10,000V load, to guarantee safe working at 1,000V (1000V AC and 1500V DC)
- Drop tested at extreme tempratures to ensure insulation won't fail
- Screwdriver tip made from powerbit grade steel for unbeatable strength
- VDE handle with blade auto-lok system
- Handle uniquely fits the hands contours during use
- Supplied in a rugged belt pouch
- Individual bits also sold separately

P/N 8029

Set contents:

- 817 VDE Handle
- 1 Voltage Tester
- 4 Slotted Bits
  - 2.5, 3.5, 4 and 5.5mm
- 2 Phillips Bits
  - PH1 and PH2
- 2 Phillips Bits
  - PHS1 and PHS2 minus blades for combination screws
- 2 Pozidriv Bits
  - PZ1 and PZ2
- 2 Pozidriv Bits
  - PZS1 and PZS2 minus blades for combination screws
- 4 Switchboard Cabinet Blades
  - Square 6.3 and 8.1mm, triangular and round

DESCRIPTION		PART
1000V Insulated Screwdriver Set	A	8029
817 VDE Handle	A	83150
Voltage Tester	A	83151
Slotted Bit - 2.5mm	A	83152
Slotted Bit - 3.5mm	A	83153
Slotted Bit - 4mm	A	83154
Slotted Bit - 5.5mm	A	83155
Phillips Bit - PH1	A	83156
Phillips Bit - PH2	A	83157
Phillips Bit - PHS1 minus blades for combination screws	A	83158
Phillips Bit - PHS2 minus blades for combination screws	A	83159
Pozidriv Bit - PZ1	A	83160
Pozidriv Bit - PZ2	A	83161
Pozidriv Bit - PZS1 minus blades for combination screws	A	83162
Pozidriv Bit - PZS2 minus blades for combination screws	A	83163
Switchboard Cabinet Blade - Square 6.3mm	A	83164
Switchboard Cabinet Blade - Square 8.1mm	A	83165
Switchboard Cabinet Blade - Triangular 8mm	A	83166
Switchboard Cabinet Blade - Sl-Round 14mm	A	83167

METAL SCREWS

- **Binding, Flat, Pan and Hex Washer Head Designs**
- **Slotted, Phillips, Square and Hex Drives**
- **Self-Drill and Tap and Standard AB Point**
- **Case Hardened for Extra Strength**
- **Deep, Sharp Threads Provide Strong Grip**

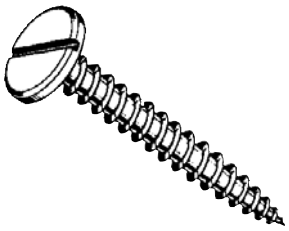
CHROMATE METAL SCREWS INSTALL FASTER, HOLD BETTER AND LAST LONGER. Designed with sharper leader points, deeper threads and special corrosion-resistant coatings. Use Chromate Metal Screws for all your metal fastening needs.

SLOTTED METAL SCREWS

BINDING AND FLAT HEAD

Deep, twist resistant slot and an extra sharp leader point assures quick, positive driving.
Case hardened for strength.

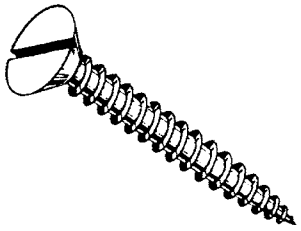
BINDING HEAD



7712

LENGTH	NO. 4	NO. 6	NO. 7	NO. 8	NO. 10	NO. 12	NO. 14
1/4	U 101	U 108	-	U 125	-	-	-
3/8	U 102	U 109	-	U 126	U 137	-	-
1/2	U 103	U 110	U 119	U 127	U 138	U 149	U 160
5/8	U 104	U 111	U 120	U 128	U 139	U 150	U 161
3/4	U 105	U 112	-	U 129	U 140	U 151	T 162
7/8	-	U 113	-	U 130	U 141	U 152	T 163
1	U 107	U 114	U 122	U 131	U 142	U 153	T 164
1-1/4	-	U 115	U 123	U 132	U 143	T 154	T 165
1-1/2	-	U 116	U 124	U 133	U 144	T 155	T 166
1-3/4	-	U 117	-	U 134	T 145	T 156	T 167
2	-	U 118	-	U 135	T 146	T 157	T 168
2-1/2	-	-	-	T 136	T 147	R 158	R 169
3	-	-	-	-	T 148	R 159	R 170

FLAT HEAD



7713

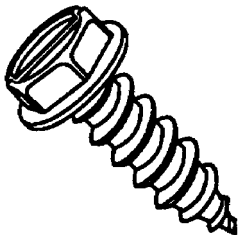
LENGTH	NO. 4	NO. 6	NO. 7	NO. 8	NO. 10	NO. 12	NO. 14
1/4	U 201	-	-	-	-	-	-
3/8	U 202	U 209	-	U 226	U 237	-	-
1/2	U 203	U 210	U 219	U 227	U 238	U 249	-
5/8	U 204	U 211	U 220	U 228	U 239	U 250	U 261
3/4	U 205	U 212	U 221	U 229	U 240	U 251	T 262
7/8	-	U 213	-	U 230	U 241	U 252	T 263
1	-	U 214	U 222	U 231	U 242	U 253	T 264
1-1/4	-	U 215	U 223	U 232	U 243	T 254	T 265
1-1/2	-	U 216	-	U 233	U 244	T 255	T 266
1-3/4	-	-	-	U 234	T 245	T 256	T 267
2	-	-	-	U 235	T 246	T 257	T 268
2-1/2	-	-	-	-	T 247	R 258	R 269
3	-	-	-	-	T 248	-	-

SLOTTED METAL SCREWS

HEX WASHER HEAD

Hex washer head and case hardened strength offer superior clamping force and durability. Combines power of hex driver with convenience of screwdriver.

HEX WASHER HEAD



7714

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14	NO. 16
3/8	U 855	-	-	-	-	-
1/2	U 856	U 860	U 866	U 872	T 879	N 882
5/8	U 857	U 861	U 867	-	T 880	-
3/4	U 858	U 862	U 868	T 874	T 881	N 887
1	U 859	U 863	U 869	T 876	T 883	N 888
1-1/4	-	U 864	T 870	T 877	T 884	N 889
1-1/2	-	T 865	T 871	T 878	T 885	N 890
1-3/4	-	-	-	-	-	-
2	-	-	-	-	T 886	-
2-1/4	-	-	-	-	-	-
2-1/2	-	-	-	-	R 899	-

STEEL SPRING NUTS

FOR USE WITH SHEET METAL SCREWS

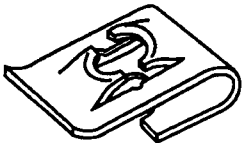
Spring steel with black phosphate finish.

"FLAT" TYPE

7716

SIZE	PART
NO. 6	U 62601
NO. 8	U 62602
NO. 10	T 62603
-	-

"J" TYPE



7716

SIZE	PART
NO. 6	T 62605
NO. 8	T 62608
NO. 10 (9/16")	T 62610
NO. 10 (15/16")	T 62612

"U" TYPE

7716

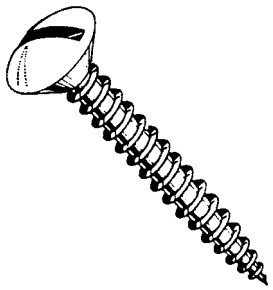
SIZE	PART
NO. 6	T 62614
NO. 8	T 62620
NO. 10	T 62625
-	-

OVAL HEAD METAL SCREWS

SLOTTED AND PHILLIPS

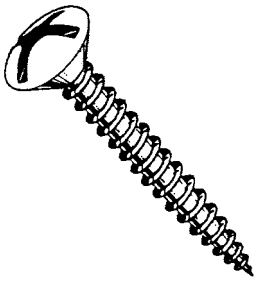
Case hardened for extra strength. Super sharp leader point assures fast drive while deep threads provide strong grip.

SLOTTED



LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	–	U 1305	–	–	–	–
1/2	–	U 1306	U 1314	U 1324	U 1333	–
5/8	–	U 1307	U 1315	U 1325	–	–
3/4	–	U 1308	U 1316	U 1326	U 1335	T 1344
7/8	–	U 1309	U 1317	U 1327	–	T 1345
1	–	U 1310	U 1318	U 1328	T 1337	T 1346
1-1/4	–	–	U 1319	U 1329	T 1338	T 1347
1-1/2	–	U 1312	U 1320	T 1330	–	T 1348
1-3/4	–	–	–	–	–	–
2	–	–	–	T 1332	–	T 1350

PHILLIPS



LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
1/4	–	–	–	–	–	–
3/8	–	U 1405	–	–	–	–
1/2	–	U 1406	U 1414	–	–	T 1442
5/8	–	U 1407	U 1415	–	–	–
3/4	–	U 1408	U 1416	U 1426	U 1435	–
7/8	–	–	–	U 1427	–	–
1	–	U 1410	U 1418	U 1428	T 1437	T 1446
1-1/4	–	U 1411	U 1419	U 1429	T 1438	–
1-1/2	–	U 1412	U 1420	T 1430	T 1439	–
1-3/4	–	–	T 1421	–	T 1440	–
2	–	–	T 1422	T 1432	T 1441	–

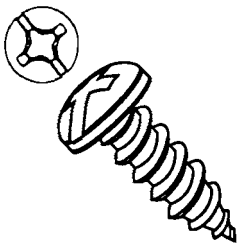
PHILLIPS METAL SCREWS

COMBINATION SLOTTED / PHILLIPS DRIVE

The unique head design of these binding head metal screws allows for solid, non-slip driving with either a slotted or phillips driver.

BINDING HEAD

- ACCEPTS SLOTTED OR PHILLIPS DRIVERS ASSURING YOU OF HAVING THE RIGHT DRIVER ALL THE TIME
- EXTRA SHARP TYPE "A" LEADER POINT FOR FASTER, EASIER STARTING
- PRECISION RECESS ASSURES SOLID, NON-SLIP GRIP



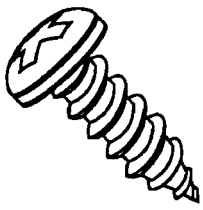
- CORROSION RESISTANT PLATING FOR LONG LIFE
- CASE HARDENED FOR EXTRA STRENGTH

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	T 1243	T 1253	T 1267	–	–
1/2	T 1244	T 1254	T 1268	R 1279	–
5/8	–	T 1255	T 1269	–	–
3/4	–	T 1256	T 1270	R 1281	R 1288
1	T 1248	T 1258	T 1272	R 1282	R 1289
1-1/4	–	–	R 1273	R 1283	–
1-1/2	–	–	R 1274	R 1284	R 1290
2	–	–	–	–	R 1291

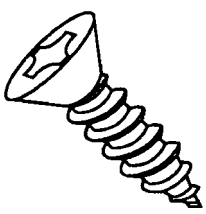
BINDING AND FLAT HEAD

Deep phillips drive & extra sharp leader point provides for quick, easy driving. Case hardened for extra strength.

BINDING HEAD



FLAT HEAD



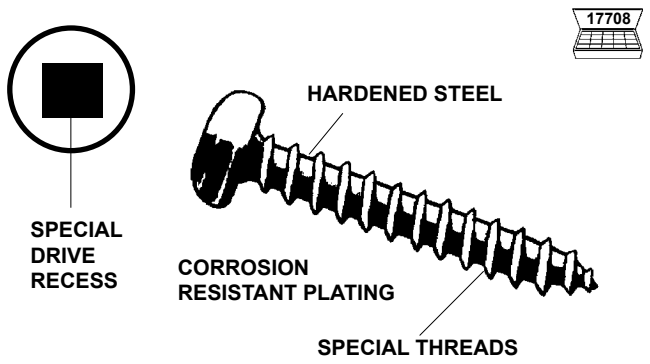
LENGTH	BINDING HEAD NO. 4	BINDING HEAD NO. 6	BINDING HEAD NO. 8	BINDING HEAD NO. 10	BINDING HEAD NO. 12	BINDING HEAD NO. 14	FLAT HEAD NO. 4	FLAT HEAD NO. 6	FLAT HEAD NO. 8	FLAT HEAD NO. 10	FLAT HEAD NO. 12	FLAT HEAD NO. 14
1/4	T 1500	T 1505	T 1514	-	-	-	-	-	-	-	-	-
3/8	T 1501	T 1506	T 1515	T 1525	-	-	-	T 1606	T 1605	-	-	-
1/2	T 1502	T 1507	T 1516	T 1526	R 1535	R 1544	T 1602	T 1607	T 1616	T 1626	-	-
5/8	T 1503	T 1508	T 1517	T 1527	R 1536	R 1545	-	T 1608	T 1617	T 1627	-	-
3/4	T 1504	T 1509	T 1518	T 1528	R 1537	R 1546	T 1604	T 1609	T 1618	T 1628	R 1637	R 1646
7/8	-	T 1510	T 1519	T 1529	-	-	-	T 1610	T 1619	-	-	-
1	-	T 1511	T 1520	T 1530	R 1539	R 1548	-	T 1611	T 1620	T 1630	R 1639	R 1648
1-1/4	-	T 1512	R 1521	R 1531	R 1540	R 1549	-	T 1612	R 1621	R 1631	R 1640	R 1649
1-1/2	-	T 1513	R 1522	R 1532	R 1541	R 1550	-	T 1613	R 1622	R 1632	R 1641	R 1650
1-3/4	-	T 1538	R 1523	R 1533	R 1542	R 1551	-	T 1614	T 1623	R 1633	R 1642	R 1651
2	-	R 1554	R 1524	R 1534	R 1543	R 1552	-	T 1615	R 1624	R 1634	R 1643	R 1652
2-1/2	-	-	R 1555	R 1557	R 1559	R 1553	-	-	R 1625	R 1635	R 1644	R 1668
3	-	-	R 1556	R 1558	R 1560	R 1561	-	-	R 1629	R 1636	R 1647	R 1669

CIC 200™ SUR-DRIVE™ METAL SCREWS

SQUARE DRIVE PAN HEAD

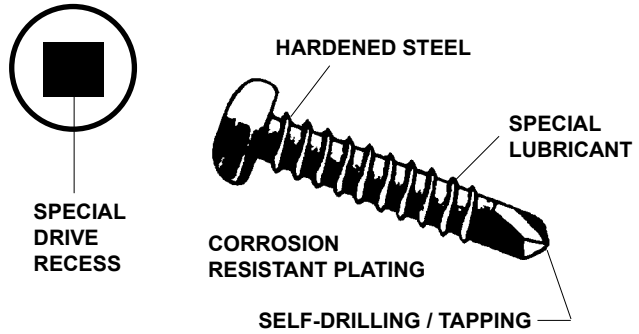
Hardened steel and deep square recess sockets make CIC 200™ SUR-DRIVE™ screws ideal for power driving while the special lubricant makes hand driving easy. The unique square recess also provides for security as square drive bits are not as common as typical phillips or slotted drivers.

TYPE "A" METAL SCREWS



LENGTH	NO. 6	NO. 8	NO. 10	NO. 12
1/2	U 7080	U 7086	U 7093	T 7102
3/4	U 7081	U 7087	U 7094	T 7103
1	U 7082	U 7088	U 7095	T 7104
1-1/4	-	U 7089	T 7096	-
1-1/2	-	U 7090	T 7098	T 7106
2	-	T 7091	T 7099	-

DRILL AND TAP SCREWS



LENGTH	8 - 18	10 - 16
1/2	U 7050	U 7057
3/4	U 7051	U 7058
1	T 7052	T 7059
1-1/4	-	-
1-1/2	-	-
2	-	-

17

SQUARE DRIVE BITS AND HAND DRIVERS

1/4 HEX BITS - 1" LONG

SIZE	SCREW SIZE	PART
#1	6	D 7065
#2	8-10	D 7066
#3	12-14	D 7067

1/4 HEX BITS - 2" LONG

SIZE	SCREW SIZE	PART
#1	6	D 7069
#2	8-10	D 7070
#3	12-14	D 7071

1/4 HEX BITS - 3" LONG

SIZE	SCREW SIZE	PART
#1	6	D 7072
#2	8-10	D 7073
#3	12-14	D 7074

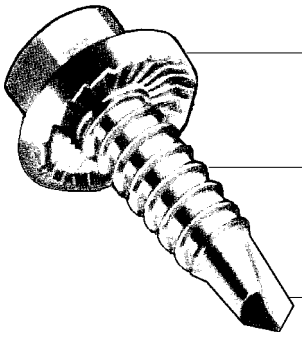
JUNIOR HAND DRIVERS

SIZE	SCREW SIZE	PART
#1	6	B 7076
#2	8-10	B 7077
#3	12-14	B 7078

CIC 200™ SUR-GRIP™ METAL SCREWS

HEX WASHER SELF DRILL AND TAP METAL SCREWS

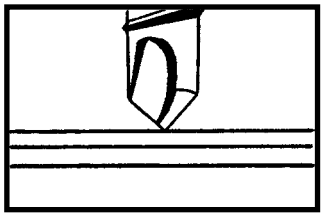
CIC 200™ SUR-GRIP™ Screws are specially designed to drill, tap and securely fasten work material in one easy, economical operation.

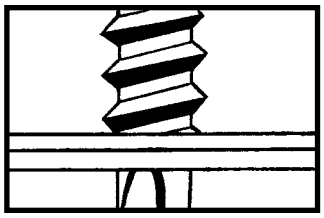


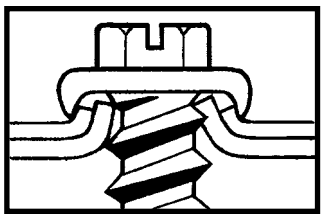
NOTE: AB POINT AVAILABLE FOR PRE-DRILLED HOLES.

Unlike ordinary drill and tap screws, SUR-GRIP drill points are both cold formed and milled combining maximum strength, uninterrupted grain flow and a point that is unequaled in sharpness. The SUR-GRIP full diameter threads draw the work material up into the serrated bearing surface providing:

- A Vibration-Proof Connection
- Increased Thread Engagement
- Increased Resistance to "Strip-Out"





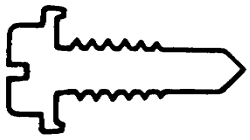


FEATURES:

- A New Drill for each Hole
- Fastening Versatility
- Fast Seating and Solid Holding
- Zinc Plated and Waxed
- Slotted Hex Head
- Drill Point eliminates hole making and tapping costs
- No hole alignment problems
- Saves assembly steps, labor, equipment, tools, replacement cost

SUR-GRIP DRILL POINT

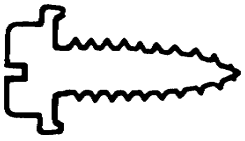
CUT-AWAY VIEW (DP)



LENGTH	8-18	10-16	12-14	1/4-14
1/2	T 22630	T 22644	-	-
5/8	T 22632	T 22646	T 22654	R 22664
3/4	T 22636	T 22648	T 22656	R 22666
1	T 22638	T 22650	T 22658	R 22668
1-1/2	-	-	R 22660	R 22670

SUR-GRIP METAL SCREW POINT

CUT-AWAY VIEW (AB)



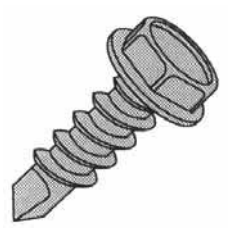
LENGTH	8-18	10-16	12-14	1/4-14
1/2	T 22530	T 22544	-	-
5/8	T 22532	T 22546	T 22554	R 22564
3/4	T 22536	-	T 22556	-
1	T 22538	T 22550	T 22558	R 22568
1-1/2	-	-	R 22560	R 22570

SELF-DRILLING METAL SCREWS

HEX WASHER AND PHILLIPS HEAD

Drill and tap holes without pre-drilling. Hex washer and phillips pan head designs are case hardened for extra strength. Corrosion resistant coating.

HEX WASHER HEAD



LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	T 94001	T 94008	-	-	-
1/2	T 94002	T 94009	T 94017	-	-
5/8	T 94003	T 94010	T 94018	-	-
3/4	T 94004	T 94011	T 94019	R 94029	R 94041
1	T 94005	T 94013	T 94021	R 94031	R 94043
1-1/4	T 94006	R 94014	R 94023	R 94032	R 94045
1-1/2	T 94007	R 94015	R 94024	R 94035	R 94047
1-3/4	-	R 94016	R 94025	R 94036	R 94020
2	-	R 94012	R 94026	R 94037	R 94048
2-1/2	-	-	R 94027	N 94038	N 94049
3	-	-	R 94028	N 94039	N 94022
4	-	-	-	-	I 94030

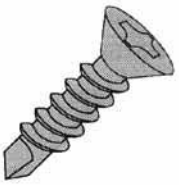
PHILLIPS PAN HEAD

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	T 84000	-	-	-	-
1/2	T 84001	T 84009	T 84017	-	-
5/8	T 84002	T 84010	T 84018	-	-
3/4	T 84003	T 84011	T 84019	R 84025	R 84029
1	T 84005	T 84013	T 84021	R 84026	R 84030
1-1/4	-	T 84014	R 84022	-	-
1-1/2	T 84006	R 84015	R 84023	R 84027	R 84031
2	-	R 84016	R 84024	R 84028	-

PHILLIPS MODIFIED TRUSS HEAD

LENGTH	NO. 8
1/2	T 84035
3/4	T 84036
1	T 84037
1-1/4	T 84038
1-5/8	T 84039

PHILLIPS FLAT HEAD



LENGTH	NO. 6	NO. 8	NO. 10	NO. 14
3/8	T 84040	T 84044	-	-
1/2	T 84041	T 84045	T 84050	-
5/8	T 84042	T 84046	T 84051	-
3/4	T 84043	T 84047	T 84052	T 84056
1	-	T 84048	T 84053	R 84057
1-1/4	-	T 84049	T 84054	R 84058
1-1/2	-	-	T 84055	R 84059

FRAMING SCREW

- SELF-DRILLING POINT FOR METAL STUDS UP TO 12 GAUGE
- FASTENS METAL STUDS TO FLOOR AND CEILING CHANNELS
- MADE OF STEEL WITH A RUST RESISTANT BLACK-PHOSPHATE FINISH

DESCRIPTION	PART
6 x 7/16 Special Pan Framing Tek Screw	T 84004

POWER HEX DRIVE BIT FOR SUR-GRIP AND SELF DRILLING METAL SCREWS

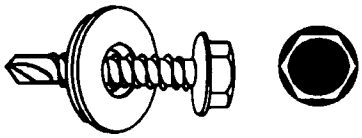
SCREW SIZE	1-3/4" LGTH.	2-9/16" LGTH.
8	A 83010	A 83015
10-12	A 83011	A 83016
1/4	A 83012	A 83017

RUBBER GROMMET DRILL POINT SCREWS

HEX WASHER HEAD DRILL & TAP SCREW WITH NEOPRENE-BACKED WASHER

Sealing washer compresses when screw is tightened to control leaks & prevent noise from vibration.

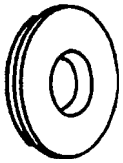
DRILL & TAP SCREW WITH SEALING WASHER



SIZE		PART	SIZE		PART
10 x 5/8	R	94050	12 x 1-1/2	R	94055
10 x 3/4	R	94051	14 x 3/4	R	94056
10 x 1-1/2	R	94052	14 x 1	R	94057
12 x 3/4	R	94053	14 x 1-1/2	R	94058
12 x 1	R	94054	–		–

NEOPRENE BACKED SEALING WASHER

- TEMPERATURE RANGE –45° TO +250°F



DESCRIPTION		PART
#10 NEOPRENE-BACKED WASHER	R	94064
#12 NEOPRENE-BACKED WASHER	R	94065
#14 NEOPRENE-BACKED WASHER	R	94066

PHILLIPS BLACK PHOSPHATE METAL SCREWS

CASE HARDENED FOR EXTRA STRENGTH

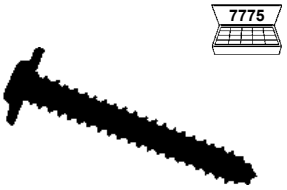
OVAL HEAD

- PHILLIPS DESIGN PROVIDES FOR FAST, SURE DRIVING
- CASE HARDENED FOR EXTRA STRENGTH

LENGTH	NO. 6		NO. 8		NO. 10	
1/2		-	T	9658		-
5/8	T	9650		-		-
3/4	T	9652	T	9660	T	9670
1	T	9654	T	9662	T	9672
1-1/4	T	9656	T	9664		-
1-1/2		-	T	9666	T	9674
1-3/4		-	T	9668		-
2		-		-	T	9676

BINDING HEAD WITH WASHER

- BINDING HEAD WITH WASHER IS IDEAL FOR UPHOLSTERY AND TRIM
- CASE HARDENED FOR EXTRA STRENGTH



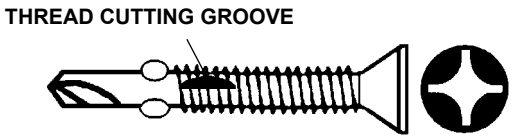
LENGTH	NO. 8		NO. 10	
1/2	T	9680		-
3/4		9682	T	9688
1	T	9684	T	9690
1-1/4	T	9686	T	9692
1-1/2	T	-	T	9694

CIC 200™ FLOOR BOARD SCREWS

ZINC PLATED CORROSION RESISTANT COATING

Designed for drilling or reaming through wood (or other soft material) and then drilling and tapping metal framing in one easy operation. Wings drill out clearance hole in wood, then snap off when contacting metal.

PHILLIPS FLAT HEAD

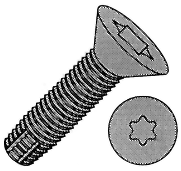


- ZINC PLATED — CORROSION RESISTANT FOR LONG LIFE
- CASE HARDENED STEEL — FOR EXTRA STRENGTH

SCREW SIZE	DRIVE SIZE	DRILL POINT SIZE	PART
10 x 1-5/8	#2	#3	R 94060
12 x 2	#3	#3	R 94061
12 x 2-1/2	#3	#3	R 94062
14 x 2-3/4	#3	#4	R 94063

TORX DRIVE FLAT FLOOR BOARD SCREWS

BLACK PHOSPHATE/OIL COATING



- TORX DRIVE PROVIDES EXCELLENT DRIVING POWER
- THREADS MINIMIZE SLIPPAGE
- TYPE F
- BLACK PHOSPHATE/OIL COATING

SCREW SIZE	DRIVE SIZE	PART	SCREW SIZE	DRIVE SIZE	PART
1/4-20 x 1-1/2	T27	T 94070	1/4-20 x 3	T27	R 94073
1/4-20 x 2	T27	T 94071	1/4-20 x 4	T27	N 94077
1/4-20 x 2-1/4	T27	T 94076	5/16-18 x 2	T40	R 94074
1/4-20 x 2-1/2	T27	T 94072	5/16-18 x 2-1/2	T40	R 94075

RECOMMENDED DRILL SIZES

PROPER DRILL SIZES FOR THREAD CUTTING AND METAL SCREWS

Chromate QUAD POINT™ Drills provide precise hole diameters for exact fit of thread cutting and sheet metal screws. Use the chart below to determine the proper QUAD POINT™ Drill.

60% THREAD ENGAGEMENT DRILL SIZES

SCREW SIZE	DRILL SIZE	DRILL PART	
10-24	#23	J	10023
10-32	#20	J	10020
1/4-20	#5	F	10005
5/16-18	#G	C	10207

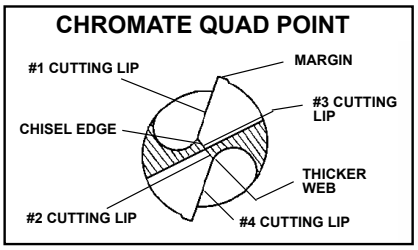
SHEET METAL SCREW DRILL SIZES

SCREW SIZE	DRILL SIZE	DRILL PART	
#4	#44	J	10044
#6	#32	J	10032
#7	#30	J	10030
#8	#29	J	10029
#10	#21	J	10021
#12	3/16	J	91012
1/4	#3	F	10003
5/16	I	C	10209

CIC 200™ QUAD POINT DRILLS

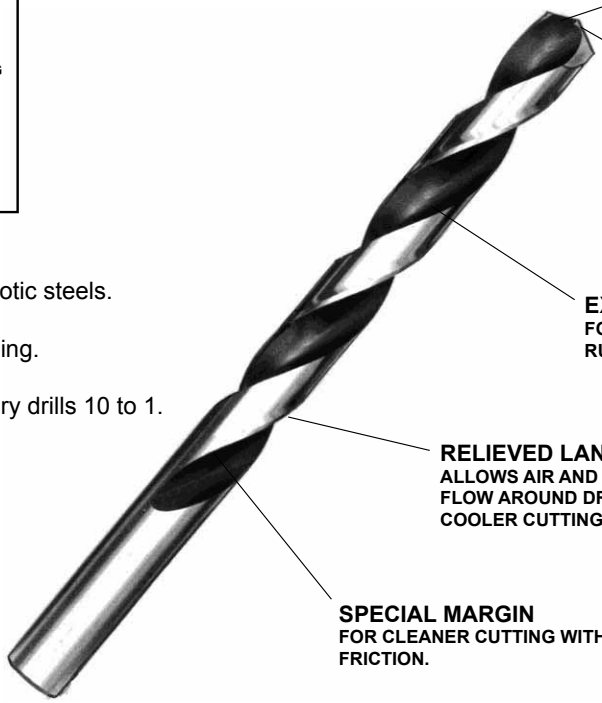
CIC 200™ QUAD POINT DRILLS CUT UP TO 55 ROCKWELL "C"

Constructed of special tool steel — a metallurgical blend of chromium, vanadium and molybdenum. CIC 200 Quad Point Drills offer superior strength, faster heat dissipation and longer life.



SPECIAL FEATURES

- Cuts standard, stainless, tool and exotic steels.
- Won't snap or chip weld.
- No need to center punch prior to drilling.
- Use in drill press or hand drill.
- Stays sharp longer, outlasting ordinary drills 10 to 1.



THICKER WEB
PROVIDES GREATER STRENGTH, TRUER HOLES AND LESS DRILL BREAKAGE.

QUAD POINT
FOR FASTER, SURER STARTS EVEN ON HARDENED ROUNDED SURFACES.

EXTENDED FLUTES
FOR FAST CHIP REMOVAL, COOLER RUNNING AND LONGER LIFE.

RELIEVED LANDS
ALLOWS AIR AND CUTTING FLUID TO FLOW AROUND DRILL — PROVIDING COOLER CUTTING AND LONGER LIFE.

SPECIAL MARGIN
FOR CLEANER CUTTING WITH LESS FRICTION.

WOOD SCREWS

- **Hardened Steel for Greater Strength**
- **Extra Sharp Leader Points and Threads for Fast Starting and Driving**
- **Phillips, Slotted, Hex Head and Square Recess Drive**
- **Zinc Chromate Plating**

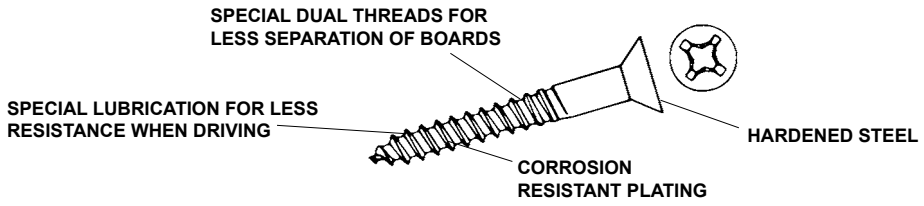
CHROMATE WOOD SCREWS OVERCOME THE PROBLEMS OF ORDINARY WOOD SCREWS. The unique design allows faster starting and driving without snapping, shearing or distorting. They provide greater holding power while eliminating wood splitting. Use Chromate Wood Screws for all your wood fastening applications.

CIC 200™ SUR-FAST™ WOOD SCREWS

PHILLIPS

Dual thread and self-centering design provides super fast starting and driving.
Hardened high strength steel, Chromate plated and waxed for durability and easy driving.

FLAT HEAD



LENGTH	NO. 5	NO. 6	NO. 7	NO. 8	NO. 9	NO. 10	NO. 12	NO. 14
1/2"	-	T 7204	-	T 7216*	-	-	-	-
5/8"	T 7202	T 7205	T 7209	T 7217	-	-	-	-
3/4"	T 7203	T 7206	T 7210	T 7218	T 7226	T 7237	T 7247*	-
1"	-	T 7207	T 7211	T 7219	T 7227	T 7238	T 7248*	T 7257*
1-1/4"	-	T 7208	T 7212	T 7220	T 7228	T 7239	T 7249*	T 7258*
1-1/2"	-	T 7199	T 7213	T 7221	T 7229	T 7240	T 7250*	T 7259*
1-3/4"	-	T 7200*	-	T 7222	T 7230	T 7241	T 7251*	T 7260*
2"	-	T 7201*	-	T 7223	T 7231	T 7242	T 7252*	T 7261*
2-1/2"	-	-	-	R 7224	R 7233	R 7243	T 7253*	T 7262*
3"	-	-	-	R 7225*	R 7235	R 7244	R 7254*	R 7263*
3-1/2"	-	-	-	-	-	R 7245*	R 7255*	R 7264*
4"	-	-	-	-	-	R 7246	R 7256*	R 7265*

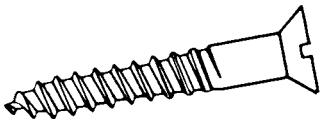
**Not available with dual thread design*

SLOTTED WOOD SCREWS

DESIGNED FOR FAST, EASY INSTALLATION

Self-centering and easy driving. Special Chromate plating.

FLAT HEAD



LENGTH	NO. 4	NO. 6	NO. 7	NO. 8
3/8"	-	-	-	-
1/2"	T 7501	T 7509	T 7517	U 7571
5/8"	T 7502	T 7510	T 7518	U 7526
3/4"	T 7503	T 7511	T 7519	U 7527
7/8"	-	-	T 7570	U 7528
1"	T 7505	T 7512	T 7520	U 7529
1-1/4"	T 7506	T 7513	T 7521	U 7530
1-1/2"	T 7507	T 7514	T 7522	U 7531
1-3/4"	-	T 7515	T 7523	U 7576
2"	-	T 7516	T 7524	T 7532
2-1/4"	-	-	-	R 7533
2-1/2"	-	-	T 7525	R 7534
3"	-	-	-	R 7535

ROUND HEAD

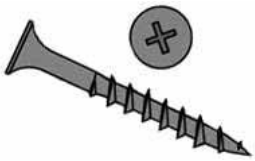
NO. 4	NO. 6	NO. 7	NO. 8
–	–	–	–
T 8501	T 8509	T 8517	T 8571
–	T 8510	–	T 8526
–	T 8511	T 8519	T 8527
–	T 8569	–	T 8528
–	T 8512	–	T 8529
T 8506	T 8513	–	T 8530
–	T 8514	–	T 8531
–	–	T 8523	T 8576
–	T 8516	T 8524	T 8532
–	–	–	–
–	–	–	R 8534
–	–	–	R 8535

LENGTH	FLAT HEAD			ROUND HEAD		
	NO. 10	NO. 12	NO. 14	NO. 10	NO. 12	NO. 14
1/2"	U 7575	–	–	U 8575	–	–
5/8"	–	U 7548	–	–	–	T 8573
3/4"	U 7537	U 7549	–	U 8537	U 8549	–
7/8"	–	U 7572	–	U 8538	U 8572	–-
1"	U 7539	U 7550	T 7559	U 8539	U 8550	T 8559
1-1/4"	U 7540	T 7551	T 7560	U 8540	T 8551	T 8560
1-1/2"	U 7541	T 7552	T 7561	U 8541	T 8552	T 8561
1-3/4"	T 7542	T 7553	T 7562	T 8542	T 8553	T 8562
2"	T 7543	T 7554	T 7563	T 8543	T 8554	T 8563
2-1/4"	T 7544	T 7555	R 7564	T 8544	T 8555	–
2-1/2"	T 7545	T 7556	R 7565	T 8545	T 8556	R 8565
2-3/4"	–	–	R 7566	T 8546	–	–
3"	R 7547	R 7557	R 7567	R 8547	R 8557	R 8567
3-1/2"	–	–	R 7568	–	–	–

PARTICLE BOARD SCREWS

FLAT HEAD

- SPECIALIZED SELF-TAPPING SCREWS WITH A THIN SHANK AND WIDE (COARSE) THREADS
- SHARP LEADER POINT ASSURES FAST DRIVE AND STRONG GRIP
- DESIGNED SPECIFICALLY FOR USE IN DENSE WOODS, ESPECIALLY MAN-MADE TYPES SUCH AS CHIPBOARD AND PARTICLE BOARD



LENGTH	NO. 9	
1-1/2"	U	7190
1-3/4"	U	7191
2"	U	7192
2-1/2"	U	7193

LAG SCREWS

HEX HEAD

- STEEL ZINC PLATED
- HEX HEAD FOR EASIER WRENCHING
- EXTRA SHARP LEADER POINT ASSURES FAST DRIVE AND STRONG GRIP

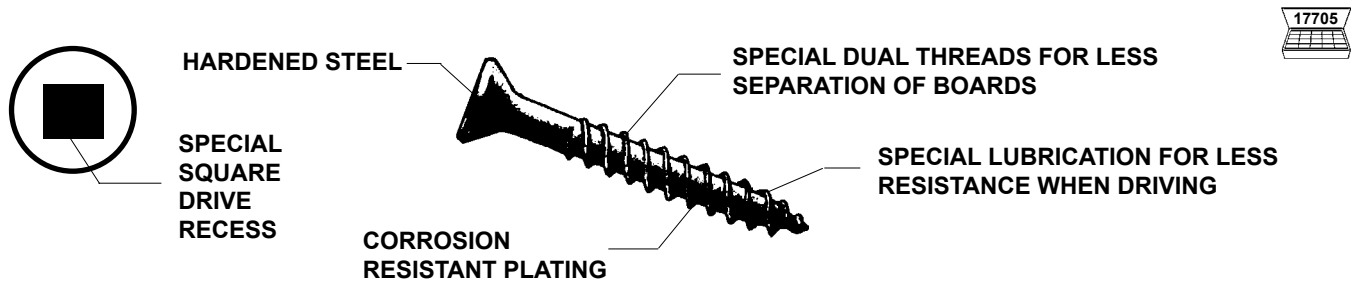
LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		1/2 DIA.	
1"	T	1460		-	T	1477		-
1-1/4"	T	1461	T	1469	T	1478		-
1-1/2"	T	1462	R	1470	R	1479	O	1490
1-3/4"	R	1456	T	1471	R	1458		-
2"	R	1463	R	1472	R	1480	O	1491
2-1/2"	R	1464	R	1473	R	1481	O	1492
3"	R	1465	R	1474	R	1482	O	1493
3-1/2"	R	1466	R	1475	R	1483	O	1494
4"	R	1467	R	1476	R	1484	O	1495
4-1/2"		-		-	O	1485		-
5"		-		-	O	1486	L	1496
6"		-		-	O	1487	L	1497
8"		-		-	N	1489		-

CIC 200™ SUR-DRIVE™ WOOD SCREWS

SQUARE DRIVE FLAT HEAD

Hardened steel and deep square recess sockets make CIC 200™ SUR-DRIVE™ screws ideal for power driving while the special lubricant makes hand driving easy. The unique square recess also provides for security as square drive bits are not as common as typical phillips or slotted drivers.

FLAT HEAD



LENGTH	NO. 6		NO. 8		NO. 10	
1/2"	U	7120	U	7130		-
3/4"	U	7121	U	7131	U	7140
1"	U	7122	U	7132	U	7141
1-1/4"	U	7123	U	7133	T	7142
1-1/2"	U	7124	U	7134	T	7143
2"		-	T	7135	T	7144
2-1/2"		-	T	7136	T	7145
3"		-	T	7137	R	7146
3-1/2"		-		-	R	7147
4"		-		-	R	7148

CIC 200™ SUR-DRIVE™ WOOD SCREWS

SQUARE DRIVE BITS AND HAND DRIVERS

1/4 HEX BITS - 1" LONG

SIZE	SCREW SIZE	PART	
#1	6	D	7065
#2	8-10	D	7066
#3	12-14	D	7067

1/4 HEX BITS - 2" LONG

SIZE	SCREW SIZE	PART	
#1	6	D	7069
#2	8-10	D	7070
#3	12-14	D	7071

1/4 HEX BITS - 3" LONG

SIZE	SCREW SIZE	PART	
#1	6	D	7072
#2	8-10	D	7073
#3	12-14	D	7074

JUNIOR HAND DRIVERS

SIZE	SCREW SIZE	PART	
#1	6	B	7076
#2	8-10	B	7077
#3	12-14	B	7078

CIC 200™ SUR-DRIVE™ DECK SCREWS

SQUARE DRIVE FLAT HEAD

Designed for cabinet work, counters, furniture, paneling, subfloors, fences, decks and docks.

FLAT HEAD

TRIPLE LAYER COATING – ZINC, CHEMICAL BOND AND CERAMIC. LASTS AS LONG AS STAINLESS STEEL.

SPECIAL SQUARE DRIVE RECESS

- FAST SPIRAL THREADS – FOR SUPER FAST DRIVING WITHOUT SPLITTING WOOD
- SUPERIOR COATING – PREVENTS RUST, CORROSION AND STAINS THAT DISCOLOR WOOD
- WITHSTANDS THE CAUSTIC ELEMENTS OF WEATHER, SALTWATER, ACID RAIN, CHEMICALS AND SUNLIGHT

LENGTH	NO. 8		NO. 9		NO. 10	
2"	U	7150		–		–
2-1/2"	U	7151		–		–
2-3/4"	U	7152		–		–
3"		–	T	7153		–
3-1/2"		–	T	7154		–
4"		–		–	T	7155

MAD-MAX SCREWS

THE MULTI-MATERIAL SCREW WITH THE CUTTING EDGE

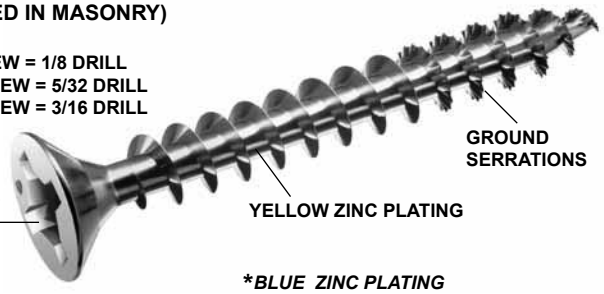
The first threads at the screw point are the most important for screw performance. The Mad-Max screw has ground serrations at the point for superior penetration – saving time and money.

- **GROUND SERRATIONS CREATE A THREAD EVEN IN BRITTLE MASONRY MATERIALS LIKE CONCRETE BLOCK, BRICK, ADOBE AND STUCCO**
- **ACCOMMODATES BOTH PHILLIPS AND SQUARE DRIVES**
- **NO PRE-DRILLING – FASTER ASSEMBLY TIME (PRE-DRILLING REQUIRED IN MASONRY)**
- **NO ANCHOR REQUIRED**
- **GREATER HOLDING POWER**
- **YELLOW ZINC PLATING FOR SMOOTH AND EASY SCREW PENETRATION AND REDUCED CORROSION**

17876

APPLICATIONS:
HARD AND SOFT WOODS, CHIPBOARD, DRYWALL, PLASTICS, THIN METAL SHEETS AND SECTIONS, DECKING, MARINE APPLICATIONS, CEMENT BLOCK, BRICK, ADOBE AND STUCCO

#8 SCREW = 1/8 DRILL
#10 SCREW = 5/32 DRILL
#14 SCREW = 3/16 DRILL



***BLUE ZINC PLATING**

LENGTH	NO. 6	NO. 8	NO. 10	NO. 14
1/2"	T 7160	–	–	–
5/8"	T 7161	–	–	–
3/4"	–	T 7166	T 7172*	–
1"	T 7162	T 7167	T 7173*	T 7179*
1-1/4"	T 7163	T 7168	T 7174	T 7180
1-1/2"	T 7164*	T 7169	T 7175*	R 7181*
2"	T 7165*	T 7170	T 7176	R 7182*
2-1/2"	–	T 7171	R 7177*	R 7183*
3"	–	–	R 7178	R 7184
3-1/2"	–	–	–	R 7185*

COTTER, SPRING PINS AND SNAP RINGS

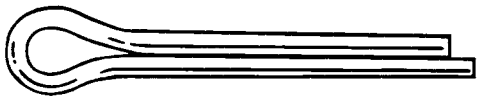
- **Precision Manufactured to Exacting Specifications**
- **Protected with Special Chromate Plating**
- **Fast, Easy Installation**
- **Reuseable**

CHROMATE COTTER PINS, SPRING PINS AND SNAP RINGS ASSURE FAST, EASY INSTALLATIONS FOR THOUSANDS OF APPLICATIONS. Manufactured from the finest materials, they prove to be stronger and more durable. Always use Chromate Cotter Pins, Spring Pins and Snap Rings when quality and reliability are of utmost importance.

COTTER PINS

EASY TO INSERT, LOCK, REMOVE AND REUSE

- PRECISION MADE AND PROTECTED WITH SPECIAL CHROMATE PLATING



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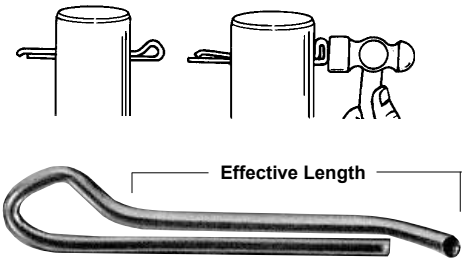
LENGTH	1/16	3/32	7/64	1/8	9/64	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
1/2	U 915	U 920	-	T 905	-	-	-	-	-	-	-	-	-
3/4	U 916	U 921	T 91925	U 927	-	T 907	T 910	-	-	-	-	-	-
1	U 917	U 922	T 91926	T 928	-	T 935	T 941	-	T 900	-	-	-	-
1-1/4	U 918	U 923	T 91928	T 929	-	T 971	T 913	-	T 901	-	-	-	-
1-1/2	U 919	T 924	T 91927	T 930	-	936	T 942	T 914	R 948	N 974	-	-	-
1-3/4	-	T 925	T 91929	T 931	-	R 937	-	-	-	-	-	-	-
2	T 902	T 926	T 91930	R 932	T 912	R 938	R 943	-	R 949	N 954	R 959	-	-
2-1/4	-	-	-	-	-	T 908	-	-	-	-	-	-	-
2-1/2	T 903	-	-	R 933	-	R 939	R 944	-	R 950	N 955	R 985	-	-
3	T 904	-	-	R 934	-	R 940	R 945	T 969	N 951	N 956	R 960	-	I 965
3-1/2	-	-	-	T 906	-	-	R 946	-	N 952	N 957	I 961	-	-
4	-	-	-	-	-	T 909	R 947	-	N 953	N 958	I 962	I 970	E 966
5	-	-	-	-	-	-	-	-	N 973	N 984	I 963	I 972	E 967
6	-	-	-	-	-	-	-	-	-	N 911	I 964	-	E 968

19

HAMMERLOCK COTTER PINS

- MADE FROM LOW CARBON STEEL AND ZINC PLATED
- SPECIAL DESIGN LOCKS THE COTTER IN PLACE WITH ONE HAMMER BLOW
- MADE FOR SEMI-PERMANENT APPLICATIONS
- SIZE IS BASED UPON EFFECTIVE LENGTH AS MEASURED FROM UNDER HEAD TO END OF PRONG

17872



LENGTH	1/16	3/32	7/64	1/8	9/64	5/32
1/2	U 90100	U 90108	-	T 90121	-	-
3/4	U 90101	U 90109	T 90115	U 90122	-	T 90132
1	U 90102	U 90110	T 90116	T 90123	-	T 90133
1-1/4	U 90103	U 90111	T 90117	T 90124	-	T 90134
1-1/2	U 90104	T 90112	T 90118	T 90125	-	T 90135
1-3/4	-	T 90113	T 90119	T 90126	-	R 90136
2	T 90105	T 90114	T 90120	R 90127	T 90131	R 90137
2-1/4	-	-	-	-	-	T 90138
2-1/2	T 90106	-	-	R 90128	-	R 90139
3	T 90107	-	-	R 90129	-	R 90140
3-1/2	-	-	-	T 90130	-	-
4	-	-	-	-	-	T 90141

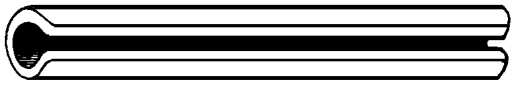
HAMMERLOCK COTTER PINS (Cont'd)

LENGTH	3/16	7/32	1/4	5/16	3/8	7/16	1/2
3/4	T 90142	–	–	–	–	–	–
1	T 90143	–	T 90153	–	–	–	–
1-1/4	T 90144	–	T 90154	–	–	–	–
1-1/2	T 90145	T 90151	R 90155	N 90162	–	–	–
1-3/4	–	–	–	–	–	–	–
2	R 90146	–	R 90156	N 90163	R 90170	–	–
2-1/2	R 90147	–	R 90157	N 90164	R 90171	–	–
3	R 90148	T 90152	N 90158	N 90165	R 90172	–	I 90179
3-1/2	R 90149	–	N 90159	N 90166	I 90173	–	–
4	R 90150	–	N 90160	N 90167	I 90174	I 90177	E 90180
5	–	–	N 90161	N 90168	I 90175	I 90178	E 90181
6	–	–	–	N 90169	I 90176	–	E 90182

SPRING PINS

LIGHTWEIGHT, HIGH STRENGTH AND REUSEABLE

- **PRECISION MADE FROM CARBON SPRING STEEL AND CHROMATE PLATED**
- **TRIPLE HEAT TREATED**



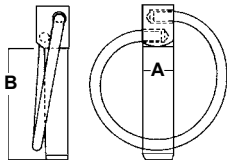
LENGTH	1/16 DIA.	5/64 DIA.	3/32 DIA.	1/8 DIA.	5/32 DIA.	3/16 DIA.
1/4	T 46800	T 46812	T 46826	–	–	–
3/8	T 46802	T 46814	T 46827	T 46834	–	–
1/2	T 46804	T 46816	T 46828	T 46836	T 46848	R 46860
9/16	–	T –	–	–	–	–
5/8	T 46806	T 46820	T 46829	T 46837	–	R 46862
3/4	T 46808	T 46822	T 46830	T 46838	T 46850	R 46864
7/8	–	-	–	T 46839	–	–
1	T 46810	T 46824	T 46832	T 46840	T 46852	R 46866
1-1/4	–	–	–	R 46842	T 46854	R 46868
1-1/2	–	–	T 46833	R 46844	R 46856	R 46870
1-3/4	–	–	–	–	–	R 46872
2	–	–	–	R 46846	R 46858	R 46874

LENGTH	7/32 DIA.	1/4 DIA.	5/16 DIA.	3/8 DIA.	7/16 DIA.	1/2 DIA.
	PART	PART	PART	PART	PART	PART
5/8	T 46875	–	–	–	–	–
3/4	T 46876	N 46888	R 46904	–	–	–
1	N 46878	N 46890	R 46906	N 46918	–	–
1-1/4	N 46880	N 46892	N 46908	N 46920	–	–
1-1/2	N 46882	N 46894	N 46910	N 46922	L 46932	I 46940
1-3/4	N 46884	N 46896	N 46912	L 46924	–	–
2	N 46886	N 46898	N 46913	I 46926	I 46934	I 46942
2-1/4	–	N 46899	–	–	–	–
2-1/2	–	N 46900	N 46914	I 46928	I 46936	E 46944
3	–	N 46902	L 46916	I 46930	I 46938	E 46946

LYNCH PINS

1010 CARBON STEEL, ZINC PLATED

- **1010 STEEL, ZINC ELECTROPLATED AND DICHROMATE DIPPED FOR CORROSION RESISTANCE**
- **ROCKWELL HARDNESS OF Ra 50-60**
- **SELF-LOCKING RING ALLOWS THE PIN TO BE SECURELY HELD IN PLACE AND PROVIDES AN EASY GRIP FOR QUICK REMOVAL**

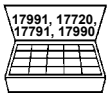


SIZE (A x B)		PART	SIZE (A x B)		PART	SIZE (A x B)		PART
3/16 x 1-9/16	L	47390	7/16 x 1-9/16	L	47393	7/16 x 1-3/4 with Heavy Duty Ring	I	47395
1/4 x 1-9/16	L	47391	7/16 x 1-31/32	I	47394	7/16 x 1-31/32 with Heavy Duty Ring	I	47396
5/16 x 1-9/16	L	47392	–		–	–		–

HAIR PIN COTTERS

QUICK INSTALLATION, STRONG AND REUSABLE

- **ACCURATELY FORMED FROM QUALITY SPRING STEEL**
- **PROTECTED WITH CHROMATE PLATING**

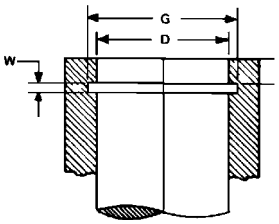


GAUGE	WIRE DIA.	LENGTH	I.D. OF EYE	SHAFT DIA.	DRILL HOLES	PART	
22	.028	.600	.093	1/8 – 5/32	1/32	R	47365
20	.035	7/16	.078	7/64 – 9/64	.040	R	47366
19	.042	7/16	.080	1/16 – 1/8	.047	R	47367
19	.042	1	1/4	3/16 – 1/4	3/64	R	47368
18	.047	19/32	1/8	1/8 – 3/16	1/16	R	47369
18	.047	1-9/16	5/16	1/4 – 3/8	1/16	R	47370
17	.054	3/4	1/8	3/16 – 1/4	1/16	R	47371
17	.054	7/8	9/64	1/4 – 3/8	1/16	R	47372
16	.062	1-5/16	5/16	1/4 – 1/2	5/64	R	47373
16	.062	1-9/16	3/8	3/8 – 1/2	5/64	R	47374
15	.072	1-3/32	9/64	5/16 – 3/8	5/64	R	47375
15	.072	1-7/8	5/8	3/8 – 1/2	5/64	R	47376
14	.080	1-3/16	1/4	1/4 – 3/8	3/32	R	47377
13	.093	1-1/8	1/4	1/4 – 1/2	7/64	R	47379
12	.105	1-1/4	1/8	5/16 – 3/8	1/8	R	47380
14	.080	1-9/16	3/8	3/8 – 1/2	3/32 or 7/64	R	47098
13	.093	1-5/8	3/8	1/4 – 1/2	7/64	R	47090
13	.093	2-5/16	5/8	1/4 – 5/8	7/64	N	47092
13	.093	2	5/8	3/8 – 1/2	7/64	N	47378
13	.093	2-1/2	9/16	3/8 – 3/4	7/64	N	47096
11	.125	1-15/16	7/16	1/2 – 3/4	9/64	N	47097
11	.125	2-9/16	9/16	7/16 – 3/4	9/64	N	47095
9	.148	3-5/16	3/4	3/4 – 1-1/8	5/32 or 11/64	L	47094
9	.148	2-15/16	3/4	5/8 – 1	5/32	I	47383
7	.177	3-1/4	15/16	5/8 – 1	3/16 or 13/64	I	47091
7	.177	3-3/4	15/16	7/8 – 1-1/4	3/16 or 13/64	-	47093
3	.243	4	15/16	3/4 – 1	1/4 or 17/64	-	47099
3	.243	5-1/8	1-1/2	1-1/4 – 1-1/2	17/64	-	47387
0	.310	4-1/16	7/8	7/8 – 1	21/64	-	47389

CIC 200™ INTERNAL SNAP (RETAINING) RINGS

HIGH STRENGTH SPRING STEEL

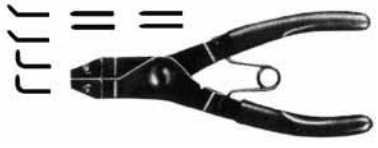
Precision made from carbon spring steel and Chromate plated. Triple heat treated.



SPECIFICATIONS

(D) HOUSING DIA.	RING THICKNESS	(G) GROOVE DIA.	(W) GROOVE WIDTH	PART	
1/4	.015	.268	.018	R	47000
5/16	.015	.330	.018	R	47001
3/8	.025	.397	.029	R	47002
7/16	.025	.461	.029	R	47003
1/2	.035	.530	.039	R	47004
9/16	.035	.596	.039	R	47005
5/8	.035	.665	.039	R	47006
11/16	.035	.732	.039	R	47007
3/4	.035	.796	.039	R	47008
13/16	.042	.862	.046	R	47009
7/8	.042	.931	.046	R	47010
15/16	.042	1.000	.046	R	47011
1"	.042	1.066	.046	R	47012
1.023	.042	1.091	.046	R	47013
1-1/16	.050	1.130	.056	R	47014
1-1/8	.050	1.197	.056	N	47015
1-3/16	.050	1.262	.056	N	47016
1-1/4	.050	1.330	.056	N	47017
1-5/16	.050	1.396	.056	N	47018
1-3/8	.050	1.461	.056	N	47019
1-7/16	.050	1.528	.056	N	47020
1-1/2	.050	1.594	.056	N	47021
1-9/16	.062	1.658	.068	N	47022
1-5/8	.062	1.725	.068	N	47023
1-3/4	.062	1.858	.068	N	47072
1-7/8	.062	1.989	.068	N	47073
2"	.062	2.122	.068	N	47079
2-1/4	.078	2.490	.086	I	46997
2-3/8	.078	2.630	.086	I	46998
2-7/16	.078	2.700	.086	N	46999

ADJUSTABLE INTERNAL SNAP RING PLIERS



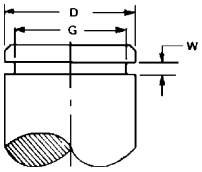
DESCRIPTION		PART
Set contains one internal pliers with four sets of tips: Two of each: .038"/90°, .047"/straight, .047"/45° and 067" straight. Overall pliers length: 6-1/4" (159 mm). Plastic grips. Spring-loaded handles.	A	47089
	A	47080 (Replacement Tips)

CIC 200™ EXTERNAL SNAP (RETAINING) RINGS

HIGH STRENGTH SPRING STEEL

- **PRECISION MADE FROM CARBON SPRING STEEL**
- **CHROMATE PLATED**
- **TRIPLE HEAT TREATED**

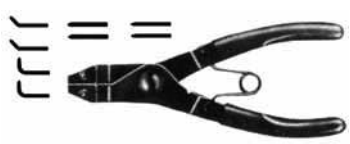
*Beryllium Copper Plated



SPECIFICATIONS

(D) HOUSING DIA.	RING THICKNESS	(G) GROOVE DIA.	(W) GROOVE WIDTH	PART	
1/8*	.010	.117	.012	R	47025
5/32	.010	.142	.012	R	47024
3/16*	.015	.175	.018	R	47026
7/32	.015	.196	.018	R	47050
1/4	.025	.230	.029	R	47027
5/16	.025	.290	.029	R	47028
11/32	.025	.309	.029	R	47051
3/8	.025	.352	.029	R	47029
7/16	.025	.412	.029	R	47030
1/2	.035	.468	.039	R	47031
9/16	.035	.530	.039	R	47032
5/8	.035	.588	.039	R	47033
11/16	.042	.646	.046	R	47034
3/4	.042	.704	.046	R	47035
25/32	.042	.733	.046	R	47036
13/16	.042	.762	.046	R	47037
7/8	.042	.821	.046	R	47038
15/16	.042	.882	.046	R	47039
1"	.042	.940	.046	R	47040
1.023	.042	.961	.046	R	47041
1-1/16	.050	.998	.056	R	47042
1-1/8	.050	1.059	.056	N	47043
1-3/16	.050	1.118	.056	N	47044
1-1/4	.050	1.176	.056	N	47045
1-5/16	.050	1.232	.056	N	47046
1-3/8	.050	1.291	.056	N	47047
1-7/16	.050	1.350	.056	N	47048
1-1/2	.050	1.406	.056	N	47049
1-9/16	.062	1.446	.068	N	46993
1-5/8	.062	1.503	.068	N	46992
1-3/4	.062	1.650	.068	N	47085
1-7/8	.062	1.769	.068	N	47086
2"	.062	1.886	.068	L	47087
2-1/4	.078	2.081	.086	I	46994
2-5/16	.078	2.139	.086	I	46995
2-7/16	.078	2.25	.086	I	46996

ADJUSTABLE EXTERNAL SNAP RING PLIERS



DESCRIPTION	PART	
Set contains one external pliers with four sets of tips: Two of each: .038"/90°, .047"/straight, .047"/45° and 067" straight. Overall length: 6-1/4" (159 mm). Plastic grips. Spring-loaded handles.	A	47088
	A	47080 (Replacement Tips)

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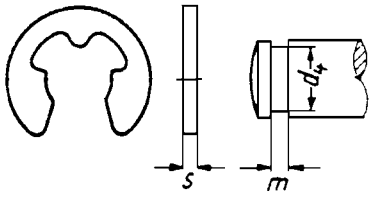
CIC 200™ "E" (RETAINING) RINGS

- **PRECISION MADE FROM HIGH STRENGTH CARBON SPRING STEEL AND CHROMATE PLATED**
- **TRIPLE HEAT TREATED**



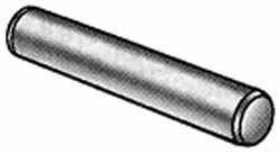
7725

SPECIFICATIONS

SHAFT DIA.	RING THICKNESS (s)	GROOVE DIA. (d_4)	GROOVE WIDTH (m)		PART	SHAFT DIA.	RING THICKNESS (s)	GROOVE DIA. (d_4)	GROOVE WIDTH (m)		PART
1/16*	.010	.052	.012	T	47052	7/32	.025	.188	.029	T	47062
1/16**	.010	.052	.012	T	47053	1/4	.025	.210	.029	T	47063
3/32	.015	.074	.018	T	47054	5/16	.025	.250	.029	T	47064
1/8	.015	.095	.018	T	47055	3/8	.035	.303	.039	T	47065
9/64	.015	.102	.018	T	47056	7/16	.035	.343	.039	T	47066
9/64	.025	.105	.029	T	47057	7/16	.035	.380	.039	T	47067
5/32	.025	.116	.029	T	47058	1/2	.042	.396	.046	T	47068
11/64	.025	.127	.029	T	47059	5/8	.042	.485	.046	R	47069
3/16	.025	.147	.029	T	47060	.744	.050	.625	.056	R	47070
3/16	.025	.125	.029	T	47061	3/4	.050	.580	.056	R	47071

*Ring O.D. .140 **Ring O.D. .156

CIC 200™ DOWEL PINS



- .0002" OVER LISTED DIAMETER
- RUST RESISTANT BLACK LUSTER FINISH
- PRECISION GROUND
- HEAT TREATED TO CORE HARDNESS OF HRC 47-58
- SURFACE HARDNESS OF HRC 60
- MEETS ASME/ANSI B18.8.2

17835

SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART
1/8 x 3/8	R 47100	1/4 x 1-1/4	N 47123	3/8 x 1/2	N 47141	7/16 x 3	I 47192	5/8 x 2-1/2	I 47175
1/8 x 1/2	R 47101	1/4 x 1-1/2	N 47124	3/8 x 5/8	N 47142	1/2 x 3/4	N 47159	5/8 x 3	I 47176
1/8 x 5/8	R 47102	1/4 x 1-3/4	N 47125	3/8 x 3/4	N 47143	1/2 x 1	I 47160	5/8 x 3-1/2	E 47177
1/8 x 3/4	R 47103	1/4 x 2	N 47126	3/8 x 7/8	N 47144	1/2 x 1-1/4	I 47161	5/8 x 4	E 47178
1/8 x 1	R 47105	1/4 x 2-1/4	N 47127	3/8 x 1	N 47145	1/2 x 1-1/2	I 47162	3/4 x 2	E 47179
1/8 x 1-1/4	R 47106	1/4 x 2-1/2	N 47128	3/8 x 1-1/4	N 47146	1/2 x 1-3/4	I 47163	3/4 x 2-1/2	E 47180
1/8 x 1-1/2	N 47107	5/16 x 1/2	N 47129	3/8 x 1-1/2	N 47147	1/2 x 2	I 47164	3/4 x 3	E 47181
1/8 x 2	N 47108	5/16 x 5/8	N 47130	3/8 x 1-3/4	N 47148	1/2 x 2-1/4	I 47165	3/4 x 3-1/2	E 47182
3/16 x 1/2	R 47109	5/16 x 3/4	N 47131	3/8 x 2	N 47149	1/2 x 2-1/2	I 47166	3/4 x 4	E 47183
3/16 x 3/4	R 47111	5/16 x 7/8	N 47132	3/8 x 2-1/4	N 47150	1/2 x 3	I 47167	7/8 x 2	B 47184
3/16 x 1	R 47113	5/16 x 1	N 47133	3/8 x 2-1/2	N 47151	1/2 x 3-1/2	I 47168	7/8 x 2-1/2	B 47185
3/16 x 1-1/4	R 47114	5/16 x 1-1/4	N 47134	3/8 x 3	L 47152	1/2 x 4	I 47169	7/8 x 3	B 47186
3/16 x 1-1/2	N 47115	5/16 x 1-1/2	N 47135	7/16 x 1	L 47153	5/8 x 1	I 47170	7/8 x 4	B 47187
3/16 x 2	N 47117	5/16 x 1-3/4	N 47136	7/16 x 1-1/4	L 47154	5/8 x 1-1/4	I 47171	1 x 2	B 47188
1/4 x 1/2	R 47118	5/16 x 2	N 47137	7/16 x 1-1/2	L 47155	5/8 x 1-1/2	I 47172	1 x 2-1/2	B 47189
1/4 x 5/8	R 47119	5/16 x 2-1/4	N 47138	7/16 x 2	I 47157	5/8 x 1-3/4	I 47173	1 x 3	B 47190
1/4 x 3/4	R 47120	5/16 x 2-1/2	N 47139	7/16 x 2-1/2	I 47158	5/8 x 2	I 47174	1 x 4	B 47191
1/4 x 1	N 47122	5/16 x 3	I 47140	-	-	-	-	-	-

19

CIC 200™ UNIVERSAL CLEVIS PINS

A MULTI-HOLE FASTENER FOR QUICK AND EASY LENGTH ADJUSTMENTS

- EASY TO USE WITH STANDARD CHROMATE HAIR PIN COTTERS (SEE PAGE 19.3)
- MANUFACTURED WITH 1010, 1018 AND 1022 STEEL

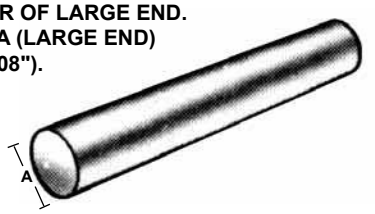
17719

SIZE	HOLES PER PIN	HOLE SIZE	PART #	SIZE	HOLES PER PIN	HOLE SIZE	PART #
3/16 x 1-1/2	3	3/32	N 46950	3/8 x 3	7	9/64	I 46969
3/16 x 2	5	3/32	N 46952	3/8 x 4	7	9/64	I 46971
1/4 x 1-1/2	3	7/64	N 46953	7/16 x 2	7	5/32	I 46972
1/4 x 2	7	7/64	N 46955	7/16 x 3	7	5/32	I 46974
1/4 x 3	7	7/64	N 46957	1/2 x 2	7	5/32	I 46977
5/16 x 1-1/2	3	7/64	N 46958	1/2 x 3	7	5/32	I 46979
5/16 x 2	7	7/64	N 46960	1/2 x 4	7	5/32	I 46981
5/16 x 3	7	7/64	N 46962	5/8 x 2	7	5/32	E 46982
5/16 x 4	7	7/64	I 46964	3/4 x 3	7	5/32	E 46985
3/8 x 1-1/2	3	9/64	I 46965	3/4 x 4	7	5/32	E 46987
3/8 x 2	7	9/64	I 46967	–	–	–	–

CIC 200™ TAPER PINS

- **AN AID IN HOLE ALIGNMENT**
- **LOW CARBON STEEL C-12L14 MACHINED TO A 63 MICRO-FINISH (MAX.)**
- **TOLERANCE OF +.0013 / -.0007 ON THE MAJOR DIA.**
- **CONFORMS TO SPECIFICATION MS 24692 AND ANSI 18.8.2.**

A = ACTUAL DIAMETER OF LARGE END. SMALL END EQUALS A (LARGE END) MINUS (LENGTH X .0208").

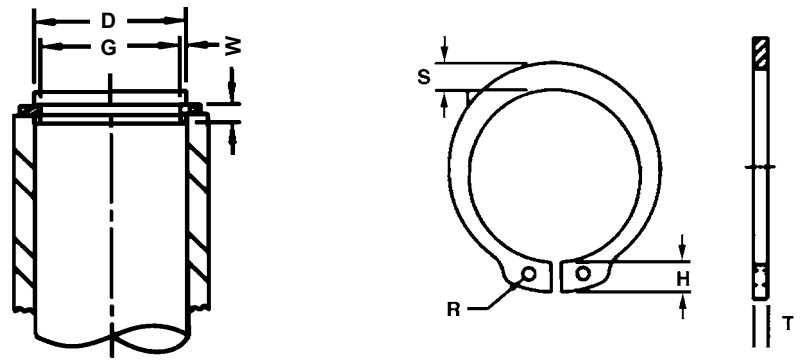


SIZE	LENGTH	A	PART #	SIZE	LENGTH	A	PART #
0	3/4	.156	R 46502	4	1-1/2	.250	L 46582
0	1	.156	R 46504	4	2	.250	L 46584
0	1-1/2	.156	R 46506	4	2-1/2	.250	L 46586
0	2	.156	R 46508	5	1	.289	L 46602
1	3/4	.172	R 46517	5	1-1/2	.289	L 46604
1	1	.172	R 46519	5	2	.289	L 46606
1	1-1/2	.172	R 46521	5	2-1/4	.289	L 46607
1	2	.172	R 46523	6	1	.341	L 46626
2	3/4	.193	R 46532	6	1-1/2	.341	L 46628
2	1	.193	R 46534	6	2	.341	L 46630
2	1-1/2	.193	R 46536	6	2-1/2	.341	L 46632
2	2	.193	R 46538	6	3	.341	L 46634
3	3/4	.219	R 46555	7	1	.409	L 46649
3	1	.219	R 46557	7	1-1/2	.409	L 46651
3	1-1/2	.219	R 46559	7	2	.409	L 46653
3	2	.219	L 46561	7	2-1/2	.409	I 46655
3	2-1/2	.219	L 46563	7	3	.409	I 46657
4	1	.250	L 46580	-	-	-	-

CIC 200™ METRIC EXTERNAL RETAINING RINGS

HIGH CARBON SPRING STEEL

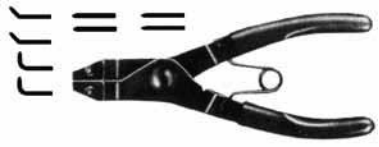
Makes contact with the grooved shaft along its entire periphery, ensuring high thrust load capacity.



SPECIFICATIONS

SHAFT DIA. (mm) (D)	GROOVE DIA. (G)	GROOVE WIDTH (W)	HOLE DIA. (R)	RING THICKNESS (T)	MAX. LUG HEIGHT (H)	MAXIMUM SEC. (S)	PART	
4 mm	3.8	0.50	1.0	0.40	2.2	0.9	T	47304
6 mm	5.7	0.80	1.2	0.70	2.7	1.3	T	47306
8 mm	7.6	0.90	1.2	0.80	3.2	1.5	T	47308
10 mm	9.6	1.10	1.5	1.00	3.3	1.8	T	47310
12 mm	11.5	1.10	1.7	1.00	3.3	1.8	T	47312
14 mm	13.4	1.10	1.7	1.00	3.5	2.1	T	47314
15 mm	14.3	1.10	1.7	1.00	3.6	2.2	T	47315
16 mm	15.2	1.10	1.7	1.00	3.7	2.2	T	47316
18 mm	17.0	1.30	2.0	1.20	3.9	2.4	T	47318
20 mm	19.0	1.30	2.0	1.20	4.0	2.6	T	47320
22 mm	21.0	1.30	2.0	1.20	4.2	2.8	R	47322
25 mm	23.9	1.30	2.0	1.20	4.4	3.0	R	47325
28 mm	26.6	1.60	2.0	1.50	4.7	3.2	L	47328
30 mm	28.6	1.60	2.0	1.50	5.0	3.5	L	47330
32 mm	30.3	1.60	2.5	1.50	5.2	3.6	L	47332
35 mm	33.0	1.60	2.5	1.50	5.6	3.9	L	47335
36 mm	34.0	1.85	2.5	1.75	5.6	4.0	L	47336
38 mm	36.0	1.85	2.5	1.75	5.8	4.2	L	47338
40 mm	37.5	1.85	2.5	1.75	6.0	4.4	L	47340
42 mm	39.5	1.85	2.5	1.75	6.5	4.5	L	47342

ADJUSTABLE EXTERNAL SNAP RING PLIERS

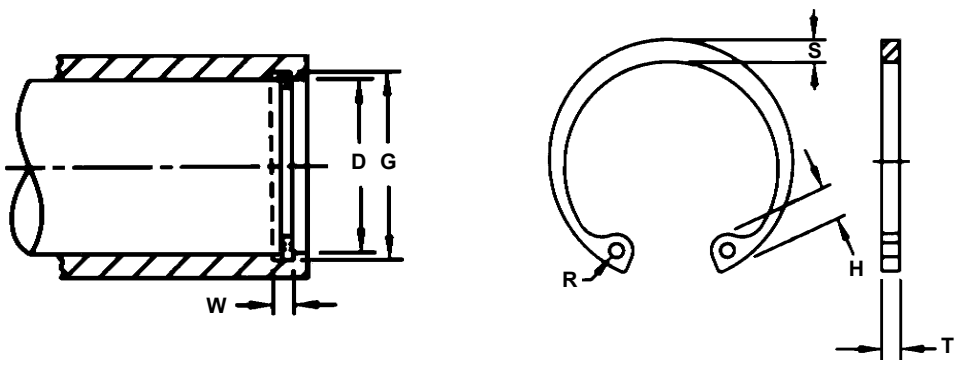


DESCRIPTION		PART
Set contains one external pliers with four sets of tips: Two of each: .038"/90°, .047"/straight, .047"/45° and 067" straight. Overall pliers length: 6-1/4" (159 mm). Plastic grips. Spring-loaded handles.	A	47088
	A	47080 (Replacement Tips)

CIC 200™ METRIC INTERNAL RETAINING RINGS

HIGH CARBON SPRING STEEL

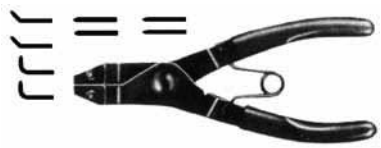
Makes contact with the grooved housing along most of its periphery, ensuring high thrust load capacity.



SPECIFICATIONS

HOUSING DIA. (mm) (D)	GROOVE DIA. (G)	GROOVE WIDTH (W)	HOLE DIA. (R)	RING THICKNESS (T)	MAX. LUG HEIGHT (H)	MAXIMUM SEC. (S)	PART	
10 mm	10.4	1.10	1.2	1.00	3.2	1.4	T	47510
12 mm	12.5	1.10	1.5	1.00	3.4	1.7	T	47512
14 mm	14.6	1.10	1.7	1.00	3.7	1.8	T	47514
15 mm	15.7	1.10	1.7	1.00	3.7	2.0	T	47515
16 mm	16.8	1.10	1.7	1.00	3.8	2.0	T	47516
18 mm	19.0	1.10	2.0	1.00	4.1	2.2	T	47518
19 mm	20.0	1.10	2.0	1.00	4.1	2.2	T	47519
20 mm	21.0	1.10	2.0	1.00	4.1	2.3	T	47520
22 mm	23.0	1.10	2.0	1.00	4.2	2.5	T	47522
24 mm	25.2	1.30	2.0	1.20	4.3	2.6	T	47524
25 mm	26.2	1.30	2.0	1.20	4.5	2.7	T	47525
27 mm	28.4	1.30	2.0	1.20	4.7	2.9	R	47527
28 mm	29.4	1.30	2.0	1.20	4.8	2.9	R	47528
29 mm	30.4	1.30	2.0	1.20	4.8	3.0	R	47529
30 mm	31.4	1.30	2.0	1.20	4.8	3.0	R	47530
32 mm	33.7	1.30	2.5	1.20	5.4	3.2	R	47532
35 mm	37.0	1.60	2.5	1.50	5.4	3.4	L	47535
38 mm	40.0	1.60	2.5	1.50	5.5	3.7	L	47538
40 mm	42.5	1.85	2.5	1.75	5.8	3.9	L	47540
42mm	44.5	1.85	2.5	1.75	5.9	4.1	L	47542

ADJUSTABLE INTERNAL SNAP RING PLIERS

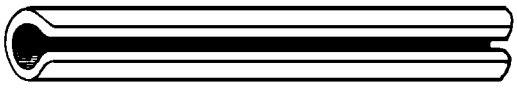


DESCRIPTION		PART
Set contains one internal pliers with four sets of tips: Two of each: .038"/90°, .047"/straight, .047"/45° and 067" straight. Overall pliers length: 6-1/4" (159 mm). Plastic grips. Spring-loaded handles.	A	47089
	A	47080 (Replacement Tips)

METRIC SPRING PINS

LIGHTWEIGHT, HIGH STRENGTH AND REUSEABLE

Precision made from carbon spring steel. Triple heat treated.



17731

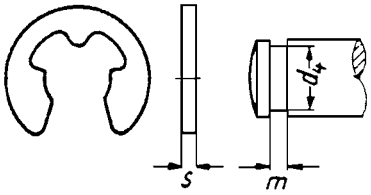
LENGTH	1mm DIA.		1.5mm DIA.		2mm DIA.		2.5mm DIA.	
6mm	T	47550	T	47557	T	47563	T	47572
8mm	T	47551		—		—		—
10mm	T	47552	T	47558	T	47564	T	47573
12mm	T	47553	T	47559	T	47565	T	47574
14mm		—		—	T	47566		—
16mm	T	47554	T	47560	T	47567	T	47575
18mm	T	47555	T	47561	T	47568	T	47576
20mm	T	47556	T	47562	T	47569	T	47577
24mm		—		—	T	47570	T	47578
30mm		—		—	T	47571	T	47579

LENGTH	3mm DIA.		3.5mm DIA.		4mm DIA.		4.5mm DIA.		5mm DIA.	
6mm	T	47580		—		—		—		—
10mm	T	47581		—	T	47597		—		—
12mm	T	47582	T	47590	T	47598	T	47606	T	47621
16mm	T	47583	T	47591	T	47599		—	T	47614
18mm		—		—		—	T	47607		—
20mm	T	47584	T	47592	T	47600	T	47608	T	47615
24mm	T	47585		—		—		—		—
26mm		—	T	47593	T	47601	T	47609	T	47616
28mm	T	47586		—		—		—		—
30mm	T	47587	T	47594	T	47602	T	47610	T	47617
36mm	T	47588	T	47595	T	47603	T	47611		—
40mm	T	47589	T	47596	T	47604	T	47612	T	47618
45mm		—		—	T	47605	R	47613		—
50mm		—		—		—		—	R	47619
60mm		—		—		—		—	R	47620

LENGTH	6mm DIA.		8mm DIA.		10mm DIA.		12mm DIA.	
12mm	T	47622		–		–		–
16mm	T	47623	T	47630	R	47639		–
20mm	T	47624	R	47631	R	47640		–
24mm	T	47625	R	47632	R	47641	I	47648
30mm	R	47626	R	47633	N	47642	I	47649
36mm	R	47627	R	47634	N	47643	I	47650
40mm	R	47628	R	47635	N	47644	I	47651
50mm	R	47629	N	47636	N	47645	I	47652
60mm		–	N	47637	I	47646	I	47653
80mm		–	I	47638	I	47647	E	47654

METRIC "E" (RETAINING) RINGS

- **THE THREE PRONGS OF THIS POPULAR RETAINING RING MAKE CONTACT WITH THE BOTTOM OF THE GROOVE, RESULTING IN EXCEPTIONAL THRUST LOADINGS**
- **HARDNESS HRC 46 TO 54**
- **DIN 6799**



17811

SPECIFICATIONS

SHAFT DIA.	RING THICKNESS (s)	GROOVE DIA. (d_4)	GROOVE WIDTH (m)		PART	SHAFT DIA.	RING THICKNESS (s)	GROOVE DIA. (d_4)	GROOVE WIDTH (M)		PART
1.2 mm	.3 mm	1.2 mm	.34 mm	T	47350	7 mm	.9 mm	7 mm	.94 mm	T	47358
1.5 mm	.4 mm	1.5 mm	.44 mm	T	47351	8 mm	1.0 mm	8 mm	1.05 mm	T	47359
1.9 mm	.5 mm	1.9 mm	.54 mm	T	47352	9 mm	1.1 mm	9 mm	1.15 mm	T	47360
2.3 mm	.6 mm	2.3 mm	.64 mm	T	47353	10 mm	1.2 mm	10 mm	1.25 mm	T	47361
3.2 mm	.6 mm	3.2 mm	.64 mm	T	47354	12 mm	1.3 mm	12 mm	1.35 mm	T	47362
4 mm	.7 mm	4 mm	.74 mm	T	47355	15 mm	1.5 mm	15 mm	1.55 mm	T	47363
5 mm	.7 mm	5 mm	.74 mm	T	47356	19 mm	1.75 mm	19 mm	1.80 mm	T	47364
6 mm	.7 mm	6 mm	.74 mm	T	47357	–	–	–	–		–

METRIC DOWEL PINS

17810

- **STEEL HARDENED**
- **HARDNESS HRC 58 TO 62**
- **PRECISION GROUND**

SIZE		PART	SIZE		PART	SIZE		PART
4mm x 10 mm	T	47655	6mm x 16mm	R	47665	10mm x 20mm	N	47675
4mm x 12mm	R	47656	6mm x 20mm	R	47666	10mm x 25mm	N	47676
4mm x 16mm	R	47657	6mm x 25mm	R	47667	10mm x 30mm	I	47677
4mm x 20mm	R	47658	6mm x 30mm	N	47668	10mm x 35mm	R	47678
4mm x 25mm	R	47659	6mm x 35mm	N	47669	10mm x 40mm	N	47679
5mm x 12mm	R	47660	8mm x 16mm	R	47670	12mm x 25mm	N	47680
5mm x 16mm	R	47661	8mm x 20mm	R	47671	12mm x 30mm	L	47681
5mm x 20mm	R	47662	8mm x 25mm	N	47672	12mm x 35mm	L	47682
5mm x 25mm	R	47663	8mm x 30mm	N	47673	12mm x 40mm	I	47683
5mm x 30mm	N	47664	8mm x 35mm	N	47674	12mm x 50mm	I	47684

CHROMATE 200
NYLON INSULATED TERMINALS

ONE PIECE DESIGN
Electro-tin plated high conductivity copper construction for maximum electrical conductivity and corrosion resistance.

ENGINEERED FOR STRENGTH
Reinforced barrel-to-pad tongue designed to minimize flexing and bending.

FULL 1/4" BARREL LENGTH
Long barrel in all sizes eliminates loss of time finding critical crimping location. Eliminates "squeeze-outs" and shearing. Allows wider crimp for extra strong, vibration-proof connection with wide contact area.

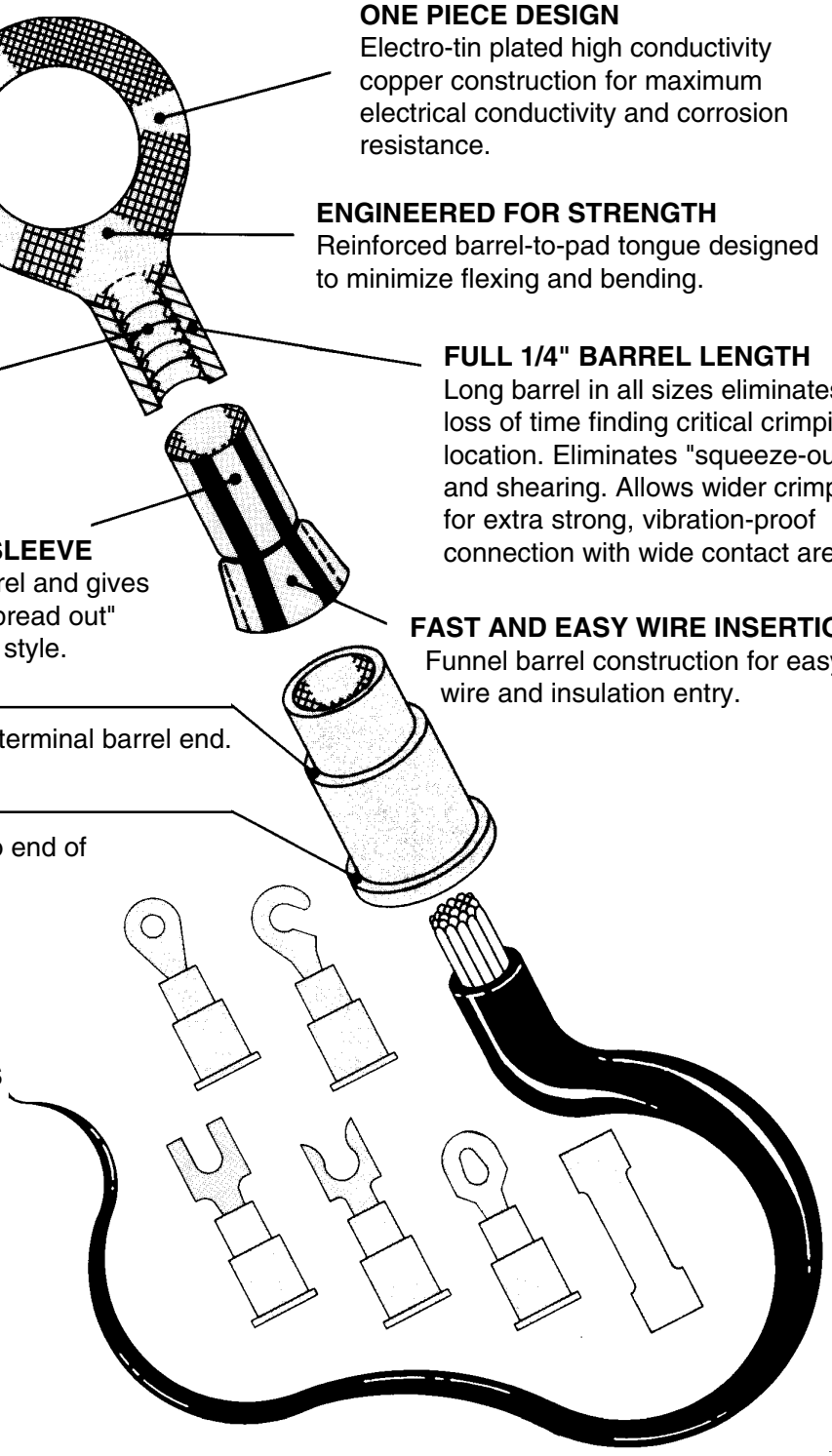
BEST CONTACT AND GRIP
Multiple deep "V" grooves securely grip wire and provide maximum current flow.

REINFORCED BRASS FUNNEL SLEEVE
Unique design guides wire into barrel and gives extra reinforcement to eliminate "spread out" which is common with single crimp style.

FAST AND EASY WIRE INSERTION
Funnel barrel construction for easy wire and insulation entry.

CRIMP GUIDE I
Crimp ridge for positive location of terminal barrel end.

CRIMP GUIDE II
Non-skid crimp ridge. Tool slides to end of terminal for proper crimping.



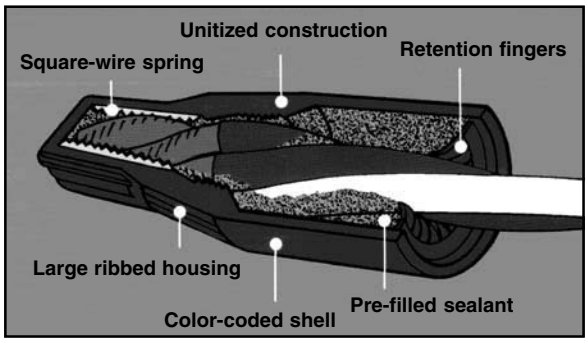
NYLON INSULATED TERMINALS
Designed for Fleet, Industrial and Institutional Electrical Maintenance.

Saves:
- **LABOR**
- **TIME**
- **MONEY**

Available in all popular styles and wire sizes.

Test The Waters
WITH
CIC 200 WATERPROOF CONNECTORS

These pressure-type wire connectors provide extra protection where moisture and humidity could lead to corrosion-caused failure or flashover and cover the full range of wire combinations recognized by U.L. and C.S.A. (C.S.A.-approval includes direct burial as well as pressure-type applications). Color-keyed to ordinary connectors, they can be used as safety replacements for non-waterproof connectors of the same color. This self-contained system gives the kind of watertight splice once obtainable only with multi-piece, multi-step resin packs or heat-shrink tubing, eliminating time-consuming extra steps. The custom silicone sealant is so impervious to moisture that it is often used in direct burial without a waterproof box.



- **Pre-filled custom silicone blocks out moisture and air**
- **Eliminates corrosion-caused failures**
- **U.L. listed and C.S.A. approved***
- **Exceed NEMA's (National Electric Contractors Association) requirements for corrosion proofing**
- **Lifetime warranty against corrosion caused failures**
- **Reduces call-backs**
- **Easily removable; not for re-use**
- **One-step operation saves money, time and labor**
- **Integrity of splices of 100%**
- **Smaller profile fits easily into J-boxes**
- **No on-site assembly, no need for multi-piece kits**
- **Spring locks onto wires for safe, tight grip**
- **Ribbed housings and large wings make twisting easy**
- **Made in U.S.A.**

INSTALLATION IS SIMPLE AND EASY:

Just insert stripped wires and twist-on the connector.

1. Each conductor is coated with sealant as it passes through the retention fingers.
2. Retention fingers re-pack excess sealant around the conductors.
3. Calibrated depth of sealant above actual connection stops all possible of corrosion and flashover.

No need to pre-twist or crimp the wires, use epoxy or gels and even fumble with multiple parts. When it's time to change the splice, just twist off and replace with a new one. No need to cut off pigtail or double-splice. Ideal for residential, commercial and municipal applications.

Don't let moisture threaten your connections . . .
Use CIC 200 Waterproof Connectors

**C.S.A.-approval includes direct burial as well as pressure-type applications.*

FUSION SEAL™ ELECTRICAL WRAP ASSORTMENT

Extremely flexible, long lasting electrode insulating wrap for superior protection in extreme temperatures and highly corrosive environments

P/N 8833

GEAR / TOOL BOX:

- Heavy duty rust-proof construction
- Deep open interior accommodates large, tall parts and equipment
- Cam-over latch design provides added strength
- Large carry handle makes hauling easier
- Tongue and groove design helps keep dust and contaminates out
- Snap-open lid is perfect fr storing small parts
- Lift-out tray keeps everything organized and at your fingertips

FEATURES:

- Weather and saltwater resistant
- Form fitting electrical insulator

APPLICATIONS:

- Electrical insulation, splices, and cable harnesses
- Economical substitute for heat shrink tubing and hot air ducting

ASSORTMENT INCLUDES:

1" x 30 mil x 36 Feet – Red	P/N 2899
1" x 30 mil x 36 Feet – Black	P/N 28991
1" x 30 mil x 36 Feet – Gray	P/N 28992
1" x 30 mil x 36 Feet – Clear	P/N 28993
Orange Gear / Tool Box	P/N 79000

CHROMATE® INDUSTRIAL CORP.

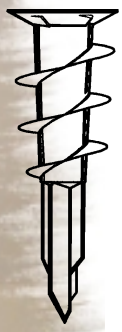
EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

5250-A Naiman Parkway . Solon . OH 44139

1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

010109

PORTA-PAK Specials

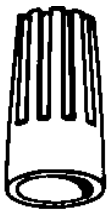


SUPER-FAST ANCHORS

P/N 17859

- No pre-drilling
- Removable
- Extra deep #2 phillips drive
- Works in 3/8", 1/2" and 5/8" drywall
- Incredibly fast and easy to use

QTY	SUPERFAST ANCHOR	PART #	QTY	PHILLIPS BINDING METAL SCREW	PART #
20	Superfast Anchor	88650	20	6 x 1	1511
40	Superfast Mini Anchor	88680	40	8 x 1-1/4	1521



TWIST-LOK WIRE NUTS

P/N 17860

- Fast and easy to use
- Automatically twists wires together
- Rated for 130°C
- Long skirt for additional insulating protection
- Wide throat for easier installation on larger wires

QTY	TWIST-LOK WIRE NUT SIZE	COLOR	PART #	QTY	TWIST-LOK WIRE NUT SIZE	COLOR	PART #
12	Max. 2 #14	Red	2808	14	22-14	Orange	2805
20	Max. 4 #14	Yellow	2807	24	22-14	Blue	2803
				30	22-16	Grey	2801

060100

PORTA-PAK Specials

PUSH-CON / SNAP-CON WIRE CONNECTORS

P/N 19500

PUSH-CON WIRE CONNECTORS

- Connects both stranded and solid copper wire
- Clear housing allows visual identification
- No more twisting and taping required – simply strip the wire; insert the conductor and you're finished
- Integrated test port allows for continuity testing without re-insertion
- Size: 12-16 AWG stranded or 12-18 solid copper
- Touch-proof and rated to 206°F (105°C)
- UL Listed / CSA certified for 600 volts (1000 volts for fixtures and signs)
- Rated @ 24 amps

SNAP-CON WIRE CONNECTORS

- Spring pressure connection technology
- Connects both stranded and solid wire
- Wide range of wire sizes and types
- Size: 12-28 AWG stranded or solid wire
- Small space consumption
- Built-in test point
- Protection against electrical shock-touch safe
- Low installed cost and safe operation
- Maintenance-free connection
- UL Listed / CSA certified for 600 volts (1000 volts for fixtures and signs)
- Rated @20 amps

QTY	WIRE CONNECTOR	PART #	QTY	WIRE CONNECTOR	PART #
30	2 Conductor Push-Con Wire Con.	2521	6	6 Conductor Push-Con Wire Con.	2523
25	4 Conductor Push-Con Wire Con.	2522	6	3 Conductor Snap-Con Wire Con.	2518

PORTA-PAK Specials

POSI-LOCK™ CONNECTORS

P/N 19514

- No tools required
- Up to 4 times stronger than crimp connectors
- Multiple splice connections (over 26 wire combinations)
- High temperature and chemical resistant
- Reusable and reconnectable
- Weather resistant brass core
- Installs in seconds

QTY	POSI-LOCK CONNECTORS	PART #	QTY	POSI-LOCK CONNECTORS	PART #
10	18-24 AWG (Red)	20600	4	08-10 AWG (Yellow)	20602
6	12-18 AWG (Blue)	20601	4	6-8 AWG (Green)	20617

PORTA-PAK Specials

ATM BLOW ALERT FUSE

P/N 19516

IT GLOWS WHEN IT BLOWS!

- When a circuit short or surge occurs, a light on top of the fuse immediately indicates which fuse needs replacing
- Built to exacting OEM specifications
- Color-coded for fast amperage identification
- Saves time and effort and eliminates guesswork and testing

QTY	AMPS	COLOR	PART #	QTY	AMPS	COLOR	PART #
6	5	Tan	6281	6	10	Red	6283
6	15	Blue	6284	6	20	Yellow	6285
6	25	Natural	6286	6	30	Green	6287

ATC BLOW ALERT FUSE

P/N 19519

IT GLOWS WHEN IT BLOWS!

- When a circuit short or surge occurs, a light on top of the fuse immediately indicates which fuse needs replacing
- Built to exacting OEM specifications
- Color-coded for fast amperage identification
- Saves time and effort and eliminates guesswork and testing

QTY	AMPS	COLOR	PART #	QTY	AMPS	COLOR	PART #
7	5	Tan	29071	7	10	Red	29073
7	15	Blue	29074	7	20	Yellow	29075
7	25	Natural	29076	7	30	Green	29077

TERMINALS AND ELECTRICAL PRODUCTS

FEATURES:

- **Full Range of Terminals from Light-Duty Nylon and Vinyl Insulated to Heavy-Duty Electrical Lugs and Battery Terminals**
- **Many Unique Problem Solver Products that Make Electrical Repairs Faster and Easier**
- **Many Other Electrical Products Including Specialty Terminals, Primary Wire, Fuses, Bulbs, Battery Cable, Wire Ties, Cable Clamps, Tapes and Tools**

CHROMATE TERMINALS AND ELECTRICAL PRODUCTS ARE MANUFACTURED TO THE HIGHEST STANDARDS AND PROVIDE SUPERIOR PERFORMANCE AND RELIABILITY.
Most products are UL listed, CSA approved and will cover all your electrical maintenance and repair applications.

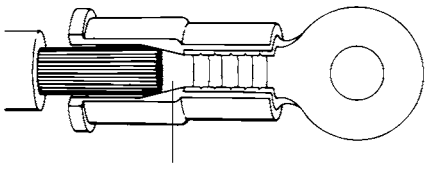
CHROMATE INDUSTRIAL CORP.

Quality ... Service ... Performance

CIC 200™ NYLON INSULATED TERMINALS

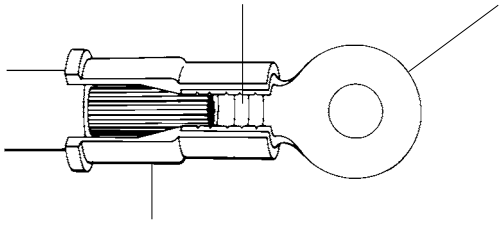
DOUBLE GRIP

Double crimp holds both wire and insulation for added strength.



FUNNEL DESIGN FOR FAST, POSITIVE WIRE INSERTION

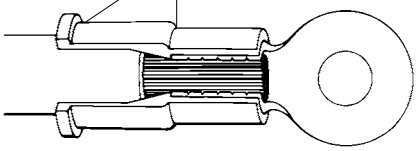
DEEP "V" GROOVE AND LONG BARREL FOR EXTRA STRONG GRIP AND MAXIMUM CURRENT FLOW



HIGH TEMPERATURE NYLON INSULATION

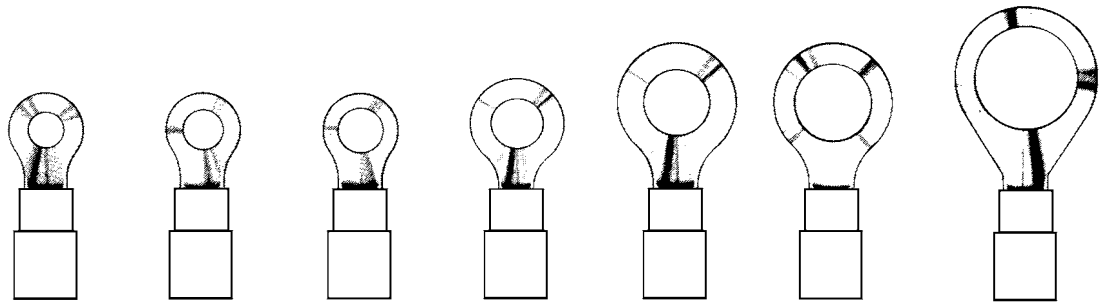
ONE PIECE, ELECTRO-TIN PLATED HIGH-CONDUCTIVITY COPPER CONSTRUCTION FOR MAXIMUM CORROSION RESISTANCE

CRIMP GUIDES FOR ACCURATE CRIMPING



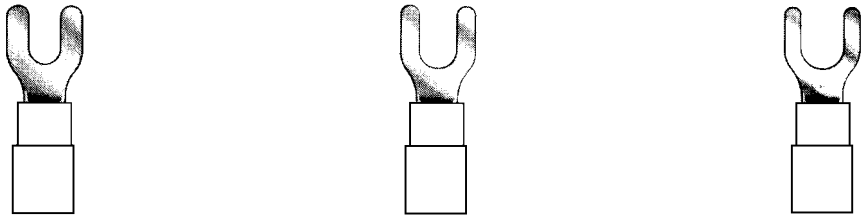
EXTRA HEAVY DUTY DOUBLE GRIP RINGS AND SPADES

RINGS
FITS 12-16 GA. WIRE SIZE



SCREW SIZE	6	8	10	1/4	5/16	3/8	1/2
PART	R 2556	R 2557	R 2558	R 2559	R 2560	R 2561	R 2562

SPADES
FITS 12-16 GA. WIRE SIZE

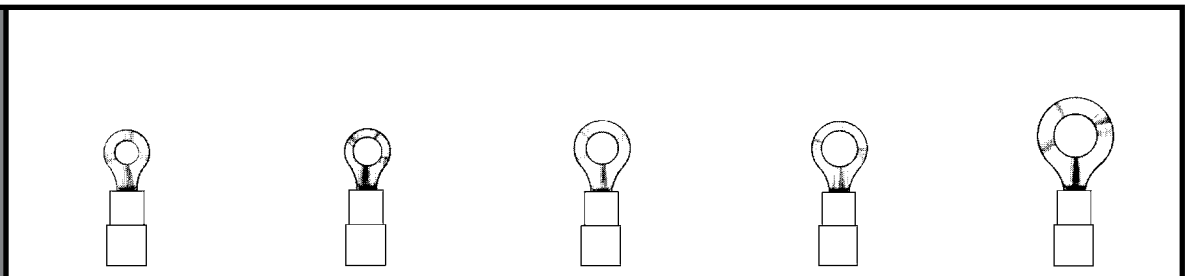


SCREW SIZE	6	8	10
PART	R 2656	R 2657	R 2658

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

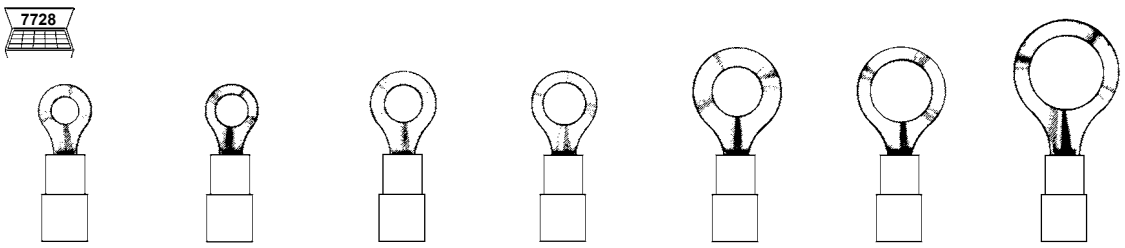
RINGS — DOUBLE GRIP

YELLOW 26-24 WIRE SIZE



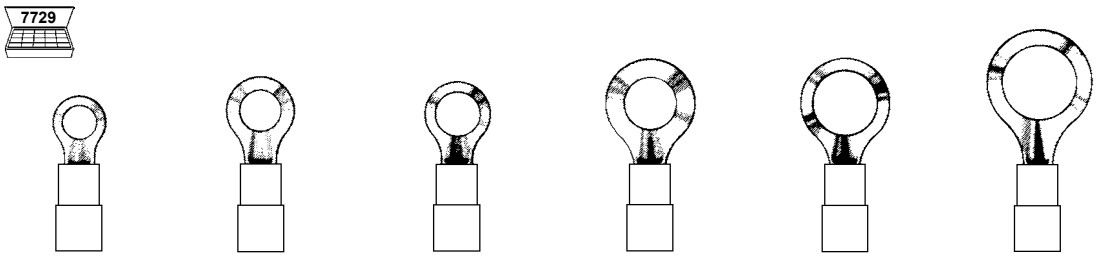
STUD SIZE	0	1-2	3-4	5-6	8
PART	R 2081	R 2082	R 2083	R 2084	R 2085

RED 22-18 WIRE SIZE



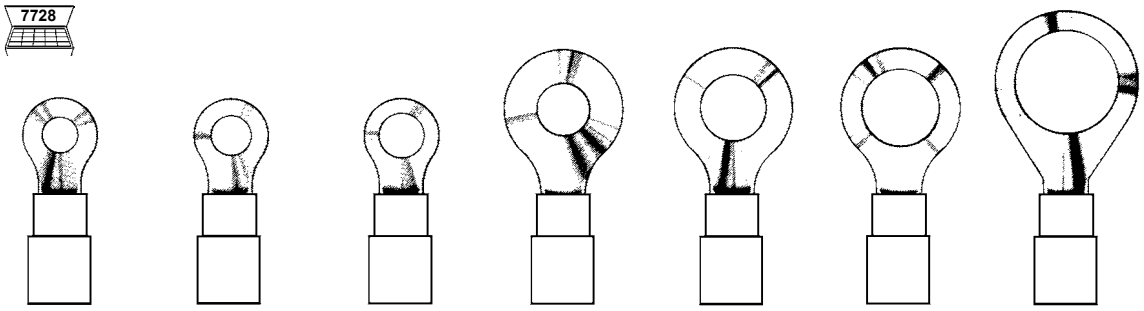
STUD SIZE	4	6	8	10	1/4	5/16	3/8
PART	R 2001	R 2002	R 2003	R 2004	R 2005	R 2006	R 2007

BLUE 16-14 WIRE SIZE



STUD SIZE	6	8	10	1/4	5/16	3/8
PART	R 2009	R 2010	R 2011	R 2012	R 2013	R 2014

YELLOW 12-10 WIRE SIZE

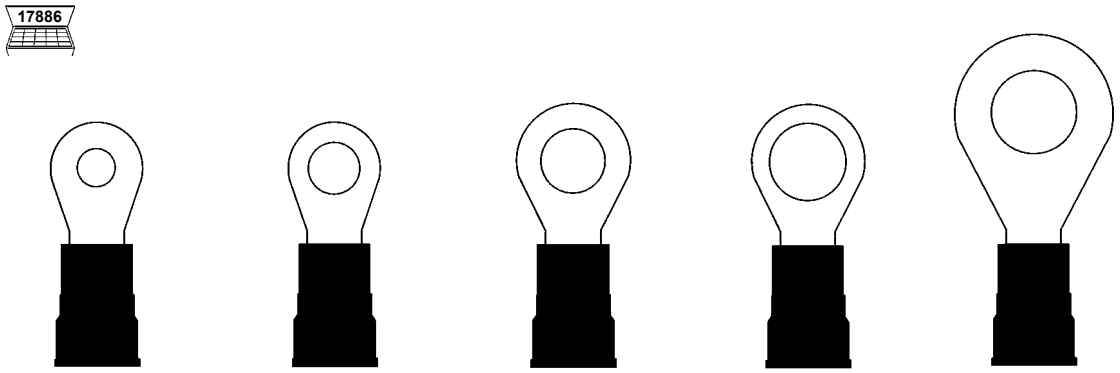


STUD SIZE	6	8	10	1/4	5/16	3/8	1/2
PART	R 2015	R 2016	R 2017	R 2018	R 2019	R 2020	R 2021

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

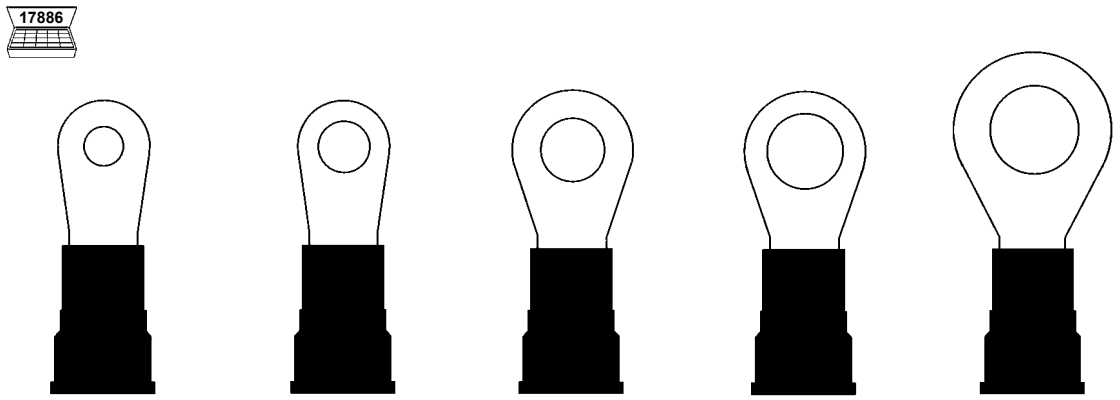
RINGS — BRAZED SEAM

RED
FITS 8 GA WIRE SIZE



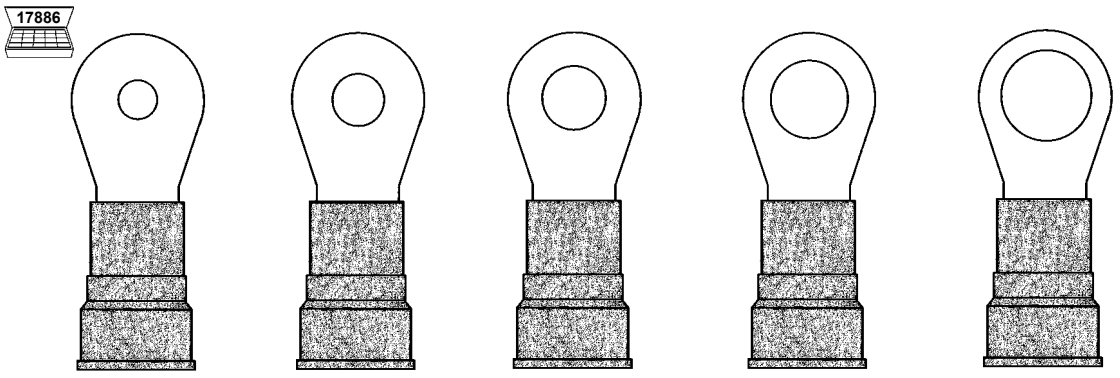
STUD SIZE	10	1/4	5/16	3/8	1/2
PART	N 21000	N 21001	N 21002	N 21003	N 21005

BLUE
FITS 6 GA WIRE SIZE



STUD SIZE	10	1/4	5/16	3/8	1/2
PART	I 21007	I 21008	I 21009	I 21010	I 21012

YELLOW
FITS 4 GA WIRE SIZE

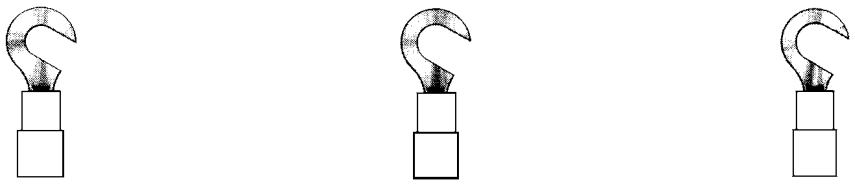


STUD SIZE	10	1/4	5/16	3/8	1/2
PART	G 21014	G 21015	G 21016	G 21017	G 21019

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

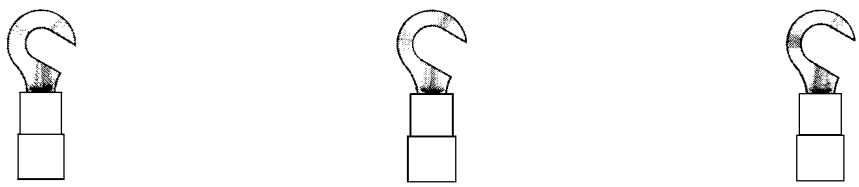
HOOKS — DOUBLE GRIP

RED
22-18
WIRE SIZE



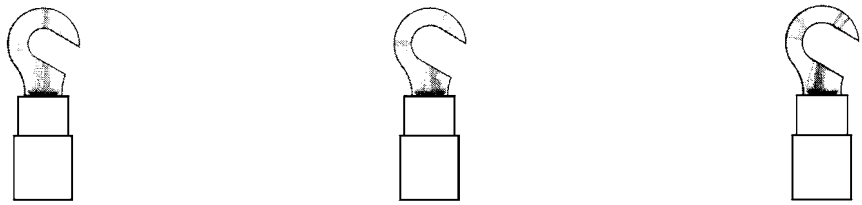
STUD SIZE	6	8	10
PART	R 2202	R 2203	R 2204

BLUE
16-14
WIRE SIZE



STUD SIZE	6	8	10
PART	R 2209	R 2210	R 2211

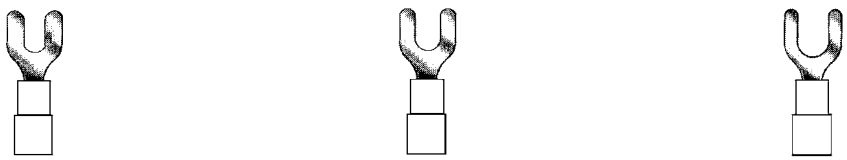
YELLOW
12-10
WIRE SIZE



STUD SIZE	6	8	10
PART	R 2215	R 2216	R 2217

SPADES — DOUBLE GRIP

YELLOW
26-24
WIRE SIZE



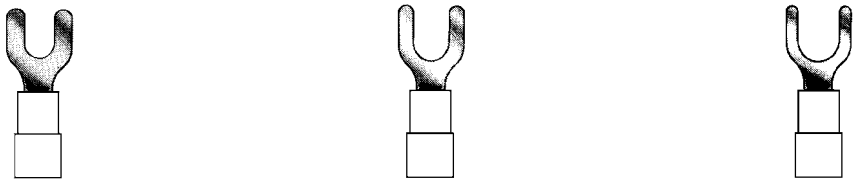
STUD SIZE	0-2	3-4	5-6
PART	R 2090	R 2091	R 2092

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

RED
22-18 WIRE SIZE

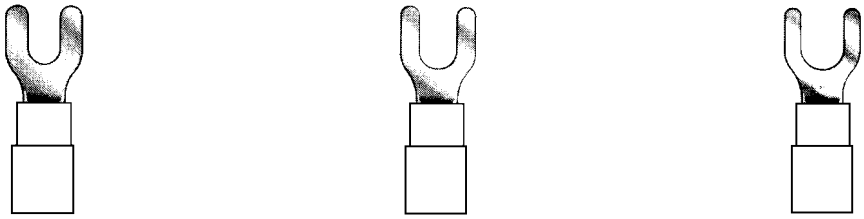
STUD SIZE	4	6	8	10
PART	R 2101	R 2102	R 2103	R 2104

BLUE
16-14 WIRE SIZE



STUD SIZE	6	8	10
PART	R 2109	R 2110	R 2111

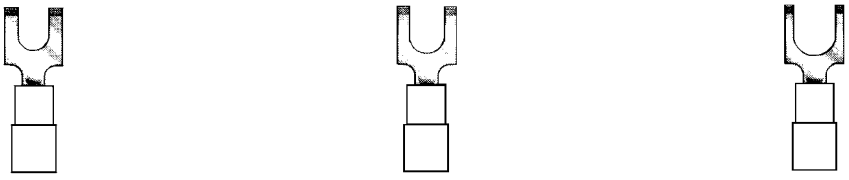
YELLOW
12-10 WIRE SIZE



STUD SIZE	6	8	10
PART	R 2115	R 2116	R 2117

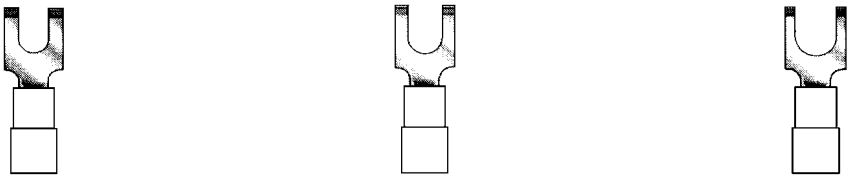
FLANGED SPADES — DOUBLE GRIP

RED
22-18 WIRE SIZE



STUD SIZE	6	8	10
PART	R 2702	R 2703	R 2704

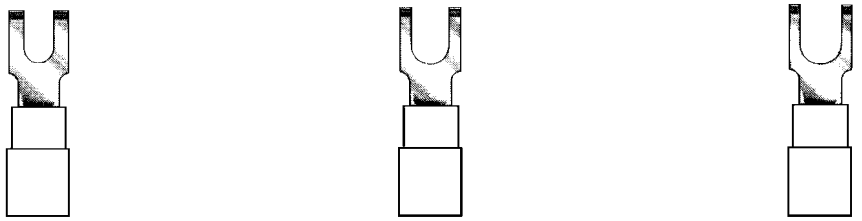
BLUE
16-14 WIRE SIZE



STUD SIZE	6	8	10
PART	R 2709	R 2710	R 2711

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

YELLOW
12-10
WIRE SIZE



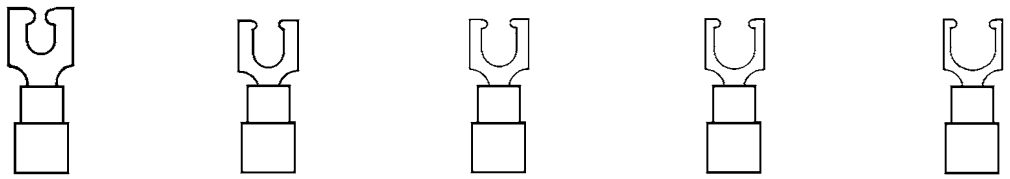
STUD SIZE	6	8	10
PART	R 2715	R 2716	R 2717

SNAP SPADES — DOUBLE GRIP

RED
22-18
WIRE SIZE

STUD SIZE	4	6	8	10
PART	R 2759	R 2767	R 2768	R 2769

BLUE
16-14
WIRE SIZE



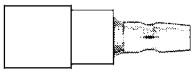
STUD SIZE	4	6	8	10	1/4
PART	R 2779	R 2790	R 2791	R 2792	R 2793

YELLOW
12-10
WIRE SIZE

STUD SIZE	6	8	10	1/4
PART	R 2796	R 2797	R 2798	R 2799

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

SNAP PLUGS

RED 22-18					BLUE 16-14					YELLOW 12-10		
												
SIZE		PART	SIZE	PART	SIZE		PART	SIZE	PART	SIZE		PART
.156	R	2026	.180	R 2028	.156	R	2030	.180	R 2029	. 156	R	2027

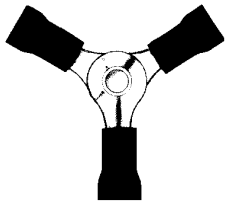
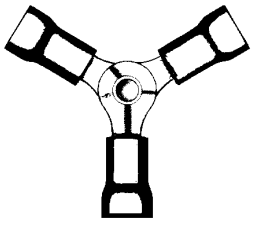
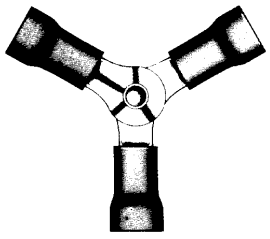
SNAP PLUG RECEPTACLE

RED 22-18				BLUE 16-14			
SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART
.156	R 2783	.176	R 2761	.156	R 2784	.176	R 2765

2-WAY SNAP PLUG CONNECTOR

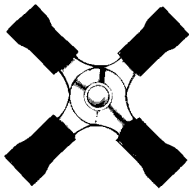
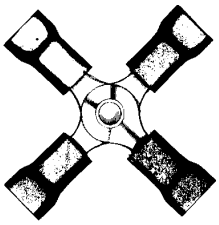
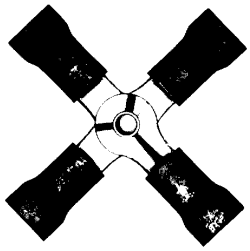
CLEAR	
SIZE	PART
.156	R 2040

DOUBLE GRIP 3-WAY CONNECTORS

RED 22-18		BLUE 16-14		YELLOW 12-10	
					
WIRE SIZE	PART	WIRE SIZE	PART	WIRE SIZE	PART
22-18	N 2073	16-14	N 2075	12-10	N 2080

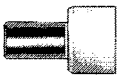
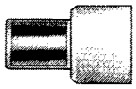
CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

DOUBLE GRIP 4-WAY CONNECTORS

RED			BLUE			YELLOW		
								
WIRE SIZE		**PART**	**WIRE SIZE**		**PART**	**WIRE SIZE**		**PART**
22-18	N	2173	16-14	N	2175	12-10	N	2180

CLOSED END CRIMP CONNECTORS AND TRAILER PINS

20

CLOSED END CRIMP CONNECTOR			
			
WIRE SIZE	**PART**	**WIRE SIZE**	**PART**
22-14 WHITE	R 2120	18-10 WHITE	R 2125

ELECTRONIC EQUIPMENT PINS

YELLOW 22-18			RED 22-16			BLUE 16-14			YELLOW 12-10		
SIZE		**PART**	**SIZE**		**PART**	**SIZE**		**PART**	**SIZE**		**PART**
.042	R	2751	.075	R	2753	.075	R	2754	.106	R	2755

HOLLOW PIN CONNECTORS

- USE TO TERMINATE STRANDED WIRE INTO TERMINAL BLOCKS
- COPPER MATERIAL AND TIN PLATED SURFACE FOR MAXIMUM CONDUCTIVITY
- POLYPROPYLENE PLASTIC INSULATION
- COLOR CODED TO DIN 46 228, PART 4

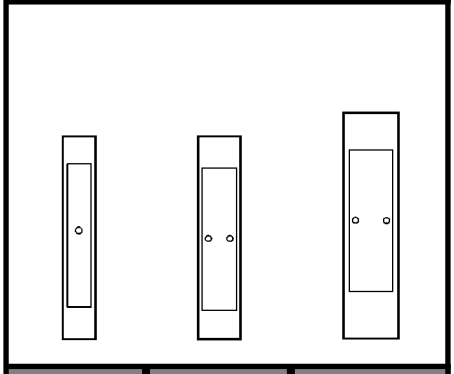
SEE CRIMPING TOOLS ON PAGES 20.34 - 20.36

SIZE		PART	SIZE		PART	SIZE		PART	SIZE		PART
22 GA Orange	T	22400	18 GA Yellow	T	22402	14 GA Blue	T	22404	10 GA Black	T	22406
20 GA White	T	22401	16 GA Red	T	22403	12 GA Grey	T	22405	–		–

CIC 200™ NYLON INSULATED TERMINALS (Cont'd.)

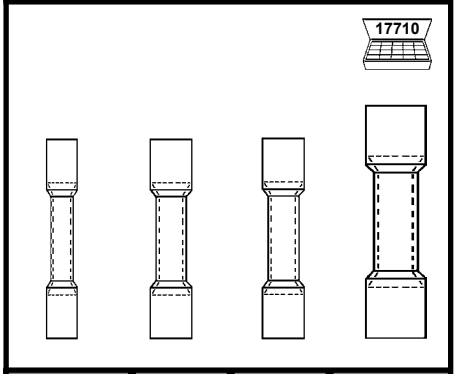
BUTT CONNECTORS

SINGLE GRIP



RED 22-18	BLUE 16-14	YELLOW 12-10
R 2050	R 2060	R 2070

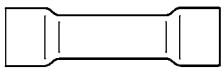
DOUBLE GRIP



YELLOW 26-24	RED 22-18	BLUE 16-14	YELLOW 12-10
R 2095	R 2750	R 2760	R 2770

MOISTURE RESISTANT

- PROVIDES SUPER-TIGHT CONNECTIONS
- FILLED WITH A SPECIAL SEALANT COMPOUND THAT PROTECTS CONNECTIONS FROM CORROSIVE ENVIRONMENTS
- FEATURE A NYLON-INSULATED BUTTED SEAM COVERED WITH A MOLDED NYLON SLEEVE
- WHEN CRIMPED, THEY PROVIDE EXCELLENT ELECTRICAL CONTACT AND MECHANICAL STRESS RELIEF
- TEMPERATURE RANGE: -40°F TO 220°F

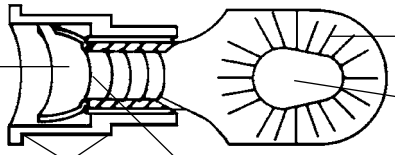


RED 22-18	BLUE 16-14	YELLOW 12-10
N 2063	N 2062	N 2061

20

MULTI-RING TERMINALS

FUNNEL BARREL CONSTRUCTION FOR EASY WIRE AND INSULATION ENTRY.



LOCKING SERRATIONS TO INSURE STAY TIGHT INSTALLATION.

SPECIALLY DESIGNED EYE FITS SECURELY TO DIFFERENT STUD SIZES.

NON-SKID CRIMP GUIDES PROVIDE POSITIVE LOCATION FOR PROPER CRIMPING.

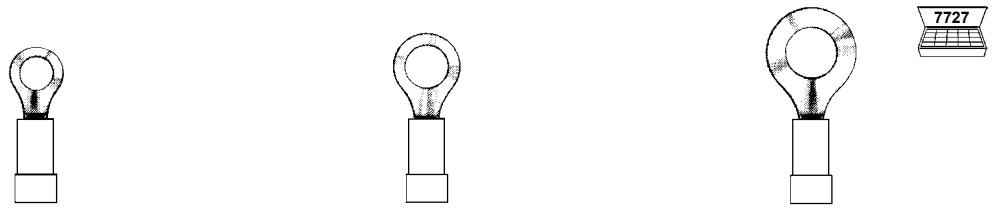
DOUBLE CRIMP FOR BEST CONTACT AND GRIP. DEEP "V" GROOVES SECURELY GRIP WIRE TO PROVIDE MAXIMUM CURRENT FLOW.

WIRE SIZE	22-18 RED		16-14 BLUE		12-10 YELLOW
STUD SIZE	2-6	6-10	2-6	6-10	6-10
PART	R 2721	R 2723	R 2722	R 2724	R 2725

VINYL INSULATED TERMINALS

RINGS

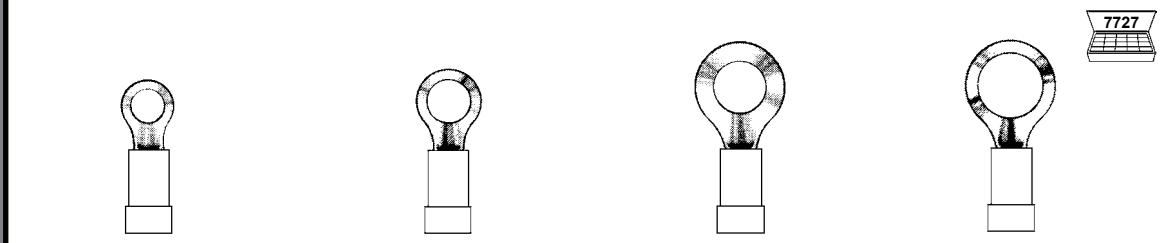
RED
22-18
WIRE SIZE



STUD SIZE	6	10	1/4
PART	R 2626	R 2627	R 2628

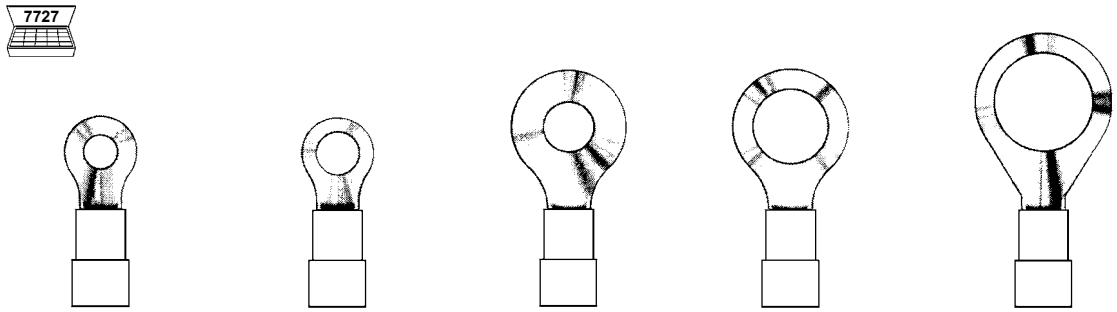
VINYL INSULATED TERMINALS (Cont'd.)

BLUE
16-14
WIRE SIZE



STUD SIZE	6	10	1/4	3/8
PART	R 2630	R 2631	R 2632	R 2633

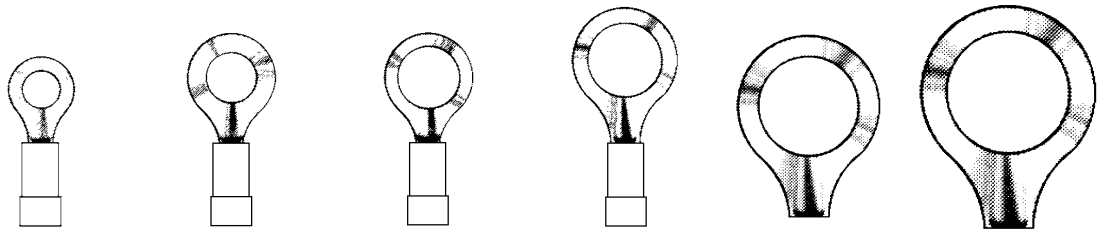
YELLOW
12-10
WIRE SIZE



STUD SIZE	6	10	1/4	3/8	1/2
PART	R 2635	R 2636	R 2637	R 2638	R 2639

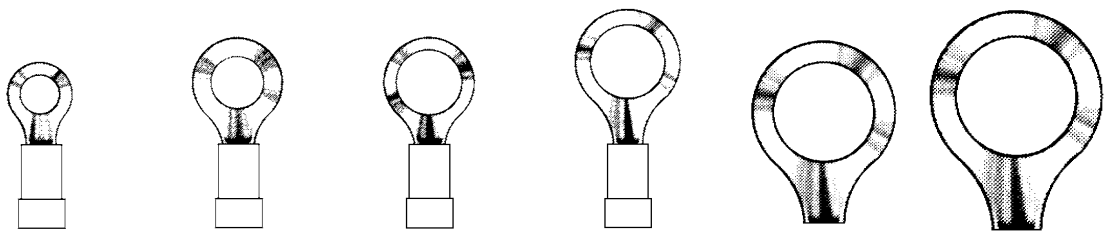
HEAVY DUTY RINGS

RED
8 GA.
WIRE SIZE
.050 BLADE
THICKNESS



STUD SIZE	3/16	1/4	5/16	3/8	1/2	5/8
PART	R 2570	R 2571	N 2572	N 2573	N 2574	N 2575

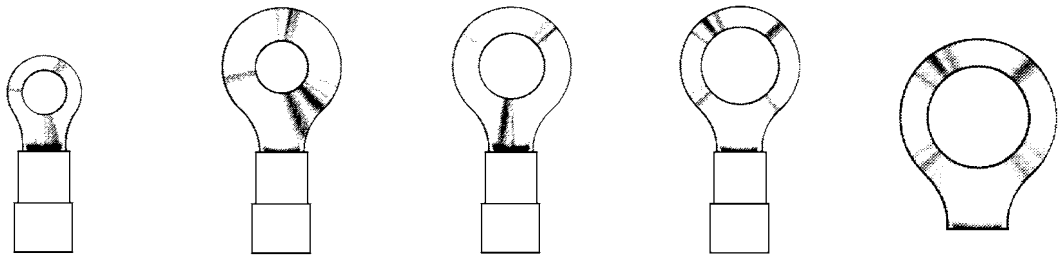
BLUE
6 GA.
WIRE SIZE
.050 BLADE
THICKNESS



STUD SIZE	3/16	1/4	5/16	3/8	1/2	5/8
PART	N 2577	N 2578	N 2579	N 2580	N 2581	N 2582

VINYL INSULATED TERMINALS (Cont'd.)

YELLOW
4 GA. WIRE SIZE
.075 BLADE THICKNESS



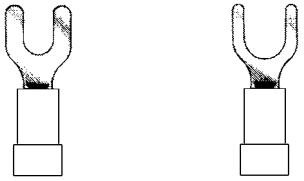
STUD SIZE	3/16	1/4	5/16	3/8	1/2
PART	N 2584	N 2585	N 2586	N 2587	N 2588

SPADES

RED
22-18 WIRE SIZE

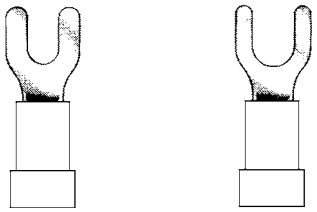
STUD SIZE	6	10
PART	R 2726	R 2727

BLUE
16-14 WIRE SIZE



STUD SIZE	6	10
PART	R 2730	R 2731

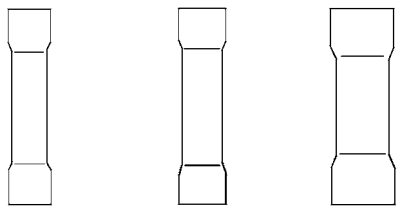
YELLOW
12-10 WIRE SIZE



STUD SIZE	6	10
PART	R 2735	R 2736

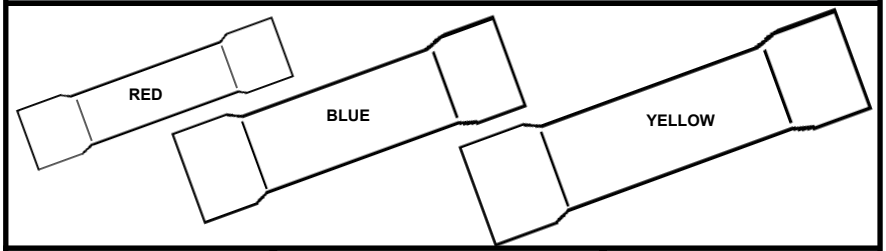
BUTT CONNECTORS

STANDARD



RED 22-18	BLUE 16-14	YELLOW 12-10
R 2838	R 2839	R 2840

HEAVY DUTY

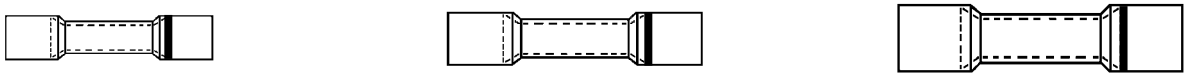


RED #8	BLUE #6	YELLOW #4
N 2655	N 2659	N 2661

VINYL INSULATED TERMINALS (Cont'd.)

REDUCING BUTT CONNECTORS

- CONNECTS DIFFERENT GAUGE WIRES
- CAN BE USED TO SPLICE MORE THAN TWO WIRES TOGETHER
- SAVES TIME AND MONEY

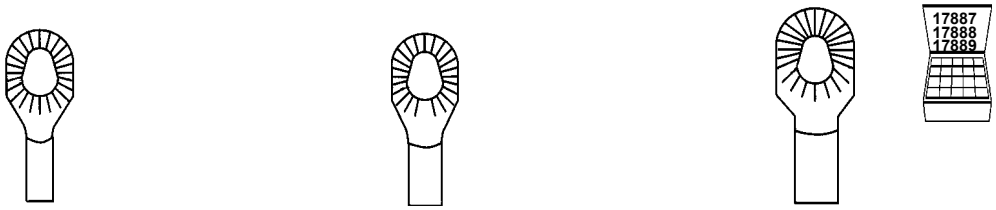


BLUE WITH RED STRIPE 18-22 TO 14-16	YELLOW WITH BLUE STRIPE 14-16 TO 10-12	RED WITH YELLOW STRIPE 10-12 TO 8
N 2065	N 2066	N 2067

NON-INSULATED TERMINALS

MULTI-RING TERMINALS

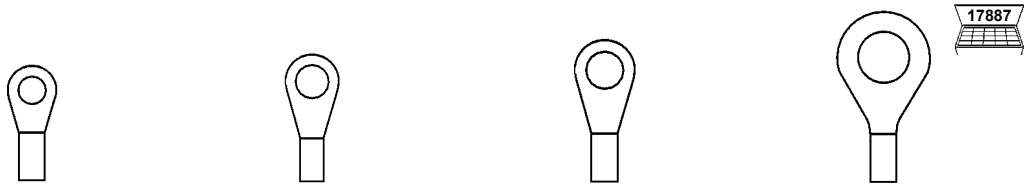
MULTI-RINGS



WIRE SIZE	22-18		16-14		12-10
STUD SIZE	2-6	6-10	2-6	6-10	6-10
PART	T 24110	T 24111	T 24112	T 24113	R 24114

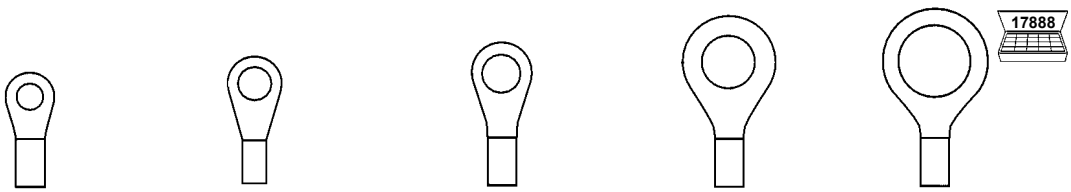
RINGS – BRAZED SEAM

22-18 WIRE SIZE



STUD SIZE	6	8	10	1/4
PART	T 24115	T 24150	T 24116	T 24117

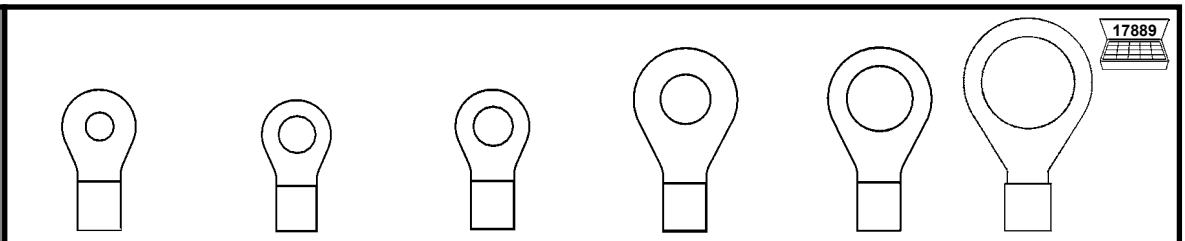
16-14 WIRE SIZE



STUD SIZE	6	8	10	1/4	3/8
PART	T 24118	T 24151	T 24119	T 24120	T 24121

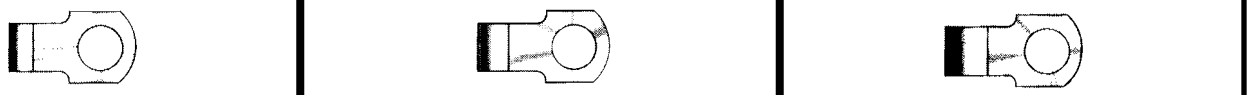
NON-INSULATED TERMINALS (Cont'd.)

12-10 WIRE SIZE



STUD SIZE	6	8	10	1/4	3/8	1/2
PART	R 24122	R 24152	R 24123	R 24124	R 24125	R 24156

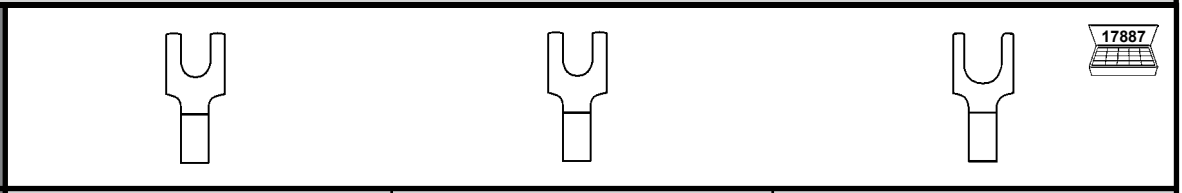
FLAG RING (NON-INSULATED)



22-18 WIRE SIZE	22-18 PART	16-14 WIRE SIZE	16-14 PART	12-10 WIRE SIZE	12-10 PART
22-18 x 10	R 2806	16-14 x 10	R 2809	12-10 x 10	R 2815

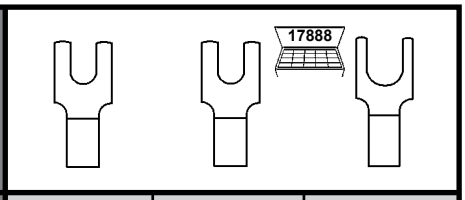
SPADES

22-18 WIRE SIZE



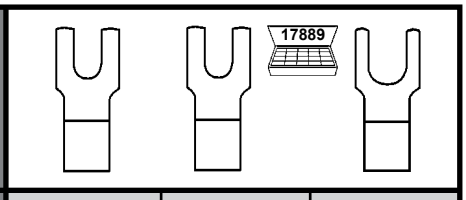
STUD SIZE	6	8	10
PART	T 24126	T 24153	T 24127

16-14 WIRE SIZE



STUD SIZE	6	8	10
PART	T 24128	T 24154	T 24129

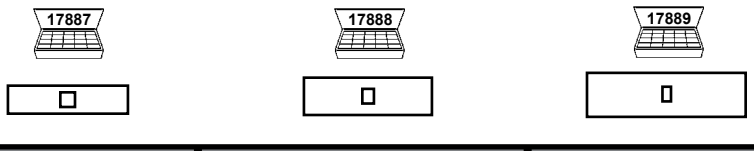
12-10 WIRE SIZE



STUD SIZE	6	8	10
PART	R 24130	R 24155	R 24131

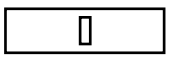
BUTT CONNECTORS

SEAMLESS



22-18	16-14	12-10
T 24132	T 24133	R 24134

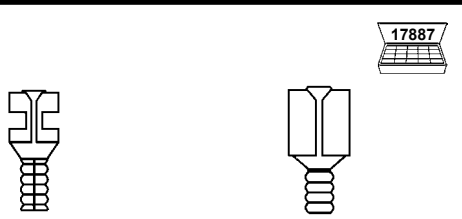
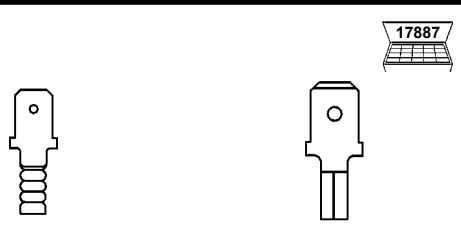
STANDARD

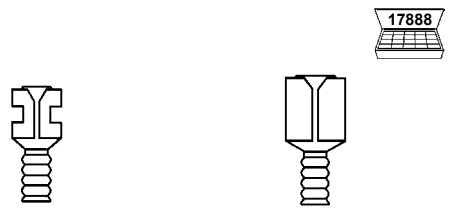
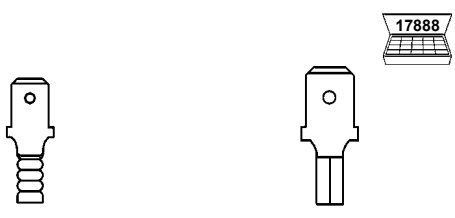


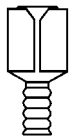
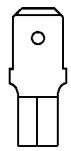
8 GA
N 24135

NON-INSULATED TERMINALS (Cont'd.)

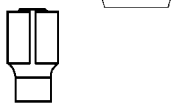
BUTTED SEAM DISCONNECTS

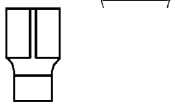
22-18 WIRE SIZE	FEMALE		MALE	
				
BLADE SIZE	3/16	1/4	3/16	1/4
PART	T 24136	T 24137	T 24140	T 24141

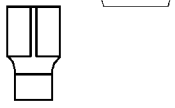
16-14 WIRE SIZE	FEMALE		MALE	
				
BLADE SIZE	3/16	1/4	3/16	1/4
PART	T 24138	T 24139	T 24142	T 24143

12-10 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	T 24149	T 24144

BUTTED SEAM DISCONNECT FEMALE FLAG TERMINALS

22-18 WIRE SIZE		
		
STUD SIZE	3/16	1/4
PART	T 24147	R 2757

16-14 WIRE SIZE		
		
STUD SIZE	3/16	1/4
PART	T 24148	R 2772

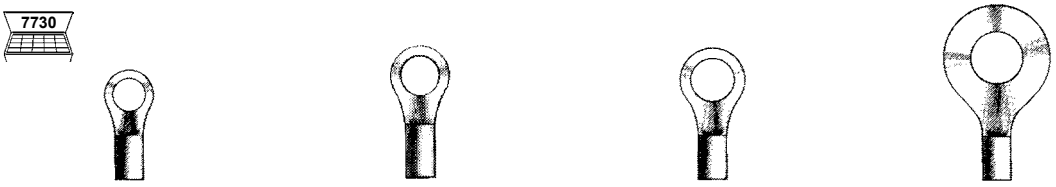
12-10 WIRE SIZE	
	
STUD SIZE	1/4
PART	R 2778

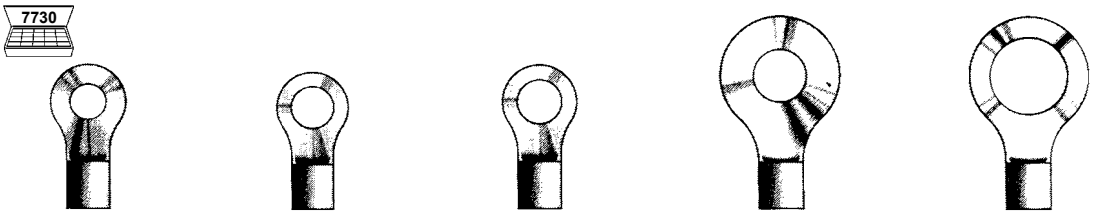
CIC 200™ HIGH TEMPERATURE TERMINALS

RINGS

Nickel plated alloy steel. Designed for 900°F (482°C) continuous and 1200°F (649°C) intermittent operation.

22-18 WIRE SIZE								
STUD SIZE	6		8		10		1/4	
PART	T	2126	T	22120	T	2127	T	2128

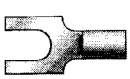
16-14 WIRE SIZE								
								
STUD SIZE	6		8		10		1/4	
PART	T	2130	T	22121	T	2131	T	2132

12-10 WIRE SIZE										
										
STUD SIZE	6		8		10		1/4		3/8	
PART	T	2133	R	22122	T	2134	T	2135	T	2136

SPADE

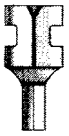
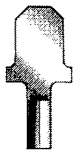
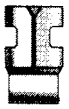
22-18 WIRE SIZE		16-14 WIRE SIZE		12-10 WIRE SIZE	
STUD SIZE	PART	STUD SIZE	PART	STUD SIZE	PART
10	T 2140	10	T 2141	10	T 2142

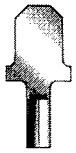
BLOCK SPADE

22-18 WIRE SIZE		16-14 WIRE SIZE	
			
STUD SIZE	PART	STUD SIZE	PART
6	T 2145	6	T 2144

CIC 200™ HIGH TEMPERATURE TERMINALS (Cont'd.)

MISCELLANEOUS

HIGH TEMPERATURE 16-14 WIRE SIZE	FEMALE		MALE		FEMALE RT. ANGLE FLAG
					
BLADE SIZE	3/16	1/4	3/16	1/4	1/4
PART	T 2147	T 2148	2151	T 2152	T 2153

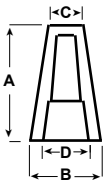
HIGH TEMPERATURE 12-10 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	T 22124	T 22125

BUTT CONNECTORS

WIRE SIZE	PART	WIRE SIZE	PART	WIRE SIZE	PART
22-18	T 2176	16-14	T 2177	12-10	T 2178

PORCELAIN WIRE NUTS

SPECIFICATIONS:
- TEMPERATURE: RATED AT 1200°F
- ACCOMMODATE #18-14 AWG STRANDED COPPER
- TYPE: PORCELAIN CONNECTOR
- MEETS UL STANDARD 486C

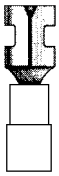
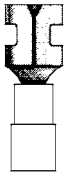
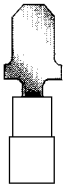
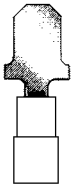


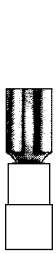
WIRE SIZE	DIMENSIONS				VOLTAGE RATING	WIRE COMB. RANGE		PART
	A	B	C	D		MIN.	MAX.	
18-14	11/16	13/32	3/16	1/4	300V	2 #18	1 #18 w/2 #16	T 2137
18-14	3/4	31/64	13/64	5/16	300V	2 #18	2 #16 w/2 #18	T 2138
18-14	27/32	17/32	7/32	13/32	300V	2 #18	4 #16	T 2139
16-10	31/32	23/32	1/2	15/32	300V	10 #16	3 #10	N 2149

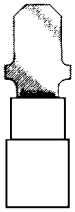
CIC 200™ QUICK SLIDE TERMINALS

DOUBLE GRIP NYLON INSULATED

YELLOW 26-20 WIRE SIZE	FEMALE
BLADE SIZE	7/64 (.110)
PART	R 2096

RED 22-18 WIRE SIZE	FEMALE			MALE	
					
BLADE SIZE	1/8	3/16	1/4	3/16	1/4
PART	R 2055	R 2031	R 2024	R 2053	R 2054

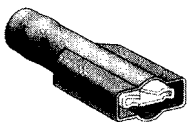
BLUE 16-14 WIRE SIZE	FEMALE			MALE	
					
BLADE SIZE	1/8	3/16	1/4	3/16	1/4
PART	R 2022	R 2023	R 2035	R 2738	R 2025

YELLOW 12-10 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	R 2036	R 2748

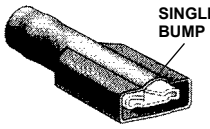
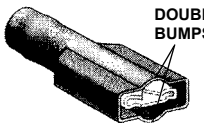
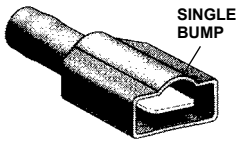
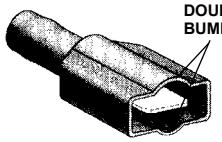
CIC 200™ QUICK SLIDE TERMINALS (Cont'd.)

DOUBLE-GRIP NYLON — FULLY INSULATED

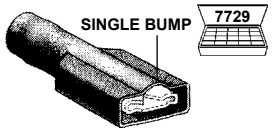
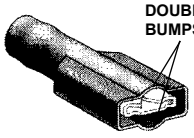
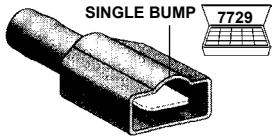
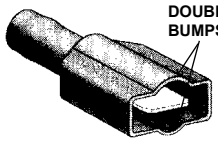
VIOLET 26-22 WIRE SIZE

	FEMALE
	
BLADE SIZE	1/8
PART	R 2046

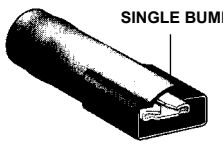
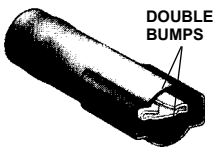
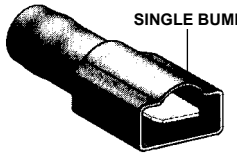
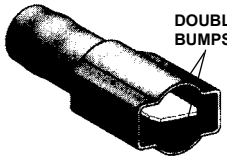
RED 22-18 WIRE SIZE

	FEMALE				MALE			
								
BLADE SIZE	3/16	1/4	3/16	1/4	3/16	1/4	3/16	1/4
PART	R 2041	2042	R 2041-O	2042-O	R 2071	2072	R 2071-O	2072-O

BLUE 16-14 WIRE SIZE

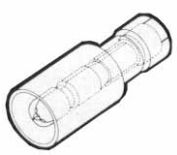
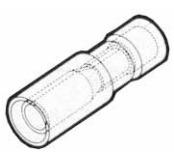
	FEMALE				MALE			
								
BLADE SIZE	3/16	1/4	3/16	1/4	3/16	1/4	3/16	1/4
PART	R 2047	2048	R 2047-O	2048-O	R 2074	2058	R 2074-O	2058-O

YELLOW 12-10 WIRE SIZE

	FEMALE		MALE	
				
BLADE SIZE	1/4	1/4	1/4	1/4
PART	R 2044	2044-O	R 2076	2076-O

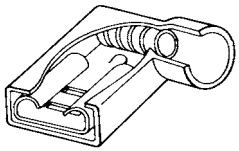
PLUG DISCONNECTS

CLEAR 20-18 WIRE SIZE

	MALE	FEMALE
		
PART	T 24160	T 24161

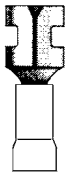
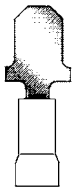
CIC 200™ QUICK SLIDE TERMINALS (Cont'd.)

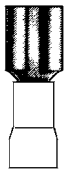
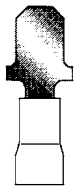
FEMALE RIGHT ANGLE FLAG — FULLY INSULATED

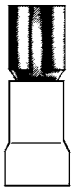
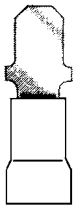


RED 22-18			BLUE 16-14			YELLOW 12-10		
BLADE SIZE		PART	BLADE SIZE		PART	BLADE SIZE		PART
1/4	R	2051	1/4	R	2052	1/4	R	2049
3/16	R	2551	3/16	R	2552	-		-

VINYL INSULATED

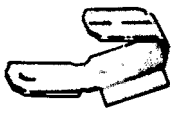
RED 22-18 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	R 2864	R 2867

BLUE 16-14 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	R 2865	R 2868

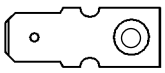
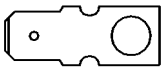
YELLOW 12-10 WIRE SIZE	FEMALE	MALE
		
BLADE SIZE	1/4	1/4
PART	R 2866	R 2869

CIC 200™ QUICK SLIDE TERMINALS (Cont'd.)

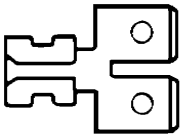
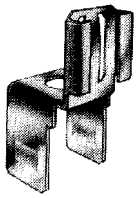
MISCELLANEOUS

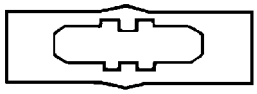
MULTI-STACK	DOUBLE-GRIP NYLON - INSULATED		NON-INSULATED
			
WIRE SIZE	RED 22-18	BLUE 16-14	BLUE 16-14
BLADE SIZE	1/4	1/4	1/4
PART	R 2033	R 2034	R 2786

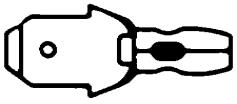
MALE ADAPTERS

SIZE	PART	SIZE	PART	SIZE	PART
6 RING TO 1/4	R 2780	8 RING TO 1/4	R 2781	10 RING TO 1/4	R 2782

1 FEMALE TO 2 MALES		1 FEMALE TO 2 MALES	
 FLAT		 RIGHT ANGLE	
SIZE	PART	SIZE	PART
1/4	R 2771	1/4	T 2749

DOUBLE MALE ADAPTER	CLEAR NYLON INSULATED
	
BLADE SIZE	1/4
PART	R 2045

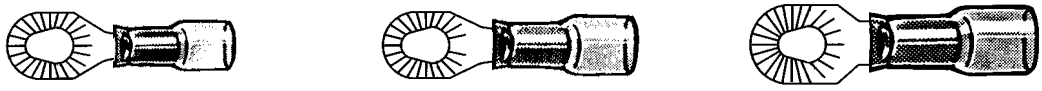
DOUBLE SNAP PLUG (NON-INSULATED)	MALE
	
BLADE SIZE	1/4 TO .157
PART	R 2758

CIC 200™ SUR-SEAL™ TERMINALS

RINGS

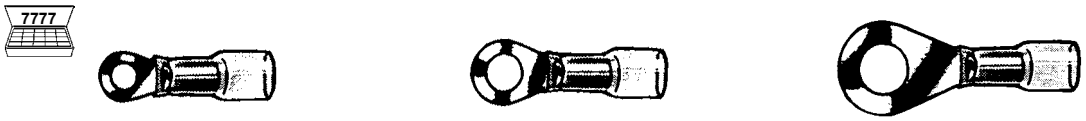
Heat shrink tubing and tin plated high conductivity copper connectors are bonded together to form a moisture-proof seal, preventing corrosion and voltage drop. Just crimp and heat.

MULTI-RING



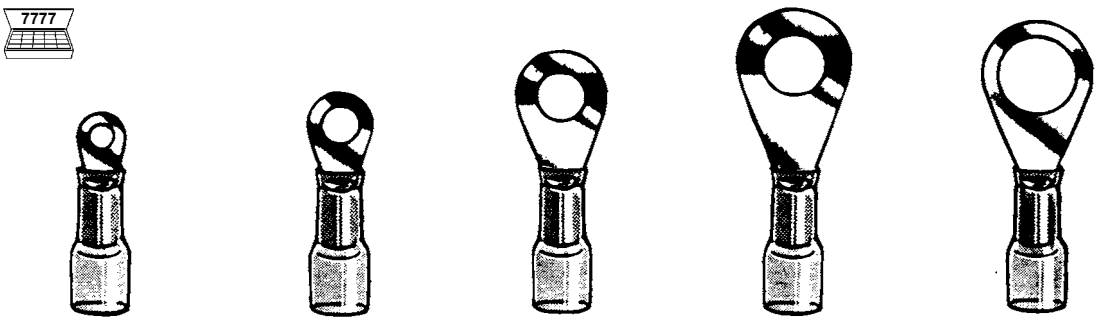
WIRE SIZE	22-18 RED	16-14 BLUE	12-10 YELLOW
STUD SIZE	6-10	6-10	6-10
PART	N 21600	N 21601	N 21602

RED 22-18 WIRE SIZE



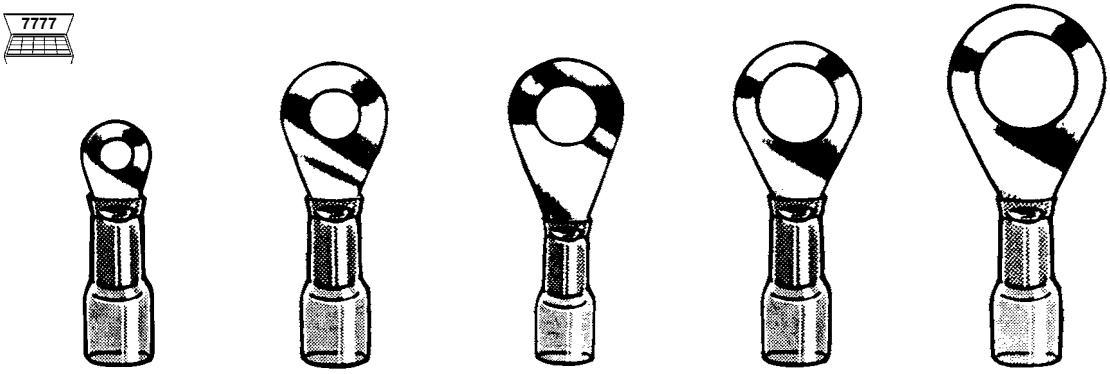
STUD SIZE	4-6	8-10	1/4
PART	L 2816	L 2817	L 2818

BLUE 16-14 WIRE SIZE



STUD SIZE	4-6	8-10	1/4	5/16	3/8
PART	L 2819	L 2820	L 2821	L 2822	L 2823

YELLOW 12-10 WIRE SIZE

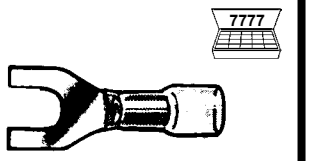


STUD SIZE	8-10	1/4	5/16	3/8	1/2
PART	L 2824	L 2825	N 2832	L 2826	L 2827

CIC 200™ SUR-SEAL™ TERMINALS (Cont'd.)

SPADES

RED 22-18

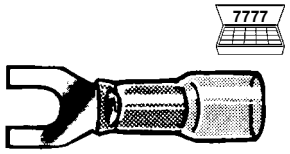


STUD SIZE		PART
8-10	L	2828

BLUE 16-14

STUD SIZE		PART	STUD SIZE		PART
4-6	L	2829	8-10	L	2830

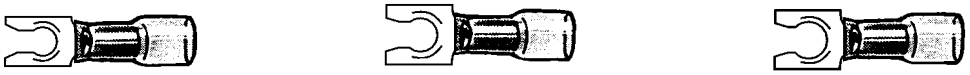
YELLOW 12-10



STUD SIZE		PART
8-10	L	2831

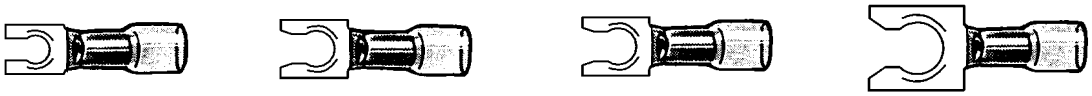
SNAP SPADES

RED 22-18 WIRE SIZE



STUD SIZE	6	8	10
PART	N 21610	N 21611	N 21612

BLUE 16-14 WIRE SIZE



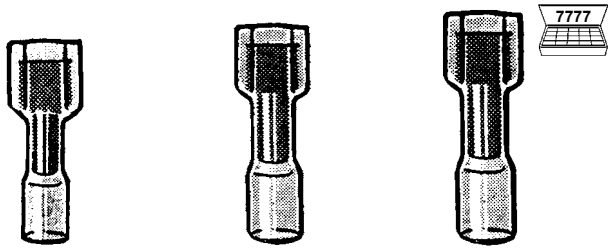
STUD SIZE	6	8	10	1/4
PART	N 21606	N 21607	N 21608	N 21609

YELLOW 12-10 WIRE SIZE

STUD SIZE	8	10	1/4
PART	N 21603	N 21604	N 21605

FEMALE CONNECTORS

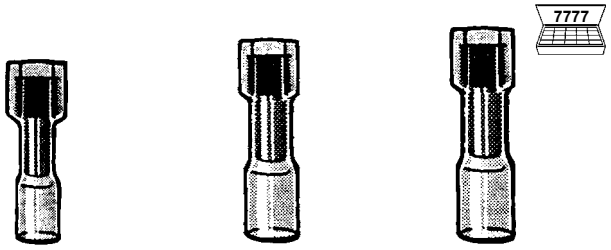
RED 22-18 BLUE 16-14 YELLOW 12-10



SIZE		PART	SIZE		PART	SIZE		PART
1/4	L	2847	1/4	L	2845	1/4	N	2851

MALE CONNECTORS

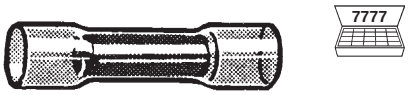
RED 22-18 BLUE 16-14 YELLOW 12-10



SIZE		PART	SIZE		PART	SIZE		PART
1/4	L	2846	1/4	L	2844	1/4	N	2850

CIC 200™ SUR-SEAL™ TERMINALS

BUTT CONNECTORS

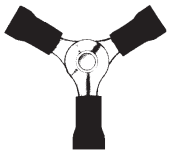
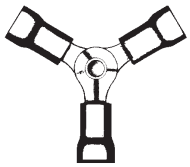
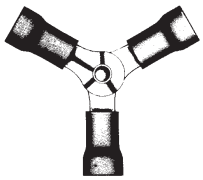
RED 20-18	BLUE 16-14	YELLOW 12-10
		
PART	PART	PART
L 2841	L 2842	L 2843

REDUCING BUTT CONNECTORS

22-18 TO 16-14	16-14 TO 12-10
PART	PART
L 2077	I 2078

20

3-WAY CONNECTORS

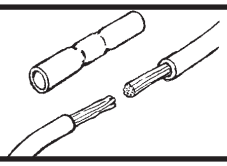




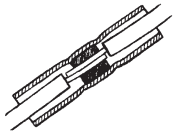
COLOR/WIRE SIZE	PART	COLOR/WIRE SIZE	PART	COLOR/WIRE SIZE	PART
Red / 20-18	N 21613	Blue / 16-14	N 21614	Yellow / 12-10	N 21615

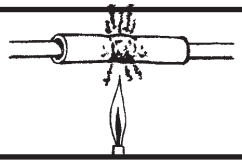
CIC 200™ SUR-SEAL™ SOLDER LINK CONNNECTORS

BUTT CONNECTORS

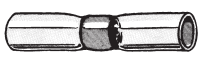
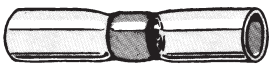
Superior protection for splices exposed to the elements. Adhesive heat shrink tubing provides a high strength, water-tight seal. Flux coated low heat solder preform for ultimate strength and conductivity.


STRIP ENDS TO BE SPLICED


CROSS ENDS WITHIN SOLDER PREFORM


APPLY HEAT TO CONNECTION

NOTE: WHEN HEATING WITH OPEN FLAME BE SURE THAT THE FLAME DOES NOT COME IN CONTACT WITH HEAT SHRINKABLE TUBING.

CLEAR 22-24	RED 20-18	BLUE 16-14	YELLOW 12-10
			
PART	PART	PART	PART
N 2064	N 2160	N 2161	N 2162

CIC 200™ SUR-SEAL™ SOLDER LINK CONNNECTORS

RING CONNECTORS

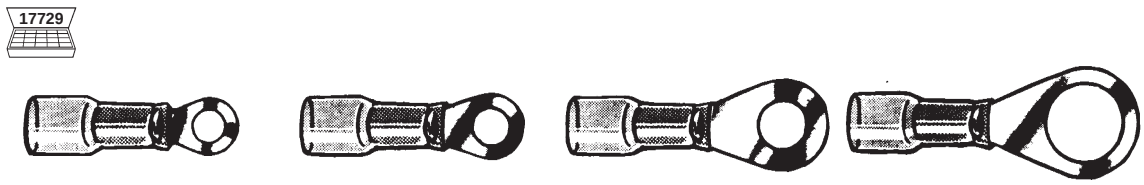
CLEAR
22-24
WIRE SIZE

STUD SIZE	#2	#4	#6
PART	N 2119	N 2121	N 2122

RED
20-18
WIRE SIZE

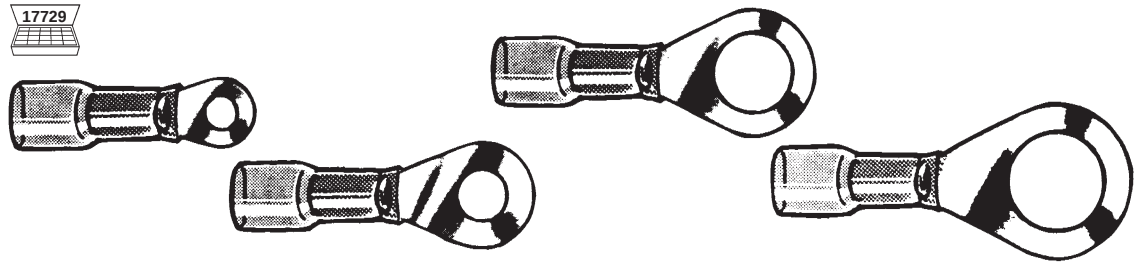
STUD SIZE	4-6	6-8	8-10	1/4
PART	N 2154	N 2155	N 2156	N 2157

BLUE
16-14
WIRE SIZE



STUD SIZE	6-8	8-10	1/4	3/8
PART	N 2158	N 2159	N 2163	N 2164

YELLOW
12-10
WIRE SIZE



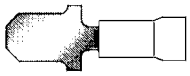
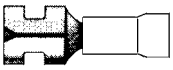
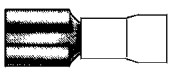
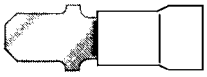
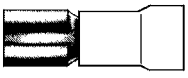
STUD SIZE	8-10	1/4	3/8	1/2
PART	N 2165	N 2166	N 2167	N 2168

CIC 200™ SUR-SEAL™ SOLDER LINK CONNNECTORS

SPADE CONNECTORS

CLEAR 22-24			RED 20-18			BLUE 16-14			YELLOW 12-10		
STUD SIZE	PART		STUD SIZE	PART		STUD SIZE	PART		STUD SIZE	PART	
#2	N	2112	8-10	N	2169	8-10	N	2170	8-10	N	2171
#4	N	2113									
#6	N	2114									

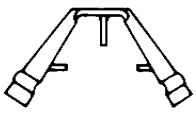
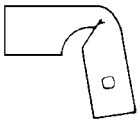
QUICK-SLIDE TERMINALS

RED 20-18				BLUE 16-14				YELLOW 12-10			
											
MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
N	2184	N	2181	N	2185	N	2182	N	2186	N	2183

20

CIC 200™ IGNITION TERMINALS

DISTRIBUTOR AND SPARK PLUG

DISTRIBUTOR CLIP TERMINAL			DISTRIBUTOR CAP TERMINAL			SPARK PLUG TERMINAL 90°		STRAIGHT SPARK PLUG TERMINAL	
									
SIZE	PART		SIZE	PART		PART		PART	
7 MM WIRE	T	2719	7 MM WIRE	T	2713	T	2720	T	2718

POSI-LOCK™ CONNECTORS & TERMINALS

NO CRIMPING NECESSARY ... AND NO MORE LOOSE CONNECTIONS

High temperature and chemical resistant. The Posi-Lock™ Connectors will not pull apart, vibrate loose or meltdown. It's reconnectable and reusable at your discretion.

SPECIFICATIONS:

Working Temperature: 120°C

Bullet Material: Tin Plated Brass

Connector Material: Nylon Type 6/6

Maximum Wire Diameter:
8-10 awg: 128 mils stranded (AWG Standards)
12-18 awg: 81 mils stranded (AWG Standards)
18-24 awg: 40 mils stranded (AWG Standards)

Maximum Current Rating:
8-10 awg: 40 ADC @12 VDC 3.0 Amp @ 120 VAC
12-18 awg: 30 ADC @12 VDC 2.0 Amp @ 120 VAC
18-24 awg: 15 ADC @12 VDC 1.0 Amp @ 120 VAC

Rated Maximum Voltage:
8-10 awg: 12 VDC @ 40 ADC; 120 VAC @ 3.0 Amp
12-18 awg: 24 VDC @ 15 ADC; 12 VDC @ 30 ADC; 120 VAC @ 2.0 Amp
18-24 awg: 24 VDC @ 7.5 ADC; 12 VDC @ 15 ADC; 120 VAC @ 1.0 Amp

Average Pull Strength:
8 awg - 80 lbs; 10 awg - 60 lbs
12 awg - 46 lbs; 14 awg - 33 lbs; 16 awg - 27 lbs; 18 awg - 25 lbs
18 awg - 25 lbs; 20, 22 and 24 awg - exceeds wire strength

- **NO TOOLS REQUIRED**
- **UP TO 4 TIMES STRONGER THAN CRIMP CONNECTORS**
- **MULTIPLE SPLICE CONNECTIONS (OVER 26 WIRE COMBINATIONS)**
- **HIGH TEMPERATURE AND CHEMICAL RESISTANT**
- **REUSABLE AND RECONNECTABLE**
- **WEATHER RESISTANT BRASS CORE**
- **INSTALLS IN SECONDS**

SIZE / COLOR	6-8 AWG / White	8-10 AWG / Yellow	10-12 AWG / Yellow	14-16 AWG / Blue	18-24 AWG / Red
PART NUMBER	20617	20602	20628	20627	20600

POSI-TAP™ CONNECTORS

SIZE	PART	SIZE	PART
20-22 AWG Red	20637	12-18 AWG Black	20639
16-18 AWG Red	20638	10-16 AWG Yellow	20640

4-WIRE QUICK DISCONNECT

2 PIECE MALE & FEMALE FOR USE ON TRAILER CONNECTIONS

SIZE	PART
18 AWG	20641

POSI-LOCK™ FUSEHOLDERS

20606 GLASS TUBE

20618 BLADE

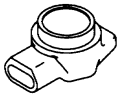
HOLDS FUSES
1/4 x 3/4 TO 1/4 x 1-1/4
UP TO 30 AMP MAXIMUM

SIZE	PART	SIZE	PART
12-18 AWG	20606	12-18 AWG	20618

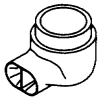
MISCELLANEOUS TERMINALS

PIGTAIL TERMINALS

BUTT SPLICE



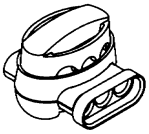
2 OR 3 WIRE



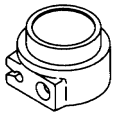
2 WIRE

P/N 2520 – 2 OR 3 WIRE SEALANT FILLED FOR WATERPROOF CONNECTION

P/N 2519 – NO SEALANT



TAP SPLICE



2 WIRE

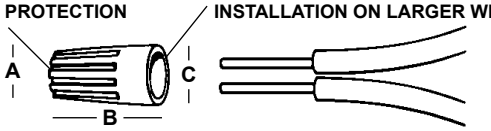
WIRE SIZE		PART	WIRE SIZE		PART	WIRE SIZE		PART	WIRE SIZE		PART	WIRE SIZE		PART
26-18 RED	R	2505	26-22 YELLOW	R	2510	18-12 BLUE	N	2520	18-12 BLUE	N	2519	26-20 GREEN	R	2515

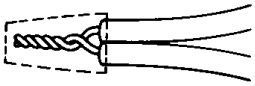
CIC 200™ WIRE CAPS

TWIST-LOK WIRE CONNECTORS

LONG SKIRT FOR ADDITIONAL INSULATING PROTECTION

WIDE THROAT FOR EASIER INSTALLATION ON LARGER WIRES





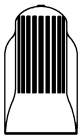
- FAST AND EASY TO USE
- AUTOMATICALLY TWISTS WIRES TOGETHER
- RATED FOR 130°C

SIZE	DIMENSIONS			COLOR	VOLTAGE RATING	WIRE COMB. RANGE		PART	
	A	B	C			MIN.	MAX.		
22-16	13/64	10/32	23/64	GRAY	300V	1 #20 & 1 #22	2 #16	R	2801
22-14	1/4	23/32	13/32	BLUE	300V	3 #22	3 #6	R	2803
22-14	5/16	55/64	7/16	ORANGE	600V	1 #18 & 1 #20	3 #16 & 1 #18	R	2805
18-10	5/16	61/64	35/64	YELLOW	300V	1 #16 & 2 #18	4 #14 & 1 #16	R	2807
18-8	17/64	1-1/16	21/32	RED	600V	2 #14	2 #10 & 2 #12	R	2808

SCOTCHLOK WIRE CONNECTORS

SCOTCHLOK

- PLIABLE, VINYL SKIRT
- FEATURING A LIVE-SPRING WHICH ASSURES A TIGHT GRIP, EVEN ON SMALL WIRE COMBINATIONS
- THESE PREMIUM-GRADE CONNECTORS CAN BE "BACKED-OFF" TO ALLOW MODIFICATION

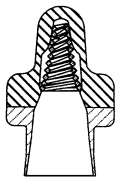


COLOR: GRAY

SIZE	COLOR	WIRE GAUGE		PART	
		MIN.	MAX.		
14-8	Gray	3 #12	4 #10	N	2835

SCOTCHLOK 2®

- 3 CONNECTORS HANDLE THE WORK OF EIGHT STANDARD CONNECTORS
- DESIGNED FOR WIRING APPLICATIONS WHERE SPACE IS AT A PREMIUM
- FLEXIBLE SKIRT COLLAPSES TO TAKE UP LESS ROOM, PERFECT FOR CROWDED BOXES
- GRIPS QUICKER, PULLS-ON FASTER
- 600V MAX. BUILDING WIRE, 1000V MAX. SIGNS AND FIXTURES

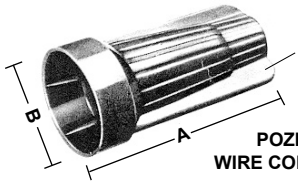


REPLACES	COLOR	WIRE GAUGE		PART	
		MIN.	MAX.		
Orange, Blue, Gray Wingless	Orange/Blue	2 #22	2 #12	R	2814
Red & Yellow Wing Style	Red/Yellow	2 #18	2 #8	R	2833
Blue & Gray Wing Style	Blue/Gray	4 #14	5 #10	N	2834

CIC 200 WIRE CAPS

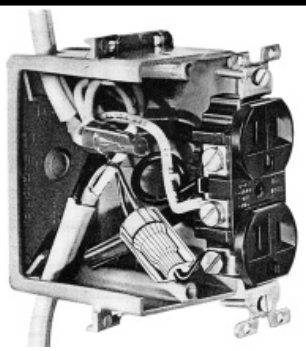
POZI-LOK WIRE CONNECTORS

FEATURES:
- NO MORE TWISTED WIRES TO LOOSEN.
- NEAT CONNECTIONS EVEN IN TIGHT PLACES.
- COLOR CODED TO INSURE IDENTIFICATION.
- SPECIAL DESIGN PROVIDES SURE CONNECTION EVERY TIME BY HAND. NO TOOLS REQUIRED.



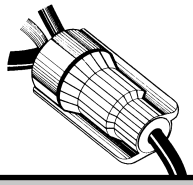
BUILT-IN KNURLED WINGS PROVIDE NON-SLIP GRIP AND EASY INSTALLATION

POZI-LOK WIRE CONNECTOR



SPECIFICATIONS:
- UL LISTED FOR SOLID COPPER TO COPPER WIRES ONLY
- TYPE: PRESSURE CONNECTOR
- TEMPERATURE: RATED AT 105°C MAXIMUM
- UNIQUE SPIRAL SPRING CONFIGURATION AUTOMATICALLY THREADS AND TWISTS WIRES TOGETHER FOR A PERFECT CONNECTION EVERY TIME
- MEETS UL STANDARD 486C

7764



POZI-LOK GROUND CONNECTOR

SIZE	DIMENSIONS		COLOR	VOLTAGE RATING	WIRE COMB. RANGE		PART	
	A	B			MIN.	MAX.		
22-16	31/32	15/32	YELLOW	600V	2 #18	3 #12	R	2861
22-14	1-5/32	9/16	RED	600V	2 #16	5 #12	R	2862
22-14	1-1/2	3/4	BLUE	600V	1 #10 & 1 #12	1 #6 & 2 #8	R	2863

DESCRIPTION	SIZE	COLOR	PART	
B.G.R. GROUND NUT	2 #14 TO 3 #10 AWG	GREEN	R	2859

PUSH-CON WIRE CONNECTORS

- CONNECTS BOTH STRANDED AND SOLID COPPER WIRE
- CLEAR HOUSING ALLOWS VISUAL IDENTIFICATION
- NO MORE TWISTING AND TAPING REQUIRED – SIMPLY STRIP THE WIRE; INSERT THE CONDUCTOR AND YOU'RE FINISHED
- INTEGRATED TEST PORT ALLOWS FOR CONTINUITY TESTING WITHOUT RE-INSERTION
- TOUCH-PROOF AND RATED TO 206°F (105°C)
- UL LISTED/CSA CERTIFIED FOR 600 VOLTS
- RATED @ 24 AMPS (1000 VOLTS FOR FIXTURES AND SIGNS)

2-CONDUCTOR

3-CONDUCTOR

4-CONDUCTOR

HI-TEMP Max. Operating Temp. 302°F/150°C

6-CONDUCTOR

8-CONDUCTOR

17908

DESCRIPTION	SIZE	COLOR		PART
2-Conductor	12-16 AWG Stranded or 12-18 Solid Copper	YELLOW	T	2521
3-Conductor	10-14 AWG Stranded or 10-14 Solid Copper	RED	N	2517
4-Conductor	12-16 AWG Stranded or 12-18 Solid Copper	ORANGE	T	2522
6-Conductor	12-16 AWG Stranded or 12-18 Solid Copper	BLACK	R	2523
8-Conductor	12-16 AWG Stranded or 12-18 Solid Copper	DARK GREY	R	2524
4-Conductor	14-16 AWG Stranded or 14-18 Solid **Hi-Temp**	BLACK	R	2532

SNAP-CON WIRE CONNECTORS

- SPRING PRESSURE CONNECTION TECHNOLOGY
- CONNECTS BOTH STRANDED AND SOLID WIRE
- WIDE RANGE OF WIRE SIZES
- COMBINATION OF DIFFERENT WIRE SIZES AND TYPES
- SMALL SPACE CONSUMPTION
- BUILT-IN TEST POINT
- LOW INSTALLED COST AND SAFE OPERATION
- MAINTENANCE-FREE CONNECTION
- PROTECTION AGAINST ELECTRICAL SHOCK-TOUCH SAFE

Voltage: 600 V
Current: 20 A

17908

DESCRIPTION	COLOR		PART
3-Conductor 12-28 AWG Stranded or Solid Wire	Gray	N	2518

SPRING-CON BUTT CONNECTOR

- SIDE ENTRY WIRING TYPE
- 2 CONNECTION POINTS
- CURRENT INTENSITY EN: 24 A
- MEASURED VOLTAGE EN: 400 V
- MEASURED SHOCK VOLTAGE: 4 kV

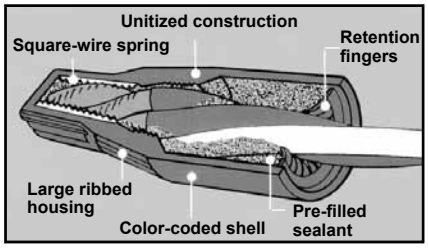
Voltage: 300 V
Current: 20 A

17908

DESCRIPTION	COLOR		PART
3-Conductor 12-28 AWG Stranded or Solid Wire	Gray	N	2516

CIC 200™ WATERPROOF CONNECTORS

REVOLUTIONARY, SELF-CONTAINED TWIST-ON WATER-TIGHT CONNECTORS



- **PRE-FILLED WITH SILICONE FOR A COMPLETELY WATER-TIGHT, AIR-TIGHT CONNECTION**
- **ONE-STEP INSTALLATION – SAVES TIME, MONEY AND LABOR**
- **COLOR-KEYED TO MOST COMMON CONNECTORS FOR QUICK IDENTIFICATION**
- **RIBBED HOUSINGS AND LARGE WINGS FOR EASY TWIST-ON INSTALLATION**
- **U.L. LISTED AND CSA APPROVED FOR PRESSURE-TYPE APPLICATIONS, 486C (CSA APPROVED FOR DIRECT BURIAL, 486D)**
- **MADE IN U.S.A.**

PART	SPECIFICATIONS						TYPICAL APPLICATIONS
	TYPE	MAX. VOLTAGE	SIZE	TEMP. RATING	SEALANT TEMP.	WIRE COMBOS	
2525 #1 Gray	Pressure	300V	15/16" x 1/2"	167°F (75°C)	-45° to 400°F	3 #22 to 2 #16 Cu/Cu	Telecommunications systems, sound systems, thermostats.
2526 #2 Blue	Pressure	300V	1-1/8" x 9/16"	167°F (75°C)	-45° to 400°F	3 #20 to 3 #16 Cu/Cu	Low-voltage lighting, security systems, doorbells, auto and trailer lighting.
2527 #3 Orange	Pressure	600V (1,000 in fixtures & signs)	27/32" x 7/16"	221°F (105°C)	-45° to 400°F	3 #20 to 2 #14 and 1 #18 Cu/Cu	Small fixtures and lamps, range hoods, disposals, humidifiers, auto, and marine.
2528 #4 Yellow	Pressure	600V (1,000 in fixtures & signs)	1-9/16" x 11/16"	167°F (75°C)	-45° to 400°F	4 #18 to 2 #12 Cu/Cu	Light switches & outlets, outside receptacles and light posts, exhaust fans, baseboard heaters, HVAC, floodlights and irrigation.
2529 #5 Red	Pressure	600V (1,000 in fixtures & signs)	1-3/4" x 13/16"	167°F (75°C)	-45° to 400°F	2 #14 to 4 #12 Cu/Cu	Furnace and refrigerator motors, dishwashers, clothes washers and dryers, washdown areas and junction boxes.
2530 #6 Blue	Pressure & Direct Bury	600V (1,000 in fixtures & signs)	2"x13/16"	167°F (75°C)	-45° to 400°F	3 #22 to 4 #12 (or 3 #10) Cu/Cu	Lamp posts, wells, pumps, fountains, site lighting, UF Cable in waterproof boxes.
2531 #9 Blue	Pressure	600V (1,000 in fixtures & signs)	2-7/16" x 1-3/8"	167°F (75°C)	-45° to 400°F	2 #10 Sol to 2 #6 Cu/Cu	Utilities, including power lines, traffic signals, water treatment plants, waste treatment facilities, refineries, electric signs & billboards.

DRYCONN WATERPROOF CONNECTORS

- **DIRECT BURY LUG FOR USE WITH UTILITY TRACER LINES**
- **TIN PLATED HIGH CONDUCTIVITY ALUMINUM LUG WITH ZINC PLATED STEEL SCREWS**
- **HIGH IMPACT POLYPROPYLENE HOUSING**
- **NON-HARDENING VISCOUS DIELECTRIC SILICONE SEALANT**

Maximum Voltage: 50V
Connector Size: 1.138" x 1.285"
Wire Range: #14-10 solid and stranded copper; #12 steel core tracer wire (380 and 1200 pound)
Silicone Sealant Temperature Rating: -45°F to 400°F

- **DIRECT BURY TWIST-ON CONNECTOR WITH STRAIN RELIEF**
- **INTEGRATED TWIST-ON CONNECTOR – NO ADDITIONAL WIRE CONNECTOR NEEDED**
- **WATERPROOF AND CORROSION PROOF**
- **ONE PIECE FOR EASY INSTALLATION**
- **DESIGNED FOR USE WITH TRACER WIRES**

Maximum Voltage: 50V
Connector Size: 1.75" x 2.28"
Wire Type: Copper / Copper Wire Range: Min #18 / Max #10
Silicone Sealant Temperature Rating: -45°F to 400°F

DESCRIPTION		PART	DESCRIPTION		PART
Yellow Waterproof Lug (Low Volt – 50V)	A	2514	Yellow Low Volt Direct Bury Twist-on Connector (50V)	E	2509

WEATHERPAK ELECTRICAL CONNECTORS

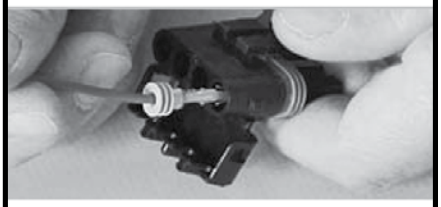
WEATHERPAK CONNECTORS

Weatherpak connectors are designed for the engine compartment of a vehicle. They are made specifically to endure harsh environmental applications.

- Audible snap-action locking for housing and secondary terminal lock helps reduce terminal stress, providing proper terminal positioning and access to the terminals for service.
- Stops in cavities to insure proper insertion of terminals.
- Indexed nylon housings are rated to -40°F to 257°F (-40°C to 125°C).
- Housing, terminals, plugs and seals are sold separately.
- Applications
  - Vehicle engine compartments
  - Marine applications
  - Agricultural equipment
  - Construction
  - Off Road

ASSEMBLY

1 Apply seal to cable, before stripping insulation.

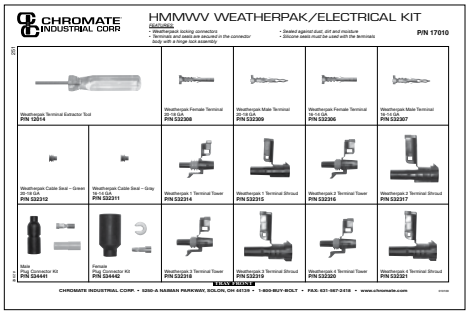


2 Crimp terminal onto stripped wire and seal and insert into connector housing.

3 Once all terminals are inserted, lock wire and seals as shown above.

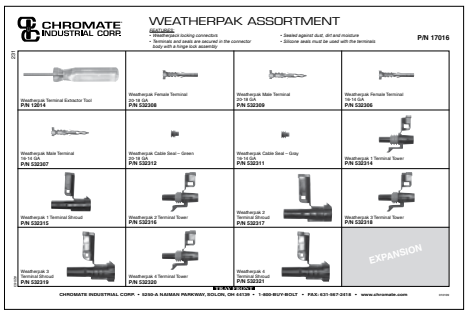
4 Once steps 1, 2, and 3 are completed for male and female housings connect together until locked.

WEATHERPAK ASSORTMENTS



- Weatherpack locking connectors
- Sealed against dust, dirt and moisture
- Terminals and seals are secured in the connector body with a hinge lock assembly
- Silicone seals must be used with the terminals.

- **HMMWV Weatherpak/Electrical Kit P/N 17010**



- **Weatherpak Assortment P/N 17016**

CRIMPING TOOLS

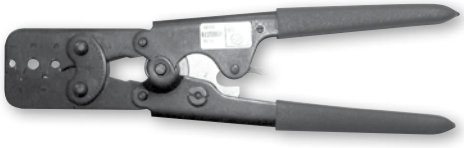
Duplicated factory crimps on open barrel terminals used in automotive, computer and control applications.

- P/N 32192 – overall length 9"
- P/N 32193 – overall length 8-1/2"

- Designed for the positive crimping of Weatherpack terminals.
- Quality tools for long-lasting and dependable service.

- P/N 32192 features ratcheting jaws that assures a perfect crimp every time.
- P/N 32193 features 5 machined and hardened crimp stations & parallel jaws.

Terminal Extractor Tool P/N 12014



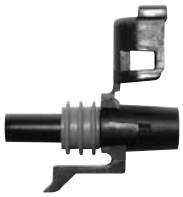
Ratcheting Crimper (20-14 GA) P/N 32192

Open Barrel Terminal Crimper (24-14 GA) P/N 32193

WEATHERPAK ELECTRICAL CONNECTORS

TERMINAL TOWERS AND SHROUDS

- Audible snap-action locking for housing and secondary terminal lock helps reduce terminal stress.



Weatherpak 1 Terminal Tower
P/N 532314

- Snap-action locking provides proper terminal positioning and easy access to the terminals for service.

Weatherpak 1 Terminal Shroud
P/N 532315

- Stops in cavities to insure proper insertion of terminals.
- Indexed nylon housings are rated to -40°F to 257°F (-40°C to 125°C).

Weatherpak 2 Terminal Tower
P/N 532316

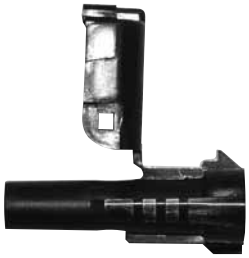
- Housing, terminals, plugs and seals are sold separately.

Weatherpak 2 Terminal Shroud
P/N 532317

Weatherpak 3 Terminal Tower
P/N 532318

Weatherpak 3 Terminal Shroud
P/N 532319

Weatherpak 4 Terminal Tower
P/N 532320



Weatherpak 4 Terminal Shroud
P/N 532321

TERMINALS

- Flex-pin and lap-lock design gives these terminals a positive connection rated for a continuous current of 20 amps.

Weatherpak Female Terminal
20-18 GA
P/N 532308

- Dual “tangs” lock terminal into connector cavity.

Weatherpak Male Terminal
20-18 GA
P/N 532309

- Cable seal crimp wings reduce strain on the cable core and assure proper positioning of the cable seal.

Weatherpak Female Terminal
16-14 GA
P/N 532306

Weatherpak Male Terminal
16-14 GA
P/N 532307

CABLE SEALS

- Self-lubricating, silicone seals have multiple “ribs” to guard against dust, moisture, engine compartment fluids and chemicals.

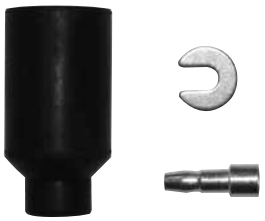
Weatherpak Cable Seal
Green
20-18 GA
P/N 532312

- Cavity seals are crimped to the terminal to assure positive position of the seal in the housing cavity.
- The cavity plug is designed to fill and seal unused cavities.

Weatherpak Cable Seal
Gray
16-14 GA
P/N 532311

PLUG CONNECTOR KITS

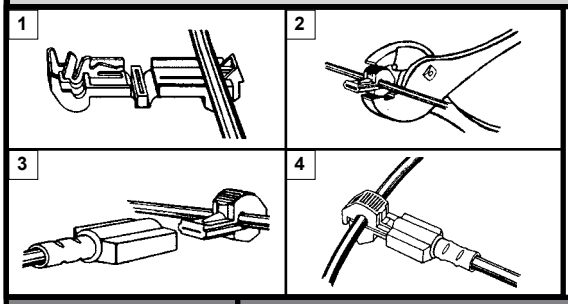
Male
Plug Connector Kit
P/N 534441



Female
Plug Connector Kit
P/N 534442

CIC 200™ QUICK TAP CONNECTORS

T-TAP QUICK SLIDE CONNECTOR



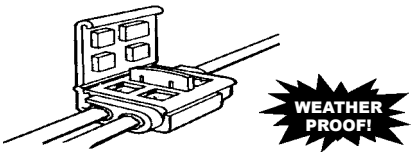
- DISCONNECTABLE TAP LEG SIMPLIFIES HOOKUP, ENHANCES FLEXIBILITY.
- FLAG QUICK-SLIDE MATES WITH ALL .250" (1/4") MALE BLADES.
- SELF-STRIPPING CONNECTOR SPEEDS INSTALLATION, REDUCES POSSIBLE CONDUCTOR DAMAGE AND ELIMINATES TIME CONSUMING MID-SPAN TAP.
- FULLY INSULATED FEATURE ELIMINATES SECOND STEP INSULATING AND IMPROVES CIRCUIT ISOLATION.
- 3 SIZES ARE AVAILABLE TO ACCOMMODATE 22-12 AWG WITH STANDARD .250" MALE BLADES TO HELP MINIMIZE INVENTORY.
- CRIMPS WITH COMMON PLIERS. NO SPECIAL TOOLS ARE REQUIRED.

COLOR	RED 22-18	BLUE 16-14	YELLOW 12-10
SIZE	1/4	1/4	1/4
PART	R 2039*	R 2043*	R 2056*

***** FOR USE WITH 1/4" MALE QUICK SLIDE TERMINALS. SEE QUICK SLIDE TERMINAL PAGES.

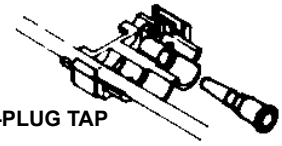
IN-LINE QUICK TAP CONNECTORS

MOISTURE RESISTANT



TAP	RUN		PART
14-18	14-18	N	2795

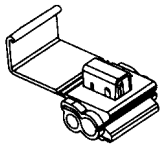
BLACK



.157 SNAP-PLUG TAP

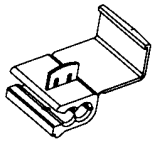
TAP	RUN		PART
.157	14-18	N	2777

BROWN



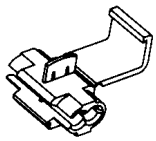
TAP	RUN		PART
14-18	10-12	N	2789

YELLOW



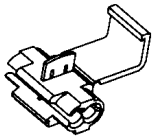
TAP	RUN		PART
10-12	10-12	N	2788

BLUE



TAP	RUN		PART
14-18	14-18	N	2787

RED

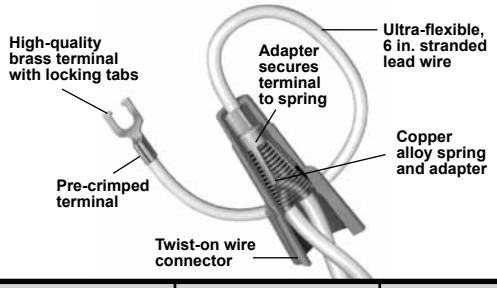


TAP	RUN		PART
18-22	14-18	N	2794

QUICK-NUT CONNECTORS

PIGTAIL CONNECTORS

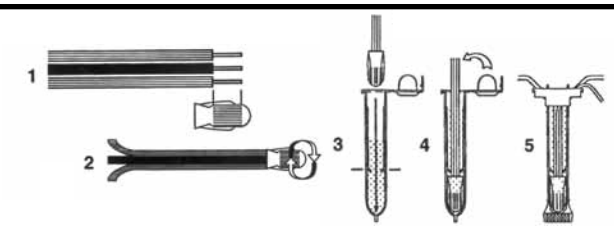
- COMBINATION OF A TWIST-ON CONNECTOR, FLEXIBLE LEAD AND TERMINAL FOR A ONE-PIECE PIGTAILING SOLUTION
- ELIMINATES LOCATING, CUTTING, STRIPPING AND ADDING WIRE TO YOUR DEVICE TERMINATIONS – SLASHING YOUR INSTALLATION TIME BY TWO-THIRDS
- TEMPERATURE RATED TO 221°F/105°C
- RATED AT 600V MAXIMUM (1000V MAXIMUM IN SIGNS AND FIXTURES)
- UL486A AND UL486C LISTED
- UL LISTED TO CANADIAN STANDARDS C22.2 #65 AND C22.2 #188



SHELL COLOR	WIRE COLOR	TERMINAL END		PART	SHELL COLOR	WIRE COLOR	TERMINAL END		PART
Yellow	Black	#10 Fork	I	20621	Red	White	Stripped End	I	20624
Red	White	#10 Fork	I	20622	Red	Black	Stripped End	I	20625
Red	Black	#10 Fork	I	20623	Green	Green	#10 Fork	I	20626

DIRECT BURY SPLICE KITS

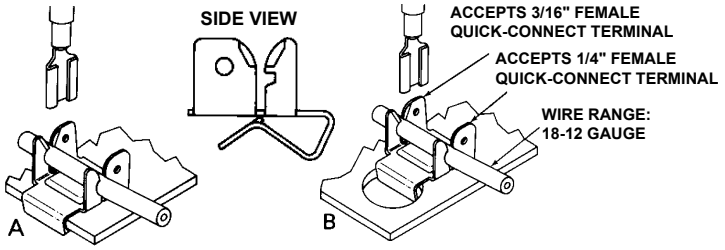
- THESE UNDERGROUND ELECTRIC WIRE CONNECTORS SPLICE AND EFFECTIVELY MOISTURE-SEAL TWO OR MORE CONDUCTORS FOR FAST, EASY AND PERMANENT CONNECTIONS IN BURIED APPLICATIONS
- AVAILABLE IN 30V FOR LOW VOLTAGE CIRCUITS AND 600V FOR HIGHER LINE VOLTAGE
- OPERATING TEMPERATURE: – 40°F TO 221°F
- UL LISTED AND CSA CERTIFIED FOR DIRECT BURIAL SPLICES



COLOR	YELLOW		RED		RED	
VOLT	30V		30V		600V	
PART	N	2511	N	2512	N	2513

CIC 200™ BLADE GROUNDING CLIPS

FOR MID-SPAN OR WIRE END GROUNDING



- UNIQUE SPRING STEEL CLIP PROVIDES A POSITIVE CONNECTION OF A GROUND WIRE TO A PANEL, PLATE OR FRAME
- POSITIVE GROUND ON BARE METAL AND MOST PAINTED OR COATED PANELS
- WIRE STRIPPING AND TERMINALS ARE NOT REQUIRED
- NO SOLDERING REQUIRED
- THE AMOUNT OF WIRE REQUIRED IS GREATLY REDUCED

APPLICATIONS:

- APPLIANCES • LIGHTING FIXTURES • MOTORS
- AUTOMOTIVE, TRUCKING AND INDUSTRIAL VEHICLES
- ANY ELECTRICAL DEVICES THAT REQUIRE THE GROUNDING OF WIRES TO METAL PANELS OR PLATES

WIRE SIZE	18-12	18-12
PANEL THICK.	.020-.078	.078-.125
PART	R 2620	R 2622

CIC 200™ CRIMPING AND STRIPPING TOOLS

CIRCUIT ALERT™ WIRE STRIPPER

CIRCUIT ALERT™ WIRE STRIPPERS SENSE VOLTAGE, CUT BOLTS AND STRIP WIRE

- MULTI-PURPOSE TOOL CUTS, STRIPS AND LOOPS THE MOST COMMON TYPES AND SIZES OF WIRE . . . AND IT CUTS BOLTS TOO!
- BUILT-IN NON-CONTACT VOLTAGE SENSOR PROVIDES ADDITIONAL SAFETY WITH BOTH VISUAL FLASHING AND AUDIBLE BEEPING WHEN AC VOLTAGE IS PRESENT
- VOLTAGE RANGE: 50 - 600 V
- FREQUENCY RANGE: 50 - 500 Hz
- LIFETIME WARRANTY!
- UL LISTED

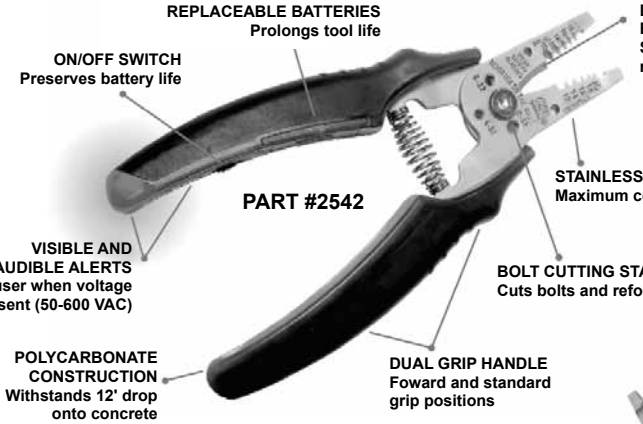
PART #2542

- Strips solid #10, #12, #14, #16 and #18
- Strips stranded #12, #14, #16, #18 and #20
- Cuts and rethreads bolt size 6-32, 8-32 and 10-32

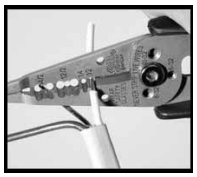
Part #2543

- Strips #12/2 and #14/2 Romex® (NM) cable
- Cuts and rethreads bolt size 6-32, 8-32 and 10-32

NOTE: *Replaceable 1.5 volt button cell batteries (2) included. Compatible with SR43/301/GP86/SG12.*



Non-Contact Voltage Sensor


Strips Wire or Cable

Loops Wire

Cut Bolts

DESCRIPTION	PART	DESCRIPTION	PART
Circuit Alert Wire Stripper – Strips 10-20 awg	N 2542	Circuit Alert Wire Stripper – Strips Romex® Cable	N 2543

CRIMPING AND STRIPPING TOOLS

MULTI-PURPOSE STRIP AND CRIMP TOOL

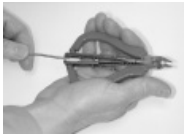
- CUT, STRIP, LOOP, GAUGE AND CRIMP
- STRIPS: 22-8 AWG SOLID WIRE, 26-10 AWG STRANDED WIRE
- CAN ALSO BE USED TO GAUGE WIRE SIZES
- TWO-KNIFE-TYPE WIRE CUTTERS
- HOLES FOR CUTTING BOLT SIZES 4-40, 6-32, 8-32, 10-32 AND 10-24
- CRIMPING DIE FOR 7-8MM IGNITION TERMINALS
- PIVOT NUT TO ADJUST TENSION TO YOUR PREFERENCE
- COLOR-CODED CRIMPING DIES FOR 26-14 AND 12-10 INSULATED AND 22-10 NON-INSULATED TERMINALS AND CONNECTORS
- LEFT AND RIGHT-HAND LOOPING HOLES
- COMFORTABLE PLASTIC-COVERED HANDLES REDUCE FATIGUE

P/N 8256

2-IN-1 CUTTER/STRIPPER

- CUT WITH ONE END, STRIP WITH THE OTHER
- STRIPPER SELF-ADJUSTS TO WIRE SIZE
- CUTTING HEAD IS FULL-FLUSH CUTTING AND LOW-PROFILE WITH STAINLESS STEEL, INDUCTIVE HARDENED JAWS

P/N 2541



1. Insert wire into stripper.

2. Catch, hold and strip wire in one quick motion.

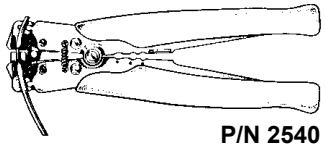
3. Cut wire using cutting head.

P/N 2541 5" CUTTER/STRIPPER FOR LOW-VOLTAGE WIRE STRIPS SOFT-COPPER (STRANDED) WIRE SIZES 26 TO 14 AWG

P/N 2544 6" CUTTER/STRIPPER FOR ELECTRICAL WIRE STRIPS SIZES 14 TO 10 AWG

SUPER STRIPPER TOOL

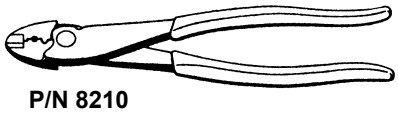
- STRIPS: UNIQUE JAWS SELF-ADJUST TO STRIP TO TO 26 GAUGE WIRE FAST AND EASY
- CRIMPS: INSULATED AND UNINSULATED 22 TO 10 GAUGE TERMINALS
- WIRE CUTTER: CUTS CLEAN AND SMOOTH WITH ITS SPECIAL MACHINED KNIFE CUTTER
- RUGGED CONSTRUCTION: PROFESSIONAL QUALITY TO ENSURE A LONG LIFE OF ACCURATE OPERATION
- COMFORTABLE AND EASY TO USE



P/N 2540

TERMINAL CRIMPER

- THIN NOSE PERMITS WORK IN CONFINED SPACE
- CRIMPING DIE MARKED FOR INSULATED AND NON-INSULATED SOLDERLESS TERMINALS AND CONNECTORS
- ACCOMMODATES WIRE FROM NO. 10 TO 22 AWG
- WIRE CUTTER IN NOSE
- RED PLASTIC-DIPPED HANDLES FOR COMFORT
- LENGTH 9-3/4"

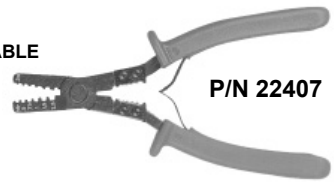


P/N 8210

HOLLOW PIN CRIMPING TOOLS

26-13 GA

- MAKES TRAPEZOIDAL CRIMPS
- INCLUDES CUTTER AND REPLACEABLE STRIPPER BLADE SET
- RANGE: 23 - 13 AWG
- LENGTH: 6.9"
- WEIGHT: 0.4 LBS.



P/N 22407

25-10 GA

- MAKES SQUARE SHAPED CRIMPS
- RATCHET MECHANISM ASSURES COMPLETE CRIMPS
- ADJUSTS AUTOMATICALLY TO CORRECT CRIMP SIZE
- RANGE: 25 - 10 AWG
- LENGTH: 6.9" • WEIGHT: 1.1 LBS.

P/N 22408

CRIMPING AND STRIPPING TOOLS

RATCHET CRIMPING TOOL (FOR HEAT SHRINK TERMINALS)

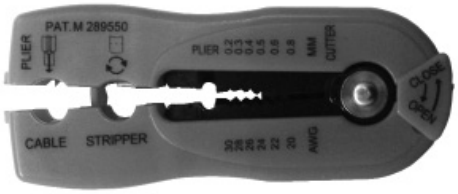
- Designed for heat shrink terminals
- 4 Crimp Nests
  - 22-18 AWG, Red
  - 16-14 AWG, Yellow
  - 12-10 AWG, Blue
  - 8 AWG, Red
- Mating mechanism prevents the jaws from slipping or mis-alignment
- Long comfortable handles make it easier to crimp (less force required)
- Easy to use ergonomic design

P/N 2539

4 Crimp Nests

UTILITY WIRE STRIPPER (CABLE STRIPPER/WIRE STRIPPER)

- FOR AWG 30 / 28 / 26 / 24 / 22 / 20
- FOR 0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8 mm
- CABLE STRIPPER USE - UNDER 9.5 mm
- CABLE STRIPPER - ROUND AND STRAIGHT CUT



P/N 2546

WEATHERPAK CRIMPING TOOLS

- Duplicated factory crimps on open barrel terminals
- Use in automotive, computer and control applications
- For terminal sizes: 20-14 GA and 24-14 GA
- Designed for the positive crimping of Weatherpack terminals
- Quality tools for long-lasting and dependable service
- P/N 32192 – Overall length 9" Features ratcheting jaws that assures a perfect crimp every time
- P/N 32193 – Overall length 8-1/2" Features 5 machined and hardened crimp stations & parallel jaws

Ratcheting Crimper (20-14 GA)
P/N 32192

Open Barrel Terminal Crimper (24-14 GA)
P/N 32193

TORCHES

SELF-IGNITING TORCH

- BUILT-IN SELF-IGNITING IGNITION SYSTEM
- RUNS ON BUTANE FUEL
- FLAME TEMPERATURE UP TO 2500°F (1300°C)
- TWO HOURS OF NONSTOP BURNING

SPECIFICATIONS:

Size	1.37 x 6.10 x 2.95 (35mm x 155mm x 75mm)
Weight	5.7 oz. / 161 g
Fuel.	Butane
Nonstop run time	2 hours
Flame temp	2500°F (1300°C)
Fuel capacity	20 cc

P/N 8865

HEAT GUN – CORDLESS / BUTANE POWERED / PROFESSIONAL

FEATURES

- Heavy Duty
- Butane-Powered
- Battery Operated Blower
- Complete with 4 Alkaline Batteries (Also Use Rechargeable Nicad Batteries)
- Dial Your Temperature Range 400°F - 800°F
- Diode Indicates Blower Motor Operation
- Heat Reflector Tip Attachment Included
- Butane Fill Lasts for 1 Hour in Mid-temperature Setting

SPECIFICATIONS:

Fuel	Butane
Nonstop run time	1 hour in mid temperature setting
Flame temp	400°F to 800°F

APPLICATIONS

- Wiring Applications
- Easy Paint Removal
- Wherever High Heat Is Needed

P/N 52243

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SOLDER / TORCH TOOLS

SOLDER PRO 180™

- EQUIVALENT TO A 185-WATT SOLDERING IRON AND 2500°F TORCH
- POWERED BY PATENTED REFILLABLE LIQUID ENERGY CELL (LEC)
- COMES WITH 3.4MM CHISEL SOLDERING TIP AND BLOW TORCH HEAD, 2 LECS
- SAFELY TRAVELS ANYWHERE WITHOUT HAZARD
- CORDLESS, SIMPLE AND SAFE TO OPERATE IN ALMOST ANY CONDITION
- READY TO USE IN 30 SECONDS AFTER IGNITION
- TIPS CHANGE IN SECONDS FOR SOLDERING GUN, TORCH OR HOT AIR BLOWER
- REMOVABLE LEC™ CONTAINS POWER FOR UP TO 120 MINUTES
- RECHARGE FROM BUTANE FUEL AVAILABLE ALMOST ANYWHERE
- FREE STANDING – DOES NOT REQUIRE SEPARATE STAND

SPECIFICATIONS:

Length w/soldering tip	203mm (8in)
Weight (with LEC™)	560 g
Approximate temp. soldering tip	250-550°C (480-1000°F)
Torch	1300°C (2500°F)
Gas container capacity	40 ml
Operating Time (one gas filling)	100 min @ mid setting

DESCRIPTION		PART	TIP STYLE		PART	TIP STYLE		PART
Solder Pro 180™ with LEC™ Power Technology	A	8842	Heat Blower	A	8842PS70	Deflector	A	8842PS80

EXCALIBER BUTANE SOLDER / TORCH KIT

- BUTANE POWERED, SELF-IGNITING, PORTABLE, MULTI-FUNCTION HEAT TOOL
- 30W TO 100W POWER RANGE
- AUTOMATIC PIEZO IGNITION
- COMPLETE PORTABILITY
- COMFORTABLE GRIP
- RAPID TIP HEAT-UP
- COMPLETE WITH:
  5 TIPS – CONICAL, HOT KNIFE, HEAT BLOWER, REFLECTOR, PLUS 2 SPECIALTY SOLDER TIPS, 17 GRAM TUBE 60/40 SOLDER, COOLING/CLEANING SPONGE AND HEAVY DUTY ULTRA-BOX

SPECIFICATIONS:

Approximate Temperatures:	
Soldering Tip	250-500°C (480-950°F)
Torch	1300°C (2400°F)
Hot Knife	200-350°C (400-660°F)
Heat Blower	250-500°C (480-950°F)
Gas Container Capacity	15 grams
Operating Time (one gas filling)	70 min at mid-setting

P/N 8843

CIC 200™ PRIMARY WIRE

GENERAL PURPOSE

SINGLE CONDUCTOR

DUAL CONDUCTOR

HEAVY DUTY THERMOPLASTIC BLACK AND WHITE INSULATED COPPER CONDUCTORS. GRAY PLASTIC OUTER JACKETS.

- SAE TYPE GPT
- BARE COPPER CONDUCTOR WITH SOLID THERMOPLASTIC INSULATION
- WEATHER RESISTANT
- IMPERVIOUS TO OIL, GREASE OR DIESEL FUMES
- EXCELLENT RESISTANCE TO HEAT, PRESSURE, ABRASION AND WATER
- WILL NOT SUPPORT COMBUSTION
- TEMPERATURE RANGE: -30°F TO 165°F
- 100 FOOT ROLLS

SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART
18	16	BLACK	A 8101	16	19	ORANGE	A 8155	12	19	RED	A 8134
18	16	WHITE	A 8102	14	19	BLACK	A 8121	12	19	YELLOW	A 8138
18	16	RED	A 8104	14	19	WHITE	A 8122	12	19	BLUE	A 8159
18	16	BROWN	A 8099	14	19	RED	A 8124	10	19	BLACK	A 8141
16	19	BLACK	A 8111	14	19	BLUE	A 8125	10	19	WHITE	A 8142
16	19	WHITE	A 8112	14	19	GREEN	A 8126	10	19	RED	A 8144
16	19	RED	A 8114	14	19	BROWN	A 8127	10	19	YELLOW	A 8162
16	19	BLUE	A 8115	14	19	YELLOW	A 8128	10	19	BLUE	A 8163
16	19	GREEN	A 8116	14	19	PINK	A 8100	8	19	RED	A 8154
16	19	BROWN	A 8117	12	19	BLACK	A 8131	6	19	BLACK	A 8161
16	19	YELLOW	A 8118	12	19	WHITE	A 8132	14 (2-Wire)	19	GRAY	A 8167

CROSS-LINK WIRE

- TYPE SXL, SAE J1128
- CROSS-LINKED POLYETHYLENE INSULATION HAS SMOOTH SURFACE FINISH
- MOISTURE RESISTANT
- CHEMICAL RESISTANT — IMPERVIOUS TO GREASE, OIL, GASOLINE AND ACIDS
- HIGH TEMPERATURE RANGE: -50°F TO 350°F WITHOUT MELTING OR FUSING
- 100 FOOT ROLLS

SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART
18	16	BLACK	A 8103	16	19	BROWN	A 8119	12	19	BLACK	A 8139
18	16	WHITE	A 8105	16	19	YELLOW	A 8120	12	19	WHITE	A 8140
18	16	RED	A 8106	14	19	BLACK	A 8123	12	19	RED	A 8143
18	16	BLUE	A 8164	14	19	WHITE	A 8129	12	19	BROWN	A 8098
16	19	BLACK	A 8107	14	19	RED	A 8130	12	19	YELLOW	A 8145
16	19	WHITE	A 8108	14	19	BLUE	A 8133	10	19	BLACK	A 8146
16	19	RED	A 8109	14	19	GREEN	A 8135	10	19	WHITE	A 8147
16	19	BLUE	A 8110	14	19	BROWN	A 8136	10	19	RED	A 8148
16	19	GREEN	A 8113	14	19	YELLOW	A 8137	–	–	–	–

TRAILER LIGHT CABLE

100 FOOT ROLLS

- MEETS SAE J1128 SPECS
- FOR USE AT 50 VOLTS OR LESS
- TEMPERATURE RATING: -7.6°F (-22°C) TO 176°F (80°C)
- FULL CAUGE COPPER CORE TO SAE AND ATA SPECIFICATIONS
- MULTIPLE CONDUCTOR CABLE, COLOR-CODED FOR CIRCUIT IDENTIFICATION

14/4 = RED / WHITE / BLACK / BROWN
14/6 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW
14/7 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW / BLUE
12/6-10/1 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW / BLUE

GAUGE	PART	GAUGE	PART
14/4	A 28115	14/7	A 28117
14/6	A 28116	12/6-10/1	A 28120

MULTI-CONDUCTOR PRIMARY WIRE

- MEETS SAE J1128 SPECIFICATIONS
- FOR USE AT 50 VOLTS OR LESS
- TEMPERATURE RATING: 221°F (105°C)
- HEAVY DUTY PVC GRAY JACKET WITH COLOR CODED CONDUCTORS

- RECOMMENDED FOR TRUCKS, BUSES, TRACTORS, LIGHT DUTY BOATS AND GENERAL SERVICE

BLACK/WHITE/GREEN/RED
100 FOOT ROLLS

GAUGE	PART	GAUGE	PART	GAUGE	PART
16/2	A 28100	14/3	A 28104	12/4	A 28108
16/3	A 28101	14/4	A 28105	10/2	A 28109
16/4	A 28102	12/2	A 28106	10/3	A 28110
14/2	A 28103	12/3	A 28107	10/4	A 28111

WIRE ASSORTMENTS

WIRE STORAGE CADDY ASSORTMENTS

Convenient, durable and easy to use, the wire storage caddy is a great, portable organizational tool.

- Heavy duty cold rolled steel construction
- Durable baked red enamel finish
- Large carrying handle makes transportation easy
- Lid can be secured with a padlock
- Plenty of storage for connectors, terminals, tape, and strip/crimp tools

	DESCRIPTION		PART
	Wire Storage Caddy – Primary Wire Assortment Wire caddy with six 100' rolls of primary wire and multipurpose strip/crimp tool. **Wire** — **Part No.** • 18 GA, red — 8104 • 16 GA, black — 8111 • 16 GA, white — 8112 • 14 GA, blue — 8125 • 14 GA, green — 8126 • 12 GA, yellow — 8138 **Dimensions:** 16-3/4" H x 11" W x 7-1/2" D	A	17996
	Wire Storage Caddy – Cross-link Wire Assortment Wire caddy with six 100' rolls of cross-link wire and "super stripper" strip/crimp tool. **Wire** — **Part No.** • 18 AWG, red — 8106 • 16 AWG, black — 8107 • 16 AWG, white — 8108 • 14 AWG, blue — 8133 • 14 AWG, green — 8135 • 12 AWG, yellow — 8145 **Dimensions:** 16-3/4" H x 11" W x 7-1/2" D	A	17995

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CROSS-LINK WIRE ASSORTMENTS

Sturdy steel wire spool racks keep all your cross link wire in one convenient location. One of each of the most popular sizes. Easy to pull, easy to return, with no more missing boxes.

	DESCRIPTION		PART
	2 Bar Rack Contains 1 each of 14 gauge wire sizes: - black (8123) - white (8129) - red (8130) - green (8135) - blue (8133) - yellow (8137)	A	17783
	4 Bar Rack Contains 1 each of 16 and 14 gauge wire sizes: - black (8123 and 8107) - white (8129 and 8108) - red (8130 and 8109) - green (8135 and 8113) - blue (8133 and 8110) - yellow (8137 and 8120)	A	17784

NYLON SHIELDED HOOK-UP WIRE

BUILDING, FIXTURE AND MACHINE TOOL WIRE

Suitable for new construction or rewiring in accordance with NEC for 600V applications.

- **CONSTRUCTION PROVIDES STRANDED UNCOATED COPPER INSULATED WITH A FLAME RETARDANT POLYVINYL CHLORIDE (PVC) COMPOUND**
- **TOUGH NYLON JACKET PROVIDES EXCELLENT ABRASION, CHEMICAL, GASOLINE AND OIL RESISTANCE**
- **TEMPERATURE RATING: 90°C DRY OR 75°C WET**
- **NEC CODE FOR 600 VOLT APPLICATIONS**
- **THHN/THWN/TFFN/MTW**

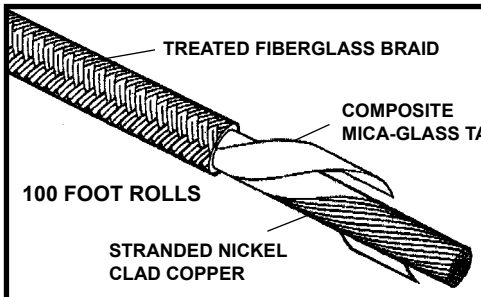
100 FOOT ROLLS

SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART
18	7	RED	A 28128	16	7	GREEN	A 28137	12	7	BLACK	A 28145
18	7	WHITE	A 28129	14	7	RED	A 28138	12	7	BLUE	A 28146
18	7	BLACK	A 28130	14	7	WHITE	A 28139	12	7	GREEN	A 28147
18	7	BLUE	A 28131	14	7	BLACK	A 28140	10	7	RED	A 28148
18	7	GREEN	A 28132	14	7	BLUE	A 28141	10	7	WHITE	A 28149
16	7	RED	A 28133	14	7	GREEN	A 28142	10	7	BLACK	A 28150
16	7	WHITE	A 28134	12	7	RED	A 28143	10	7	BLUE	A 28151
16	7	BLACK	A 28135	12	7	WHITE	A 28144	10	7	GREEN	A 28152
16	7	BLUE	A 28136								

HIGH TEMPERATURE WIRE

UL/CSA 600V HIGH TEMPERATURE LEAD WIRE

High temperature lead wire or heating cable for use in applications where abrasion, durability and corrosion resistance are required.



- **SPECIALLY CONSTRUCTED HIGH TEMPERATURE LEAD WIRE DESIGNED FOR FURNACES, OVENS, KILNS, HEATERS AND OTHER HIGH TEMPERATURE APPLICATIONS**
- **ALSO SUITABLE FOR USE AS A HIGH TEMPERATURE RESISTANCE HEATING CABLE**
- **EXCELLENT RESISTANCE TO ABRASION AND MECHANICAL ABUSE**
- **SUPERIOR CORROSION RESISTANCE**
- **TEMPERATURE RATING: 450°C**
- **VOLTAGE RATING: 600 VOLTS**
- **CONTAINS NO ASBESTOS**

SIZE	STRANDS	O.D.	COLOR		PART
20	10/30	.110	NATURAL	A	28121
18	16/30	.118	NATURAL	A	28122
16	26/30	.130	NATURAL	A	28123
14	41/30	.150	NATURAL	A	28124
12	65/30	.170	NATURAL	A	28125
10	105/30	.225	NATURAL	A	28126
8	133/29	.255	NATURAL	A	28127

CIC 200™ TEST CLIPS

ALLIGATOR CLIPS

STANDARD ALLIGATOR CLIPS

17891

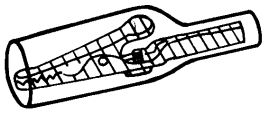
LENGTH	JAW OPENING	MATERIAL	CONNECTION	COLOR	AMP	PART	
2	5/16	STEEL CAD. PLATED	SCREW	NON-INSULATED	10	N	8270
2	5/16	STEEL CAD. PLATED	SOLDER OR CRIMP	NON-INSULATED	10	N	28271
2-3/8	5/16	STEEL CAD. PLATED	SCREW	BLACK	10	N	8272
2-3/8	5/16	STEEL CAD. PLATED	SCREW	RED	10	N	8274
2	5/16	SOLID COPPER	SCREW	NON-INSULATED	10	L	8276
2-3/8	5/16	SOLID COPPER	SCREW	BLACK	10	L	8278
2-3/8	5/16	SOLID COPPER	SCREW	RED	10	L	8280

MINI-GATOR CLIPS

LENGTH	JAW OPENING	MATERIAL	CONNECTION	COLOR	AMP	PART	
1-3/32	3/16	STEEL CAD. PLATED	SOLDER OR CRIMP	NON-INSULATED	5	L	8284
1-3/32	3/16	SOLID COPPER	SOLDER OR CRIMP	NON-INSULATED	5	L	8286
1-1/4	3/16	STEEL W/BARREL	SOLDER OR CRIMP	NON-INSULATED	5	L	28270

ALLIGATOR INSULATORS

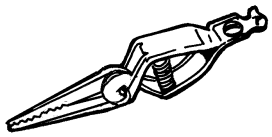
17883



INSULATOR FOR	MATERIAL	COLOR	PART		INSULATOR FOR	MATERIAL	COLOR	PART	
8284 or 8286	VINYL	BLACK	N	28274	8290	VINYL	BLUE	N	28289
8284 or 8286	VINYL	BLUE	N	28275	8290	VINYL	GREEN	N	28290
8284 or 8286	VINYL	GREEN	N	28276	8290	VINYL	RED	N	28291
8284 or 8286	VINYL	RED	N	28277	8290	VINYL	WHITE	N	28292
8284 or 8286	VINYL	WHITE	N	28278	8290	VINYL	YELLOW	N	28293
8284 or 8286	VINYL	YELLOW	N	28279	8292	VINYL	BLACK	I	28294
28270	VINYL	BLACK	N	28280	8292	VINYL	BLUE	I	28295
28270	VINYL	RED	N	28281	8292	VINYL	GREEN	I	28296
8270, 8276 8278 and 8280	VINYL	BLACK	N	8296	8292	VINYL	RED	I	28297
					8292	VINYL	WHITE	I	28298
8270 or 8276	VINYL	BLUE	N	28282	8292	VINYL	YELLOW	I	28299
8270 or 8276	VINYL	GREEN	N	28283	28273	VINYL	BLACK	I	28300
8270 or 8276	VINYL	RED	N	8298	28273	VINYL	BLUE	I	28301
8270 or 8276	VINYL	WHITE	N	28284	28273	VINYL	GREEN	I	28302
8270 or 8276	VINYL	YELLOW	I	28285	28273	VINYL	RED	I	28303
28272	VINYL	BLACK	I	28286	28273	VINYL	WHITE	I	28304
28272	VINYL	RED	N	28287	28273	VINYL	YELLOW	I	28305
8290	VINYL	BLACK	N	28288	8278 or 8280	VINYL	RED	N	28307

CIC 200™ TEST CLIPS

CROCODILE CLIP



17883

LENGTH	JAW OPENING	MATERIAL	CONNECTION	COLOR	AMP	PART
2-1/8	1/2	STEEL	SCREW OR CRIMP	NON-INSULATED	15	L 28272

GENERAL PURPOSE CLIPS

17883

LENGTH	JAW OPENING	MATERIAL	CONNECTION	COLOR	AMP	PART
1-1/2	5/16	STEEL CAD. PLATED	SCREW OR CRIMP	NON-INSULATED	5	L 8290
2	1/2	STEEL CAD. PLATED	SCREW OR CRIMP	NON-INSULATED	10	L 8292
2-7/16	5/8	STEEL CAD. PLATED	SCREW OR CRIMP	NON-INSULATED	20	I 28273
2-7/8	3/4	STEEL CAD. PLATED	SCREW OR CRIMP	NON-INSULATED	25	E 8275
4-1/4	1-1/6	STEEL CAD. PLATED	SCREW OR CRIMP	NON-INSULATED	50	E 8277

CIC 200™ WIRE TIES AND ACCESSORIES

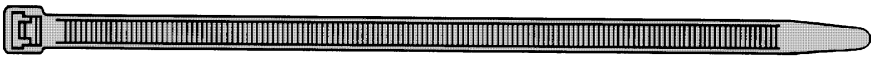
WIRE TIES

Superior design and construction that is QPL listed and UL recognized.

STANDARD — WHITE

WIDTH	LENGTH	MAX. DIA.	PSI	PART	WIDTH	LENGTH	MAX. DIA.	PSI	PART
3/32	4	3/4	18	T 8401	3/16	11-1/8	3	50	R 8409
3/32	5-1/2	1-1/4	18	T 8402	3/16	14-1/8	4	50	R 8410
3/32	8	2	18	T 8403	5/16	8-7/8	2	120	N 8411
9/64	5-1/2	1-1/4	30	T 8404	5/16	14-1/4	4	120	N 8413
5/32	8-1/2	2	40	T 8405	11/32	15	4	175	N 8414
5/32	11-5/8	3	40	T 8406	11/32	24	6	175	I 8415
5/32	14-5/8	4	40	R 8407	11/32	36	9	175	I 8416
3/16	7-1/2	1-3/4	50	T 8408	11/32	42	12	175	I 8417

STANDARD — COLORED TIES



COLOR	TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART
BROWN	1/8	8	2	40	T 8578
BLUE	1/8	8	2	40	T 8579
PURPLE	1/8	8	2	40	T 8580
GRAY	1/8	8	2	40	T 8581
RED	1/8	8	2	40	T 8582

STANDARD — FLUORESCENT COLORS

COLOR	WIDTH	LGTH.	MAX. DIA.	PSI	PART	COLOR	WIDTH	LGTH.	MAX. DIA.	PSI	PART
PINK	1/8	8	2	40	T 8425	ORANGE	1/8	8	2	40	T 8427
PINK	3/16	11	3	40	T 8586	ORANGE	3/16	11	3	40	T 8588
GREEN	1/8	8	2	40	T 8426	YELLOW	1/8	8	2	40	T 8428
GREEN	3/16	11	3	40	T 8589	YELLOW	3/16	11	3	40	T 8587
–	–	–	–	–	–	BLUE	3/16	11	3	40	T 8412

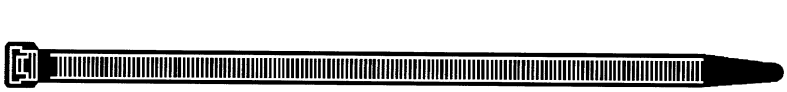
CIC 200™ WIRE TIES AND ACCESSORIES

WIRE TIES

Superior design and construction that is QPL listed and UL recognized.

WEATHER RESISTANT — BLACK

- RESISTANT TO SOLVENTS, FUNGUS, OIL, GREASE, ALKALIES, MILD ACIDS, ULTRA-VIOLET RAYS, ETC.
- MEETS MIL SPECIFICATIONS (3367-2 TO 5-0), TEMPERATURE RANGE 40° TO 185°F.



WIDTH	LENGTH	MAX. DIA.	PSI		PART	WIDTH	LENGTH	MAX. DIA.	PSI		PART
3/32"	4"	5/8"	18	T	8430	3/16"	11-1/8"	3-1/16"	50	R	8439
3/32"	4"	7/8"	18	T	8431	3/16"	14-1/2"	4-1/8"	50	R	8437
3/32"	6"	1-1/2"	18	T	8432	5/16"	15-1/8"	4-1/16"	120	N	8443
3/32"	8"	2-3/16"	18	T	8433	11/32"	25"	7-3/16"	175	I	8445
9/64"	5-3/4"	1-7/16"	40	T	8434	11/32"	36"	11"	175	I	8436
9/64"	8-3/4"	2-3/8"	40	T	8435	17/50"	48"	14-1/2"	175	I	8500
3/16"	7-1/2"	1-7/8"	50	T	8438	–	–	–	–		–

REUSABLE WEATHER RESISTANT — BLACK

- SELF-LOCKING, RELEASABLE, DURABLE, NON-BRITTLE AND NON-CRACKING
- RESISTS CORROSION, MOISTURE, ABRASION, ULTRA-VIOLET RAYS,
- SAVES MONEY, REUSABLE
- TEMPERATURE RANGE: 40°F TO 185°F

TIE WIDTH	LENGTH	MAX. DIA.	PSI		PART
5/16	6	1-3/8	50	R	8452
3/16	14-1/2	4	50	N	8595

REUSABLE (NOT WEATHER RESISTANT) — WHITE

- SELF-LOCKING, RELEASABLE, DURABLE, NON-BRITTLE AND NON-CRACKING
- TEMPERATURE RANGE: 40°F TO 185°F

TIE WIDTH	LENGTH	MAX. DIA.	PSI		PART
5/32	6	1-3/8	50	R	8451
3/16	14-1/2	4	50	R	8598

STAINLESS STEEL SELF-LOCKING TIES

- MORE LOCKING FORCE THAN CONVENTIONAL BALL CLAMPS BECAUSE THE LOCKING BAR CONTACTS BOTH THE TOP AND BOTTOM OF THE BAND AT THE EDGES, THE STRONGEST PART OF THE BUCKLE
- EASY TO USE – SIMPLY INSERT THE TAIL AND TIGHTEN
- MINIMUM LOOP TENSILE STRENGTH: 150 LBS.
- WIDTH: 3/16" (5mm) THICKNESS: .010" (.245mm)
- CAN BE TIGHTENED BY HAND OR INSTALLED WITH THE HAND TOOL

- TYPE 304 STAINLESS STEEL

LENGTH (INCHES)	MAX. DIA. (INCHES)		PART
8.4	2	T	8084
14.9	4	T	8085
20.9	6	T	8086
27.4	8	T	8087
33.4	10	T	8088

SELF-LOCKING HAND TOOL

- HAND TOOL INSTALLS SELF-LOCKING STAINLESS STEEL TIES
- INCLUDES ADJUSTABLE TENSION AND AUTOMATIC CUT-OFF

DESCRIPTION		PART
Self-Locking Tool	A	28080

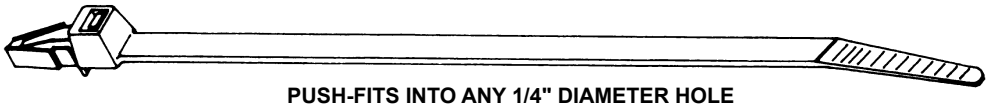
CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

SPECIAL PURPOSE WIRE TIES

STANDARD MOUNTING TYPE — WHITE / BLACK UV

TIE WIDTH	LENGTH	MAX. DIA.	PSI	WHITE PART	BLACK UV PART
3/32	4-1/4	3/4	18	T 8418	
9/64	6-1/4	1-1/4	30	T 8419	R 8440
3/16	7-1/2	1-3/4	50	T 8420	R 8441
3/16	16	4	50	N 8421	
5/16	14	4	120	N 8422	N 8442

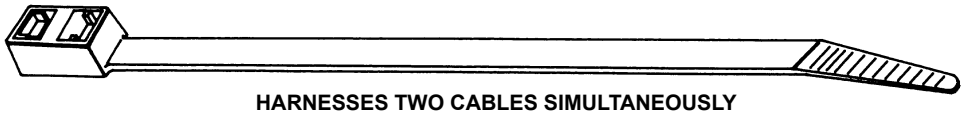
PUSH MOUNT TYPE



PUSH-FITS INTO ANY 1/4" DIAMETER HOLE

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART
3/16	8-1/2	1-3/4	50	T 8423

DOUBLE LOOP TYPE



HARNESSES TWO CABLES SIMULTANEOUSLY

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART
3/16	8-1/2	1ST LOOP 3/4 2ND LOOP 3/4	1ST LOOP 50 2ND LOOP 40	R 8424

I.D. WIRE TIES

ONE EASY STEP TO IDENTIFY AND BUNDLE ITEMS
REDUCE SNAGS WHILE PROVIDING SUPPORT TO THE BUNDLE

Features
- Material: Natural Nylon 6/6
- Temp Rating: 185°F / 85°C
- Pad Size: 0.5" x 1.1"

Certification
- ROHS Compliant
- (CSA Approved)

TIE WIDTH	LENGTH	MAX. DIA.	TENSILE STRENGTH	PART
0.187" / 4.749mm	7.0" / 177.8mm	1.969" / 50 mm	50 lb. / 222n	R 8477

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

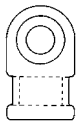
GRIP TIES

For wire, cable and cord. Grip ties are low profile, one piece fastening devices that are constructed of polyethylene hook and nylon loop, laminated back to back. They feature quick release for repetitive access to cable and wire and can be opened and closed numerous times without failure. Versatile enough for applications ranging from network installations to bundling power cords. Will not cause damage to Category 5e and Category 6 cable or fiber optic cable.

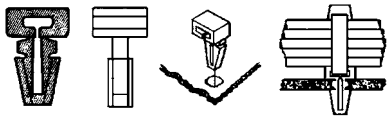
COLOR	TIE WIDTH	LENGTH	MAX. DIA.	MIN. TENSILE STRENGTH	PART	
BLACK	1/2"	6"	1"	40 lbs	I	8034
BLACK	1/2"	8"	1.75"	40 lbs	I	8035
BLACK	1/2"	11"	2.63"	40 lbs	I	8036
BLACK	3/4"	15"	3.88"	50 lbs	I	8037
RED	1/2"	6"	1"	40 lbs	I	8040
RED	1/2"	8"	1.75"	40 lbs	I	8041
RED	1/2"	11"	2.63"	40 lbs	I	8042
RED	3/4"	15"	3.88"	50 lbs	I	8043
ORANGE	1/2"	6"	1"	40 lbs	I	8044
ORANGE	1/2"	8"	1.75"	40 lbs	I	8045
ORANGE	1/2"	11"	2.63"	40 lbs	I	8046
ORANGE	3/4"	15"	3.88"	50 lbs	I	8047
YELLOW	1/2"	6"	1"	40 lbs	I	8048
YELLOW	1/2"	8"	1.75"	40 lbs	I	8049
YELLOW	1/2"	11"	2.63"	40 lbs	I	8051
YELLOW	3/4"	15"	3.88"	50 lbs	I	8052
GREEN	1/2"	6"	1"	40 lbs	I	8053
GREEN	1/2"	8"	1.75"	40 lbs	I	8055
GREEN	1/2"	11"	2.63"	40 lbs	I	8057
GREEN	3/4"	15"	3.88"	50 lbs	I	8059
BLUE	1/2"	6"	1"	40 lbs	I	8061
BLUE	1/2"	8"	1.75"	40 lbs	I	8063
BLUE	1/2"	11"	2.63"	40 lbs	I	8065
BLUE	3/4"	15"	3.88"	50 lbs	I	8066

20

MOUNTING HEADS



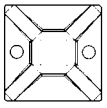
MOUNTING HEAD CONVERTS TIES TO MOUNTING TYPE



PUSH-IN CABLE TIE

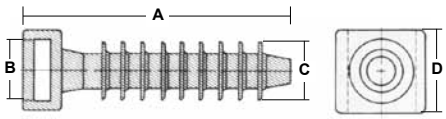
DESCRIPTION	FITS TIE WIDTHS	PART	
Mounting Head Converts Ties to Mounting Type	3/32 – 3/16	T	8462
Push-In Cable Tie	3/32 – 3/16	N	8464

MOUNTING BASES



**with adhesive backing*

DESCRIPTION	FITS TIE WIDTHS	SIZE	PART (BLACK)		PART (WHITE)	
Cable Tie Mounting Screw Type Base 4-Way – From All 4 Sides	3/32 – 9/64	3/4	R	8081*	N	8456*
	3/32 – 3/16	1-1/8		–	N	8458
	3/32 – 3/16	1-1/8	N	8083*	N	8459*
	3/32 – 3/16	1-1/2	L	8093*	N	8466*



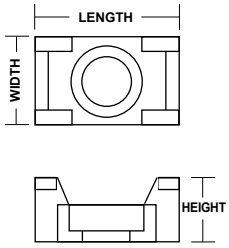
WEATHER RESISTANT FOR INDOOR OR OUTDOOR USE

MASONRY TIE MOUNTS

MOUNTING	MIN. DEPTH	A	B	C	D	PART	
.188" Hole	.935"	1.185"	.218"	.236"	.390"	N	8080
.312" Hole	1-1/2"	1.715"	.313"	.362"	.500"	N	8082

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

CABLE TIE SCREW MOUNTS



- STRONG, DURABLE AND EASY TO INSTALL
- DESIGNED TO PROVIDE STABILITY TO WIRE BUNDLES
- CAN ACCOMMODATE MINIATURE, INTERMEDIATE OR STANDARD CROSS-SECTION CABLE TIES
- EACH MOUNT IS SECURED WITH A SINGLE #10 SCREW

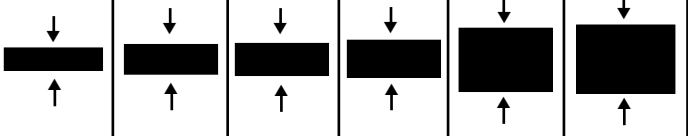
DESCRIPTION	LENGTH INCHES/MM	HEIGHT INCHES/MM	WIDTH INCHES/MM	SLOT SIZE INCHES	PART
SMALL CABLE TIE SCREW MOUNT – NATURAL	.605/15.400	.265/6.700	.380/9.600	.160 x .215	T 28463
SMALL CABLE TIE SCREW MOUNT – BLACK	.605/15.400	.265/6.700	.380/9.600	.160 x .215	T 28465
LARGE CABLE TIE SCREW MOUNT – NATURAL	.875/22.200	.370/9.400	.625/15.900	.345 x .310	R 28467
LARGE CABLE TIE SCREW MOUNT – BLACK	.875/22.200	.370/9.400	.625/15.900	.345 x .310	R 28469

NOTE: See Chromate Wire and Cable Ties (in this section) for use with Cable Tie Screw Mounts.

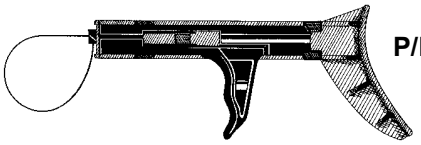
WIRE TIE MOUNTINGS AND IDENTIFICATION TAGS

TIE WIDTH GAUGE

3/32	9/64	5/32	3/16	5/16	11/32



WIRE TIE TENSIONING TOOL



P/N 8470

- LIGHTWEIGHT TOOL FOR SPEEDY & EFFICIENT TENSIONING
- IDEAL FOR ALL WIDTHS THROUGH 3/16"

WIRE MARKERS

0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9
0	0	1	1	2	2	3	3	4	4	5	6	7	8	9

- PREPRINTED BOOKLET OF TYVEK WIRE MARKERS WITH MATCHING TERMINAL MARKERS FOR EASY IDENTIFICATION.
- INCLUDES COMMON STUD SIZE CHART AND TRADE SIZE CONDUCTORS OF CONDUIT OR TUBING.

LEGEND	QUANTITY	PART
0-9	45 each	A 8474

WIRE MARKER ROLL DISPENSER

P/N 8038

- Compact, convenient refillable marker system
- Pre-cut Tyvek® markers with acrylic adhesive
- 0 - 9 Mini Dispenser
- 76 imprints per number
- Label Size: 0.25" x 1.25"
- 760 imprints total
- ROHS compliant

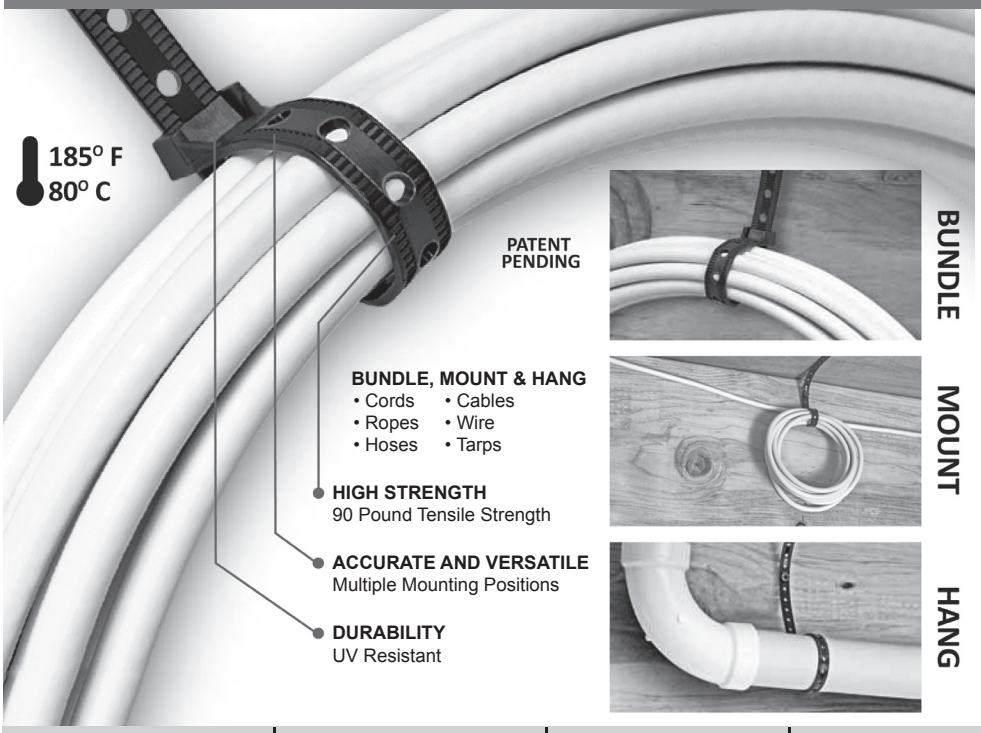
Tyvek is a trademark of DuPont or its affiliates.

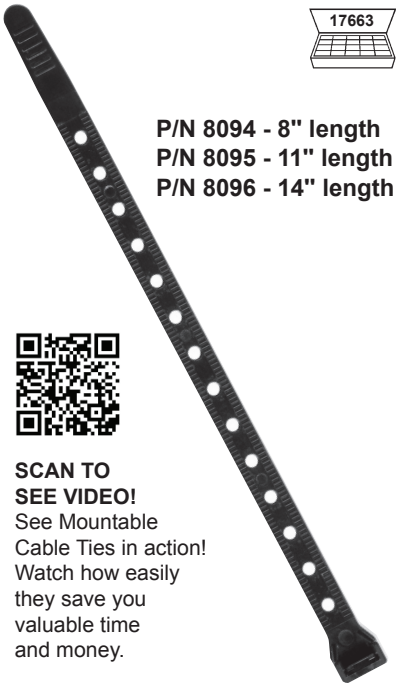
Numeric wire marker roll refill: P/N 8039

WIRE TIES AND ACCESSORIES

MOUNTABLE CABLE TIES

BUNDLE, MOUNT AND HANG





17663

P/N 8094 - 8" length
P/N 8095 - 11" length
P/N 8096 - 14" length

SCAN TO SEE VIDEO!
See Mountable Cable Ties in action! Watch how easily they save you valuable time and money.

TIE WIDTH	LENGTH	MAX. BUNDLE	TENSILE STRENGTH	PART
3/8"	8"	2"	90 lb	8094
3/8"	11"	3"	90 lb	8095
3/8"	14"	4"	90 lb	8096
Tray Assortment – Includes 3 sizes of each Mountable Cable Tie				17663

CABLE TIE CUTTER / WIRE STRIPPER

SAFELY REMOVE CABLE TIES AND LACING & PRECISELY STRIP WIRES

Ensured Protection
- Safety guards slide behind the strap or lacing cord to prevent the sharp blades from contacting the bundled items
- Precision ground stations consistently and accurately strip insulation without nicking the finest conductors

Comfortable and Easy to Use
- Ergonomic, cushion grip handles designed to fit your hand, maximize natural hand contraction motion, and is assisted with an auto return spring

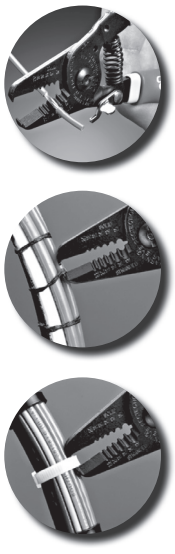
Versatile
- Works excellent with all cable tie strap widths or lacing cords and 10 to 22 solid and stranded gauge wire

Many Uses
- Retrofitting and repairing wire harnesses and hose assemblies
- Removing packaged items
- Prototyping and testing products
- Many other industrial applications

Designed For
- Maintenance and Repair Technicians
- Assemblers
- Shipping and Receiving Personnel
- Installers
- Electricians
- Retail Stocking Personnel

Heat Treated Alloy Steel
- Provides long life when cutting plastic, copper or aluminum
- Scissor action cutter produces clean cuts

P/N 8488

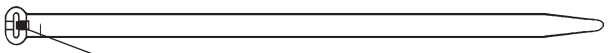


MET-TAB™ WIRE TIES

THE STRONGEST WIRE AND CABLE TYING SYSTEM AVAILABLE

STANDARD — NYLON

- NOTCHLESS DESIGN ELIMINATES STRESS AREAS ASSURING THE STRONGEST POSSIBLE TIE
- STAINLESS STEEL LOCKING DEVICE – ALLOWS INFINITE ADJUSTABILITY FOR OPTIMUM BUNDLE TIGHTNESS AND ULTIMATE STRENGTH
- SMOOTH MOLDED BODY – WON'T CUT INTO INSULATION
- RIBBED AND STIPPLED BACK – WON'T SLIP AROUND BUNDLE
- LOW PROFILE HEAD – WON'T SNAG IN TIGHT CLEARANCE APPLICATIONS



STAINLESS STEEL LOCKING DEVICE

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
3/32 (.091)	3-5/8	5/8	18	T	8050
9/64 (.140)	5-1/2	1-1/8	40	T	8054
9/64 (.140)	11-1/16	3	40	T	8056
3/16 (.184)	7-5/16	1-3/4	50	T	8058
3/16 (.184)	14-3/16	4	50	R	8060
17/64 (.270)	13-3/8	3-1/2	120	N	8062

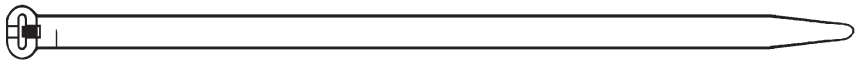
WEATHER RESISTANT — BLACK

- RECOMMENDED FOR OUTDOOR USE
- SUPERIOR ULTRAVIOLET RESISTANCE AND LONG LIFE

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
3/32 (.091)	3-5/8	5/8	18	T	8064
9/64 (.140)	5-1/2	1-1/8	40	T	8068
9/64 (.140)	11-1/16	3	40	T	8070
3/16 (.184)	7-5/16	1-3/4	50	T	8072
3/16 (.184)	14-3/16	4	50	R	8074
17/64 (.270)	8	2	120	N	8075
17/64 (.270)	13-3/8	3-1/2	120	N	8076

HI-TEMPERATURE WIRE TIES

- HEAT-STABILIZED TIES FOR HIGH CONTINUOUS TEMPERATURE USE (221°F / 105°C).



TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
9/64 (.140)	5-1/2	1.125	30	T	8030
3/16 (.184)	7-5/16	1.75	50	T	8031
3/16 (.184)	14-3/16	4.00	50	T	8032
17/64 (.270)	13-3/16	3.50	120	R	8033

SNAP-TIE WIRE TIE

- JUST ONE SNAP TO TIE AND UNTIE
- FULLY RE-USABLE
- ONCE APPLIED THE TAIL CAN BE TUCKED AWAY FOR ADDED SAFETY
- HIGHLY VISIBLE YELLOW COLOR
- VERSATILE DESIGN ALLOWS USE FOR MULTIPLE APPLICATIONS
- MADE OF DURABLE NYLON 6/6

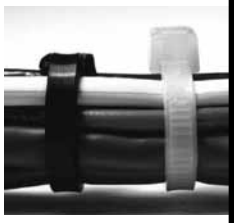
TIE WIDTH	LENGTH	MAX. DIA.	TENSILE STRENGTH	PART	
1/2	29-1/2	.75" - 8.25"	200 lbs.	N	8079

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

COBRA CABLE TIES

- **UV Black Nylon**
- **7-1/2" Tie is UL Recognized, CSA Approved, and Mil-Spec MS3367-23 Approved; 11" and 14" Tie In Process.**
- **7-1/2" and 11" Tie – 50 lb.**
- **14" Tie – 120 lb.**
- **100 Per Pkg.**

P/N 8502 – 7-1/2"
P/N 8503 – 11"
P/N 8504 – 14"



Reduced Head Height compared to standard head designs.

Increased Safety eliminates snags, cuts, and abrasions to cables, hoses, products, and users

No Exposed Sharp Edges since the remaining tail slips back into head of tie.

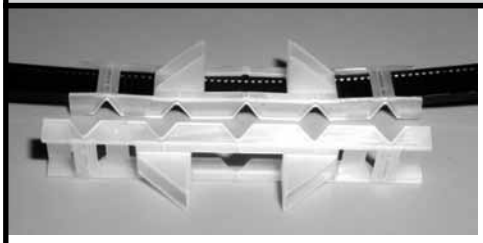
Flexible Grooved Head design provides maximum strength, while allowing the head to easily flex around the total circumference of tubing or bundled wires.

Tamper Proof Pawl located under the tie's head, makes it inaccessible when bundled.

Ideal Applications include wire harnesses, control panels, marine, hoses, playgrounds, construction, and safety equipment.

Designed to work with all tension tools to leave no sharp burrs.

BRIDGE SLEEVES



P/N 8505

Secure Multiple Wires Without Pinching Them

- **UV Black Nylon**
- **For 120 lb. Standard & Low Ties**
- **100 Per Pkg.**

Safely Secure Wires Without Pinching or Crushing. The bridge allows wires to safely pass through while allowing the tie to be cinched tightly.

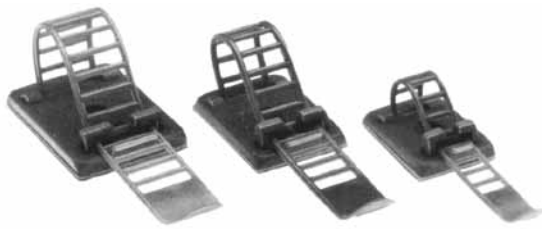
Multiple Sleeves On 1 Cable Tie allows for multiple wires under a single cable tie, reducing cost, installation time, and location restrictions.

Fiber Optic Cable, Critical Sensor Wiring, Soft Insulated Wires are just a few examples of wires that cannot withstand the crushing force of a cinched cable tie.

CIC 200™ ADJUSTABLE CABLE CLAMPS

ADJUSTABLE HOLDING POWER FOR A WIDE RANGE OF CABLE DIAMETERS

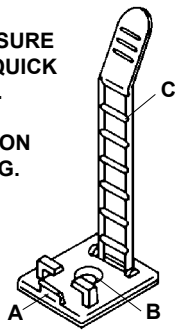
- **SECURES WIRES, CABLES, BUNDLES AND HARNESSES TO VIRTUALLY ANY SURFACE**
- **PROVIDES HIGH RESISTANCE TO IMPACT, HEAT AND CHEMICALS**



A. EXTREMELY STRONG PRESSURE SENSITIVE ADHESIVE FOR QUICK AND SIMPLE INSTALLATION.

B. SCREW HOLE OFFERS OPTION FOR PERMANENT MOUNTING.

C. LADDER STYLE FASTENING SYSTEM ALLOWS FOR INSTANT RELEASING AND PRE-FASTENING.



SIZE	SMALL	MEDIUM	LARGE
CLAMP RANGE	3/16 - 1/2	13/64 - 53/64	9/32 - 63/64
BASE DIMEN.	45/64 x 63/64	53/64 x 1-11/64	63/64 x 1-3/8'
PART	N 8476	N 8478	N 8480

CIC 200™ MOUNTING CLAMPS & BLOCKS

NYLON CABLE CLAMPS

These nylon cable clamps are rustproof, rotproof, weatherproof and chemical proof. Temperature range is -40° to 185°F continuously, 250°F intermittently.

NON-ADJUSTABLE – BLACK

17974

WIDTH	DIA.		PART	WIDTH	DIA.		PART
5/32	1/8	T	2602	3/8	3/8	T	2614
5/32	3/16	T	2604	3/8	7/16	T	2616
1/4	1/4	T	2608	3/8	1/2	T	2618
3/8	1/4	T	2610	1/2	1/2	R	2640
3/8	5/16	T	2612	1/2	5/8	R	2642

NON-ADJUSTABLE – WHITE

17974

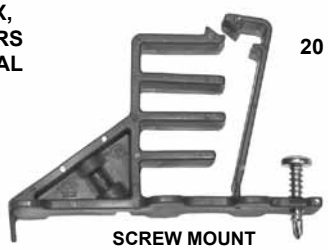
WIDTH	DIA.		PART	WIDTH	DIA.		PART
1/2	1/8	T	2976	1/2	1/2	T	2985
1/2	3/16	T	2977	1/2	5/8	R	2993
1/2	1/4	T	2978	1/2	3/4	R	2994
1/2	5/16	T	2979	1/2	1	R	2996
1/2	3/8	T	2981	1/2	1-1/4	R	2998
1/2	7/16	T	2983	1/2	1-1/2	R	2999

20

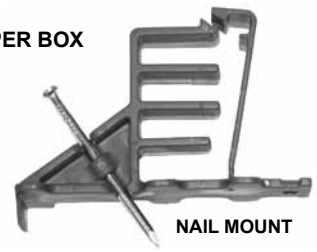
MULTIPLE CABLE ORGANIZERS

- **QUICKLY SECURES MULTIPLE CABLE RUNS SUCH AS NM/ROMEX, COAXIAL AND CAT 5 AS WELL AS OTHER CABLE WITH DIAMETERS LESS THAN 1/4" (6.3mm) ON A STUD FOR A CLEAN PROFESSIONAL INSTALLATION**
- **FAST, EASY INSTALLATION WITH ONE NAIL FOR WOOD OR ONE SCREW FOR METAL STUDS**
- **PATENT PENDING "SNAP LOCK GATE" QUICKLY SECURES ALL CABLES WITHOUT RESTRICTING THEM**
- **MADE OF FIRE-RETARDANT HIGH DENSITY POLYPROPYLENE**
- **NATIONAL ELECTRICAL CODE 300-4-(D) COMPLIANT**

20 PER BOX



SCREW MOUNT



NAIL MOUNT

DESCRIPTION		PART	DESCRIPTION		PART
MULTIPLE CABLE ORGANIZER – SCREW	A	2966	MULTIPLE CABLE ORGANIZER – NAIL	A	2967

CIC 200™ MOUNTING CLAMPS & BLOCKS

VINYL COATED METAL TUBE AND HOSE CLAMPS

- PROVIDES PROTECTION AND ROUTING SUPPORT FOR TUBES, PIPES, WIRE BUNDLES AND CABLES WHERE ABRASION, MOVING PARTS OR HEAT MAY EXIST.
- HEAVY DUTY GALVANIZED STEEL CONSTRUCTION
- ONE OVAL HOLE FOR EASY ALIGNMENT
- 1/32" THICK BLACK VINYL CUSHION
- 3/4" WIDTH AND 13/32" HOLE DIAMETER

DIAMETER		PART	DIAMETER		PART	DIAMETER		PART
1/4	N	30153	5/8	N	30159	1-1/2	L	30173
5/16	N	30154	3/4	N	30161	1-3/4	L	30177
3/8	N	30155	1	L	30165	2	L	30181
1/2	N	30157	1-1/4	L	30169	–		–

EPDM CUSHIONED CABLE CLAMPS

- EPDM covered clamps provide a protective shield to prevent cracking and deterioration against weather.
- Excellent for use where vibration dampening support is needed.
- Softer cushion material provides stronger clamping power (less slippage) than vinyl and nylon clamps.
- Heavy duty galvanized steel
- One round and one slotted hole
- Hole diameter: 0.281" – use 1/4" fastener
- Color: Black
- Temperature range: -50° to 350° F
- Good resistance to oil and chemicals
- EPDM per SAE J200/ASTM D2000

SIZE – I.D.	INDUSTRY NO.	MOUNTING HOLE	BAND WIDTH		PART
.250" / 1/4"	4	.281 / 9/32"	.500 / 1/2"	I	30182
.375" / 3/8"	6	.281 / 9/32"	.500 / 1/2"	I	30183
.500" / 1/2"	8	.281 / 9/32"	.500 / 1/2"	I	30184
.625" / 5/8"	10	.281 / 9/32"	.500 / 1/2"	I	30185
.750" / 3/4"	12	.281 / 9/32"	.500 / 1/2"	I	30186
.875" / 7/8"	14	.281 / 9/32"	.500 / 1/2"	I	30187
1.000" / 1"	16	.281 / 9/32"	.500 / 1/2"	I	30188
1.250" / 1-1/4"	20	.281 / 9/32"	.500 / 1/2"	I	30189
1.500" / 1-1/2"	24	.281 / 9/32"	.500 / 1/2"	I	30190
1.750" / 1-3/4"	28	.281 / 9/32"	.500 / 1/2"	I	30191
2.000" / 2"	32	.281 / 9/32"	.500 / 1/2"	I	30192
2.250" / 2-1/4"	36	.281 / 9/32"	.500 / 1/2"	I	30193
2.500" / 2-1/2"	40	.281 / 9/32"	.500 / 1/2"	I	30194
2.750" / 2-3/4"	44	.281 / 9/32"	.500 / 1/2"	I	30195
3.000" / 3"	48	.281 / 9/32"	.500 / 1/2"	I	30196

CIC 200™ WIRE AND CABLE PROTECTORS

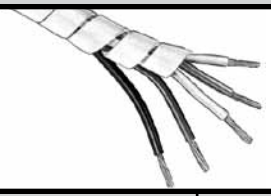
SPLIT LOOM WIRE WRAP

- **ALLOWS QUICK AND EASY WIRE PROTECTION**
- **KEEPS WIRES NEAT AND FREE FROM ABRASION**
- **MADE FROM HIGH DENSITY POLYETHYLENE FOR DURABILITY**
- **TEMPERATURE RANGE -40°F TO 176°F**

DESCRIPTION	I.D.		PART	DESCRIPTION	I.D.		PART
1/4" SPLIT LOOM WIRE WRAP (100' ROLL)	.272	A	8479	3/4" SPLIT LOOM WIRE WRAP (50' ROLL)	.760	A	8485
3/8" SPLIT LOOM WIRE WRAP (100' ROLL)	.405	A	8481	1" SPLIT LOOM WIRE WRAP (50' ROLL)	.915	A	8487
1/2" SPLIT LOOM WIRE WRAP (100' ROLL)	.505	A	8483				

SPIRAL WIRE WRAP

- **ALLOWS FOR FLEXIBLE ROUTING OF WIRE OR CABLE HARNESSES**
- **PROVIDES A NEAT PROTECTIVE BUNDLE**
- **TWISTS ON QUICKLY AND EASILY AND ALLOWS LEAD-OUTS AT ANY POINT**



DESCRIPTION	O.D.	WALL THICKNESS	MIN./MAX. BUNDLE RANGE		PART
1/4" SPIRAL WIRE WRAP (100' ROLL)	1/4	.045	3/16 TO 2	A	8482
3/8" SPIRAL WIRE WRAP (100' ROLL)	3/8	.052	5/16 TO 3	A	8484
1/2" SPIRAL WIRE WRAP (100' ROLL)	1/2	.062	3/8 TO 4	A	8486

CIC 200™ WIRE AND CABLE PROTECTORS

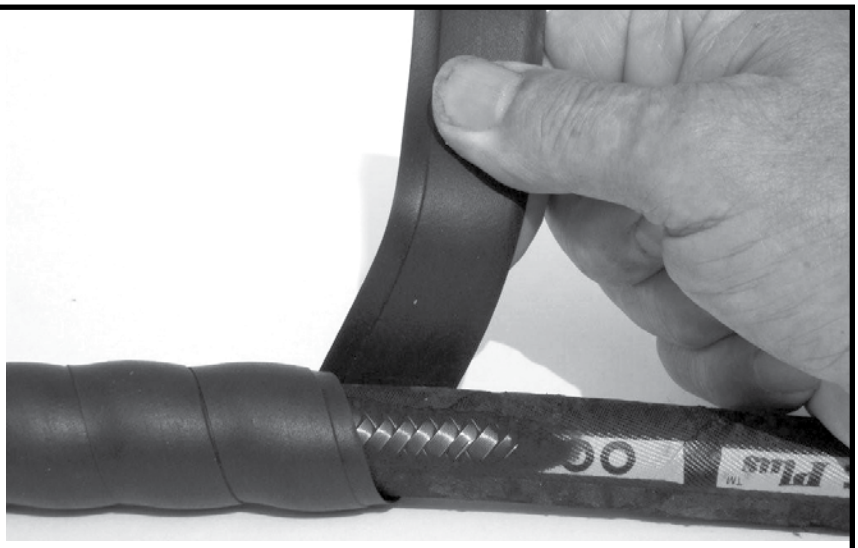
TUFF SKIN PROTECTIVE WRAP

Kit – 1" x 6' Roll with Almalgamating Tape

P/N 32872

1" x 25' Roll

P/N 32873*



*** Chromate fusion repair tape, part numbers 2879, 28988, or 28989, must be used to seal ends of protective wrap.**

SIMPLE • EASY TO USE • NO SPECIAL TOOLS NEEDED

SAVE ON COSTLY DOWNTIME!

The primary source of hose/wire failure are cuts and friction caused by movement in abrasive areas. Abrasion Protection Wrap is made from Neoprene, known for its resistance to oil, gasoline, sunlight, ozone and oxidation. It features good flame resistance, weathers well, and is also resistant to flex cracking, alkalis, and acids. Ideal for the protection of hydraulic hoses in many severe conditions.

CABLE AND HOSE COVERAGE

Size	Length
1/0 Cable	30"
2/0 Cable	28"
3/0 cable	26"
4/0 Cable	24"
3/8" Hydraulic Hose	26"
1/2" Hydraulic Hose	20"
3/4" Hydraulic Hose	15"
1" Hydraulic Hose	12"

All dimensions are approximate length, due to different manufacturing process of hoses and cables.

CAUTION:
Keep this product in temperatures under 100°F. Temperatures over 100°F will result in the wrap adhering to the liner until the temperature is lowered.

FEATURES AND BENEFITS

- Repairing and Splicing Electrical Cables
- Insulating and Sealing Protection
- Protection for Cable and Hose Cuts
- Weather and Moisture Protection
- Flexible and Tough

USES

- Fleet
- Municipalities
- Railroads
- Construction
- Military
- Machine Shops
- Marinas
- Farming

CIC 200™ WIRE AND CABLE PROTECTORS

COLD SHRINK TUBING

- PRE-STRETCHED ON A REMOVABLE CORE FOR EFFICIENCY AND EASE OF INSTALLATION
- SHRINK TO FIT TO ENSURE A PERMANENT, DURABLE ENVIRONMENTAL SEAL & PROTECTION
- NO TORCHES OR HEAT REQUIRED
- WATER-RESISTANT – MEETS THE WATER SEAL REQUIREMENTS OF ANSI C119.1
- RESISTS ACIDS AND ALKALIES; RESISTS OZONE

17989

Minimum = Seal Diameter
Maximum = Connector Clearance Dimension

CONDUCTOR SIZE AWG and Kcmil	PRODUCT DIAMETER RANGE (Mininum - Maximum) INCHES (MM)	RELAXED TUBE LENGTH INCHES (MM)		PART
6 - 4 AWG	0.31" - 0.56" (7,80 - 14,3)	6.0 (152)	A	66080
10 - 1/0 AWG	0.10" - 0.82" (2,54 - 20,9)	8.0 (203)	A	66081
2 - 1/0 AWG	0.40" - 0.82" (10,1 - 20,9)	8.0 (203)	A	66082
2/0 AWG - 250 kcmil	0.55" - 1.18" (13,9 - 30,1)	9.0 (229)	A	66083
2/0 AWG - 250 kcmil	0.55" - 1.18" (13,9 - 30,1)	11.0 (279)	A	66084
–	0.67" - 1.38" (16,8 - 35,1)	6.0 (152)	A	66085*
250 - 400 kcmil	0.67" - 1.38" (16,8 - 35,1)	12.0 (305)	A	66086
–	0.95" - 1.94" (24,0 - 49,3)	6.0 (152)	A	66087*
450 - 800 kcmil	0.95" - 1.94" (24,0 - 49,3)	12.0 (305)	A	66088
–	1.27" - 2.67" (32,2 - 67,8)	6.0 (152)	A	66089*
900 - 1000 kcmil	1.27" - 2.67" (32,2 - 67,8)	9.0 (229)	A	66090
900 - 1000 kcmil	1.27" - 2.67" (32,2 - 67,8)	12.0 (305)	A	66091
900 - 1000 kcmil	1.27" - 2.67" (32,2 - 67,8)	18.0 (457)		66092

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Primary uses: Sealing of terminal lug barrels, conduit couplings and conduit-to-cable breakouts.

HEAT SHRINK TUBING

A sturdy, heavy wall tubing with excellent insulating, abrasion-resistance, and strain-relieving properties. The thermo-plastic adhesive provides superior environmental protection.

HEAVY DUTY/DIRECT BURY HEAT SHRINK TUBING

- Shrink Ratio: 3 to 1
- Flame Retardant
- For Battery Splices and Terminals
- DIRECT BURIAL Capability
- Use in UNDERWATER ENVIRONMENTS
- For Connections in the Harshest Conditions
- Mil Specs: MIL-DTL-23053/15, Class 2
- UL 486D
- Material: Polyolefin
- Recover Temp.: 121°C (250°F)
- Continuous Oper. Temp.: -55°C to 110°C (-67°F to 230°F)

17032

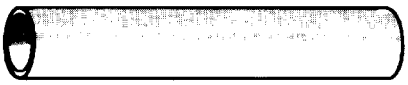
PRE-SHRINK I.D.	REC. I.D.	LENGTH	COLOR		PART
0.300"	0.100"	12"	Black	D	66095
0.300"	0.100"	12"	Red	D	66096
0.400"	0.150"	12"	Black	D	66097
0.400"	0.150"	12"	Red	D	66098
0.800"	0.200"	12"	Black	D	66099
0.800"	0.200"	12"	Red	D	66100
1.100"	0.370"	12"	Black	D	66101
1.100"	0.370"	12"	Red	D	66102
1.500"	0.500"	12"	Black	D	66103
2.000"	0.650"	12"	Black	D	66104
3.000"	1.000"	12"	Black	D	66105
4.500"	1.500"	12"	Black	D	66106
6.000"	1.800"	12"	Black	D	66107
7.000"	2.000"	12"	Black	D	66108

CIC 200™ WIRE AND CABLE PROTECTORS

HEAT SHRINK TUBING

Waterproofs, insulates and protects against oxidation and corrosion in electrical splices, connections and terminations. For all automotive, trucking, utilities, industrial and marine applications.

"SUR-SEAL" HEAT SHRINK TUBING



3 TO 1 SHRINK RATIO

- HEAVY-DUTY DOUBLE WALL
- MELTABLE INNER WALL SEALANT KEEPS OUT MOISTURE AND AIR
- CLEAR, SEE-THRU TUBING, MAKES INSPECTION EASY
- SPLIT-RESISTANT
- DIELECTRIC STRENGTH 15,000 VOLTS
- TEMP. RANGE 67°F to 347°F
- SELF-EXTINGUISHING

WIRE RANGE	SIZE I.D.	POST-SHRINK I.D.	LENGTH	PART	
18-12	1/4	5/64	6"	I	2873
14-8	3/8	9/64	6"	I	2874
8-2	1/2	13/64	6"	I	2875

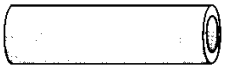
THICK WALL HEAT SHRINK TUBING

3 TO 1 SHRINK RATIO

- THICK WALL FOR ABRASION PROTECTION AND PUNCTURE RESISTANCE
- SEALANT LOCKS OUT CORROSION CAUSING ELEMENTS
- MADE OF A TOUGH CROSSLINKED POLYOLEFIN
- TEMPERATURE REQUIRED TO SHRINK: 115°C/239°F
- CONTINUOUS OPERATING TEMPERATURE: 90°C/194°F
- DIELECTRIC STRENGTH 600 VOLTS

WIRE RANGE	SIZE I.D.	POST-SHRINK I.D.	LTH.	COLOR	PART	
14-4	1/2	5/32	6"	RED	D	32168
14-4	1/2	5/32	6"	BLK	D	32170
6-1	3/4	1/4	6"	RED	D	32172
6-1	3/4	1/4	6"	BLK	D	32174
2-4/0	1-3/32	13/32	6"	BLK	D	32178
2-4/0	1-3/32	13/32	6"	RED	D	32180

INDUSTRIAL GRADE HEAT SHRINK TUBING



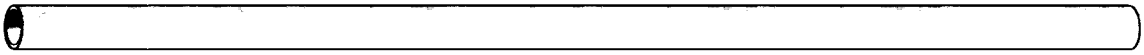
2 TO 1 SHRINK RATIO

- PROTECTS AGAINST ROAD SALT, OILS, GASOLINE, DUST, DIRT, ABRASIVE PARTICLES, SOLVENTS, CHEMICALS AND MOISTURE
- COLOR CODED
- DIELECTRIC STRENGTH 6300 VOLTS.
- TEMPERATURE RANGE -10°F to 220°F
- MEETS MIL-1-23053/2

WIRE RANGE	SIZE I.D.	POST-SHRINK I.D.	LGTH	COLOR	PART		WIRE RANGE	SIZE I.D.	POST-SHRINK I.D.	LGTH	COLOR	PART	
22-20	1/16	1/32	10"	BLK	L	6076	4	3/8	3/16	10"	WHT	L	6082
18-16	3/32	3/64	10"	WHT	L	6077	2	1/2	1/4	10"	BLK	L	6083
14	1/8	1/16	10"	BLK	L	6078	1-2/0	3/4	3/8	10"	WHT	L	6084
12-10	3/16	3/32	10"	WHT	L	6079	3/0-4/0	1	1/2	10"	BLK	L	6085
8	1/4	1/8	10"	BLK	L	6080	-	1-1/2	3/4	10"	WHT	E	6086
6	5/16	5/32	10"	BLK	L	6081	-	2	1	10"	BLK	E	6087

CIC 200™ WIRE AND CABLE PROTECTORS

"SUR-SEAL" HEAT SHRINK TUBING



COLOR 17725 CLEAR 17925

- DUAL WALL FLEXIBLE POLYOLEFIN TUBING WITH THICK WALL ADHESIVE
- COLOR-KEYED FOR EASY IDENTIFICATION OF WIRE SIZE OR CLEAR FOR EASY VIEWING OF FINISHED PRODUCT
- FLEXIBLE POLYOLEFIN HEAT-SHRINKABLE TUBING WITH A THICK INNER WALL OF MODIFIED POLYAMIDE ADHESIVE WHICH MELTS AND FLOWS, ENCAPSULATING AND SEALING COMPONENTS CONTAINED WITHIN
- SHRINK TEMPERATURE IS 239°F (115°C)
- OPERATING TEMPERATURE RANGE IS -67°F (-55°C) TO +230°F (+110°C)
- RECOMMENDED IN APPLICATIONS REQUIRING MOISTURE PROTECTION OR WATERPROOFING
- COMES IN 12" LENGTHS

PHYSICAL UNITS	TEST METHOD	REQUIREMENT
PHYSICAL:		
Tensile strength (psi)	ASTM-D-638	1500 min.
Elongation (%)	ASTM-D-638	200 min.
Cold Impact (-55°C)	ASTM-D-746	No cracking
Heat Shock (250°C 4 Hrs.)	MIL-I-23053	No cracking
Secani Modulus (psi)	MIL-I-23053	+5, -15
ELECTRICAL:		
Dielectric Strength (volts/mil)	ASTM-D-876	500 min.
Volume Resistivity (ohm-cm)	ASTM-D-876	1.0 x 10^{15} min.
CHEMICAL:		
Corrosion (121°C, 16 Hrs.)	MIL-I-23053	No corrosion
Water Absorpotion (%)	ASTM-D-570	0.5 max.
Fluid Resistance (23°C, 24 Hrs.)		
Tensile Strength (psi)	MIL-I-23053	900 min.
Flammability		N/A
Shrink Temperature, Nominal		115°C

"SUR-SEAL" – COLOR

SIZE I.D.	COLOR	WIRE SIZE	POST SHRINK I.D.	LENGTH	PART	
1/8	BROWN	#24-#22	1/32	12"	L	6090
3/16	GREY	#20-#18	1/16	12"	L	6091
1/4	WHITE	#16-#14	5/64	12"	I	6092
3/8	RED	#12-#10	1/8	12"	I	6093
1/2	BLUE	#8-#4 (2 or 3 #18-#16)	5/32	12"	I	6094
3/4	YELLOW	1, 1/0, 2/0 (2 or 3 #14-#12)	5/16	12"	I	6095
1	BLACK	3/0, 4/0 (2 or 3 #10)	13/32	12"	F	6096

"SUR-SEAL" – CLEAR

SIZE I.D.	WIRE SIZE	POST SHRINK I.D.		PART	SIZE I.D.	WIRE SIZE	POST SHRINK I.D.		PART
1/8	#24-#22	1/32	L	26090	1/2	#8-#4 (2 or 3 #18-#16)	5/32	I	26094
3/16	#20-#18	1/16	L	26091	3/4	1, 1/0, 2/0 (2 or 3 #14-#12)	1/4	I	26095
1/4	#16-#14	5/64	I	26092	1	3/0, 4/0 (2 or 3 #10)	5/16	F	26096
3/8	#12-#10	1/8	I	26093	–	–	–		–

SIX-2-ONE™ NON-ADHESIVE SHRINK TUBING

BLACK – NON-ADHESIVE LINED

17883

- SHRINKS TO FIT EXPANSION RATIOS OF 6 TO 1
- DIELECTRIC STRENGTH OF 500 VOLTS/MIL
- COVERS WIRE FROM #14 AWG THROUGH 1000 MCM CABLE
- TOUGH AND DURABLE, PROVIDING EXCELLENT INSULATING AND ABRASION PROTECTION
- DURABLE SEMI-RIGID BLACK MATERIAL EASILY CONFORMS TO IRREGULAR SURFACE CONFIGURATIONS WHEN SHRUNK
- IDEAL FOR REPLACING TORN CABLE JACKETS AND INSULATING CONNECTORS
- EASILY FITS OVER AND SEALS LARGE CONNECTIONS ALREADY MADE WITHOUT COMPLETE DISASSEMBLY
- FLAME RETARDANT MATERIAL MEETS MIL-I-23053/15A SPECS

SIZE	POST SHRINK I.D.		PART
.75 x 12"	.125"	A	66069
1.30 x 12"	.222"	A	66070
1.75 x 12"	.293"	A	66072
2.75 x 12"	.460"	A	66074

SIX-2-ONE™ ADHESIVE-LINED SHRINK TUBING

BLACK – ADHESIVE LINED

17842

- BLACK WITH A THERMOPLASTIC ADHESIVE LINING PROVIDING A TIGHT GAS, WATER AND ENVIRONMENTAL SEAL
- SHRINKS TO FIT EXPANSION RATIOS OF 6 TO 1
- DIELECTRIC STRENGTH OF 500 VOLTS/MIL
- COVERS WIRE FROM #14 AWG THRU 1000 MCM CABLE
- TOUGH AND DURABLE, PROVIDING EXCELLENT INSULATING AND ABRASION PROTECTION
- DURABLE SEMI-RIGID BLACK MATERIAL EASILY CONFORMS TO IRREGULAR SURFACE CONFIGURATIONS WHEN SHRUNK
- IDEAL FOR REPLACING TORN CABLE JACKETS AND INSULATING CONNECTORS
- EASILY FITS OVER AND SEALS LARGE CONNECTIONS ALREADY MADE WITHOUT COMPLETE DISASSEMBLY
- FLAME RETARDANT MATERIAL MEETS MIL-I-23053/15A SPECS

SIZE	POST SHRINK I.D.		PART
.75 x 12"	.125"	B	6067
1.30 x 12"	.222"	B	6071
1.75 x 12"	.293"	B	6073
2.75 x 12"	.460"	A	6075

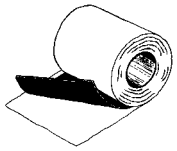
WIRE AND CABLE PROTECTORS

LECTRO-SEAL INSULATION

Protects and insulates any electrical connection against exposure to the elements.

LECTRO-SEAL "350"

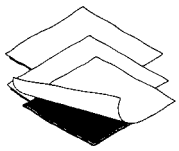
FEATURES:
- PRESSURE SENSITIVE
- NON-FILM FORMING
- 100% SOLID INSULATION
- TEMPERATURE RANGE: -20° TO 200°F
- WATER PERMEABILITY: 0% ON 1/8" MEMBRANE, MIL-S-19653A
- NON-OXIDIZING
- PERMANENTLY FLEXIBLE



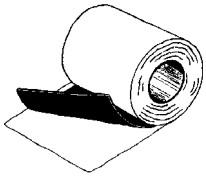
RESISTS:
- WATER
- SOIL
- SALTWATER
- WATER VAPOR
- WEATHER
- CARBON TETRACHLORIDE
- NAPTHA
- MINERAL SPIRITS
- KETONE
- GASOLINE

DESCRIPTION	SIZE		PART
ROLL (10 FEET)	1/8" — 3-3/4" x 10'	A	2893

LECTRO-SEAL "600"



- **HEAVY POLYVINYL CHLORIDE (PVC) BACKING**
  PROVIDES EXCELLENT RESISTANCE TO ABRASION, MOISTURE, ALKALIES, ACID COPPER CORROSION AND UV LIGHT
- **SELF-FUSHING, RUBBER BASED INSULATING COMPOUND**
  SEALS, WATERPROOFS AND INSULATES CONNECTIONS UP TO 600 VOLTS
- **REMAINS FLEXIBLE OVER WIDE RANGE OF TEMPERATURES**
  FOR EASY INSTALLATION FROM 0°F to 100°F
- **USABLE FOR INDOOR AND OUTDOOR APPLICATIONS**



THICKNESS (ASTM D-1000)
VINYL.....7.0 MILS MASTIC.. 38.0 MILS
DIELECTRIC STRENGTH
(ASTM D-1000).....13,500 VOLTS/MIL
ELONGATION (ASTM D-1000).....200%
BREAKING STRENGTH
(ASTM D-1000)..... 20 LBS./IN. WIDTH
INSULATION RESISTANCE
(ASTM D-257-61)....>1,000,000 MEGOHMS

DESCRIPTION	SIZE		PART	DESCRIPTION	SIZE		PART
PADS (20 PCS.)	1/8" — 2-1/2" x 2-1/2"	I	2892	ROLL (10 FEET)	2-1/2" x 10'	A	2898

WIRE AND CABLE PROTECTORS

ELECTRICAL TAPES

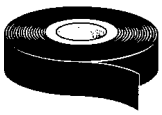
SCOTCH® PROFESSIONAL GRADE COLOR CODING VINYL ELECTRICAL TAPE 35

- Scotch® Vinyl Electrical Tape 35 is a polyvinyl chloride (PVC) color-coding tape
- Available in Nine Fade Resistant Colors
- All tapes are 3/4" x 66'
- Outstanding electrical and mechanical properties make this tape excellent for use in phase identification, and color coding of motor leads and piping systems.
- Insulate splices up to 600V
- 7 mil (0.178 mm)
- Abrasion and weather-resistant
  - Operates over a wide range of temperatures, up to 221°F (105°C)
  - Applies smoothly and conforms well above 32°F (0°C)
- Resists UV rays, abrasion, corrosion, alkalies and acids
- Flame retardant
- UL Listed and CSA certified
- Also useful for marking safety areas

17077

SIZE & COLOR		PART	SIZE & COLOR		PART	SIZE & COLOR		PART
3/4" x 66' BLUE	E	28750	3/4" x 66' GREEN	E	28753	3/4" x 66' VIOLET	E	28756
3/4" x 66' BROWN	E	28751	3/4" x 66' ORANGE	E	28754	3/4" x 66' WHITE	E	28757
3/4" x 66 GRAY	E	28752	3/4" x 66' RED	E	28755	3/4 x 66' YELLOW	E	28758

GENERAL PURPOSE COLOR-CODED VINYL ELECTRICAL TAPE



- **IDEAL FOR COLOR-CODING ALL WIRING & CONNECTIONS**
- **EXCELLENT ELONGATION, FLEXIBILITY AND STRENGTH**
- **ASSORTMENT PACK (#2189) INCLUDES EIGHT (8) COLORS: BLUE, BROWN, GRAY, GREEN, ORANGE, RED, WHITE AND YELLOW *(NOT BLACK)***
- **U.L. LISTED**
- **7 MIL THICK**
- **150% ELONGATION**
- **EXCELLENT CREEPBACK**

SIZE & COLOR		PART	SIZE & COLOR		PART	SIZE & COLOR		PART
3/4" x 60' BLUE	E	2190	3/4" x 60' GREEN	E	2193	3/4" x 60' WHITE	E	2197
3/4" x 60' BROWN	E	2191	3/4" x 60' ORANGE	E	2194	3/4" x 60' YELLOW	E	2198
3/4" x 60 GRAY	E	2192	3/4" x 60' RED	E	2195	3/4 x 60' BLACK	i	2199
–		–	–		–	ASSORTMENT PACK	A	2189

ALL-WEATHER VINYL

- **FLAME RETARDANT**
- **COLD & WEATHER RESISTANT**
- **SUPERIOR ADHESION**
- **CONFORMS TO GOV'T SPECS MIL-I-24391A & HH-I-595C**
- **U.L. LISTED, BLACK VINYL**
- **TEMP. RANGE: -4ºF TO +221ºF (-20ºC TO +105ºC)**
- **THICKNESS: 8.5 MIL**
- **TENSILE STRENGTH: 25 LBS. / INCH**
- **ELONGATION: 200%**

SIZE		PART
3/4" x 66'	I	2880

3M BRAND ELEC. TAPES

- **FLAME RETARDANT**
- **HOT AND COLD WEATHER RESISTANT RESISTS UV RAYS, ABRASION, MOISTURE, ALKALIES, ACIDS AND CORROSION**
- **"33+" MEETS REQUIREMENTS OF ASTM D-3005 TYPE I, UL 510, HHI-595C AND CSA C22.2**
- **"SUPER 88" MEETS REQUIREMENTS OF ASTM D-3005 TYPE II, UL 510, MIL-I-24391 & CSA 22.2**
- **TEMP. RANGE: -18ºC/0ºF TO 105ºC/220ºF**
- **33+ MIL THICKNESS – 7; SUPER 88 MIL THICKNESS – 8.5**

SIZE		PART
33+ Elec. Tape 3/4" x 66'	I	32199
Super 88 Elec. Tape 3/4" x 66'	I	32880

ELECTRICIAN'S DUCT TAPE

- **ELECTRICIAN'S UTILITY TAPE FOR HOLDING AND BUNDLING APPLICATIONS**
- **WATER RESISTANT**
- **6 MIL THICKNESS (.006")**
- **IDEAL FOR MOST ELECTRICAL APPLICATIONS**
- **TEARS EASILY AND EVENLY BY HAND**
- **COMES OFF CLEAN AND LEAVES NO STICKY RESIDUE**
- **TEMPERATURE STABLE - WILL NOT MELT IN HOT WEATHER OR FAIL TO STICK IN COLD**

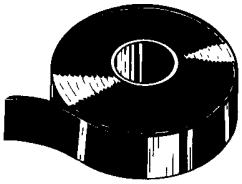
SIZE		PART
2" x 150'	A	32885

WIRE AND CABLE PROTECTORS

HIGH-VOLTAGE LINERLESS RUBBER SPLICING TAPE

Highly comformable, linerless ethylene propylene rubber (EPR), high-voltage insulating tape provides excellent thermal dissipation of splice heat. Designed for splicing and terminating wires and cables. Meets industry specifications for flame retardance.

APPLICATIONS:
- PRIMARY INSULATION FOR SPLICING ALL TYPES OF SOLID DIELECTRIC INSULATED CABLES THROUGH 69 KV
- PRIMARY INSULATION FOR BUILDING STRESS CONES ON ALL TYPES OF SOLID DIELECTRIC INSULATED CABLES UP TO 35 KV
- JACKETING (SECONDARY INSULATION) ON HIGH-VOLTAGE SPLICES AND TERMINATIONS & JACKET REPAIRS
- MOISTURE-SEALING ELECTRICAL CONNECTIONS
- BUS BAR INSULATION
- END-SEALING HIGH-VOLTAGE CABLES
- MOTOR LEADS



30 FOOT ROLL

SPECIFICATIONS:

• COLOR:	BLACK
• THICKNESS: ASTM D-4325	30 MILS (0.762mm)
• TENSILE STRENGTH: ASTM D-4325	250 PSI (1.72 MPa)
• ULTIMATE ELONGATION: ASTM D-4325	1000%
• OPERATING TEMP.: ASTM D-4388	90°C (194°F)
• EMERGENCY OVERLOAD: ASTM D-4388	130°C (266°F)
• THERMAL RESISTIVITY:	300°C (572°F)
• DIELECTRIC STRENGTH: ASTM D-4325	750V/mil
• INSULATION RESISTANCE:	$>10^8$M ohms

FEATURES:
- LINERLESS, SELF-BONDING PRIMAR INSULATING TAPE RATED THROUGH 69 kV
- HIGH THERMAL CONDUCTIVITY
- FLAME RETARDANT
- EXCELLENT PHYSICAL AND ELECTRICAL PROPERTIES WHICH ARE UNAFFECTED BY DEGREE OF STRETCH
- COMPATIBLE WITH COMMON SOLID DIELECTRIC CABLE INSULATION
- UNIFORM TAPE UNWIND FROM ROLL
- WEATHER RESISTANT

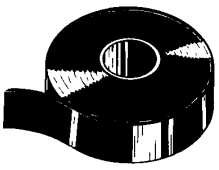
20

SIZE		PART
3/4" x 30 FEET	A	2889

GENERAL PURPOSE LINERLESS RUBBER SPLICING TAPE

APPLICATIONS:
- PRIMARY INSULATION FOR CABLE SPLICES AND TERMINATIONS
- MOISTURE SEALING AND INSULATING ELECTRICAL CONNECTIONS AND CABLE ENDS
- BUS BAR INSULATION
- MOTOR LEADS
- WIRE AND CABLE JACKET REPAIRS

FEATURES:
- WEATHER RESISTANT
- FLAME RETARDANT
- PHYSICAL AND ELECTRICAL PROPERTIES UNAFFECTED BY DEGREE OF STRETCH
- NO LOSS OF ELECTRICAL CHARACTERISTICS
- LINERLESS SELF-BONDING PRIMARY INSULATING TAPE



15 FOOT ROLL

SPECIFICATIONS:

• COLOR:	BLACK
• THICKNESS: ASTM D-4325	30 MILS (0.762mm)
• TENSILE STRENGTH: ASTM D-4325	250 PSI (1.72 MPa)
• ULTIMATE ELONGATION: ASTM D-4325	1000%
• OPERATING TEMP.: ASTM D-4388	90°C (194°F)
• EMERGENCY OVERLOAD: ASTM D-4388	130°C (266°F)
• THERMAL RESISTIVITY:	300°C (572°F)
• DIELECTRIC STRENGTH: ASTM D-4325	750V/mil

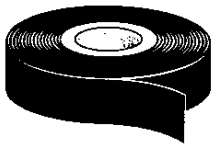
SIZE		PART
3/4" x 15 FEET	A	2891

WIRE AND CABLE PROTECTORS

FUSION SEAL™ ELECTRICAL WRAP

APPLICATIONS:
- ELECTRICAL INSULATION, SPLICES AND CABLE HARNESSES
- ECONOMICAL SUBSTITUTE FOR HEAT SHRINK TUBING AND HOT AIR DUCTING

FEATURES:
- WEATHER AND SALTWATER RESISTANT
- FORM FITTING
- ELECTRICAL INSULATOR



36 FOOT ROLL

SPECIFICATIONS:

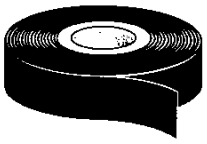
• MATERIAL	HIGH-GRADE SILICONE
• TEMPERATURE RANGE	-54°C to +260°C (-60°F to +500°F)
• DIELECTRIC STRENGTH, MIN.	0.030" 400 VPM
• DIELECTRIC CONSTANT, 1 KHZ	2.95
• VOLUME RESISTIVITY	$3x10^{14}$ OHM/CM
• WATER ABSORPTION	3% MAX. BY WEIGHT
• TENSILE STRENGTH	700 PSI MIN.
• ELONGATION	300% MIN.
• MILITARY SPECIFICATION	MIL 1-46852C TYPE II

SIZE		PART	SIZE		PART
1" x 30 MIL x 36 FEET (RED)	A	2899	2" x 30 MIL x 36 FEET (RED)	A	28994
1" x 30 MIL x 36 FEET (GRAY)	A	28992	2" x 30 MIL x 36 FEET (BLACK)	A	28995
1" x 30 MIL x 36 FEET (BLACK)	A	28991	2" x 30 MIL x 36 FEET (GRAY)	A	28996
1" x 30 MIL x 36 FEET (CLEAR)	A	28993	2" x 30 MIL x 36 FEET (CLEAR)	A	28997
1" x 30 MIL x 36 FEET (WHITE)	A	28990	2" x 30 MIL x 36 FEET (WHITE)	A	28998

ULTRA WRAP FUSION REPAIR TAPE

- **CHEMICALLY FUSES TO FORM A WATER-TIGHT BOND**
- **NO HEAT OR FLAME REQUIRED**
- **RESISTANT TO WATER IMMERSION, OZONE, DILUTE CORROSIVES AND MOST CHEMICALS**
- **IDEAL FOR INSULATING, SEALING & PROTECTING**
- **WILL NOT TRANSFER ADHESIVE – LEAVES UNDERLYING SURFACE TACK FREE**

10' ROLL



APPLICATIONS:
- **HIGH VOLTAGE CABLE, TRUCK/AUTO BATTERY CABLE, TELEPHONE CABLE AND A VARIETY OF SEALING AND PROTECTION USES IN NON-ELECTRICAL APPLICATIONS**

SPECIFICATIONS:

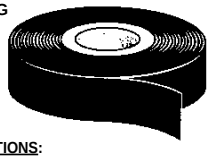
MATERIAL:	Ethylene propylene rubber
THICKNESS:	0.50mm (0.020 inches)
TENSILE STRENGTH:	450 psi
ELONGATION AT BREAK:	800%
OZONE RESISTANCE:	PASS
DIELECTRIC STRENGTH:	500 Vpm
TEMPERATURE RANGE:	-40°C to 90°C Continuous. Up to 130°C for limited periods during overload conditions
	ASTM D1373-70

SIZE		PART
1" x 10 FEET (BLACK)	A	2879

REINFORCED FUSION SEAL™ WRAP

- **SAME AS FUSION SEAL™ ELECTRICAL WRAP EXCEPT IT IS REINFORCED WITH HIGH TENSILE FIBERS ALLOWING IT TO HOLD BETTER AGAINST HIGHER PRESSURES AND TEMPERATURES**
- **NO HEAT OR FLAME REQUIRED – SIMPLY OVERLAP 50% AND THIS WRAP SELF-FUSES FOR A STRONG, FAST AND FLEXIBLE REPAIR**
- **WATER AND CHEMICAL RESISTANT INCLUDING OILS, ANTI-FREEZE, MILD CAUSTICS, DETERGENTS, FERTILIZER, HERBICIDES, PESTICIDES AND MORE**
- **IDEAL FOR INSULATING, SEALING AND PROTECTING**
- **STRONG, FAST, FLEXIBLE AND PORTABLE**
- **WITHSTANDS HIGH TEMPERATURES**

10' ROLL



APPLICATIONS:
- **USE ON PIPE, HOSE & POTABLE WATER LINES**

SPECIFICATIONS:

MATERIAL:	Fabric reinforced silicone rubber
THICKNESS:	.020 +/- .020
WIDTH:	1" +/- .032
TEMPERATURE RANGE:	-65°F to 500°F
STRETCH CAPABILITIES:	25%
DIELECTRIC STRENGTH:	500 volts per mil
	MIL-I-22444C

SIZE		PART
1" x 10 FEET (RED)	A	28988
1" x 10 FEET (BLACK)	A	28989

BATTERIES

DURACELL® PROCELL® ALKALINE

- **MERCURY FREE**
- **LONG LASTING AND DEPENDABLE – EVEN AFTER FIVE YEARS OF STORAGE**
- **LASTS UP TO FIVE TIMES LONGER THAN SUPER HEAVY DUTY BATTERIES**
- **LONG SERVICE LIFE AT HIGH DRAIN DISCHARGES**
- **OPERATES RELIABLY IN TEMPERATURE EXTREMES OF -20ºC to 54ºC**
- **DATE CODED TO ENSURE FRESHNESS**

17906

SIZE	APPLICATION	LOAD (OHMS)	DUTY CYCLE	CUTOFF VOLTAGE	SERVICE HOURS	PART	
9V	Electronic Radio	270 620	1 hour/day 2 hours/day	5.4 5.4	19.5 45.1	F	29200
D	Portable Light Electronic Tape Recorder	2.2 2.2 3.9	4 min/hr, 8 hr/day 1 hour/day 1 hour/day	0.9 0.8 0.9	24.9 26.9 44.5	J	29201
C	Portable Light Electronic Tape Recorder	3.9 3.9 6.8	4 min/hr, 8 hr/day 1 hour/day 1 hour/day	0.9 0.8 0.9	21.0 22.6 37.1	J	29202
AA	Pulse Test Tape Recorder Radio	1.8 10 43	1 sec/min, 24 hr/day 1 hour/day 4 hours/day	0.9 0.9 0.9	580* 18.8 89.5	G	29203
AAA	Pulse Test Portable Light Radio	3.6 5.1 75	1 sec/min, 24 hrs 4 min/hr, 8 hr/day 4 hours/day	0.9 0.9 0.9	648* 3.95 71.0	G	29204

*Pulses

LR44 1.5 VOLT BUTTON ALKALINE BATTERIES

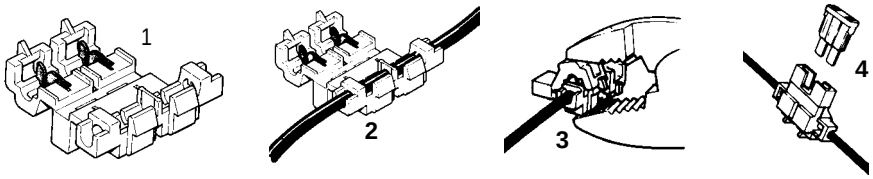
- **FOR THE EXTENDABLE MAGNETIC FLASHLIGHT, P/N 66349**
- **FOR LIGHTED PICK-UP TOOLS, P/N 66324**
- **EXTRA LONG LIFE BATTERIES**
- **4 PACK**

SIZE	PART	
LR44 1.5 V BUTTON ALKALINE BATTERIES	D	29206

CIC 200™ FUSEHOLDERS

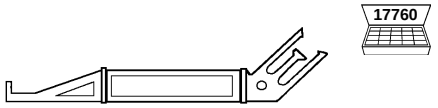
IN-LINE TAP (FLAT BLADE TYPE)

Quick and easy to use in-line fuseholder for General Motors blade type fuses.



WIRE SIZE	COLOR	AMPS		PART
18-14	BLUE	20 MAX.	O	2032

FUSE PULLER



DESCRIPTION		PART
FUSE PULLER	F	2969

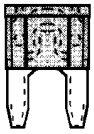
BLADE TYPE

5" LEAD WIRE ON EACH END

MAXI

4" LEAD WIRE ON EACH END

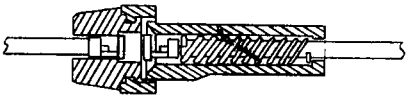
ATC



ATM

FUSE TYPE	WIRE SIZE	COLOR	AMPS		PART
ATC	#14	BLACK	3-20	I	2910
ATC	#12	YELLOW	3-30	I	2909
ATM (MINI W/COVER)	#12	BLACK	2-30	I	2913
MAXI W/COVER	#6	BLACK	20-60	A	2921

GLASS TYPE

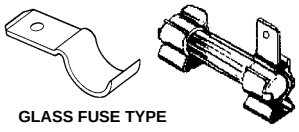


• HEAVY 12 GAUGE WIRE FOR ALL AGC FUSES TO 30 AMPS AND SFE-20.

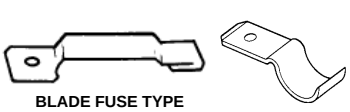
***CUT WIRE LOOP TO FORM SEPARATE LEADS OF DESIRED LENGTH.**

WIRE SIZE	COLOR	FUSE SIZE		PART
#12 x 12" LOOP*	BLACK	1/4" x 1-1/4"	I	2912
#14 x 12" LOOP*	BLACK	UNIVERSAL	E	2922

MALE FUSE CLIP ADAPTER



GLASS FUSE TYPE



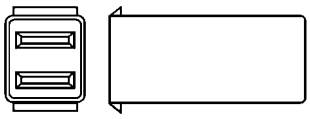
BLADE FUSE TYPE

TYPE	LENGTH	THICKNESS		PART
Glass Fuse	25/32	.030	T	2800
Blade Fuse	1-1/8	.030	T	2802
Mini Blade Fuse	5/8	.030	T	2804

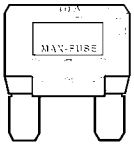
BLADE FUSES

FLAT BLADE

Quality fuses provide safety and reliability by preventing short-circuits and overloads that can cause fires and property damage.

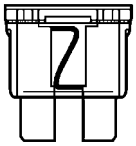


FMX

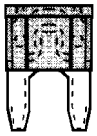


MAXI

VOLTAGE RATING: ATC's 32V



ATC



ATM

FMX FEMALE MAXI			MAXI TYPE			ATC TYPE			ATM TYPE		
AMPS		PART	AMPS		PART	AMPS		PART	AMPS		PART
20	E	29062	20	I	29050	–		–	2	O	6290
30	E	29063	30	I	29051	3	O	2900	3	O	6291
40	E	29064	40	I	29052	4	O	2901	4	O	6292
50	E	29065	50	I	29053	5	O	2902	5	O	6293
60	E	29066	60	I	29054	7-1/2	O	2903	7-1/2	O	6294
–		–	–		–	10	O	2904	10	O	6295
–		–	–		–	15	O	2905	15	O	6296
–		–	–		–	20	O	2906	20	O	6297
–		–	–		–	25	O	2907	25	O	6298
–		–	–		–	30	O	2908	30	O	6299
–		–	–		–	40	O	2923	–		–

BLOW ALERT FUSE

It glows when it blows! When a circuit short or surge occurs, a light on top of the fuse immediately indicates which fuse needs replacing. Replace all fuses in fuse block for ultimate protection.

NEVER GUESS WHICH FUSE IS BLOWN AGAIN!

ATM

- **BUILT TO EXACTING OEM SPECIFICATIONS**
- **COLOR-CODED FOR FAST AMPERAGE IDENTIFICATION**
- **SAVES TIME AND EFFORT AND ELIMINATES GUESSWORK AND TESTING**

VOLTAGE RATING: ATC's 32V

ATC

MAXI

ATM MINI TYPE				ATC TYPE				MAXI TYPE			
AMPS	COLOR		PART	AMPS	COLOR		PART	AMPS	COLOR		PART
3	Violet	N	6280	3	Violet	N	29070	20	Yellow	E	29080
5	Tan	N	6281	5	Tan	N	29071	30	Green	E	29081
7.5	Brown	N	6282	7.5	Brown	N	29072	40	Orange	E	29082
10	Red	N	6283	10	Red	N	29073	50	Red	E	29083
15	Blue	N	6284	15	Blue	N	29074	60	Blue	E	29084
20	Yellow	N	6285	20	Yellow	N	29075	70	Tan	E	29085
25	Natural	N	6286	25	Natural	N	29076	80	Natural	E	29086
30	Green	N	6287	30	Green	N	29077	100	Violet	E	29087
–	–		–	40	Orange	N	29078	–	–		–

GLASS TUBE FUSES

GLASS TUBE FUSES

Quality fuses provide safety and reliability by preventing short-circuits and overloads that can cause fires and property damage.

AGC

- **FAST ACTING**
- **PHYSICAL SIZE: 1/4" x 1-1/4" (3AG) (6.3mm x 32mm)**
- **CONSTRUCTION: GLASS TUBE**
  ALBALOY PLATED BRASS END CAPS
- **AGENCY APPROVALS: Std. 248-14**
  UL Listed, Guide JDYX File E19180, 0-10A
  UL Recognized, Guide JDYX2 File E19180, 15-30A
  CSA Certification, Class 1422-01, File 53787

VOLTAGE RATING:
Up to 12 Amp 250V
14-35 Amp 32V

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1	250	R	2930	7-1/2	250	I	2944
1-1/2	250	R	2932	10	250	I	2948
2	250	R	2935	15	32	I	2951
2-1/2	250	R	2938	20	32	I	2952
3	250	R	2939	25	32	I	2953
4	250	R	2940	30	32	I	2954
5	250	R	2941	35	32	I	2955
6	250	R	2942	–	–		–

AGW

- **FAST ACTING**
- **PHYSICAL SIZE:**
  1/4" x 7/8" (7AG) (6.4mm x 22.2mm)
- **CONSTRUCTION: GLASS TUBE**

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1	32	E	30536	5	32	E	30541
1-1/2	32	E	30537	6	32	E	30542
2-1/2	32	E	30538	15	32	R	2957
3	32	E	30539	20	32	R	2958
4	32	E	30540	30	32	E	30545

AGX

- **FAST ACTING**
- **PHYSICAL SIZE: 1/4" x 1" (8AG) (6.4mm x 25.4mm)**
- **CONSTRUCTION: GLASS TUBE**
- **AGENCY APPROVALS: Std. 248-14**
  UL File E19180
  UL Listed, Guide JDYX 0-5A
  UL Recognized, Guide JDYX2, 6-30A
  CSA File 47233; Class 1422-01, 0-5A

AMPS	VOLTS		PART
2	250	E	30546
3	125	E	30547
8	32	E	30548
20	32	R	2959
25	32	E	30550
30	32	E	30551

NOTE: Due to special processing allow 2-3 weeks for dellivery.

AGA

- **FAST ACTING**
- **PHYSICAL SIZE: 1/4" x 5/8" (1AG) (6.4mm x 15.9mm)**
- **CONSTRUCTION: GLASS TUBE**
- **AGENCY APPROVALS: Std. 248-14**
  UL File E19180; UL Listed, Guide JDYX 0 - 2-1/2A
  UL Recognized, Guide JDYX2 3-30A

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/2	125	E	30521	7	32	E	30529
1	125	E	30522	7-1/2	32	E	30530
1-1/2	125	E	30523	10	32	E	30531
2	125	E	30524	15	32	E	30532
2-1/2	125	E	30525	20	32	E	30533
3	125	E	30526	25	32	E	30534
5	125	E	30527	30	32	E	30535
6	32	E	30528	–	–		–

GBC

- **FAST ACTING**
- **PHYSICAL SIZE: 1/4" x 31/32"**
- **CONSTRUCTION: GLASS TUBE**

AMPS	VOLTS		PART	AMPS	VOLTS		PART
5	32	E	30750	16	32	E	30752
8	32	E	30751	25	32	E	30753

GMA

- **FAST ACTING**
- **PHYSICAL SIZE: 0.197" x 0.788" (5mm x 20mm)**
- **CONSTRUCTION: GLASS TUBE**
  END CAPS; NICKEL OR SILVER PLATED BRASS
- **AGENCY APPROVALS: Std. 248-14**
  UL Listed, Guide JDYX, File E75865, 0-6A
  UL Recognized, Guide JDYX2, File E75865, 7-15A
  CSA Certified, Class 1422-01, File E75865, 0-6A

AMPS	VOLTS		PART	AMPS	VOLTS		PART
63mA	250	E	30754	1.6	250	E	30768
100mA	250	E	30755	2	250	E	30769
125mA	250	E	30756	2.5	250	E	30770
200mA	250	E	30757	3	250	E	30771
250mA	250	E	30758	3.15	125	E	30772
300mA	250	E	30759	3.5	125	E	30773
315mA	250	E	30760	4	125	E	30774
500mA	250	E	30761	5	125	E	30775
600mA	250	E	30762	6	125	E	30776
750mA	250	E	30763	7	125	E	30777
800mA	250	E	30764	8	125	E	30778
1	250	E	30765	10	125	E	30779
1.25	250	E	30766	15	125	E	30780
1.5	250	E	30767	–	–		–

GLASS TUBE FUSES (Cont'd.)

MDL

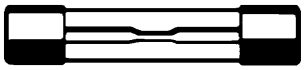
- TIME DELAY
- PHYSICAL SIZE: 1/4" x 1-1/4" (3AG) (6.3mm x 32mm)
- CONSTRUCTION: GLASS TUBE
  ALBALOY PLATED BRASS END CAPS
- AGENCY APPROVALS: Std. 248-14
  UL Listed, Guide JDYX, File E19180; 1/16-8A
  CSA Certification Class 1422-01, File 53787, 1/16-8A
  UL Recognized, Guide JDYX2, File E19180, 8.1-30A

VOLTAGE RATING:
Up to 8 Amp .250V
9-30 Amp 32V

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1/4	250	L 29009	6	250	L 29033
3/8	250	L 29011	6-1/4	250	L 29034
1/2	250	L 29013	7	250	L 29035
3/4	250	L 29016	7-1/2	250	L 29036
1	250	L 29018	8	250	L 29037
1-1/2	250	L 29021	10	32	L 29039
2	250	L 29024	12	32	L 29040
2-1/2	250	L 29026	15	32	L 29041
3	250	L 29028	20	32	L 29042
4	250	L 29031	25	32	L 29043
5	250	L 29032	30	32	L 29044

SFE

- TIME DELAY
- CONSTRUCTION: GLASS TUBE
- AGENCY APPROVALS: UL Listed
  Made according to SAE specifications



VOLTAGE RATING: 32V

SIZE	AMPS	VOLTS	PART
1/4 x 5/8	4	32	R 2914
1/4 x 3/4	6	32	R 2915
1/4 x 7/8	7-1/2	32	R 2916
1/4 x 7/8	9	32	R 2917
1/4 x 1-1/16	14	32	R 2918
1/4 x 1-1/4	20	32	R 2919
1/4 x 1-7/16	30	32	R 2920

20

ELECTRONIC FUSES

PC BOARD AND SMALL DIMENSION

ABC

- FAST ACTING
- PHYSICAL SIZE:
  1/4" x 1-1/4" (3AB)
  (6.3mm x 32mm)
- CONSTRUCTION: CERAMIC TUBE
- AGENCY APPROVALS: Std. 248-14
  UL Listed, Guide JDYX File E19180, 0-15A
  UL Recognized, Guide JDYX2, File E19180, 20-25A
  CSA Certification, Class 1422-01, File 53787,
  Class 1422-30, File 53787, 20-25A

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1/8	250	E 30500	6	250	E 30511
1/4	250	E 30501	7	250	E 30512
1/2	250	E 30502	8	250	E 30513
3/4	250	E 30503	9	250	E 30514
1	250	E 30504	10	250	E 30515
1-1/2	250	E 30505	12	250	E 30516
2	250	E 30506	15	250	E 30517
2-1/2	250	E 30507	20	250	E 30518
3	250	E 30508	25	125	E 30519
4	250	E 30509	30	125	E 30520
5	250	E 30510	–	–	–

NOTE: Due to special processing allow 2-3 weeks for dellivery.

MDA

- TIME DELAY
- PHYSICAL SIZE: 1/4" x 1-1/4" (3AB) (6.3mm x 32mm)
- CONSTRUCTION: CERAMIC TUBE;
  ALBALOY PLATED BRASS END CAPS
- AGENCY APPROVALS: Std. 248-14
  UL Listed, Guide JDYX, File E19180, 0-15A
  CSA Certification, Class 1422-01, File 53787, 0-15A

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1/32	250	E 30888	2	250	E 30906
1/10	250	E 30890	2-1/2	250	E 30907
1/8	250	E 30891	2-8/10	250	E 30908
15/100	250	E 30892	3	250	E 30909
2/10	250	E 30893	3-2/10	250	E 30910
1/4	250	E 30894	4	250	E 30911
3/10	250	E 30895	5	250	E 30912
3/8	250	E 30896	6	250	E 30913
4/10	250	E 30897	6-1/4	250	E 30914
1/2	250	E 30898	7	250	E 30915
6/10	250	E 30899	8	250	E 30916
3/4	250	E 30900	10	250	E 30917
8/10	250	E 30901	12	250	E 30918
1	250	E 30902	15	250	E 30919
1-1/4	250	E 30903	20	250	E 30920
1-1/2	250	E 30904	25	250	E 30921
1-6/10	250	E 30905	30	250	E 30922

ELECTRICAL FUSES

POWER FUSES

Quality fuses provide safety and reliability by preventing short-circuits and overloads that can cause fires and property damage.

FRN-R

- **DUAL-ELEMENT, TIME-DELAY – 10 seconds (minimum) at 500% rated current**
- **CURRENT LIMITING RK5 FUSE**
- **INTERRUPTING RATING: 200,000A RMS SYM. (20,000 AIC @ 125V DC)**
- **AGENCY APPROVALS: Std. 248-12, Class RK5 UL Listed, Guide JDDZ, File E4273 CSA Certified, Class 1422-01, File 53787**
- **DIMENSIONS: 1/10-30 Amps = .56" x 2" 35-60 Amps = .81" x 3" 70-100 Amps = 1.06" x 5.88" 110-200 Amps = 1.56" x 7.13" 225-400 Amps = 2.06" x 8.63" 450-600 Amps = 2.59" x 10.38"**

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/10	250	I	30622	8	250	I	30654
1/8	250	I	30623	9	250	I	30655
15/100	250	I	30624	10	250	E	30656
2/10	250	I	30625	12	250	I	30657
1/4	250	I	30626	15	250	E	30658
3/10	250	I	30627	17-1/2	250	I	30659
4/10	250	I	30628	20	250	E	30660
1/2	250	I	30629	25	250	I	30661
6/10	250	I	30630	30	250	E	30662
8/10	250	I	30631	35	250	E	30663
1	250	E	30632	40	250	E	30664
1-1/8	250	I	30633	45	250	E	30665
1-1/4	250	I	30634	50	250	I	30666
1-4/10	250	I	30635	60	250	E	30667
1-1/2	250	I	30636	70	250	E	30668
1-6/10	250	E	30637	75	250	E	30669
1-8/10	250	I	30638	80	250	E	30670
2	250	E	30639	90	250	E	30671
2-1/4	250	I	30640	100	250	E	30672
2-1/2	250	I	30641	110	250	E	30673
2-8/10	250	I	30642	125	250	A	30674
3	250	E	30643	150	250	A	30675
3-2/10	250	I	30644	175	250	A	30676
3-1/2	250	I	30645	200	250	A	30677
4	250	I	30646	225	250	A	30678
4-1/2	250	I	30647	250	250	A	30679
5	250	E	30648	300	250	A	30680
5-6/10	250	I	30649	350	250	A	30681
6	250	I	30650	400	250	A	30682
6-1/4	250	I	30651	450	250	A	30683
7	250	I	30652	500	250	A	30684
7-1/2	250	I	30653	600	250	A	30685

FRS-R

- **DUAL-ELEMENT, TIME-DELAY – 10 seconds (minimum) at 500% rated current**
- **CURRENT LIMITING RK5 FUSE**
- **INTERRUPTING RATING: 200,000A RMS SYM. (0-100A, 201-600A) (20,000 AIC @ 300V DC)**
- **AGENCY APPROVALS: Std. 248-12, Class RK5 UL Listed, Guide JDDZ, File E4273 CSA Certified, Class 1422-02, File 53787**
- **DIMENSIONS: 1/10-30 Amps = .81" x 5" 35-60 Amps = 1.06" x 5.5" 70-100 Amps = 1.34" x 7.88" 110-200 Amps = 1.84" x 9.63" 225-400 Amps = 2.59" x 11.63" 450-600 Amps = 3.13" x 13.38"**

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/10	600	I	30686	8	600	I	30717
1/8	600	I	31082	9	600	I	30718
15/100	600	I	30687	10	600	B	30719
2/10	600	I	30688	12	600	I	30720
1/4	600	I	30689	15	600	B	30721
3/10	600	I	30690	17-1/2	600	I	30722
4/10	600	I	30691	20	600	B	30723
1/2	600	I	30692	25	600	I	30724
6/10	600	I	30693	30	600	B	30725
8/10	600	I	30694	35	600	I	30726
1	600	I	30695	40	600	E	30727
1-1/8	600	I	30696	45	600	I	30728
1-1/4	600	I	30697	50	600	B	30729
1-4/10	600	I	30698	60	600	I	30730
1-1/2	600	I	30699	70	600	A	30732
1-6/10	600	I	30700	75	600	A	30733
1-8/10	600	I	30701	80	600	A	30734
2	600	I	30702	90	600	A	30735
2-1/4	600	I	30703	100	600	A	30736
2-1/2	600	I	30704	110	600	A	30737
2-8/10	600	I	30705	125	600	A	30738
3	600	I	30706	150	600	A	30739
3-2/10	600	I	30707	175	600	A	30740
3-1/2	600	I	30708	200	600	A	30741
4	600	I	30709	225	600	A	30742
4-1/2	600	I	30710	250	600	A	30743
5	600	I	30711	300	600	A	30744
5-6/10	600	I	30712	350	600	A	30745
6	600	I	30713	400	600	A	30746
6-1/4	600	I	30714	450	600	A	30747
7	600	B	30715	500	600	A	30748
7-1/2	600	I	30716	600	600	A	30749

NOTE: Due to special processing allow 2-3 weeks for dellivery.

ELECTRICAL FUSES (Continued)

FNM

- **TIME-DELAY**
- **PHYSICAL SIZE:**
  13/32" x 1-1/2" (5 AG) (10.3mm x 38.1mm)
- **CONSTRUCTION: FIBRE TUBE**
- **AGENCY APPROVALS: Std. 248-14**
  UL Listed, 0-10/250V; 12-15/125V; File E19180, Guide JDYX
  CSA Certified, 1-10/250V; Class 1422-01, 12-15/125V; File 53787

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/10	250	I	30552	3	250	E	30572
15/100	250	I	30553	3-2/10	250	I	30573
2/10	250	I	30554	3-1/2	250	I	30574
1/4	250	E	30555	4	250	E	30575
3/10	250	I	30556	4-1/2	250	I	30576
4/10	250	I	30557	5	250	E	30577
1/2	250	E	30558	5-6/10	250	I	30578
6/10	250	I	30559	6	250	E	30579
8/10	250	I	30560	6-1/4	250	I	30580
1	250	E	30561	7	250	I	30581
1-1/8	250	I	30562	8	250	I	30582
1-1/4	250	E	30563	9	250	I	30583
1-4/10	250	I	30564	10	250	E	30584
1-1/2	250	I	30565	12	125	I	30585
1-6/10	250	I	30566	15	125	E	30586
1-8/10	250	I	30567	20	32	E	30587
2	250	E	30568	25	32	I	30588
2-1/4	250	I	30569	30	32	I	30589
2-1/2	250	E	30570	35	32	I	30590
2-8/10	250	I	30571	40	32	I	30591

KTK

- **FAST-ACTING**
- **PHYSICAL SIZE:**
  13/32" x 1-1/2" (10.3mm x 38.1mm)
- **CONSTRUCTION: MELAMINE TUBE;**
  ALBALOY PLATED BRASS END CAPS
- **AGENCY APPROVALS: Std. 248-14**
  KTK-UL Listed, Guide JDYX, File E19180
  CSA Certified, File 53787, Class 1422-01, HRC-Misc

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/10	600	I	30781	5	600	E	30798
1/8	600	I	30782	6	600	I	30799
2/10	600	I	30783	7	600	I	30800
1/4	600	I	30784	7-1/2	600	I	30801
3/10	600	I	30785	8	600	I	30802
4/10	600	I	30786	9	600	I	30803
1/2	600	I	30787	10	600	E	30804
6/10	600	I	30788	12	600	I	30805
3/4	600	I	30789	15	600	I	30806
1	600	E	30790	20	600	E	30807
1-1/4	600	I	30791	25	600	I	30808
1-1/2	600	I	30792	30	600	I	30809
2	600	E	30793	35	600	I	30810
2-1/2	600	E	30794	40	600	I	30811
3	600	I	30795	45	600	I	30812
3-1/2	600	I	30796	50	600	E	30813
4	600	I	30797	–	–		–

FNQ-R

- **TIME-DELAY, REJECTION TYPE,**
  BRANCH CIRCUIT FUSE CLASSIC CC
- **PHYSICAL SIZE: 13/32" x 1-1/2" (10.3mm x 38.1mm)**
- **CONSTRUCTION: MELAMINE TUBE**
- **AGENCY APPROVALS: Std. 248-4, Class CC**
  UL Listed, Guide JDDZ, File E4273
  CSA Certified, Class 1422-01, File 53787

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/4	600	B	30592	2	600	B	30607
3/10	600	B	30593	2-1/4	600	B	30608
4/10	600	B	30594	2-1/2	600	B	30609
1/2	600	B	30595	2-8/10	600	B	30610
6/10	600	B	30596	3	600	B	30611
3/4	600	B	30597	3-2/10	600	B	30612
8/10	600	B	30598	3-1/2	600	B	30613
1	600	B	30599	4	600	B	30614
1-1/8	600	B	30600	5	600	B	30615
1-1/4	600	B	30601	6	600	B	30616
1-3/10	600	B	30602	6-1/4	600	B	30617
1-4/10	600	B	30603	7-1/2	600	B	30618
1-1/2	600	B	30604	8	600	B	30619
1-6/10	600	B	30605	9	600	B	30620
1-8/10	600	B	30606	10	600	B	30621

KTK-R

- **FAST-ACTING, BRANCH CIRCUIT FUSE,**
  CLASS CC - REJECTION FEATURE
- **PHYSICAL SIZE:**
  13/32" x 1-1/2" (10.3mm x 38.1mm)
- **CONSTRUCTION: MELAMINE TUBE**
- **AGENCY APPROVALS: Std. 248-4, Class CC**
  UL Listed, Guide JDDZ, File E4273
  CSA Certified, Class 1422-02, File 53787

AMPS	VOLTS		PART	AMPS	VOLTS		PART
1/10	600	I	30814	3-1/2	600	I	30827
1/8	600	I	30815	4	600	I	30828
2/10	600	I	30816	5	600	I	30829
1/4	600	I	30817	6	600	I	30830
3/10	600	I	30818	7	600	I	30831
4/10	600	I	30819	8	600	I	30832
1/2	600	I	30820	9	600	I	30833
3/4	600	I	30821	10	600	B	30834
1	600	B	30822	12	600	I	30835
1-1/2	600	B	30823	15	600	B	30836
2	600	B	30824	20	600	I	30837
2-1/2	600	I	30825	25	600	I	30838
3	600	I	30826	30	600	I	30839

NOTE: Due to special processing allow 2-3 weeks for dellivery.

ELECTRICAL FUSES (Continued)

LPJ SP

- **DUAL-ELEMENT, TIME-DELAY – 10 seconds (minimum) at 500% rated current**
- **INTERRUPTING RATING: 300,000A RMS SYM. (UL)**
- **AGENCY APPROVALS: UL Listed - Std 248-8 for Class J Fuse, Guide JFHR, E56412 CSA Certified (200,000 AIR) Class J per CSA-22.2 No. 248.8, Class 1422-02, File 53787**

DIMENSIONS:
1-30 Amps = .81" x 2.25"; 35-60 Amps = 1.06" x 2.38";
65-100 Amps = 1.13" x 4.63" 110-200 Amps = 1.63" x 5.75";
225-400 Amps = 2" x 7.13"; 450-600 Amps = 2.5" x 8.00"

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1	600	I 30840	25	600	I 30864
1-1/4	600	I 30841	30	600	B 30865
1-6/10	600	I 30842	35	600	I 30866
1-8/10	600	I 30843	40	600	I 30867
2	600	I 30844	45	600	I 30868
2-1/4	600	I 30845	50	600	I 30869
2-1/2	600	I 30846	60	600	I 30870
2-8/10	600	I 30847	70	600	A 30871
3	600	I 30848	80	600	A 30872
3-2/10	600	I 30849	90	600	A 30873
3-1/2	600	I 30850	100	600	A 30874
4	600	I 30851	110	600	A 30875
4-1/2	600	I 30852	125	600	A 30876
5	600	B 30853	150	600	A 30877
5-6/10	600	I 30854	175	600	A 30878
6	600	I 30855	200	600	A 30879
7	600	I 30856	225	600	A 30880
8	600	I 30857	250	600	A 30881
9	600	I 30858	300	600	A 30882
10	600	I 30859	350	600	A 30883
12	600	I 30860	400	600	A 30884
15	600	I 30861	450	600	A 30885
17-1/2	600	I 30862	500	600	A 30886
20	600	B 30863	600	600	A 30887

NON

- **GENERAL PURPOSE APPLICATION**
- **NON-CURRENT LIMITING**
- **INTERRUPTING RATING: 50,000A RMS SYM. (1-60A), 10,000A (70-600A)**
- **AGENCY APPROVALS: UL Listed - 250V, Class K5 (0-60A) Std. 248-9; Class H (70-600A Std. 248-6); 600V, Class K5 (15-60A) Std. 248-9; Class H (0-12A, 70-600A) Std. 248-6, Guide JDDZ, File E4274 CSA Class 1421-01, File 53787**
- **DIMENSIONS: 70-100 Amps = 1.06" x 5.88" 110-200 Amps = 1.56" x 7.13" 225-400 Amps = 2.06" x 8.63" 450-600 Amps = 2.59" x 10.38"**

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1/8	250	I 30923	45	250	I 30944
1/2	250	I 30924	50	250	I 30945
3/4	250	I 30925	60	250	I 30946
1	250	I 30926	70	250	E 30947
1-1/2	250	I 30927	80	250	E 30948
2	250	I 30928	90	250	E 30949
2-1/2	250	I 30929	100	250	E 30950
3	250	I 30930	110	250	A 30951
4	250	I 30931	125	250	A 30952
5	250	I 30932	150	250	A 30953
6	250	I 30933	175	250	A 30954
7	250	I 30934	200	250	A 30955
8	250	I 30935	225	250	A 30956
10	250	I 30936	250	250	A 30957
12	250	I 30937	300	250	A 30958
15	250	I 30938	350	250	A 30959
20	250	I 30939	400	250	A 30960
25	250	I 30940	450	250	A 30961
30	250	I 30941	500	250	A 30962
35	250	I 30942	600	250	A 30963
40	250	I 30943	–	–	–

NOS

- **GENERAL PURPOSE APPLICATION**
- **NON-CURRENT LIMITING**
- **INTERRUPTING RATING: 50,000A RMS SYM. (1-60A), 10,000A (70-600A)**
- **AGENCY APPROVALS: UL Listed - 250V, Class K5 (0-60A) Std. 248-9; Class H (70-600A Std. 248-6); 600V, Class K5 (15-60A) Std. 248-9; Class H (0-12A, 70-600A) Std. 248-6, Guide JDDZ, File E4274 CSA Class 1421-01, File 53787**

- **DIMENSIONS: 70-100 Amps = 1.34" x 7.88" 110-200 Amps = 1.84" x 9.63" 225-400 Amps = 2.59" x 11.63" 450-600 Amps = 3.13" x 13.38"**

AMPS	VOLTS	PART	AMPS	VOLTS	PART	AMPS	VOLTS	PART	AMPS	VOLTS	PART
1	600	I 30964	12	600	I 30974	60	600	I 30983	200	600	A 30992
2	600	I 30965	15	600	I 30975	70	600	A 30984	225	600	A 30993
3	600	I 30966	20	600	I 30976	80	600	A 30985	250	600	A 30994
4	600	I 30967	25	600	I 30977	90	600	A 30986	300	600	A 30995
5	600	I 30968	30	600	I 30978	100	600	A 30987	350	600	A 30996
6	600	I 30969	35	600	I 30979	110	600	A 30988	400	600	A 30997
7	600	I 30970	40	600	I 30980	125	600	A 30989	450	600	A 30998
8	600	I 30971	45	600	I 30981	150	600	A 30990	500	600	A 30999
9	600	I 30972	50	600	I 30982	175	600	A 30991	600	600	A 31000
10	600	I 30973	–	–	–	–	–	–	–	–	–

NOTE: Due to special processing allow 2-3 weeks for dellivery.

ELECTRICAL FUSES (Continued)

S PLUG FUSE

- **TIME-DELAY, DUAL-ELEMENT**
- **FOR ALL-PUPOSE APPLICATION. LIKE TWO FUSES IN ONE. A SIMPLE LINK ELEMENT FOR SHORT-CIRCUITS AND DANGEROUS OVERLOADS PLUS A SERIES-CONNECTED ELEMENT WHICH LETS THE HARMLESS OVERLOAD STARTING CURRENTS OF MOTORS PASS WITHOUT OPENING. USES LESS ENERGY; OPERATES COOLER; PROVIDES SUPERIOR PROTECTION. REJECTION BASE**
- **AGENCY APPROVALS: Std. 248-11 UL Listed (0 - 6-1/4) Guide JFHR, File E56412 (7-30A) Guide JEFV, File E12112; CSA Certified, Class 1423-01, File 53787**

AMPS	VOLTS	PART	AMPS	VOLTS	PART
3/10	125	D 31001	4	125	D 31018
1/2	125	D 31002	4-1/2	125	D 31019
6/10	125	D 31003	5	125	D 31020
8/10	125	D 31004	5-6/10	125	D 31021
1	125	D 31005	6	125	D 31022
1-1/8	125	D 31006	6-1/4	125	D 31023
1-1/4	125	D 31007	7	125	D 31024
1-4/10	125	D 31008	8	125	D 31025
1-6/10	125	D 31009	9	125	D 31026
1-8/10	125	D 31010	10	125	D 31027
2	125	D 31011	12	125	D 31028
2-1/4	125	D 31012	14	125	D 31029
2-1/2	125	D 31013	15	125	D 31030
2-8/10	125	D 31014	20	125	D 31031
3	125	D 31015	25	125	D 31032
3-2/10	125	D 31016	30	125	D 31033
3-1/2	125	D 31017	–	–	–

T PLUG FUSE

- **FAST ACTING**
- **FOR ALL-PURPOSE APPLICATION. LIKE TWO FUSES IN ONE. A SIMPLE LINK ELEMENT FOR SHORT-CIRCUITS AND DANGEROUS OVERLOADS PLUS A SERIES-CONNECTED ELEMENT WHICH LETS THE HARMLESS OVERLOAD STARTING CURRENTS OF MOTORS PASS WITHOUT OPENING. USES LESS ENERGY; OPERATES COOLER; PROVIDES SUPERIOR PROTECTION. EDISON BASE**
- **AGENCY APPROVALS: Std. 248-11**

AMPS	VOLTS	PART	AMPS	VOLTS	PART
1-1/8	125	D 31038	5	125	D 31052
1-1/4	125	D 31039	5-6/10	125	D 31053
1-4/10	125	D 31040	6	125	D 31054
1-6/10	125	D 31041	6-1/4	125	D 31055
1-8/10	125	D 31042	7	125	D 31056
2	125	D 31043	8	125	D 31057
2-1/4	125	D 31044	9	125	D 31058
2-1/2	125	D 31045	10	125	D 31059
2-8/10	125	D 31046	12	125	D 31060
3	125	D 31047	14	125	D 31061
3-2/10	125	D 31048	15	125	D 31062
3-1/2	125	D 31049	20	125	D 31063
4	125	D 31050	25	125	D 31064
4-1/2	125	D 31051	30	125	D 31065

NOTE: Due to special processing allow 2-3 weeks for dellivery.

SL PLUG FUSE

- **TIME-DELAY LOADED LINK**
- **HEAT ABSORBING METAL BEAD ON ELEMENT LINK FOR TIME-DELAY. PASSES MOTOR OVERLOAD STARTING CURRENTS WITHOUT NEEDLESSLY OPENING.**
- **REJECTION BASE**
- **AGENCY APPROVALS: Std. 248-11 UL Listed, Guide JEFV, File E12112**

AMPS	VOLTS	PART	AMPS	VOLTS	PART
15	125	D 31034	25	125	D 31036
20	125	D 31035	30	125	D 31037

TL PLUG FUSE

- **TIME-DELAY LOADED LINK**
- **HEAT ABSORBING METAL BEAD ON ELEMENT LINK FOR TIME-DELAY. PASSES MOTOR OVERLOAD STARTING CURRENTS WITHOUT NEEDLESSLY OPENING.**
- **EDISON BASE**
- **AGENCY APPROVALS: Std. 248-11 UL Listed, Guide JEFV, File E12112**

AMPS	VOLTS	PART	AMPS	VOLTS	PART
15	125	D 31066	25	125	D 31068
20	125	D 31067	30	125	D 31069

W PLUG FUSE

- **FAST-ACTING**
- **ELEMENT IS A SIMPLE FUSIBLE, METAL LINK. FOR GENERAL PURPOSE CIRCUIT PROTECTION. QUICKLY OPENS WHEN SHORT-CIRCUIT OR OVERLOAD OCCURS. USE FOR LIGHTING AND OTHER NON-MOTOR CIRCUITS.**
- **EDISON BASE**
- **AGENCY APPROVALS: Std. 248-11 UL Listed, Guide JEFV, File E12112**

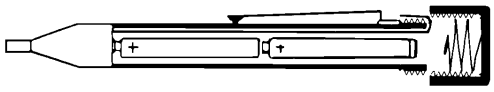
AMPS	VOLTS	PART
1	125	D 31070
2	125	D 31071
2-1/2	125	D 31072
3	125	D 31073
5	125	D 31074
6	125	D 31075
8	125	D 31076
10	125	D 31077

SENSORS AND DETECTORS

"STARLITE" AC SENSOR

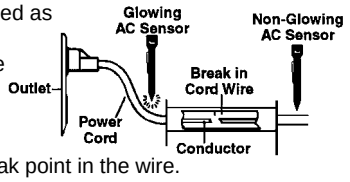
- **A UL LISTING, PATENTED HAND HELD DEVICE USED FOR DETERMINING THE PRESENCE OR ABSENCE OF AC VOLTAGE IN INSULATED WIRES, WAL RECEPTACLES, FUSES, JUNCTION BOXES, SWITCHES OR ANY OTHER VOLTAGE CARRYING ELECTRICAL SYSTEM**
- **WILL LOCATE VOLTAGE OF 110-600 AC**
- **NO NEED TO DISCONNECT THE SYSTEM IN QUESTION BECAUSE NO CONTACT IS REQUIRED FOR OPERATION AND CURRENT FLOW IS NOT NECESSARY TO LOCATE VOLTAGE**
- **USE 2 AAA ALKALINE BATTERIES (INCLUDED)**
- **MADE IN U.S.A.**

P/N 8207



DIRECTIONS:

1. Simply touch the plastic probe tip to a connection point or move it along an insulated wire. If AC voltage is present, the LED light in the probe tip will glow bright red.
2. Illumination will stop at a break in the circuit or wire and this allows the AC sensor to be used as a troubleshooting instrument.
3. As you move the plastic probe tip away from the electrical source, in this case the wall receptacle, the probe tip will stop glowing at the exact break point in the wire.



PRESSURE DETECTION VALVE CAP

- **THIS PRESSURE DETECTION VALVE CAP FLASHES WHEN TIRE PRESSURE FALLS 4 PSI (TRUCK VERSION 8 PSI) BELOW THE CORRECT PRESSURE**
- **THIS SMALL, SIMPLE, LIGHTWEIGHT DEVICE HAS NO IMPACT ON THE WHEEL BALANCING OR THE APPEARANCE OF THE VEHICLE**
- **DURABLE DESIGN WITHSTANDS EVEN THE TOUGHEST CONDITIONS**
- **CHROME PLATED BRASS BODY AND A POLY CARBONATE LENS IS 100% SELF-CONTAINED WITH ONBOARD BATTERY**
- **HAS NO MOVING COMPONENTS EXCEPT FOR A FLEXING SENSOR WHICH WILL TRIGGER IF THE TIRE PRESSURE DROPS**
- **CAP AUTOMATICALLY AND PERMANENTLY CALIBRATES THE FIRST TIME IT IS PLACED ON VALVE STEM AND CANNOT BE RECALIBRATED**
- **ONE SIZE FITS ALL CARS, SUVS AND TRUCKS (10-130 PSI)**
- **MAXIMIZES GAS MILEAGE**
- **IMPROVES SAFETY**
- **REDUCES TIRE WEAR**

BATTERIES:

- **BATTERIES ARE GOOD FOR ABOUT 3-4 YEARS OF STAND-BY AND UP TO 6 WEEKS OF BLINKING**
- **BATTERIES CANNOT BE CHANGED SINCE THE UNIT IS TOTALLY SEALED TO MAKE SURE IT IS AIRTIGHT**

DESCRIPTION		PART
Pressure Detection Valve Cap – Car	A	78026
Pressure Detection Valve Cap – Truck	A	78027

ELECTRICAL TESTERS

GFCI RECEPTACLE TESTER

- **Tests GFCI Receptacles for Proper Operation**
- **Warns Against Faulty Wiring in 3-wire Receptacles**
- **For Use On 120V AC Circuits**

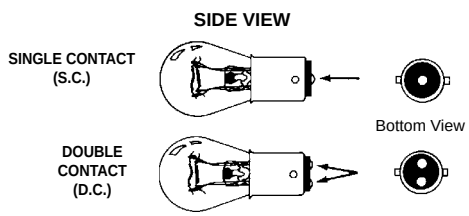
GFCI Testing

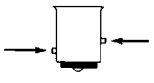
1. Consult the GFCI device manufacturer's instructions to determine that the GFCI is installed in accordance with the manufacturer's specifications.
2. Check for correct wiring of the receptacle and all remotely connected receptacles on the branch circuit.
3. Operate the test button on the GFCI installed in the circuit. The test light will turn on, indicating the activation of the GFCI test. The GFCI must trip. If the GFCI does not trip, consult a qualified electrician. If it does trip, reset the GFCI.
4. Activate the test button on the GFCI tester for a minimum of 6 seconds when testing the GFCI condition Visible indication on the GFCI tester must cease when tripped.
5. If the tester fails to trip the GFCI, it suggests: (a) a wiring problem with a totally operable GFCI, or (b) proper wiring with a faulty GFCI. Consult with an electrician to check the condition of the wiring and the GFCI.

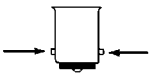
SIZE		PART
GFCI Receptacle Tester	A	2871

BULBS – AUTOMOTIVE AND TRUCK

SINGLE/DOUBLE CONTACT & SEVERAL BASE STYLES







LAMP #	VOLTS	C.P.	LIFE HRS.	BASE		PART	LAMP #	VOLTS	C.P.	LIFE HRS.	BASE		PART
24	14.0	2	1500	Wedge	I	28901	1073	12.0	32	200	S.C. Bay	i	28924
37	14.0	0.5	2500	Wedge	I	28903	1141	12.0	21	500	S.C. Bay	i	28926
53	14.4	1	1000	Min. Bay	i	28900	1156	12.0	32	600	S.C. Bay, HD	i	28928
57	14.0	2	500	Min. Bay	i	28902	1156NA	12.8	24	1200	S.C. Bay	I	28921
67	13.5	4	**	S.C. Bay	i	28904	1157	12.0	32	600	D.C. Ind., HD	i	28930
74	14.0	0.7	500	Wedge	I	28905	1157 NA	12.8[A]	32	**	D.C. Ind., HD	i	28932
89	13.0	6	750	S.C. Bay	i	28906	1176	12.0	21/6	200/1M	D.C. Bay	i	28934
90	13.0	6	750	D.C. Bay	i	28908	1445	12.0	1.5	**	Min. Bay	i	28936
97	13.5	4	**	S.C. Bay	i	28910*	1816	13.0	3	1000	Mini Bayonet	I	28923
168	14.0	2	500	Wedge	i	28912	1889	14.0	2	2000	Mini Bayonet	I	28925
193	14.0	2	5000	Wedge	I	28907	1891	14.0	2	500	Mini Bayonet	I	28927
194	14.0	2	1500	Wedge	I	28914	1893	12.0	2	5000	S.C. Bay	i	28938
194NA	14.0	1.5	2500	Wedge	i	28909	1895	14.0	2	1500	Min. Bay, HD	i	28940
198	12.8	32	1200	D.C. Index	I	28911	2057	12.8	32	1200	D.C. Index	I	28929
199	12.8	32	1200	S.C. Bay	I	28913	2057NA	12.8	24	1200	D.C. Ind., HD	i	28943
211-2	12.8	12	1000	Dbl. End Cap	i	28916	3057	12.8	32	1200	Wedge	I	28931
906	13.0	6	1000	Wedge	I	28915	3057NA	12.8	24	1200	Wedge	I	28933
912	12.8	12	1000	Wedge	I	28917	3156	12.8	32	1200	Wedge	I	28935
921	12.8	21	1000	Wedge	I	28919	3157	12.8	32	1200	Wedge	I	28941
1003	12.8	15	100	S.C. Bay	i	28918	3157NA	12.8	24	1200	Wedge	I	28942
1004	12.0	15	100	D.C. Bay	i	28920	3357	12.8	40	400	Wedge	I	28937
1034	12.0	32.3	200	D.C. Bay	i	28922	-	-	-	-	-		-

* HEAVY DUTY FLEET SERVICE ** INDEFINITELY LONG A=AMBER

AUTOMOTIVE SHOP SUPPLIES

FLASHERS, SOCKETS/PLUGS AND TOGGLE SWITCHES

ELECTRONIC SIGNAL FLASHERS

- **MEETS THE DEMANDS OF HEAVY TRUCKS**
- **TEMPERATURE COMPENSATOR FOR AN EVEN FLASHING RATE IN ALL TEMPERATURE RANGES**
- **THICKER PALLADIUM CONTACT FOR LONGER LIFE UNDER HEAVY LOADS**
- **BRASS TERMINALS FOR CORROSION RESISTANCE AND GREATER STABILITY UNDER HIGH HEAT**
- **DESIGNED TO CONFORM TO ALL D.O.T. REQUIREMENTS AND SAE SPECIFICATIONS**

INDUSTRY #	# OF PRONGS	VOLTAGE	LOAD LAMPS	TOTAL MAX WATTS	PART	
EL 12	2	12	1 TO 10	250	A	29060
EL 13	3	12	1 TO 10	250	A	29061

SOCKETS

- **EXPOSED TERMINAL SCREWS**
- **SPLIT CONTACT PINS**
- **REPLACEABLE INTERIOR WITH SPECIAL HOUSING DESIGN TO PROTECT CONNECTIONS FROM ROAD SPLASH, DIRT, ETC.**
- **FLANGE HOLES 17/64" (6.74MM) DIAMETER, 2-15/16" (74.60MM) ON CENTERS**
- **MOUNTS THROUGH 1-3/8" (34.90MM) DIAMETER HOLE**

SIZE	INDUSTRY #		PART
6-POLE	1235	A	29100

7-POLE SOCKETS

- **SELF GROUNDING**
- **CORROSION RESISTANT DIE CAST METAL CONSTRUCTION**
- **SOLID BRASS SPLIT CONTACT PINS**
- **FLANGE HOLES 21/64" (8.33MM) DIA., 2-15/16" (74.60MM) ON CENTERS**
- **MOUNTS THROUGH 2" (50.80MM) DIAMETER HOLE**

SIZE	INDUSTRY #		PART
7-POLE	12063-01	A	29105

PLUGS

- **INTEGRAL CLAMP PREVENTS CABLE FROM BEING PULLED LOOSE FROM CONNECTIONS**
- **REPLACEABLE INTERIOR**
- **PLATED STEEL SPRING CABLE PROTECTOR**

SPRING SOLD SEPARATELY

SIZE	INDUSTRY #		PART
4-POLE	1253	A	29101
6-POLE	1254	A	29102
SPRING	–	A	29109

7-POLE PLUGS

SPRING SOLD SEPARATELY

- **HEAVY DUTY CORROSION RESISTANT DIE CAST CONSTRUCTION**
- **INTEGRAL CABLE CLAMP (HOLDS ALL SIZE CABLES FIRMLY IN PLACE)**
- **REPLACEABLE INTERIOR**
- **PLATED STEEL SPRING CABLE PROTECTOR ELIMINATES DESTRUCTIVE SHARP BENDS**
- **CONTACTS "FLOAT" FOR PROPER ENGAGEMENT WITH ALL MATING SOCKETS**
- **GROUND TERMINAL ACCEPTS UP TO #8 GAUGE WIRE, OTHER TERMINALS UP TO #10 GAUGE WIRE**
- **SCREW TERMINALS WITH OPTIMUM THREAD DESIGN FOR SECURE WIRE CONNECTIONS**

SIZE	INDUSTRY #		PART
7-POLE	12092	A	29106
SPRING	–	A	29109

AUTOMOTIVE SHOP SUPPLIES

FLASHERS, SOCKETS/PLUGS AND TOGGLE SWITCHES

TOGGLE SWITCHES

- **PLASTIC HOUSING WITH PLATED STEEL CAP**
- **STEM AND MOUNTING HARDWARE ARE NICKEL PLATED BRASS**
- **NICKEL PLATED BRASS HANDLES, STANDARD OR LONG VERSION**
- **MOUNTING STEM 15/32-32 THREAD, 15/32" LONG**
- **FITS PANELS UP TO 1/4" THICK**
- **SILVER CONTACTS FOR DEPENDABLE ELECTRICAL OPERATION**
- **KEYWAY IN STEM LOCATED IN DOWN POSITION**

DESCRIPTION	UP POSITION	DOWN POSITION	TERMINAL #	TERMINAL TYPE	PART	
Double Pole - Single Throw	ON	OFF	4	SCREW	A	29108
Double Pole - Single Throw	ON	OFF	4	BLADE	A	29110
Single Pole - Single Throw	ON	OFF	2	SCREW	A	29107

CIC 200™ CABLE AND BATTERY SUPPLIES

BATTERY MAINTENANCE KIT

FEATURES & BENEFITS

- Great battery maintenance kit for tow trucks, car lots, field repair, govt. motorpools, body shops, rental fleets, etc.
- 29 pieces total
- All tools are top of the line quality (made in the USA)
- Packaged in a portable, rugged all steel case with carrying handle, finished in red laquer paint
- Has all the parts needed to service and change your battery
- This high quality maintenance kit will provide the professional technician many years of service

THE KIT CONTAINS:

- Heavy Duty Crimper – 6 GA to 4/0 GA
- Heavy Duty Cable Cutter – Max. 350 MCM
- Battery Cable Stripper
- Positive Straight Battery Terminals – 2/0 GA
- Negative Straight Battery Terminals – 2/0 GA
- Positive Right Angle Battery Terminals – 2/0 GA
- Negative Right Angle Battery Terminals – 2/0 GA
- Magna Lug / 3/8" Stud – 2/0 GA
- Magna Lug / 1/2" Stud – 2/0 GA
- Black 6" Heavy Wall Heat Shrink Tubing – 2 GA to 4/0 GA
- Red 6" Heavy Wall Heat Shrink Tubing – 2 GA to 4/0 GA

P/N 17035

BOOSTER CABLES

- **HEAVY DUTY BOOSTER CABLES FOR ALL-SEASON RELIABILITY**
- **PROFESSIONAL QUALITY 400 AMP CLAMPS ENSURE QUICK AND EASY CONNECTIONS**
- **HEAVY 40 GA CABLE REMAINS FLEXIBLE TO -40°F**
- **FULLY INSULATED CLAMPS PROVIDE ADDED SAFETY**
- **LONG 16 FOOT LENGTH FOR EASY HOOKUP**

SIZE		PART
4GA x 16 FT BLUE / BLACK BOOSTER CABLES	A	28090

CIC 200™ CABLE AND BATTERY SUPPLIES

BATTERY TERMINALS

MARINE

BOTH POSITIVE AND NEGATIVE, EACH FEATURING DIFFERENT SIZE STUD AND WING NUT. DIMENSIONAL DIFFERENCE PREVENTS CROSS POLARITY WHEN ATTACHING CABLE TO BATTERY POST.

SIZE	POS.	NEG.
5/16	–	I 2870
3/8	I 2872	–

UNIVERSAL

SIZE	PART
#2 to 4/0	I 2811
#4 to #2	I 2813

BOLT & NUT

Bolt & Nut #2855
Nuts only #2860

SIZE	PART
5/16 x 1-3/8	T 2855
5/16	T 2860

MILITARY

- **LOW PROFILE DESIGN MEASURES ONLY 3/4" HIGH**
- **LONG BOLT PERMITS ADDITIONAL POWER CONNECTIONS**
- **POLARITY SPECIFIC LEAD CONSTRUCTION, ZINC PLATED STEEL FASTENERS INCLUDED**
- **MIL SPEC A52425-1 / A52425-2**

POSITIVE	NEGATIVE
D 2810	D 2812

POST TYPE TERMINALS

Easily identified, electro-tin plated copper connector provides high conductivity and resists corrosion.

STRAIGHT

CABLE SIZE	POLARITY	PART
6 GA.	POS.	E 32219
6 GA.	NEG.	E 32221
6-4 GA.	UNIV.	E 32220
4 GA.	UNIV.	D 32110
1 + 2 GA.	NEG.	D 32113
1 + 2 GA.	POS.	D 32114
1/0	NEG.	D 32115
1/0	POS.	D 32116
2/0	NEG.	D 32117
2/0	POS.	D 32118
3/0	NEG.	D 32119
3/0	POS.	D 32120
4/0	NEG.	D 32121
4/0	POS.	D 32122

RIGHT ANGLE (FLAG)

CABLE SIZE	POLARITY	PART
1/0	NEG.	D 32125
1/0	POS.	D 32126
2/0	NEG.	D 32127
2/0	POS.	D 32128
3/0	NEG.	D 32129
3/0	POS.	D 32130
4/0	NEG.	D 32131
4/0	POS.	D 32132
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–

RIGHT ELBOW

CABLE SIZE	POLARITY	PART
1/0	NEG.	D 32135
1/0	POS.	D 32136
2/0	NEG.	D 32137
2/0	POS.	D 32138
3/0	NEG.	D 32139
3/0	POS.	D 32140
4/0	NEG.	D 32141
4/0	POS.	D 32142
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–

CIC 200™ CABLE AND BATTERY SUPPLIES

POST TOP — LEFT ELBOW

CABLE SIZE	POLARITY	PART
1/0	NEG.	D 32145
1/0	POS.	D 32146
2/0	NEG.	D 32147
2/0	POS.	D 32148
3/0	NEG.	D 32149
3/0	POS.	D 32150
4/0	NEG.	D 32151
4/0	POS.	D 32152

STUD TOP/SIDE MOUNT — STRAIGHT

CABLE SIZE	POLARITY	PART
4 GA.	UNIV.	D 32155
1 + 2 GA.	UNIV.	D 32156
1/0	UNIV.	D 32157
2/0	UNIV.	D 32158
3/0	UNIV.	D 32159
4/0	UNIV.	D 32160
-	-	-
-	-	-

STUD TOP/SIDE MOUNT — DOUBLE (SPLICE)

CABLE SIZE	POLARITY	PART
2/0	UNIV.	D 32162
3/0	UNIV.	D 32163
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

STUD NUT

SIZE	PART
3/8-16	I 32165

SIDE MOUNT BOLT

SIZE	PART
3/8-16 (OEM)	I 32166

SIDE MOUNT BOLT - X-LONG

SIZE	PART
3/8-16 (X-LONG)	F 32167

CRIMPING COLOR CODES

AWG #	LEFT DIE	RIGHT DIE	TERMINAL COLOR CODE	# OF CRIMPS
4	J	H	GREEN	1
2	H	H	PINK	2
1	H	H	PINK	2
1/0	E	A	BLACK	2
2/0	A	C	ORANGE	2
3/0	A	B	PURPLE	2
4/0	A	A	YELLOW	2

SOLDER BUTT CONNECTORS

SOLDER OR CRIMP TYPE

NON-INSULATED

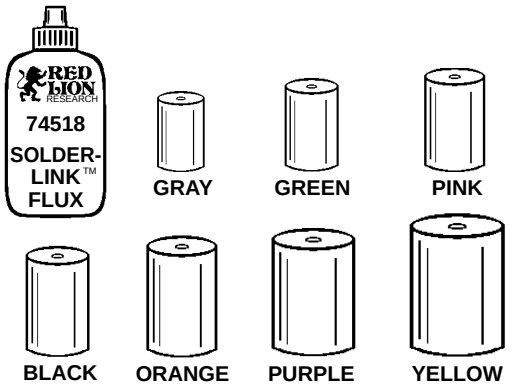
- **HIGHEST GRADE PURE ELECTROLYTIC COPPER**
- **TIN PLATED**
- **FULLY ANNEALED FOR EASY, SECURE CRIMPING**
- **FLARED BARREL ENDS**
- **SEAMLESS CONSTRUCTION**
- **EASY IDENTIFICATION**

CABLE SIZE	LENGTH	BARREL I.D.	PART
8 GA.	1.000	.186	R 6261
6 GA.	1.075	.232	R 6262
4 GA.	1.215	.286	R 6263
2 GA.	1.350	.336	N 6264
1 GA.	1.350	.360	N 6265
1/0	1.550	.407	N 6266
2/0	1.800	.461	L 6267
3/0	1.900	.511	L 6268
4/0	2.000	.590	I 6269

CIC 200™ CABLE AND BATTERY SUPPLIES

CIC 200™ SOLDER LINK SLUGS

CIC 200 Solder Link Slugs and Sur-Seal Shrink Tubing provide the fastest, easiest, hermetically sealed battery connections possible — far superior to crimping.



FEATURES:

- **COST EFFICIENT — NO EXPENSIVE TOOLS REQUIRED**
- **PRE-MEASURED — PROVIDES THE EXACT AMOUNT OF SOLDER FOR EACH SIZE CONNECTOR**
- **AVAILABLE IN SEVEN SIZES — 4 GAUGE TO 4/0**
- **COLOR CODED — COINCIDES WITH INDUSTRY STANDARDS**
- **PROVIDES THE PERFECT CONNECTION EVERY TIME — COMPLETE AND ENVIRONMENTALLY SEALED**
- **FLUX-CORED TO ELIMINATE CONTAMINATION**
- **EASY TO USE**

SIMPLY DROP A SOLDER LINK SLUG INTO A BATTERY TERMINAL, HEAT WITH TORCH WHILE PRESSING STRIPPED CABLE INTO TERMINAL AND ALLOW TO COOL. FIT SHRINK TUBING FOR EXTRA PROTECTION AGAINST THE ELEMENTS.

SIZE	COLOR / DESCRIPTION		PART
4 GA	Gray	N	6270
2 GA	Green	N	6271
1 GA	Pink	R	6272
1/0	Black	R	6273
2/0	Orange	N	6274
3/0	Purple	N	6275
4/0	Yellow	L	6276
2 oz. Bottle	Solder-Link™ Flux	A	74518

CABLE

BATTERY CABLE

- **BLACK**
- **SPECIAL ALL-WEATHER VINYL INSULATION**
- **FLEXIBLE AND CRACK PROOF**
- **OIL, ACID, GREASE AND WATER RESISTANT**
- **EASIER STRIPPING**
- **PLASTICITY REMAINS CONSTANT IN EXTREME TEMPERATURES**
- **MEETS ALL QUALITY AND PERFORMANCE REQUIREMENTS OF U.S. GOVERNMENT**

SIZE	25 FEET	50 FEET
6	8168	8184
4	8170	8186
2	8172	8188
1	8174	8190
1/0	8176	8192
2/0	8178	8194
3/0	8180	8196
4/0	8182	8198

FLEXIBLE WELDING/BATTERY CABLE

- **MUCH MORE FLEXIBLE THAN STANDARD BATTERY CABLE**
- **TEMPERATURE RANGE -40°C to 90°C (-40°F to 194°F)**
- **600 VOLT RATING**
- **RESISTS FLAME, OIL, GREASE, SOLVENTS, ACIDS, OZONE AND ABRASION**

RED		BLACK	
SIZE	25 FEET	SIZE	25 FEET
6	8169	6	8185
4	8171	4	8187
2	8173	2	8189
1	8175	1	8191
1/0	8177	1/0	8193
2/0	8179	2/0	8195
3/0	8181	3/0	8197
4/0	8183	4/0	8199

CIC 200™ CABLE AND BATTERY SUPPLIES

CRIMPING/STRIPPING TOOLS

HAMMER TYPE BATTERY CRIMPER

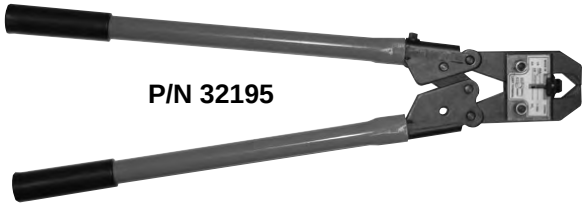
6 GA to 4/0 GA Professional Tool
Convenient and economical alternative for crimping lugs and terminals.

Features Include
- Spring Loaded; locks in up position for loading connector and cable and locks them in place when released
- Just hammer the top of the pin to crimp
- Simple and easy

P/N 32191

HEAVY DUTY CRIMPING TOOL

Features
- 6 GA to 4/0 GA
- A rugged tool that is easy to use
- Wire range from 4 GA to 4/0 GA
- Just rotate knob to desired crimping gauge
- Permanently installed jaws – no missing parts
- Long handle provides excellent leverage



P/N 32195

HEAVY DUTY CABLE CUTTER

Features
- Maximum 350 MCM
- A rugged tool that is easy to use

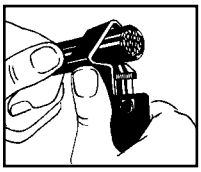
P/N 32194

CIC 200™ CABLE AND BATTERY SUPPLIES

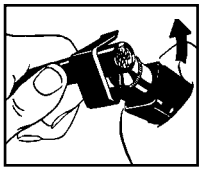
BATTERY CABLE STRIPPER

- **PRECISE DEPTH CONTROL ASSURES A CLEAN EASY STRIP WITH NO KNICKING OF CONDUCTORS**
- **HEAVY DUTY DESIGN PROVIDES LASTING, DEPENDABLE SERVICE**
- **ADJUSTABLE FOR CABLE SIZES 8 GAUGE THROUGH 400 MCM**
- **REPLACEMENT BLADE INCLUDED (STORED IN HANDLE)**
- **CAN BE USED FOR BOTH END AND CENTER STRIPPING**

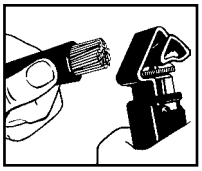
P/N 8215



1. Raise cable guide and place cable inside.

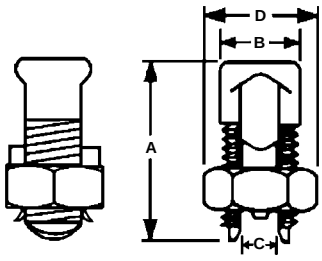


2. Rotate tool around cable.



3. Remove insulation.

COPPER SPLIT BOLTS



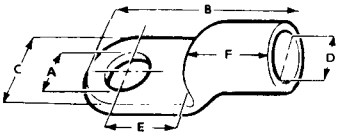
WIRE RANGE		DIMENSIONS				PART	
EQUAL MAIN & TAP (MIN-MAX)	MIN. TAP WITH MAX. MAIN	A	B	C	D		
12 STR - 10 STR	16 STR	23/32	9/32	1/8	31/64	E	2740
10 STR - 8 STR	14 STR	23/32	3/8	9/64	37/64	E	2741
8 STR - 6 SOL	14 STR	63/64	7/16	11/64	45/64	E	2742
8 STR - 4 SOL	14 STR	1-3/64	1/2	7/32	25/32	E	2743
6 STR - 2 SOL	14 STR	1-5/64	37/64	17/64	27/32	B	2744
6 STR - 2 STR	14 STR	1-1/2	5/8	21/64	59/64	B	2745
4 STR - 1/0 STR	14 STR	1-25/32	13/16	7/16	1-3/16	B	2746
1 STR - 2/0 STR	14 STR	1-11/16	13/16	27/64	1-1/16	A	2747
2/0 STR - 3/0 STR	8 STR	2-3/32	63/64	17/32	1-1/4	A	2752
4/0 STR - 250 MCM	8 STR	2-3/32	1-1/16	37/64	1-1/4	A	2764

NOTE: Use Red Lion™ Red Insulating Varnish (P/N 4139) to assure a long-term, weather resistant connection.

CIC 200™ CABLE AND BATTERY SUPPLIES

HEAVY DUTY CRIMP OR SOLDER ELECTRICAL LUGS

- **TIN PLATED, HIGH GRADE PURE ELECTROLYTIC COPPER LUGS THAT ARE FULLY ANNEALED FOR EASY, SECURE CRIMPING**
- **FLARED BARREL ENDS WITH SEAMLESS CONSTRUCTION ARE MARKED WITH WIRE SIZE**



AWG WIRE SIZE	PAD THICK-NESS	A STUD SIZE	B LTH	C PAD WTH	D BARREL I.D.	E CLEAR-ANCE	F BARREL LTH		PART	AWG WIRE SIZE	PAD THICK-NESS	A STUD SIZE	B LTH	C PAD WTH	D BARREL I.D.	E CLEAR-ANCE	F BARREL LTH		PART
8	.075	10	1.23	.46	.186	.32	.450	R	6200	2	.100	3/8	1.65	.63	.336	.38	.575	N	6225
8	.075	1/4	1.23	.46	.186	.32	.450	R	6201	2	.115	1/2	1.78	.78	.336	.44	.575	N	6226
8	.075	3/8	1.37	.62	.186	.38	.450	R	6202	1	.100	1/4	1.75	.68	.360	.38	.625	N	6229
8	.075	1/2	1.51	.78	.186	.44	.450	R	6203	1	.100	5/16	1.75	.68	.360	.38	.625	N	6230
6	.080	10	1.30	.46	.232	.32	.475	R	6208	1	.100	3/8	1.75	.68	.360	.38	.625	N	6231
6	.080	1/4	1.30	.46	.232	.32	.475	R	6209	1	.115	1/2	1.86	.78	.360	.44	.625	N	6232
6	.080	5/16	1.44	.62	.232	.38	.475	R	6211	1/0	.100	1/4	1.89	.75	.407	.38	.675	N	6235
6	.080	3/8	1.44	.62	.232	.38	.475	R	6212	1/0	.100	5/16	1.89	.75	.407	.38	.675	N	6236
6	.080	1/2	1.58	.78	.232	.44	.475	R	6213	1/0	.100	3/8	1.89	.75	.407	.38	.675	N	6237
4	.085	10	1.53	.54	.286	.38	.550	N	6216	1/0	.115	1/2	1.98	.84	.407	.44	.675	N	6238
4	.085	1/4	1.53	.54	.286	.38	.550	N	6217	2/0	.105	3/8	2.11	.83	.461	.48	.700	N	6241
4	.085	5/16	1.58	.64	.286	.38	.550	N	6218	2/0	.105	1/2	2.11	.83	.461	.48	.700	N	6242
4	.085	3/8	1.58	.64	.286	.38	.550	N	6219	3/0	.115	3/8	2.22	.92	.511	.48	.725	L	6245
4	.115	1/2	1.71	.78	.286	.44	.550	N	6220	3/0	.115	1/2	2.22	.92	.511	.48	.725	L	6246
2	.100	1/4	1.65	.63	.336	.38	.575	N	6223	4/0	.125	3/8	2.38	1.00	.559	.52	.750	L	6248
2	.100	5/16	1.65	.63	.336	.38	.575	N	6224	4/0	.125	1/2	2.38	1.00	.559	.52	.750	L	6249

MAGNA LUGS

STARTER/GROUND UG BATTERY TERMINALS

- **COLOR CODED FOR EASY IDENTIFICATION**
- **WIDER PADS FOR BETTER ELECTRICAL CONTACT**
- **THICKER PADS FOR GREATER STRENGTH**
- **80% THICKER WALLS FOR GREATER CONDUCTIVITY AND STRENGTH**
- **SAME CRIMP SETTINGS AS BATTERY TERMINALS, SAVING YOU TIME, TROUBLE AND ERRORS**
- **EXCEED SAE CONDUCTIVITY STANDARDS**
- **MADE OF 100% COPPER, TIN PLATED TWICE AS THICK AS INDUSTRY STANDARDS**
- **CAN BE CRIMPED OR SOLDERED**

WIRE GAUGE	STUD SIZE	COLOR CODE		PART	WIRE GAUGE	STUD SIZE	COLOR CODE		PART
6	1/4"	Gray	I	32216	1/0	5/16"	Black	I	32202
6	5/16"	Gray	I	32217	1/0	3/8"	Black	I	32201
6	3/8"	Gray	I	32218	1/0	1/2"	Black	I	32200
4	1/4"	Gray	I	32213	2/0	5/16"	Orange	I	32208
4	5/16"	Gray	I	32215	2/0	3/8"	Orange	I	32207
4	3/8"	Gray	I	32214	2/0	1/2"	Orange	I	32206
1-2	5/16"	Pink	I	32205	3/0	3/8"	Purple	E	32210
1-2	3/8"	Pink	E	32204	3/0	1/2"	Purple	E	32209
1-2	1/2"	Pink	I	32203	4/0	3/8"	Yellow	E	32212
					4/0	1/2"	Yellow	E	32211

CIC 200™ CABLE AND BATTERY SUPPLIES

COMPRESSION LUGS AND CONNECTORS

COMPRESSION LUGS

- **HIGH CONDUCTIVITY**
- **WROUGHT COPPER**
- **ELECTRO TIN PLATED TO MINIMIZE CORROSION**
- **LONG BARREL PERMITS TWO CRIMPS FOR HEAVY LOADS**
- **COLOR CODE DESIGNATES CABLE SIZE AND TOOL SETTING DIE**
- **CHAMFERED ENDS PROVIDE EASY CABLE INSERTION**

17890

AWG	STUD SIZE	COLOR CODE	LENGTH	WIDTH	PART	AWG	STUD SIZE	COLOR CODE	LENGTH	WIDTH	PART
8 GA	10	Red	1-21/32	11/32	I 22314	4/0 GA	3/8	Purple	3-3/64	1-1/64	B 22327
6 GA	1/4	Blue	1-45/64	13/32	I 22315	4/0 GA	1/2	Purple	3-3/64	1-1/64	B 22328
4 GA	1/4	Grey	1-3/4	1/2	I 22316	250 MCM	3/8	Yellow	3-11/32	1-9/64	B 22329
2 GA	1/4	Brown	2-1/16	39/64	E 22317	250 MCM	1/2	Yellow	3-11/32	1-9/64	B 22330
2 GA	5/16	Brown	2-1/16	39/64	E 22318	300 MCM	3/8	White	3-1/2	1-7/32	B 22331
1 GA	1/4	Green	2-5/32	11/16	E 22319	300 MCM	1/2	White	3-1/2	1-7/32	B 22332
1 GA	5/16	Green	2-5/32	11/16	E 22320	350 MCM	3/8	Red	3-45/64	1-5/16	B 22333
1/0 GA	5/16	Pink	2-11/32	49/64	E 22321	350 MCM	1/2	Red	3-45/64	1-5/16	B 22334
1/0 GA	3/8	Pink	2-11/32	49/64	E 22322	400 MCM	3/8	Blue	3-29/32	1-13/32	B 22335
2/0 GA	3/8	Black	2-1/2	53/64	E 22323	400 MCM	1/2	Blue	3-29/32	1-13/32	B 22336
2/0 GA	1/2	Black	2-1/2	53/64	E 22324	500 MCM	3/8	Brown	4-1/2	1-37/64	A 22337
3/0 GA	3/8	Orange	2-45/64	29/32	B 22325	500 MCM	3/8	Brown	4-1/2	1-37/64	A 22338
3/0 GA	1/2	Orange	2-45/64	29/32	B 22326	–	–	–	–	–	–

LONG BARREL BUTT CONNECTORS

- **HIGH CONDUCTIVITY, WROUGHT COPPER**
- **SEAMLESS CONSTRUCTION**
- **CHAMFERED ENDS PROVIDE EASY INSERTION OF CABLE**
- **COLOR CODE DESIGNATES CABLE SIZE AND TOOL SETTING DIE**
- **600 VOLT APPLICATION**

17890

AWG	COLOR CODE	LENGTH	PART	AWG	COLOR CODE	LENGTH	PART
8	Red	2	I 22300	3/0	Orange	2-1/2	B 22307
6	Blue	2	E 22301	4/0	Purple	3	B 22308
4	Grey	2	E 22302	250 MCM	Yellow	3-5/8	B 22309
2	Brown	2	E 22303	300 MCM	White	3-11/16	B 22310
1	Green	2-1/4	B 22304	350 MCM	Red	3-15/16	B 22311
1/0	Pink	2-1/4	B 22305	400 MCM	Blue	3-15/16	A 22312
2/0	Black	2-3/8	B 22306	500 MCM	Brown	4-15/16	A 22313

COMPRESSION CONDUCTORS

- **SINGLE HOLE SOLDERLESS LUGS CONSTRUCTED FROM HIGH STRENGTH ALUMINUM ALLOY**
- **ELECTRO-TIN PLATED TO PROVIDE LOW CONTACT RESISTANCE**

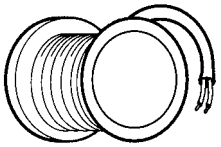
WIRE RANGE	BOLT SIZE	LENGTH	WIDTH	HEIGHT	PART
14-6 GA	1/4	1.06	.50	.494	I 22350
14-2 GA	1/4	1.16	.50	.550	I 22351
6GA - 250 MCM	5/16	2.00	1.00	1.125	B 22352
4GA - 500 MCM	3/8	2.81	1.50	1.562	A 22353
500 - 1000 MCM GA	5/8	3.38	1.75	1.937	A 22354

SUR-SAFE™ PORTABLE CORD AND PLUGS

SAFETY PORTABLE CORD

- PREMIUM GRADE, FLEXIBLE AND DURABLE PORTABLE CORD WITH SUPERIOR TEMPERATURE AND ABRASION RESISTANCE
- EXCELLENT FLEXIBILITY IN EXTREME TEMPERATURES
- OZONE, WEATHER AND WATER-RESISTANT
- WITHSTANDS HIGH HEAT AND FLAMES
- IMPERVIOUS TO OILS, ACIDS AND CHEMICALS
- EXCELLENT ABRASION AND CUT RESISTANCE
- UL AND CSA CERTIFIED FOR INDOOR AND OUTDOOR USE
- TEMPERATURE RANGE -50°C TO 105°C (-50°F to 221°F)
- SAFETY COLORED
- 3 CONDUCTORS – BLACK, WHITE AND GREEN

SJO CORD



250 FOOT ROLLS

50 FOOT BUNDLES

APPLICATIONS:
- Machine Tools • Power Tools
- Dockside Power Applications
- Motor Leads
- Portable Machinery
- Cranes • Submersible Pumps

INDUSTRY APPROVALS:
- UL Flexible Cord – UL Subject 62
- CSA Flexible Cord – C22-2-49
- OSHA Acceptable
- MSHA Approved
- JC580

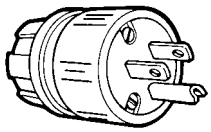
***SEOW CORD**
- (TPE) THERMOPLASTIC ELASTOMER RUBBER JACKET
- OZONE, WEATHER AND WATER-RESISTANT
- WITHSTANDS HIGH HEAT
- OIL RESISTANT
- EXCELLENT ABRASION RESISTANCE
- UL AND CSA CERTIFIED FOR INDOOR AND OUTDOOR USE
- TEMPERATURE RANGE -50°C TO 105°C (-50°F to 221°F)
- 3 CONDUCTORS – BLACK, WHITE AND GREEN

SIZE	ROLLS	PART	BUNDLES	PART
14/3 Cable Yellow	250'	A 8151	50'	A 8156
16/3 Cable Yellow	250'	A 8152	50'	A 8157
18/3 Cable Yellow	250'	A 8153	50'	A 8158
14/3 Cable Black - SEOW*	–	–	50'	A 8160

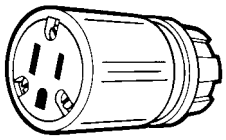
PLUGS AND CONNECTORS

- ACCEPTS AWG WIRE #18 THROUGH #12 WITHOUT CRUSHING; NO INSERTS NEEDED
- COLOR-CODED RUBBER CORD SEALER BUSHINGS HANDLE .330-.640 DIAMETER WIRE
- NON-SLIP FINGER GRIPS • NICKEL-PLATED BLADES
- DOUBLE-INSULATED FOR EXTRA SAFETY; WITHSTANDS HIGH IMPACT, CORROSION, OILS & GREASES, SOLVENTS AND OTHER CHEMICALS ACROSS -20°C/110°C RANGE
- TRANSPARENT BACK PLATE SPEEDS INSPECTION
- INDIVIDUAL WIRE POCKETS HELP PREVENT FLASH-OVER
- PATENTED DEAD-FRONT, BACK-WIRED DESIGN
- UL LISTED E17740 / CSA CERTIFIED LR 39143
- MEETS NATIONAL ELECTRICAL CODE REQUIREMENTS 400-10; 410-56(F) AND (H); 410-58(A), (B) AND (D)

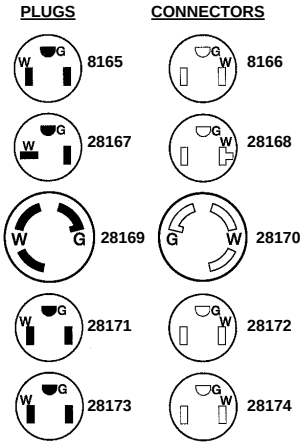
SUR-SAFE PLUG



SUR-SAFE CONNECTOR



Hospital Plugs and Connectors Meet UL 498 and 544 Standards



DESCRIPTION	PLUG PART	CONNECTOR PART
15 Amp Straight	A 8165	A 8166
20 Amp Straight	A 28167	A 28168
15 Amp Locking	A 28169	A 28170
15 Amp Hospital Gray	A 28171*	A 28172*
15 Amp Hospital Clear	A 28173*	A 28174*

CORD CONNECT

- PROVIDES A WATER-TIGHT CONNECTION WHILE LOCKING CORDS TOGETHER
- PROTECTIVE "CLAMSHELL" HOUSING IS MADE OF DURABLE ALL-WEATHER PLASTIC
- TAPERED ENDS ENSURE THE CORD CONNECT PULLS SMOOTHLY WITHOUT GETTING CAUGHT
- ELIMINATES DISRUPTIVE DISCONNECTS WHILE WORKING WITH EXTENSION CORDS OR POWER TOOLS
- WATERTIGHT GASKET WITHSTANDS JET NOZZLE SPRAYS, DRIP BOX TESTS AND PREVENTS WATER FROM REACHING THE ELECTRICAL CONNECTION
- EASY TO HANDLE DESIGN ALLOWS WORKERS WEARING HEAVY GLOVES TO DISCONNECT AND TO CONNECT EASILY
- UV PROTECTED

1. Open half, place cord inside, clip closed
2. Slip water-tight gasket on the male plug and plug cords together
3. Screw both halves together until plugs are securely pushed together

DESCRIPTION	PART
Cord Connect – OSHA Orange	A 28162
Cord Connect - Landscape Green	A 28163

STRAIN RELIEFS

PIGTAIL STRAIN RELIEF

Liquid tight spiral strain relief offers additional safety against overstress and conductor breakage. Ideally suited for hand held equipment, moving machinery, robotics and instrumentation.

PROTECTION: UP TO 70 PSI
MATERIAL: POLYAMIDE – FLAME RETARDANT, SELF-EXTINGUISHING NYLON WITH NEOPRENE BUSHING
TEMPERATURE: -20°C to +80°C – SHORT TERM TO +100°C
SEAL: IP 68 (INTERNATIONAL PROTECTION – HIGHEST GRADE) COMPARABLE TO NEMA 6 CLASSIFICATION
RESISTANT TO: SALT WATER, WEAK ACIDS, WEAK ALKALIS, ALCOHOL ESTER, KETONES, ETHER, BENZENE, GAS, MINERAL OIL, ANIMAL AND VEGETABLE OILS, GASOLINE, OIL, GREASE AND COMMON SOLVENTS
APPLICATIONS: USED IN PANELS, SWITCHES, CONTROL BOXES, SUBMERSIBLE PUMPS, APPLIANCES AND MANY MACHINE TOOL APPLICATIONS
PG THREAD SIZE LOCK NUTS ARE INCLUDED. NPT SIZE LOCK NUTS SOLD SEPARATELY

17851

THREAD TYPE	DIAMETER RANGE	MOUNTING HOLE	PART		LOCK NUTS	
PG-7	.118 - .255	.492	I	28180	N	28197
PG-9	.157 - .314	.599	I	28181	N	28198
PG-11	.197 - .394	.733	E	28182	N	28199
PG-13.5	.236 - .472	.804	E	28183	L	28200
PG-16	.394 - .551	.886	E	28184	L	28201
1/2 NPT	.236 - .472	.825	E	28185	E	28204
3/4 NPT	.545 - .709	1.050	B	28186	B	28205

STRAIN RELIEF CORD CONNECTORS

Liquid tight, unique, easy to assemble strain relief cable connector is universally suited for all types of machinery and equipment, including automation, motion control and robotics.

PROTECTION: UP TO 70 PSI
MATERIAL: POLYAMIDE – FLAME RETARDANT, SELF-EXTINGUISHING NYLON WITH NEOPRENE BUSHING
TEMPERATURE: -20°C to +80°C – SHORT TERM TO +100°C
SEAL: IP 68 (INTERNATIONAL PROTECTION – HIGHEST GRADE) COMPARABLE TO NEMA 6 CLASSIFICATION
RESISTANT TO: SALT WATER, WEAK ACIDS, WEAK ALKALIS, ALCOHOL ESTER, KETONES, ETHER, BENZENE, GAS, MINERAL OIL, ANIMAL AND VEGETABLE OILS, GASOLINE, OIL, GREASE AND COMMON SOLVENTS
APPLICATIONS: USED IN PANELS, SWITCHES, CONTROL BOXES, SUBMERSIBLE PUMPS, APPLIANCES AND MANY MACHINE TOOL APPLICATIONS
PG THREAD SIZE LOCK NUTS ARE INCLUDED. NPT SIZE LOCK NUTS SOLD SEPARATELY

17852

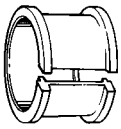
THREAD TYPE	DIAMETER RANGE	MOUNTING HOLE	PART		LOCKNUTS	
PG-7	.118 - .255	.492	I	28190	N	28197
PG-9	.157 - .314	.599	I	28191	N	28198
PG-11	.197 - .394	.733	E	28192	N	28199
PG-13.5	.236 - .472	.804	E	28193	L	28200
PG-16	.394 - .551	.886	E	28194	L	28201
PG-21	.545 - .709	1.115	E	28195	I	28202
PG-29	.708 - .984	1.457	B	28196	E	28203
1/2 NPT	.236 - .472	.825	E	28187	E	28204
3/4 NPT	.545 - .709	1.050	B	28188	B	28205
1 NPT	.708 - .984	1.303	B	28189	B	28206

CONDUIT/PIPE HANGERS

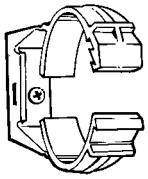
CONDUIT/PIPE HANGERS AND BUNDLE ROUTING RINGS

Fast, easy, convenient way to support, hang or route wire bundles, wire harnesses, tubing and cables.

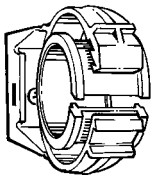
- **HIGHLY VERSATILE – WORKS WITH ALL TYPES OF CABLE AND CONDUIT**
- **EASY TO USE, REQUIRING ONLY ONE INSTALLER**
- **ECONOMICAL – INSTALLATION TIME IS ROUTINELY REDUCED BY UP TO 35%**
- **HIGHLY ADAPTABLE – CAN BE ATTACHED TO CABLE TRAY, CONCRETE, BRICK, CINDER BLOCK, SHEET METAL, FIBERGLASS, STRUT – VIRTUALLY ANY SURFACE OR STRUCTURAL MEMBER. CAN ALSO BE USED AS THREADED ROD HANGER ON STRUT.**
- **CORROSION-RESISTANT – MADE OF DURABLE NYLON 12 GRILAMID®**
- **TEMPERATURE RANGE -40ºF TO +180ºF CONTINUOUSLY, AND TO +225ºF INTERMITTENTLY, WITH INSTALLATION TO -5ºF**
- **REUSABLE – DESIGN CHANGES CAN BE EASILY ACCOMMODATED**
- **INVENTORY REDUCING – ELIMINATES STOCKING THE SAME SUPPORT IN SEVERAL MATERIALS**
- **FREE OF GALVANIC ACTION, NON-MAGNETIC, DIELECTRIC EXCELLENCE**
- **ALLOWS PREFABRICATION OF TRAPEZE HANGERS**
- **ALLOWS EXPANSION AND CONTRACTION OF CONDUIT SYSTEMS**



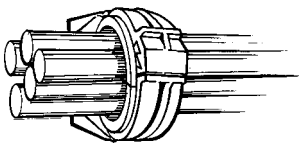
BUNDLE ROUTING RING



CONDUIT/PIPE HANGER



ROUTING RING IN HANGER



INSTALLED BUNDLE

INSTRUCTIONS FOR CONDUIT/PIPE HANGERS:

1. **INSERT CABLE/CONDUIT INTO PIPE HANGERS**
2. **APPLY SLIGHT PRESSURE TO THE TUBULAR MEMBER – JAWS CLOSE AND LOCK**
3. **A SHARP "CLICK" TELLS YOU THE CABLE OR CONDUIT IS SECURELY FASTENED**

INSTRUCTIONS FOR BUNDLE ROUTING RINGS:

1. **SIMPLY INSERT CABLE OR CONDUIT INTO THE WHITE POLYPROPYLENE SPLIT ROUTING RING**
2. **RING IS THEN SNAPPED INTO THE PRE-INSTALLED CONDUIT/PIPE HANGER SUPPORT**
3. **BUNDLING ROUTING RINGS ARE REUSABLE**

CONDUIT/PIPE HANGER	SIZE	PART	CONDUIT/PIPE HANGER	SIZE	PART
.295 - .374	#8	N 22970	1.094 - 1.228	#28	I 22978
.374 - .465	#10	N 22971	1.228 - 1.398	#32	I 22979
.465 - .563	#12	L 22972	1.398 - 1.555	#36	E 22980
.563 - .661	#15	L 22973	1.555 - 1.713	#40	E 22981
.661 - .768	#17	L 22974	1.831 - 1.988	#47	E 22982
.768 - .866	#20	L 22975	1.988 - 2.185	#51	E 22983
.866 - .898	#22	I 22976	2.303 - 2.520	#59	B 22984
.696 - 1.094	#25	I 22977	–	–	–

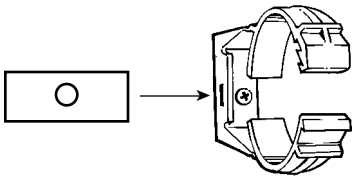
BUNDLE ROUTING RING	USE WITH HANGER SIZE	PART	BUNDLE ROUTING RING	USE WITH HANGER SIZE	PART
3/4"	#25	T 22985	1-1/2"	#47	R 22988
1"	#32	T 22986	2"	#59	L 22989
1-1/4"	#40	T 22987	–	–	–

TRADE SIZE I.D.	EMT **Galvanized Steel**	IMC **Galvanized Steel and Aluminum**	RIGID **Galvanized Steel and Aluminum**	PVC **Schedules 40 and 80**	RIGID 40 MIL PVC COATED **Galvanized Steel and Aluminum**	IMC 40 MIL PVC COATED **Galvanized Steel and Aluminum**	EMT 24 MIL PVC COATED **Galvanized Steel**	FIBERGLASS **Standard and Heavy Wall Pipe Dimensions**	OTHER SPECIALTY **as S/S, Everdur Same O.D. as IMC & RIGID**
1/2	L 22974 0.706"	L 22975 0.815"	L 22975 0.840"	L 22975 0.840"	I 22976 0.920"	I 22976 0.895"	L 22974 0.756"	–	L 22975 0.840"
3/4	I 22976 0.922"	I 22977 1.029"	I 22977 1.050"	I 22977 1.050"	I 22978 1.130"	I 22978 1.109"	I 22977 0.972"	I 22977 1.029"	I 22977 1.050"
1	I 22978 1.163"	I 22979 1.290"	I 22979 1.315"	I 22979 1.315"	E 22980 1.395"	I 22979 1.370	I 22979 1.213"	I 22979 1.315"	I 22979 1.315"
1-1/4	E 22980 1.510"	E 22981 1.638"	E 22981 1.660"	E 22981 1.660"	E 22982 1.740"	E 22981 1.718"	E 22981 1.560"	E 22981 1.660"	E 22981 1.660"
1-1/2	E 22981 1.740".	E 22982 1.883"	E 22982 1.900"	E 22982 1.900"	E 22982 1.980"	E 22982 1.963"	E 22982 1.790"	E 22982 1.980"	E 22982 1.900"
2	E 22983 2.197"	B 22984 2.360"	B 22984 2.375"	B 22984 2.375"	B 22984 2.455"	B 22984 2.244"	B 22984 2.247"	B 22984 2.375"	B 22984 2.375"

CONDUIT/PIPE HANGERS (Cont'd.)

TRADE SIZE I.D.	FLEXIBLE METAL CONDUIT **Galvanized Steel and Aluminum**	LIQUIDTIGHT FLEXIBLE **Metallic and Non-Metallic Conduit**	CORRUGATED FLEXIBLE **Non-Metallic Liquidtight Conduit**	ENMT **Electric Non-Metallic Conduit**	CORRLOK® FLEXIBLE **Nylon Conduit**	LIQUATITE® **Non-Metallic Flexible Conduit Types LNM and LNMP**	OTHER SPECIALTY **as Corrugated Ducts for Fiber Optics Same O.D. as Rigid**	COPPER TUBE O.D.
–	–	–	–	–	–	–	–	N 22970 5/16"
1/4	–	N 22971 0.450"	–	–	–	–	–	N 22971 3/8"
5/16	L 22972 0.470"	L 22973 0.570"	–	–	–	–	–	–
3/8	L 22973 0.560"	L 22974 0.690"	L 22973 0.690"	–	L 22973 0.625"	L 22974 0.755"	–	L 22972 1/2"
1/2	L 22975 0.860"	L 22975 0.860"	L 22975 0.860"	L 22975 0.860"	L 22975 0.844"	I 22976 0.910"	–	L 22973 5/8"
5/8	–	–	–	–	–	–	–	L 22974 3/4"
3/4	I 22977 1.045"	I 22977 1.045"	I 22977 1.045"	I 22977 1.045"	I 22978 1.125"	I 22978 1.150"	–	L 22975 7/8"
1	I 22979 1.300"	I 22979 1.300"	I 22979 1.300"	I 22979 1.300"	I 22979 1.375"	E 22980 1.415"	I 22979 1.315"	I 22978 1-1/8"
1-1/4	E 22981 1.550"	E 22981 1.550"	E 22981 1.550"	–	E 22981 1.688"	E 22982 1.800"	E 22981 1.660"	I 22979 1-3/8"
1-1/2	E 22982 1.850"	E 22982 1.850"	E 22982 1.850"	–	E 22983 2.156"	E 22983 2.045"	E 22982 1.900"	E 22981 1-5/8"
2	B 22984 2.350"	B 22984 2.350"	B 22984 2.350"	–	–	B 22984 2.555"	B 22984 2.375"	E 22983 2-1/8"

CONDUIT/PIPE HANGER FLANGE



- **STAINLESS STEEL FLANGE FITS INTO BASE OF CONDUIT/PIPE HANGER**
- **1/4-20 THREADED HOLE**

DESCRIPTION	PART
CONDUIT/PIPE HANGER FLANGE 316 STAINLESS STEEL	N 22990

DROP LIGHTS

ROUGH DUTY FLUORESCENT WORK LIGHT

- **THE INDUSTRY STANDARD – THE PRO MECHANICS CHOICE**
- **COOL RUNNING 13W 10,000 HOUR RATED BULB (INCLUDED)**
- **EQUIVALENT TO 75W INCANDESCENT BULT WITH NATURAL DAYLIGHT ILLUMINATION-6500 KELVIN**
- **POLARIZED PLUG WITH 12AMP GROUND RECEPTACLE AND ROCKER ON/OFF SWITCH**
- **CLEAR POLYCARBONATE TOP FOR SPOT-LIGHTING**
- **FLAME-RETARDANT YELLOW POLYPROPYLENE HANDLE**
- **HIGH-IMPACT LAMP PROTECTOR WITH HIGH-GLOSS REFLECTOR**
- **CLEAR CHEMICAL AND UV RESISTANT LAMP PROTECTOR**
- **CONVENIENT AND VERSATILE NYLON-TIPPED DOUBLE HANG HOOK**

DESCRIPTION	PART
Rough Duty Fluorescent Work Light 25'	A 28160
120 Volt 13W 10,000 Hour Rated Replacement Bulb	A 28160BULB

30' 14/3 TRIPLE TAP CORD REEL

- **HEAVY-DUTY METAL RETRACTABLE REEL**
- **POLARIZED PLUG WITH THREE 10AMP GROUNDED RECEPTACLE**
- **BRACKETS FOR WALL OR CEILING MOUNTING INCLUDED**
- **LED POWER STATUS LIGHT**

DESCRIPTION	PART
30' 14/3 Triple Tap Cord Reel	A 28161

CSS (CRIMP - SOLDER - SEAL) TERMINALS

CSS RINGS

Crimp – Solder – Seal . . . the ultimate electrical connection! Crimped for maximum reliability and easy installation. Soldered for additional strength and better conductivity. Sealed for durable insulation and watertight connection.

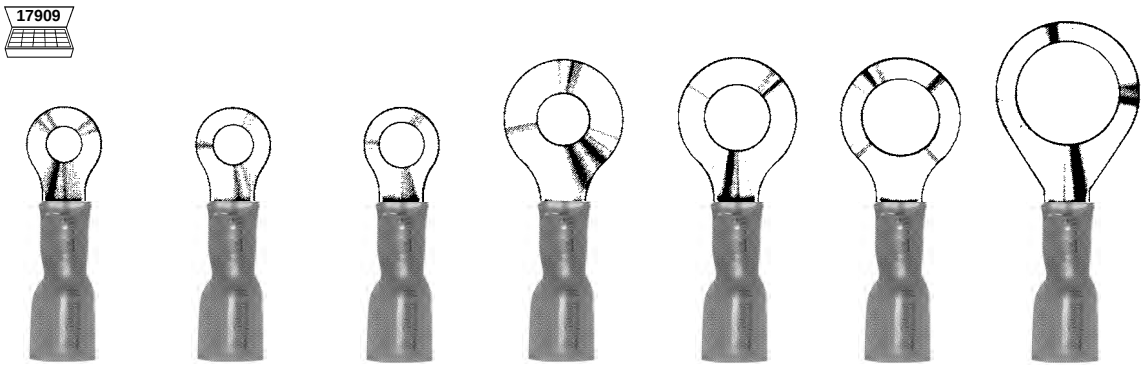
RED
18-20
WIRE SIZE

STUD SIZE	6	8	10	1/4	5/16	3/8
PART	L 21700	L 21701	L 21702	L 21703	L 21704	L 21705

BLUE
14-16
WIRE SIZE

STUD SIZE	6	8	10	1/4	5/16	3/8
PART	L 21706	L 21707	L 21708	L 21709	L 21710	L 21711

YELLOW
10-12
WIRE SIZE



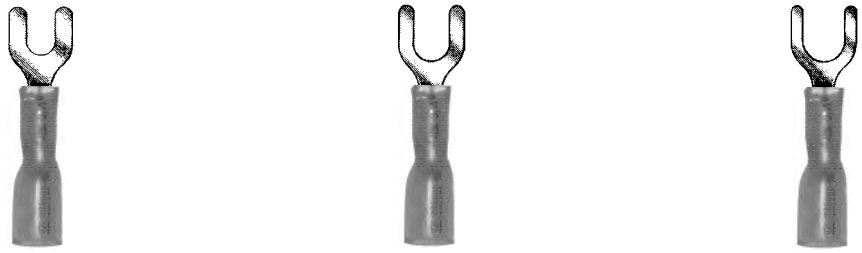
STUD SIZE	6	8	10	1/4	5/16	3/8	1/2
PART	I 21712	I 21713	I 21714	I 21715	I 21716	I 21717	I 21718

CSS (CRIMP-SOLDER-SEAL) TERMINALS (Cont'd.)

CSS SPADES

RED 18-20 WIRE SIZE

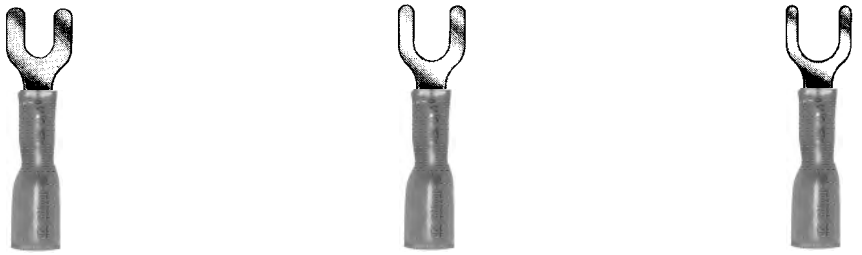
17909



STUD SIZE	6	8	10
PART	L 21719	L 21720	L 21721

BLUE 14-16 WIRE SIZE

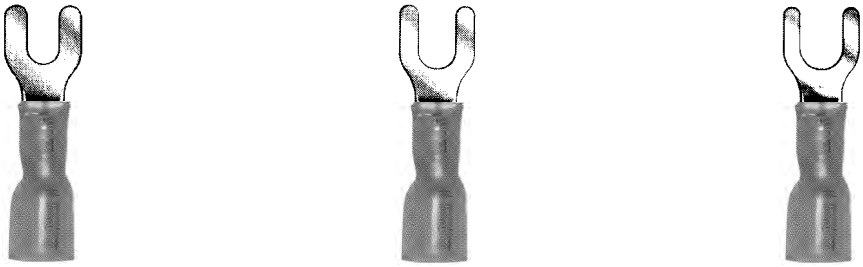
17909



STUD SIZE	6	8	10
PART	L 21722	L 21723	L 21724

YELLOW 10-12 WIRE SIZE

17909



STUD SIZE	6	8	10
PART	I 21725	I 21726	I 21727

CSS BUTT CONNECTORS

CLEAR 22-24	RED 18-20	BLUE 14-16	YELLOW 10-12
PART	PART	PART	PART
I 21737	I 21738	I 21739	I 21740

CSS (CRIMP-SOLDER-SEAL) TERMINALS (Cont'd.)

CSS QUICK SLIDES

	FEMALE		MALE
RED 18-20 WIRE SIZE			
BLADE SIZE	1/4	1/4 FULLY INSULATED	1/4
PART	L 21741	I 21742	L 21743

	FEMALE		MALE
BLUE 14-16 WIRE SIZE			
BLADE SIZE	1/4	1/4 FULLY INSULATED	1/4
PART	L 21744	I 21745	L 21746

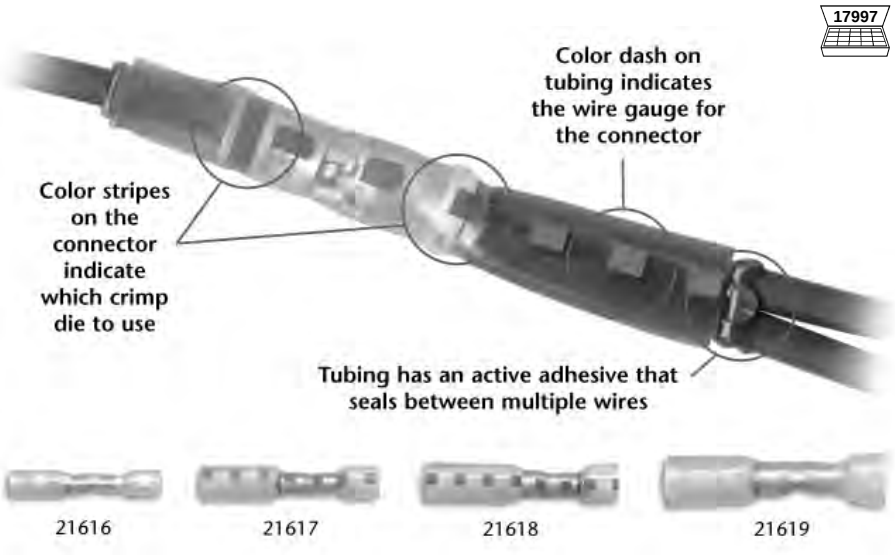
	FEMALE		MALE
YELLOW 10-12 WIRE SIZE			
BLADE SIZE	1/4	1/4 FULLY INSULATED	1/4
PART	I 21747	I 21748	I 21749

HEAT SHRINK CONNECTORS AND TUBING

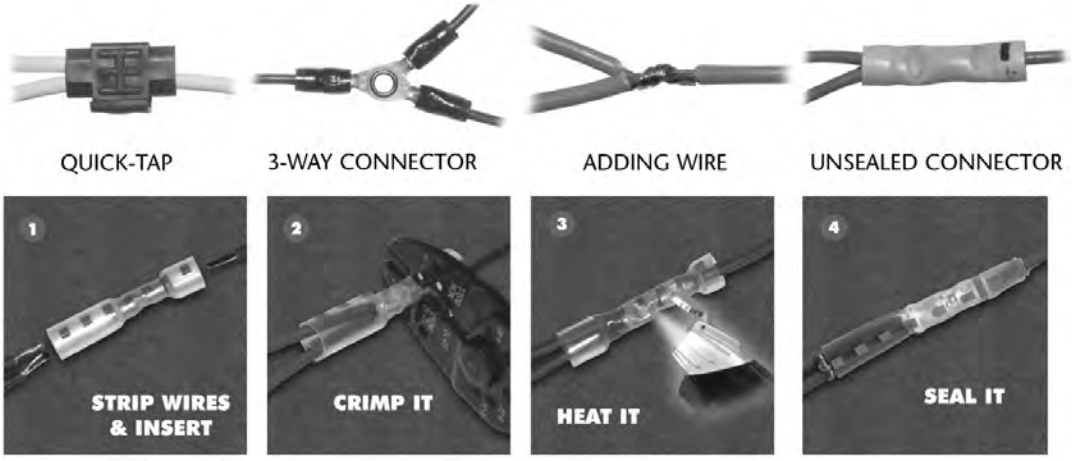
HEAT SHRINK MULTI WIRE IN-LINE CONNECTORS

JOIN TWO WIRES TO ONE WIRE...

- **Seamless butt connectors provide superior crimp performance**
- **Window in butt connectors allows for visual inspection to ensure all wires are fully inserted**
- **Butt connectors have indicators where the installation tool should be positioned to crimp connector**
- **Wire-stop in butt connector prevents over-insertion of the wires**
- **High adhesive-flow polyolefin to seal multiple wires**
- **Color-coded dash on tubing to indicate the wire gauge for the connector**
- **Clear tubing to allow for visual inspection**



THE IN-LINE CONNECTOR IS THE SOLUTION FOR THESE EXISTING PROBLEMS:



WIRE GAUGE	TUBING COLOR	COLOR STRIPE ON CONNECTOR	WIRE	CRIMP DIE	PART	
22-24 AWG	Clear / White Dashes	Side 1: White Side 2: Red	One 24-22 AWG Two 24-22 AWG	White (24-22 AWG) Red (20-18 AWG)	N	21616
20-18 AWG	Clear / Red Dashes	Side 1: Red Side 2: Blue	One 20-18 AWG Two 20-18 AWG	Red (20-18 AWG) Blue (16-14 AWG)	N	21617
16-14 AWG	Clear / Blue Dashes	Side 1: Blue Side 2: Yellow	One 16-14 AWG Two 16-14 AWG	Blue (16-14 AWG) Yellow (12-10 AWG)	N	21618
12-10 AWG	Clear / Yellow Dashes	Side 1: Yellow Side 2: Red	One 12-10 AWG Two 12-10 AWG	Yellow (12-10 AWG) Red (8 AWG)	N	21619

HEAT SHRINK CONNECTORS AND TUBING

HEAT SHRINK MULTI WIRE CLOSED-END CONNECTORS

JOIN TWO WIRES TO FOUR WIRES...
- **Crimp termination provides superior mechanical performance**
- **High adhesive-flow polyolefin tubing to seal multiple wires**
- **Color-coded dash on tubing to indicate the size of the connector**
- **Clear tubing to allow for visual inspection**

17997

THE CLOSED-END CONNECTOR IS THE SOLUTION FOR THESE EXISTING PROBLEMS:

WIRE RANGE	TUBING COLOR		PART
22-14 AWG	Clear / Blue Dashes	N	21620
18-10 AWG	Clear / Yelow Dashes	N	21621

HI-FLOW ADHESIVE HEAT SHRINK TUBING

Adhesive-lined heat shrink tubing provides the best protection for electrical terminations for primary wire and battery cables that are subjected to extreme conditions. Chromate's heat shrink tubing provides an adhesive barrier which protects electrical components from calcium chlorides, sodium chlorides, magnesium chlorides, abrasion, vibration, and other environmental contaminants.

17997

- **Most adhesive-lined heat shrink tubing has a 3 to 1 shrink ratio. The High Adhesive Flow Tubing will shrink 28% more than standard adhesive-lined tubing.**
- **Standard adhesive-lined heat shrink tubing is designed to seal a single wire. It doesn't provide enough adhesive to seal two or more wires which is typical with trailer wiring and wire harness applications.**
- **Tubing will remain flexible after it has been installed, which is ideal for wire harness applications.**
- **Visual inspection is easy, clear heat shrink tubing allows the technicians to see that corrosion has not developed on the wire and cable. This can help prevent technicians from misusing test probes – piercing through the wire insulation. Most heat shrink tubing is black which prevents visual inspection.**

Specs	Material	Recover Temp.	Dielectric Strength	Continuous Oper.Temp.	Flammability
Chrysler MS-DB56 CAN, Ford ESB-M97D56A1	Polyolefin	250°F / 121°C	500 Volts/Mil	-67°F to 230°F / -55°C to 110°C	Non-Flame Retardant

PRE-SHRINK ID	REC ID	WIRE RANGE	TUBE COLOR / DASH COLOR		PART
0.220"	0.045"	24-12 AWG	Clear / White	D	32181
0.300"	0.060"	22-10 AWG	Clear / Red	D	32182
0.350"	0.080"	16-8 AWG	Clear / Blue	D	32183
0.450"	0.105"	14-4 AWG	Clear / Yellow	D	32184

COOL SEAL BUTT CONNECTORS

A HEATLESS, SOLDERLESS TERMINAL USING ANEROBIC SEALANT TECHNOLOGY

The most innovative and cost effective sealed electrical connector to hit the market in 25 years. A heatless, solderless terminal, it utilizes revolutionary anaerobic sealant technology that installs in a fraction of the time of comparable heat seal connectors. Reduces overall costs by eliminating the need for torches or heat guns, reducing the installation time, and improving productivity.

Features and Benefits

- Seals Out Moisture Causing Corrosion
- Patented Anaerobic Technology
- Simply Strip and Crimp
- Installs in a Fraction of the Time of Comparable Heat Shrink Terminals
- Improved Productivity
- No Heat Tools Required
- Nylon Insulation
- 99.9% ETP Copper Terminal

17706

20

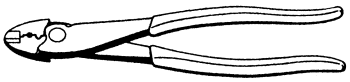
Installation Guidelines For Cool Seal Connectors

1. Strip wire 1/4".
2. Insert wire into the insulation and immerse bare copper end into the sealing gel.
3. Rotate the wire sufficiently inside the insulation to insure the copper end of the wire is completely covered with the sealing gel.
4. Insert wire into the connector until wire insulation contacts splice/connector.
5. Crimp with correct nest on Crimp Tool.
6. Sealant initially begins to cure within 15 minutes; 80% cured within 24 hours, and 100% cured within 48 hours.

WIRE RANGE	TUBING COLOR		PART
22-18 GA	Red	N	2652
16-14 GA	Blue	N	2653
12-10 GA	Yellow	N	2654

Installs With Any of These Crimpers:

P/N 2539



P/N 8210

P/N 8256

WINDOW-VIEW BUTT CONNECTORS

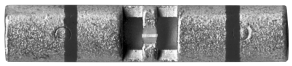
PROVIDES OPTIMAL VISUAL ASSURANCE OF A SEALED CRIMP TERMINATION

Window-View Butt Connectors offer the following visual assurances:
- Ensures the wire is crimped to connector
- Ensures the center of crimp barrel is properly crimped
- Super-Clear waterproof insulation
- Allows for indisputable inspection of the wire's condition

Standard connectors don't allow the installer to see the wire which can result in the following problems:
- Wire stripped too short, which can result in crimping the end of the wire, causing poor termination.
- Wire is not fully seated to connector, which can result in poor termination.

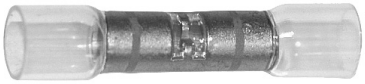
THE COMPONENTS

Window-View Butt Connectors
- Window in center of connector assures that wire is seated properly and that the wire is being crimped to the connector.
- Color-coded stripes identify wire gauge size to be used.
- Color-coded stripes also indicate/guide the installer to the proper crimp position on the center of the barrel.
- Seamless barrel butt connectors ensure superior crimp.
- Wire-stop in butt connectors prevents over insertion of wire.



Super-Clear Adhesive-lined Heat Shrink Tubing
- Super-Clear tubing provides optimal clarity for visual inspection.
- Adhesive-Lined tubing ensures a waterproof seal.
- Wire gauge imprint simplifies wire size identification.

P/N 2924



P/N 2926

P/N 2925

RoHS compliant

17703

17704

WIRE GAUGE	STRIPE COLOR	LENGTH	TYPE	TUBING COLOR	SEAM	PART	
22-18	Red Stripes	1.5"	Window	Clear	Seamless	A	2924
16-14	Blue Stripes	1.5"	Window	Clear	Seamless	A	2925
12-10	Yellow Stripes	1.625"	Window	Clear	Seamless	A	2926

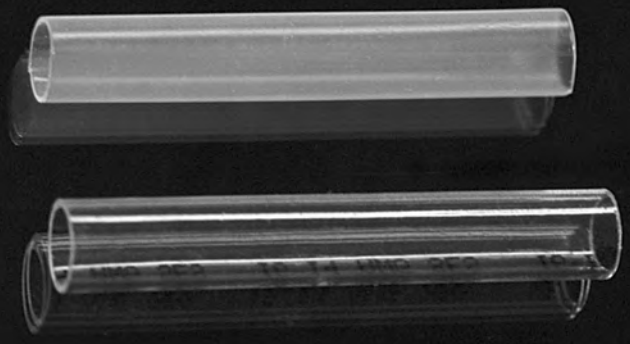
SUPER-CLEAR HEAT SHRINK TUBING

OPTIMAL CLARITY FOR VISUAL INSPECTION

IS YOUR HEAT SHRINK TUBING MILKY CLEAR OR SUPER-CLEAR?

CLEAR
HEAT SHRINK TUBING

SUPER-CLEAR
HEAT SHRINK TUBING



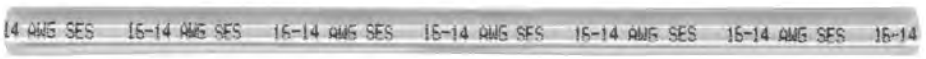
SUPER-CLEAR ADHESIVE-LINED HEAT SHRINK TUBING PROVIDES:

Features and Benefits

- Material: Cross-linked ionic polymer
- Shrink Ratio: Exceeds 2.5 to 1
- Shrink/Recovery Temperature: 194°F (90°C)
- Continuous Operating Temp: -67°F to 257°F (-55°C to 125°C)
- Flammability: Passed (FMVSS 302 test)
- Tensile Strength: 4,000 psi
- Longitudinal Change: +1/-10% Max
- Dielectric Strength: 750 V/Mil (30KV/MM)

P/N 26097

P/N 26098



P/N 26099

RoHS compliant

17703

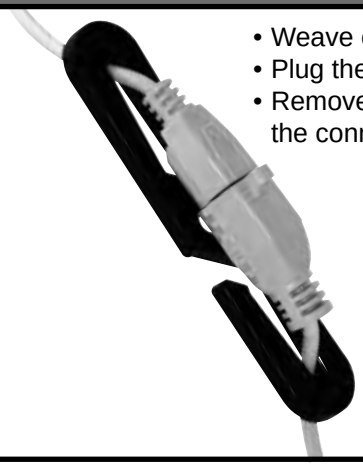
WIRE GAUGE	TUBING COLOR	LENGTH	MINIMUM EXPANDED ID	MAXIMUM RECOVERED ID		PART
22-18	Super-Clear	6"	0.176"	0.045"	A	26097
16-14	Super-Clear	6"	0.250"	0.080"	A	26098
12-10	Super-Clear	6"	0.365"	0.100"	A	26099

CORD MANAGEMENT

CORD "S" LOCK

Keeps Plug Conection In Place...
- **Safely**
- **Easily**

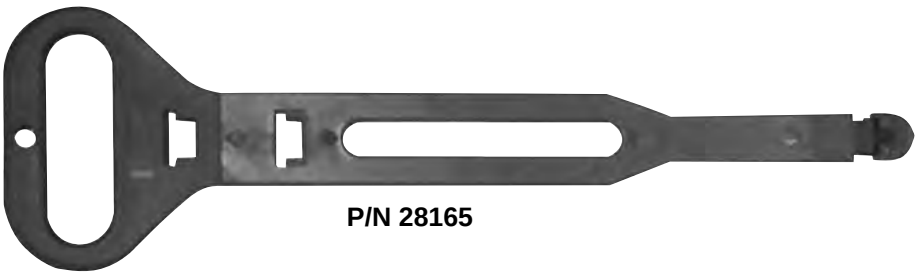
P/N 28164



- Weave each cord end into the “S”
- Plug the ends together
- Remove cord slack to draw the connection tightly together

CORD CARRYING STRAP

Holds Up To 150 ft. 14/3 Cord
- **Easy To Store**
- **Easy Grip**
- **Adjustable**
- **Flexible**



P/N 28165

SIX-2-ONE™ SHRINK TUBING ASSORTMENT

The Four Most Popular Shrink Tubing Sizes

- **A TOTAL OF 13 PIECES/ 13 FEET OF TUBING**
- **LABELED CABINET**
- **EASY IDENTIFICATION**

P/N 17883

FEATURES:

- **BLACK, NON-ADHESIVE LINING PROVIDES A TIGHT GAS, WATER AND ENVIRONMENTAL SEAL**
- **DIELECTRIC STRENGTH OF 500 VOLTS / MIL**
- **COVERS WIRE FROM #14 AWG THROUGH 1000 MCM CABLE**
- **DURABLE SEMI-RIGID BLACK MATERIAL EASILY CONFORMS TO IRREGULAR SURFACE CONFIGURATIONS WHEN SHRUNK**
- **IDEAL FOR REPLACING TORN CABLE JACKETS AND INSULATING CONNECTORS**
- **FITS EASILY OVER AND SEALS LARGE CONNECTIONS ALREADY MADE WITHOUT COMPLETE DISASSEMBLY**
- **FLAME RETARDANT MATERIAL MEETS MIL-I-23053 / 15A SPECS**

SIX-2-ONE™ SHRINK TUBING ASSORTMENT

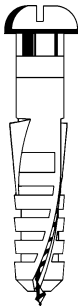
The Four Most Popular Shrink Tubing Sizes

- **A TOTAL OF 13 PIECES/ 13 FEET OF TUBING**
- **LABELED CABINET**
- **EASY IDENTIFICATION**

P/N 17842

FEATURES:

- **BLACK WITH A THERMOPLASTIC ADHESIVE LINING PROVIDING A TIGHT GAS, WATER AND ENVIRONMENTAL SEAL**
- **DIELECTRIC STRENGTH OF 500 VOLTS / MIL**
- **COVERS WIRE FROM #14 AWG THROUGH 1000 MCM CABLE**
- **DURABLE SEMI-RIGID BLACK MATERIAL EASILY CONFORMS TO IRREGULAR SURFACE CONFIGURATIONS WHEN SHRUNK**
- **IDEAL FOR REPLACING TORN CABLE JACKETS AND INSULATING CONNECTORS**
- **FITS EASILY OVER AND SEALS LARGE CONNECTIONS ALREADY MADE WITHOUT COMPLETE DISASSEMBLY**
- **FLAME RETARDANT MATERIAL MEETS MIL-I-23053 / 15A SPECS**



SUPER HOLD ANCHORS

P/N 17849

- Ribbed construction for maximum holding power
- Spiral design keeps screw centered
- Expands equally on all sides for better hold
- Specially designed wings prevent spinning
- Ideal for all masonry applications

QTY	SUPER HOLD ANCHOR SIZE	HOLE SIZE	PART #	PHILLIPS BINDING METAL SCREW	PART #
50	4-6 x 1	3/16	88630	6 x 1-1/4	1512
25	8-10 x 1-1/4	1/4	88631	10 x 1-1/2	1532
15	12-14 x 1-1/2	5/16	88632	14 x 1-3/4	1551

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CHROMATE®
INDUSTRIAL CORP.

NYLON FLANGED ANCHORS PORTA-PAK P/N 17848

3 Sizes of Anchors & Screws • 4-8 x 1" to 12-16 x 1-1/2" Nylon Flanged Anchors • 6 x 1" to 14 x 1-1/2" Phillips Binding Metal Screws

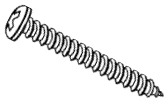
160

8 82503 00680 8

Nylon Flanged Anchor,
4-8 x 1"
3/16" Hole Size
P/N 680

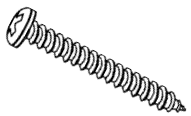
8 82503 01511 4

Phillips Binding
Metal Screws
6 x 1"
P/N 1511



8 82503 01531 2

Phillips Binding
Metal Screws
10 x 1-1/4"
P/N 1531



8 82503 00681 5

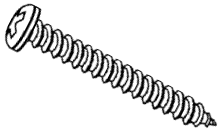
Nylon Flanged Anchor,
8-12 x 1-1/4"
1/4" Hole Size
P/N 681

8 82503 00682 2

Nylon Flanged Anchor,
12-16 x 1-1/2"
5/16" Hole Size
P/N 682

8 82503 01550 3

Phillips Binding
Metal Screws
14 x 1-1/2"
P/N 1550



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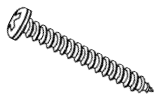
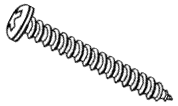
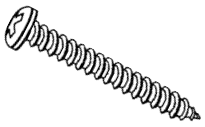
CHROMATE®
INDUSTRIAL CORP.

NYLON FLANGED ANCHORS W/ DRILLS PORTA-PAK P/N 17690

3 Sizes of Anchors, Screws and Drills • 4-8 x 1" to 12-16 x 1-1/2" Nylon Flanged Anchors • 6 x 1" to 14 x 1-1/2" Phillips Binding Metal Screws • 3/16" to 5/16" CIC 200™ Carbide Masonry Drills

8 82503 12083 2

163

8 82503 00680 8	8 82503 77504 9	8 82503 00681 5	8 82503 77509 4	8 82503 00682 2	8 82503 77518 6
Nylon Flanged Anchor, 4-8 x 1" 3/16" Hole Size **P/N 680**		Nylon Flanged Anchor, 8-12 x 1-1/4" 1/4" Hole Size **P/N 681**		Nylon Flanged Anchor, 12-16 x 1-1/2" 5/16" Hole Size **P/N 682**	
8 82503 01511 4		8 82503 01531 2		8 82503 01550 3	
					
Phillips Binding Metal Screws 6 x 1" **P/N 1511**	Carbide Masonry Drill Drill Dia: 3/16" Shank Dia: 3/16" Length: 3-1/2" **P/N 77504**	Phillips Binding Metal Screws 10 x 1-1/4" **P/N 1531**	Carbide Masonry Drill Drill Dia: 1/4" Shank Dia: 4/4" Length: 4" **P/N 77509**	Phillips Binding Metal Screws 14 x 1-1/2" **P/N 1550**	Carbide Masonry Drill Drill Dia: 5/16" Shank Dia: 5/16" Length: 4-3/4" **P/N 77518**

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SUPER-FAST ANCHORS

P/N 17859

- No pre-drilling
- Removable
- Extra deep #2 phillips drive
- Works in 3/8", 1/2" and 5/8" drywall
- Incredibly fast and easy to use

QTY	SUPERFAST ANCHOR	PART #	QTY	PHILLIPS BINDING METAL SCREW	PART #
40	Superfast Mini Anchor	88680	40	6 x 1	1511
20	Superfast Anchor	88650	20	8 x 1-1/4	1521

PLASTIC ANCHORS

P/N 17867

- Use with wood or sheet metal screws
- For light duty fastening in concrete, brick or masonry
- Works in 3/8", 1/2" and 5/8" drywall
- Incredibly fast and easy to use

QTY	PLASTIC ANCHOR SIZE	HOLE SIZE	PART #	PHILLIPS BINDING METAL SCREW	PART #
40	6-10 x 7/8	3/16	5396	8 x 1	1520
25	10-12 x 1	1/4	5397	12 x 1-1/4	1540
14	14-16 x 1-3/8	5/16	5398	14 x 1-1/2	1550

WALL HANGERS

P/N 17868

- Zinc plated steel
- Conveniently packaged with hangers and nails

QTY	WALL HANGER	PART #	QTY	WALL HANGER	PART #
50	10 lb.	88715	50	30 lb.	88717
30	20 lb.	88716	25	50 lb.	88718

SUPERFAST ANCHORS

P/N 19515

Nylon Locking Anchors

- Self-drilling drywall anchor that locks on the wall
- Shock-resistant
- Vibration-resistant
- Positive stop resists overturning
- Can remove screw and item, leaving anchor in wall for reuse

QTY	SUPERFAST ANCHOR	PART #	QTY	PHILLIPS BINDING METAL SCREW	PART #
30	Superfast Anchor (Nylon) Locking	88646	30	8 x 1-1/2	1522

TURBO-DRIVE ANCHORS™

P/N 17930

THE FASTEST ANCHOR ON THE MARKET!

- Installs in wallboard, plywood, concrete, hollow or grout filled block, brick and plaster
- Patented design provides for smooth entry, clean cutting and a powerful hold
- Thread design prevents spinning and stripping
- Heat treated point penetrates metal and wood studs
- Installs quickly and easily with a Phillips screwdriver
- Can be easily backed out

QTY	TURBO-DRIVE ANCHOR	PART #	QTY	TURBO-DRIVE ANCHOR	PART #
40	Pan Head Chrome	88656	40	Pan Head White	88657
20	Oval Head Chrome	88658	20	Oval Head White	88659

WALLBOARD AND PLYWOOD						
ANCHOR DIAMETER IN. (mm)	1/2" WALLBOARD		5/8" WALLBOARD		1/2" PLYWOOD	
	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)
1/4 (6.4)	85 (0.4)	245 (1.1)	135 (0.6)	360 (1.6)	255 (1.1)	600 (2.7)

NORMAL WEIGHT CONCRETE			
ANCHOR DIAMETER IN. (mm)	EMBEDMENT DEPTH IN. (mm)	MINIMUM CONCRETE COMPRES. STRENGTH	
		TENSION LBS. (kN)	SHEAR LBS. (kN)
1/4 (6.4)	3/4 (19.1)	350 (1.6)	1,030 (4.6)
	1 (25.4)	700 (3.2)	1,070 (4.8)

GROUT FILLED AND HOLLOW CONCRETE MASONRY AND STRUCTURAL BRICK MASONRY								
ANCHOR DIAMETER INCHES (mm)	EMBEDMENT DEPTH INCHES (mm)	ANCHOR LOCATION	GROUT FILLED CMU ASTM C-90 BLOCK		HOLLOW CMU ASTM C-90 BLOCK		STRUCTURAL BRICK MASONRY FM > 1500 psi (10.3 MPa)	
			TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)
1/4 (6.4)	3/4 (19.1)	Center of Masonry Unit	–	–	–	–	400 (1.8)	650 (2.9)
	3/4 (19.1)	T-Joint	–	–	–	–	350 (1.6)	600 (2.7)
	1 (25.4)	Center of Masonry Unit	285 (1.3)	825 (3.7)	305 (1.4)	825 (3.7)	600 (2.7)	900 (4.1)
	1 (25.4)	T-Joint	290 (1.3)	915 (4.1)	290 (1.3)	915 (4.1)	380 (1.7)	825 (3.7)

ANCHORS

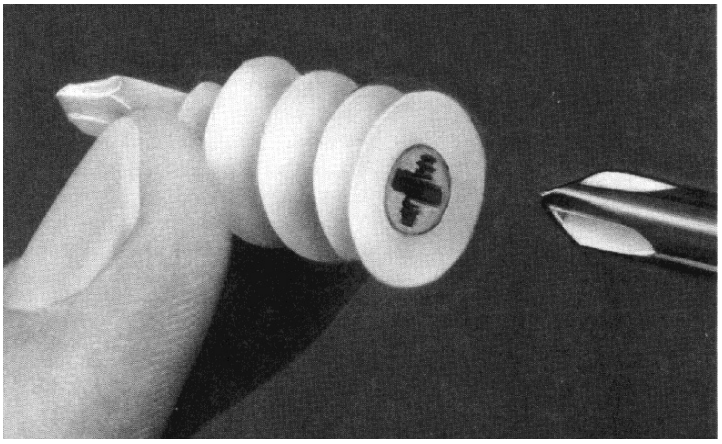
- **Hollow Wall, Masonry and Multi-Purpose Anchors**
- **Anchors for Super Fast Installations**
- **ANKA Bolts**
  - **Stainless Steel Wedge Expansion Anchors**
  - **Stud Anchors**
  - **Sleeve Anchors**
- **Expansion Shields**
- **Cement Screws**
- **Cement Bolt Anchors**
- **Specialty Anchors**
- **Maximum Working Loads, Tension, Shear and "Pull-Out" Values**

CHROMATE ANCHORS ARE UNIQUELY DESIGNED FOR SUPER FAST INSTALLATION AND MAXIMUM WORKING LOAD. **Always use Chromate Anchors for all your wall, floor and ceiling anchoring applications.**

HOLLOW WALL ANCHORS

CIC 200™ SUPERFAST™ ANCHORS

The SuperFast Anchor can be installed in seconds with a phillips screwdriver. A drill motor or screw gun will set them even faster!



The SUPERFAST Wall Anchor can be installed directly into drywall, and a fixture attached, in less than one minute. There is no need to pre-drill a hole as the anchor's unique self-drilling point allows you to drill and install in one easy step.

DESCRIPTION		PART
CIC 200 SUPERFAST ANCHOR – Zinc	T	88650
CIC 200 SUPERFAST ANCHOR – Nylon	T	88645
CIC 200 SUPERFAST ANCHOR – Nylon Locking	T	88646*
CIC 200 SUPERFAST ANCHOR – Zinc Flat Blade	T	88640
CIC 200 SUPERFAST "MINI" – Zinc	U	88680
CIC 200 SUPERFAST "MINI" – Nylon	U	88675

LOAD CAPACITY FOR SUPERFAST ANCHORS

	PULLOUT			SHEAR		
	3/8"	1/2"	5/8"	3/8"	1/2"	5/8"
88675	25	30	40	80	90	120
88680	30	40	50	90	110	140
88650 88645	40	50	75	135	150	200
88646	58	79	135	–	–	–

Note: Values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 4 or greater to determine allowable working load.

FEATURES:

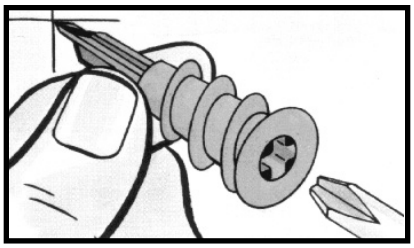
- No pre-drilling
- Removable
- Extra deep #2 phillips drive
- Works in 3/8", 1/2" and 5/8" drywall
- Installs with screwdriver or screw gun
- Use with #6, 8, 10 or 12 metal screws (not included with anchors)

SuperFast Nylon Locking Anchor*

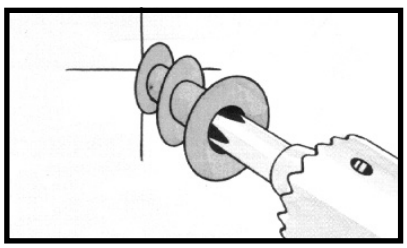
- Self-drilling drywall anchor that locks on the wall
- Shock-resistant
- Vibration-resistant
- Positive stop resists overturning
- Can remove screw and item, leaving anchor in wall for reuse

APPLICATIONS:

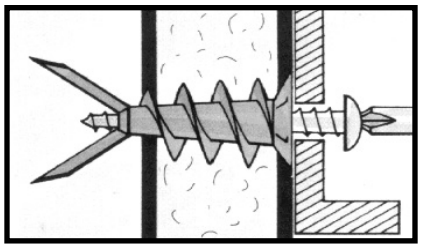
- Mirrors
- Shelving and Supports
- Picture Frames
- Brackets
- Bulletin Boards
- Plaques and Awards
- Bathroom Accessories
- Signs
- Curtain Rods
- Thermostats
- Closet Organizers
- Coat Racks



1. POSITION ANCHOR



2. DRIVE ANCHOR



3. POSITION SCREW AND TIGHTEN

RECOMMENDED PHILLIPS BINDING HEAD SCREWS

FOR STANDARD SUPERFAST ANCHOR						FOR "MINI" SUPERFAST ANCHOR					
SIZE		PART	SIZE		PART	SIZE		PART	SIZE		PART
8 x 1	T	1520	8 x 1-1/2*	R	1522	6 x 3/4	T	1509*	6 x 1-1/2	T	1512
8 x 1-1/4*	R	1521	8 x 2	R	1524	6 x 1	T	1511*	6 x 1-3/4	T	1513

* Most common sizes

HOLLOW WALL ANCHORS

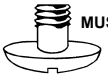
SCREW TYPE TOGGLE BOLT ANCHORS

COMBO ROUND HEAD AND MUSHROOM HEAD

- **PHILLIPS/SLOTTED COMBO ROUND HEAD FOR FAST AND EASY ASSEMBLY**
- **DIE CAST TRUNION NUT HAS MORE THREADS THAN STANDARD TOGGLE – MAKING IT STRONGER AND MORE RELIABLE**
- **UNIQUE DESIGN PROVIDES GREATER STRENGTH**
- **CORROSION RESISTANT FINISH**

Screws Also Sold Separately (See page 15.3 or 15.2 for 5/16, 3/8 and 1/2 Diameter)

COMBO ROUND HEAD



MUSHROOM HEAD

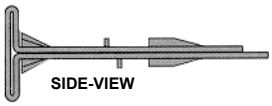
APPLICATIONS:
- **Drop Ceilings**
- **Furring Strips**
- **Drapery Hardware**
- **Telephone Equipment**
- **Lighting Fixtures**
- **Metal Trim**
- **Handrails**
- **Fire & Burglar Alarms**

LENGTH	1/8 DIA. 3/8 HOLE		3/16 DIA. 1/2 HOLE		1/4 DIA. 5/8 HOLE		5/16 DIA. 7/8 HOLE	3/8 DIA. 7/8 HOLE	1/2 DIA. 1-1/4 HOLE
	ROUND	MUSHROOM	ROUND	MUSHROOM	ROUND	MUSHROOM	ROUND	ROUND	ROUND
2	N 815	R 10815	N 818	N 10818	-	-	-	-	-
3	N 816	R 10816	N 819	N 10819	N 823	N 10823	N 827	I 831	-
4	N 817	R 10817	N 820	N 10820	N 824	N 10824	I 828	I 832	E 835*
5	-	-	N 821	-	N 825	-	I 829	I 833	E 836*
6	-	-	N 822	-	N 826	-	I 830	I 834	E 837*
WINGS	T 2986	T 2986	R 2987	R 2987	R 2988	R 2988	N 2989	N 2990	I 2991

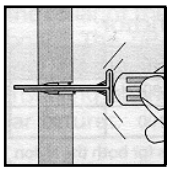
**Slotted Only*

HOLLOW WALL ANCHORS

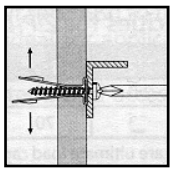
TAP-IN™ HOLLOW WALL ANCHOR



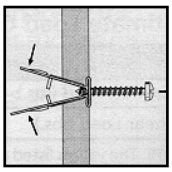
- **FAST, EASY TO USE EXPANSION ANCHOR**
- **USE WITH #6 OR #8 SCREW**
- **AS THE SCREW ENTERS THE ANCHOR, IT ENGAGES THE PRE-FORMED TABS ON EACH SIDE CAUSING THEM TO EXPAND OUTWARDS INTO THE BASE MATERIAL**
- **EASY REMOVAL LEAVES ONLY A SMALL SLIT IN THE WALLBOARD**
- **ANCHOR LIGHTWEIGHT FIXTURES, SUPPORTS AND ACCESSORIES TO WALLBOARD WITHOUT PRE-DRILLING**



1. Place tip of anchor against face of wall-board and tap in with hammer or back of screwdriver until the flange is seated flush against the wallboard.



2. Locate fixture and insert a #6 or #8 sheet metal screw through the fixture hole into the installed anchor. Tighten screw until fixture is securely seated against base material and anchor is fully expanded.



3. To remove, insert the screw into the anchor one turn. Pull on the screw to slide the anchor out of the slit in face of the wallboard.

DESCRIPTION		PART
Tap-In™ Hollow Wall Anchor	R	88708

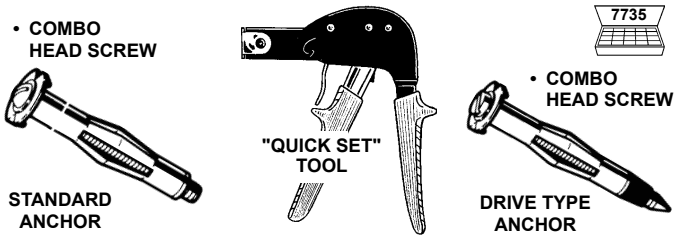
RECOMMENDED PHILLIPS BINDING HEAD SCREWS

SIZE		PART	SIZE		PART	SIZE		PART	SIZE		PART
8 x 1	T	1520	8 x 1-1/2*	R	1522	6 x 3/4	T	1509*	6 x 1-1/2	T	1512
8 x 1-1/4*	R	1521	8 x 2	R	1524	6 x 1	T	1511*	6 x 1-3/4	T	1513

* Most common sizes

21

SCREW TYPE ANCHORS



STANDARD HOLLOW WALL ANCHOR

SIZE	GRIP	HOLE SIZE		PART
1/8-XS	up to 1/4	5/16	R	5969
1/8-S	1/8 — 5/8	5/16	R	5970
1/8-L	5/8 — 1-1/4	5/16	R	5971
1/8-XL	1-1/4 — 1-3/4	5/16	R	5972
3/16-S	1/8 — 5/8	7/16	R	5973
3/16-L	5/8 — 1-1/4	7/16	N	5974
3/16-XL	1-1/4 — 1-3/4	7/16	N	5975
1/4-S	1/8 — 5/8	1/2	N	5976
1/4-L	5/8 — 1-1/4	1/2	N	5977
1/4-XL	1-1/4 — 1-3/4	1/2	N	5978

DRIVE TYPE ANCHOR

1/8-SDR	1/8 — 5/8	N/A	R	5967
1/8-LDR	5/8 — 1-1/4	N/A	R	5968

"QUICK SET" TOOL

Quick Set" Tool	A	5986

WALL HANGERS

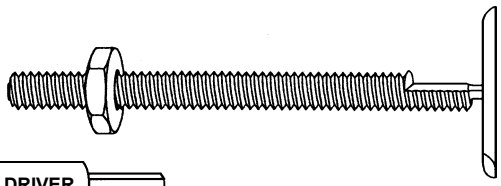
- **ZINC PLATED STEEL**
- **FIVE DIFFERENT SIZES**
- **CONVENIENTLY PACKAGED WITH HANGERS AND NAILS**

DESCRIPTION		PART
10 lb. Wall Hanger	T	88715
20 lb. Wall Hanger	T	88716
30 lb. Wall Hanger	T	88717
50 lb. Wall Hanger	T	88718
100 lb. Wall Hanger	T	88719

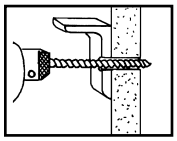
PLASTIC HOLLOW WALL ANCHORS

ZIP-QUICK™ ANCHORS

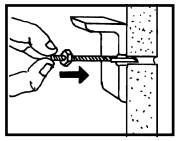
- ELIMINATES BIG HOLES
- EASY TO INSTALL
- EASY TO REMOVE



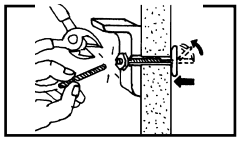
ZIP-QUICK™ SPEED DRIVER



1. Position item to be fastened and drill hole.



2. Fold cross-piece flat against stem and slide anchor through the hole. (Note: start nut before inserting).

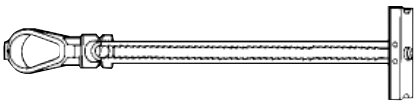


3. Once through hole, crosspiece will spring back to original position. Pull Zip-Quick™ back (making sure threads are clean) and hand-tighten the nut using Zip-Quick™ Speed Driver. Trim excess or leave stub.

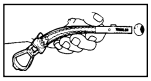
- ZIP-QUICK™ SPEED DRIVER QUICKLY COMPLETES INSTALLATION WITH A CORDLESS SCREWDRIVER OR DRILL. WILL SLIP AND RELEASE WHEN PROPER TORQUE HAS BEEN APPLIED.

DESCRIPTION	SIZE	PART	RECOMMENDED DRILLS, NUTS AND WASHERS											
			DRILL		HEX NUT		WING NUT		KEPNUT		S/SNUT		WASHER	
Zip-Quick™ Anchor	10-24 x 2"	T 88685	C	91012	T	5210	T	5142	T	6908	T	14338	U	31238
Zip-Quick™ Speed Driver	10-24 x 3"	D 88700												
Zip-Quick™ Anchor	1/4-20 x 3"	R 88690	C	91016	T	52300	R	5145	T	6914	T	14300	T	31240
Zip-Quick™ Speed Driver	1/4-20 x 4"	D 88705												

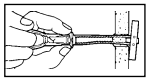
MULTI-TOGGLE ANCHORS



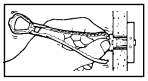
- INSTALLS IN SECONDS
- WORKS IN WALLS 3/8" TO 2-1/2" THICK
- BOLT CAN BE REMOVED WITHOUT LOSING ANCHOR BEHIND WALL



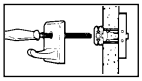
1. Insert in hole



2. Pull ring & push cap to wall



3. Snap off straps

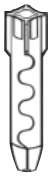


4. Ready to install

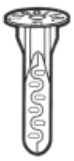
SIZE	HOLE SIZE	PART
1/8 (6-32)	3/8	R 5389
3/16 (10-24)	1/2	R 5390
1/4-20	1/2	R 5391
3/8-16	3/4	I 5399

ALLIGATOR ANCHORS

- LAYOUT OR HOLE-SPOTTING IS ELIMINATED – CAN BE DRILLED AND SET WITH FIXTURE IN PLACE
- WORKS IN ANY BUILDING MATERIAL: CONCRETE, BRICK, BLOCK, MASONRY, STUCCO, PLASTER, STONE, TILE, WOOD, DRYWALL
- WORKS WITH DIFFERENT SCREW SIZES FOR HIGHEST HOLDING POWER WITHOUT CRACKING WALL
- HOLDS MORE THAN METAL ANCHORS 2 TIMES THE DIAMETER
- VIBRATION PROOF – MANUFACTURED OF SPECIAL CORROSION-PROOF POLYMER THAT ABSORBS SHOCK
- CAN BE USED WITH SCREWS OF THE SAME SIZE DIAMETER IN HIGH STRENGTH SUBSTRATES PROVIDING EXTREME HEAVY-DUTY HOLDING POWER
- ANTI-ROTATION FINS WEDGE THE ANCHOR IN PLACE TO PREVENT SINKING AND SPINNING DURING INSTALLATION



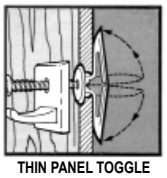
FLANGELESS



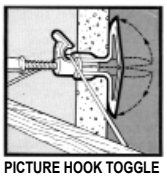
FLANGED

SIZE	SCREW SIZE	HOLE SIZE	PART
3/16 Flangeless	#4 - #10	3/16	T 5372
1/4 Flangeless	#6 - #14	1/4	R 5373
5/16 Flangeless	#6 - 5/16	5/16	R 5374
3/8 Flangeless	#10 - 3/8	3/8	N 5375
3/16 Flanged	#4 - #10	3/16	T 5376
1/4 Flanged	#6 - #14	1/4	R 5377
5/16 Flanged	#6 - 5/16	5/16	R 5378

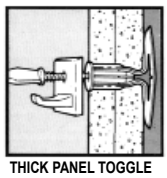
BUTTER-FLY TOGGLE ANCHORS



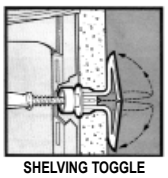
THIN PANEL TOGGLE
P/Ns 5381-3



PICTURE HOOK TOGGLE
P/N 5384

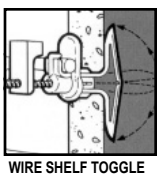


THICK PANEL TOGGLE
P/Ns 5385-7

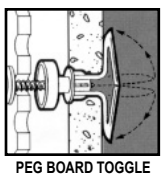


SHELVING TOGGLE
P/N 5388

WIRE HARNESS TOGGLE
P/Ns 5393 & 5394



WIRE SHELF TOGGLE
P/N 5380



PEG BOARD TOGGLE
P/N 5379

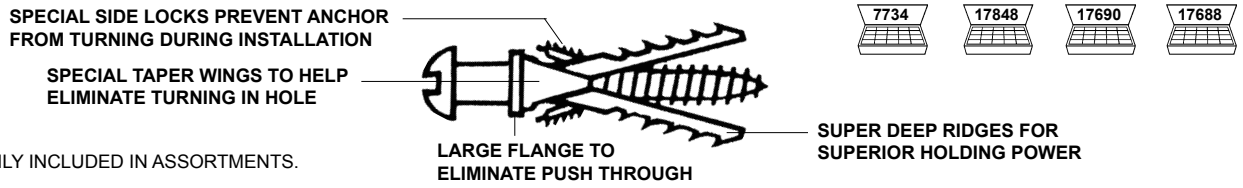
- FASTENS IN DRYWALL, PANELING, TILE AND CONCRETE
- HOLDS UP TO 590 LBS.
- ACCEPTS SCREWS NO. 6 - NO. 14

DRILL	SCREW LTH.	WALL THICK	PART	DRILL	SCREW LTH.	WALL THICK	PART
5/16	3/4	1/8 - 1/4	R 5381	5/16	2-1/2	1-1/2+	R 5387
5/16	1-1/4	3/8-1/2	R 5382	5/16	1-1/4	3/8 - 1/2	R 5388
5/16	1-1/4	5/8-3/4	R 5383	5/16	1-1/4	3/8 - 1/2	R 5393
5/16	1-1/4	3/8-1/2	R 5384	5/16	1-1/4	5/8 - 3/4	N 5394
5/16	1-3/4	1/2-1	R 5385	5/16	1-3/4	3/8 - 1/2	R 5379
5/16	2-1/4	1-3/8+	R 5386	5/16	1-3/4	3/8 - 1/2	N 5380

NOTE: See Metal Screw Section for recommended screws.

PLASTIC HOLLOW WALL ANCHORS

NYLON FLANGED ANCHORS

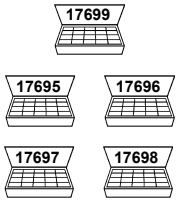


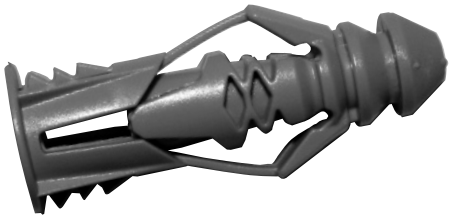
NOTE: SCREWS ONLY INCLUDED IN ASSORTMENTS.

SIZE	DRILL PART	HOLE SIZE		PART	SIZE	DRILL PART	HOLE SIZE		PART
6-8 x 1	91012*	3/16	T	680	12-14 x 1-1/2	91020*	5/16	T	682
8-10 x 1-1/4	91016*	1/4	T	681	*These drills for use on plywood & drywall only. Use P/Ns 77504, 77509 & 77518 for masonry.				

TRIPLE-GRIP™ ANCHORS

The most technologically advanced anchor on the market. Designed with two expandable wings that grip tightly behind drywall for maximum holding power. Advanced cam action technology that expands inside the drywall to give more stability and strength. Two lateral wings hold the anchor in place, preventing any rotation while the screw is inserted.

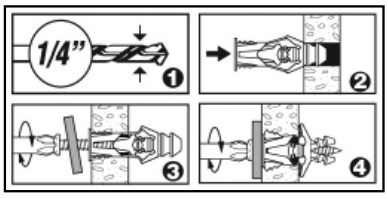




FEATURES
- Easy to install
- Superior holding power
- Expandable wings grip tightly behind drywall
- Lateral wings hold anchor in place
- Cam action expands inside drywall

APPLICATIONS
- Electrical Panels
- Shelving / Drapes / Blinds
- Wall-Mounted Organizers
- Metal Plates / Signs
- For Use On Drywall, Plaster, Brick, Concrete, Ceramic Tile

INSTALLATION
1. Drill the appropriate drill size hole into dry wall/wallboard, brick or concrete.
2. Insert the Triple-Grip™ Anchor into the hole.
3. Insert the screw through the object you need to affix and screw into the Triple-Grip™.
4. Turn clockwise until a firm resistance.



LOAD CAPACITIES

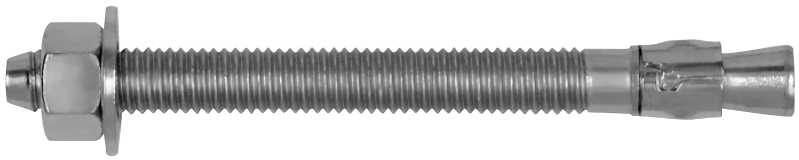
	Material	Size	Material	Drill Size	PULL MAX lbs	PULL SAFE lbs	SHEAR MAX lbs	SHEAR SAFE lbs	PULL MAX kg	PULL SAFE kg	SHEAR MAX kg	SHEAR SAFE kg
3/8	Drywall 3/8 Wallboard 10 mm	# 6 (Beige) - 3.5mm	Polyethylene	1/4"	32	16	52	26	15	7	24	12
		# 8 (Grey) - 4mm	Polyethylene	1/4"	35	18	60	30	16	8	27	14
		# 10 (Blue) - 5mm	Polyethylene	5/16"	45	23	75	38	20	10	34	17
		# 12 (Green) - 6mm	Polyethylene	3/8"	60	30	90	45	27	14	41	20
1/2	Drywall 1/2 Wallboard 13 mm	# 6 (Beige) - 3.5mm	Polyethylene	1/4"	36	18	58	29	16	8	26	13
		# 8 (Grey) - 4mm	Polyethylene	1/4"	42	21	70	35	19	10	32	16
		# 10 (Blue) - 5mm	Polyethylene	5/16"	58	29	92	46	26	13	42	21
		# 12 (Green) - 6mm	Polyethylene	3/8"	74	37	121	61	34	17	55	27
5/8	Drywall 5/8 Wallboard 16 mm	# 6 (Beige) - 3.5mm	Polyethylene	1/4"	60	30	91	46	27	14	41	21
		# 8 (Grey) - 4mm	Polyethylene	1/4"	64	32	102	51	29	15	46	23
		# 10 (Blue) - 5mm	Polyethylene	5/16"	88	44	154	77	40	20	70	35
		# 12 (Green) - 6mm	Polyethylene	3/8"	132	66	204	102	60	30	93	46
	Concrete 3000 PSI	# 6 (Beige) - 3.5mm	Polyethylene	1/4"	240	120	400	200	109	54	181	91
		# 8 (Grey) - 4mm	Polyethylene	1/4"	275	138	500	250	125	62	227	113
		# 10 (Blue) - 5mm	Polyethylene	5/16"	400	200	800	400	181	91	363	181
		# 12 (Green) - 6mm	Polyethylene	3/8"	500	250	900	450	227	113	408	204

SIZE	DRILL DIAMETER	HOLDING POWER IN DRYWALL	COLOR		PART
#6	1/4"	Up to 110 lbs.	Beige	T	88636
#8	1/4"	Up to 115 lbs.	Grey	T	88637
#10	5/16"	Up to 150 lbs.	Blue	T	88638
#12	3/8"	Up to 200 lbs.	Green	T	88639

CIC 200™ ANKA BOLTS – STAINLESS STEEL

WEDGE EXPANSION ANCHORS – FULLY THREADED, TORQUE-CONTROLLED

CIC 200 Stainless Steel ANKA Bolts are suitable for applications in solid concrete or grout-filled concrete masonry. Produced in stainless steel to offer various levels of corrosion resistance depending on use.



ANCHOR SIZE RANGE
• 1/4" to 1" diameter

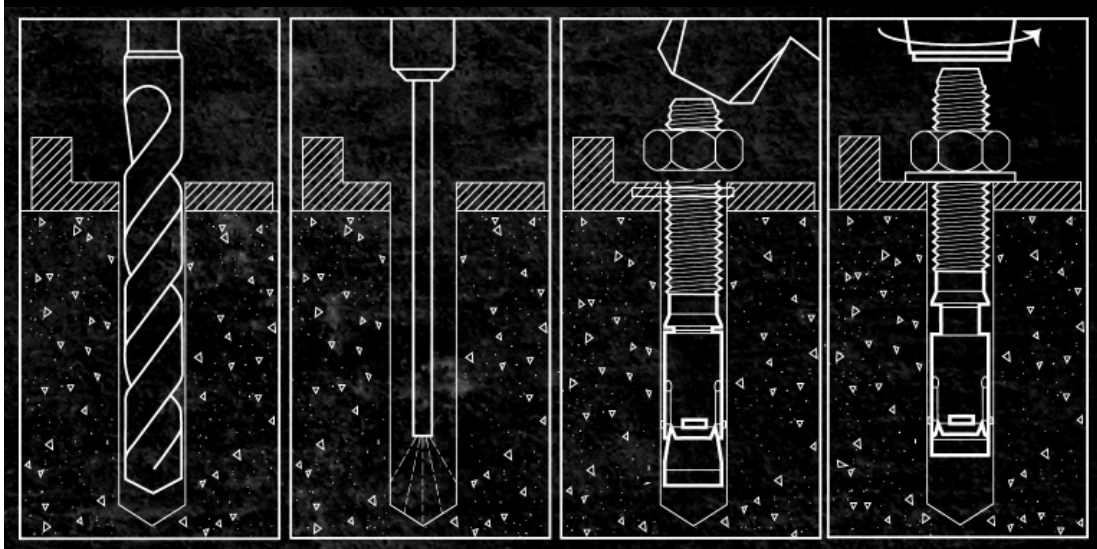
GENERAL APPLICATIONS AND USES
• Lighting standards and base plates
• Sills and support ledgers
• Retrofit projects and machinery anchorage
• Food and beverage facilities
• Water treatment plants and marine applications

FEATURES AND BENEFITS
• Fully threaded, medium duty all-purpose anchor
• Anchors can be installed through the fixture for hole spotting not required
• Chamfered impact section prevents damage to threads
• Clip design prevents spinning during installation
• Nominal drill bit diameter same as anchor diameter

APPROVALS AND LISTINGS
• Tested in accordance with ASTM E488 and AC01 criteria
• FM Global (Factory Mutual) – File No. J.I. OK3A9.AH
• Underwriters Laboratory (UL Listed) – File No. EX1289
• Federal GSA Specification
  - Meets the descriptive and proof load requirements of CID A-A-1923A, Type 4

MATERIAL SPECIFICATIONS
• **Anchor Body:**
  - Type 304Cu (1/4" – 3/4", lengths up to 7")
  - Type 304 (7/8" – 1", lengths over 7")
• **Nut:** Type 18-8 (300 Series) Stainless Steel
• **Washer:** Type 18-8 (300 Series) Stainless Steel
• **Expansion Wedge:** Type 304 Stainless Steel

INSTALLATION INSTRUCTIONS



1.) Using the proper drill bit size, drill a hole into the base material to the required depth. The tolerances of the drill bit used should meet the requirements of ANSI Standard B212.15.

2.) Remove dust and debris from the hole using a hand pump, compressed air or a vacuum to remove loose particles left from drilling.

3.) Position the supplied washer on the anchor and thread on the supplied nut. If installing through a fixture, drive the anchor through the fixture into the hole. Be sure the anchor is driven to the minimum required embedment depth,

4.) Tighten the anchor with a torque wrench by applying the required installation torque, $T_{inst.}$

NOTE: See Section 23 for Masonry Drills.

CIC 200™ ANKA BOLTS – STAINLESS STEEL

PART NUMBERS / ANCHOR SIZES / MIN. EMBED. THREAD LENGTHS / FM APPROVAL OR UL LISTING

Part Number		Anchor Size	Min. Embed.	Thread Length	FM or UL	Part Number		Anchor Size	Min. Embed.	Thread Length	FM or UL
77900	I	1/4" x 1-3/4"	1-1/8"	3/4"	–	77912	A	5/8" x 5"	2-3/4"	3-1/2"	UL
77901	I	1/4" x 2-1/4"	1-1/8"	1-1/4"	–	77913	A	5/8" x 6"	2-3/4"	4-1/2"	FM/UL
77902	I	1/4" x 3-1/4"	1-1/8"	2-1/4"	–	***77921***	A	5/8" x 7"	2-3/4"	5-1/2"	UL
77917	E	3/8" x 2-1/4"	1-5/8"	1-1/4"	FM/UL	***77922***	A	5/8" x 8-1/2"	2-3/4"	7"	UL
77903	E	3/8" x 2-3/4"	1-5/8"	1-5/8"	FM/UL	77914	A	3/4" x 4-1/4"	3-3/8"	2-3/8"	UL
77918	E	3/8" x 3"	1-5/8"	1-7/8"	UL	***77923***	A	3/4" x 4-3/4"	3-3/8"	2-7/8"	UL
77919	E	3/8" x 3-1/2"	1-5/8"	2-3/8"	FM/UL	77915	A	3/4" x 5-1/2"	3-3/8"	3-5/8"	FM/UL
77904	E	3/8" x 3-3/4"	1-5/8"	2-5/8"	UL	***77916***	A	3/4" x 6-1/4"	3-3/8"	4-3/8"	UL
77905	E	3/8" x 5"	1-5/8"	3-1/8"	UL	***77924***	A	3/4" x 7"	3-3/8"	5-1/8"	UL
77906	A	1/2" x 2-3/4"	2-1/4"	1-3/8"	FM/UL	***77925***	A	3/4" x 8-1/2"	3-3/8"	6-5/8"	UL
77907	A	1/2" x 3-3/4"	2-1/4"	2-3/8"	FM/UL	***77926***	A	3/4" x 10"	3-3/8"	8-1/8"	UL
77908	A	1/2" x 4-1/2"	2-1/4"	3-1/8"	UL	***77927***	I	7/8" x 8"	3-7/8"	4-3/4"	UL
77909	A	1/2" x 5-1/2"	2-1/4"	4-1/8"	FM/UL	***77928***	I	1" x 6"	4-1/2"	2-3/8"	–
77920	A	1/2" x 7"	2-1/4"	5-5/8"	FM/UL	***77929***	I	1" x 9"	4-1/2"	5-3/8"	–
77910	A	5/8" x 3-1/2"	2-3/4"	2"	FM/UL	***77930***	E	1" x 12"	4-1/2"	8-3/8"	–
77911	A	5/8" x 4-1/2"	2-3/4"	3"	FM/UL	–		–	–	–	–

The published length is the overall length of the anchor. Allow for fixture thickness plus one anchor diameter for the nut and washer thickness when selecting a length.

FM - Factory Mutual Approved
UL - Underwriters Laboratories Listed

Note: Bold italic font (on part number designation) indicates non-stock item. Please call for delivery.

ULTIMATE LOAD CAPACITIES FOR STAINLESS STEEL ANKA BOLTS IN NORMAL-WEIGHT CONCRETE[1, 2]

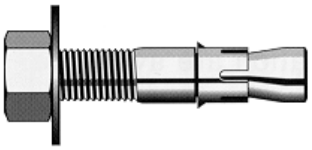
Anchor Dia. (in.)	Min. Embedment Depth (in.)	Tightening Torque (ft/lb)	Minimum Concrete Compressive Strength (f'_c)					
			2000 psi		4000 psi		6000 psi	
			Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)	Tension (lbs.)	Shear (lbs.)
1/4	1-1/8	8	1,240	1,580	1,440	1,620	1,740	1,620
	1-1/2	8	1,635	1,580	2,080	1,620	2,100	1,620
	2	8	1,900	1,580	2,080	1,620	2,100	1,620
3/8	1-5/8	28	1,920	3,560	3,040	3,760	3,040	3,760
	2	28	2,800	3,560	3,850	3,760	4,075	3,760
	3	28	4,100	3,560	4,200	3,760	4,200	3,760
1/2	2-1/4	60	3,440	6,540	5,560	6,800	6,540	6,800
	3	60	5,100	6,540	6,540	6,800	6,540	6,800
	4	60	5,700	6,540	6,540	6,800	6,540	6,800
5/8	2-3/4	90	6,240	9,280	8,300	11,900	8,860	11,900
	4	90	7,125	9,280	9,000	11,900	9,000	11,900
3/4	3-3/8	175	7,420	12,380	9,500	15,060	10,250	15,060
	5	175	10,640	12,380	10,640	15,060	10,640	15,060
7/8	3-7/8	250	7,600	17,960	12,300	24,160	12,500	24,160
	4-1/2	250	9,600	17,960	12,500	24,160	12,500	24,160
	5-3/4	250	10,640	17,960	12,500	24,160	12,500	24,160
1	4-1/2	300	8,740	26,420	13,820	31,100	17,125	31,100
	5-1/2	300	12,770	26,420	17,125	31,100	17,125	31,100
	6-1/2	300	16,605	26,420	17,125	31,000	17,125	31,100

1. Tabulated load values are for anchors installed in concrete. Concrete compressive strength must be at the specified minimum at the time of installation.
2. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working load. Consideration of safety factors of 10 or higher may be necessary depending upon the application such as life safety or overhead.

CIC 200™ ANKA BOLTS – CARBON STEEL

STUD ANCHOR

- **USED FOR HEAVY DUTY FASTENING APPLICATIONS WHERE HIGH PULLOUT VALUES ARE REQUIRED**
- **FULL BODY DIAMETER – NO NEED TO REPOSITION EQUIPMENT**
- **UNIVERSAL STYLE COLLAR**
- **LISTED OR APPROVED BY: ICBO ES, COLA, DADE COUNTY**



NOTE: See Section 23 for Masonry Drills.

ANCHOR & DRILL SIZE	THREAD LENGTH	MIN. HOLE DEPTH		PART	ANCHOR & DRILL SIZE	THREAD LENGTH	MIN. HOLE DEPTH		PART
1/4 x 1-3/4	3/4	1-1/8	N	77601	5/8 x 5	2	3-3/4	E	77622
1/4 x 2-1/4	3/4	1-1/8	N	77602	5/8 x 6	2	3-3/4	E	77625
1/4 x 3-1/4	3/4	1-1/8	N	77603	5/8 x 8-1/2	2	3-3/4	E	77627
5/16 x 2	7/8	1-1/2	N	77609	3/4 x 4-1/4	2	3-1/4	E	77630
5/16 x 2-3/4	1-1/8	1-1/2	N	77612	3/4 x 5-1/2	2	3-1/4	B	77635
5/16 x 3-3/4	1-1/8	1-1/2	I	77613	3/4 x 6-1/4	2	3-1/4	E	77637
5/16 x 5	1-1/8	1-1/2	I	77614	3/4 x 7	2	3-1/4	B	77640
3/8 x 2-1/4	7/8	1-1/2	N	77604	3/4 x 8-1/2	2	3-1/4	B	77645
3/8 x 2-3/4	1-1/8	1-1/2	I	77606	3/4 x 10	2	3-1/4	B	77650
3/8 x 3-3/4	1-1/8	1-1/2	I	77607	7/8 x 6	2	3-1/4	A	77651
3/8 x 5	1-1/8	1-1/2	I	77608	7/8 x 8	2	3-1/4	A	77652
1/2 x 2-3/4	1-1/4	2-1/4	I	77600	7/8 x 10	2	3-1/4	A	77653
1/2 x 3-3/4	1-1/4	2-1/4	I	77605	1 x 6	2	4-1/2	A	77655
1/2 x 4-1/2	1-1/4	2-1/4	E	77616	1 x 9	2	4-1/2	A	77660
1/2 x 5-1/2	1-1/4	2-1/4	E	77610	1 x 12	2	4-1/2	A	77665
1/2 x 7	1-1/4	2-1/4	E	77611	1-1/4 x 9	2	4-1/2	A	77670
5/8 x 3-1/2	2	3-3/4	E	77615	1-1/4 x 12	2	4-1/2	A	77675
5/8 x 4-1/2	3	3-3/4	E	77620	–	–	–		–

ULTIMATE LOAD CAPACITIES IN NORMAL-WEIGHT CONCRETE[1,2]

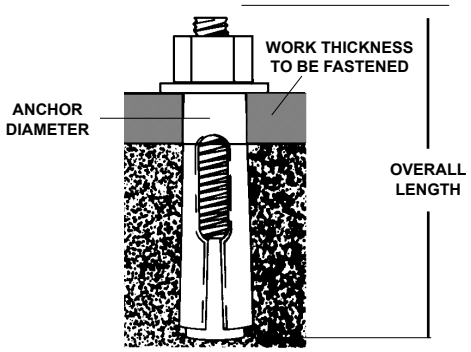
ANCHOR DIA. (in.)	EMBEDMENT DEPTH (in.)	TORQUE (ft/lb)	2000 psi		4000 psi		6000 psi	
			TENSION (lbs.)	SHEAR (lbs.)	TENSION (lbs.)	SHEAR (lbs.)	TENSION (lbs.)	SHEAR (lbs.)
1/4	1-1/8	5-10	1170	1445	1770	1815	2775	2635
	1-3/4		1840	1445	2410	1815	2775	2635
	2-3/4		1975	1445	2750	1815	2830	2635
3/8	1-1/2	25-30	1630	4320	3640	5120	4450	6235
	3		3230	4320	5655	5120	5975	6235
	5		4075	4320	6330	5120	6360	6235
1/2	2-1/4	50-60	4000	7420	6715	9380	9615	9890
	4		6335	7420	8945	9380	10190	9890
	6		6900	7420	10175	9380	12065	9890
5/8	3-3/4	75-90	5000	8265	8750	12930	9760	16375
	5		8855	8265	15590	12930	16800	16375
	7		9380	8265	16710	12930	17735	16375
3/4	3-1/4	150-175	6640	12505	11315	17050	16230	22965
	6		10085	12505	18410	17050	21090	22965
	8		11170	12505	19805	17050	22525	22965
7/8	3-7/8	200-250	8395	18250	16355	20235	16800	23980
	5-3/4		12065	18250	18250	20235	23405	23980
	8-3/4		12785	18250	16850	20235	25575	23980
1	4-1/2	250-300	9775	23620	18250	27605	27460	28910
	7-1/2		11890	23620	26725	27605	34960	28910
	10		15590	23620	30490	27605	37840	28910
1-1/4	5-1/2	400-450	17550	32275	22970	42690	32370	55565
	7		21050	32275	27845	42690	48365	55565
	10		27895	32275	34790	42690	61270	55565

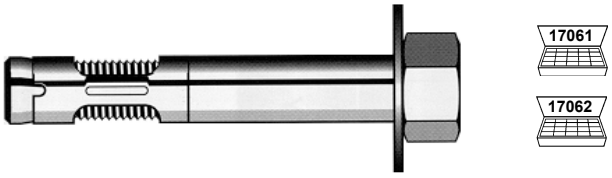
1. Tabulated load values are for anchors installed in uncracked concrete with no edge or spacing considerations. Concrete compressive strength must be at the specified minimum at the time of installation.
2. Ultimate load capacities must be reduced by a minimum safety factor of 4.0 or greater to determine allowable working loads.

CIC 200™ ANKA BOLTS

SLEEVE ANCHORS – HIGH STRENGTH, MULTI-PURPOSE

- **THE STRONGEST MOST VERSATILE ANCHORING DEVICE AVAILABLE FOR SOLID OR HOLLOW MASONRY MATERIALS**





- **FOR USE IN FOUNDATIONS, FLOORS, WALLS, CEILINGS, CONCRETE BLOCK, STONE, TILE, BRICK AND MARBLE**
- **GIVES MAXIMUM HOLDING POWER**
- **PRE-ASSEMBLED – READY-TO-USE**
- **NO NEED TO REPOSITION EQUIPMENT – JUST DRILL AND INSTALL**
- **TRUE EXPANSION PRINCIPLE – THE HEAVIER THE LOAD, THE HARDER THEY HOLD**
- **SLEEVE BECOMES A FACTOR IN A SHEAR LOAD APPLICATION – IT PROVIDES INCREASED STRENGTH IN ADDITION TO ANCHOR'S BOLT**

ANCHOR & DRILL SIZE	MIN. HOLE DEPTH	FASTENS MATERIAL		PART	ANCHOR & DRILL SIZE	MIN. HOLE DEPTH	FASTENS MATERIAL		PART
1/4 x 1-3/8	1-1/8	1/4	N	750	1/2 x 4	1-7/8	2-1/8	I	759
1/4 x 2-1/4	1-1/8	1-1/8	N	751	1/2 x 6	1-7/8	4-1/8	I	760
5/16 x 1-1/2	1-1/4	1/4	N	753	5/8 x 2-1/4	2	1/4	I	745
5/16 x 2-1/2	1-1/4	1-1/4	N	754	5/8 x 4-1/4	2	2-1/4	I	761
3/8 x 1-7/8	1-1/2	3/8	N	755	5/8 x 6	2	4	I	762
3/8 x 3	1-1/2	1-1/2	N	756	3/4 x 2-1/2	2-1/4	1/4	I	763
1/2 x 2-1/4	1-7/8	3/8	I	757	3/4 x 4-1/4	2-1/4	2	I	764
1/2 x 3	1-7/8	7/8	I	758	3/4 x 6-1/4	2-1/4	4	E	765

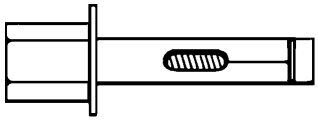
MAXIMUM TENSILE AND SHEAR GUIDELINES FOR STATIC LOADS

DRILL SIZE (INCHES)	BOLT SIZE	EMBEDMENT (INCHES)	3000 PSI	
			TENSION (LBS.)	SHEAR (LBS.)
1/4	10-24	5/8	800	1,500
1/4	10-24	1-3/8	1,300	1,500
5/16	1/4-20	1-1/2	1,700	2,000
3/8	5/16-18	1-7/8	2,400	3,000
1/2	3/8-16	2-1/4	4,700	5,200
5/8	1/2-13	2-1/4	5,900	10,100
3/4	5/8-11	3-3/8	9,200	15,000

NOTE: See Section 23 for Masonry Drills.

CIC 200™ ANKA BOLT ACCESSORIES

ROD COUPLING ANKA BOLT



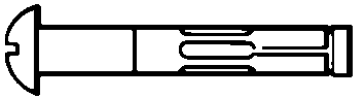
- USE FOR ATTACHING THREADED ROD TO BRICK, CINDER BLOCK, THIN WALL, MARBLE OR CONCRETE

ANCHOR & DRILL SIZE	ROD SIZE	MIN. HOLE DEPTH		PART
5/16 x 1-1/2	1/4	1	I	700
3/8 x 1-7/8	3/8	1-1/4	I	701
1/2 x 2-1/4	1/2	1-1/2	I	703
5/8 x 2-1/4	5/8	2	E	705

FLAT HEAD SLOTTED

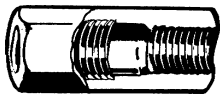
ANCHOR & DRILL SIZE	MIN. HOLE DEPTH	FASTENS MATERIAL		PART
1/4 x 1-1/8	1	3/8	N	773
1/4 x 2	1	1	N	774
1/4 x 3	1	2	N	775
1/4 x 4	1	3	N	776

ROUND HEAD SLOTTED



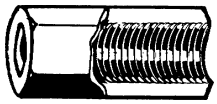
ANCHOR & DRILL SIZE	MIN. HOLE DEPTH	FASTENS MATERIAL		PART
1/4 x 1-1/4	1	1/4	N	783
1/4 x 2-3/4	1	1-3/4	N	785

REDUCING COUPLING



SIZE	LENGTH		PART
1/4-20 x 3/8-16	1	N	715
5/16-18 x 3/8-16	1	N	716
5/16-18 x 1/2-13	1-1/4	N	717
3/8-16 x 1/2-13	1-1/4	N	718
1/2-13 x 5/8-11	1-1/2	I	720

HEX ROD COUPLING

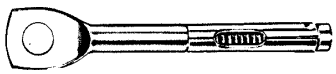


SIZE		PART
10-24 x 7/8	N	707
1/4-20 x 7/8	N	708
5/16-18 x 7/8	N	709
3/8-16 x 1	N	710
1/2-13 x 1-1/4	N	711
5/8-11 x 1-1/2	I	712
3/4-10 x 2-1/4	E	713

EYE COUPLING

SIZE		PART
1/4-20 x 1-1/2	N	721

TIE WIRE BOLT

9/32" EYE 

SIZE		PART
5/16 x 1-1/2	N	738

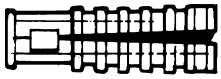
NOTE: See Section 23 for Masonry Drills.

CIC 200™ EXPANSION SHIELDS

FOR LAG SCREWS, MACHINE SCREWS AND BOLTS

LONG LAG SCREW EXPANSION SHIELDS

- DESIGNED FOR LIGHT TO MEDIUM DUTY FASTENING IN CONCRETE, MORTAR JOINT, MASONRY AND BRICK
- SCREW LENGTH SHOULD BE LAG SHIELD LENGTH + MATERIAL THICKNESS + 1/4"



SIZE	PART	HOLE SIZE	
1/4 x 1-1/2	640	R	1/2
5/16 x 1-3/4	641	N	1/2
3/8 x 2-1/2	642	N	5/8
1/2 x 3	643	N	3/4
5/8 x 3-1/2	644	I	7/8
3/4 x 3-1/2	645	I	1

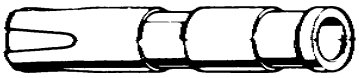
SHORT LAG SCREW EXPANSION SHIELDS

- DESIGNED FOR LIGHT TO MEDIUM DUTY FASTENING IN CONCRETE, MORTAR JOINT, MASONRY AND BRICK
- SCREW LENGTH SHOULD BE LAG SHIELD LENGTH + MATERIAL THICKNESS + 1/4"

SCREW SIZE	HOLE SIZE	PART	
1/4 x 1	1/2	R	630
5/16 x 1-1/4	1/2	R	631
3/8 x 1-3/4	5/8	N	632
1/2 x 2	3/4	N	633
5/8 x 2	7/8	N	634
3/4 x 2	1	I	635

LONG SINGLE EXPANSION SHIELDS

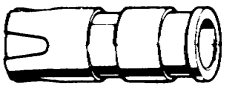
- USE WITH MACHINE SCREWS OR BOLTS IN CONCRETE, BRICK OR STONE
- SCREW OR BOLT CAN BE REMOVED AND REPLACED WITHOUT EFFECTING THE HOLDING POWER OF THE ANCHOR



SIZE	PART	HOLE SIZE	
5/16-18 x 2	671	N	5/8
1/2-13 x 2-1/2	673	I	7/8
5/8-11 x 2-5/8	674	I	1
3/4-10 x 2-3/4	675	E	1-1/4

SHORT SINGLE EXPANSION SHIELDS

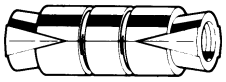
- USE WITH MACHINE SCREWS OR BOLTS IN CONCRETE, BRICK OR STONE
- SCREW OR BOLT CAN BE REMOVED AND REPLACED WITHOUT EFFECTING THE HOLDING POWER OF THE ANCHOR



SIZE	PART	HOLE SIZE	
1/4-20 x 1-5/16	670	N	1/2
5/16-18 x 1-1/2	661	N	5/8
3/8-16 x 1-1/2	662	N	5/8
1/2-13 x 2	663	I	7/8

DOUBLE EXPANSION SHIELDS

- DESIGNED FOR USE IN ALL TYPES OF SOLID MASONRY
- IDEAL FOR HIGH VIBRATION APPLICATIONS AND HEAVY LOADS
- WILL NOT RUST OR CORRODE



SIZE	PART	HOLE SIZE	
1/4-20 x 1	685	N	1/2
5/16-18 x 1-1/4	686	N	5/8
3/8-16 x 2	687	N	3/4
1/2-13 x 2	688	I	7/8
5/8-11 x 2-1/4	689	I	1
3/4-10 x 2-7/8	690	E	1-1/4

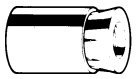
NOTE: See Section 23 for Masonry Drills.

CIC 200™ EXPANSION SHIELDS

FOR MACHINE SCREWS

MACHINE SCREW ANCHORS

- DESIGNED FOR USE IN SOLID MASONRY SUCH AS CONCRETE, STONE, BRICK, MORTAR, BLOCK OR MARBLE



SIZE		PART	HOLE SIZE	SIZE		PART	HOLE SIZE
6-32	R	650	5/16	1/4-20	R	654	1/2
8-32	R	651	5/16	5/16-18	N	655	5/8
10-24	R	652	3/8	3/8-16	N	656	3/4
12-24	R	653	1/2	1/2-13	N	657	7/8

LEAD SCREW ANCHORS

- DESIGNED FOR ANCHORING IN MASONRY, BRICK OR CONCRETE
- USE WITH WOOD OR SHEET METAL SCREWS – SCREWS CUT THEIR OWN THREAD INTO SHIELD AS IT EXPANDS
- FLANGED END PREVENTS ANCHOR FROM SLIPPING INTO HOLE

SCREW SIZE	HOLE SIZE		PART	SCREW SIZE	HOLE SIZE		PART
6-8 x 3/4	1/4	T	620	10-12-14 x 1	5/16	T	624
6-8 x 1	1/4	T	621	10-12-14 x 1-1/2	5/16	R	625
6-8 x 1-1/2	1/4	T	622	16-18 x 1	3/8	R	626
10-12-14 x 3/4	5/16	T	623	16-18 x 1-1/2	3/8	R	627

MACHINE SCREW ANCHOR INSTALL. TOOLS

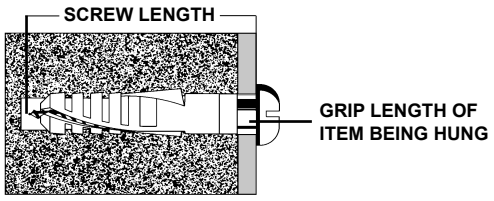
SIZE		PART
#6	A	691
#8	A	692
#10	A	693
1/4	A	696
5/16	A	697
3/8	A	698
1/2	A	699

NOTE: See Section 23 for Masonry Drills.

CIC 200™ SUPER HOLD ANCHORS

IDEAL FOR MASONRY APPLICATIONS

- **High expansion capacity and pull out strength**
- **Ribbed construction gives maximum holding power**
- **Spiral design keeps screw centered while maintaining equal expansion on all sides**
- **Specially designed wings prevent anchor from spinning or falling out**

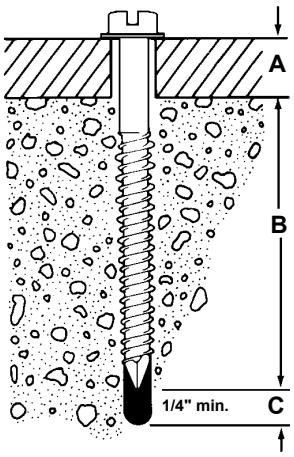


I.D. NO.	SCREW	DRILL	PULLOUT	O.A.L.	SCREW LTH.*	DRILL DEPTH		PART
#4	4-6	3/32	396 LBS.	1	1-1/4	1-1/2	T	88630
#6	6-8	5/32	553 LBS.	1-3/16	1-3/8	1-1/2	T	88629
#7	8-10	1/4	815 LBS.	1-1/4	1-1/2	1-3/4	T	88631
#8	12-14	5/16	904 LBS.	1-1/2	1-3/4	2	T	88632
#10	1/4-5/16	3/8	1,543 LBS.	1-7/8	2	2-1/4	T	88633
#12	5/16-3/8	1/2	2,315 LBS.	2-1/4	2-1/2	2-3/4	R	88634
#15	7/16-1/2	5/8	4,630 LBS.	3	3-1/4	3-1/2	N	88635

*Add thickness of item being hung to screw length for proper holding power.

CIC 200™ CEMENT SCREWS

SELF-TAPPING SCREW TYPE ANCHORS



CIC 200 CEMENT SCREWS WORK FAST AND SECURELY IN ALL TYPES OF MASONRY APPLICATIONS.

- **FAST – INSTALL 2 TO 3 FASTENERS PER MINUTE, JUST DRILL, THEN DRIVE.**
- **STRONG – DESIGNED FOR ULTIMATE PULLOUT STRENGTH.**
- **SAFE AND EASY – NO DANGEROUS EQUIPMENT NEEDED FOR INSTALLATION. SPECIAL HIGH, SHARP THREAD CUTS DEEP AND EASILY WHILE LOW THREAD PROVIDES STABILITY FOR ACCURATE DRIVING.**
- **REMOVABLE – REPAIRS AND ADJUSTMENTS OF INSTALLED COMPONENTS ARE MADE EASY BECAUSE OUR FASTENER CAN BE REMOVED AND RE-INSERTED IN THE SAME HOLE.**

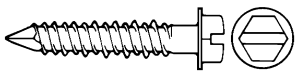
A = FIXTURE BEING ATTACHED

B = CIC 200 CEMENT SCREW EMBEDMENT
(Minimum of 1", Maximum of 1-3/4" is recommended)

A + B = LENGTH OF CIC 200 CEMENT SCREW TO BE USED

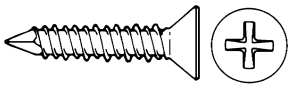
B + C = DEPTH OF DRILLED HOLE
(Must be at least 1/4" deeper than CIC 200 Cement Screw embedment)

SLOTTED HEX WASHER



LENGTH	3/16		1/4	
1-1/4	T	9050	T	9057
1-3/4	T	9051	T	9058
2-1/4	R	9052	R	9059
2-3/4	R	9053	R	9060
3-1/4	N	9054	N	9061
3-3/4	N	9055	N	9062
4	N	9056	N	9063

PHILLIPS FLAT HEAD



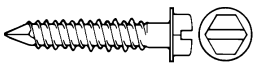
LENGTH	3/16		1/4	
1-1/4	T	9064	T	9071
1-3/4	T	9065	T	9072
2-1/4	T	9066	R	9073
2-3/4	R	9067	R	9074
3-1/4	N	9068	N	9075
3-3/4	N	9069	N	9076
4	N	9070	N	9077

CIC 200™ CEMENT SCREW INSTALLATION KIT

DESCRIPTION		PART
8 PIECE SET CONTAINS: 1/4 hex socket, 5/16 hex socket, phillips adapter, #2 and #3 phillips bits, drill sleeve, drill adapter and 1/8" hex key	A	9098

CIC 200™ MASONRY DRILLS – CARBIDE TIP

- **FOR USE WITH CEMENT SCREWS ON BRICK, CEMENT & CINDER BLOCK**



SIZE	USE WITH CEMENT SCREW PART #'S		PART	SIZE	USE WITH CEMENT SCREW PART #'S		PART
5/32 x 3-1/2	9050, 9051, 9064, 9065	A	9086	3/16 x 3-1/2	9057, 9058, 9071, 9072	A	9083
5/32 x 4-1/2	9052, 9053, 9066, 9067	A	9088	3/16 x 4-1/2	9059, 9060, 9073, 9074	A	9084
5/32 x 5-1/2	9054, 9055, 9056, 9068, 9069, 9070	A	9090	3/16 x 5-1/2	9061, 9062, 9063, 9075, 9076, 9077	A	9087

CIC 200™ CEMENT BOLT ANCHORS

HEX WASHER HEAD

- HEAT TREATED, HIGH STRENGTH CARBON STEEL
- SERRATIONS UNDER HEAD FOR SUPERIOR HOLDING POWER
- REMOVABLE, REUSABLE AND VIBRATION-RESISTANT
- LAYOUT OR HOLE SPOTTING IS ELIMINATED – CAN BE DRILLED AND SET WITH FIXTURE IN PLACE
- WORKS IN MOST BASE MATERIAL – CONCRETE, BLOCK AND BRICK
- BOTH DIAMETER AND LENGTH ARE CLEARLY STAMPED ON HEAD FOR EASY IDENTIFICATION

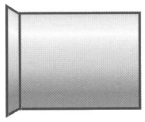
LENGTH	SCREW & DRILL DIA. 3/16		THREAD LENGTH	SCREW & DRILL DIA. 1/4		THREAD LENGTH	SCREW & DRILL DIA. 3/8		THREAD LENGTH	SCREW 1/2 DRILL 7/16		THREAD LENGTH	SCREW 5/8 DRILL 9/16		THREAD LENGTH	SCREW 3/4 DRILL 11/16		THREAD LENGTH
1-1/4		–	1-1/8	R	9019	1-/18		–	–		–	–		–	–		–	–
1-3/4	T	9016	1-5/8	R	9020	1-5/8	N	9023	1-1/2		–	–		–	–		–	–
2		–	–		–	–		–	–	I	9027	1-3/4		–	–		–	–
2-1/4	R	9017	2"	N	9021	2		–	–		–	–		–	–		–	–
2-1/2		–	–		–	–	L	9024	2-1/4	I	9028	2-1/4		–	–		–	–
2-3/4	R	9018	2-1/2		–	–		–	–		–	–		–	–		–	–
3		–	–	N	9022	2-3/4	L	9025	2-3/4	I	9029	2-3/4	E	9033	2-3/4	B	9037	2-3/4
4		–	–		–	–	I	9026	3-3/4	E	9030	3-3/4	E	9034	3-3/4	B	9038	3-3/4
5		–	–		–	–		–	–	E	9031	3-3/4	E	9035	3-3/4	B	9039	3-3/4
6		–	–		–	–		–	–	E	9032	3-3/4	B	9036	3-3/4	B	9040	3-3/4
8		–	–		–	–		–	–		–	–		–	–	B	9041	3-3/4

PHILLIPS FLAT HEAD

LENGTH	SCREW & DRILL DIA. 3/16		THREAD LENGTH
1-1/4	T	9042	1"
1-3/4	T	9043	1-1/2
2-1/4	R	9044	2"
2-3/4	R	9045	2-1/2

BLOCK PLUG

- INSERT EITHER 1/4" OR 3/8" BLOCK PLUG INTO FIXTURE OR ANCHOR HOLE PRIOR TO INSTALLATION OF WEDGE BOLT ANCHORS INTO HOLLOW CONCRETE BLOCK



1/4		3/8	
T	9048	R	9049

CIC 200™ CEMENT BOLT ANCHORS

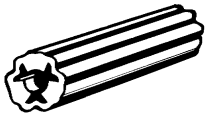
ULTIMATE LOAD CAPACITIES IN CONCRETE

ANCHOR DIAMETER (INCHES)	EMBEDMENT DEPTH (INCHES)	2000 PSI			4000 PSI			6000 PSI		
		MAX. CLAMPING TORQUE (FT. - LBS.)	TENSION (LBS.)	SHEAR (LBS.)	MAX. CLAMPING TORQUE (FT. - LBS.)	TENSION (LBS.)	SHEAR (LBS.)	MAX. CLAMPING TORQUE (FT. - LBS.)	TENSION (LBS.)	SHEAR (LBS.)
	N/A		N/A	N/A		N/A	N/A		N/A	N/A
3/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	N/A		N/A	N/A		N/A	N/A		N/A	N/A
	N/A		N/A	N/A		N/A	N/A		N/A	N/A
	1		736	824		1240	1672		1320	1952
	1-1/2		1488	2064		1888	2152		1984	2152
1/4	2	5	2240	2224	10	3384	6224	10	3984	2688
	2-1/2		3096	2464		3920	2464		4208	2928
	3		3952	2464		4704	2464		5184	2928
	1-1/2		1819	3060		2261	4139		2575	6239
	2		2805	4178		3489	4241		4407	6239
3/8	2-1/2	40	3791	4343	40	4717	4343	40	6239	6239
	3		5253	5334		6774	5334		8406	6354
	3-1/2		6715	6196		8831	6324		10574	6468
	1-3/4		3055	6400		3860	7300		4620	8900
	2		3625	6570		3930	7420		4780	9000
1/2	2-1/2	60	4770	7420	60	6165	8085	60	7075	9130
	3		5910	7700		8400	8730		9960	9260
	3-1/2		6765	8650		11110	9430		11890	9430
	4		7620	8650		13820	9600		14580	9600
	2-1/2		4950	7790		6800	11320		8240	13610
	3		6800	10075		9100	12740		10820	14305
5/8	3-1/2	75	8650	12360	75	11400	14160	75	13600	15000
	4		10245	13735		13675	15400		15880	15920
	5		13440	16480		18220	17750		20850	17750
	2-1/2		4050	10800		6100	14000		8480	17000
	3		5880	12270		9085	15500		11390	18770
3/4	3-1/2	150	7655	13945	250	12570	19255	250	14345	20795
	4		9430	15620		14800	22820		17300	22820
	5		13500	21825		18705	26780		21525	27500
	6		17570	28030		22610	30550		25750	32180

NOTE: The values listed above are ultimate load capacities in pounds which should be reduced by a minimum safety factor of four or greater to determine the allowable working load.

CIC 200™ SPECIAL ANCHORS

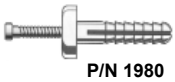
VINYL SCREW ANCHORS



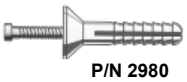
7734

SCREW	COLOR	HOLE SIZE	PART	SCREW	COLOR	HOLE SIZE	PART
2-4 x 1	Yellow	1/8	T 600	14 x 2	Blue	5/16	T 610
4-6 x 1	White	3/16	T 601	14 x 2-1/4	Blue	5/16	T 611
4-6 x 1-1/2	White	3/16	T 599	5/16 x 1-1/2	Orange	3/8	T 612
8 x 1	Red	15/64	T 602	5/16 x 2	Orange	3/8	T 613
8 x 1-1/2	Red	15/64	T 603	5/16 x 2-1/2	Orange	3/8	T 614
10-12 x 1	Green	1/4	T 604	3/8 x 2	Gray	7/16	T 615
10-12 x 1-1/4	Green	1/4	T 605	3/8 x 2-1/2	Gray	7/16	T 616
10-12 x 1-1/2	Green	1/4	T 606	3/8 x 3	Gray	7/16	R 617
10-12 x 2	Green	1/4	T 607	1/2 x 2-1/2	Black	5/8	R 618
14 x 1	Blue	5/16	T 608	1/2 x 3-1/2	Black	5/8	R 619
14 x 1-1/2	Blue	5/16	T 609	-	-	-	-

NYLON DRIVE ANCHORS



P/N 1980
Round Hd



P/N 2980
Flat Head

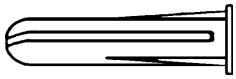
P/N 678
Truss Head

ANCHOR & DRILL SIZE	ROUND HEAD	FLAT HEAD	TRUSS HEAD
3/16 x 1	T 1972	T 2972	-
1/4 x 3/4	-	-	T 677
1/4 x 1	T 1980	T 2980	T 678
1/4 x 1-1/2	T 1982	T 2982	T 679
1/4 x 2	R 1984	R 2984	-

PLASTIC CONICAL ANCHORS

- **USE WITH WOOD OR SHEET METAL SCREWS**
- **FOR LIGHT DUTY FASTENING IN CONCRETE, BRICK, MASONRY OR DRYWALL**

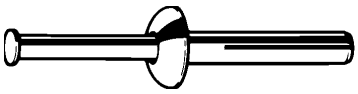
PORT-A-PAK
17867



SCREW SIZE	ANCHOR LENGTH	DRILL SIZE	LOAD (LBS)	COLOR	PART
4-8	3/4	3/16	100-150	Blue	T 5395
6-10	7/8	3/16	175-200	Red	T 5396
10-12	1	1/4	300-400	Blue	T 5397
14-16	1-3/8	5/16	600-800	Red	T 5398

HAMMER DRIVE ANCHORS

- **FOR USE IN CONCRETE, BRICK, BLOCK OR STONE**
- **QUICK, EASY FASTENING IN MEDIUM AND LIGHT DUTY JOBS**
- **TAMPER-RESISTANT**

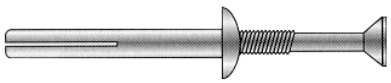


ULTIMATE LOAD VALUES (4000 PSI CONCRETE)			
ANCHOR	EMBEDMENT	TENSION	SHEAR
1/4"	3/4"	1104	1289
	1"	1373	1394
	1-1/4"	1375	1399

ANCHOR & DRILL	PART
3/16 x 7/8	T 5980
1/4 x 3/4	T 5979
1/4 x 1	T 5981
1/4 x 1-1/4	R 5982
1/4 x 1-1/2	R 5983
1/4 x 2	N 5984

HAMMER SCREW ANCHORS

- **A UNIQUE ONE-STEP DRIVE ANCHOR WITH A PHILLIPS HEAD SCREW FOR USE IN CONCRETE, BLOCK, BRICK OR STONE**
- **REMOVABLE**
- **NO HOLE SPOTTING REQUIRED – CAN BE DRILLED AND SET WITH FIXTURE IN PLACE**

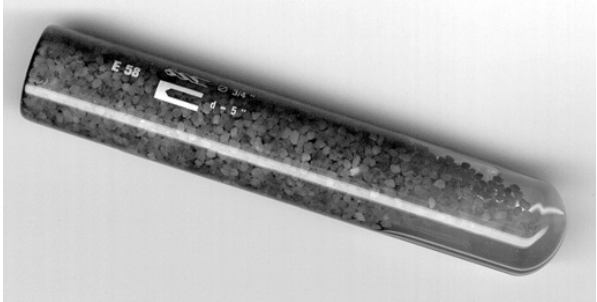


PERFORMANCE DATA (4000 PSI CONCRETE)			
ANCHOR	EMBEDMENT	TENSION	SHEAR
1/4"	5/8"	850	1800
1/4"	3/4"	920	1800
1/4"	7/8"	1190	1800
1/4"	1-1/8"	1350	1800
1/4"	1-3/8"	1540	1800
1/4"	1-7/8"	1600	1800

ANCHOR SIZE	DRILL DIA.	PART
1/4 x 3/4	1/4	R 5987
1/4 x 1	1/4	R 5988
1/4 x 1-1/4	1/4	R 5989
1/4 x 1-1/2	1/4	R 5990
1/4 x 2	1/4	R 5991
1/4 x 2-1/4	1/4	N 5992
1/4 x 3	1/4	R 5993

EPOXY-LOCK™ CHEMICAL ANCHOR CAPSULES

REMARKABLE STRENGTH WITH SUPERB VIBRATION RESISTANCE



- **SUPER STRONG EPOXY RESIN**
  PROVIDES SUPERIOR STRENGTH IN THE MOST DIFFICULT APPLICATIONS WITH EXCELLENT RESISTANCE TO MOISTURE AND SHRINKAGE
- **UNIQUE PREMEASURED APPLICATION**
  ASSURES CONSISTENCY OF ULTIMATE STRENGTH
- **FAST CURE TIME**
  GETS EQUIPMENT UP AND RUNNING QUICKLY
- **MULTI-POSITION USE**
  FOR EXCELLENT PERFORMANCE IN HORIZONTAL AND VERTICAL APPLICATIONS (NOT OVERHEAD)
- **USE WITH REGULAR THREADED ROD**

CURE TIME	
68°F +	20 min.
50°F to 68°F	30 min.
14°F to 50°F	1 hour
5°F to 14°F	5 hours

- **APPLICATIONS**
  FIXING EQUIPMENT/APPARATUS EXPOSED TO WATER/CHEMICAL ENVIRONMENT, RAILING SUPPORTS, CONVEYOR SYSTEMS, FENCING POSTS, GUARD RAILS, MACHINERY, STADIUM SEATING AND UNDERWATER ANCHORING IN SEWAGE/WATER TREATMENT PLANTS AND HARBOR ENVIRONMENTS

CAPSULE SIZE	DRILL/HOLE DIAMETER	MINIMUM HOLE DEPTH	TENSILE (LBS.) 3000 PSI CONCRETE*	P/N
3/8 (M10)	1/2 (13MM)	3-3/8	3,992	I 88750
1/2 (M12)	5/8 (16MM)	4-1/2	10,708	I 88755
5/8 (M16)	3/4 (18MM)	5-5/8	14,308	I 88760
3/4 (M18)	7/8 (21MM)	6-3/4	21,880	I 88765
7/8 (M20)	1 (25MM)	7-7/8	27,436	I 88770
1 (M25)	1-1/4 (29MM)	8-1/4	52,247	I 88775

*VALUES ARE AVERAGE ULTIMATE LOADS AND ARE OFFERED AS A GUIDE, NOT A GUARANTEE OF PERFORMANCE. USING A SAFETY FACTOR OF 4:1 IS GENERALLY ACCEPTED AS A SAFE WORKING LOAD.

DROP-IN ANCHORS

DROP-IN ANCHORS

- **STEEL ZINC PLATED**
- **USED IN MEDIUM TO HEAVY DUTY APPLICATIONS SUCH AS CONCRETE AND STONE**

SCREW SIZE	HOLE SIZE	PART
1/4	3/8	T 664
3/8	1/2	R 665
1/2	5/8	R 666
5/8	7/8	L 667
3/4	1	I 668

DROP-IN ANCHOR SETTING TOOL

- **STEEL ZINC PLATED**

SIZE	PART
1/4	A 4664
3/8	A 4665
1/2	A 4666
5/8	A 4667
3/4	A 4668

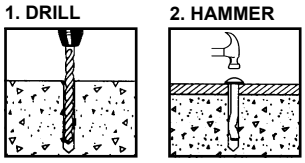
CIC 200™ HAMMER-LOCK ANCHORS

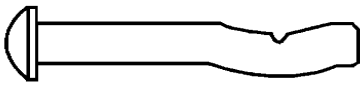
FAST, EASY AND VIBRATION RESISTANT

The Hammer-Lock Anchor can be installed quickly and easily in concrete, block, brick or stone. The one-piece construction eliminates extra pieces or steps required for installation and provides remarkable holding power. Just drill and set!

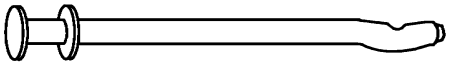
HAMMER-LOCK ANCHORS

- ONE PIECE ANCHOR — FOR FAST AND EASY INSTALLATION
- HIGH VIBRATION RESISTANCE — PREVENTS PREMATURE FAILURE
- NO HOLE SPOTTING REQUIRED — DRILL AND SET WITH FIXTURE IN PLACE
- SEVERAL STYLES — COVERS MANY APPLICATIONS
- QUICK AND EASY INSTALLATION:

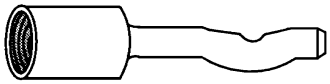




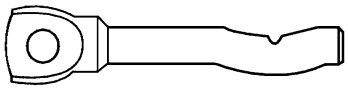
ROUND HEAD
- HEATING VENTILATION AND AIR CONDITIONING INSTALLATIONS
- ATTACHING ELECTRICAL BOXES AND CONDUIT



FORMING
- FASTEN FORMS OR BRACKETS



ROD COUPLING
- HANG PIPING
- HANGING CABLE TRAYS



TIE WIRE
- SUSPEND CEILING FRAMEWORK
- HANG LIGHT FIXTURES

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ANCHOR TYPE	ANCHOR SIZE	DRILL DIA.	MIN. HOLE DEPTH		PART
ROUND HEAD	3/16 x 1-1/2	3/16	1-1/4	R	88502
ROUND HEAD	3/16 x 2	3/16	1-1/4	R	88503
ROUND HEAD	3/16 x 3	3/16	1-1/4	R	88505
ROUND HEAD	1/4 x 1	1/4	7/8	R	88508
ROUND HEAD	1/4 x 1-1/2	1/4	1-1/4	R	88510
ROUND HEAD	1/4 x 2	1/4	1-1/4	R	88511
ROUND HEAD	1/4 x 3	1/4	1-1/4	R	88513
ROUND HEAD	3/8 x 2	3/8	1-3/4	N	88516
ROUND HEAD	3/8 x 2-1/2	3/8	1-3/4	N	88517
ROUND HEAD	3/8 x 3	3/8	1-3/4	N	88518
ROD COUPLING	1/4-20 x 1-1/4	3/16	1-1/4	R	88549
ROD COUPLING	3/8-16 x 1-1/2	1/4	1-1/2	N	88550
TIE WIRE	3/16 x 1-1/8	3/16	1-1/4	R	88551
TIE WIRE	1/4 x 1-1/8	1/4	1-1/4	R	88552
FORMING	3/16 x 2-3/4	3/16	1-1/4	R	88555
FORMING	1/4 x 2-3/4	1/4	1-1/4	N	88556

LOAD CAPACITY PERFORMANCE DATA

PART	EMBEDMENT DEPTH	3000 PSI TENSILE	3000 PSI SHEAR	4000 PSI TENSILE	4000 PSI SHEAR	5000 PSI TENSILE	5000 PSI SHEAR	CONCRETE BLK TENSILE	CONCRETE BLK SHEAR
88502-88505	1-1/4	975	2250	1180	2425	1450	2600	740	2090
88508	7/8	820	2040	945	2230	1010	2360	440	1650
88510-88513	1-1/4	1100	2500	1550	2750	1700	3200	800	2100
88516-88518	1-3/4	2530	6310	3140	7080	3435	7150	N/A	N/A
88555	1-1/4	975	2250	1180	2425	1450	2600	N/A	N/A
88556	1-1/4	1100	2500	1550	2750	1700	3200	N/A	N/A
88549	1-1/4	1210	975	1405	975	1570	975	N/A	N/A
88550	1-1/2	1840	2180	2180	2180	2520	2180	N/A	N/A
88551	1-1/4	975	950	1050	950	1120	950	N/A	N/A
88552	1-1/2	1075	1310	1150	1310	1230	1310	N/A	N/A

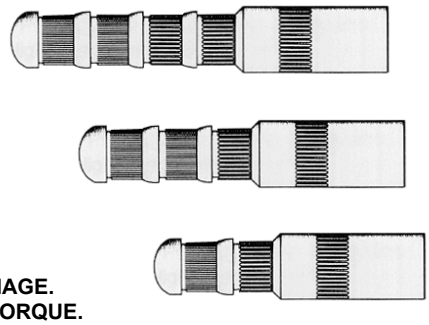
NOTE: The values listed above are ultimate load capacities which should be reduced by minimum safety factor of 4 or greater to determine the allowable working load.

DROP-TITE™ ANCHORS

ULTRA-HIGH PERFORMANCE DROP-IN ANCHORS

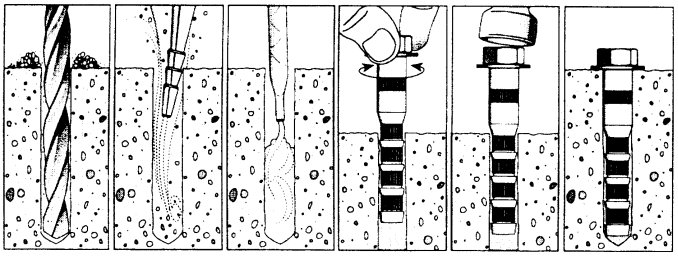
The ultimate solution engineered to solve the most difficult concrete anchoring problems.

- **EXTREMELY HIGH HOLDING VALUES – EPOXY BOND ADHERES TO ENTIRE LENGTH OF ANCHOR BODY, PRODUCING SUPERIOR ULTIMATE STRENGTH.**
- **INSTANT HOLDING POWER – FIXTURE CAN BE IMMEDIATELY FASTENED WHILE EPOXY CURES.**
- **EASY TO INSTALL – NO SPECIAL TOOLS OR BITS REQUIRED.**
- **THROUGH-HOLE INSTALLATION – IDEAL FOR "IN-PLACE" FASTENING APPLICATIONS. NO NEED TO MOVE EQUIPMENT OR FIXTURES TO BE FASTENED.**
- **SHALLOW EMBEDMENT – PROVIDES EXCELLENT HOLDING VALUE WHILE AVOIDING REBAR AND "DRILL-THRU".**
- **CLOSE EDGE DISTANCE AND SPACING – EPOXY BOND AND SHALLOW EMBEDMENT MINIMIZE EFFECTS OF "CONE FAILURE".**
- **VIBRATION RESISTANT – EPOXY BOND WITHSTANDS MORE SEISMIC VIBRATION LOADING THAN MOST STANDARD MECHANICAL ANCHORS.**
- **NO EXPOSED THREADS – ELIMINATES PROTRUSION SAFETY RISKS AND THREAD DAMAGE.**
- **USE WITH CIC 150™ CAP SCREWS – 20% GREATER HEAD HEIGHT PROVIDES HIGHER TORQUE.**
- **USE WITH CIC 150 UNIFIT™ FLAT WASHERS – ELIMINATES CUPPING AND DISHING.**
- **ACCEPTS STANDARD SET SCREWS – ALLOWING FLUSH FIT AND KEEPS DIRT OUT AND THREADS CLEAN WHEN CAP SCREW IS REMOVED.**



INSTALLATION INSTRUCTIONS

1. Drill holes perpendicular to the work surface. To assure full holding power, do not ream the hole or allow the drill to wobble.
2. Clean hole with compressed air and a nylon brush. Dust and debris left in hold will significantly reduce the holding capacity of the anchor.
3. Inject Drop-Tite™ Epoxy (P/N 74534) into hole to approximately half full.
4. Insert Drop-Tite™ Anchor into hole to shoulder with slight twisting motion.
5. Drive anchor home with several sharp hammer blows.
6. Allow epoxy to cure prior to applying maximum load.



APPLICATIONS

- **Building/Factory Maintenance**
  Handrails and guardrails, machinery and equipment installation, electrical and mechanical fixtures, partitions and barriers, conveyors and storage racks, signage, hangers and brackets, dock bumpers
- **Transportation Industry**
  Handrails and guardrails, tactile warning strips, electrical boxes and conduit clips, diamond base plates, reflectors and signals, communications equipment, di-electric track installation
- **Construction Industry**
  Theater and stadium seating, safety railings and equipment, steel erection, ledgers, highways and bridges, sewage treatment
- **Utilities and Power Plants**
  Steel erection, Handrails and guardrails, transformers and electrical equipment, storage tanks

CAP SCREW SIZE	ANCHOR SIZE	DRILL DIA.	HOLE DEPTH	ULTIMATE TENSION (LBS)	PART	
1/4	5-16 x 1-9/16	5/16	1-3/4	2,540	I	88560
5/16	7/16 x 2-3/8	7/16	2-3/4	6,250	I	88561
3/8	1/2 x 2-3/4	1/2	3-1/4	9,800	I	88562
1/2	5/8 x 3-5/8	5/8	4-1/8	12,870	E	88563
5/8	7/8 x 5-3/4	7/8	6-1/4	24,596	A	88564

DROP-TITE® ANCHOR SCREENS

FOR ANCHORING AND DOWELING IN HOLLOW BLOCK

CHEMICAL ANCHOR SCREENS

- **UNIQUE DESIGN AND CONSTRUCTION OF GALVANIZED STEEL PROVIDES ULTIMATE HOLDING POWER IN ALL HOLLOW BLOCK APPLICATIONS**
- **USE WITH RED LION DROP-TITE® EPOXY (P/N 74534) AND DROP-TITE® ANCHORS (P/N's 88560-88564)**
- **GALVANIZED STEEL CONSTRUCTION – FOR STRENGTH AND DURABILITY**
- **EASY-TO-USE – SIMPLY FILL WITH EPOXY, INSERT INTO HOLE AND INSTALL ANCHOR**

DIAMETER	DROP-TITE® ANCHOR SIZE	LENGTH	HOLE DIAMETER	P/N
3/8"	88560	4"	1/2"	E 88570
3/8"	88560	6"	1/2"	E 88571
1/2"	88561	4"	5/8"	E 88572
1/2"	88561	6"	5/8"	E 88573
5/8"	88562	4"	3/4"	E 88574
5/8"	88562	6"	3/4"	E 88575
3/4"	88563	4"	7/8"	E 88576
3/4"	88563	6"	7/8"	E 88577

SECURITY PICTURE HANGING HARDWARE

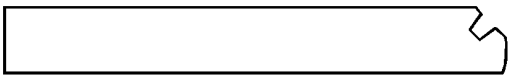
FOR ANCHORING AND SECURING

Metal hardware to assemble, hang and securely fasten picture frames, mirrors and other wall hangings.

SECURE-T-SCREW

SLIDE-IN MOUNTING BRACKET

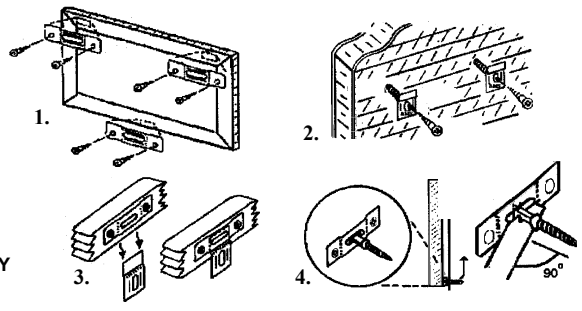
SECURITY SLOTTED BRACKET



SECURE-T-SCREW WRENCH

INSTALLATION INSTRUCTIONS:

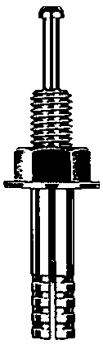
1. **FASTEN THREE (3) SECURITY SLOTTED BRACKETS TO THE BACK OF PICTURE FRAME – TWO ON TOP AND ONE ON BOTTOM. SEE DIAGRAM AS SHOWN.**
2. **FASTEN TWO (2) SLIDE-IN MOUNTING BRACKETS TO WALL MATERIAL. THIS SHOULD COINCIDE WITH THE TWO SECURITY SLOTTED BRACKETS ON THE TOP OF PICTURE FRAME ONLY.**
3. **POSITION PICTURE FRAME ON MOUNTING BRACKETS DIRECTLY BEHIND SLOTTED BRACKETS AS SHOWN.**
4. **SCREW ONE SECURE-T-SCREW INTO WALL MATERIAL AT THE LOCATION OF THE BOTTOM SECURITY SLOTTED BRACKET. POSITION SECURE-T-SCREW INTO SECURITY SLOTTED BRACKET AND TWIST THE SECURE-T-SCREW SECURELY WITH WRENCH.**



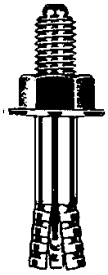
DESCRIPTION	P/N
Secure-T Screw	N 88746
Slide-in Mounting Bracket	R 88747
Security Slotted Bracket	T 88748
Secure-T Screw Wrench	A 88749

HAMMER DRIVE STUD ANCHORS

PIN DRIVE EXPANSION ANCHOR



NOT SET



SET

- **FAST, EASY SETTING OF ANCHOR, DRILL INSERT AND HAMMER**
- **NO HOLE SPOTTING – CAN BE DRILLED AND SET WITH FIXTURE IN PLACE**
- **HIGH PULL-OUT AND SHEAR STRENGTH**
- **YELLOW DICHROMATE OVER ZINC PLATING FOR SUPERIOR CORROSION RESISTANCE**
- **NUTS AND WASHERS INCLUDED**

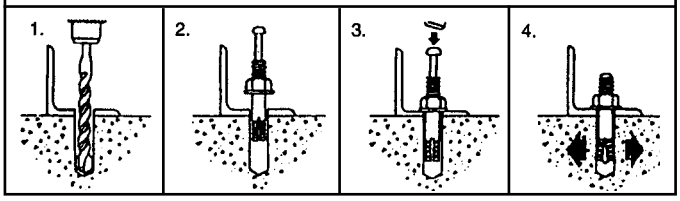
APPLICATIONS:

- **OUTLET BOXES**
- **STADIUM SEATS**
- **STEEL AND WOOD PLATES**
- **MACHINE ANCHORING**
- **WATER AND GAS METERS**
- **MAIL BOXES**
- **CASH MACHINES**
- **CONVEYOR BELT MOUNTS**
- **BRACING**
- **SHELVING**
- **HAND AND GUARD RAILS**
- **GRAIN AND STORAGE BINS**
- **LIGHT FIXTURES**
- **STEEL BUILDINGS**

17871

INSTALLATION PROCEDURE

1. **Drill hole of sufficient depth using same diameter drill bit as anchor being installed.**
2. **Turn nut on anchor as required. May be flush with top or turned on fully to provide stud finish.**
3. **With nut, washer and set-pin in place, insert anchor into hole.**
4. **Using a proper sized hammer, set pin with several sharp and square strikes on head of pin until pin is flush with top of anchor. Anchor is now properly set.**
5. **No need to torque nut to set anchor.**



	2000 PSI CONCRETE			4000 PSI CONCRETE	
	TENSION IN FT. LBS.		SHEAR	TENSION IN FT. LBS.	
DIAMETER	MIN. EMBED.	MAX. EMBED.	MIN. EMBED.	MIN. EMBED.	MAX. EMBED.
1/4"	(1") 900	(1-1/2") 1000	(1") 1600	(1") 1300	(1-1/2") 1400
5/16"	(1-1/4") 1400	(1-7/8") 1500	(1-1/4") 3000	(1-1/4") 2100	(1-7/8") 2400
3/8"	(1-1/2") 2200	(2-1/4") 2800	(1-1/2") 3400	(1-1/2") 3200	(2-1/4") 3700
1/2"	(2") 3600	(3") 4200	(2") 7200	(2") 5600	(3") 5700
5/8"	(2-1/2") 5400	(3-3/4") 6600	(2-1/2") 9200	(2-1/2") 7500	(3-3/4") 10,400
3/4"	(3") 7500	(4-1/2") 9900	(3") 13,500	(3") 9500	(4-1/2") 13,400

ANCHOR SIZE DIA. x LENGTH	THREAD LENGTH (INCHES)	MINIMUM EMBEDMENT	DRILL SIZE		P/N
1/4 x 1-3/4	5/8	1	1/4	L	88480
1/4 x 2-3/8	3/4	1	1/4	L	88481
5/16 x 2"	5/8	1-1/8	5/16	L	88483
5/16 x 2-3/4	1	1-1/8	5/16	L	88484
5/16 x 4"	1-1/4	1-1/8	5/16	I	88485
3/8 x 2-3/8	1	1-1/4	3/8	I	88486
3/8 x 3-1/2	1-1/8	1-1/4	3/8	I	88487
3/8 x 5"	2	1-1/4	3/8	I	88488
1/2 x 2-3/4	1	1-1/2	1/2	I	88489
1/2 x 3-1/2	1-1/8	1-1/2	1/2	I	88490
1/2 x 4-3/4	2	1-1/2	1/2	E	88491
1/2 x 6"	2	1-1/2	1/2	E	88492
5/8 x 4"	1-5/8	1-3/4	5/8	B	88493
5/8 x 4-3/4	2	1-3/4	5/8	B	88494
5/8 x 6"	2	1-3/4	5/8	B	88495
3/4 x 5"	2	2	3/4	B	88496
3/4 x 6"	2	2	3/4	B	88497

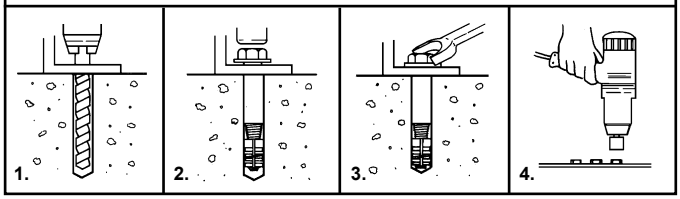
TAPER BOLT ANCHORS

HIGHEST TENSILE AND SHEAR STRENGTH OF ANY EXPANSION ANCHOR

- **GRADE 5, ZINC PLATED TAPER BOLT – FOR STRENGTH, DURABILITY AND CORROSION RESISTANCE**
- **REQUIRED HOLE DIAMETER EQUALS ANCHOR DIAMETER – NO REPOSITIONING OF EQUIPMENT REQUIRED**
- **UNDERSIZE/OVERSIZE HOLES CAN BE ACCOMMODATED BY TURNING THE PRE-EXPANDED NUT A FEW TIMES**
- **EQUIPMENT MAY BE REMOVED AND REPLACED – THE BOLT IS SIMPLY RE-INSERTED AND TORQUED TO OBTAIN ORIGINAL HOLDING POWER (THE NUT STAYS IN THE HOLE)**
- **BOLT CAN BE REMOVED AND RE-USED WITH A NEW NUT**
- **THE HIGHEST TENSILE STRENGTH AND SHEAR STRENGTH OF ANY EXPANSION ANCHOR**
- **WITHSTANDS VIBRATORY LOADS BETTER THAN ANY OTHER EXPANSION ANCHOR**

INSTALLATION PROCEDURE

1. **Drill hole the same diameter as the Taper Bolt, using fixture as a template.**
2. **Drive Taper Bolt into place leaving recommended head clearance. If hole is oversized, simply remove and pre-expand the expander nut to fit hole.**
3. **Tighten Taper Bolt to recommended torque.**
4. **For larger projects, set Taper Bolt with an impact wrench. This method offers speed, consistency and greater installer productivity.**



ANCHOR DIAMETER AND LENGTH	HOLE DIAMETER	MINIMUM EMBED-MENT	REQUIRED TORQUE TO SET (FT. LBS.)	REQUIRED HEAD CLEAR-ANCE	ULTIMATE TENSILE & SHEAR LOADS IN LBS. CONCRETE STRENGTH (P.S.I.)				PART	
					3000 PSI		5000 PSI			
					TENSION	SHEAR	TENSION	SHEAR		
3/8 x 2-1/4	3/8"	1-7/8"	40	3/16"	4,030	7,177	4,987	8,567	I	77680
3/8 x 2-5/8									I	77681
3/8 x 3									I	77682
3/8 x 4									I	77683
3/8 Nut only									I	77680N
1/2 x 2-7/8	1/2"	2-3/8"	90	1/4"	8,165	12,177	9,346	15,217	E	77684
1/2 x 4									E	77685
1/2 x 5									B	77686
1/2 Nut only									I	77684N
5/8 x 3-1/2	5/8"	2-5/8"	125	5/16"	9,990	17,030	10,470	17,257	B	77687
5/8 x 4-1/2									B	77688
5/8 x 6									B	77689
5/8 x 7									B	77690
5/8 Nut only									E	77687N
3/4 x 4-1/8	3/4"	3-3/8"	250	7/16"	11,906	27,916	17,073	28,110	B	77691
3/4 x 5-1/2									B	77692
3/4 x 7									B	77693
3/4 x 8									B	77694
3/4 Nut only									E	77691N
1 x 5-5/8	1"	4-5/8"	550	5/8"	28,263	36,257	30,817	38,487	A	77695
1 x 7-1/4									A	77696
1" Nut only									B	77695N

SUSPEND-IT™ ANCHORS

A FAST, SAFE AND USER-FRIENDLY WAY TO HANG ROD OVERHEAD

- **ONE-PIECE, ALL STEEL THREADED FASTENING SYSTEM FOR SUSPENDING STEEL THREADED ROD VERTICALLY OVERHEAD IN PIPE HANGING, FIRE PROTECTION, ELECTRICAL AND CABLE-TRAY APPLICATIONS**
- **CAN BE INSTALLED IN A VARIETY OF BASE MATERIALS INCLUDING STEEL, WOOD AND CONCRETE**
- **SIMPLE INSTALLATION REDUCES COSTS AND IMPROVES EFFICIENCY**
- **FOR METALS AND WOOD BASE MATERIALS**
- **TWO HEAD CONFIGURATIONS ARE OFFERED FOR VERTICAL OR SIDE MOUNTING**

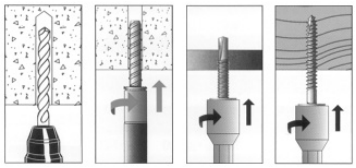
APPLICATIONS:

- **PIPE HANGING • CABLE TRAYS • HVAC DUCT**
- **OVERHEAD UTILITIES • CONDUIT • ELECTRICAL**
- **LIGHTING SYSTEMS • SPRINKLER SYSTEMS**
- **EYE ROD • STRUT CHANNELS • DROP CEILINGS**
- **REFRIGERATION**

INSTALLATION PROCEDURE

Eye protection should be worn when installing.

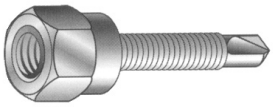
1. **If pre-drilling is required (certain types of wood and all concrete), select the recommended drill bit type and diameter.**
2. **Drill to the appropriate embedment depth, adding at least one diameter (1/4" to 1/2) to the drilling depth to prevent the tip of the fastener from running into a dead end at the rear of the anchor hole.**
3. **Select the appropriate socket driver for the anchor size and type to be installed and mount into chuck of installation tool.**
4. **Insert Suspend-it fastener into the socket driver, and install perpendicular to the base material surface.**
5. **In "rotation only" mode, drive the fastener with a smooth steady motion until the coupling is firmly seated against the surface of the base material.**
6. **Thread the appropriate diameter steel threaded rod or threaded bolt into the coupling. The threaded rod or bolt should fully engage the thread length of the coupling on a vertical mount fastener. The threaded rod or threaded portion of the bolt can pass through coupling of a side mount fastener.**



ULTIMATE LOAD CAPACITIES:

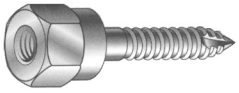
STEEL TENSION				STEEL SHEAR	WOOD					CONCRETE						
ROD SIZE	MOUNT DIRECTION	SCREW SIZE	20 GA STEEL (0.036") (LBS)	20 GA STEEL (0.036") (LBS)	ROD SIZE	SCREW SIZE	EMBED DEPTH	TENSION (LBS)	SHEAR (LBS)	ROD SIZE	SHANK SIZE	DRILL BIT DIA.	EMBED DEPTH	2,000 PSI TENSION/ SHEAR	4,000 PSI TENSION/ SHEAR	6,000 PSI TENSION/ SHEAR
1/4	VERTICAL	1/4-20 x 1"	1,550	1,965	1/4 V	1/4 x 2"	2	685	1,045	1/4	1/4 x 1-1/4	1/4	1-1/4	1,390/	1,950/	2,070/
3/8	VERTICAL	1/4-20 x 1"	1,550	1,965	3/8 V	1/4 x 2"	2	1,800	1,815					1,810	2,440	2,570
3/8	VERTICAL	1/4-20 x 1-1/2	450	2,400	3/8 V	1/4 x 3"	3	2,075	2,255	3/8	1/4 x 1-1/2	1/4	1-1/2	1,760/	2,595/	2,770/
1/2	VERTICAL	1/4-20 x 1-1/2	-	2,400	3/8 V	1/4 x 4"	4	2,195	2,255					2,580	2,640	2,700
1/4	SIDE	1/4-20 x 2"	1,550	1,965	1/4 S	1/4 x 1"	1	685	1,045	1/2	3/8 x 2-3/4	3/8	2-3/4	5,320/	6,050/	8,620/
3/8	SIDE	1/4-20 x 1-1/2	450	2,400	3/8 S	1/4" x 2"	2	1,800	1,815					5,250	6,330	7,410

METAL VERTICAL SUSPEND-IT



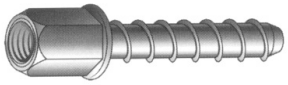
SIZE	ROD		P/N
1/4-20 x 1"	1/4	N	9500
1/4-20 x 2"	3/8	N	9501
1/4-20 x 1-1/2	3/8	L	9502
12-20 x 1-1/2	1/2	L	9503

WOOD VERTICAL SUSPEND-IT



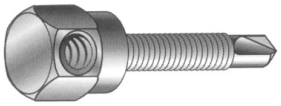
SIZE	ROD		P/N
1/4 x 2"	1/4	N	9504
1/4 x 2"	3/8	N	9505
1/4 x 3"	3/8	L	9506
1/4 x 4"	3/8	L	9507
3/8 x 2-1/2	3/8	L	9508
3/8 x 2-1/2	1/2	I	9509

CONCRETE VERTICAL SUSPEND-IT



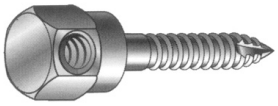
SIZE	ROD		P/N
1/4 x 1-1/4	1/4	N	9510
1/4 x 1-1/2	3/8	L	9511
3/8 x 2-3/4	1/2	I	9512

METAL SIDE SUSPEND-IT



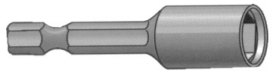
SIZE	ROD		P/N
1/4-20 x 1"	1/4	L	9513
1/4-20 x 1"	3/8	L	9514
1/4-20 x 1-1/2	3/8	L	9515

WOOD SIDE SUSPENDIT-IT



SIZE	ROD		P/N
1/4 x 1"	1/4	L	9516
1/4 x 2"	3/8	L	9517
3/8 x 2-1/2	3/8	I	9518

SOCKET DRIVERS



SIZE	COLOR		P/N
Universal*	Red	A	9519
1/4 Concrete	Blue	A	9520
3/8 Concrete	Blue	A	9521
1/2 Concrete	Blue	A	9522

*Universal fits all metal and wood suspend-its.

TURBO-DRIVE™ ANCHORS

SCREW AND ANCHOR IN ONE!

- THIS ALL STEEL ANCHOR INSTALLS IN WALLBOARD, PLYWOOD, CONCRETE, HOLLOW OR GROUT FILLED BLOCK, BRICK OR PLASTER
- NO SECOND STEP, INSTALLS DIRECTLY THROUGH FIXTURE INTO WALLBOARD
- PATENTED DESIGN PROVIDES FOR SMOOTH ENTRY, CLEAN CUTTING AND A POWERFUL HOLD
- THREAD DESIGN PREVENTS SPINNING AND STRIPPING
- HEAT TREATED POINT PENETRATES METAL AND WOOD STUDS
- LEAVES A MUCH SMALLER HOLE THAN TOGGLES OR OTHER SYSTEM WHEN REMOVED
- SELF-DRILLS OWN SMALL HOLE IN WALLBOARD
- INSTALLS QUICKLY AND EASILY WITH A PHILLIPS SCREWDRIVER
- CAN BE EASILY BACKED-OUT
- NO NEED FOR SHIELDS
- NO HOLE SPOTTING

INSTALLATION PROCEDURE

For fastening into wallboard or wood, no pre-drilling is required. The anchor is inserted through the fixture and screwed in with an ordinary phillips screwdriver.

For fastening into concrete, hollow or grout filled block, brick or plaster requires a 3/16" pre-drilled hole with a carbide drill bit.

DESCRIPTION		PART
3/16 x 1-1/4 Chrome Pan Head	T	88656
3/16 x 1-1/4 White Pan Head	T	88657
3/16 x 1-1/4 Chrome Oval Head	T	88658
3/16 x 1-1/4 White Oval Head	T	88659

WALLBOARD AND PLYWOOD							NORMAL WEIGHT CONCRETE			
ANCHOR DIAMETER INCHES (mm)	1/2" WALLBOARD		5/8" WALLBOARD		1/2" PLYWOOD		ANCHOR DIAMETER INCHES (mm)	EMBEDMENT DEPTH INCHES (mm)	MINIMUM CONCRETE COMPRES. STRENGTH	
	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)			TENSION LBS. (kN)	SHEAR LBS. (kN)
1/4 (6.4)	85 (0.4)	245 (1.1)	135 (0.6)	360 (1.6)	255 (1.1)	600 (2.7)	1/4 (6.4)	3/4 (19.1)	350 (1.6)	1,030 (4.6)
								1 (25.4)	700 (3.2)	1,070 (4.8)

GROUT FILLED AND HOLLOW CONCRETE MASONRY AND STRUCTURAL BRICK MASONRY								
ANCHOR DIAMETER INCHES (mm)	EMBEDMENT DEPTH INCHES (mm)	ANCHOR LOCATION	GROUT FILLED CMU ASTM C-90 BLOCK		HOLLOW CMU ASTM C-90 BLOCK		STRUCTURAL BRICK MASONRY FM > 1500 psi (10.3 MPa)	
			TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)	TENSION LBS. (kN)	SHEAR LBS. (kN)
1/4 (6.4)	3/4 (19.1)	**Center of Masonry Unit**	–	–	–	–	400 (1.8)	650 (2.9)
	3/4 (19.1)	**T-Joint**	–	–	–	–	350 (1.6)	600 (2.7)
	1 (25.4)	**Center of Masonry Unit**	285 (1.3)	825 (3.7	305 (1.4)	825 (3.7)	600 (2.7)	900 (4.1)
	1 (25.4)	**T-Joint**	290 (1.3)	915 (4.1)	290 (1.3)	915 (4.1)	380 (1.7)	825 (3.7)

CIC 200™ SLEEVE ANKA BOLTS

P/N 17061 – 1/4'' to 1/2'' – 10 ITEMS / 24 HOLES

HEX NUT ANKA BOLT 1/4" x 1-3/8" P/N 750	HEX NUT ANKA BOLT 1/4" x 2-1/4" P/N 751	HEX NUT ANKA BOLT 5/16" x 1-1/2" P/N 753	HEX NUT ANKA BOLT 5/16" x 2-1/2" P/N 754	HEX NUT ANKA BOLT 3/8" x 1-7/8" P/N 755	HEX NUT ANKA BOLT 3/8" x 3" P/N 756
HEX NUT ANKA BOLT 1/2" x 2-1/4" P/N 757	HEX NUT ANKA BOLT 1/2" x 3" P/N 758	HEX NUT ANKA BOLT 1/2" x 4" P/N 759	HEX NUT ANKA BOLT 1/2" x 6" P/N 760	EXPANSION	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

24 COMPARTMENT ASSORTMENT BIN & BASE

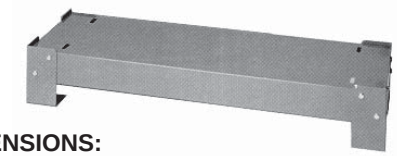
Convenient and rugged. Made from heavy gauge steel and coated with a durable baked enamel finish.

P/N 7901

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909



P/N 7909

BASE DIMENSIONS:
34" W x 12" D x 5-3/4" H

CIC 200™ SLEEVE ANKA BOLTS

P/N 17062 – 1/4'' to 3/4'' – 16 ITEMS / 24 HOLES

HEX NUT ANKA BOLT 1/4" x 1-3/8" P/N 750	HEX NUT ANKA BOLT 1/4" x 2-1/4" P/N 751	HEX NUT ANKA BOLT 5/16" x 1-1/2" P/N 753	HEX NUT ANKA BOLT 5/16" x 2-1/2" P/N 754	HEX NUT ANKA BOLT 3/8" x 1-7/8" P/N 755	HEX NUT ANKA BOLT 3/8" x 3" P/N 756
HEX NUT ANKA BOLT 1/2" x 2-1/4" P/N 757	HEX NUT ANKA BOLT 1/2" x 3" P/N 758	HEX NUT ANKA BOLT 1/2" x 4" P/N 759	HEX NUT ANKA BOLT 1/2" x 6" P/N 760	HEX NUT ANKA BOLT 5/8" x 2-1/4" P/N 745	HEX NUT ANKA BOLT 5/8" x 4-1/4" P/N 761
HEX NUT ANKA BOLT 5/8" x 6" P/N 762	HEX NUT ANKA BOLT 3/4" x 2-1/2" P/N 763	HEX NUT ANKA BOLT 3/4" x 4-1/2" P/N 764	HEX NUT ANKA BOLT 3/4" x 6-1/4" P/N 765	EXPANSION	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

24 COMPARTMENT ASSORTMENT BIN & BASE

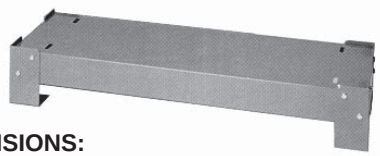
Convenient and rugged. Made from heavy gauge steel and coated with a durable baked enamel finish.

P/N 7901

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909



P/N 7909

BASE DIMENSIONS:
34" W x 12" D x 5-3/4" H

CIC 200™ SLEEVE ANKA BOLTS

P/N 17063 – 1/4'' to 1/2'' – 14 ITEMS / 24 HOLES

HEX NUT STUD ANKA 1/4" x 1-3/4" P/N 77601	HEX NUT STUD ANKA 1/4" x 2-1/4" P/N 77602	HEX NUT STUD ANKA 1/4" x 3-1/4" P/N 77603	HEX NUT STUD ANKA 5/16" x 2" P/N 77609	HEX NUT STUD ANKA 5/16" x 2-3/4" P/N 77612	HEX NUT STUD ANKA 5/16" x 3-1/2" P/N 77613
HEX NUT STUD ANKA 5/16" x 5" P/N 77614	HEX NUT STUD ANKA 3/8" x 2-3/4" P/N 77606	HEX NUT STUD ANKA 3/8" x 3-3/4" P/N 77607	HEX NUT STUD ANKA 3/8" x 5" P/N 77608	HEX NUT STUD ANKA 1/2" x 2-3/4" P/N 77600	HEX NUT STUD ANKA 1/2" x 3-3/4" P/N 77605
HEX NUT STUD ANKA 1/2" x 4-1/2" P/N 77616	HEX NUT STUD ANKA 1/2" x 5-1/2" P/N 77610	EXPANSION	EXPANSION	EXPANSION	EXPANSION
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION

24 COMPARTMENT ASSORTMENT BIN & BASE

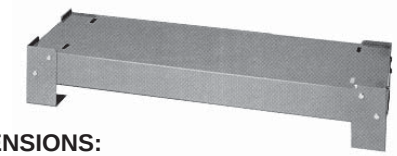
Convenient and rugged. Made from heavy gauge steel and coated with a durable baked enamel finish.

P/N 7901

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909



P/N 7909

BASE DIMENSIONS:
34" W x 12" D x 5-3/4" H

CHROMATE® INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

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CIC 200™ SLEEVE ANKA BOLTS

P/N 17064 – 1/4'' to 3/4'' – 21 ITEMS / 24 HOLES

HEX NUT STUD ANKA 1/4" x 1-3/4" P/N 77601	HEX NUT STUD ANKA 1/4" x 2-1/4" P/N 77602	HEX NUT STUD ANKA 1/4" x 3-1/4" P/N 77603	HEX NUT STUD ANKA 5/16" x 2" P/N 77609	HEX NUT STUD ANKA 5/16" x 2-3/4" P/N 77612	HEX NUT STUD ANKA 5/16" x 3-1/2" P/N 77613
HEX NUT STUD ANKA 5/16" x 5" P/N 77614	HEX NUT STUD ANKA 3/8" x 2-3/4" P/N 77606	HEX NUT STUD ANKA 3/8" x 3-3/4" P/N 77607	HEX NUT STUD ANKA 3/8" x 5" P/N 77608	HEX NUT STUD ANKA 1/2" x 2-3/4" P/N 77600	HEX NUT STUD ANKA 1/2" x 3-3/4" P/N 77605
HEX NUT STUD ANKA 1/2" x 4-1/2" P/N 77616	HEX NUT STUD ANKA 1/2" x 5-1/2" P/N 77610	HEX NUT STUD ANKA 5/8" x 3-1/2" P/N 77615	HEX NUT STUD ANKA 5/8" x 4-1/2" P/N 77620	HEX NUT STUD ANKA 5/8" x 5" P/N 77622	HEX NUT STUD ANKA 5/8" x 6" P/N 77625
HEX NUT STUD ANKA 3/4" x 4-1/4" P/N 77630	HEX NUT STUD ANKA 3/4" x 5-1/2" P/N 77635	HEX NUT STUD ANKA 3/4" x 6-1/4" P/N 77637	EXPANSION	EXPANSION	EXPANSION

24 COMPARTMENT ASSORTMENT BIN & BASE

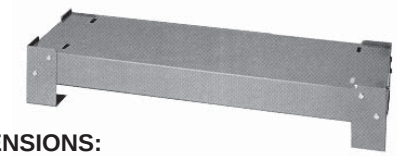
Convenient and rugged. Made from heavy gauge steel and coated with a durable baked enamel finish.

P/N 7901

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENT SIZE:
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909



P/N 7909

BASE DIMENSIONS:
34" W x 12" D x 5-3/4" H

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EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

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RIVETS AND THREADED INSERTS

- **Tri-Clamp, Multi-Grip, Dome Head and Stainless Steel Rivets**
- **Multi-Grip Rivets Adapt to All Material Types and Thicknesses**
- **Threaded Inserts Install Threads Into Blind Areas and Thin Material**
- **Thread Repair Inserts for Metal and Wood**

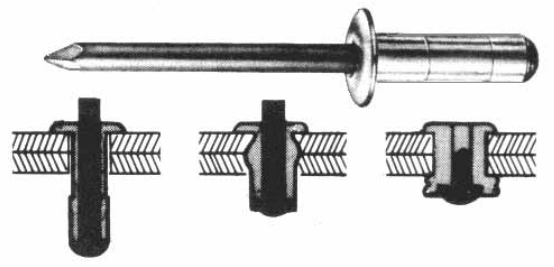
CHROMATE RIVETS AND THREADED INSERTS PROVIDE SUPERIOR FASTENING STRENGTH AND SIMPLE INSTALLATION. For more diversity and coverage of applications with fewer stocked items, use Chromate Rivets and Threaded Inserts.

CIC 200™ MULTI-GRIP PULL RIVETS

DOME HEAD

Only Chromate multi-grip pull rivets adapt to hole size variance and pull up snug regardless of material thickness. Only a few sizes cover the applications of up to 15 standard rivets.

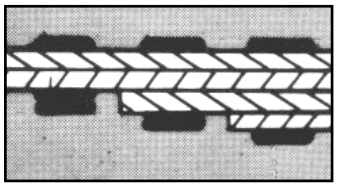
THE CHROMATE MULTI-GRIP DIFFERENCE



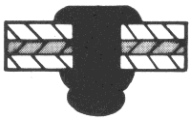
EXCLUSIVE FEATURES:

7740

- EXPANDS UP TO ITS OWN HEAD DIAMETER FOR USE IN WIDE TOLERANCE HOLES
- ONE LENGTH FITS ALL THICKNESSES WITHIN GRIP RANGE
- SUPERIOR CLAMP-UP ACTION ELIMINATES LOOSE PART UNDER ADVERSE CONDITIONS
- LOW PROFILE GUARANTEED FOR FINISHED APPEARANCE ON BOTH SIDES
- SEALED STEM FOR WATERPROOF, DUSTPROOF APPLICATION

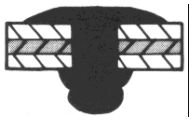


- DOME HEAD RIVETS ARE USED IN STANDARD APPLICATIONS REQUIRING MAXIMUM HOLE FILL AND CLAMP-UP



DOME HEAD					
DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE		PART
1/8	1/32 to 3/16	13/64	#29	U	6850
1/8	1/8 to 5/16	13/64	#29	U	6853
5/32	3/64 to 1/4	1/4	#19	U	6855
3/16	1/16 to 1/4	11/32	#8	U	6860
3/16	3/16 to 7/16	11/32	#8	T	6865

- LARGE FLANGE RIVETS INCREASE HEAD BEARING SURFACE, PREVENTING PULL-THROUGH IN SOFT MATERIALS



LARGE FLANGE					
DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE		PART
1/8	1/32 to 3/16	21/64	#29	U	6875
1/8	1/8 to 5/16	21/64	#29	U	6876
3/16	1/4 to 1/2	5/8	#8	T	6879
3/16	1/2 to 25/32	5/8	#8	T	6882

- 120° COUNTERSUNK RIVETS PROVIDE SMOOTH OFFSIDE SURFACES AND CLEARANCE FOR MOVING PARTS

120° COUNTERSUNK					
DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE		PART
1/8	3/32 to 1/4	13/64	#29	U	6867

DUAL-ACTION HAND RIVET TOOL

NOSE PIECES INCLUDED:		PART
3/32, 1/8, 5/32, 3/16	A	6885

HAND RIVET TOOL

- SETS 1/8" - 1/4" DIAMETER RIVETS IN ALL MATERIALS. CAN ALSO SET T-RIVET/KLIK-SPLIT®, KLIK-LOCK™ AND ALL OTHER STRUCTURAL BLIND RIVETS
- HEAVY DUTY CONSTRUCTION WITH SHOCK RESISTANT HANDLES
- 1/4" NOSEPIECE INSTALLED IN THE TOOL AND 3/16" AND 5/32" NOSEPIECES IN THE HANDLE
- LONGER HANDLES PERMIT ACCESS TO HARD-TO-REACH AREAS
- OVERALL LENGTH 21", HANDLE LENGTH 16"

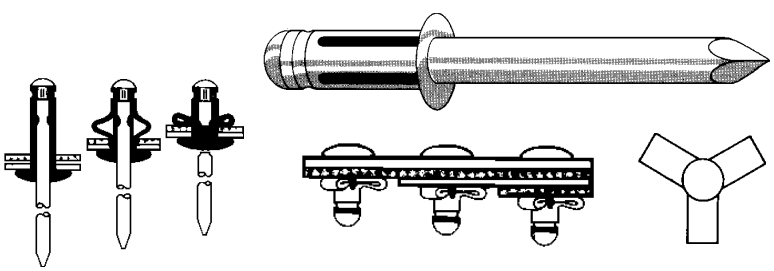
NOSE PIECES INCLUDED:		PART
1/4", 3/16" and 5/32"	A	6884

22

CIC 200™ MULTI-GRIP PULL RIVETS (Cont'd.)

TRI-CLAMP

All aluminum, multi-purpose, multi-grip rivet designed to fasten all materials including metal, plastic, fiberglass, ceramic, plexiglass and other composites where pull-through with standard rivets is a common cause of failure.



17940

- **EASY USE – INSERT AND SQUEEZE**
- **POSITIVE FASTENING**
- **ADAPTS TO ALL MATERIALS – THIN, BRITTLE, CLAD, SOFT**
- **MULTI-GRIP – WILL FASTEN MATERIALS FROM 3/64" TO 15/32" THICK**
- **SUPERIOR CLAMPING – SLOTTED SHELL UPSETS INTO 3 UNIFORM TINES ON BLIND SIDE CREATING A LARGE BEARING SURFACE EXTENDING PROPER CLAMPING FORCE FROM BOTH SIDES**

DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE		PART
5/32	3/64 to 1/8	5/16	11/64 (.1719)	T	6887
5/32	3/64 to 9/32	5/16	11/64 (.1719)	T	6888
3/16	3/64 to 5/32	25/64	#8 (.1990)	T	6883
3/16	3/64 to 11/32	25/64	#8 (.1990)	T	6886
3/16	5/32 to 15/32	25/64	#8 (.1990)	T	6889

FINISHING CAPS FOR TRI-CLAMP RIVETS

- **THESE DECORATIVE "SNAP-ON" PLASTIC CAPS PROVIDE A FINISHED QUALITY IN APPLICATIONS WHERE RIVET HEADS SHOULD BE CONCEALED**

17940

DIAMETER	USE WITH PART NOS.	COLOR		PART
5/32	6887, 6888	WHITE	T	6896
5/32	6887, 6888	BLACK	T	6897
3/16	6883, 6886, 6889	WHITE	T	6898
3/16	6883, 6886, 6889	BLACK	T	6899

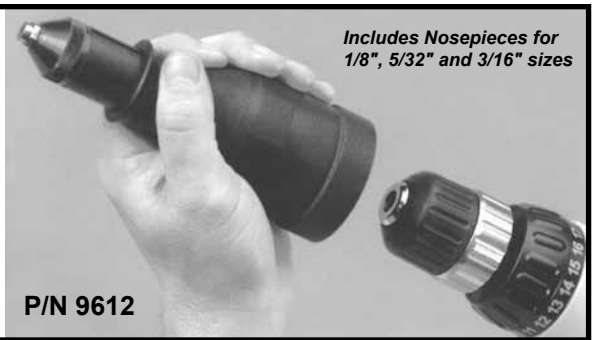
RIVEDRILL™

PATENTED DRILL ATTACHMENT WITH EFFORTLESS OPERATION

- **EASILY CONVERTS CORDLESS, ELECTRIC AND PNEUMATIC DRILLS INTO BLIND RIVET GUNS**
- **INSTALLS AS EASILY AS A DRILL BIT**
- **COMPATIBLE WITH ANY REVERSIBLE DRILLING MACHINE WITH OR WITHOUT CORD**
- **ALLOWS OPERATORS TO SET UP TO 14 RIVETS PER MINUTE**
- **ERGONOMICALLY FRIENDLY – REQUIRING JUST 6.6 POUND OF PRESSURE TO OPERATE**

APPLICATIONS:

- **AUTOMOTIVE AFTERMARKET**
- **SMALL AIRCRAFT AND BOAT REPAIR**
- **RESIDENTIAL AND COMMERCIAL CONSTRUCTION**
- **GENERAL FACILITY MAINTENANCE AND REPAIR**

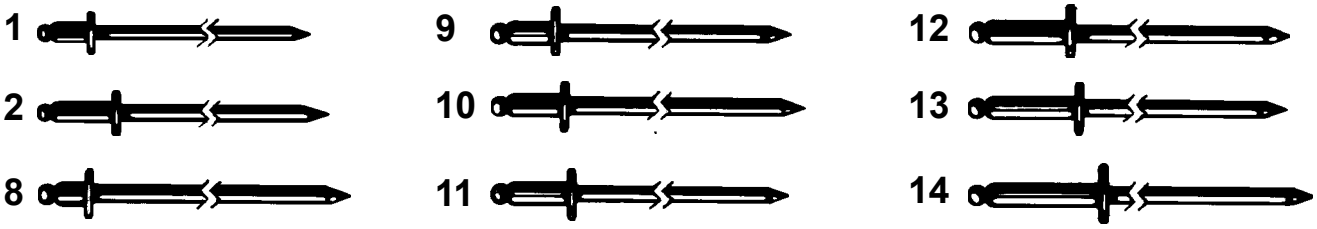


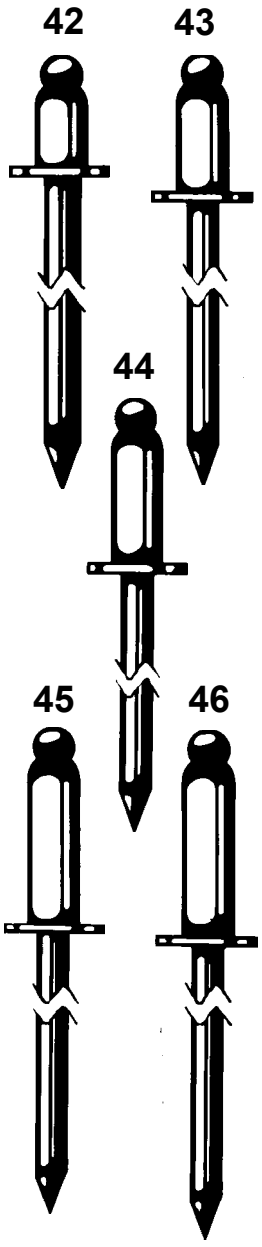
DESCRIPTION		PART	REPLACEMENT NOSEPIECES		PART
Rivedrill	A	9612	1/8	A	9612NP18
Replacement Jaws for Rivedrill	A	9612JAWS	3/16	A	9612NP316
			5/32	A	9612NP532

CIC 200™ PULL RIVETS

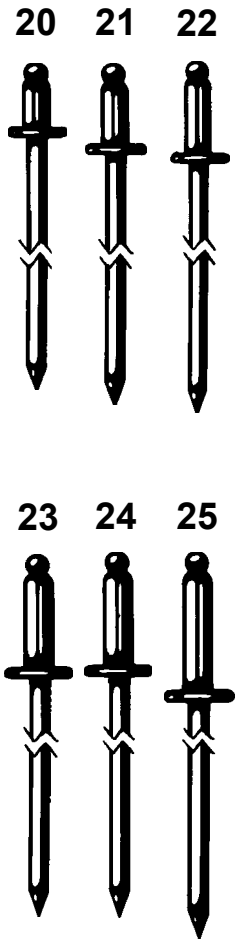
DOME HEAD

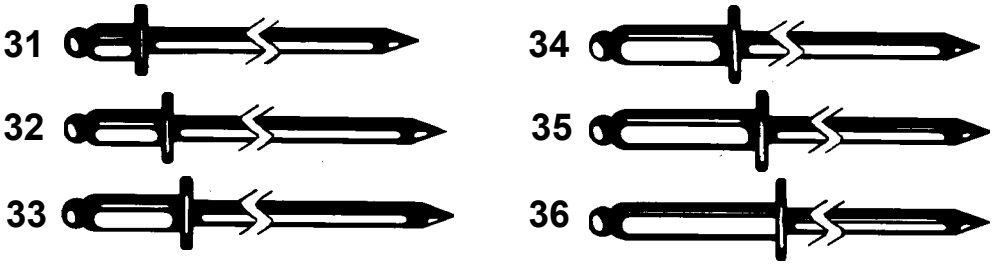
7737





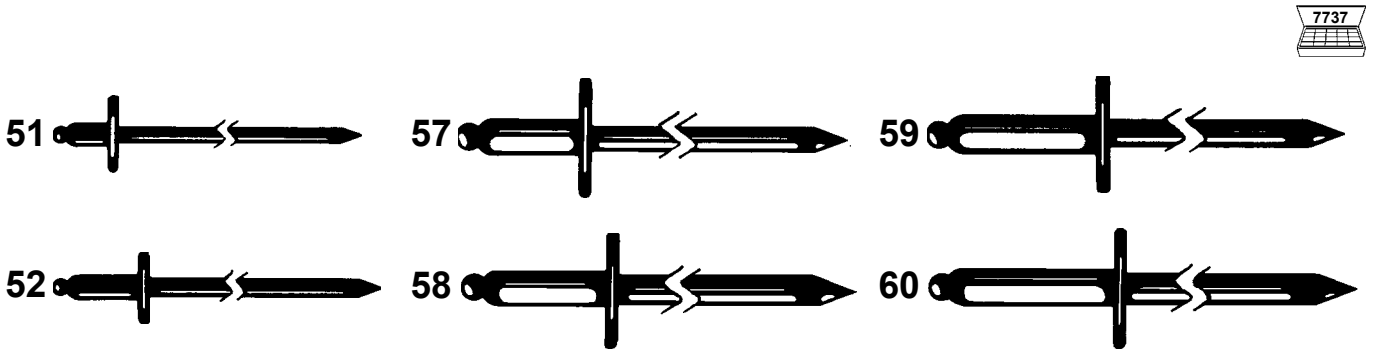
DIA.	DRILL SIZE	NO.	GRIP RANGE	ALUM. RIVET ALUM. MANDREL	ALUM. RIVET STEEL MANDREL	STEEL RIVET STEEL MANDREL	IN-DUS-TRY NO.
3/32	#41 (.0960)	1	to 1/8	V 9800	V 9851	V 9911	32
		2	1/8 to 1/4	V 9801	V 9852	V 9912	34
1/8	#30 (.1285)	8	to 1/16	V 9806	V 9858	V 9918	41
		9	1/16 to 1/8	V 9807	V 9859	V 9919	42
		10	1/8 to 3/16	V 9808	V 9860	V 9920	43
		11	3/16 to 1/4	V 9809	V 9861	V 9921	44
		12	1/4 to 5/16	V 9810	V 9862	V 9922	45
		13	5/16 to 3/8	V 9811	V 9863	V 9923	46
		14	3/8 to 1/2	U 9812	U 9864	U 9924	48
5/32	#20 (.1610)	20	to 1/8	U 9818	U 9869	U 9930	52
		21	1/8 to 3/16	-	U 9870	-	53
		22	3/16 to 1/4	-	U 9871	-	54
		23	1/8 to 1/4	U 9820	-	U 9932	54
		24	1/4 to 3/8	U 9821	U 9872	U 9933	56
		25	3/8 to 1/2	U 9822	-	U 9934	58
3/16	#11 (.1910)	31	to 1/8	U 9827	U 9878	U 9939	62
		32	1/8 to 1/4	U 9828	U 9879	U 9940	64
		33	1/4 to 3/8	U 9829	U 9880	U 9941	66
		34	3/8 to 1/2	U 9830	U 9881	U 9942	68
		35	1/2 to 5/8	U 9831	U 9882	U 9943	610
		36	5/8 to 3/4	T 9832	T 9883	T 9944	612
1/4	F (.2370)	42	to 1/4	-	T 9889	T 9950	84
		43	1/4 to 3/8	-	T 9890	T 9951	86
		44	3/8 to 1/2	-	T 9891	T 9952	88
		45	1/2 to 5/8	-	-	T 9953	810
		46	5/8 to 3/4	-	-	T 9954	812





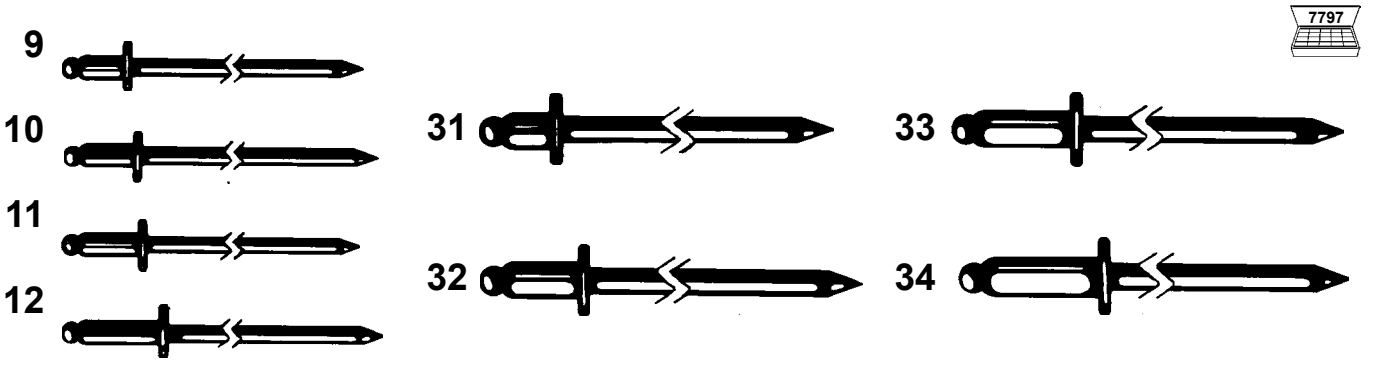
CIC 200™ PULL RIVETS (Cont'd.)

LARGE FLANGE



DIA.	FLANGE DIA.	DRILL SIZE	NO.	GRIP RANGE	ALUM. RIVET ALUM. MANDREL	ALUM. RIVET STEEL MANDREL	STEEL RIVET STEEL MANDREL
1/8	3/8	#30 (.1285)	51	1/16 to 1/8	U 9838	U 9897	U 9960
			52	1/8 to 1/4	U 9839	U 9898	U 9961
3/16	5/8	#11 (.1910)	57	1/4 to 3/8	U 9844	U 9903	U 9967
			58	3/8 to 1/2	-	U 9904	U 9968
			59	1/2 to 5/8	T 9846	T 9905	T 9969
			60	5/8 to 3/4	-	T 9906	T 9970

STAINLESS STEEL

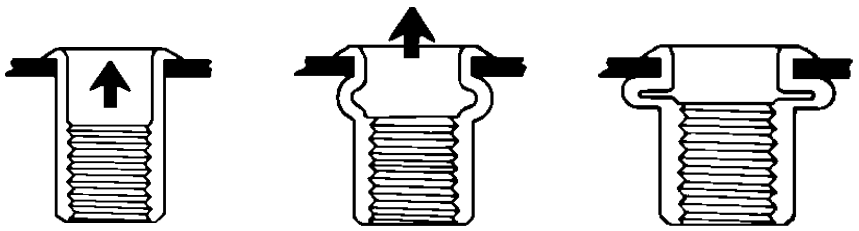


DIAMETER	DRILL SIZE	NO.	GRIP RANGE	PART
1/8	#30 (.1285)	9	to 1/8	T 9702
		10	1/8 to 3/16	T 9704
		11	3/16 to 1/4	T 9706
		13	1/4 to 3/8	T 9708
3/16	#11 (.1910)	31	to 1/8	R 9710
		32	1/8 to 1/4	R 9712
		33	1/4 to 3/8	R 9714
		34	3/8 to 1/2	R 9716

CIC 200™ THREADED INSERT FASTENERS

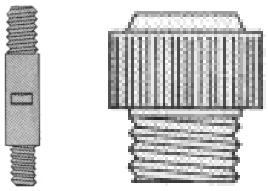
FAST, CONVENIENT INSTALLATION OF THREADS IN ANY BLIND AREA

CIC 200 Thinserts are an easily-installed alternative to many "blind" fasteners. They offer strength, permanence and load-bearing capabilities for a variety of materials.



THINSERTS
DESIGNED TO PROVIDE A HIGHLY EFFICIENT METHOD OF SECURING THREADS FROM ONE SIDE OF WORK IN MATERIALS TOO THIN TO SUPPORT THREADS.

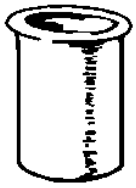
FOR MATERIALS .020" TO .200" THICK.

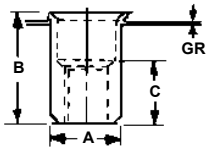
THINSERTS				ADAPTERS/MANDRELS		
						
SIZE	**DRILL SIZE**		**PART**	**SIZE**		**PART**
6-32	1/4	T	581	4-40	A	460
8-32	1/4	T	582	6-32	A	483
10-24	9/32	T	583	8-32	A	484
10-32	9/32	T	584	10-24	A	485
1/4-20	3/8	R	585	10-32	A	486
5/16-18	1/2	R	587	12-24	A	487
–	–		–	1/4-20	A	488
–	–		–	1/4-28	A	492
–	–		–	5/16-18	A	490
–	–		–	5/16-24	A	493
–	–		–	3/8-16	A	489
–	–		–	3/8-24	A	494

CIC 200™ THREADED INSERT FASTENERS (Cont'd.)

SPECIFICATIONS

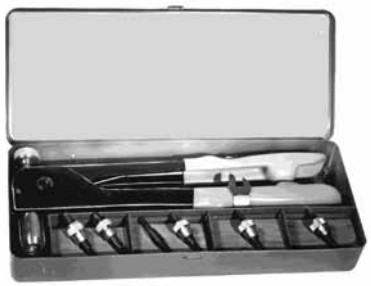
THINSERTS





THREAD SIZE CLASS 2B AFTER INSTALLATION	RECOMMENDED GRIP RANGE		'A' MAX.	'B' MAX.	'C' MAX.	HOLE SIZE
	PILOT	FORMED				
6-32 and 8-32	.020 / .080	.020 / .060	.249	.410	.250	.250 / .254
10-24 and 10-32	.020 / .130	.020 / .100	.280	.465	.240	.281 / .285
1/4-20	.030 / .165	.030 / .130	.374	.610	.335	.375 / .379
5/16-18	.040 / .180	N/A	.499	.720	.395	.500 / .504

QUIK TOOL KITS



KIT INCLUDES:
- **QUIK TOOL**
- **ADAPTERS/MANDRELS 6-32, 8-32, 10-24, 10-32, 1/4-20 AND 5/16-18**

P/N 9600

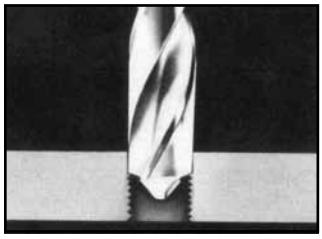
QUIK TOOL (WITHOUT ADAPTER)

P/N 9610

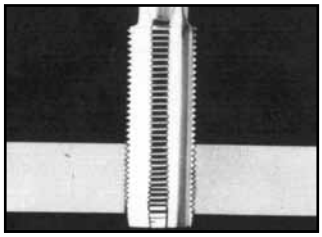
CIC 200™ PERMASERTS™

PERMANENT, LOCKING STEEL THREAD REPAIR INSERTS

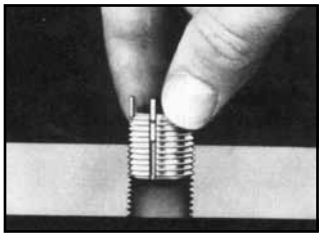
Quickly repairs stripped, damaged or worn threads. Also for use on original equipment applications where softer materials won't hold. Installed with standard drills and taps. No pre-winder tool required. Positive mechanical lock against rotation.



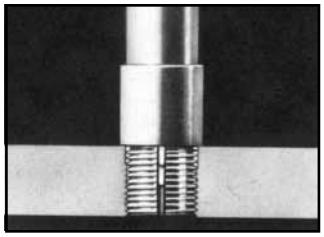
1. Drill out old threads, using standard drill.



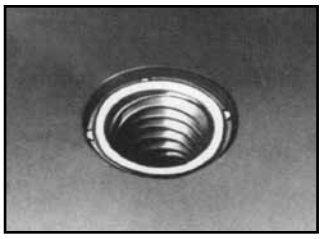
2. Tap new threads, using standard tap.



3. Screw in insert until slightly below surface. "Kees" act as depth stop.



4. Drive "Kees" down with several light taps on installation tool.



5. Installed Insert

INSTALLATION TOOL

- **SOLID BUSHING WITH LOCKING KEES — PROVIDES POSITIVE MECHANICAL LOCKING AGAINST ROTATION**
- **USE IN ALUMINUM, MAGNESIUM, CAST IRON, COLD ROLLED STEEL AND PLASTIC — NO RESTRICTIONS ON PARENT MATERIAL**
- **HIGH STRENGTH AND RELIABILITY — PROVIDES MAXIMUM PULLOUT STRENGTH; BREAKS GRADE 8 BOLT**
- **EASY INSTALLATION — LEARN IN MINUTES**
- **HOLE PREPARED WITH STANDARD DRILL AND TAP — NO SPECIAL, COSTLY, SINGLE-PURPOSE DRILLS OR TAPS REQUIRED**
- **INSERT WITH FINGERS — NO SPECIAL PRE-WINDER TOOLS REQUIRED**
- **IMPOSSIBLE TO CROSS-THREAD DURING INSTALLATION — PERFECT EVERY TIME**
- **SIMPLE REMOVAL — PERMANENTLY INSTALLED UNLESS REMOVAL IS REQUIRED**

USS THREAD SIZES

INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL DIA.	TAP SIZE	DRILL REMOVAL SIZE	DRILL REMOVAL DEPTH	PART		INSTALLATION TOOL	
10-24	3/8-16	.31	"Q"	3/8-16	9/32	1/8	L	1913	A	1881
1/4-20	7/16-14	.37	"X"	7/16-14	11/32	3/16	L	1915	A	1882
5/16-18	1/2-13	.43	29/64	1/2-13	13/32	3/16	L	1917	A	1883
3/8-16	9/16-12	.50	33/64	9/16-12	15/32	3/16	I	1919	A	1884
7/16-14	5/8-11	.62	37/64	5/8-11	17/32	3/16	I	1921	A	1885
1/2-13	3/4-16	.62	45/64	3/4-16	21/32	3/16	I	1923	A	1886
5/8-11	7/8-14	.87	53/64	7/8-14	25/32	3/16	F	1927	A	1888
3/4-10	1-1/8-12	1.12	1-1/16	1-1/8-12	31/32	5/16	D	1929	A	1889
7/8-9	1-1/4-12	1.25	1-3/16	1-1/4-12	1-3/32	5/16	D	1931	A	1890
1-8	1-3/8-12	1.37	1-5/16	1-3/8-12	1-7/32	5/16	B	1933	A	1891

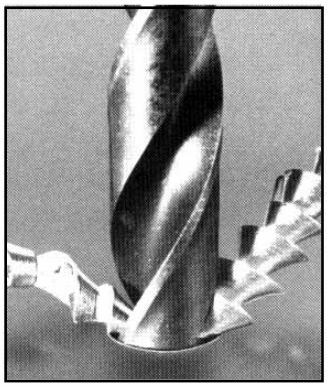
SAE THREAD SIZES

10-32	3/8-16	.31	"Q"	3/8-16	9/32	1/8	L	1914	A	1881
1/4-28	7/16-14	.37	"X"	7/16-14	11/32	3/16	L	1916	A	1882
5/16-24	1/2-13	.43	29/64	1/2-13	13/32	3/16	L	1918	A	1883
3/8-24	9/16-12	.50	33/64	9/16-12	15/32	3/16	I	1920	A	1884
7/16-20	5/8-11	.62	37/64	5/8-11	17/32	3/16	I	1922	A	1885
1/2-20	3/4-16	.62	45/64	3/4-16	21/32	3/16	I	1924	A	1886
5/8-18	7/8-14	.87	53/64	7/8-14	25/32	3/16	F	1928	A	1888
3/4-16	1-1/8-12	1.12	1-1/16	1-1/8-12	31/32	5/16	D	1930	A	1889
7/8-14	1-1/4-12	1.25	1-3/16	1-1/4-12	1-3/32	5/16	D	1932	A	1890
1-14	1-3/8-12	1.37	1-5/16	1-3/8-12	1-7/32	5/16	B	1935	A	1891

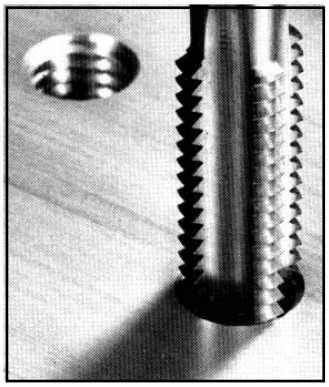
CIC 200™ THREAD REPAIR INSERTS

METAL

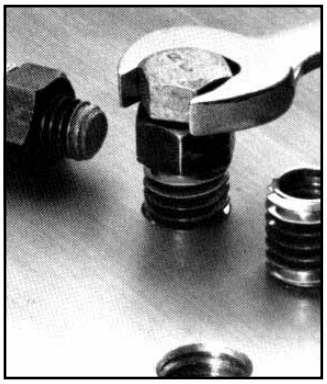
Installs permanent threads that won't fail, strip, rotate or pull out even under excessive loading.



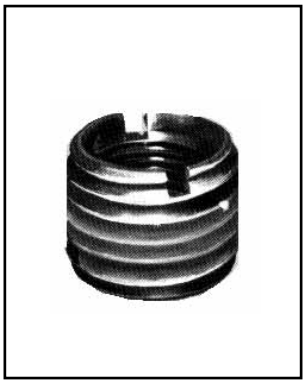
DRILL WITH STANDARD DRILL



TAP HOLE WITH STANDARD TAP



TURN E-Z LOK HOM FLUSH WITH BOLT



AUTOMATIC SELF-LOCKING EXTENERAL THREAD

USS THREAD SIZES							
INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL SIZE	TAP SIZE	MIN. FULL THREAD DEPTH		PART
4-40	10-32	.250	5/32	10-32	9/32	L	1653
6-32	1/4-20	.280	7	1/4-20	11/32	L	1654
8-32	5/16-18	.290	F	5/16-18	7/16	L	1655
10-24	3/8-16	.406	5/16	3/8-16	15/32	L	1656
1/4-20	7/16-14	.437	23/64	7/16-14	1/2	L	1657
5/16-18	1/2-13	.484	27/64	1/2-13	9/16	I	1658
3/8-16	9/16-12	.515	31/64	9/16-12	19/32	I	1659
7/16-14	5/8-11	.656	17/32	5/8-11	23/32	I	1660
1/2-13	3/4-10	.656	21/32	3/4-10	3/4	I	1661
5/8-11	7/8-9	.687	49/64	7/8-9	13/16	E	1662
5/8-11-Long	7/8-9	1.125	49/64	7/8-9	1-1/4	E	1663
3/4-10	1-8	.781	7/8	1-8	7/8	E	1664
1-8	1-3/8-12	1.250	1-9/32	1-3/8-12	1-3/8	E	1665
SAE THREAD SIZES							
10-32	3/8-16	.406	5/16	3/8-16	15/32	L	1757
1/4-28	7/16-14	.437	23/64	7/16-14	1/2	L	1758
5/16-24	1/2-13	.484	27/64	1/2-13	9/16	I	1759
3/8-24	9/16-12	.515	31/64	9/16-12	19/32	I	1760
7/16-20	5/8-11	.656	17/32	5/8-11	23/32	I	1761
1/2-20	3/4-10	.656	21/32	3/4-10	3/4	I	1762
5/8-18	7/8-9	.687	49/64	7/8-9	13/16	E	1763
3/4-16	1/8	.781	7/8	1-8	7/8	E	1764

CIC 200™ THREAD REPAIR INSERTS (Cont'd.)

303 STAINLESS STEEL, PASSIVATED

USS THREAD							
INTERNAL THREAD	EXTERNAL THREAD	OVERALL LENGTH	TAP DRILL SIZE	TAP SIZE	MIN. FULL THREAD DEPTH		PART
10-24	3/8-16	.406	5/16	3/8-16	15/32	E	1564
1/4-20	7/16-14	.437	23/64	7/16-14	1/2	E	1565
5/16-18	1/2-13	.484	27/64	1/2-13	9/16	E	1566
3/8-16	9/16-12	.515	31/64	9/16-12	19/32	E	1567
7/16-14	5/8-11	.656	17/32	5/8-11	23/32	E	1568
1/2-13	3/4-10	.656	21/32	3/4-10	3/4	E	1569
SAE THREAD							
10-32	3/8-16	.406	5/16	3/8-16	15/32	E	1575
1/4-28	7/16-14	.437	23/64	7/16-14	1/2	E	1576
5/16-24	1/2-13	.484	27/64	1/2-13	9/16	E	1577
3/8-24	9/16-12	.515	31/64	9/16-12	19/32	E	1578
7/16-20	5/8-11	.656	17/32	5/8-11	23/32	E	1579
1/2-20	3/4-10	.656	21/32	3/4-10	3/4	E	1580

WOOD

The most effective way to make strong joints in hard wood, soft wood and particle board using machine screws and/or bolts.

INTERNAL THREAD	MAX. DIA. EXT. THREAD	OVERALL LENGTH	DRILLED HOLE SIZE		PART
6-32	.350	.375	1/4"	R	3786
8-32	.350	.375	1/4"	R	3788
10-24	.453	.500	3/8"	R	3790
10-32	.453	.500	3/8"	R	3792
1/4-20	.453	.500	3/8"	R	3794
5/16-18	.594	.562	1/2"	O	3796
3/8-16	.600	.625	1/2"	O	3798

INSTALLATION TOOL

SIZE	USS	SAE		PART
8	32	-	A	1893
10	24	32	A	1894
1/4	20	28	A	1895
5/16	18	24	A	1896
3/8	16	24	A	1897
7/16	14	20	A	1898
1/2	13	20	A	1899

SELF-TAPPING THREADED INSERTS

FOR USE IN ALUMINUM, ALUMINUM ALLOY, MAGNESIUM AND MILD STEEL

- TAPS AND INSTALLS IN ONE EASY STEP SAVING TIME, MONEY AND LABOR
- DESIGNED TO PROVIDE MAXIMUM PULL-OUT STRENGTH AND WEAR RESISTANT THREADS IN ALUMINUM, ALUMINUM ALLOY, MAGNESIUM AND MILD STEEL
- THREE LATERAL CUTTING HOLES PROVIDES AN EASY SELF-TAPPING INSTALLATION RESULTING IN A CONNECTION HIGHLY RESISTANT TO VIBRATION

17785

SUPERIOR PULL-OUT RESISTANCE IN SOFTER METALS AND PLASTICS FROM THE EXTERNAL V-FORM THREAD.

CIRCULAR CUTTING ELEMENTS SELF-TAP AND LOCK INTO THE BASE MATERIAL. RESISTS EXTREME VIBRATION WITH NO LOSS IN PERFORMANCE.

HIGH-QUALITY INTERNAL THREADS ARE WEAR RESISTANT STANDARD CLASS 2B.

INSTALLATION INSTRUCTIONS:
(Using a hex head cap screw and nut)

1. Drill to recommended hole size.
2. Thread hex nut onto cap screw. Screw insert onto cap screw with holes away from nut. Tighten the nut snugly to the top of the insert.
3. Using appropriate wrench or socket, carefully align insert perpendicular to the hole and turn clockwise until flush with surface. To remove cap screw, hold the nut with a wrench and loosen cap screw.

SIZE	LENGTH	DRILL/ HOLE SIZE	HOLE DEPTH		PART	SIZE	LENGTH	DRILL/ HOLE SIZE	HOLE DEPTH		PART
4-40	.236	#15 (.181)	.315	N	1940	1/4-20	.472	U (.366)	.591	N	1945
6-32	.315	7/32 (.216)	.394	N	1941	5/16-18	.551	7/16 (.437)	.669	I	1946
8-32	.315	15/64 (.236)	.394	N	1942	3/8-16	.709	33/64 (.516)	.866	I	1947
10-24	.394	L (.291)	.512	N	1943	7/16-14	.866	19/32 (.590)	1.024	I	1948
10-32	.394	L (.291)	.512	N	1944	1/2-13	.945	43/64 (.669)	1.102	I	1949
–	–	– –	–			5/8-11	.945	3/4 (.748)	1.102	E	1950

HI-TORQUER TOOL AND CONVERSION KITS

- EASILY INSTALLS ALL SIZES OF THREADED INSERTS
- "QUICK-CHANGE" THREAD ADAPTATION KIT CHANGE OVER OF THE BASE TOOL (TOOL BODY WITH "T" HANDLE) TO PLACE DIFFERENT THREAD SIZES WITHOUT THE NEED OF ANY TOOLS

17861

INSTALLATION INSTRUCTIONS:

1. Lock the correct size conversion kit into the Hi-Torquer threaded insert tool.
2. Screw a nutsert or threadsert onto socket head cap screw.
3. Using the tool, place the insert into the hole until the tool comes to rest on the base material.
4. Hold in place with handle and turn the T-handle until insert is installed.
5. Remove the tool by unscrewing the T-handle out of the insert.

HEX DRIVER | SOCKET HEAD CAP SCREW | METAL WASHER | BRASS WASHER | NUT

HI-TORQUER THREADED INSERT TOOL

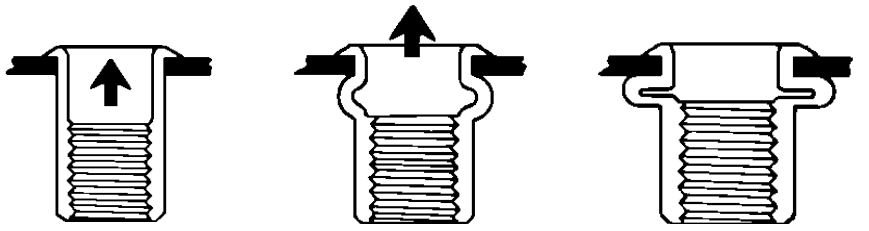
CONVERSION KIT

DESCRIPTION		PART	DESCRIPTION		PART
Hi-Torquer Threaded Insert Tool	A	9611	1/4-20 Hi-Torquer Conversion Kit	A	22105
4-40 Hi-Torquer Conversion Kit	A	22100	1/4-28 Hi-Torquer Conversion Kit	A	22106
6-32 Hi-Torquer Conversion Kit	A	22101	5/16-18 Hi-Torquer Conversion Kit	A	22107
8-32 Hi-Torquer Conversion Kit	A	22102	5/16-24 Hi-Torquer Conversion Kit	A	22108
10-24 Hi-Torquer Conversion Kit	A	22103	3/8-16 Hi-Torquer Conversion Kit	A	22109
10-32 Hi-Torquer Conversion Kit	A	22104	3/8-24 Hi-Torquer Conversion Kit	A	22110

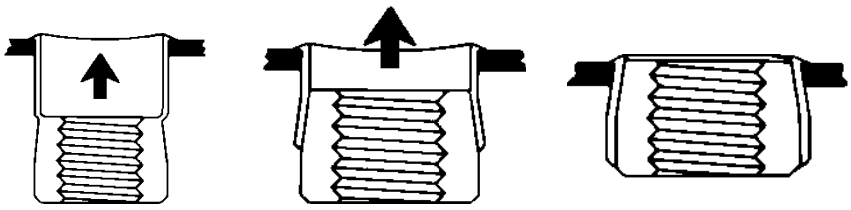
KNURLED FLANGED THREADED INSERT FASTENERS

FAST, CONVENIENT INSTALLATION OF THREADS IN ANY BLIND AREA

Knurled Flanged Thinserts and Nutserts are an easily-installed alternative to many "blind" fasteners. They offer strength, permanence and load-bearing capabilities for a variety of materials.



THINSERTS
DESIGNED TO PROVIDE A HIGHLY EFFICIENT METHOD OF SECURING THREADS FROM ONE SIDE OF WORK IN MATERIALS TOO THIN TO SUPPORT THREADS. FOR MATERIALS .020" TO .200" THICK.



NUTSERTS
UNIQUE "BREAKAWAY" DESIGN PROVIDES SUPERIOR HOLDING POWER. A CONICALLY-SHAPED THREADED BASE IS DRAWN INTO THE UPPER SLEEVE, WEDGING THE SLEEVE FIRMLY IN THE HOLE. FOR MATERIALS .030" AND THICKER.

THINSERTS

17828

- **SPLINED BODY PROVIDES INCREASED TORQUE-TO-TURN RESISTANCE OVER CONVENTIONAL NON-SPLINED INSERTS**
- **LOW PROFILE HEAD PROVIDES NEAR-FLUSH SEATING WITHOUT SPECIAL HOLE PREPARATION**
- **MATERIAL THICKNESS RANGING FROM .020" TO 0.312"**
- **HARDENED SURFACE PROVIDING HIGH-STRENGTH, LOAD-BEARING THREADS**
- **LEAD-IN CHAMFER ON THE BODY PROVIDES EASE OF INSERTION INTO THE WORK PIECE**

SIZE	DRILL SIZE		PART
6-32	17/64	T	590
8-32	17/64	T	591
10-24	19/64	T	592
10-32	19/64	T	593
1/4-20	25/64	T	594
5/16-18	17/32	R	595
3/8-16	17/32	R	596
-	-		-
-	-		-

NUTSERTS

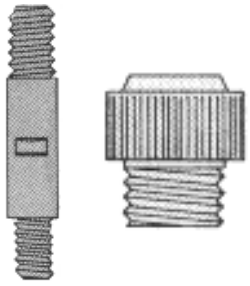
17828

- **REDUCED ASSEMBLY COSTS – INSTALLED FROM ONE SIDE OF THE WORKPIECE**
- **NOT GRIP SENSITIVE – CAN BE USED IN ANY MATERIAL THICKNESS FROM .030" THROUGH SOLID MATERIALS**
- **PERMANENT – RADIAL EXPANSION PROVIDES 360° CONTACT WITH PARENT MATERIAL**
- **PORTABILITY – ALLOWS INSTALLATION ANYWHERE AND AT ANY TIME IN THE ASSEMBLY PROCESS**
- **REDUCED REAR-SHEET PROTRUSION**

SIZE	DRILL SIZE		PART
4-40	3/16	R	47900
6-32	7/32	R	47901
8-32	1/4	R	47902
10-24	9/32	R	47903
10-32	9/32	R	47904
1/4-20	3/8	R	47905
1/4-28	3/8	R	47906
5/16-18	1/2	N	47907
5/16-24	1/2	N	47908

ADAPTERS/MANDRELS

17829

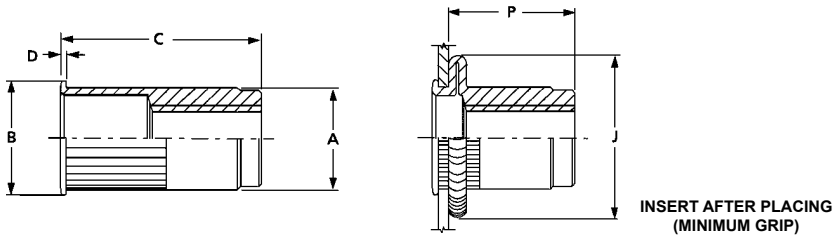


SIZE		PART
4-40	A	460
6-32	A	483
8-32	A	484
10-24	A	485
10-32	A	486
1/4-20	A	488
1/4-28	A	492
5/16-18	A	490
5/16-24	A	493
3/8-16	A	489

KNURLED FLANGED INSERT FASTENERS (Cont'd.)

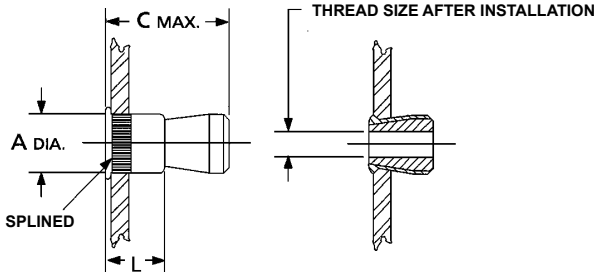
SPECIFICATIONS

THINSERTS



THREAD DESIGNATION	GRIP RANGE	HOLE DIA. +.006 –.000	A MAX.	B NOM.	C MAX.	P REF.	D MAX.	J MAX.
6-32 and 8-32	.020 - .080	17/64 (.2656)	.265	.310	.450	.305	.019	.390
10-24 and 10-32	.020 - .130	19/64 (.2969)	.296	.340	.505	.315	.020	.450
1/4-20	.027 - .165	25/64 (.3906)	.390	.455	.610	.380	.021	.550
5/16-18 and 3/8-16	.027 - .150	17/32 (.5312)	.530	.595	.720	.470	.023	.740

NUTSERTS



THREAD SIZE	A	L	C	SUGGESTED HOLE SIZE FOR MATERIAL THICKNESS			
				.030-.090	.091-.124	.125-.186	.187-OVER
4-40	.1820 - .1870	.180 - .190	.385	.1875	.1935	.1935	.1935
6-32	.2136 - .2186	.180 - .190	.385	.2187	.2210	.2280	.2280
8-32	.2449 - .2499	.180 - .190	.385	.2500	.2570	.2656	.2656
10-24	.2760 - .2810	.180 - .190	.385	.2812	.2900	.2968	.2968
10-32	.2760 - .2810	.180 - .190	.385	.2812	.2900	.2968	.2968
1/4-20	.3699 - .3749	.252 - .262	.525	.375	.375	.386	.3906
1/4-28	.3699 - .3749	.252 - .262	.525	.375	.375	.386	.3906
5/16-18	.4949 - .4999	.302 - .312	.625	.500	.500	.5156	.5156
5/16-24	.4949 - .4999	.302 - .312	.625	.500	.500	.5156	.5156

QUIK TOOL KITS

KIT INCLUDES:
- **QUIK TOOL**
- **ADAPTERS/MANDRELS 6-32, 8-32, 10-24, 1/4-20 AND 5/16-18**

P/N 9600

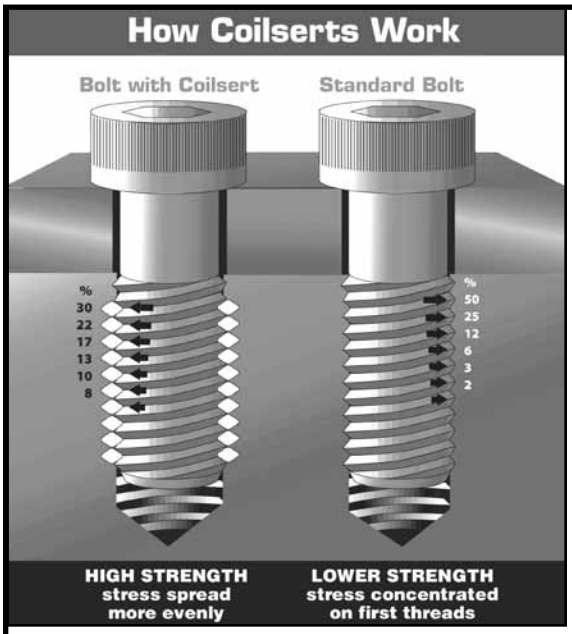
QUIK TOOL (WITHOUT ADAPTER)

P/N 9610

COILSERTS

PERMANENT AND WEAR RESISTANT THREAD REPAIR INSERT

Coilserts are the quickest and simplest method of repair to stripped or damaged threads.
A complete system of coilsert, STI tap and installation tools are offered.



In conventional threaded joints over 75% of the load is placed on the first three theads of the assembly. Coilsert on the left shows how the spring-like design of the insert allows the shear loading to be transformed into a preferable "hoop stress" or radial loading over the entire length of the insert.

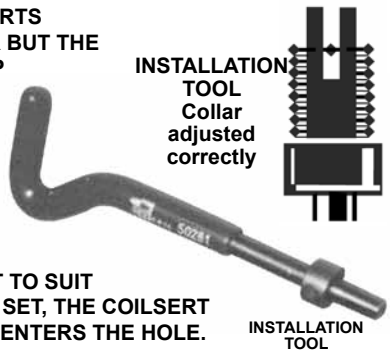
COILSERTS

- **ROLLED FROM HIGH QUALITY STAINLESS STEEL WIRE WOUND TO THE SHAPE OF A SPRING THREAD**
- **ONCE THE WIRE IS WOUND INTO A HELICAL COIL AND INSTALLED INTO A TAPPED HOLE, IT PROVIDES A PERMANENT AND WEAR RESISTANT THREAD IN THE PARENT MATERIAL THAT IS GENERALLY STRONGER THAN THE ORIGINAL THREAD**
- **COILSERT'S COMPENSATORY ACTION SHARES THE LOAD OVER THE ENTIRE BOLT AND HOLE, INCREASING HOLDING OR PULL OUT STRENGTH**
- **WITH A COILSERT IN PLACE, LOAD AND STRESS ARE MORE EVENLY DISTRIBUTED**

COILSERT (partially installed)

STI TAPS

- **SCREW THREAD INSERT (STI) TAPS ARE ONLY SUITABLE FOR USE WITH COILSERTS**
- **THEY HAVE A LARGER DIAMETER BUT THE SAME PITCH AS A STANDARD TAP IN ORDER TO ACCOMMODATE THE WIRE INSERT**



INSTALLATION TOOL

- **THE MOST PRACTICAL AND SIMPLE TO USE FOR GENERAL APPLICATIONS**
- **CARE MUST BE TAKEN TO ENSURE THAT THE ADJUSTABLE COLLAR IS CORRECTLY SET TO SUIT THE PARTICULAR TYPE AND LENGTH OF THE COILSERT. IF THE COLLAR IS CORRECTLY SET, THE COILSERT WILL NOT DRIVE PROPERLY AND THE TOOL MAY SLIP OFF THE TANG AS THE COILSERT ENTERS THE HOLE.**

USS THREAD SIZES

INTERNAL THREAD	LENGTH	TAP DRILL DIA.	PART	STI TAP PART	INSTALLATION TOOL
1/4-20	1-1/2	17/64	R 21823	A 21823T	A 21861
5/16-18	1-1/2	21/64	N 21825	A 21825T	A 21862
3/8-16	1-1/2	25/64	N 21827	A 21827T	A 21864
7/16-14	1-1/2	29/64	N 21829	A 21829T	A 21866
1/2-13	1-1/2	17/32	I 21831	A 21831T	A 21867
9/16-12	1-1/2	19/32	I 21833	A 21833T	A 21868
5/8-11	1-1/2	21/32	E 21835	A 21835T	A 21869
3/4-10	1"	25/32	E 21837	A 21837T	A 21870
7/8-9	1"	29/32	E 21839	A 21839T	A 21871
1-8	1-1/2	1-1/32	B 21841	A 21841T	A 21872

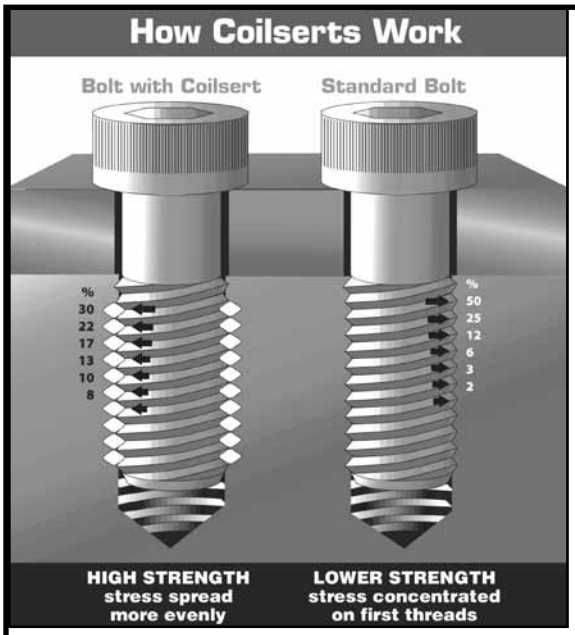
SAE THREAD SIZES

1/4-28	1-1/2	17/64	R 21824	A 21824T	A 21861
5/16-24	1-1/2	21/64	N 21826	A 21826T	A 21863
3/8-24	1-1/2	25/64	N 21828	A 21828T	A 21865
7/16-20	1-1/2	29/64	N 21830	A 21830T	A 21866
1/2-20	1-1/2	33/64	I 21832	A 21832T	A 21867
9/16-18	1-1/2	37/64	I 21834	A 21834T	A 21868
5/8-18	1-1/2	41/64	E 21836	A 21836T	A 21869
3/4-16	1"	49/64	E 21838	A 21838T	A 21870
7/8-14	1"	57/64	E 21840	A 21840T	A 21871
1-14	1-1/2	1-1/32	B 21842	A 21842T	A 21872

METRIC COILSERTS

PERMANENT AND WEAR RESISTANT THREAD REPAIR INSERT

Metric oilserts are the quickest and simplest method of repair to stripped or damaged threads. A complete system of coilsert, STI tap and installation tools are offered.



In conventional threaded joints over 75% of the load is placed on the first three theads of the assembly. Coilsert on the left shows how the spring-like design of the insert allows the shear loading to be transformed into a preferable "hoop stress" or radial loading over the entire length of the insert.

COILSERTS

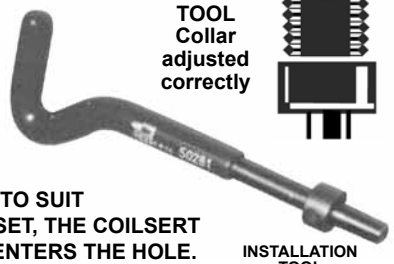
- ROLLED FROM HIGH QUALITY STAINLESS STEEL WIRE WOUND TO THE SHAPE OF A SPRING THREAD
- ONCE THE WIRE IS WOUND INTO A HELICAL COIL AND INSTALLED INTO A TAPPED HOLE, IT PROVIDES A PERMANENT AND WEAR RESISTANT THREAD IN THE PARENT MATERIAL THAT IS GENERALLY STRONGER THAN THE ORIGINAL THREAD
- COILSERT'S COMPENSATORY ACTION SHARES THE LOAD OVER THE ENTIRE BOLT AND HOLE, INCREASING HOLDING OR PULL OUT STRENGTH
- WITH A COILSERT IN PLACE, LOAD AND STRESS ARE MORE EVENLY DISTRIBUTED

COILSERT
(partially installed)

STI TAPS

- SCREW THREAD INSERT (STI) TAPS ARE ONLY SUITABLE FOR USE WITH COILSERTS
- THEY HAVE A LARGER DIAMETER BUT THE SAME PITCH AS A STANDARD TAP IN ORDER TO ACCOMMODATE THE WIRE INSERT

INSTALLATION TOOL
Collar adjusted correctly



INSTALLATION TOOL

INSTALLATION TOOL

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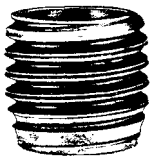
- CARE MUST BE TAKEN TO ENSURE THAT THE ADJUSTABLE COLLAR IS CORRECTLY SET TO SUIT THE PARTICULAR TYPE AND LENGTH OF THE COILSERT. IF THE COLLAR IS CORRECTLY SET, THE COILSERT WILL NOT DRIVE PROPERLY AND THE TOOL MAY SLIP OFF THE TANG AS THE COILSERT ENTERS THE HOLE.

METRIC THREAD SIZES

INTERNAL THREAD	LENGTH	TAP DRILL DIA.	PART	STI TAP PART	INSTALLATION TOOL
M3 x .5	1-1/2	3.10	R 21843	A 21843T	A 21858
M4 x .7	1-1/2	4.10	R 21844	A 21844T	A 21859
M5 x .8	2	5.20	N 21845	A 21845T	A 21860
M6 x 1	1-1/2	6.20	N 21846	A 21846T	A 21861
M7 x 1	1-1/2	7.20	N 21847	A 21847T	A 21862
M8 x 1	1-1/2	8.20	N 21848	A 21848T	A 21863
M8 x 1.25	1-1/2	8.30	N 21849	A 21849T	A 21863
M9 x 1	1-1/2	9.30	N 21850	A 21850T	A 21864
M9 x 1.25	1-1/2	9.30	N 21851	A 21851T	A 21864
M10 x 1.25	1-1/2	10.30	N 21852	A 21852T	A 21865
M10 x 1.5	1-1/2	10.30	N 21853	A 21853T	A 21864
M11 x 1.25	1-1/2	11.30	N 21854	A 21854T	A 21866
M11 x 1.5	1-1/2	11.30	N 21855	A 21855T	A 21866
M12 x 1.5	1-1/2	12.50	I 21856	A 21856T	A 21867
M12 x 1.75	1-1/2	12.40	I 21857	A 21857T	A 21867

CIC 200™ METRIC THREAD REPAIR INSERTS

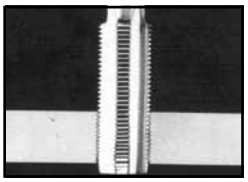


INTERNAL THREAD	EXTERNAL THREAD	LENGTH SIZE	TAP DRILL SIZE	TAP SIZE	THREAD DEPTH	PART
METRIC INTERNAL/METRIC EXTERNAL						
M3-0.5	M6-1.0	6.5mm	5.1mm (or #7)	M6-1.0	7.8mm	I 1860
M4-0.7	M8-1.25	7.5mm	6.9mm (or I)	M8-1.25	8.5mm	I 1861
M5-0.8	M8-1.25	7.5mm	6.9mm (or I)	M8-1.25	9.0mm	I 1862
M14-1.25*	M18-1.5	11.5mm	15.5mm (or 5/8)	M18-1.5	12.7mm	E 1876*
METRIC INTERNAL — USS EXTERNAL						
M6-1.0	3/8-16	.406	5/16	3/8-16	15/32	L 1867
M8-1.25	1/2-13	.484	27/64	1/2-13	9/16	I 1868
M10-1.50	9/16-12	.515	31/64	9/16-12	19/32	I 1869
M12-1.75	3/4-10	.656	21/32	3/4-10	3/4	E 1870
M14-2.0	7/8-9	.687	49/64	7/8-9	13/16	E 1871
M16-2.0	1-8	.781	7/8	1-8	7/8	E 1872

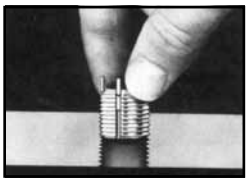
* FOR 14mm SPARK PLUGS (12.7mm REACH)

METRIC THIN WALL PERMASERTS™

1. Drill out old threads, using standard drill.



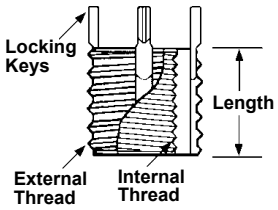
2. Tap new threads, using standard tap.



3. Screw in insert until slightly below surface. "Kees" act as depth stop.

4. Drive "Kees" down with several light taps on installation tool.

5. Installed insert



- SOLID BUSHING WITH LOCKING KEES – PROVIDES POSITIVE MECHANICAL LOCKING AGAINST ROTATION
- USE IN ALUMINUM, MAGNESIUM, CAST IRON, COLD ROLLED STEEL AND PLASTIC – NO RESTRICTIONS ON PARENT MATERIAL
- HIGH STRENGTH AND RELIABILITY – PROVIDES MAXIMUM PULLOUT STRENGTH; BREAKS GRADE 8 BOLT
- EASY INSTALLATION – LEARN IN MINUTES
- HOLE PREPARED WITH STANDARD DRILL AND TAP – NO SPECIAL, COSTLY, SINGLE-PURPOSE DRILLS OR TAPS REQUIRED
- INSERT WITH FINGERS – NO SPECIAL PRE-WINDER TOOLS REQUIRED
- IMPOSSIBLE TO CROSS-THREAD DURING INSTALLATION – PERFECT EVERY TIME
- SIMPLE REMOVAL – PERMANENTLY INSTALLED UNLESS REMOVAL IS REQUIRED

INSTALLATION TOOL

INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL DIA.	DRILL REMOVAL SIZE	DRILL REMOVAL DEPTH	PART	INSTALLATION TOOL
METRIC THREAD SIZES							
M5 x .8	M8 x 1.25	8.0	6.9 or I	5.5	4	E 21800	A 21815
M6 x 1	M10 x 1.25	10.0	8.8 or 11/32	7.5	4.75	E 21801	A 21816
M8 x 1.25	M12 x 1.25	12.0	10.8 or 27/64	9.5	4.75	C 21802	A 21817
M8 x 1	M12 x 1.25	12.0	10.8 or 27/64	9.5	4.75	C 21803	A 21818
M10 x 1.5	M14 x 1.5	14.0	12.8 or 1/2	11.5	4.75	B 21804	A 21819
M10 x 1.25	M14 x 1.5	14.0	12.8 or 1/2	11.5	4.75	B 21805	A 21820
M12 x 1.75	M16 x 1.5	16.0	14.75 or 37/64	13.5	4.75	B 21806	A 21821
M12 x 1.25	M16 x 1.5	16.0	14.75 or 37/64	13.5	4.75	B 21807	A 21822

CIC 200™ QUAD POINT DRILLS™

CUT WHERE OTHER DRILLS FAIL

MADE IN THE U.S.A.

MAINTENANCE GRADE TOUGH!

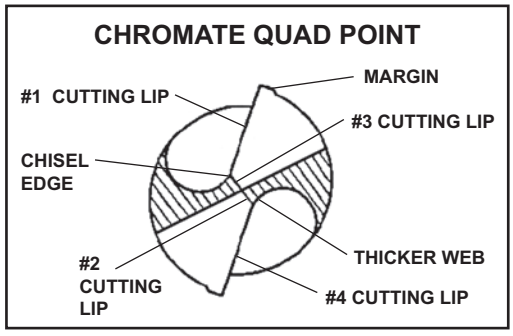
CHROMATE® INDUSTRIAL CORP.

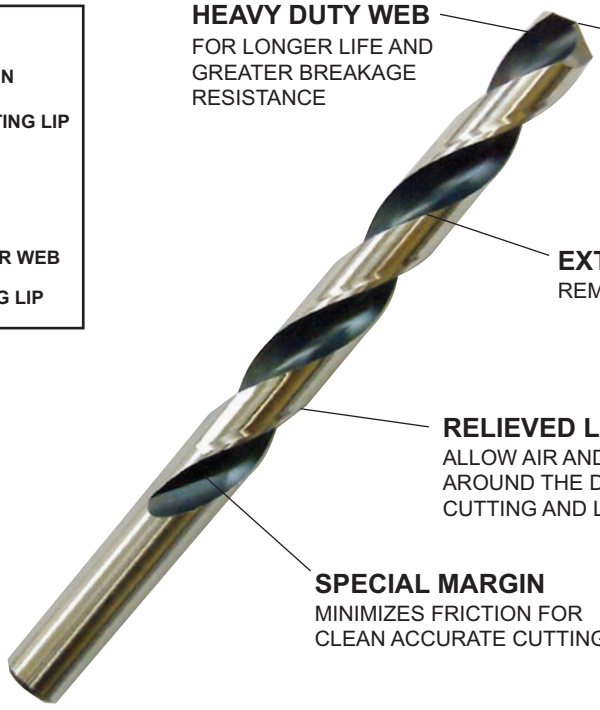
CIC 200™ QUAD POINT DRILLS™

FASTER CUTTING AND LONGER LIFE ON THE TOUGHEST INDUSTRIAL APPLICATIONS

- Chromium, vanadium and molybdenum alloy tool steel maintains maximum sharpness and durability
- Nitro-carburized for exceptional hardness
- Cuts materials up to 55 Rockwell "C" scale
- Runs cooler - uses less torque
- Self-piloting point assures fast, accurate starts and prevents "walking"
- No need for center punching
- Outlasts ordinary drills up to 10 to 1

MORE HOLES PER DRILL ASSURES A LOWER COST PER HOLE





HEAVY DUTY WEB
FOR LONGER LIFE AND GREATER BREAKAGE RESISTANCE

PRECISION GROUND QUAD POINT
ASSURES FASTER, CLEANER STARTS, EVEN ON ROUND HARDENED SURFACES.

EXTENDED FLUTES
REMOVES CHIPS FASTER

RELIEVED LANDS
ALLOW AIR AND CUTTING FLUID TO FLOW AROUND THE DRILL, PROVIDING COOLER CUTTING AND LONGER LIFE.

SPECIAL MARGIN
MINIMIZES FRICTION FOR CLEAN ACCURATE CUTTING

IT CUTS:

- Stainless Steel
- Tool Steel
- Exotic Steel
- Standard Steel

CIC 200™ QUAD POINT DRILLS EXCEED NAS907B AEROSPACE SPECIFICATIONS

THE ONE DRILL FOR ALL MAINTENANCE JOBS

CHROMATE® INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

5250-A Naiman Parkway . Solon . OH . 44139
1-800-BUY-BOLT . www.chromate.com

040108 P/N 21226

CIC 200™ QUAD POINT™ DRILL ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 50 Quad Point Drills
- 23 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61695

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

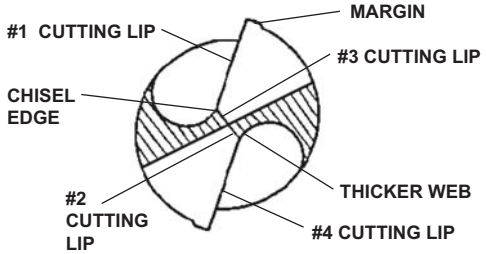
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	2	5/32	**4**	**1/4**	**2**	**3/8**
3	5/64	2	11/64	2	17/64	1	25/64
3	3/32	**4**	**3/16**	2	9/32	1	27/64
3	7/64	2	13/64	**2**	**5/16**	1	7/16
4	**1/8**	2	7/32	1	21/64	1	1/2
2	9/64	2	15/64	1	11/32		

SAVES MONEY, TIME AND LABOR

CIC 200™ PRO™ DRILLS

CUT WHERE OTHER DRILLS FAIL

CHROMATE QUAD POINT™



HEAVY DUTY WEB
FOR LONGER LIFE AND GREATER BREAKAGE RESISTANCE

PRECISION GROUND QUAD POINT
ASSURES FASTER, CLEANER STARTS, EVEN ON ROUND HARDENED SURFACES.

EXTENDED FLUTES
REMOVES CHIPS FASTER

GOLD OXIDE FINISH
REDUCES FRICTION AND HEAT

RELIEVED LANDS
ALLOW AIR AND CUTTING FLUID TO FLOW AROUND THE DRILL, PROVIDING COOLER CUTTING AND LONGER LIFE.

SPECIAL MARGIN
MINIMIZES FRICTION FOR CLEAN ACCURATE CUTTING

GROUND FLATS
ELIMINATES SLIPPAGE IN CHUCK

CUTS:
- Stainless Steel
- Tool Steel
- Exotic Steel
- Standard Steel

FASTER CUTTING AND LONGER LIFE ON THE TOUGHEST INDUSTRIAL APPLICATIONS

THE ONE DRILL FOR ALL MAINTENANCE JOBS

MORE HOLES PER DRILL ASSURES A LOWER COST PER HOLE

CHROMATE® INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

5250-A Naiman Parkway . Solon . OH . 44139

010109 *1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com* *P/N 21227*

CIC 200™ PRO™ DRILLS

CUT WHERE OTHER DRILLS FAIL

- Chromium, vanadium & molybdenum alloy tool steel maintains sharpness & durability
- Nitro-carburized for exceptional hardness
- Cuts materials up to 55 Rockwell "C" scale
- Runs cooler - uses less torque
- Self-piloting point assures fast, accurate starts and prevents "walking"
- No need for center punching
- Eliminates step drilling
- Outlasts ordinary drills up to 10 to 1

DIA.	LENGTH	DEC. EQUIV.	PART	DIA.	LENGTH	DEC. EQUIV.	PART
1/16"	1-7/8"	.0625	97104	19/64"	3-7/8"	.2969	97119
5/64"	2"	.0781	97105	5/16"	4"	.3125	97120
3/32"	2-1/4"	.0938	97106	21/64"	4-1/16"	.3281	97121
7/64"	2-3/8"	.1094	97107	11/32"	4-1/8"	.3438	97122
1/8"	2-1/2"	.1250	97108	23/64"	4-3/16"	.3594	97123
9/64"	2-5/8"	.1406	97109	3/8"	4-1/4"	.3750	97124
5/32"	2-3/4"	.1562	97110	25/64"	4-5/16"	.3906	97125
11/64"	2-7/8"	.1719	97111	13/32"	4-3/8"	.4062	97126
3/16"	3"	.1875	97112	27/64"	4-7/16"	.4219	97127
13/64"	3-1/8"	.2031	97113	7/16"	4-1/2"	.4375	97128
7/32"	3-1/4"	.2188	97114	29/64"	4-5/8"	.4531	97129
15/64"	3-3/8"	.2344	97115	15/32"	4-3/4"	.4688	97130
1/4"	3-1/2"	.2500	97116	31/64"	4-7/8"	.4844	97131
17/64"	3-5/8"	.2656	97117	1/2"	5"	.5000	97132
9/32"	3-3/4"	.2812	97118	-	-	-	-

CHROMATE® INDUSTRIAL CORP.

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CIC 200™ PRO™ DRILL ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 45 CIC 200 Pro Drills
- 23 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61699

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

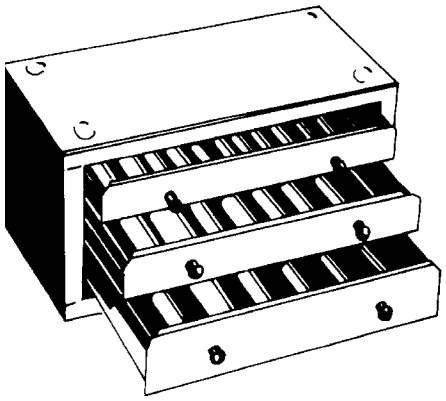
➤ CONTROLS YOUR DRILL INVENTORY

QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	3	5/32	**3**	**1/4**	1	3/8
3	5/64	2	11/64	1	17/64	1	25/64
3	3/32	**4**	**3/16**	1	9/32	1	27/64
3	7/64	1	13/64	1	5/16	1	7/16
5	**1/8**	1	7/32	1	21/64	1	1/2
3	9/64	1	15/64	1	11/32		

SAVES MONEY, TIME AND LABOR

CIC 200

QUAD POINT NUMBER DRILL ORGANIZER



P/N 61697

DRILL CABINET { **14-1/2" WIDE**
7-1/4" HIGH
7-1/4" DEEP

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

- Total of 75 Quad Point Drills.
- The Organizer stores hundreds of drills in one place. Eliminates misplaced drills.
- 25 of the most popular number drill sizes.
- Chromate 200 Quad Point Drills — the drills that cut where ordinary drills fail. *The perfect drill for all maintenance jobs.*

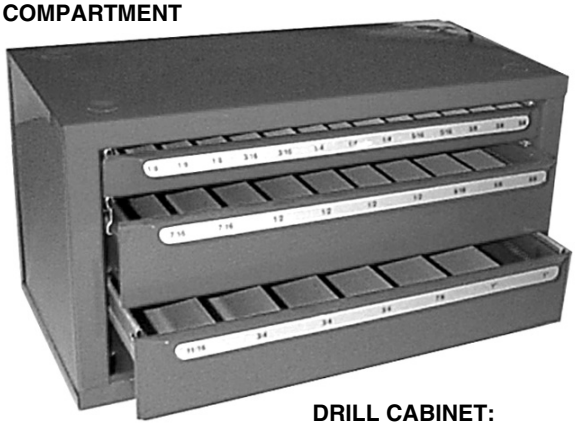
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	#3	3	#11	3	#26	3	#36
3	#5	3	#15	3	#28	3	#38
3	#6	3	#20	3	#29	3	#39
3	#7	3	#21	3	#30	3	#40
3	#8	3	#22	3	#33	3	#43
3	#9	3	#25	3	#35	3	#44
3	#10						

Saves Money, Time and Labor

• ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS.
• THE RIGHT SIZE AVAILABLE EVERY TIME.
• INSTANT CONTROL OF YOUR DRILL INVENTORY.

CIC 200™ METRIC DRILL ORGANIZER

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 25 CIC 200 Metric Drills
- 25 of the most popular metric sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61696

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

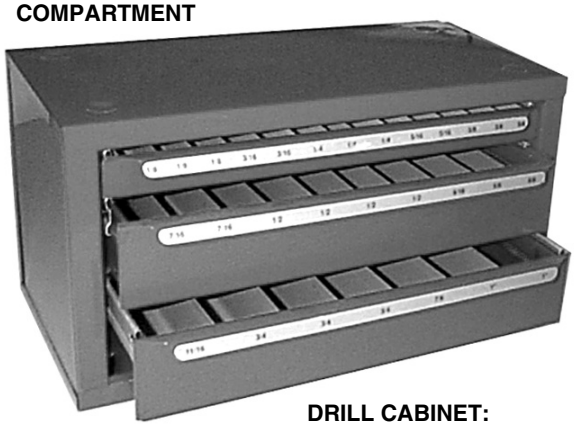
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
1	M1.0	1	M4.0	1	M7.0	1	M10.0
1	M1.5	1	M4.5	1	M7.5	1	M10.5
1	M2.0	1	M5.0	1	M8.0	1	M11.0
1	M2.5	1	M5.5	1	M8.5	1	M11.5
1	M3.0	1	M6.0	1	M9.0	1	M12.0
1	M3.5	1	M6.5	1	M9.5	1	M12.5
						1	M13.0

SAVES MONEY, TIME AND LABOR

CIC 200™ QUAD POINT™ DRILL ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 50 Quad Point Drills
- 23 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61695

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

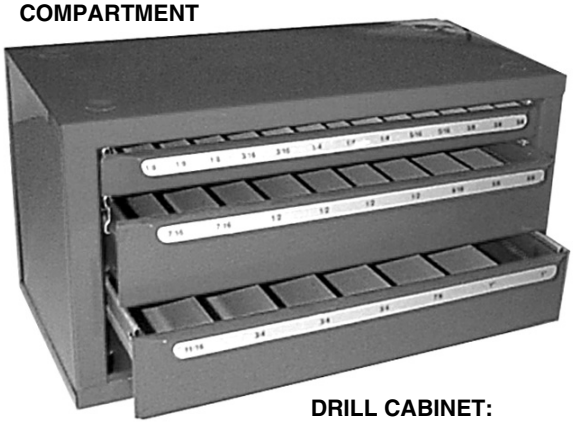
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	2	5/32	**4**	**1/4**	**2**	**3/8**
3	5/64	2	11/64	2	17/64	1	25/64
3	3/32	**4**	**3/16**	2	9/32	1	27/64
3	7/64	2	13/64	**2**	**5/16**	1	7/16
4	**1/8**	2	7/32	1	21/64	1	1/2
2	9/64	2	15/64	1	11/32		

SAVES MONEY, TIME AND LABOR

CIC 200™ PRO™ DRILL ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 45 CIC 200 Pro Drills
- 23 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61699

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

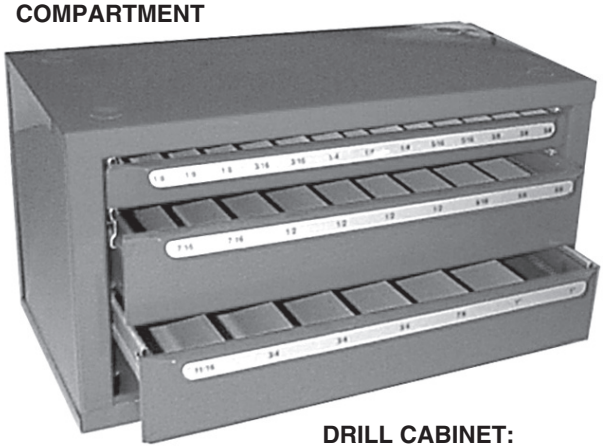
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	3	5/32	**3**	**1/4**	1	3/8
3	5/64	2	11/64	1	17/64	1	25/64
3	3/32	**4**	**3/16**	1	9/32	1	27/64
3	7/64	1	13/64	1	5/16	1	7/16
5	**1/8**	1	7/32	1	21/64	1	1/2
3	9/64	1	15/64	1	11/32		

SAVES MONEY, TIME AND LABOR

CIC 200™ CARBIDE MASONRY DRILL ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 26 Carbide Masonry Drills
- 15 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61611

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

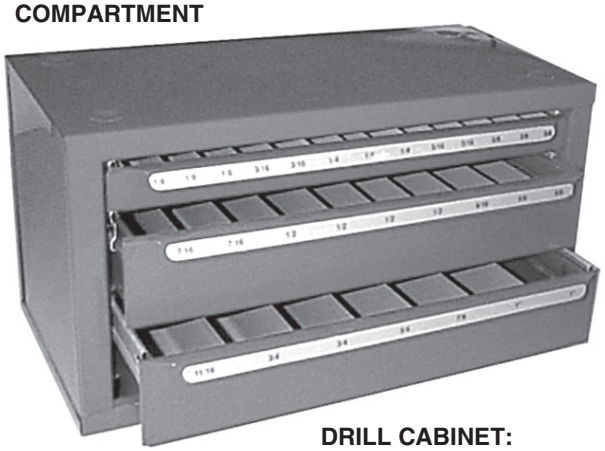
QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/8 x 3 x 1/8	2	1/4 x 4-1/8 x 1/4	2	3/8 x 6 x 3/8
1	5/32 x 3-1/8 x 5/32	4	1/4 x 6 x 1/4	1	7/16 x 6-1/4 x 7/16
2	3/16 x 3-1/2 x 3/16	1	9/32 x 4-3/8 x 1/4	1	1/2 x 6-3/4 x 3/8
3	3/16 x 6 x 3/16	1	5/16 x 4-3/4 x 5/16	1	5/8 x 6 x 3/8
1	7/32 x 3-3/4 x 7/32	2	5/16 x 6 x 5/16	1	3/4 x 6 x 3/8

SAVES MONEY, TIME AND LABOR

CIC 200™ CARBIDE MASONRY DRILL STARTER ORGANIZER

— FRACTIONAL SIZES —

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



DRILL CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 7 Carbide Masonry Drills
- 7 of the most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

P/N 61612

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

QTY.	DRILL SIZE	PART	QTY.	DRILL SIZE	PART
1	1/8 x 3 x 1/8	77501	1	3/8 x 6 x 3/8	77530
1	3/16 x 6 x 3/16	77505	1	1/2 x 6-3/4 x 3/8	77546
1	1/4 x 6 x 1/4	77510	1	5/8 x 6 x 3/8	77563
1	5/16 x 6 x 5/16	77520	—	—	—

SAVES MONEY, TIME AND LABOR

CIC 200™ PRO™ DRILL 45-PIECE UNDER-MOUNT ORGANIZER

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

P/N 7880

- Workbench spacesaver
- Built-in lock secures drill inventory (2 keys included)
- Contains 45 CIC 200™ Pro™ Drills
- 23 most popular fractional sizes
- Stores hundreds of drills in one place
- Eliminates misplaced drills

OVERALL DIMENSIONS:
26-1/8" W x 12-1/2" D x 4-1/2" H

DRAWER DIMENSIONS:
23-1/8" W x 11" D x 3" H

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS
➤ THE RIGHT SIZE ALWAYS AVAILABLE
➤ CONTROLS YOUR DRILL INVENTORY

QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	3	5/32	3	1/4	1	3/8
3	5/64	2	11/64	1	17/64	1	25/64
3	3/32	4	3/16	1	9/32	1	27/64
3	7/64	1	13/64	1	5/16	1	7/16
5	1/8	1	7/32	1	21/64	1	1/2
3	9/64	1	15/64	1	11/32	-	-

SAVES TIME, MONEY AND LABOR!

CHROMATE® INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

5250-A Naiman Parkway . Solon . OH 44139
090114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

CIC 200™ PRO™ DRILL UNDER-MOUNT ORGANIZER WITH RED LION TOOL COOL II

P/N 7884

UNDER-MOUNT DISPENSER (P/N 7896) WITH PRO DRILLS STARTER SET

- Workbench spacesaver
- Built-in lock secures drill inventory (2 keys included)
- Heavy-duty ball bearing drawer slides
- 3 each of the most popular fractional Pro™ Drill sizes (1/8", 3/16", 1/4", 5/16", 3/8")

3 CANS RED LION™ TOOL COOL II (74185)

- Cools and lubricates
- Allows for cleaner, smoother cut
- For all cutting applications

CIC 200™ PRO™ DRILLS, ALONG WITH 3 CANS OF TOOL COOL II, WILL GIVE YOU A BUNDLE FOR DRILLING THAT CAN'T BE BEAT!

CHROMATE® INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

5250-A Naiman Parkway . Solon . OH 44139

090114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

CIC 200™ PRO™ DRILL 45-PIECE UNDER-MOUNT ORGANIZER

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

OVERALL DIMENSIONS:
26-1/8" W x 12-1/2" D x 4-1/2" H

DRAWER DIMENSIONS:
23-1/8" W x 11" D x 3" H

P/N 7885

➤ ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

➤ THE RIGHT SIZE IS ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

INCLUDES:

UNDER-MOUNT DISPENSER
(P/N 7896)

- Workbench spacesaver
- Built-in lock secures drill inventory (2 keys included)
- Stores hundreds of drills in one place
- Eliminates misplaced drills

45 CIC 200™ PRO™ DRILLS

- 23 most popular **fractional sizes**

1/2" BLACK & DECKER DRILL MOTOR (P/N 16511)

- Powerful 7 Amp motor
- All metal keyed chuck
- Comfort grip handle for controlled drilling & driving
- Variable speed
- 360° side handle
- Reversing brush system
- Handles tough applications
- Drill holes through wood, metal and plastic
- For driving large fasteners in wood, metal and plastic

QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	3	5/32	3	1/4	1	3/8
3	5/64	2	11/64	1	17/64	1	25/64
3	3/32	4	3/16	1	9/32	1	27/64
3	7/64	1	13/64	1	5/16	1	7/16
5	1/8	1	7/32	1	21/64	1	1/2
3	9/64	1	15/64	1	11/32	-	-

CHROMATE® INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

5250-A Naiman Parkway . Solon . OH 44139

100114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

CIC 200™ PRO™ DRILL 100-PIECE UNDER-MOUNT ORGANIZER

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

P/N 7886

OVERALL DIMENSIONS:
26-1/8" W x 12-1/2" D x 4-1/2" H

DRAWER DIMENSIONS:
23-1/8" W x 11" D x 3" H

➤ **ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS**

➤ **THE RIGHT SIZE IS ALWAYS AVAILABLE**

➤ **CONTROLS YOUR DRILL INVENTORY**

INCLUDES:

UNDER-MOUNT DISPENSER
(P/N 7896)

- Workbench spacesaver
- Built-in lock secures drill inventory (2 keys included)
- Stores hundreds of drills in one place
- Eliminates misplaced drills

100 CIC 200™ PRO™ DRILLS

- 29 most popular **fractional sizes**

1/2" BLACK & DECKER DRILL MOTOR (P/N 16511)

- Powerful 7 Amp motor
- All metal keyed chuck
- Comfort grip handle for controlled drilling & driving
- Variable speed
- 360° side handle
- Reversing brush system
- Handles tough applications
- Drill holes through wood, metal and plastic
- For driving large fasteners in wood, metal and plastic

QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
4	1/16	4	11/64	3	9/32	2	25/64
4	5/64	6	3/16	3	19/64	2	13/32
4	3/32	3	13/64	4	5/16	2	27/64
4	7/64	4	7/32	3	21/64	2	7/16
8	1/8	3	15/64	3	11/32	2	29/64
4	9/64	6	1/4	3	23/64	2	15/32
4	5/32	3	17/64	4	3/8	2	31/64
–	–	–	–	–	–	3	1/2

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5250-A Naiman Parkway . Solon . OH 44139
100114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

CIC 200™ QUAD POINT™ DRILLS MASTER DISPENSER, 50 PIECES

P/N 61653

INCLUDES:

50 CIC 200™ QUAD POINT™ DRILLS

- The most popular **fractional sizes**

- **ADD MORE DRILLS AS NEEDED**
- **STORES THOUSANDS OF DRILLS IN ONE PLACE**
- **ELIMINATES MISPLACED DRILLS**
- **SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT**
- **ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS**
- **THE RIGHT SIZE DRILL IS ALWAYS AVAILABLE**
- **CONTROLS YOUR DRILL INVENTORY**

Quad Point Drills:

- Cuts up to 55 Rockwell “C”
- Cuts standard, stainless, tool and exotic steels
- Won’t snap or chip weld
- No need to center punch

Dispenser (Features Fractional, Number and Letter Drawers):

Holds full packages of jobber or screw machine length drills, fractional, letter and wire gauge sizes in one cabinet.

- **Top drawer** - Holds fractional drills 1/16" to 1/2" by 64^{ths} with 42 compartments
- **Second drawer** - For #1 to #60 wire gauge with 75 compartments
- **Third drawer** - For letter size A to Z with 42 compartments
- **Lower drawer** - Undivided for extra long drills, reamers and miscellaneous tools
- All steel lockable cabinet with ball bearing slides and vinyl dividers that protect & separate drills
- Dimensions: 26-1/8" W x 12-1/2" D x 4-1/2" H
- Stackable for larger inventories at one location

QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE	QTY.	DRILL SIZE
3	1/16	2	5/32	4	1/4	2	3/8
3	5/64	2	11/64	2	17/64	1	25/64
3	3/32	4	3/16	2	9/32	1	27/64
3	7/64	2	13/64	2	5/16	1	7/16
4	1/8	2	7/32	1	21/64	1	1/2
2	9/64	2	15/64	1	11/32	-	-

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100114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

CIC 200™ QUAD POINT™ DRILLS MASTER DISPENSER, 115-PIECES

INCLUDES FRACTIONAL, NUMBER & LETTER DRILLS

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

THE RIGHT SIZE DRILL IS ALWAYS AVAILABLE

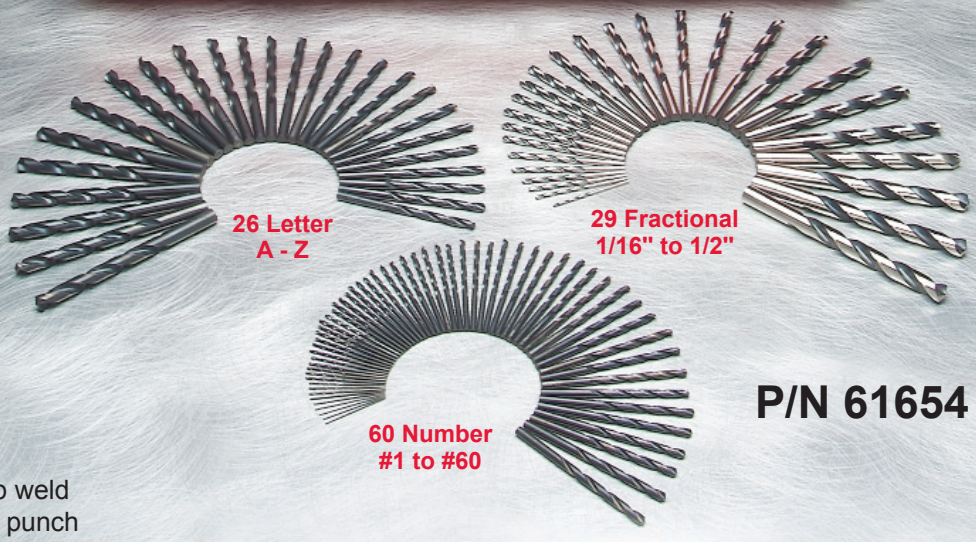
CONTROLS YOUR DRILL INVENTORY

THE MOST POPULAR FRACTIONAL SIZES

ADD MORE DRILL SIZES AS NEEDED

STORES THOUSANDS OF DRILLS IN ONE PLACE

ELIMINATES MISPLACED DRILLS



P/N 61654

Quad Point Drills:

- Cuts up to 55 Rockwell “C”
- Cuts standard, stainless, tool and exotic steels
- Won’t snap or chip weld
- No need to center punch

Dispenser:

- All steel lockable cabinet with vinyl dividers that protect & separate drills
- Ball bearing slides
- Dimensions: 26-1/8" W x 12-1/2" D x 4-1/2" H
- Stackable for larger inventories at one location
- Lower drawer is undivided for extra long drills, reamers and miscellaneous tools
- Holds full packages of jobber or screw machine length drills, fractional, letter & wire gauge sizes in one cabinet
  - Top drawer holds fractional drills 1/16" to 1/2" by 64^{ths} with 42 compartments
  - Second drawer is for #1 to #60 wire gauge with 75 compartments
  - Third drawer is for letter size A to Z with 42 compartments

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CIC 200™ QUAD POINT™ DRILLS MASTER DISPENSER, 332-PIECES

INCLUDES FRACTIONAL, NUMBER & LETTER DRILLS

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT

ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS

THE RIGHT SIZE DRILL IS ALWAYS AVAILABLE

CONTROLS YOUR DRILL INVENTORY

THE MOST POPULAR FRACTIONAL SIZES

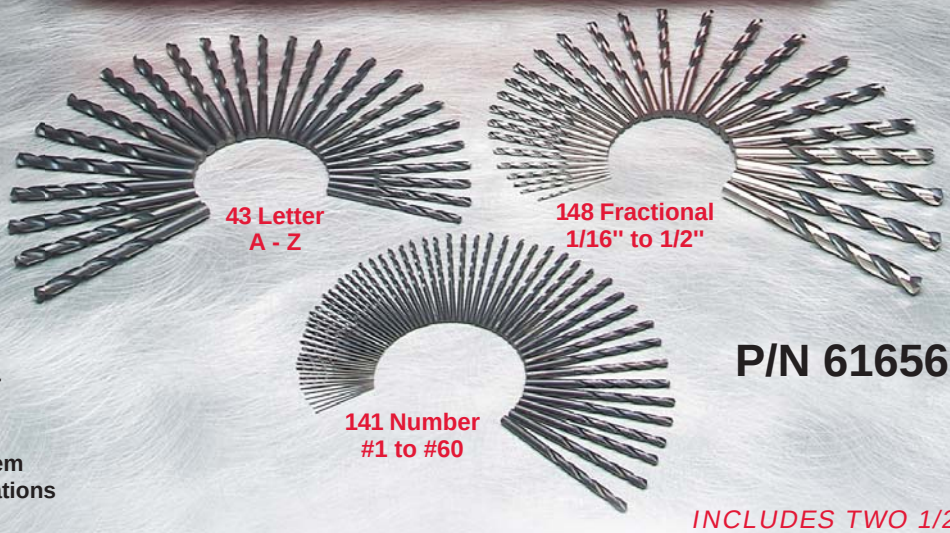
ADD MORE DRILL SIZES AS NEEDED

STORES THOUSANDS OF DRILLS IN ONE PLACE

ELIMINATES MISPLACED DRILLS

Quad Point Drills:

- Cuts up to 55 Rockwell "C"
- Cuts standard, stainless, tool and exotic steels
- Won't snap or chip weld
- No need to center punch



Black & Decker Drill Motors:

- Powerful 7 Amp motor
- All metal keyed chuck
- Variable speed
- Reversing brush system
- Handles tough applications
- 360° side handle
- Comfort grip handle for controlled drilling & driving

P/N 61656

INCLUDES TWO 1/2" BLACK & DECKER DRILL MOTORS!

Dispenser:

- All steel lockable cabinet with vinyl dividers that protect & separate drills
- Ball bearing slides
- Dimensions: 26-1/8" W x 12-1/2" D x 4-1/2" H
- Stackable for larger inventories at one location
- Lower drawer is undivided for extra long drills, reamers & miscellaneous tools
- Holds full packages of jobber or screw machine length drills, fractional, letter & wire gauge sizes in one cabinet
  - Top drawer holds fractional drills 1/16" to 1/2" by 64ths with 42 compartments
  - Second drawer is for #1 to #60 wire gauge with 75 compartments
  - Third drawer is for letter size A to Z with 42 compartments

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CIC 200™ QUAD POINT™ DRILLS AND PRO™ SHOOTER TAPS MASTER DISPENSER

P/N 61657

INCLUDES:

- **64 CIC 200™ QUAD POINT™ DRILLS**
- **13 CIC 200™ PRO™ SHOOTER TAPS**

- SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT
- ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS
- THE RIGHT SIZE DRILL IS ALWAYS AVAILABLE
- CONTROLS YOUR DRILL INVENTORY
- THE MOST POPULAR FRACTIONAL SIZES
- ADD MORE DRILLS AS NEEDED
- STORES THOUSANDS OF DRILLS IN ONE PLACE
- ELIMINATES MISPLACED DRILLS

Quad Point Drills & Pro Shooter Taps:

- Cuts up to 55 Rockwell “C”
- Cuts standard, stainless, tool and exotic steels
- Won’t snap or chip weld
- No need to center punch

Dispenser (Features Fractional, Number and Letter Drawers):

Holds full packages of jobber or screw machine length drills, fractional, letter and wire gauge sizes in one cabinet.

- **Top drawer** - Holds fractional drills 1/16" to 1/2" by 64^{ths} with 42 compartments
- **Second drawer** - For #1 to #60 wire gauge with 75 compartments
- **Third drawer** - For letter size A to Z with 42 compartments
- **Lower drawer** - Fourth drawer holds Pro Shooter Taps and corresponding drills
- All steel lockable cabinet and vinyl dividers that protect & separate drills
- Ball bearing slides
- Dimensions: 26-1/8" W x 12-1/2" D x 4-1/2" H
- Stackable for larger inventories at one location

QTY	DRILL SIZE	QTY	DRILL SIZE	QTY	DRILL SIZE	QTY	DRILL SIZE	QTY	DRILL SIZE
QUAD POINT DRILLS (included in top drawer)									
3	1/16	2	9/64	1	7/32	2	19/64	1	25/64
3	5/64	2	5/32	2	15/64	1	5/16	1	27/64
3	3/32	2	11/64	4	1/4	1	21/64	1	7/16
3	7/64	4	3/16	2	17/64	1	11/32	1	29/64
4	1/8	2	13/64	2	9/32	2	3/8	1	1/2
PRO SHOOTER TAPS AND DRILLS (included in fourth drawer)									
1	4-40 Tap	1	10-24 Tap	1	1/4-28 Tap	1	3/8-16 Tap	1	1/2-20 Tap
1	#43 Drill	1	#24 Drill	1	7/32 Drill	1	"P" Drill	1	29/64 Drill
1	6-32 Tap	1	10-32 Tap	1	5/16-18 Tap	1	3/8-24 Tap		
1	#35 Drill	1	#20 Drill	1	"H" Drill	1	"R" Drill		
1	8-32 Tap	1	1/4-20 Tap	1	5/16-24 Tap	1	1/2-13 Tap		
1	#29 Drill	1	#6 Drill	1	"J" Drill	1	7/16 Drill		

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I · N · T · R · O · D · U · C · I · N · G

CIC 2000™ SERIES
"Cutting Tools for the New Millennium"

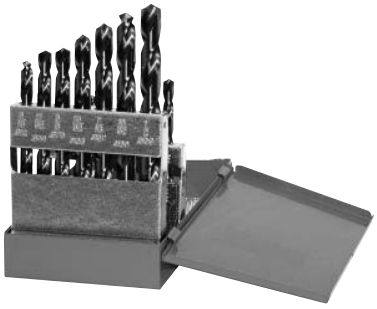
P/N 61635

INCLUDES:

- **Oak hardwood box with hinged top cover safely stores and protects CIC 200™ Pro™ Drills**
- **15 of the most popular fractional sizes used by professional mechanics**
- **Sizes include 1/16", 3/32", 1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32" and 1/2"**
- **Dimensions: 7-7/8" long x 6-3/8" wide x 1-1/2" thick**

NOTE: To remove drills from box, press on base of drill with fingertip.

DRILLS



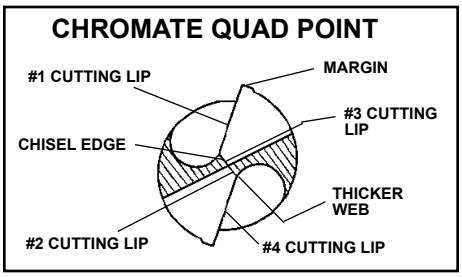
- Unique Quad Point Drill Designs
- Special Metallurgical Blend of Tool Steels
- Superior Strength
- Longer Life
- Unmatched Performance
- The Finest Drills Available
  - CIC 200™ Pro™
  - CIC 200™ Quad Point
  - CIC 200™ Quad Point Plus
  - Reduced Shank
  - Double End
  - Cobalt Tip
  - Carbide Tip
  - Masonry
  - Reamers
  - Step Drills

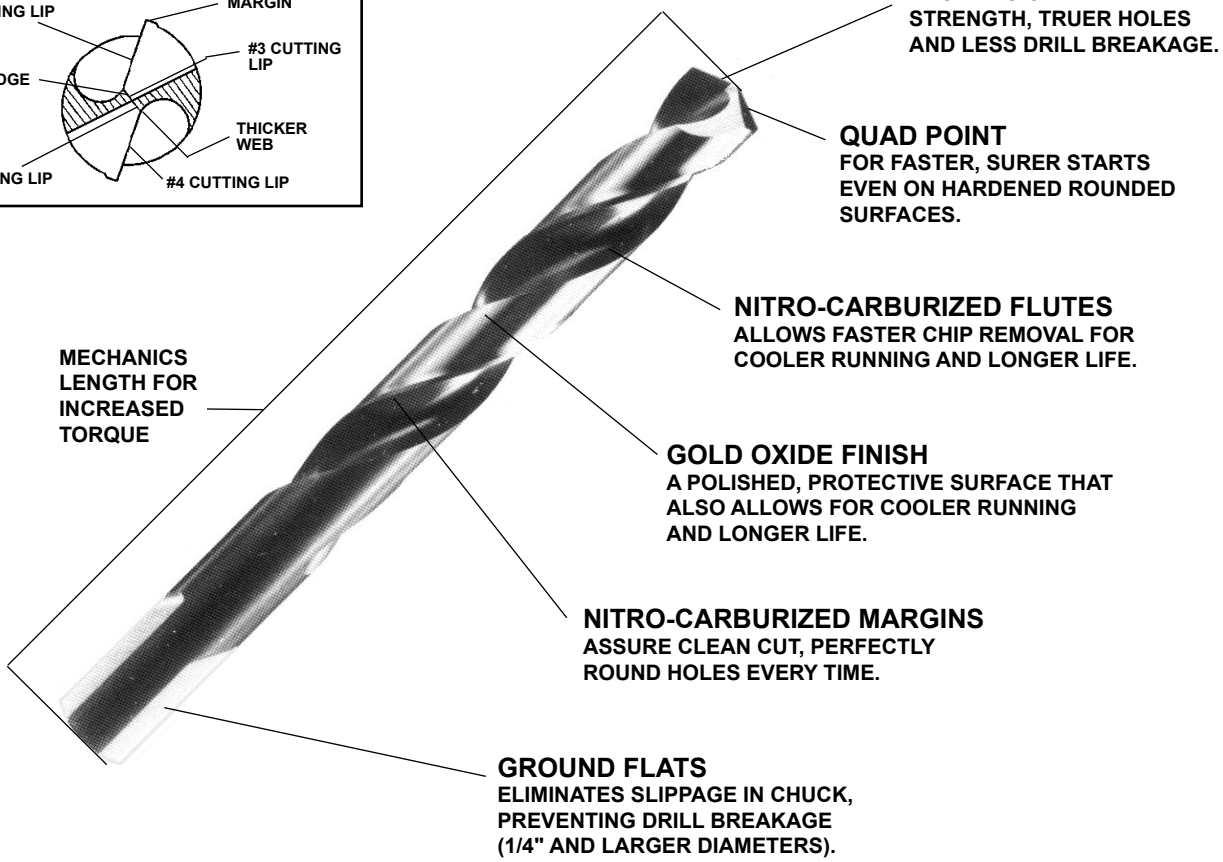
CHROMATE DRILLS ARE STRONGER, CUT FASTER, LAST LONGER AND OUTPERFORM ORDINARY DRILLS UP TO 10 TO 1.
Manufactured from the finest and toughest tool steels to exacting specifications. Always use Chromate Drills when speed, accuracy, performance and longevity are important.

CIC 200™ PROFESSIONAL DRILLS

OUTLAST ORDINARY DRILLS UP TO 10 TO 1

Constructed of special tool steels – a metallurgical blend of chromium, vanadium, molybdenum and tungsten alloys. CIC 200 Professional Drills offer superior strength, faster heat dissipation and longer life for quality, reliability and performance that is unequaled by any other drill.





CIC 200™ PRO DRILLS CUT UP TO 55 ROCKWELL "C"

SPECIAL TOOL STEEL

- The toughest of the high molybdenum tool steels. Extremely resistant to breakage.
- Will cut up to 55 Rockwell "C"
- Heat-treated at 2,185°F and then nitro-carburized at 950°F.
- Stays sharp longer.
- Withstands higher temperatures.

SPECIAL DESIGN AND FEATURES

- Triple-flat shank for non-slip chucking.
- Quad point for fast penetration and accurate starting without center punching.
- Heavy duty web design for longer life and less breakage.
- Special mechanics length for less breakage, increased torque and outstanding performance with hand drill.
- Nitro-carburized surface has hardness of approximately 70 Rockwell "C".

CIC 200™ PROFESSIONAL DRILLS (Cont'd.)

MECHANICS LENGTH — FRACTIONAL SIZE DRILLS

DIA.	LENGTH	DEC. EQUIV.		PART	DIA.	LENGTH	DEC. EQUIV.		PART
1/16"	1-7/8"	.0625	F	97104	19/64"	3-7/8"	.2969	C	97119
5/64"	2"	.0781	F	97105	5/16"	4"	.3125	C	97120
3/32"	2-1/4"	.0938	F	97106	21/64"	4-1/16"	.3281	C	97121
7/64"	2-3/8"	.1094	F	97107	11/32"	4-1/8"	.3438	C	97122
1/8"	2-1/2"	.1250	F	97108	23/64"	4-3/16"	.3594	C	97123
9/64"	2-5/8"	.1406	F	97109	3/8"	4-1/4"	.3750	C	97124
5/32"	2-3/4"	.1562	F	97110	25/64"	4-5/16"	.3906	C	97125
11/64"	2-7/8"	.1719	F	97111	13/32"	4-3/8"	.4062	C	97126
3/16"	3"	.1875	F	97112	27/64"	4-7/16"	.4219	C	97127
13/64"	3-1/8"	.2031	F	97113	7/16"	4-1/2"	.4375	C	97128
7/32"	3-1/4"	.2188	D	97114	29/64"	4-5/8"	.4531	C	97129
15/64"	3-3/8"	.2344	D	97115	15/32"	4-3/4"	.4688	C	97130
1/4"	3-1/2"	.2500	D	97116	31/64"	4-7/8"	.4844	C	97131
17/64"	3-5/8"	.2656	D	97117	1/2"	5"	.5000	C	97132
9/32"	3-3/4"	.2812	D	97118	-	-	-		-

FRACTIONAL DRILL ORGANIZER

CIC 200™ PRO™ DRILL ORGANIZERS

- **ONE CONVENIENT LOCATION FOR ALL YOUR DRILLS**
- **THE RIGHT SIZE ALWAYS AVAILABLE**
- **PROVIDES INSTANT CONTROL OF YOUR INVENTORY**
- **STORES HUNDREDS OF DRILLS IN ONE PLACE**
- **ELIMINATES MISPLACED DRILLS**
- **EASY ACCESS FOR YOUR STAFF**

BASIC
- Contains 45 CIC 200™ Pro™ Drills
- 23 of the most popular fractional sizes
- One 29-piece Index for filling

STARTER
- Contains 25 CIC 200™ Pro™ Drills
- 13 of the most popular fractional sizes
- One 29-piece Index for filling

MEGA
- Contains 58 CIC 200™ Pro™ Drills
- 29 of the most popular fractional sizes
- Two (2) 29-piece Indexes for filling

CONTENTS			PART
BASIC	1 each: 13/64, 7/32, 15/64, 17/64, 9/32, 5/16, 21/64, 11/32, 3/8, 25/64, 27/64, 7/16 and 1/2 2 each: 11/64 3 each: 1/16, 5/64, 3/32, 7/64, 9/64, 5/32 and 1/4 4 each: 3/16 5 each: 1/8	A	61699
STARTER	1 each: 9/32, 5/16, 11/32, 3/8, 7/16 and 1/2 2 each: 7/32 and 1/4 3 each: 1/16, 3/32, 1/8, 5/32 and 3/16	A	61699S
MEGA	2 each: 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 11/64, 3/16, 13/64, 7/32, 15/64, 1/4, 17/64, 9/32, 19/64, 5/16, 21/64, 11/32, 23/64, 3/8, 25/64, 13/32, 27/64, 7/16, 29/64, 15/32, 31/64 and 1/2	A	61699M

CIC 200™ PROFESSIONAL DRILLS (Cont'd.)

MECHANICS LENGTH INDEXES AND CADDY

INDEX

CADDY

DRILL INDEXES

DESCRIPTION		PART
13 DRILLS: 1/16 to 1/4 by 64ths	A	61632
15 DRILLS: 1/16 to 1/2 by 32nds	A	61634
21 DRILLS: 1/16 to 3/8 by 64ths	A	61636
29 DRILLS: 1/16 to 1/2 by 64ths	A	61638

DRILL CADDY

29 DRILLS: 1/16 to 1/2 by 64ths	A	61643

6 PIECE PRO FRACTIONAL ORGANIZER "COMPLETER KIT"

CONTENTS		PART
1 each: 19/64, 23/64, 13/32, 29/64, 15/32 and 31/64	A	61689

3/8" REDUCED SHANK DRILLS

All sizes from 27/64" to 1/2" with shanks machined down to 3/8" for use with standard 3/8" shop drill motors.

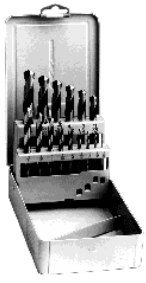
DIAMETER	LENGTH	DECIMAL EQUIVALENT		PART
27/64	4-7/16	.4219	C	98027
7/16	4-1/2	.4375	C	98028
29/64	4-5/8	.4531	C	98029
15/32	4-3/4	.4688	C	98030
31/64	4-7/8	.4844	C	98031
1/2	5	.5000	C	98032

3/8" REDUCED SHANK INDEXES

29 PIECE

DESCRIPTION		PART
29 DRILLS 1/16 to 1/2 by 64ths	A	61685

15 PIECE

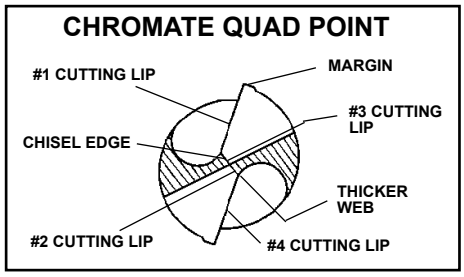


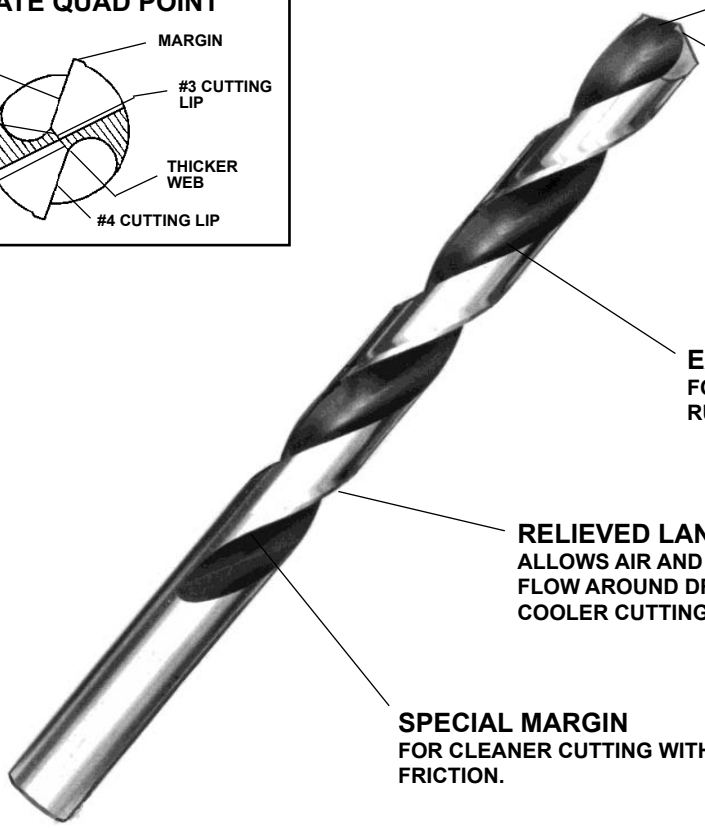
DESCRIPTION		PART
15 DRILLS 1/16 to 1/2 by 32nds	A	61680

CIC 200™ QUAD POINT DRILLS

THE ONE DRILL FOR ALL YOUR CUTTING REQUIREMENTS

Constructed of special tool steel — a metallurgical blend of chromium, vanadium and molybdenum. CIC 200 Quad Point Drills offer superior strength, faster heat dissipation and longer life.





THICKER WEB
PROVIDES GREATER STRENGTH, TRUER HOLES AND LESS DRILL BREAKAGE.

QUAD POINT
FOR FASTER, SURER STARTS EVEN ON HARDENED ROUNDED SURFACES.

EXTENDED FLUTES
FOR FAST CHIP REMOVAL, COOLER RUNNING AND LONGER LIFE.

RELIEVED LANDS
ALLOWS AIR AND CUTTING FLUID TO FLOW AROUND DRILL — PROVIDING COOLER CUTTING AND LONGER LIFE.

SPECIAL MARGIN
FOR CLEANER CUTTING WITH LESS FRICTION.

CIC 200™ QUAD POINT DRILLS CUT UP TO 55 ROCKWELL "C"

SPECIAL FEATURES

• Cuts standard, stainless, tool and exotic steels
• Won't snap or chip weld
• No need to center punch prior to drilling
• Use in drill press or hand drill
• Stays sharp longer – outlasting ordinary drills ten to one

When you purchase a drill you are actually buying holes.
CIC 200™ QUAD POINT DRILLS will outlast ordinary drills up to 10 to 1,
giving you many more holes per drill, thus reducing your per hole cost to a minimum!

LET US SHOW YOU HOW WELL IT WORKS!

CIC 200™ QUAD POINT DRILLS (Cont'd.)

JOBBER AND STUBBY LENGTHS — FRACTIONAL SIZES

DIA.	DEC. EQUIV.	JOBBER LTH.	JOBBER PART	STUBBY LTH.	STUBBY PART	DIA.	DEC. EQUIV.	JOBBER LTH.	JOBBER PART	STUBBY LTH.	STUBBY PART
1/64	.0156	3/4	J 91001	-	-	17/64	.2656	4-1/8	F 91017	2-5/8	F 81017
1/32	.0312	1-3/8	J 91002	-	-	9/32	.2812	4-1/4	F 91018	2-11/16	F 81018
3/64	.0469	1-3/4	J 91003	-	-	19/64	.2969	4-3/8	F 91019	2-3/4	F 81019
1/16	.0625	1-7/8	J 91004	1-5/8	J 81004	5/16	.3125	4-1/2	F 91020	2-13/16	F 81020
5/64	.0781	2	J 91005	1-11/16	J 81005	21/64	.3281	4-5/8	F 91021	2-15/16	F 81021
3/32	.0938	2-1/4	J 91006	1-3/4	J 81006	11/32	.3438	4-3/4	D 91022	3	D 81022
7/64	.1094	2-5/8	J 91007	1-13/16	J 81007	23/64	.3594	4-7/8	D 91023	3-1/16	D 81023
1/8	.1250	2-3/4	J 91008	1-7/8	J 81008	3/8	.3750	5	D 91024	3-1/8	D 81024
9/64	.1406	2-7/8	J 91009	1-15/16	J 81009	25/64	.3906	5-1/8	D 91025	3-1/4	D 81025
5/32	.1562	3-1/8	J 91010	2-1/16	J 81010	13/32	.4062	5-1/4	D 91026	3-5/16	D 81026
11/64	.1719	3-1/4	J 91011	2-1/8	J 81011	27/64	.4219	5-3/8	C 91027	3-3/8	C 81027
3/16	.1875	3-1/2	J 91012	2-3/16	J 81012	7/16	.4375	5-1/2	C 91028	3-7/16	C 81028
13/64	.2031	3-5/8	J 91013	2-1/4	J 81013	29/64	.4531	5-5/8	C 91029	3-9/16	C 81029
7/32	.2188	3-3/4	J 91014	2-3/8	J 81014	15/32	.4688	5-3/4	C 91030	3-5/8	C 81030
15/64	.2344	3-7/8	F 91015	2-7/16	F 81015	31/64	.4844	5-7/8	C 91031	3-11/16	C 81031
1/4	.2500	4	F 91016	2-1/2	F 81016	1/2	.5000	6	C 91032	3-3/4	C 81032

JOBBER LENGTHS — LETTER SIZES

DIA.	DEC. EQUIV.	JOBBER LENGTH	JOBBER PART	DIA.	DEC. EQUIV.	JOBBER LENGTH	JOBBER PART
A	.234	3-7/8	C 10201	N	.302	4-3/8	C 10214
B	.238	4	C 10202	O	.316	4-1/2	C 10215
C	.242	4	C 10203	P	.323	4-5/8	C 10216
D	.246	4	C 10204	Q	.332	4-3/4	C 10217
E	.250	4	C 10205	R	.339	4-3/4	C 10218
F	.257	4-1/8	C 10206	S	.348	4-7/8	C 10219
G	.261	4-1/8	C 10207	T	.358	4-7/8	C 10220
H	.266	4-1/8	C 10208	U	.368	5	C 10221
I	.272	4-1/8	C 10209	V	.377	5	C 10222
J	.277	4-1/8	C 10210	W	.386	5-1/8	C 10223
K	.281	4-1/4	C 10211	X	.397	5-1/8	C 10224
L	.290	4-1/4	C 10212	Y	.404	5-1/4	C 10225
M	.295	4-3/8	C 10213	Z	.413	5-1/4	C 10226

CIC 200™ QUAD POINT DRILLS (Cont'd.)

JOBBER AND STUBBY LENGTHS – NUMBER SIZES

DIA.	DEC. EQUIV.	JOBBER LTH.	JOBBER PART	STUBBY LTH.	STUBBY PART	DIA.	DEC. EQUIV.	JOBBER LTH.	JOBBER PART	STUBBY LTH.	STUBBY PART
80	.0135	3/4	J 10080	-	-	40	.0980	2-3/8	J 10040	1-13/16	J 80040
79	.0145	3/4	J 10079	-	-	39	.0995	2-3/8	J 10039	1-13/16	J 80039
78	.0160	7/8	J 10078	-	-	38	.1015	2-1/2	J 10038	1-13/16	J 80038
77	.0180	7/8	J 10077	-	-	37	.1040	2-1/2	J 10037	1-13/16	J 80037
76	.0200	7/8	J 10076	-	-	36	.1065	2-1/2	J 10036	1-13/16	J 80036
75	.0210	1	J 10075	-	-	35	.1100	2-5/8	J 10035	1-7/8	J 80035
74	.0225	1	J 10074	-	-	34	.1110	2-5/8	J 10034	1-7/8	J 80034
73	.0240	1-1/8	J 10073	-	-	33	.1130	2-5/8	J 10033	1-7/8	J 80033
72	.0250	1-1/8	J 10072	-	-	32	.1160	2-3/4	J 10032	1-7/8	J 80032
71	.0260	1-1/4	J 10071	-	-	31	.1200	2-3/4	J 10031	1-7/8	J 80031
70	.0280	1-1/4	J 10070	-	-	30	.1285	2-3/4	J 10030	1-15/16	J 80030
69	.0292	1-3/8	J 10069	-	-	29	.1360	2-7/8	J 10029	1-15/16	J 80029
68	.0310	1-3/8	J 10068	-	-	28	.1405	2-7/8	J 10028	1-15/16	J 80028
67	.0320	1-3/8	J 10067	-	-	27	.1440	3	J 10027	2-1/16	J 80027
66	.0330	1-3/8	J 10066	-	-	26	.1470	3	J 10026	2-1/16	J 80026
65	.0350	1-1/2	J 10065	-	-	25	.1495	3	J 10025	2-1/16	J 80025
64	.0360	1-1/2	J 10064	-	-	24	.1520	3-1/8	J 10024	2-1/16	J 80024
63	.0370	1-1/2	J 10063	-	-	23	.1540	3-1/8	J 10023	2-1/16	J 80023
62	.0380	1-1/2	J 10062	-	-	22	.1570	3-1/8	J 10022	2-1/8	J 80022
61	.0390	1-5/8	J 10061	-	-	21	.1590	3-1/4	J 10021	2-1/8	J 80021
60	.0400	1-5/8	J 10060	-	-	20	.1610	3-1/4	J 10020	2-1/8	J 80020
59	.0410	1-5/8	J 10059	-	-	19	.1660	3-1/4	J 10019	2-1/8	J 80019
58	.0420	1-5/8	J 10058	-	-	18	.1695	3-1/4	J 10018	2-1/8	J 80018
57	.0430	1-3/4	J 10057	-	-	17	.1730	3-3/8	J 10017	2-3/16	J 80017
56	.0465	1-3/4	J 10056	-	-	16	.1770	3-3/8	J 10016	2-3/16	J 80016
55	.0520	1-7/8	J 10055	-	-	15	.1800	3-3/8	J 10015	2-3/16	J 80015
54	.0550	1-7/8	J 10054	-	-	14	.1820	3-3/8	J 10014	2-3/16	J 80014
53	.0595	1-7/8	J 10053	-	-	13	.1850	3-1/2	J 10013	2-3/16	J 80013
52	.0635	1-7/8	J 10052	-	-	12	.1890	3-1/2	J 10012	2-1/4	J 80012
51	.0670	2	J 10051	-	-	11	.1910	3-1/2	J 10011	2-1/4	J 80011
50	.0700	2	J 10050	-	-	10	.1935	3-5/8	F 10010	2-1/4	F 80010
49	.0730	2	J 10049	-	-	9	.1960	3-5/8	F 10009	2-1/4	F 80009
48	.0760	2	J 10048	-	-	8	.1990	3-5/8	F 10008	2-1/4	F 80008
47	.0785	2	J 10047	-	-	7	.2010	3-5/8	F 10007	2-1/4	F 80007
46	.0810	2-1/8	J 10046	-	-	6	.2040	3-3/4	F 10006	2-3/8	F 80006
45	.0820	2-1/8	J 10045	-	-	5	.2055	3-3/4	F 10005	2-3/8	F 80005
44	.0860	2-1/8	J 10044	1-3/4	J 80044	4	.2090	3-3/4	F 10004	2-3/8	F 80004
43	.0890	2-1/4	J 10043	1-3/4	J 80043	3	.2130	3-3/4	F 10003	2-3/8	F 80003
42	.0935	2-1/4	J 10042	1-3/4	J 80042	2	.2210	3-7/8	F 10002	2-7/16	F 80002
41	.0960	2-3/8	J 10041	1-13/16	J 80041	1	.2280	3-7/8	F 10001	2-7/16	F 80001

CIC 200™ QUAD POINT DRILLS (Cont'd.)

6" LENGTH – FRACTIONAL SIZES

DIAMETER	DEC. EQUIV.		PART	DIAMETER	DEC. EQUIV.		PART
3/64	.0469	C	82081	5/32	.1562	C	82088
1/16	.0625	C	82082	11/64	.1719	C	82089
5/64	.0781	C	82083	3/16	.1875	C	82090
3/32	.0938	C	82084	13/64	.2031	C	82091
7/64	.1094	C	82085	7/32	.2188	C	82092
1/8	.1250	C	82086	15/64	.2344	C	82093
9/64	.1406	C	82087	1/4	.2500	C	82094

6" LENGTH – NUMBER SIZES

DIAMETER	DEC. EQUIV.		PART	DIAMETER	DEC. EQUIV.		PART
60	.0400	C	82060	30	.1285	C	82030
59	.0410	C	82059	29	.1360	C	82029
58	.0420	C	82058	28	.1405	C	82028
57	.0430	C	82057	27	.1440	C	82027
56	.0465	C	82056	26	.1470	C	82026
55	.0520	C	82055	25	.1495	C	82025
54	.0550	C	82054	24	.1520	C	82024
53	.0595	C	82053	23	.1540	C	82023
52	.0635	C	82052	22	.1570	C	82022
51	.0670	C	82051	21	.1590	C	82021
50	.0700	C	82050	20	.1610	C	82020
49	.0730	C	82049	19	.1660	C	82019
48	.0760	C	82048	18	.1695	C	82018
47	.0785	C	82047	17	.1730	C	82017
46	.0810	C	82046	16	.1770	C	82016
45	.0820	C	82045	15	.1800	C	82015
44	.0860	C	82044	14	.1820	C	82014
43	.0890	C	82043	13	.1850	C	82013
42	.0935	C	82042	12	.1890	C	82012
41	.0960	C	82041	11	.1910	C	82011
40	.0980	C	82040	10	.1935	C	82010
39	.0995	C	82039	9	.1960	C	82009
38	.1015	C	82038	8	.1990	C	82008
37	.1040	C	82037	7	.2010	C	82007
36	.1065	C	82036	6	.2040	C	82006
35	.1100	C	82035	5	.2055	C	82005
34	.1110	C	82034	4	.2090	C	82004
33	.1130	C	82033	3	.2130	C	82003
32	.1160	C	82032	2	.2210	C	82002
31	.1200	C	82031	1	.2280	C	82001

CIC 200™ QUAD POINT DRILLS (Cont'd.)

REDUCED SHANK DRILLS

1/2" SHANK — 6" LENGTH

GROUND FLATS

DIA.	DEC.		PART	DIA.	DEC.		PART	DIA.	DEC.		PART
33/64	.5156	A	91235	3/4	.7500	A	91250	63/64	.9844	A	91265
17/32	.5312	A	91236	49/64	.7656	A	91251	1	1.0000	A	91266
35/64	.5469	A	91237	25/32	.7812	A	91252	1-1/32	1.0312	A	91267
9/16	.5625	A	91238	51/64	.7969	A	91253	1-1/16	1.0625	A	91268
37/64	.5781	A	91239	13/16	.8125	A	91254	1-3/32	1.0938	A	91269
19/32	.5938	A	91240	53/64	.8281	A	91255	1-1/8	1.1250	A	91270
39/64	.6094	A	91241	27/32	.8438	A	91256	1-5/32	1.1562	A	91271
5/8	.6250	A	91242	55/64	.8594	A	91257	1-3/16	1.1875	A	91272
41/64	.6406	A	91243	7/8	.8750	A	91258	1-7/32	1.2188	A	91273
21/32	.6562	A	91244	57/64	.8906	A	91259	1-1/4	1.2500	A	91274
43/64	.6719	A	91245	29/32	.9062	A	91260	1-5/16	1.3125	A	91276
11/16	.6875	A	91246	59/64	.9219	A	91261	1-3/8	1.3750	A	91278
45/64	.7031	A	91247	15/16	.9375	A	91262	1-7/16	1.4375	A	91280
23/32	.7188	A	91248	61/64	.9531	A	91263	1-1/2	1.5000	A	91282
47/64	.7344	A	91249	31/32	.9688	A	91264	-	-		-

1/4 INCH SHANK

DIAMETER	DEC. EQUIV.	JOBBER			STUBBY		
		LENGTH		PART	LENGTH		PART
17/64	.2656	3-1/2	A	91417	2-5/8	A	61401
9/32	.2812	3-19/32	A	91418	2-11/16	A	61404
19/64	.2969	3-23/32	A	91419	2-3/4	A	61408
5/16	.3125	3-27/32	A	91420	2-13/16	A	61412
21/64	.3281	3-15/16	A	91421	2-15/16	A	61416
11/32	.3438	4-1/32	A	91422	3		–
23/64	.3594	4-5/32	A	91423	3-1/16	A	61424
3/8	.3750	4-1/4	A	91424	3-1/8	A	61428
25/64	.3906	4-11/32	A	91425	3-1/4	A	61432
13/32	.4062	4-15/32	A	91426	3-5/16	A	61436
27/64	.4219	4-9/16	A	91427	3-3/8	A	61440
7/16	.4375	4-11/16	A	91428	3-7/16	A	61444
29/64	.4531	4-25/32	A	91429	3-9/16	A	61448
15/32	.4688	4-7/8	A	91430	3-5/8	A	61452
31/64	.4844	5	A	91431	3-11/16		–
1/2	.5000	5-3/32	A	91432	3-3/4	A	61460

CIC 200™ QUAD POINT DRILLS (Cont'd.)

DOUBLE-END

STANDARD

SIZE	DECIMAL EQUIV.	LENGTH		PART
3/32	.0937	1-3/4	F	61498
7/64	.1093	1-15/16	F	61499
1/8	.1250	1-15/16	F	61500
9/64	.1410	2"	F	61503
5/32	.1562	2-1/8	F	61505
3/16	.1875	2-5/16	F	61510
7/32	.2188	2-9/16	F	61515
1/4	.2500	2-5/8	D	61520
#30	.1285	2"	F	61525
#20	.1610	2-1/8	F	61527
#11	.1910	2-5/16	D	61528
#10	.1935	2-5/16	D	61529

WITH COUNTERSINKS

DRILL ENDS ARE EQUAL DIAMETER.
INCLUDED ANGLE IS 60°.

BODY DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	TYPE		PART
1/8	.025	.040	1-7/32	00	A	61530
1/8	1/32	3/64	1-7/32	0	A	61531
1/8	3/64	3/64	1-1/4	1	A	61532
3/16	5/64	5/64	1-7/8	2	A	61533
1/4	7/64	7/64	2	3	A	61534
5/16	1/8	1/8	2-1/8	4	A	61535
7/16	3/16	3/16	2-3/4	5	A	61536
1/2	7/32	7/32	3	6	A	61537
5/8	1/4	1/4	3-1/4	7	A	61538
3/4	5/16	5/16	3-1/2	8	A	61539
-	-	-	-	-		-
-	-	-	-	-		-

12" LENGTH – FRACTIONAL SIZES

9" EXTENDED FLUTES

- **135° SPLIT POINT**
- **HARDENED FULL LENGTH OF FLUTES**
- **DEEP DRILLING — UP TO 8"**

DIAMETER		PART
1/8	A	11030
5/32	A	11031
3/16	A	11032
7/32	A	11033
1/4	A	11034
9/32	A	11035
5/16	A	11036
3/8	A	11038
7/16	A	11040
1/2	A	11042

STANDARD AIRCRAFT FLUTES

- **135° SPLIT POINT**
- **SPRING TEMPERED CONSTRUCTION**
- **DRILLS HARD-TO-REACH AREAS**
- **HIGH SPEED STEEL**

DIAMETER	FLUTE LENGTH		PART
1/8	1-5/8	A	11052
5/32	2	A	11054
3/16	2-5/16	A	11056
7/32	2-1/2	A	11058
1/4	2-3/4	A	11060
9/32	2-15/16	A	11062
5/16	3-3/16	A	11064
3/8	3-5/8	A	11066
7/16	4-1/16	A	11068
1/2	4-1/2	A	11070

CIC 200™ QUAD POINT DRILLS (Cont'd.)

DRILL ORGANIZERS AND DISPENSERS

One convenient location for all your CIC 200™ Quad Point Drills. The right size available every time. Provides instant control of your drill inventory.

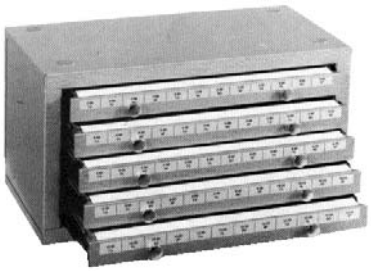
50 PIECE FRACTIONAL ORGANIZER

CONTENTS		PART
1 each: 21/64, 11/32, 25/64, 27/64, 7/16 and 1/2 2 each: 9/64, 5/32, 11/64, 13/64, 7/32, 15/64, 17/64, 9/32, 5/16 and 3/8 3 each: 1/16, 5/64, 3/32 and 7/64 4 each: 1/8, 3/16 and 1/4	A	61695

FRACTIONAL ORGANIZER"COMPLETER KIT"

CONTENTS		PART
1 each: 19/64, 23/64, 13/32, 29/64, 15/32 and 31/64	A	6169

75 PIECE NUMBER ORGANIZER



CONTENTS		PART
3 each: #3, #5, #6, #7, #8, #9, #10, #11, #15, #20 #21, #22, #25, #26, #28, #29, #30, #33, #35, #36, #38, #39, #40, #43 and #44	A	61697

MASTER DRILL DISPENSER – COMPLETE

CONTENTS		PART
Total of 115 CIC 200™ Quad Point Drills 1 each of 29 fractional sizes: 1/16 through 1/2 1 each of 60 number sizes: #1 through #60 1 each of 26 letter sizes: A through Z	A	61654

MASTER DRILL DISPENSER – STARTER

CONTENTS		PART
Total of 50 CIC 200™ Quad Point Drills 4 each: 1/8, 3/16 and 1/4 3 each: 1/16, 5/64, 3/32, and 7/64 2 each: 9/64, 5/32, 11/64, 13/64, 7/32, 15/64, 17/64, 9/32, 5/16 and 3/8 1 each: 21/64, 11/32, 25/64, 27/64, 7/16, 1/2	A	61653

CIC 200™ QUAD POINT DRILLS (Cont'd.)

DRILL INDEXES

INDEX

CADDY

DESCRIPTION	# OF DRILLS		PART
1/16 to 1/4 by 64ths	13	A	61600
1/16 to 1/2 by 32nds	15	A	61605
1/16 to 3/8 by 64ths	21	A	61610
1/16 to 1/2 by 64ths	29	A	61615
1 to 60 Numbers	60	A	61620
A to Z Letters	26	A	61625
61 to 80 Numbers	20	A	61630
Left Hand Drills 1/8, 3/16, 1/4, 5/16	4	A	61631
Left Hand Drills 1/6 to 1/2 by 32nds	15	A	61633
Stubby Drill Index 1/16 to 1/2 by 64ths	29	A	61678
1/4" REDUCED SHANK INDEXES			
1/16 to 1/2 by 32nds	15	A	61640
1/16 to 3/8 by 64ths	21	A	61645
1/16 to 1/2 by 64ths	29	A	61650
1/16 to 1/2 by 64ths (stubby)	29	A	61678
1/2" REDUCED SHANK INDEXES			
9/16" to 1" by 16ths	8	A	61648
JOBBER LENGTH – DRILL CADDY INDEX			
1/16 to 1/2 by 64ths	29	A	61642

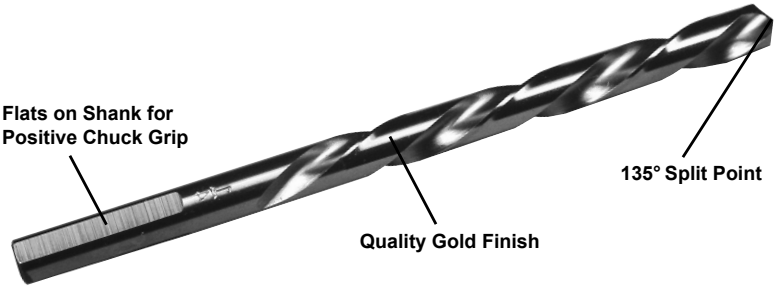
CIC 200™ QUAD POINT **PLUS** DRILLS

JOBBER LENGTH – FRACTIONAL SIZE DRILLS

FEATURES

- **Stops Chuck Slippage**
  Flats on drill shanks allow easy positive chuck grip.*
- **Made of Special Hi-moly Tool Steel**
  Tougher than cobalt steel.
- **Substantially Longer Cutting Life**
  The nitro-carburized flute has an increased Rockwell hardness.
- **Cuts Harder Materials**
  The flatter point takes a smaller chip. More torque is directed to a smaller area. Allows drilling into materials with hardness over 30 on the Rockwell "C" Scale.
- **Stops Drill Walking**
  The split point design gives accurate starting. No need for a center punch.
- **Holds Tighter Hole Size**
  The split point design is self centering. This limits the normal oversize drilling characteristics.
- **Outstanding Quality Appearance**
  A rich gold color sets it apart from commodity cutting tools.
- **Runs Cooler, Uses Less Torque**
  135° point takes a smaller chip resulting in less heat. Friction is reduced by the gold surface treatment.
- **Made in U.S.A.**

* 3-flat design, 3/16" diameter and larger.



DIA.	LENGTH	DEC. EQUIV.		PART
1/16"	1-7/8"	.0625	C	93004
5/64"	2"	.0781	C	93005
3/32"	2-1/4"	.0938	C	93006
7/64"	2-5/8"	.1094	C	93007
1/8"	2-3/4"	.1250	C	93008
9/64"	2-7/8"	.1406	C	93009
5/32"	3-1/8"	.1562	C	93010
11/64"	3-1/4"	.1719	C	93011
3/16"	**3-1/2"**	**.1875**	C	**93012**
13/64"	**3-5/8"**	**.2031**	C	**93013**
7/32"	**3-3/4"**	**.2188**	C	**93014**
15/64"	**3-7/8"**	**.2344**	C	**93015**
1/4"	**4"**	**.2500**	C	**93016**
17/64"	**4-1/8"**	**.2656**	C	**93017**
9/32"	**4-1/4"**	**.2812**	C	**93018**
19/64"	**4-3/8"**	**.2969**	A	**93019**
5/16"	**4-1/2"**	**.3125**	A	**93020**
21/64"	**4-5/8"**	**.3281**	A	**93021**
11/32"	**4-3/4"**	**.3438**	A	**93022**
23/64"	**4-7/8"**	**.3594**	A	**93023**
3/8"	**5"**	**.3750**	A	**93024**
25/64"	**5-1/8"**	**.3906**	A	**93025**
13/32"	**5-1/4"**	**.4062**	A	**93026**
27/64"	**5-3/8"**	**.4219**	A	**93027**
7/16"	**5-1/2"**	**.4375**	A	**93028**
29/64"	**5-5/8"**	**.4531**	A	**93029**
15/32"	**5-3/4"**	**.4688**	A	**93030**
31/64"	**5-7/8"**	**.4844**	A	**93031**
1/2"	**6"**	**.5000**	A	**93032**

Bold type in table indicates 3-flat design (3/16" diameter & larger).

APPLICATIONS

- **Work Hardening Grades of Stainless Steel**
  300 series stainless steel
- **Free Machining Grades of Stainless Steel**
  400 series and type 303 stainless steel
- **Titanium Alloys**
- **Other High Tensile Strength Materials**

CIC 200™ QUAD POINT **PLUS** DRILLS

DRILL ORGANIZER

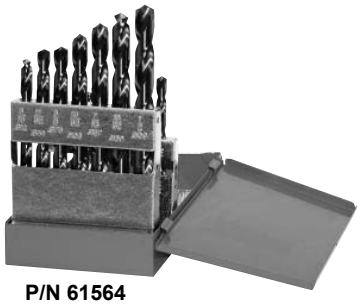
FRACTIONAL SIZES – 1/16'' TO 1/2'' BY 64THS

- 3-Drawer organizer
- 50 Drills
- Holds 29 Sizes (23 sizes included)
- Sizes labeled on front of each drawer
- One convenient location for your drills
- The right size drill is always available
- Controls your drill inventory
- Can store hundreds of drills in one place
- Eliminates misplaced drills
- Easy access for your staff
- Cabinet: 14-1/2" W x 7-1/4" H x 7-1/4" D

CONTENTS		PART
1 each: 21/64, 11/32, 25/64, 27/64, 7/16 & 1/2 2 each: 9/64, 5/32, 11/64, 13/64, 7/32, 15/64, 17/64, 9/32, 5/16 and 3/8 3 each: 1/16, 5/64, 3/32 and 7/64 4 each: 1/8, 3/16 and 1/4	A	61569

DRILL INDEXES AND CADDY

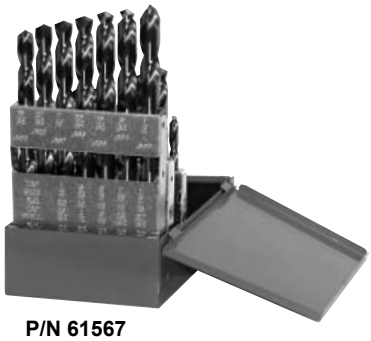
P/N 61563



P/N 61564

TYPE	SIZES	# OF DRILLS		P/N
Index	1/16 to 1/4 by 64ths	13	A	61563
Index	1/16 to 1/2 by 32nds	15	A	61564
Index	1/16 to 3/8 by 64ths	21	A	61566
Index	1/16 to 1/2 by 64ths	29	A	61567
Caddy	1/16 to 1/2 by 64ths	29	A	61568

P/N 61566



P/N 61567

P/N 61568

CIC 200™ LEFT HAND DRILLS

REMOVES BROKEN STUDS AND CAP SCREWS

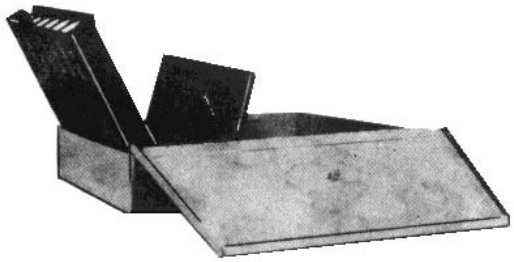
Threads out broken studs or cap screws, saving hours of work retapping or fighting with an E-Z out.

DRILLS

- **USE WITH A VSR DRILL MOTOR**
- **RECOMMENDED RPM: 300-500**
- **CENTER-PUNCH TO KEEP DRILL IN CENTER OF STUD AND TO AVOID THREAD DAMAGE. THE JARRING ACTION FROM CENTER PUNCHING WILL HELP TO LOOSEN THE BROKEN PIECE.**

DIA.		PART	DIA.		PART
1/16	A	11003	9/32	A	11018
5/64	A	11002	19/64	A	11010
3/32	A	11001	5/16	A	11011
7/64	A	11004	11/32	A	11012
1/8	A	11005	3/8	A	11013
5/32	A	11006	13/32	A	11014
3/16	A	11007	7/16	A	11015
7/32	A	11008	15/32	A	11016
1/4	A	11009	1/2	A	11017

LEFT-HAND DRILL INDEXES



CONTENTS		PART
1 each 1/8, 3/16, 1/4 and 5/16	A	61631
5-Piece Index includes: 1 each 1/8, 3/16, 1/4, 11/32 and 7/16	A	61629
15-Piece Index includes: 1 each 1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 9/32, 5/16, 11/32, 3/8, 13/32, 7/16, 15/32 and 1/2	A	61633

TRI-CARB DRILLS

DESIGNED FOR DRILLING HIGHLY ALLOYED FERROUS METALS

- DESIGNED FOR USE ON HEAT-TREATED, HARDENED MATERIAL UP TO 65 RC
- THREE FLUTE GEOMETRY REDUCES CHIPLOAD PER CUTTING EDGE AND INCREASES TOOL LIFE, TORSIONAL STRENGTH AND RIGIDITY
- SUITABLE FOR DRILLING MATERIALS WHICH PRODUCE POWDER LIKE CHIPS SUCH AS CAST IRON
- SUPERIOR HOLE SIZE TOLERANCE, HOLE ROUNDNESS AND SURFACE FINISH
- ACCURATE SELF-CENTERING CAPABILITY ELIMINATES NEED FOR SEPARATE CENTERING
- NOT RECOMMENDED FOR NON-FERROUS MATERIALS

DIA.	OVERALL LENGTH	DEC. EQUIV.	FLUTE LENGTH		PART	DIA.	OVERALL LENGTH	DEC. EQUIV.	FLUTE LENGTH		PART
1/8	1-7/8	.1250	3/4	A	77400	3/8	3-1/8	.3750	1-19/32	A	77408
3/16	2-3/16	.1875	15/16	A	77402	7/16	3-7/16	.4375	1-3/4	A	77410
1/4	2-1/2	.2500	1-3/16	A	77404	1/2	3-3/4	.5000	2	A	77412
5/16	2-13/16	.3125	1-7/16	A	77406	INDEX - Contains one each: 1/8, 3/16, 1/4 & 5/16				A	61652

CIC 200™ SUPER COBALT DRILLS

OUTSTANDING PERFORMANCE – FOR DIFFICULT CUTTING JOBS

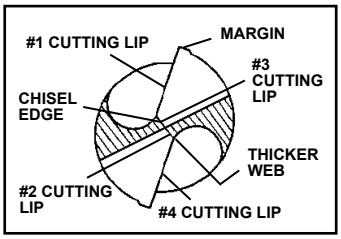
An 8% cobalt content drill with excellent resistance to strong abrasives and heat.

THICKER WEB
GIVES GREATER PROTECTION AGAINST BREAKAGE

EASILY IDENTIFIED
BY BLACK MARK AT THE SHANK END

EXTENDED FLUTES
FOR FASTER HOT CHIP REMOVAL

QUAD POINT
4 CUTTING EDGES FOR FASTER, SURER STARTS . . . EVEN ON HARDENED ROUNDED SURFACES

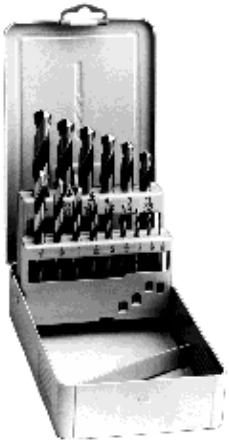


CUTS THROUGH:
• WORK HARDENING STAINLESS STEEL • 400 SERIES STAINLESS STEEL • IRON ALLOY STEELS • TITANIUM ALLOYS
• TOOL STEELS • HIGH TEMPERATURE ALLOYS • HIGH ABRASIVE PLASTICS AND FIBERGLASS MATERIALS

JOBBER LENGTH — FRACTIONAL SIZES

DIAMETER	OVERALL LENGTH	FLUTE LENGTH		PART	DIAMETER	OVERALL LENGTH	FLUTE LENGTH		PART
3/64	1-3/4	3/4	A	96203*	9/32	4-1/4	2-15/16	A	96218
1/16	1-3/4	3/4	A	96204	19/64	4-3/8	3-1/16	A	96219
5/64	2	1	A	96205	5/16	4-1/2	3-3/16	A	96220
3/32	2-1/4	1-1/4	A	96206	21/64	4-5/8	3-5/16	A	96221
7/64	2-5/8	1-1/2	A	96207	11/32	4-3/4	3-7/16	A	96222
1/8	2-3/4	1-5/8	A	96208	23/64	4-7/8	3-1/2	A	96223
9/64	2-7/8	1-3/4	A	96209	3/8	5	3-5/8	A	96224
5/32	3-1/8	2	A	96210	25/64	5-1/8	3-3/4	A	96225
11/64	3-1/4	2-1/8	A	96211	13/32	5-1/4	3-7/8	A	96226
3/16	3-1/2	2-5/16	A	96212	27/64	5-3/8	3-15/16	A	96227
13/64	3-5/8	2-7/16	A	96213	7/16	5-1/2	4-1/16	A	96228
7/32	3-3/4	2-1/2	A	96214	29/64	5-5/8	4-3/16	A	96229
15/64	3-7/8	2-5/8	A	96215	15/32	5-3/4	4-5/16	A	96230
1/4	4	2-3/4	A	96216	31/64	5-7/8	4-3/8	A	96231
17/64	4-1/8	2-7/8	A	96217	1/2	6	4-1/2	A	96232

** Size smaller than 1/16 have non-split point.*
NOTE: Cobalt is normally a very brittle material – caution should be used when a hand drill motor is in use.
Keep from side thrusting which may result in drill breakage. Always store in proper cabinet to eliminate hitting drills together.



JOBBER LENGTH INDEX

CONTENTS		PART
15 DRILLS – 1/16 to 1/2 by 32nds	A	61692
29 DRILLS – 1/16 to 1/2 by 64ths	A	61690

CIC 200™ CARBIDE TIPPED DRILLS

LONGER TOOL LIFE AND BETTER ABRASION RESISTANCE

- **BRIGHT FINISH**
- **EXCELLENT FOR NONFERROUS APPLICATIONS AND LOW TENSILE STEELS**
- **HEAVY DUTY CONSTRUCTION FOR INCREASED TOOL STRENGTH**
- **CAM RELIEVED 118° POINT-GENERAL PURPOSE ANGLE WITH RADIAL RELIEF FOR ACCURATE HOLES**

DIAMETER	OVERALL LENGTH	FLUTE LENGTH		PART	DIAMETER	OVERALL LENGTH	FLUTE LENGTH		PART
1/8	2-3/4	1-5/8	A	61360	3/8	5"	3-5/8	A	61376
3/16	3-1/2	2-5/16	A	61364	7/16	5-1/2	4-1/16	A	61380
1/4	4"	2-3/4	A	61368	1/2	6"	4-1/2	A	61384
5/16	4-1/2	3-3/16	A	61372	7-PIECE INDEX			A	61622

CARBIDE TIPPED HARD STEEL BITS

A LONGER CARBIDE TIP PREVENTS CHIPPING

- **STRAIGHT FLUTE DESIGN DISSIPATES HEAT QUICKLY**
- **DRILLS EXTRA TOUGH MATERIALS SUCH AS SAFES, BEARING RACES, DIES, ETC.**

SIZE	SHANK DIA.		PART	SIZE	SHANK DIA.		PART
1/8 x 2-3/4	1/8	A	77480	1/4 x 4	1/4	A	77485
5/32 x 3	5/32	A	77481	5/16 x 6	5/16	A	77489
3/16 x 3	3/16	A	77483	3/8 x 6	3/8	A	77491
7/32 x 4	7/32	A	77484	1/2 x 6	1/2	A	77493
POUCH ASSORTMENT - Contains 8 Bits: 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8 and 1/2						A	61665

CARBIDE TIPPED DRILL BITS

FOR USE WITH CEMENT SCREWS ON BRICK, CEMENT AND CINDER BLOCK

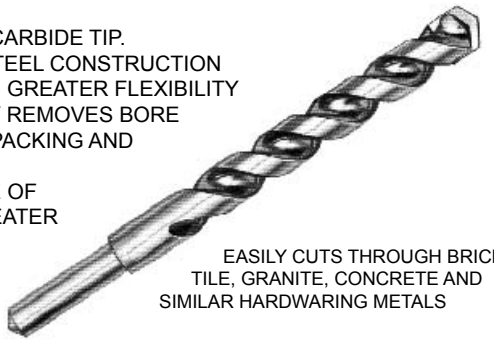
SIZE	USE WITH CEMENT SCREW PART NO.		DRILL PART NO.
5/32 x 3-1/2	9050, 9051, 9064, 9065	A	9086
5/32 x 4-1/2	9052, 9053, 9066, 9067	A	9088
5/32 x 5-1/2	9054, 9055, 9056, 9068, 9069, 9070	A	9090
3/16 x 3-1/2	9057, 9058, 9071, 9072	A	9083
3/16 x 4-1/2	9059, 9060, 9073, 9074	A	9084
3/16 x 5-1/2	9061, 9062, 9063, 9075, 9076, 9077	A	9087

CIC 200™ CARBIDE MASONRY DRILLS

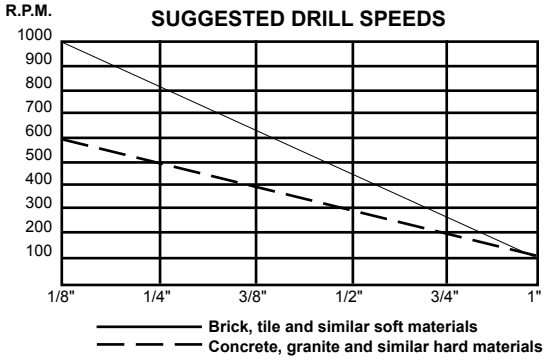
TUNGSTEN CARBIDE TIP

The only drill that will satisfy all your masonry drill needs. A longer lasting, faster cutting drill which can be used with either a 3/8" or 1/2" rotary or percussion drill motor.

FEATURES
- DURABLE TUNGSTEN CARBIDE TIP.
- CHROME VANADIUM STEEL CONSTRUCTION FOR LONGER LIFE AND GREATER FLEXIBILITY
- SPIRAL DESIGN EASILY REMOVES BORE MATERIAL REDUCING PACKING AND HEATING OF DRILL
- SPECIAL CONFLUENCE OF SPIRAL PROVIDES GREATER STRENGTH TO DRILL



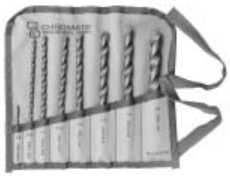
EASILY CUTS THROUGH BRICK, TILE, GRANITE, CONCRETE AND SIMILAR HARDWARING METALS



DRILL DIA.	SHANK DIA.	OVERALL LENGTH		PART
1/8	1/8	3	A	77501
5/32	5/32	3-1/8	A	77502
11/64	11/64	3	A	77503
3/16	3/16	3-1/2	A	77504
3/16	3/16	6	A	77505
13/64	13/64	3	A	77506
7/32	7/32	4	A	77507
15/64	15/64	4	A	77508
1/4	1/4	4	A	77509
1/4	1/4	6	A	77510
1/4	1/4	13	A	77511
1/4	1/4	16	A	77512
1/4	1/4	20	A	77513
1/4	1/4	24	A	77514
9/32	1/4	4	A	77516
9/32	1/4	6	A	77517
5/16	5/16	4-3/4	A	77518
5/16	1/4	4-3/4	A	77519
5/16	5/16	6	A	77520
5/16	5/16	13	A	77522
5/16	5/16	20	A	77526

DRILL DIA.	SHANK DIA.	OVERALL LENGTH		PART
3/8	3/8	4-1/2	A	77598
3/8	1/4	4-1/2	A	77599
3/8	3/8	6	A	77530
3/8	1/4	6	A	77531
3/8	3/8	13	A	77532
3/8	3/8	20	A	77536
3/8	3/8	24	A	77538
7/16	3/8	6	A	77541
1/2	1/2	6	A	77545
1/2	3/8	6	A	77546
1/2	1/4	6	A	77547
1/2	3/8	13	A	77549
1/2	1/4	13	A	77562
1/2	3/8	20	A	77555
1/2	3/8	24	A	77558

DRILL DIA.	SHANK DIA.	OVERALL LENGTH		PART
9/16	3/8	7	A	77550
5/8	1/2	6	A	77561
5/8*	3/8	6	A	77563
5/8	3/8	10	A	77565
5/8	3/8	20	A	77568
5/8	1/2	24	A	77569
3/4	1/2	6	A	77571
3/4*	3/8	6-1/4	A	77572
3/4	1/2	10	A	77573
3/4	3/8	13	A	77574
3/4	1/2	16	A	77575
3/4	1/2	20	A	77576
3/4	3/8	20	A	77577
3/4	1/2	24	A	77578
7/8	1/2	6-1/4	A	77581
7/8	1/2	13	A	77580
7/8	1/2	20	A	77582
1	1/2	6-1/4	A	77584
1	1/2	13	A	77585
1	1/2	20	A	77586
1-1/8	1/2	12	A	77589
1-1/4	1/2	13	A	77590



CARBIDE MASONRY DRILLS POUCH ASSORTMENT - Contains 8 Masonry Drills 1/8 x 3 x 1/8, 3/16 x 6 x 3/16, 1/4 x 6 x 1/4, 5/16 x 6 x 5/16, 3/8 x 6 x 3/8, 7/16 x 6-1/4 x 3/8, 1/2 x 6-3/4 x 3/8 and 5/8 x 6 x 3/8 — A 61664

* Ground flats on shank for non-slip chucking.

CIC 200™ CARBIDE MASONRY DRILL ORGANIZER

CONTENTS		PART
7 Carbide Masonry Drill "Fractional Sizes" include: 1/8 x 3 x 1/8, 3/16 x 6 x 3/16, 1/4 x 6 x 1/4, 5/16 x 6 x 5/16, 3/8 x 6 x 3/8, 1/2 x 6-3/4 x 3/8 and 5/8 x 6 x 3/8	A	61612
26 Carbide Masonry Drill Fractional Sizes includes 1/8 to 3/4	A	61611

CIC 200™ H.D. MASONRY DRILLS

H.D. CARBIDE TIP FOR ROTO HAMMER

For use on all tile, marble, terrazzo, brick, stone, slate, cement and cinder block.

"A" TAPER SHANK DRILLS

DRILL DIA.	OVERALL LENGTH	MAX. DRILL DEPTH	PART	DRILL DIA.	OVERALL LENGTH	MAX. DRILL DEPTH	PART
3/16	3-3/8	1-3/16	A 20401	1/2	12	9	A 20418
3/16	4-3/4	2-9/16	A 20402	1/2	18	15-1/2	A 20419
1/4	4	1-3/4	A 20403	9/16	6	3-1/2	A 20420
1/4	6	4	A 20404	9/16	9	6-1/2	A 20421
9/32	4-1/2	2-3/8	A 20405	9/16	18	15-1/2	A 20422
5/16	4-1/2	2-3/8	A 20406	5/8	9	6-1/2	A 20424
5/16	5-7/8	4	A 20407	5/8	12	9	A 20425
5/16	7	5	A 20408	5/8	18	15-1/2	A 20426
3/8	5-5/16	3	A 20409	11/16	9	6-1/2	A 20428
3/8	9	6-1/2	A 20410	3/4	6	3-1/2	A 20429
3/8	12	9	A 20411	3/4	9	6-1/2	A 20430
3/8	18	15-1/2	A 20412	3/4	12	9	A 20431
7/16	5	3	A 20413	3/4	18	15-1/2	A 20432
7/16	12	9	A 20414	27/32	6	3-1/2	A 20433
1/2	5-1/2	3-3/8	A 20416	7/8	9	6-1/2	A 20434
1/2	9	6-1/2	A 20417	-	-	-	-

"B" TAPER SHANK DRILLS

DRILL DIA.	OVERALL LENGTH	MAX. DRILL DEPTH	PART	DRILL DIA.	OVERALL LENGTH	MAX. DRILL DEPTH	PART
1/2	9	6-1/2	A 20380	3/4	12	9	A 20364
1/2	12	9	A 20352	3/4	18	15-1/2	A 20365
1/2	18	15-1/2	A 20353	3/4	24	21	A 20366
9/16	9	6-1/2	A 20354	27/32	6	3-1/2	A 20367
9/16	18	15-1/2	A 20355	7/8	6	3-1/2	A 20368
5/8	6	3-1/2	A 20356	7/8	9	6-1/2	A 20369
5/8	9	6-1/2	A 20357	7/8	12	9	A 20370
5/8	12	9	A 20358	7/8	18	15-1/2	A 20371
5/8	18	15-1/2	A 20359	1	6	3-1/2	A 20372
11/16	9	6-1/2	A 20360	1	9	6-1/2	A 20373
11/16	18	15-1/2	A 20361	1	12	9	A 20374
3/4	6	3-1/2	A 20362	1	18	15-1/2	A 20375
3/4	9	6-1/2	A 20363	–	–	–	–

H.D. MASONRY DRILLS (Cont'd.)

SDS PLUS HAMMER DRILL BITS

Features

- Made in Germany – world renowned for quality of product
- Versatile slot drive system hammer bits fit most rotary hammers
- Aggressive, durable carbide tip (1)allows easy centering and fast drilling
- Dynamic, chisel shaped bit head (2) ensures swift penetration
- Patented, reinforced flute geometry reduces vibration, transfers more impact energy to the cutting face and quickly channels debris from the hole
- Balance of tip and flute geometry ensure perfectly round holes giving superior anchoring
- Versatile slot drive system hammer bits fit most rotary hammers.
- Vacuum brazed with pure copper at 1900°F.
- Vacuum heat treated tool body to 50RC. BC20 grade carbide.
- Reinforced flutes and chisel shaped carbide tip.

7-Piece Set
P/N 61898

Contains these drill diameters:

- 5/32″ X 4″ X 6″ P/N 77001
- 3/16″ X 4″ X 6″ P/N 77003
- 1/4″ X 4″ X 6″ P/N 77013
- 3/8″ X 4″ X 6″ P/N 77021
- 1/2″ X 4″ X 6″ P/N 77028

Includes Rebar Hammer Bits:

- 1/4″ X 4″ X 6″ P/N 77053
- 3/8″ X 4″ X 6″ P/N 77066

Applications

- Highway rails
- Structural supports
- Pipe mounts
- Electrical mounts
- Bridge construction
- HVAC mounts
- Machinery mounts
- Door and window frames
- Roofing
- Brackets

Drills Materials

- Concrete & stone
- Masonry
- Grout filled block
- Hollow block
- Solid brick
- Hollow brick
- Cement board
- Granite

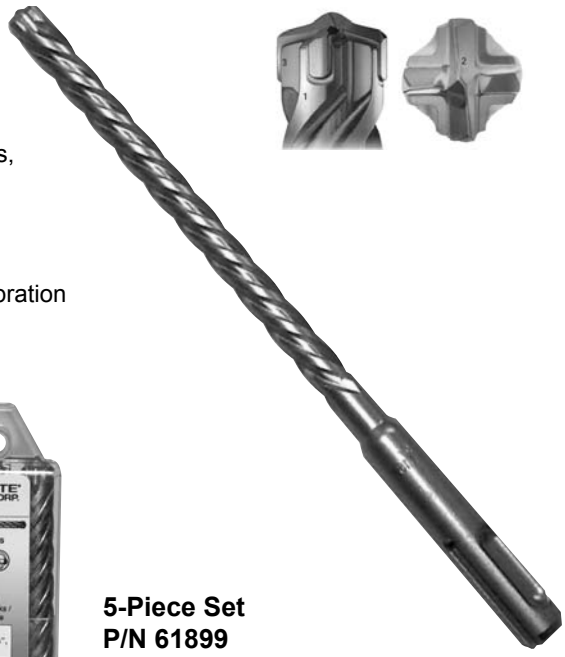
	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77000	5/32″	2″	4″
A	77001	5/32″	4″	6″
A	77002	3/16″	2″	4″
A	77003	3/16″	4″	6″
A	77004	3/16″	6″	8″
A	77005	3/16″	10″	12″
A	77006	7/32″	4″	6″
A	77007	7/32″	6″	8″
A	77008	7/32″	9″	11″
A	77010	7/32″	12″	14″
A	77011	7/32″	14″	16″
A	77012	1/4″	2″	4″
A	77013	1/4″	4″	6″
A	77014	1/4″	6″	8″
A	77015	1/4″	8″	10″
A	77016	1/4″	9″	11″
A	77017	1/4″	12″	14″
A	77018	1/4″	14″	16″
A	77019	5/16″	4″	6″
A	77020	5/16″	10″	12″
A	77021	3/8″	4″	6″
A	77022	3/8″	8″	10″
A	77023	3/8″	10″	12″
A	77024	3/8″	16″	18″
A	77025	3/8″	22″	24″

	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77026	7/16″	4″	6″
A	77027	7/16″	10″	12″
A	77028	1/2″	4″	6″
A	77029	1/2″	8″	10″
A	77030	1/2″	10″	12″
A	77031	1/2″	16″	18″
A	77032	1/2″	22″	24″
A	77033	3/4″	22″	24″
A	77034	5/8″	22″	24″
A	77036	5/8″	6″	8″
A	77039	11/16″	6″	8″
A	77037	5/8″	10″	12″
A	77035	9/16″	4″	6″
A	77038	9/16″	16″	18″
A	77040	3/4″	6″	8″
A	77041	3/4″	10″	12″
A	77042	3/4″	16″	18″
A	77043	27/32″	6″	8″
A	77044	7/8″	6″	8″
A	77045	7/8″	10″	12″
A	77046	1″	8″	10″
A	77047	1″	16″	18″

H.D. MASONRY DRILLS (Cont'd.)

SDS PLUS REBAR HAMMER DRILL BITS

Features
- Made in Germany – world renowned for quality of product
- "Solid-Tip" Technology cuts through rebar (1)
- 4 Cutter head cuts faster and lasts longer (2)
- Modern heat treat and brazing processes ensuring proper hardness, toughness, and durability for maximum life
- Centering point for improved positioning
- Shortened conical-shaped dust tracks for fast debris removal (3)
- Reinforced core and special flute for maximum energy transfer and reduced vibration
- Solid tip cross head design with centering tips for strength and easy start up
- "Solid-Tip" technology cuts through rebar
- 4 cutter head cuts faster and lasts longer
- Reinforced flutes and chisel shaped carbide tip



5-Piece Set
P/N 61899

Contains these drill diameters:
- 3/16″ x 4″ x 6″ P/N 77060
- 1/4″ x 4″ x 6″ P/N 77053
- 5/16″ x 4″ x 6″ P/N 77069
- 3/8″ x 4″ x 6″ P/N 77066
- 1/2″ x 4″ x 6″ P/N 77050

Applications
- Highway rails
- Structural supports
- Pipe mounts
- Electrical mounts
- Bridge construction
- HVAC mounts
- Machinery mounts
- Door and window frames
- Roofing
- Brackets

Drills Materials
- Concrete & stone
- Masonry
- Grout filled block
- Hollow block
- Solid brick
- Hollow brick
- Cement board
- Granite

	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH		PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77059	3/16″	2″	4″	A	77074	7/16″	4″	6″
A	77060	3/16″	4″	6″	A	77072	7/16″	10″	12″
A	77061	3/16″	6″	8″	A	77073	7/16″	16″	18″
A	77062	3/16″	8″	10″	A	77050	1/2″	4″	6″
A	77058	3/16″	10″	12″	A	77048	1/2″	10″	12″
A	77052	1/4″	2″	4″	A	77049	1/2″	16″	18″
A	77053	1/4″	4″	6″	A	77078	9/16″	4″	6″
A	77054	1/4″	6″	8″	A	77076	9/16″	10″	12″
A	77055	1/4″	8″	10″	A	77077	9/16″	16″	18″
A	77051	1/4″	10″	12″	A	77070	5/8″	10″	12″
A	77069	5/16″	4″	6″	A	77071	5/8″	16″	18″
A	77067	5/16″	10″	12″	A	77063	3/4″	16″	18″
A	77068	5/16″	16″	18″	A	77075	7/8″	16″	18″
A	77066	3/8″	4″	6″	A	77057	1″	16″	18″
A	77064	3/8″	10″	12″	A	77056	1-1/4″	16″	18″
A	77065	3/8″	16″	18″					

H.D. MASONRY DRILLS (Cont'd.)

SDS MAX HAMMER DRILL BITS – 4 CUTTER CROSS-HEAD

Features
- Made in Germany – world renowned for quality of product
- 4 Cutter head cuts faster and lasts longer
- Unique carbide geometry and centering tips – fast start up and drilling
- Modern heat-treating and brazing process ensures proper combination of product hardness, toughness and durability resulting in maximum life
- BC20 grade of carbide

4 Cutter SDS-Max / Spline

Reinforced Flutes

Maximum energy transfer from powertool to drill bit tip.

17065

Applications
- Concrete
- Hard masonry materials
- Pipe, electrical, cable and wiring clearances
- Ceiling and wall cavities

Quick Change Adaptors
Quickly and easily adapt SDS-Max and spline drive roto-hammer power tools to use standard SDS-Plus hammer bits.
- P/N 77104 – SDS-Max to SDS-Plus
- P/N 77105 – Spline to SDS-Plus

5-Piece Set
P/N 8807

Contains these drill diameters:
- 1/2″ x 8″ x 13″ P/N 77079
- 5/8″ x 8″ x 13″ P/N 77083
- 3/4″ x 8″ x 13″ P/N 77087
- 7/8″ x 8″ x 13″ P/N 77090
- 1″ x 8″ x 13″ P/N 77093

	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77079	1/2″	8″	13″
A	77080	1/2″	16″	21″
A	***77081***	***9/16"***	***8"***	***13"***
A	***77082***	***9/16"***	***16"***	***21"***
A	77083	5/8″	8″	13″
A	77084	5/8″	16″	21″
A	***77085***	***5/8"***	***31"***	***36"***
A	***77086***	***11/16"***	***16"***	***21"***
A	77087	3/4″	8″	13″
A	77088	3/4″	17″	21″
A	***77089***	***3/4"***	***31"***	***36"***
A	77090	7/8″	8″	13″
A	77091	7/8″	17″	21″
A	***77092***	***7/8"***	***31"***	***36"***

	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77093	1″	8″	13″
A	77094	1″	17″	21″
A	***77095***	***1"***	***31"***	***36"***
A	***77096***	***1-1/8"***	***10"***	***15"***
A	77097	1-1/8″	12″	17″
A	***77098***	***1-1/8"***	***17"***	***21"***
A	77099	1-1/4″	10″	15″
A	***77100***	***1-1/4"***	***18"***	***23"***
A	***77101***	***1-1/4"***	***31"***	***36"***
A	***77102***	***1-3/8"***	***18"***	***23"***
A	77103	1-1/2″	18″	23″

Bold italic text = Non-stock item
Please allow 1 week for delivery.

H.D. MASONRY DRILLS (Cont'd.)

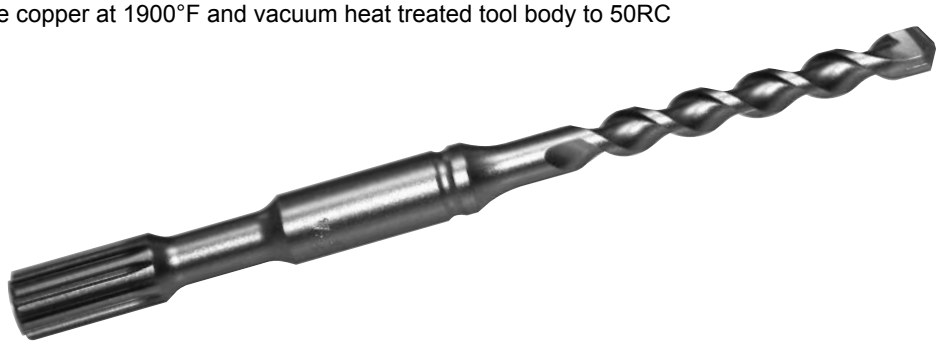
SPLINE SHANK HAMMER DRILL BITS – SINGLE POINT

Features

- Made in Germany – world renowned for quality of product
- Splines held to very close tolerances assure perfect fit and improve impact transmission for faster drilling
- Vacuum brazed with pure copper at 1900°F and vacuum heat treated tool body to 50RC
- HL20 grade carbide

Applications

- Concrete
- Hard masonry materials



	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH		PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	***77106***	***3/8"***	***3"***	***8"***	A	77127	3/4″	11″	16″
A	***77107***	***3/8"***	***5"***	***10"***	A	77128	3/4″	17″	22″
A	***77108***	***3/8"***	***8"***	***13"***	A	***77129***	***3/4"***	***24"***	***29"***
A	***77109***	***3/8"***	***11"***	***16"***	A	***77130***	***3/4"***	***31"***	***36"***
A	***77110***	***7/16"***	***8"***	***13"***	A	***77131***	***7/8"***	***11"***	***16"***
A	77111	1/2″	5″	10″	A	77132	7/8″	17″	22″
A	***77112***	***1/2"***	***8"***	***13"***	A	77133	7/8″	31″	36″
A	77113	1/2″	11″	16″	A	77134	1″	11″	16″
A	***77114***	***1/2"***	***17"***	***22"***	A	77135	1″	17″	22″
A	***77115***	***1/2"***	***24"***	***29"***	A	***77136***	***1"***	***31"***	***36"***
A	***77116***	***1/2"***	***31"***	***36"***	A	77137	1-1/8″	11″	16″
A	***77117***	***9/16"***	***5"***	***10"***	A	***77138***	***1-1/8"***	***17"***	***22"***
A	***77118***	***9/16"***	***8"***	***13"***	A	77139	1-1/4″	11″	16″
A	77119	5/8″	5″	10″	A	***77140***	***1-1/4"***	***17"***	***22"***
A	77120	5/8″	8″	13″	A	***77141***	***1-1/4"***	***31"***	***36"***
A	***77121***	***5/8"***	***11"***	***16"***	A	***77142***	***1-3/8"***	***11"***	***16"***
A	***77122***	***5/8"***	***17"***	***22"***	A	***77143***	***1-3/8"***	***17"***	***22"***
A	***77123***	***5/8"***	***24"***	***29"***	A	77144	1-1/2″	11″	16″
A	***77124***	***5/8"***	***31"***	***36"***	A	77145	1-1/2″	17″	22″
A	***77125***	***11/16"***	***8"***	***13"***	A	***77146***	***1-3/4"***	***17"***	***22"***
A	***77126***	***3/4"***	***5"***	***10"***	A	***77147***	***2"***	***17"***	***22"***

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Please allow 1 week for delivery.

H.D. MASONRY DRILLS (Cont'd.)

SPLINE SHANK HAMMER DRILL BITS – QUAD POINT

Features
- Made in Germany – world renowned for quality of product
- Splines held to very close tolerances assure perfect fit and improve impact transmission for faster drilling
- Vacuum brazed with pure copper at 1900°F
- Vacuum heat treated tool body to 50RC
- HL20 grade carbide

Benefits
- Quad Point Advantages *(over single point versions)*
  - 50% improved bit life
  - Rounder, more accurate holes
  - 60% less vibration
  - 30% less noise
  - Resists rebar hits
  - Extends hammer life
  - Less operator fatigue

Applications
- Concrete
- Hard masonry materials

	PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH		PART NUMBER	DRILL DIAMETER	MAX. DRILL DEPTH	OVERALL LENGTH
A	77148	5/8″	5″	10″	A	77160	1″	11″	16″
A	77149	5/8″	11″	16″	A	77161	1″	17″	22″
A	77150	5/8″	17″	22″	A	***77162***	***1"***	***31"***	***36"***
A	***77151***	***5/8"***	***24"***	***29"***	A	77163	1-1/8″	11″	16″
A	***77152***	***5/8"***	***31"***	***36"***	A	77164	1-1/8″	17″	22″
A	77153	3/4″	5″	10″	A	77165	1-1/4″	11″	16″
A	77154	3/4″	11″	16″	A	***77166***	***1-1/4"***	***17"***	***22"***
A	***77155***	***3/4"***	***17"***	***22"***	A	***77167***	***1-3/8"***	***11"***	***16"***
A	***77156***	***3/4"***	***24"***	***29"***	A	***77168***	***1-3/8"***	***17"***	***22"***
A	77157	3/4″	31″	36″	A	77169	1-1/2″	17″	22″
A	77158	7/8″	11″	16″	A	***77170***	***1-3/4"***	***18"***	***23"***
A	77159	7/8″	17″	22″	A	***77171***	***2"***	***18"***	***23"***

Bold italic text = Non-stock item
Please allow 1 week for delivery.

H.D. MASONRY DRILLS (Cont'd.)

HAMMER CORE BITS – CARBIDE TIPPED/HEAVY WALL

Features
- Made in Germany – World renowned for quality of product
- Used in rotary hammers operating in the rotary hammer mode
- Produce holes significantly larger than the rated power drive
- Heat treated tool steel; core bodies are machined from one single piece of steel
- Teeth set with negative and positive rake to cut concrete and screening
- Tooth edges faced to act as secondary cutter area to reduce snagging
- Pilot Drill/Centering bit is recommended for best results (Pilot Drill/Centering bit is included with core bit)

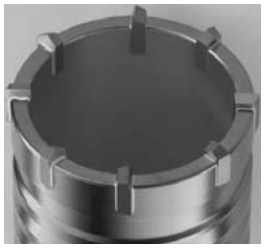
Hammer Core Bit shown with SDS Max Adaptor

Benefits
- Cutting the circumference of the hole leaves the center as a solid, so concrete removal is reduced for large size holes
- Cutting tips are put in at irregular intervals to avoid setting up a sympathetic vibration when producing the hole
- Each tooth presents itself to a random & new section of concrete as opposed to the piece previously hit by another tooth
- Multiple teeth assure faster cutting and debris evacuation from cutting path

Applications
- Light to medium hard building materials

Pipe Sizes & Types

Bit Diameter	Pipe Sizes	Pipe Types
1-3/4″	1-1/4″	Cu, EMT, 1″ Rigid, IMC Sched. 40
2″	1-1/2″	Cu, EMT, Rigid, IMC Sched. 40
2-5/8″	2″	Cu, EMT, Rigid, IMC Sched. 40
3″	2-1/2″	Cu, EMT, Rigid, IMC Sched. 40
3-1/8″	3″	Cu, EMT, Rigid, IMC Sched. 40
4″	3-1/2″	Cu, EMT, Rigid, IMC Sched. 40
5″	4″	Cu, EMT, Rigid, IMC Sched. 40



	PART NUMBER	BIT DIAMETER	USABLE LENGTH	CORE TOLERENCE		PART NUMBER	BIT DIAMETER	USABLE LENGTH	CORE TOLERENCE
A	77172	1-3/4″	4″	1.61-1.55	A	77176	3-1/2″	4″	3.58-3.52
A	77173	2″	4″	2.08-2.03	A	77177	4″	4″	4.13-4.07
A	77174	2-5/8″	4″	2.63-2.58	A	77178	5″	4″	5.12-5.06
A	77175	3-1/8″	4″	3.19-3.13					

SHANK ADAPTERS AND EXTENSIONS

DESCRIPTION	OVERALL LENGTH		PART
SDS Max Adaptor	7″	A	77180
Spline Adaptor	7″	A	77181
Extension	11″	A	77182

PILOT DRILL/CENTERING BIT

DIAMETER		PART
15/32″	A	77179

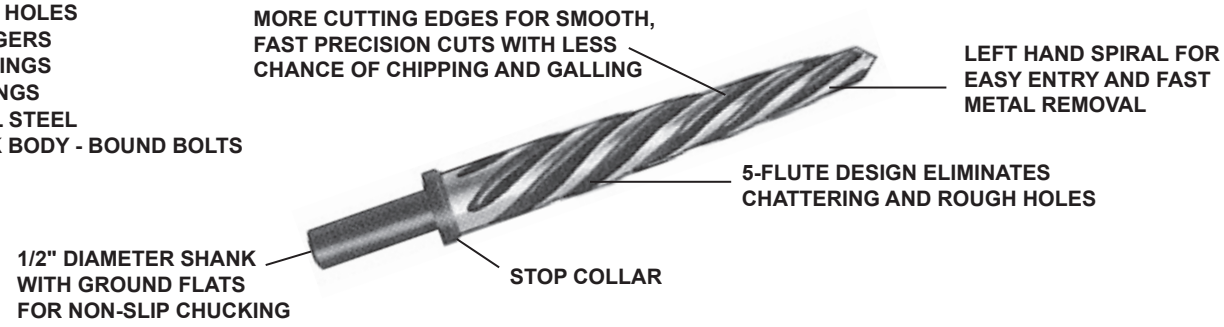
CIC 200™ REAMERS

"SPIRAL TAPER" FRAME AND STEEL REAMER

For enlarging, finishing and making precision holes in sheet steel, frames, tubing, alloy and stainless steel sections.

17976

- TRUCK FRAMES
- 5TH WHEEL MOUNTS
- MIS-ALIGNED HOLES
- SPRING HANGERS
- TANK MOUNTINGS
- BOX MOUNTINGS
- STRUCTURAL STEEL
- MACK TRUCK BODY - BOUND BOLTS



SIZE DIAMETER	PILOT DRILL SIZE	DRILL PART	PART	
1/4	3/16	91012	A	91458
5/16	7/32	91014	A	91459
3/8	1/4	91016	A	91460
1/2	5/16	91020	A	91461
5/8	3/8	91024	A	91462
3/4	7/16	91028	A	91463
7/8	1/2	91032	A	91464
1	5/8	91242	A	91465
.653	3/8	91024	A	91470
.776	1/2	91032	A	91475

NOTE: Use Tool Cool II (P/N 74185) for greater cutting power and longer reamer life. Use 1/2" heavy duty drill motor – 4.5 amps minimum. Step reaming is recommended for larger size holes.

TAPER PIN REAMERS

- SLOW SPIRAL – MORE EFFECTIVE CUTTING AND TAPERING OF HOLE
- 1/4" TAPER PER FOOT
- END HAS 45° CHAMFER FOR EASY HOLE ENTRY
- RECOMMENDED FOR USE WITH HAND TAP WRENCHES

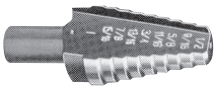
SIZE	SMALL END	LARGE END	FLUTE LENGTH	OVERALL LENGTH	PART	
#0	.1287	.1638	1-11/16	2-15/16	A	91486
#1	.1447	.1798	1-11/16	2-15/16	A	91487
#2	.1605	.2008	1-15/16	3-3/16	A	91488
#3	.1813	.2294	2-5/16	3-11/16	A	91489
#4	.2071	.2604	2-9/16	4-1/16	A	91490
#5	.2409	.2994	2-13/16	4-5/16	A	91491
#6	.2773	.3540	3-11/16	5-7/16	A	91492
#7	.3297	.4220	4-7/16	6-5/16	A	91493

CIC 200™ STEP DRILLS

UNIFORMLY DISTRIBUTES THE CUTTING FORCE PROVIDING SMOOTHER, ROUNDER HOLES

P/N 11100

P/N 11104



P/N 11108

P/N 11102

P/N 11106

- **SINGLE RADIAL CONCAVE FLUTE DESIGN**
- **NON-SKID TIP – PROVIDES FAST, SURE STARTS ON ANY SURFACE**
- **AUTOMATIC DEBURRING – FINISHES THE TOP SIDE OF THE HOLE SMOOTHLY**
- **LASER MARKED – FOR EASY READING OF HOLE SIZES RIGHT ON THE BIT**

P/N 61672

HOLE SIZE	INCREMENTS	NO. OF HOLES	SHANKK SIZE	STEP THICKNESS	PART	
1/8" to 1/2"	in 1/32 increments	13	1/4"	1/8"	B	11100
3/16" to 1/2"	in 1/16 increments	6	1/4"	3/8"	B	11102
1/4" to 3/4"	in 1/16 increments	9	3/8"	1/8"	A	11104
3/16" to 7/8"	in 1/16 increments	12	3/8"	1/8"	A	11106
1/2" to 1"	in 1/16 increments	8	1/2"	1/8"	A	11108
13/16" to 1-3/8"	in 1/16 increments	10	1/2"	1/8"	A	11110
CIC 200 STEP DRILL INDEX – 4 drill set drills holes 1/16" to 7/8"					A	61672

HEX SHANK MULTI STEP DRILLS

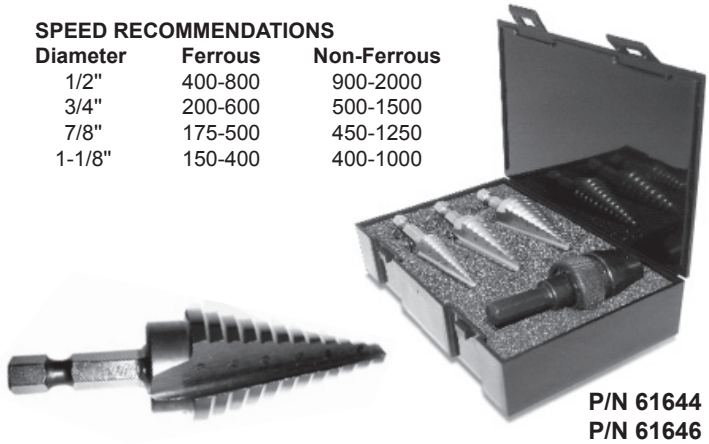
UNIFORMLY DISTRIBUTES THE CUTTING FORCE TO PROVIDE FASTER, CLEANER HOLES

An entire drill set in one cutting tool, and a must for all professional electricians and sheet metal contractors. The 11116 drill, for example, can drill thirteen diameters from 1/8" to 1/2". These drills feature two flutes (and two cutting edges) for fast drilling.

- Titanium Nitride Coated
- Cuts steel plate, stainless steel, sheet metal, tubing
- 1/4" hex shank for use in quick change adapters
- Step sizes laser marked on tools
- Self starting tip eliminates need for pilot hole drilling
- Perfect for use in battery powered drills because they cut quickly with low power consumption
- Great in cordless impact drivers

SPEED RECOMMENDATIONS

Diameter	Ferrous	Non-Ferrous
1/2"	400-800	900-2000
3/4"	200-600	500-1500
7/8"	175-500	450-1250
1-1/8"	150-400	400-1000



P/N 61644
P/N 61646

INCREMENTS	NUMBER OF STEPS	HOLE SIZE RANGE	PART	
in 1/32" increments	13	1/8" to 1/2"	A	11116
in 1/16" increments	9	1/4" to 3/4"	A	11117
in 1/16" increments	12	3/16" to 7/8"	A	11118
in 1/8" increments	13	1/4" to 1-1/8"	A	11119
Hex Shank Multi Step Drill Set – 3 drills and 1 quick change adapter (Includes P/Ns 11116, 11117, 11118)			A	61644
Hex Shank Multi Step Drill Set – 3 drills and 1 quick change adapter (Includes P/Ns 11116, 11118, 11119)			A	61646

CIC 200™ CONE DRILLS

FOR HOLES 1/8'' – 1-15/16'' (3mm – 50mm)

- **DRILLS SHEET METAL, PIPE, MILD STEEL, STAINLESS STEEL, PLEXIGLASS, PLASTIC AND WOOD WITH A WALL THICKNESS OF UP TO 5MM**
- **HOLE DIAMETER (INCH AND METRIC) IS LASERMARKED IN THE FLUTES**
- **PATENTED SHANK SYSTEM FEATURES ANTI-ROTATION DESIGN AND ALLOWS EASY TOOL CHANGING WITHIN SECONDS**

HOLE SIZE	SHANK		PART
1/8" to 9/16" (3-14mm)	1/4	A	11111
1/4" to 13/16" (6-20mm)	5/16	A	11112
5/8" to 1-3/16" (16-30.5mm)	3/8	A	11113
1" to 1-5/8" (24-40mm)	3/8	A	11114
1-3/8" to 1-15/16" (36-50mm)	1/2	A	11115
CONE DRILL INDEX – 3 drill set		A	61627

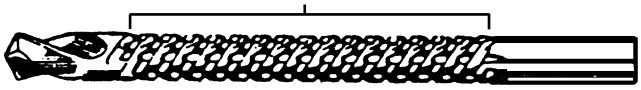
BEAVER SAW DRILL

FOR USE IN 1/4'' DRILL AND DRILL PRESS

- **HIGH SPEED STEEL BIT**
- **135° SPLIT POINT**
- **SELF-CENTERING POINT**

THE ORIGINAL SAW DRILL
- **DRILLS**
- **SAWS**
- **REAMS**
- **CUTS BRASS, WOOD, METAL, PLASTIC, ALUMINUM AND STAINLESS**

2" CUTTING, SAWING AND REAMING SECTION



DESCRIPTION		PART
BEAVER SAW DRILL	A	61579

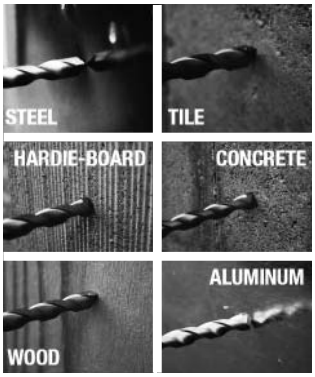
MULTI-PURPOSE ROTARY BITS

MULTI MATERIAL DRILL BIT

IDEAL FOR CORDLESS DRILLS, CORDED DRILLS AND DRILL PRESSES

- Perfect balance between tip and flute geometry; allows fast and immediate debris removal, also provides smoother, faster drilling.
- No center punch needed – eliminates “walking”.
- Unique carbide geometry and centering tips for fast start up and drilling.
- Modern heat-treatment and brazing process ensures proper combination of product hardness, toughness and durability resulting in long life.
- BC20 grade of carbide, diamond ground – designed specifically for relevant materials.
- For use in a huge variety of materials and applications.
- For drilling highway rails, structural supports, pipe mounts, electrical mounts, bridge construction, HVAC mounts, machinery mounts, door and window frames, roofing, brackets.

Drillls Materials
- Concrete & Stone
- Masonry
- Ceramic Tile
- Marble
- Brick
- Granite
- Plastics & Fiberglass
- Plexiglass
- Glass
- Cast Metals
- Hardened Steel
- Wood



Material Type	Cutting Speed (rpm)
Tile	750
Metals	1,000
Masonry	1,500
Plastics	1,750
Wood	2,000

DRILL DIAMETER	FLUTE LENGTH	OVERALL LENGTH	PART		SETS
1/8"	1-1/4"	2-3/4"	A	47451	**P/N 61577 = 5-Pieces** **P/N 61578 = 7-Pieces** (See Below)
5/32"	2"	3-1/4"	A	47452	
3/16"	2"	3-1/4"	A	47453	
3/16"	3-1/2"	6"	A	47449	
1/4"	2-1/4"	4"	A	47454	
1/4"	3-1/2"	6"	A	47450	
5/16"	3"	4-3/4"	A	47455	
3/8"	3"	4-3/4"	A	47456	
1/2"	3-1/2"	6"	A	47457	

5-Piece Set
P/N 61577

5 piece set contains these drill diameters:
- 1/8″ P/N 47451
- 5/32″ P/N 47452
- 3/16″ P/N 47453
- 1/4″ P/N 47454
- 5/16″ P/N 47455

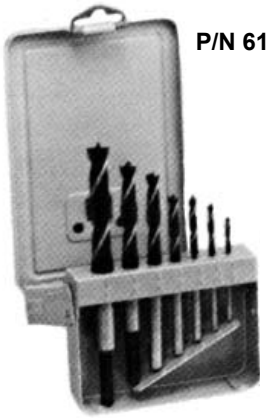
7-Piece Set
P/N 61578

7 piece set contains these drill diameters:
- 1/8″ P/N 47451
- 5/32″ P/N 47452
- 3/16″ x 6″ P/N 47449
- 1/4″ x 6″ P/N 47450
- 5/16″ P/N 47455
- 3/8″ P/N 47456
- 1/2″ x 6″ P/N 47457

CIC 200™ SMOOTH-BORE™ PLASTIC DRILLS

HI-MOLYBDENUM TOOL STEEL – GOLD FINISH

SMOOTH, CLEAN CHIP-FREE HOLES IN ALL PLASTICS, ACRYLICS, FIBERGLASS & LAMINATES



P/N 61673

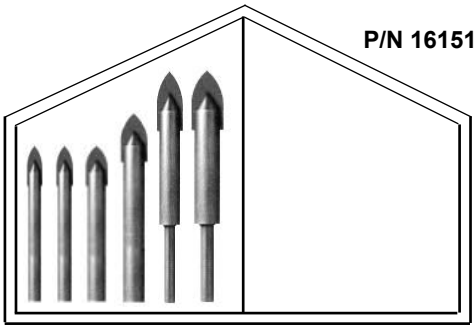
- **SPECIAL HI-MOLYBDENUM TOOL STEEL WITH GOLD SURFACE TREATING**
  PROVIDES MAXIMUM STRENGTH AND LUBRICITY
- **PRECISION GROUND 60° POINT**
  ASSURES SMOOTH, GRADUAL PENETRATION WITHOUT CRACKING OR CHIPPING
- **UNIQUE 0° RAKE ANGLE**
  ELIMINATES GRABBING WHEN BREAKING THROUGH PLASTICS, ACRYLICS AND LAMINATES

NOTE: **ALL SIZES 1/4" AND OVER HAVE 1/4" SHANKS**

SIZE DIAMETER	OVERALL LENGTH	FLUTE LENGTH	PART		INDEX
1/8	2-1/2	1-3/8	G	61480	**CIC 200™ SMOOTH BORE™ PLASTIC DRILL INDEX** 7 Drill Set: 1/8" to 1/2" by 16ths **P/N 61673**
5/32	2-7/8	1-3/4	F	61482	
3/16	3-3/16	2	F	61484	
1/4	3-9/16	2-5/16	D	61486	
5/16	3-5/16	1-5/8	D	61488	
3/8	3-5/8	1-15/16	C	61490	
7/16	4	2-3/16	C	61492	
1/2	4-1/4	2-7/16	B	61494	

CARBIDE-TIPPED GLASS AND TILE DRILLS

FOR DRILLING GLASS, TILE, MIRRORS, CERAMIC, BRICKS AND MASONRY



P/N 16151

- **SPECIFICALLY ENGINEERED FOR DRILLING**
  GLASS, TILE, MIRRORS, CERAMIC, BRICKS AND MASONRY
- **SPEAR POINT**
  REDUCES CUTTING PRESSURE FOR CLEANER HOLES

SIZE DIAMETER	OVERALL LENGTH	MIN. ACTUAL DIA. SIZE	PART		INDEX
1/8	2-1/4	.135	C	61570	**GLASS AND TILE DRILL INDEX** 6 Drill Set: 1/8" to 1/2" **P/N 61651**
3/16	2-9/32	.197	C	61571	
1/4	2-9/32	.260	C	61572	
5/16	3	.322	C	61573	
3/8	3-7/8	.385	C	61574	
1/2	3-7/8	.515	C	61575	

CIC 200™ COUNTERSINK DRILLS

COUNTERSINK DRILLS

- **6-FLUTE, 82° ANGLE DESIGN ASSURES SMOOTHER, ROUNDER CUTTING**
- **SELF-CENTERING FOR EASY USE**
- **RECOMMENDED FOR BOTH MACHINE AND PORTABLE TOOLS**
- **CHATTER-FREE PERFORMANCE IN COUNTERSINKING, CHAMFERING AND DEBURRING OPERATIONS**

BODY DIA.	SHANK DIA.	OVERALL LENGTH	PART	INDEX
1/4"	1/4"	2"	A 62450	**CIC 200 COUNTERSINK DRILL INDEX** • Holds 1/4" to 5/8" Countersinks **P/N 61607**
3/8"	1/4"	2"	A 62452	
1/2"	3/8"	2"	A 62454	
5/8"	3/8"	2-1/4"	A 62456	
3/4"	1/2"	2-3/4"	A 62458	
1"	1/2"	2-3/4"	A 62460	

COUNTERSINK DRILLS

- **SNAPS INTO QUICK RELEASE CHUCK FOR FAST & EASY CHANGE**
- **ACCEPTS STANDARD JOBBER SIZE DRILLS**
- **CAN ADJUST DRILL LENGTH FOR DIFFERENT LENGTH SCREWS**
- **COUNTERSINK PORTION IS MANUFACTURED FROM STRESS-PROOF STEEL FOR EXTENDED LIFE**
- **82° CUTTING ANGLE FOR STANDARD FLAT HEAD SCREWS**
- **TWO SHARP CUTTING FLUTES WON'T PLUG UP WITH WOOD FIBERS**
- **DRILL NOT INCLUDED**

DRILL SIZE	COUNTERSINK DIAMETER	HEX SIZE	SCREW SIZE	PART
3/32	3/8	1/4	#6	A 62466
7/64	3/8	1/4	#8	A 62467
1/8	3/8	1/4	#10	A 62468
9/64	1/2	1/4	#12	A 62469

SELF-CENTERING DRILL BIT AND GUIDE

- **ACCURATE DRILLING OF HOLES FOR HINGES, HANDLES AND DRAWER SLIDES**
- **STANDARD 1/4" HEX SHANK FITS ALL POWER BIT AND QUICK CHANGE CHUCKS FOR FAST, KEYLESS OPERATION**
- **HIGH SPEED STEEL DRILL BIT**

NOTE: CLEAR JAMS EASILY BY TWISTING OFF GUIDE TOP

DRILL BIT SIZE	SCREW SIZE	PART	REPLACEMENT DRILL
5/64	#2 and #3	A 62462	62462D
7/64	#5 and #6	A 62463	91007
9/64	#8, #9 and #10	A 62464	91009
11/64	#12	A 62465	91011

CIC 200™ SUPER CUT™ SPOTWELD DRILLS

SUPER COBALT HIGH SPEED STEEL – GOLD FINISH

Rugged, high performance drill effectively cuts autobody panel spot welds, rivet heads and screw heads. Also ideal for drilling precision, burr-free holes in sheet metal.

- **HIGH HARDNESS COBALT STEEL – PERMITS 30% GREATER DRILLING SPEEDS THAN HIGH SPEED STEEL DRILLS**
- **ABRASION RESISTANT ALLOY – RESULTS IN EXTREMELY LONG LASTING CUTTING EDGES**
- **UNIQUE SPUR POINT – REMOVES SPOTWELDS, SCREW HEADS AND RIVET HEADS WITHOUT DAMAGING PANELS BEHIND**

DIAMETER	SPOTWELD SIZE	OVERALL LENGTH	DOUBLE/SINGLE END	PART
6.5 MM	1/4	1.75"	Single	C 61540
6.5 MM	1/4	3.62"	Double	A 61545
8.0 MM	5/16	1.75"	Single	B 61550
8.0 MM	5/16	3.62"	Double	A 61555
10.0 MM	3/8	1.75"	Single	A 61560
10.0 MM	3/8	3.62"	Double	A 61565

"BIT KEEPER" AND "BIT BUDDY" SETS

NEATLY STORED IN THE POCKETS OF A BUCKET BOSS® POUCH

Lighter and more versatile than a full tool belt, this pouch is designed to hold the necessities of the job!

- **12 INTERIOR ELASTIC POCKETS STORE BOTH DRILL & SCREWDRIVER BITS**
- **TRI-FOLD COMPARTMENT OPENS FLAT**
- **VELCRO® FLAP SECURELY CLOSES AT BOTTOM**
- **2 EXTRA LONG POCKETS FOR SPADE BITS OR LARGER TOOLS**
- **2" SPRING STEEL CLIPS HOLDS SECURELY TO BELT**

"BIT KEEPER" POUCH ONLY – Part #7999

APPLICATIONS:
Use for hundreds of small maintenance jobs such as door hinges/ knobs/jambs, light switches, wall anchors, etc.

"BIT KEEPER" SET

CONTENTS		PART
"BIT KEEPER" SET	A	61686

Quad Point Drills:
3/32, 7/64, 1/8, 9/64, 3/16, 1/4 and 5/16
Razor-Back Wood Spade Bits: 3/4 and 1"
Snappy Countersinks:
3/32, 7/64, 1/8 and 9/64
1-15/16 Phillips Power Bits: 6-8 and 5-10
Slotted Power Bits w/Finder:
5F-6R and 6F-8R
1" Phillips Insert Bits: 6-8, 8-10 and 12-14
Slotted Insert Bits:
3F-4R, 6F-8R and 10F-12R
Mag Nutsetter: 1/4 x 1-3/4
1/8 Hex Socket Key – Short

ELECTRICIAN'S "BIT KEEPER" SET

CONTENTS		PART
ELECTRICIAN'S "BIT KEEPER" SET	A	61683

AC Sensor
Magnetic Bit Holder: 1/4 x 6"
Combo Drill & Taps: 8/32, 10-24, 10-32, 1/4-20
Black Beauty Drills: 3/16 x 3-1/2 x 3/16,
1/4 x 4-1/8 x 1/4 and 5/16 x 4-3/4 x 5/16
Mag Nutsetter: 1/4 x 1-3/4, 5/16 x 1-3/4
and 3/8 x 1-3/4
Phillips Power Bits: 1-15/16 5-10 and 6" 8-10
Slotted Power Bit w/Finder: 10F-12R
Slotted Insert Bits: 3F-4R, 6F-8R and 10F-12
1" Phillips Insert Bits – 6-8, 8-10 and 12-14

QUICK CHANGE DRILL BIT "BIT KEEPER" SET

CONTENTS		PART
QUICK CHANGE DRILL BIT "BIT KEEPER" SET	A	61682

#8 Drill and Driver
4-5/16" Screw Guide
Hex Shank Drill Bits: 3/32, 7/64, 1/8,
9/64, 5/32, 11/64 and 3/16
Power Groove Countersinks: #6, #10, #12
1-15/16 Phillips Power Bits: 6-8 and 5-10
Quick Change Chuck Adapter
1" Slotted Insert Bits: 3F-4R and 6F-8R
1" Phillips Insert Bits: 6-8, 8-10 and 12-14

SELF-CENTERING DRILL "BIT KEEPER" SET

CONTENTS		PART
SELF-CENTERING DRILL "BIT KEEPER" SET	A	61670

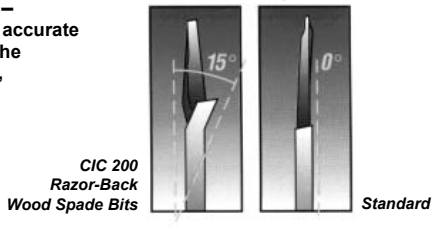
1" Phillips Insert Bits: 6-8, 8-10 and 12-14
1-15/16" Phillips Power Bits: 2-4 and 5-10
Carpenter's Pencil (GSA)
Razor-Back Wood Spade Bit: 7/8"
Magnetic Bit Holder Adapter: 1/4 x 3"
Quick Change Chuck Adapter
Self Centering Drill Bit and Guide:
5/64, 7/64, 9/64 and 11/64
Slotted Power Bit w/Finder: 5F-6R and 6F-8R
Slotted Insert Bits: 3F-4R, 6F-8R and 10F-12R

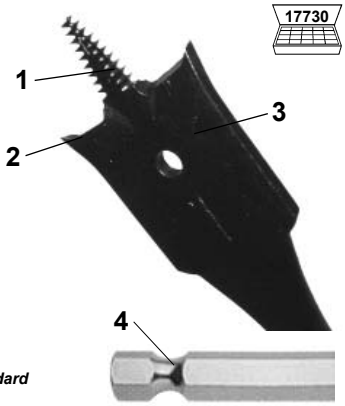
CIC 200™ RAZOR-BACK WOOD SPADE BITS

SHARPNESS AND DURABILITY FOR ALL WOOD BORING APPLICATIONS

OUTPERFORMS ALL STANDARD WOOD SPADE BITS WITH A NEW "PROGRESSIVELY ANGLED" GEOMETRY THAT CUTS THROUGH WOOD FASTER, FREER AND SMOOTHER

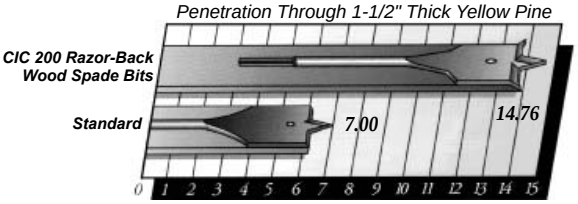
1. **CHISEL EDGE DESIGN FOR CLEANER, SMOOTHER HOLES AND FASTER CUTTING – 15° cutting edge attacks wood at a sharper angle, so it takes a bigger bite. This slicing action digs into the wood instead of scraping away at wood fibers. It even blasts through wood knots that stop standard bits dead.**
2. **ANGLED SPURS MAKE BIGGER CHIPS WITH LESS BINDING – The spurs, cocked slightly forward of the cutting edge, scribe a clean, accurate hole and guide the bit through the wood. This shearing action allows the chisel edge to knock out bigger chips and run through the work faster, with less effort.**
3. **EXCLUSIVE TEMPERING PROCESS – Toughens bits to last up to 6 times longer than standard wood bits.**
4. **HEX SHANK – Fits all drills and 1/4" Quick-Change holders and also prevents spinning in drill chuck or in bit extension.**





SPEED OF CUT

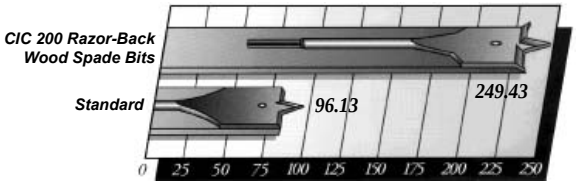
Penetration Through 1-1/2" Thick Yellow Pine



Speed – Inches per minute
Test done at constant 30 lbs. force feed, 950 R.P.M.
Average of 1/2", 5/8", 3/4", 1", 1-1/2" spade bits

LIFE TEST

Holes Drilled in Yellow Pine



Test done at constant 30 lbs. feed force, 950 R.P.M.
Total average of 1/2", 1", 1-1/2" spade bits

- **QUICK CHANGE EXTENSION ALLOWS FOR FAST AND EASY BIT CHANGES – SAVES TIME & MONEY**
- **SLIM DIAMETER QUICK CHANGE CHUCK PASSES THROUGH 11/16 AND LARGER HOLES**

DIAMETER	PART	DIAMETER	PART	DIAMETER	PART	DIAMETER	PART
1/4"	F 61580	9/16"	F 61585	7/8"	F 61590	1-3/8"	D 61595
5/16"	F 61581	5/8"	F 61586	15/16"	F 61591	1-1/2"	D 61596
3/8"	F 61582	11/16"	F 61587	1"	F 61592	12" Quick Change Extension*	C 61576
7/16"	F 61583	3/4"	F 61588	1-1/8"	D 61593		
1/2"	F 61584	13/16"	F 61589	1-1/4"	D 61594	**5/8" smallest hole extension fits through*	
RAZOR-BACK WOOD SPADE BIT POUCH ASSORTMENT WITH 7 BITS – 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1"						A 61661	

FORSTNER BITS

PRECISION-SHARPENED HIGH SPEED STEEL BIT WITH CENTER GUIDE POINT

- **PROVIDES SMOOTHER CUTS**
- **FULLY HARDENED MACHINED BODIES FOR INCREASED STRENGTH, SAFETY AND LIFE**
- **USED TO DRILL CLEAN ACCURATE, FLAT-BOTTOMED HOLES IN WOOD**
- **FOR COUNTERBOARD SCREWS, POCKET HOLES, PILOT HOLES AND DECORATIVE EDGES**
- **USE IN PORTABLE DRILLS AS WELL AS DRILL PRESSES**

ALL SIZES
3/8" SHANK

DIAMETER	PART	DIAMETER	PART	DIAMETER	PART	DIAMETER	PART
1/4"	A 63500	3/4"	A 63508	1-1/4"	A 63516	1-3/4"	A 63524
3/8"	A 63502	7/8"	A 63510	1-3/8"	A 63518	1-7/8"	A 63526
1/2"	A 63504	1"	A 63512	1-1/2"	A 63520	2"	A 63528
5/8"	A 63506	1-1/8"	A 63514	1-5/8"	A 63522	2-1/8"	A 63530
7-PIECE FORSTNER BIT SET – 1/4" to 1" x 1/8"						A 61649	

CIC 200™ MECHANIC LENGTH HEX SHANK DRILLS

HIGH PERFORMANCE INDUSTRIAL DRILL BITS AND ACCESSORIES

CIC 200™ MECHANIC LENGTH HEX SHANK DRILLS

Features
- Quick Release 1/4″ Hex Shank
- 135° split point for fast penetration and accurate starting without center punch.
- Special Hi-Molybdenum tool steel.
- Recommended use in work hardening grades of stainless steel and other hard metal drill applications.

Benefits
- Especially designed for hand held drills and impacters.
- Quick release eases changing of cutting tools.
- Body and clearance are treated for maximum lubricity.

DIAMETER (INCHES)	OVERALL LENGTH	FLUTE LENGTH	PART	
1/16″	2-5/8″	7/8″	C	47429
3/32″	3-1/4″	1-1/4″	C	47430
1/8″	3-1/2″	1-7/16″	C	47431
5/32″	3-1/2″	1-11/16″	C	47432
3/16″	3-3/4″	1-7/8″	C	47433
7/32″	4″	2″	C	47434
1/4″	4-1/4″	2″	C	47435
9/32″	3-13/16″	2-1/4″	C	47436
5/16″	4″	2-1/2″	A	47437
11/32″	4-7/32″	2-5/8″	A	47438
3/8″	4-1/4″	2-11/16″	A	47439
13/32″	4-1/2″	2-13/16″	A	47440
7/16″	4-1/2″	2-15/16″	A	47441
15/32″	4-7/8″	3-1/8″	A	47442
1/2″	5″	3-3/8″	A	47443

CIC 200™ MECHANIC LENGTH HEX SHANK DRILL INDEXES AND ADAPTER

CIC 200™ 12 PIECE INDEX "HARD PLASTIC CASE"
P/N 47444

12 piece set contains these drill diameters:
- 1/16″
- 3/32″
- 1/8″
- 5/32″
- 3/16″
- 7/32″
- 1/4″
- 5/16″
- 3/8″
- 7/16″
- 1/2″
- Quick release adapter

All drills are packed in a rugged plastic case.

CIC 200™ 7 PIECE INDEX "SOFT POUCH"
P/N 47445

7 piece set contains these drill diameters:
- 1/16″
- 3/32″
- 1/8″
- 5/32″
- 3/16″
- 7/32″
- 1/4″

CIC 200™ EMPTY SOFT POUCH
P/N 47446

QUICK CHANGE ADAPTER
P/N 51166

- Dual 1/4″ and 3/8″ drill and drive chuck
- Industrial quality with minimal runout (wobble)
- Fits all accessory types, all brands
- Fits old and new hex shanks with or without power groove

HEX SHANK DRILL BITS

HIGH PERFORMANCE INDUSTRIAL DRILL BITS AND ACCESSORIES

HEX SHANK DRILL BITS

- HEX SHANK DRILL BITS MAKE DRILL CHANGES FAST AND EASY
- SAVES TIME AND MONEY
- HEX SHANK INCREASES TORQUE AND STOPS BIT FROM SLIPPING IN CHUCK
- INDUSTRIAL-GRADE M7 HIGH SPEED STEEL – FOR DURABILITY
- PRECISION GROUND FLUTES – FOR FASTER, MORE EFFICIENT CHIP REMOVAL
- 135° QUAD POINT – CUTS THE TOUGHEST MATERIALS

1. Pull back on body of the quick change chuck adapter and insert Hex Shank Drill Bit.

2. Drill is locked in place and ready.

DIA.	FLUTE LENGTH	OVERALL LENGTH	HEX SIZE	PART	DIA.	FLUTE LENGTH	OVERALL LENGTH	HEX SIZE	PART
1/16	7/8"	2-1/2"	1/4"	C 47400	5/32	2"	3-3/4"	1/4"	C 47406
5/64	1"	2-5/8"	1/4"	C 47401	11/64	2-1/8"	3-7/8"	1/4"	C 47407
3/32	1-1/4"	2-3/4"	1/4"	C 47402	3/16	2-5/16"	4"	1/4"	C 47408
7/64	1-1/2"	3-1/4"	1/4"	C 47403	7/32	2-1/2"	4-3/8"	1/4"	C 47410
1/8	1-5/8"	3-3/8"	1/4"	C 47404	1/4	2-3/4"	4-5/8"	1/4"	C 47412
9/64	1-3/4"	3-1/2"	1/4"	C 47405	1/4" Quick Change Chuck Adapter				A 83066

DRILL AND DRIVER

- BUILT-IN HEX KEY ALLOWS EASY CHANGE OF COUNTERSINKS AND DRILL BITS ON THE SPOT
- DRILL AND DRIVER COMES IN 4 STANDARD SCREW SIZES – #6, #8, #10 AND #12 TO COVER THE MOST COMMON SCREW INSTALLATIONS
- ONE SIDE HOUSES THE DRILL PLUS COUNTERSINK/COUNTERBORE COMBINATION – ALLOWS FOR DRILLING AND COUNTERSINKING OR COUNTERBORING IN ONE SMOOTH STEP
- THE OPPOSITE SIDE COMES STANDARD WITH THE APPROPRIATE SIZE PHILLIPS INSERT BIT – JUST UNLOCK THE DRILL AND DRIVER BY SLIDING THE BRASS SLEEVE FORWARD AND SLIP IT AROUND TO EXPOSE THE PHILLIPS BIT. LOCK BACK IN PLACE BY SLIDING THE BRASS SLEEVE BACK IN PLACE
- INSERT "DRILL AND DRIVER" INTO QUICK CHANGE ADAPTER OR DIRECTLY INTO DRILL MOTOR

1. Insert "Drill & Driver" into Quick Change adapter or directly into drill motor. Drill and Countersink/Counterbore base material.

2. Push brass collar forward to release "Drill & Driver. Flip around and pull back the brass collar to lock in place with phillips bit now exposed.

3. Drive screw into hole.

COUNTERSINK SIZE	COUNTERSINK DIAMETER	DRILL BIT/PILOT HOLE SIZE	OVERALL LENGTH	PART
#6	5/16"	3/32"	6"	A 62470
#8	5/16"	7/64"	6"	A 62471
#10	3/8"	1/8"	6"	A 62472
#12	3/8"	1/8"	6"	A 62473

POWER GROOVE COUNTERSINK

- DRILL, COUNTERSINK/COUNTERBORE ALL IN ONE
- HEAT TREATED FOR LONGER LIFE
- DRILL BIT FEATURES PRECISION GROUND FLUTES THAT CUT FAST AND STAY SHARP LONGER
- OTHER SIZE HOLDS APPROPRIATE SIZE PHILLIPS INSERT BIT

SIZE	DIA.	DRILL BIT/PILOT HOLE SIZE	PART	DRILL PART	SIZE	DIA.	DRILL BIT/PILOT HOLE SIZE	PART	DRILL PART
#6	5/16"	3/32"	A 62478	A 62478D	#10	3/8"	1/8"	A 62480	A 62480D
#8	5/16"	7/64"	A 62479	A 62479D	#12	3/8"	1/8"	A 62481	A 62480D

CIC 150™ 118° SPLIT POINT DRILLS

JOBBER LENGTH – FRACTIONAL SIZES

- **BLACK-OXIDE SURFACE TREATMENT RETAINS LUBRICANTS FOR IMPROVED CHIP FLOW, REDUCED CHIP WELDING AND INCREASED ABRASION RESISTANCE**
- **FOR USE IN FERROUS MATERIALS SUCH AS STEEL AND IRON**

DIA.	DEC. EQUIV.	JOBBER LENGTH		PART	DIA.	DEC. EQUIV.	JOBBER LENGTH		PART
1/16	.0625	1-7/8	J	91104	19/64	.2969	4-3/8	F	91119
5/64	.0781	2	J	91105	5/16	.3125	4-1/2	F	91120
3/32	.0938	2-1/4	J	91106	21/64	.3281	4-5/8	F	91121
7/64	.1094	2-5/8	J	91107	11/32	.3438	4-3/4	F	91122
1/8	.1250	2-3/4	J	91108	23/64	.3594	4-7/8	F	91123
9/64	.1406	2-7/8	J	91109	3/8	.3750	5	F	91124
5/32	.1562	3-1/8	J	91110	25/64	.3906	5-1/8	F	91125
11/64	.1719	3-1/4	J	91111	13/32	.4062	5-1/4	F	91126
3/16	.1875	3-1/2	J	91112	27/64	.4219	5-3/8	F	91127
13/64	.2031	3-5/8	J	91113	7/16	.4375	5-1/2	F	91128
7/32	.2188	3-3/4	J	91114	29/64	.4531	5-5/8	F	91129
15/64	.2344	3-7/8	J	91115	15/32	.4688	5-3/4	F	91130
1/4	.2500	4	J	91116	31/64	.4844	5-7/8	F	91131
17/64	.2656	4-1/8	F	91117	1/2	.5000	6	F	91132
9/32	.2812	4-1/4	F	91118	–	–	–		–

29 PIECE DRILL INDEX

DESCRIPTION		PART
29-PIECE DRILL INDEX 1/16 to 1/2 by 64ths	A	61679

50 PIECE FRACTIONAL ORGANIZER

CONTENTS		PART
1 each: 21/64, 11/32, 25/64, 27/64, 7/16 and 1/2 2 each: 9/64, 5/32, 11/64, 13/64, 7/32, 15/64, 17/64, 9/32, 5/16 and 3/8 3 each: 1/16, 5/64, 3/32 and 7/64 4 each: 1/8, 3/16 and 1/4	A	61677

HAMMER CHISELS

HIGH PERFORMANCE MASONRY REMOVAL IN ELECTRIC POWER TOOLS

Features and Benefits
- Forged from high quality steel and ground using CNC machinery
- Hardened and tempered under strictly controlled manufacturing process for optimal masonry removal and long tool life
- Oil quenched and shot blasted for additional stress relief
- Anti-rust lacquered in natural finish
- Laser marked shanks ensure positive identification

Applications
- Demolition
- Road construction
- Bridge construction
- Pavement work
- Utility installation
- Variety of maintenance functions

HEADS
- **Bull (moil) Point:** General concrete demolition.
- **Flat Chisels:** General concrete demolition. Available in narrow (1") and wide (2", 3") versions for cutting pavement overlay.
- **Clay Spade:** Clay and other rock-free soil cutting.
- **Asphalt Cutter:** Asphalt, hardpan and compacted soil cutting.
- **Bushing Tool:** Roughing up or concrete surface removal.

SHANKS
- **SDS-Max Chisels:** For large rotary hammers with SDS-Max drive.
- **Spline Shank Chisels:** For large rotary hammers with spline drive.
- **SDS-Plus Chisels:** For SDS-Plus Hammer Drills.

SDS-MAX CHISELS

Description	Size	P/N	Weight (lbs./ea.)	
Bull Point	***11"***	***77209***	***1.07 lb.***	A
Bull Point	12"	77210	1.16 lb.	A
Bull Point	16"	77211	1.57 lb.	A
Bull Point	***18"***	***77212***	***1.82 lb.***	A
Flat	***1" x 11"***	***77213***	***1.12 lb.***	A
Flat	1" x 12"	77214	1.16 lb.	A
Flat	1" x 16"	77215	1.57 lb.	A
Flat	***1" x 18"***	***77216***	***1.82 lb.***	A
Flat	***1" x 24"***	***77217***	***1.82 lb.***	A
Scaler	1-5/8" x 12"	77218	1.26 lb.	A
Scaler	2" x 12"	77219	1.34 lb.	A
Scaler	3" x 12"	77220	1.58 lb.	A
Mortar	***1-1/8" x 12"***	***77221***	***1.16 lb.***	A
Slotter	***1-1/4" x 12"***	***77222***	***1.18 lb.***	A

Description	Size	P/N	Weight (lbs./ea.)	
Scraper	***2" x 12"***	***77223***	***1.34 lb.***	A
Gouge	***1" x 12"***	***77224***	***1.29 lb.***	A
Ground Rod Driver	***3/4" x 10"***	***77225***	***1.17 lb.***	A
Bushing Tool	1-3/4" x 10"	77226	2.63 lb.	A
Bushing Shank	***16"***	***77227***	***1.75 lb.***	A
Bushing Head	***16 Teeth***	***77228***	***0.59 lb.***	A
Asphalt Cutter	***5" x 20"***	***77229***	***0.59 lb.***	A
Clay Spade	***4-1/2" x 20"***	***77230***	***0.59 lb.***	A

*Note: **Bold italic text*** = Non-stock item. Please allow for up to 2 weeks for delivery.

HAMMER CHISELS

HIGH PERFORMANCE MASONRY REMOVAL IN ELECTRIC POWER TOOLS

SPLINE SHANK CHISELS

Description	Size	P/N	Weight (lbs./ea.)	
Bull Point	12"	77231	1.32 lb.	A
Bull Point	16"	77232	1.90 lb.	A
Bull Point	18"	77233	2.16 lb.	A

Flat	1" x 12"	77234	1.45 lb.	
Flat	1" x 16"	77235	1.98 lb.	
Flat	1" x 18"	77236	2.23 lb.	

Slotter	*1-1/4" x 12"*	*77237*	*1.54 lb.*	

Clay Spade	*4-1/2" x 20"*	*77238*	*4.91 lb.*	

Scaler	*1-5/8" x 12"*	*77239*	*1.45 lb.*	
Scaler	*2" x 12"*	*77240*	*1.54 lb.*	
Scaler	*3" x 12"*	*77241*	*1.85 lb.*	

Scraper	*2" x 12"*	*77242*	*1.54 lb.*	

Ground Rod Driver	*3/4" x 10"*	*77243*	*2.48 lb.*	

Bushing Tool	*1-3/4" x 10"*	*77244*	*2.69 lb.*	

Bushing Shank	16"	77245	1.98 lb.	

Mortar	*1-1/8" x 12"*	*77246*	*1.54 lb.*	

SDS-PLUS CHISELS

Description	Size	P/N	Weight (lbs./ea.)	
Bull Point	10"	77206	0.52 lb.	A

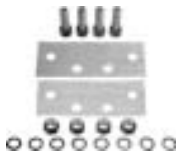
Flat	3/4" x 10"	77207	0.57 lb.	A

Scaler	1-5/8" x 10"	77208	0.70 lb.	A

FLOOR SCRAPERS

Description	Size	P/N	Weight (lbs./ea.)	
Scraper with Blade & Handle* (shank not included)	2.0mm	77200		
Complete Scrapers				
With 3/4" Hex Shank	16"	77203		
With Spline Shank	16"	77204		
With SDS-Max Shank	16"	77205		

Scraper - Replacement Blade	2.0mm	77201	0.86 lb.	A



Scraper - Repair Kit	2.0mm	77202	0.44 lb.	A

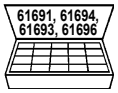
* Floor Scrapers must be used with the following shanks:
- P/N 77227, SDS-Max Bushing Shank, 16"
- P/N 77245, Spline Shank Bushing Shank, 16"

Or a Complete Scraper must be purchased (P/Ns 77203, 77204, 77205)

Note: Bold italic text = Non-stock item. Please allow for up to 2 weeks for delivery.

CIC 200™ METRIC QUAD POINT DRILLS

JOBBER LENGTH – METRIC SIZES



DIA.		PART	DIA.		PART	DIA.		PART
M1.0	J	68510	M5.5	F	68555	M10.0	C	68600
M1.5	J	68515	M6.0	D	68560	M10.2	C	68602
M2.0	J	68520	M6.2	D	68562	M10.3	C	68603
M2.05	J	68521	M6.5	D	68565	M10.5	C	68605
M2.1	J	68522	M6.7	D	68567	M10.8	C	68608
M2.5	J	68525	M6.8	D	68568	M11.0	C	68611
M2.9	J	68529	M7.0	D	68570	M11.2	C	68612
M3.0	J	68530	M7.2	D	68572	M11.3	C	68613
M3.1	J	68531	M7.5	D	68575	M11.5	C	68615
M3.3	J	68533	M8.0	C	68580	M11.8	C	68618
M3.5	F	68535	M8.2	C	68582	M12.0	C	68620
M4.0	F	68540	M8.3	C	68583	M12.2	C	68622
M4.1	F	68541	M8.5	C	68585	M12.4	C	68624
M4.2	F	68542	M8.7	C	68587	M12.5	C	68625
M4.5	F	68545	M9.0	C	68590	M13.0	C	68630
M5.0	F	68550	M9.3	C	68593	–		–
M5.2	F	68552	M9.5	C	68595	–		–

METRIC DRILL ORGANIZER

One convenient location for all your CIC 200™ Quad Point Metric Drills.
The right size available every time. Provides instant control of your inventory.

25 PIECE

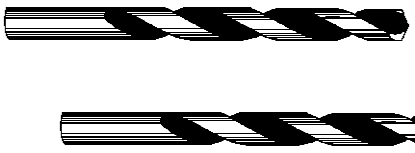
- **TOTAL OF 25 MOST POPULAR DRILLS.**
- **STORES HUNDREDS OF DRILLS IN ONE CONVENIENT LOCATION, ELIMINATING MISPLACED DRILLS.**

CONTENTS		PART
1 each: M1.0, M1.5, M2.0, M2.5, M3.0, M3.5, M4.0, M4.5, M5.0, M5.5, M6,0, M6.5, M7.0, M7.5, M8.0, M8.5, M9.0, M9.5, M10.0, M10.5, M11.0, M11.5, M12.0, M12.5 and M13.0	A	61696

CIC 200™ METRIC QUAD POINT DRILLS (Cont'd.)

METRIC DRILL INDEXES

19 PIECE DRILL INDEX



- **TOTAL OF 19 MOST POPULAR DRILLS.**

CONTENTS		PART
1 each: M1.0, M1.5, M2.0, M2.5, M3.0, M3.5, M4.0, M4.5, M5.0, M5.5, M6.0, M6.5, M7.0, M7.5, M8.0, M8.5, M9.0, M9.5 and M10.0	A	61691

25 PIECE DRILL INDEX

- **TOTAL OF 25 MOST POPULAR DRILLS.**

CONTENTS		PART
1 each: M1.0, M1.5, M2.0, M2.5, M3.0, M3.5, M4.0, M4.5, M5.0, M5.5, M6.0, M6.5, M7.0, M7.5, M8.0, M8.5, M9.0, M9.5, M10.0, M10.5, M11.0, M11.5, M12.0, M12.5 and M13.0	A	61693

MOST COMMON CAUSES OF DRILL FAILURE

The CIC 200™ Quad Point is the finest drill available.
It will out-perform almost any drill in use today.

To get maximum performance from the CIC 200™ Quad Point Drill, practice the following recommendations:

1. Tighten all 3 holes on holding chuck.
2. Operate at the proper speed 500-700 RPMs. Drill will work at speeds up to 1800 RPMs, but is not recommended.
3. Cutting fluids such as Red Lion™ Tool Cool II should always be used. Stay away from tarlow based cutting oils.
4. Proper feed is important, never over-power by forcing high cutting pressures or not enough pressure. When you see a spiral chip, you know you have proper feed and are allowing the drill to work.

By following the above recommendations, you will obtain excellent results and long life from the CIC 200™ Quad Point Drill.

Follow proper operating procedures or a drill may fail.
Below are signs to look for and the probable cause of failure:

Signs	Cause	Recommendations
1. Point black or burnt.	**Too high a speed** **Material too hard** **Feed too fast** **No lubrication**	**Lower RPM** **Use Tool Cool II** **Check type of material** **Less pressure**
2. Chipped or broken. Slippaged marks on shank.	**Chuck not properly tightened.**	**Tighten all 3 holes on chuck** **Replace worn chuck**
3. Edges of Drill chipped.	**Used for step drilling**	**Use proper size drill for finished hole size desired**

Remember, the CIC 200™ Quad Point Drill is a professional cutting tool, and must always be used that way.

NEVER:
1. Step drill or enlarge a hole.
2. Use it as a reamer.
3. Use it as a drift punch.
4. Throw them loosely in tool box. Always place them back in organizer or index.

Proper use and care of the CIC 200™ Quad Point Drill will give you far more "holes per drill" than you have experienced in the past with an ordinary drill.

DRILL FEEDS AND SPEEDS

Different drilling conditions make it impossible to develop any rigid rules for feeds and speeds. The following tables contain guidelines which can be utilized when drilling standard materials. Also, the following "rules of thumb" can be used to determine proper feeds and speeds for drilling ferrous materials.

NOTE: varying conditions can easily require adjustments:

1. Feeds equal .001" per revolution for every 1/16" of drill diameter, plus or minus .001" on the total.
2. Speed equals 80 surface feet per minute in 100 Brinell hardness material, and the speed should be reduced 10 surface feet per minute for each additional 50 points Brinell hardness.
3. Feed and speed rates should be reduced up to 45 to 50% when drilling holes deeper than 4 drill diameters.

RECOMMENDED FEEDS FOR VARIOUS DIAMETER DRILLS

DIAMETER OF DRILL (INCHES)	FEED INCHES PER REVOLUTION
Under 1/8	.001 to .003
1/8 to 1/4	.002 to .006
1/4 to 1/2	.004 to .010
1/2 to 1	.007 to .015
1 inch and over	.015 to .025

NOTE: It is best to start with a moderate speed and feed, increasing either one, or both, after observing the action and condition of the drill.

RECOMMENDED SPEEDS FOR STANDARD MATERIALS WITH H.S.S. DRILLS

MATERIAL	RECOMMENDED SPEED (SFM)
Aluminum and its Alloys	200-300
Brass and Bronze (ordinary)	150-300
Bronze (High Tensile)	70-150
Die Castings (Zinc Base)	300-400
Iron — Cast (soft)	75-125
Cast (medium hard)	50-100
Hard Chilled	10-20
Malleable	80-90
Magnesium and its Alloys	250-400
Monel Metal or High-Nickel Steel	30-50
Plastics or Similar Materials	100-300
Steel —	
Mild .2 carbon to .3 carbon	80-110
Steel .4 carbon to .5 carbon	70-80
Tool 1.2 carbon	50-60
Forgings	40-50
Alloy — 300 to 400 Brinell	20-30
High Tensile (Heat Treated)	
35 to 40 Rockwell "C"	30-40
40 to 45 Rockwell "C"	25-35
45 to 50 Rockwell "C"	15-25
50 to 55 Rockwell "C"	7-15
Stainless Steel	
Free Machining Grades	30-80
Work Hardening Grades	15-50
Titanium Alloy Sheet	50-60
Titanium Alloys	
Ti-75A (Commercially Pure)	50-60
RS-120	40-60
Ti-150A	40-50
Ti-140A	30-40
RC-130B	30-40
MST 6A1-4 Va.	20-35
MST 3A1-5 Cr.	10-20

CUTTING SPEED — FEET PER MINUTE

DRILL SIZE	20	40	60	80	100
	REVOLUTIONS PER MINUTE (x 1000)				
1/64	4.89	9.78	14.78	19.72	24.45
1/16	1.22	2.44	3.70	4.93	6.11
1/8	.61	1.22	1.83	2.44	3.06
3/16	.41	.82	1.23	1.63	2.04
1/4	.30	.61	.92	1.22	1.53
5/16	.24	.49	.74	.98	1.22
3/8	.20	.41	.61	.81	1.02
7/16	.18	.35	.52	.70	.87
1/2	.15	.31	.46	.61	.76
9/16	.14	.27	.41	.54	.68
5/8	.12	.24	.37	.49	.61
11/16	.11	.22	.34	.45	.56
3/4	.10	.20	.31	.41	.51
13/16	.09	.19	.28	.38	.47
7/8	.09	.18	.26	.35	.44
15/16	.08	.16	.25	.33	.41
1	.08	.15	.23	.30	.38

TWIST DRILL TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
BROKEN DRILL	1. Flutes clogged with chips, drill binds in hole (common in deep holes).	- Use drill with wider flutes and/or faster helix angle. - Consider polished flutes. - Withdraw drill at regular intervals to clear chips. - If chips are not broken up, consider heavier feeds or a chip breaker design.
	2. Drill binding due to worn outer corners.	- Repoint or replace drill. - Check for excessive speed, inadequate or incorrect coolant, excessive run out as drill enters work.
	3. Work insecurely held	- Use adequate holding or clamping devices.
	4. Excessive feed.	- Reduce feed.
	5. Improper point.	- Check for correct lip clearance. - Use proper type of drill and point for the application.
	6. Drill is dull.	- Replace before dulling occurs. Check feeds, speed, and No. 5 for premature dulling.
BROKEN TANG	1. Shank or socket damaged.	- Repair or replace.
	2. Drill not properly seated in socket.	- Check for positive, secure fit.
CHIP NOT BREAKING UP	1. Insufficient feed.	- Increase feed.
	2. Improper style of drill and/or point.	- Consider use of chip-breaker design drill and/or chip-breaker point grind.
DAMAGED POINT	1. Using hard object to tap drill into socket.	- Use soft lead, brass, plastic, etc. hammer.
	2. Dropping, mishandling drill.	- Handle with care.
OVERSIZE HOLE	1. Drill point off center.	- Repoint accurately or replace with properly pointed drill.
	2. Machine spindle not rigid or not running true	- Repair if possible; consider use of bushing.
	3. Work piece loose and/or vibrating.	- Tighten and hold securely.
ROUGH HOLE	1. Incorrect point grind and/or dull drill.	- Repoint or replace with properly pointed drill.
	2. Excessive feed.	- Reduce feed.
	3. Incorrect or insufficient coolant.	- Correct and adjust.
POOR TOOL LIFE	1. Coolant not reaching drill point or insufficient or incorrect coolant.	- Correct and adjust.
	2. Speed too high and/or feed too low.	- Review and adjust.
	3. Wrong type of point and/or drill for application.	- Review requirements and conditions.
WEB SPLITS	1. Insufficient lip clearance.	- Repoint or replace with properly pointed drill.
	2. Point thinned too much.	- Repoint or replace with properly pointed drill.
	3. Excessive feed.	- Reduce feed.
CHIPPED LIPS	1. Excessive lip clearance and/or heel relief.	- Repoint or replace with properly pointed drill.
BROKEN OUTER CORNERS	1. Insufficient or incorrect coolant..	- Correct and adjust.
	2. Excessive speed.	- Reduce speed.
	3. Scale, hard spots encountered in material.	- No final remedy if this condition is prevalent; lower feeds and speeds may help.

DRILL NOMENCLATURE AND DEFINITIONS

AXIS is the longitudinal centerline through the drill.

BACK TAPER (longitudinal relief) drills are generally made slightly smaller in diameter at the shank end than at the cutting end. This difference is known as back taper.

BODY is the portion of the drill starting at the cutting lips and extending to the shank or neck.

BODY CLEARANCE (radial relief) is the portion of the outer diameter cut away to provide clearance between the land of the drill and the walls of the hole being produced. It is commonly called land clearance. Its purpose is to reduce friction.

CHISEL EDGE is the edge at the end of the web that connects the cutting lips.

CHISEL EDGE ANGLE is the included angle between the chisel edge and the cutting edge or lip, as viewed from the end of the drill.

CLEARANCE DIAMETER is the diameter of the relieved or cleared portion of the land.

DRILLS generally consist of a shank, neck, body and point. In some cases the neck is omitted.

FLUTE LENGTH is measured from the outer corners of the cutting lips to the extreme back end of the flutes.

FLUTES are grooves cut or formed in the body of the drill to provide cutting edges, to permit ejection of chips and to carry coolant to the cutting area. Flutes are most commonly helical, but may be straight.

HELIX ANGLE is the angle of the leading edge of the land to the axis of the drill. The helix angle is the same as the rake angle of the cutting edges at the periphery of the drill. Therefore a straight fluted drill has zero degrees helix.

LAND is that portion of the outside of the drill body not cut away by the flutes.

LIP RELIEF ANGLE is the angle as measured between a line tangent to the surface back of the cutting edge at the periphery and a line at right angles to the axis of the drill.

LIPS are the cutting edges of the drill which extend from the chisel edge to the periphery.

MARGIN is that full diameter portion of the land not cut away to provide clearance.

NECK is the smaller diameter area between the body and the shank of the drill.

OVER-ALL-LENGTH is measured from the extreme end of shank to the outer corners of the cutting lips. It does not, however, include the conical point at either end of the drill.

POINT is the cutting end of the drill, consisting of the ends of the lands and web. It is usually conical in form.

POINT ANGLE is the included angle as measured between the cutting lips.

RAKE ANGLE is the angle between the leading edge of the land and the axis of the drill at the point.

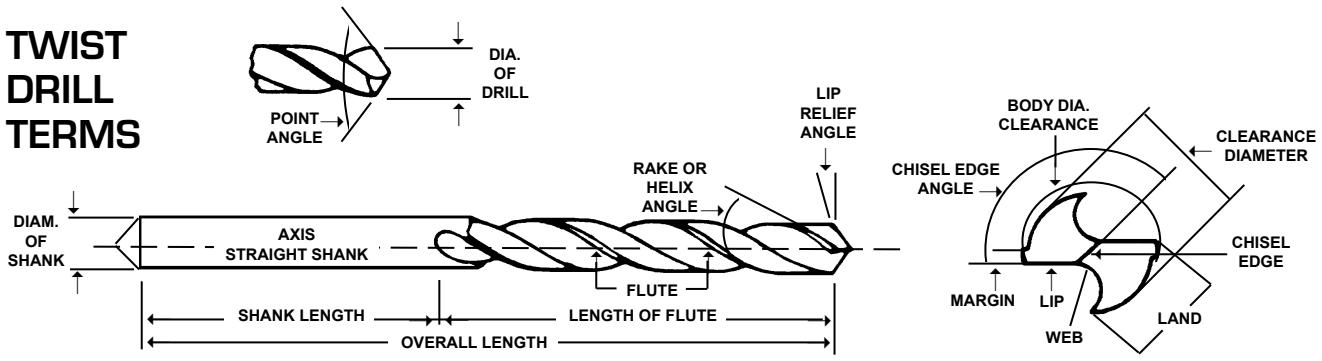
SHANK is the portion of the drill by which it is held and driven.

TANG is the flattened end of the shank, intended to fit into a slot in the drill holder or socket.

WEB is the central part of the body of the drill that connects the lands and at the cutting end, and forms the chisel edge.

WEB THICKNESS is usually considered the thickness at extreme end of the web and is usually the minimum thickness.

WEB THINNING is the reduction of the web thickness at the cutting end to minimize the drilling thrust pressure.



CHROMATE CIC 200™
"SHOOTER" TAP

QUALITY
SERVICE
PERFORMANCE

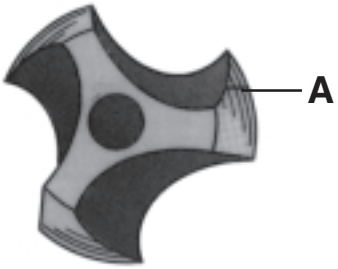
You Can't Beat It!

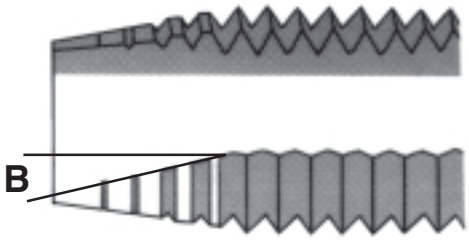
CHROMATE CIC 200™
"SHOOTER" TAPS

It used to be said that 90% of all taps broke before they wore out. Chromate's CIC 200 "Shooter" Tap literally "shoots" the chips out ahead of the tap. This is most important in tapping stringy materials, where the flutes become loaded, causing the tap to break. It makes it possible to use shallower flutes, which means a stronger tap. "Shooter" Taps require less power to drive and are much more economical to use than ordinary hand taps.

SUPERIOR "SHOOTER" TAP DESIGN

The cutting edges **A** at the point of the tap are ground at an angle **B** to the axis for a distance of four or five threads. This angle, in conjunction with the hook on the cutting edge of the land and the special flute form, produces the long curling chips. These chips, instead of passing out or backing in the flutes, are "shot" out ahead of the tap.

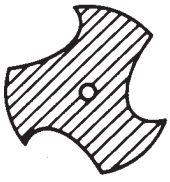




THE CHROMATE CIC 200 "SHOOTER" TAPS OFFER THESE THREE ADVANTAGES FOR BETTER THREADING

1. STRONGER: Does not require deep flutes for elimination of chips. Therefore, fewer and shallower flutes are possible, insuring a large cross sectional area. This gives extra strength.

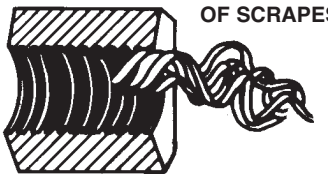
"SHOOTER" TAP



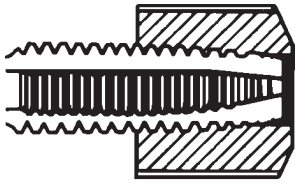
4 FLUTED HAND TAP

2. LESS POWER NEEDED: The angular cutting edge with hook on the land shears the metal instead of tearing or pulling it off with a scraping action. This shearing action requires much less drive power than is needed for hand taps.

SHEARS INSTEAD OF SCRAPES



3. ACCURACY: The first few teeth of the "Shooter" Tap do all the cutting. The rest of the threaded section acts as a lead screw, steadying the tap, and ensuring a more accurately tapped hole.

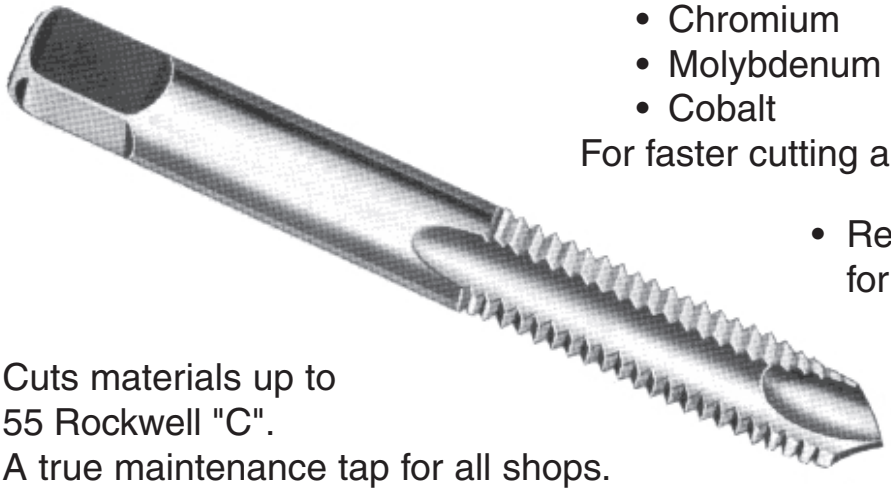


CHROMATE CIC 200™
HI-SPEED STEEL "SHOOTER" TAPS

A Professional Quality Cutting Tool for Maintenance and Repair Applications

- Made of the same quality alloys as our drills.
  Contains:
  - Vanadium
  - Chromium
  - Molybdenum
  - Cobalt

  For faster cutting and longer tap life.



- Requires 30% less torque for faster cutting.
- Cuts materials up to 55 Rockwell "C".
  A true maintenance tap for all shops.
- 30% heavier web for faster cutting.
- Thread tolerances are to .0005 – perfect threads every time.
- Special point allows you to tap straight through, without backing out – saving time and labor.
- Ground threads – triple heat treated – special alloys – give you a 200% higher breaking torque over ordinary taps.
- Chromate 200 Shooter Taps will reduce your "tapped hole" cost tremendously – saving you time, labor and money.

WILL OUTLAST ORDINARY TAPS 3 TO 1

Let Me Show You How It Works

MADE IN THE U.S.A.

CIC 200™
PRO SHOOTER TAPS

STRENGTH AND VERSATILITY THAT OUTPERFORMS THE REST

CHROMATE® INDUSTRIAL CORP.

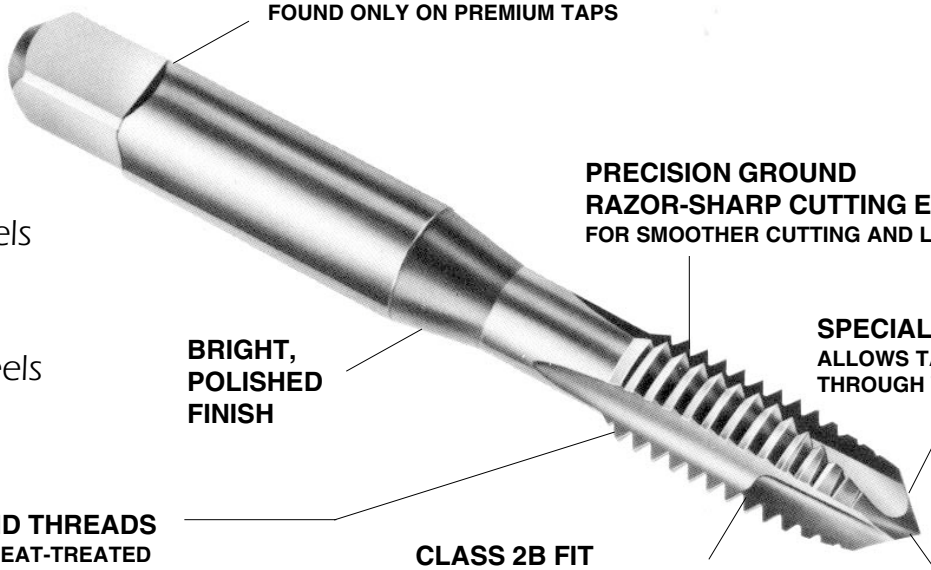
CIC 200™ PRO SHOOTER TAPS

FASTER, MORE ACCURATE TAPPING OF THE TOUGHEST MATERIALS

- Chromium, vanadium, molybdenum and cobalt alloy construction for high stress resistance
- Triple tempered for superior strength and durability
- Cuts materials up to 55 Rockwell "C" scale
- Requires less torque for faster cutting
- Unique design actually "shoots" chips out ahead of the tap
- Outlasts ordinary taps up to 10 to 1

TAPS MORE HOLES . . . MORE ACCURATELY

PRO SHOOTER TAP



IT CUTS:

- Stainless Steels
- Tool Steels
- Exotic Steels
- Standard Steels

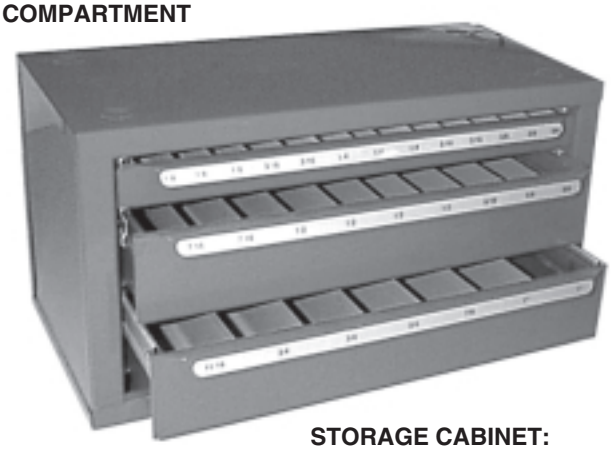
THE ONE TAP FOR ALL MAINTENANCE JOBS

CHROMATE® INDUSTRIAL CORP.

5250-A Naiman Parkway, Solon, OH 44139
1-800-BUY-BOLT • Fax: 877-233-3377 • www.chromate.com

CIC 200™ PRO™ SHOOTER TAP & DRILL ORGANIZER

SIZES EMBOSSED ON FRONT OF EACH COMPARTMENT



STORAGE CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

- Contains 26 CIC 200 Pro Shooter Taps and Drills
- 13 of the most popular fractional sizes
- Stores hundreds of taps and drills in one place
- Eliminates misplaced taps and drills

P/N 61603

➤ ONE CONVENIENT LOCATION FOR ALL YOUR TAPS AND DRILLS

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR DRILL INVENTORY

QTY.	SIZE	QTY.	SIZE	QTY.	SIZE	QTY.	SIZE
1	4-40 Tap	1	#24 Drill	1	5/16-18 Tap	1	"R" Drill
1	#43 Drill	1	10-32 Tap	1	"H" Drill	1	1/2-13 Tap
1	6-32 Tap	1	#20 Drill	1	5/16-24 Tap	1	7/16 Drill
1	#35 Drill	1	1/4-20 Tap	1	"J" Drill	1	1/2-20 Tap
1	8-32 Tap	1	#6 Drill	1	3/8-16 Tap	1	29/64 Drill
1	#29 Drill	1	1/4-28 Tap	1	"P" Drill		
1	10-24 Tap	1	7/32 Drill	1	3/8-24 Tap		

SAVES TIME, MONEY AND LABOR

CIC 200™ PRO™ SHOOTER TAP AND DRILL ORGANIZER

P/N 7805

INCLUDES:

TAP AND DRILL ORGANIZER (61603)

- 3-drawer steel cabinet
- 13 Pro Shooter Taps
- 13 Pro Drills

TAP AND REAM ALIGNER (8585)

- Eliminates up to 85% unnecessary tap breakage
- Perfectly aligns taps and reamers
- Large T-handle for extra leverage
- Precision made

THE CIC 200™ PRO™ SHOOTER TAPS AND DRILLS, ALONG WITH THE TAP AND REAM ALIGNER WILL GIVE YOU A TEAM FOR TAPPING THAT CAN'T BE BEAT!

CHROMATE® INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

5250-A Naiman Parkway . Solon . OH 44139

100114 1-800-BUY-BOLT . Fax: 631-567-2418 . www.chromate.com

TAPS AND DIES

- **CIC 200™ Hex Shank Combo Drill and Taps Provide Quick, Superior Cutting**
- **"Pro Shooter" Taps Provide Perfect Class 2B Fit**
- **CIC 200™ Taps Cut With Less Power, Are Stronger And More Accurate Than Conventional Taps**
- **High Carbon Steel Dies Are Heat-Treated For Strength And Durability**
- **Premium Quality Tap And Die Tools**

CHROMATE TAPS AND DIES PROVIDE SUPERIOR, PRECISION THREAD CUTTING AND DURABILITY. Manufactured from the finest alloys and heat-treated for strength and long life, Chromate Taps and Dies will satisfy all your thread cutting needs.

CIC 200™ HEX SHANK COMBO DRILL & TAPS

CIC 200™ HEX SHANK COMBINATION DRILL AND TAPS

APPLICATIONS:
- **Construction**
- **Electrical**
- **Maintenance**
- **Industrial**
- **Automotive**
- **Farm Implement Equipment**

- Create holes and tap in a single operation. No center drilling or punching required.
- Quick change hex shank makes it ideal for use in portable power drills.
- Its taper neck design significantly reduces drill & tap breakage.
- A 135° split point permits holes and threads to be cut at high speeds.
- Available in standard (inch) and metric machine screw tap sizes.
- Durability provided by high molybdenum content high speed steel.
- More holes per drill than ordinary twist drills, especially in cordless power tools.
- Functional black and gold surface treatment holds lubricant for smoother drilling.

SIZE / TPI	HEX SHANK	OVERALL LENGTH	DRILL DIA.	DRILL LENGTH	THREAD LENGTH		PART
6-32	1/4″	2.17″	0.11″	0.31″	0.43″	A	12735
8-32	1/4″	2.45″	0.14″	0.37″	0.50″	A	12736
10-24	1/4″	2.61″	0.15″	0.41″	0.63″	A	12737
10-32	1/4″	2.61″	0.16″	0.41″	0.93″	A	12738
12-24	1/4″	2.70″	0.18″	0.47″	0.66″	A	12739
1/4-20	1/4″	2.89″	0.21″	0.53″	0.78″	A	12740
1/4-28	1/4″	2.89″	0.22″	0.53″	0.78″	A	12741
5/16-18	1/4″	3.20″	0.27″	0.69″	0.94″	A	12742
5/16-24	1/4″	3.20″	0.28″	0.69″	0.94″	A	12743
3/8-16	11/32″	3.45″	0.32″	0.81″	1.06″	A	12744
3/8-24	11/32″	3.45″	0.34″	0.81″	1.06″	A	12745
7/16-14	11/32″	3.83″	0.38″	1.00″	1.25″	A	12746
7/16-20	11/32″	3.83″	0.40″	1.00″	1.25″	A	12747
1/2-13	11/32″	4.07″	0.44″	1.13″	1.38″	A	12748
1/2-20	11/32″	4.07″	0.46″	1.13″	1.38″	A	12749

ACCESSORIES – QUICK CHANGE ADAPTER

- Dual 1/4″ and 3/8″ drill and drive chuck
- Industrial quality with minimal runout (wobble)
- Fits all accessory types, all brands
- Fits old and new hex shanks with or without power groove

DESCRIPTION		PART
Quick Change Adapter – For 1/4″ and 3/8″ Hex Shank Tools	A	51166

CIC 200™ HEX SHANK COMBO DRILL & TAPS

CIC 200™ HEX SHANK COMBINATION DRILL AND TAP SETS

Machine Screw

P/N 8844

5 piece set contains these tap diameters:

- 6-32
- 8-32
- 10-24
- 10-32
- 12-24

Packed in a rugged plastic case.

USS

P/N 8845

5 piece set contains these tap diameters:

- 1/4-20
- 5/16-18
- 3/8-16
- 7/16-14
- 1/2-13

Packed in a rugged plastic case.

SAE

P/N 8846

5 piece set contains these tap diameters:

- 1/4-28
- 5/16-24
- 3/8-24
- 7/16-20
- 1/2-20

Packed in a rugged plastic case.

SAE & USS

P/N 8848

10 piece set contains these tap diameters:

- 6-32
- 8-32
- 10-24
- 10-32
- 12-24
- 1/4-20
- 5/16-18
- 3/8-16
- 7/16-14
- 1/2-13

Packed in a rugged plastic case.

- **Create holes and tap in a single operation. No center drilling or punching required.**
- **Quick change hex shank makes it ideal for use in portable power drills.**
- **Its taper neck design significantly reduces drill & tap breakage.**
- **A 135° split point permits holes and threads to be cut at high speeds.**
- **Available in standard (inch) and metric machine screw tap sizes.**
- **Durability provided by high molybdenum content high speed steel.**
- **More holes per drill than ordinary twist drills, especially in cordless power tools.**
- **Functional black and gold surface treatment holds lubricant for smoother drilling.**

PRO COMBO DRILL & TAPS

PRO COMBO DRILL AND TAPS

APPLICATIONS:
Construction, Electrical, Maintenance, Industrial, Automotive and Farm Implement Equipment

MATERIALS:
Aluminum, Brass, Bronze, Cast Iron, Steel and Zinc

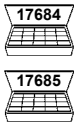
- **TWO OPERATIONS IN ONE SETUP**
- **PERFORM AT HIGH RPM IN ANY MATERIAL WHERE HIGH SPEED STEEL CUTTING TOOLS ARE USED**
- **118° DRILL PILOT IS SPECIFICALLY DESIGNED AND MANUFACTURED TO CLOSE TOLERANCES TO PRODUCE THE PROPER SIZE HOLE FOR TAPPING**
- **DESIGNED TO OPERATE AT SPEEDS BETWEEN THE NORMAL TAPPING SPEED AND DRILLING SPEED FOR THE SPECIFIED MATERIALS**
- **CLASS 2B FIT**
- **H3 TOLERANCES**
- **NOTE: TO ACCOMMODATE TAPPING OPERATION, THE MACHINE MUST BE CAPABLE OF REVERSING TO WITHDRAW THE TAP**

SIZE/ TPI	# OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH		PART
6-32	2	.1085	3-1/4	.250	7/16	A	12780
8-32	2	.1378	2.5197	.3150	.4724	A	12781
8-36	2	.1378	2.5197	.3150	.5118	A	12769
10-24	2	.1535	2.8346	.3937	.5906	A	12782
10-32	2	.1535	2.8346	.3937	.5906	A	12783
12-24	2	.1772	3.0315	.4331	.6299	A	12789
12-28	2	.1850	3.0315	.4331	.6693	A	12770
1/4-20	2	.2008	3.2677	.5118	.7087	A	12784
1/4-28	2	.2165	3.2677	.5118	.7480	A	12771
Small Set: 8-32, 10-24, 10-32 and 12-24						A	61613
USS Large Set: 1/4-20, 5/16-18, 3/8-16 and 1/2-13						A	61614
Pro Combo Drill and Tap Pouch Assortment Contains 8 Drills – 8-32, 10-24, 10-32, 12-24, 1/4-20, 5/16-18, 3/8-16 and 1/2-13						A	61662

SIZE/ TPI	# OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH		PART
5/16-18	2	.2559	3.7008	.6299	.8268	A	12785
5/16-24	2	.2717	3.7008	.6299	.8661	A	12772
3/8-16	2	.3150	4.0945	.7480	.8661	A	12786
3/8-24	2	.3346	4.0945	.7480	.9449	A	12773
7/16-14	2	.3622	4.2126	.8661	.9843	A	12777
7/16-20	2	.3898	4.2126	.8661	.9843	A	12774
1/2-13	2	.4252	4.4882	.9843	1.1417	A	12788
1/2-20	2	.4527	4.4882	.9843	1.1417	A	12775
5/8-11	2	.5315	5.2756	1.2598	1.2598	A	12778
5/8-18	2	.5709	5.2756	1.2598	1.2598	A	12776
SAE Small Set: 8-36, 10-32 and 12-28						A	61667
SAE Large Set: 1/4-28, 5/16-24, 3/8-24 and 1/2-20						A	61668
SAE Pro Combo Drill and Tap Pouch Assortment Contains 8 Drills – 8-36, 10-32, 12-28, 1/4-28, 5/16-24, 3/8-24, 7/16-20 and 1/2-20						A	61669

TITANIUM NITRIDE COATED COMBO DRILL & TAPS

ENGINEERED FOR HIGH PRODUCTION



Features
- Drilling and tapping in one application.
- Ideal for use in multi-spindle heads with reversing capability and in variable speed/reverse magnetic drills when used with tapping heads.
- Tapered neck design reduces drill & tap breakage.
- 118° split point permits holes and threads to be cut at high speeds.
- Produces a class 2B fit. No special holders or collets required.

Application
- Create holes and tap in a single operation
- No center drilling or punching required

Uses
- Food industry plants where stainless is prevalent
- Automotive
- Industrial applications

6 Piece Set
P/N 61666

Includes the following:
- 8-32 P/N 12706
- 10-24 P/N 12708
- 12-24 P/N 12710
- 1/4-20 P/N 12712
- 5/16-18 P/N 12714
- 3/8-16 P/N 12716

P/N		Size TPI	No. of Flutes	Drill Dia.	Overall Length	Drill Length	Tap Length
12700	A	4-40	2	.0910	1-7/8	1/4	3/8
12701	A	4-48	2	.0945	1-7/8	1/4	3/8
12702	A	5-40	2	.1040	1-15/16	9/32	13/32
12703	A	5-44	2	.1060	1-15/16	9/32	13/32
12704	A	6-32	2	.1115	2	5/16	7/16
12705	A	6-40	2	.1170	2	5/16	7/16
12706	A	8-32	2	.1375	2-1/8	3/8	1/2
12707	A	8-36	2	.1405	2-1/8	3/8	1/2
12708	A	10-24	2	.1545	2-3/8	13/32	5/8
12709	A	10-32	2	.1635	2-3/8	13/32	5/8
12710	A	12-24	2	.1805	2-3/8	15/32	21/32
12711	A	12-28	2	.1860	2-3/8	15/32	21/32
12712	A	1/4-20	2	.2080	2-1/2	17/32	25/32
12713	A	1/4-28	2	.2220	2-1/2	17/32	25/32
12714	A	5/16-18	2	.2660	2-27/32	11/16	15/16
12715	A	5/16-24	2	.2770	2-27/32	11/16	15/16
12716	A	3/8-16	2	.3225	3-3/8	13/16	1-1/16
12717	A	3/8-24	2	.3395	3-3/8	13/16	1-1/16
12718	A	7/16-14	2	.3770	3-3/4	1	1-1/4
12719	A	7/16-20	2	.3955	3-3/4	1	1-1/4
12720	A	1/2-13	2	.4350	4-1/16	1-1/8	1-3/8
12721	A	1/2-20	2	.4580	4-1/16	1-1/8	1-3/8

Benefits of Titanium Nitride Coating (TiN)

Thermal and Chemical Diffusion Barrier
Titanium Nitride (TiN) is an extremely fine and dense compound. This non-porosity lends to TiN to act as a chemical and thermal barrier to diffusion and fusion, which prevents the transfer of molecules from the cutting tool to the work-piece, and vice versa. This phenomena is often referred to as “work hardening” and is eliminated by TiN coating.

High Lubricity
The coefficient of friction of TiN is lower than that of hard chrome. This provides free chip flow, reduced heat build-up, reduced adhesion and reduced built-up edge formation and cratering. In addition, the lubricious finish of TiN creates a superior work-piece finish.

Increased Surface Hardness
TiN coating measures a hardness in excess of 80 Rockwell C. This hardness protects the cutting edge from abrasion and provides a protective shield against the damaging effects of heat generated at the cutting edge.

Increased Durability
Applying a hard, heat resistant TiN coating to tough impact resistant high-speed steel tools prolongs sharpness. As a result, cutting tools can be run at substantially higher speeds and feed rates, thus increasing productivity

TITANIUM NITRIDE COATED SPIRAL POINT TAPS

THE SPIRAL POINT EJECTS CHIPS FORWARD

17682

17683

Features

- **Spiral Point**
  The spiral point ejects the chips forward. This provides cleaner threads, higher quality threads than standard hand taps. The spiral point enables faster tapping, higher speeds, and thus, higher productivity.

- **Necked Design**
  The recess or “neck” enables cutting fluids to reach the cutting edges and point of the tool, where the hard work is being done. The neck enables deeper tapping.

- **Three flutes**
  These taps all have 3-flutes instead of two flutes on many spiral point taps. This provides for easier starting, and straighter tapping. Misalignment is a common problem with taps and these taps minimize this problem. They are also excellent for tapping stainless steel.

Application

- Permits tapping of high tensile martensitic stainless steels and titanium alloys at high speeds.

Uses

- Food industry plants where stainless is prevalent
- Automotive
- Industrial applications

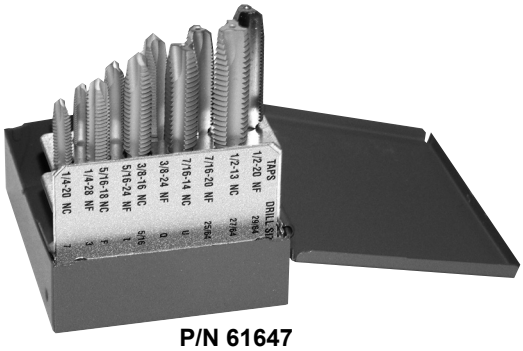
P/N		Size TPI	Number of Flutes	Number of Threads	Overall Length
12600	A	4-40	3	9/16	2
12601	A	6-32	3	11/16	2
12602	A	6-40	3	11/16	2
12603	A	8-32	3	3/4	2-1/8
12604	A	8-36	3	3/4	2-1/8
12605	A	10-24	3	7/8	2-3/8
12606	A	10-32	3	7/8	2-3/8
12607	A	12-24	3	15/16	2-3/8
12608	A	12-28	3	15/16	2-3/8
12609	A	1/4-20	3	1	2-1/2
12610	A	1/4-28	3	1-1/8	2-3/4
12611	A	5/16-18	3	1-1/8	2-3/4
12612	A	5/16-24	3	1-1/8	2-3/4
12613	A	3/8-16	3	1-1/4	2-15/16
12614	A	3/8-24	3	3/4	2-15/16
12615	A	7/16-14	3	1-7/16	3-5/32
12616	A	7/16-20	3	1-7/16	3-5/32
12617	A	1/2-13	3	1-21/32	3-3/8
12618	A	1/2-20	3	1-21/32	3-3/8
12619	A	5/8-11	3	1-13/16	3-13/16
12620	A	5/8-18	3	3-13/16	3-13/16
12621	A	3/4-10	3	2	4-1/4
12622	A	3/4-16	3	2	4-1/4

24

10 PIECE SET – METAL INDEX

Includes the following:

- 1/4-20 P/N 12609
- 1/4-28 P/N 12610
- 5/16-18 P/N 12611
- 5/16-24 P/N 12612
- 3/8-16 P/N 12613
- 3/8-24 P/N 12614
- 7/16-14 P/N 12615
- 7/16-20 P/N 12616
- 1/2-13 P/N 12617
- 1/2-20 P/N 12618



P/N 61647

CIC 200™ HI-SPEED STEEL TAPS

"PRO SHOOTER" TAPS

"Pro Shooter" Taps provide the ultimate versatility, precision and durability for tapping mild steel, stainless steel, medium carbon steel and aluminum. Designed to run at higher tapping speeds up to 60 fpm for aluminum and 50 fpm for steel.

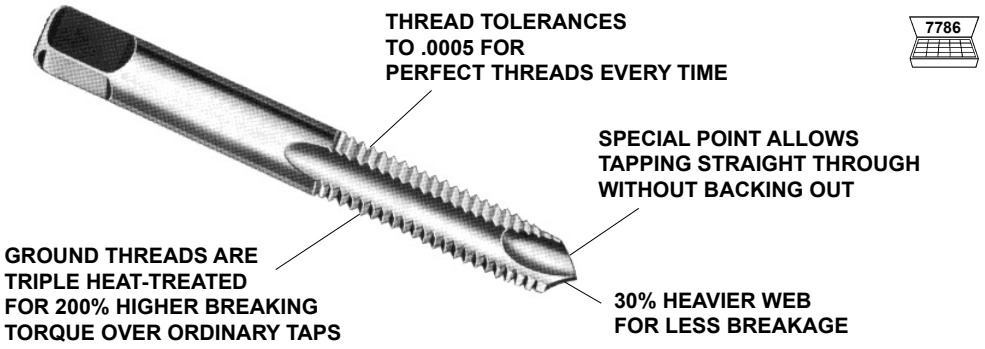
- CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS
- CUTS MATERIALS UP TO 55 ROCKWELL "C"
- SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP

NOTE: See page 24.14 for recommended drill sizes.

SIZE	# FLUTES		PART	SIZE	# FLUTES		PART	SIZE	# FLUTES		PART	SIZE	# FLUTES		PART
4-40	2	A	12950	1/4-20	2	A	12960	7/16-14	3	A	12969	5/8-18	3	A	12976
6-32	2	A	12952	1/4-28	2	A	12962	7/16-20	3	A	12971	3/4-10	3	A	12977
8-32	2	A	12954	5/16-18	2	A	12964	1/2-13	3	A	12972	3/4-16	3	A	12978
10-24	2	A	12956	5/16-24	3	A	12966	1/2-20	3	A	12974	7/8-9	3	A	12979
10-32	2	A	12958	3/8-16	3	A	12968	5/8-11	3	A	12975	7/8-14	3	A	12980
12-24	2	A	12959	3/8-24	3	A	12970	–	–		–	–	–		–

STANDARD "SHOOTER" TAPS

- CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS.
- CUTS MATERIALS UP TO 55 ROCKWELL "C".
- SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP.



SIZE	# FLUTES		PART	SIZE	# FLUTES		PART
2-56	2	A	1574	5/16-24	2	A	1591
4-40	2	A	1582	3/8-16	3	A	1592
5/40	2	A	1581	3/8-24	3	A	1593
6-32	2	A	1583	7/16-14	3	A	1594
8-32	2	A	1584	7/16-20	3	A	1595
10-24	2	A	1585	1/2-13	3	A	1596
10-32	2	A	1586	1/2-20	3	A	1597
12-24	2	A	1587	5/8-11	3	A	1598
1/4-20	2	A	1588	5/8-18	3	A	1600
1/4-28	2	A	1589	3/4-10	3	A	1599
5/16-18	2	A	1590	3/4-16	3	A	1601

CIC 200™ HI-SPEED STEEL TAPS

PLUG, TAPER AND BOTTOMING TAPS

SIZE	PLUG		TAPER		BOTTOMING	
	PART	# FLUTES	PART	# FLUTES	PART	# FLUTES
2-56NC	A 12791	3	A 12790	3	A 12792	3
4-40NC	A 12800	3	A 12801	3	A 12802	3
5-40NC	A 12803	3	A 12804	3	A 12805	3
6-32NC	A 12806	3	A 12807	3	A 12808	3
8-32NC	A 12809	4	A 12810	4	A 12811	4
10-24NC	A 12812	4	A 12813	4	A 12814	4
10-32NF	A 12815	4	A 12816	4	A 12817	4
12-24NC	A 12818	4	A 12819	4	A 12820	4
1/4-20NC	A 12821	4	A 12822	4	A 12823	4
1/4-28NF	A 12824	4	A 12825	4	A 12826	4
5/16-18NC	A 12827	4	A 12828	4	A 12829	4
5/16-24NF	A 12830	4	A 12831	4	A 12832	4
3/8-16NC	A 12833	4	A 12834	4	A 12835	4
3/8-24NF	A 12836	4	A 12837	4	A 12838	4
7/16-14NC	A 12839	4	A 12840	4	A 12841	4
7/16-20NF	A 12842	4	A 12843	4	A 12844	4
1/2-13NC	A 12845	4	A 12846	4	A 12847	4
1/2-20NF	A 12848	4	A 12849	4	A 12850	4
9/16-12NC	A 12851	4	A 12852	4	A 12853	4
9/16-18NF	A 12854	4	A 12855	4	A 12856	4
5/8-11NC	A 12857	4	A 12858	4	A 12859	4
5/8-18NF	A 12860	4	A 12861	4	A 12862	4
3/4-10NC	A 12863	4	A 12864	4	A 12865	4
3/4-16NF	A 12866	4	A 12867	4	A 12868	4
7/8-9NC	A 12869	4	A 12870	4	A 12871	4
7/8-14NF	A 12872	4	A 12873	4	A 12874	4
1-8NC	A 12875	4	A 12876	4	A 12877	4
1-14NF	A 12878	4	A 12879	4	A 12880	4
1-1/8 - 7	A 12750	4	A 12751	4	A ***12752***	4
1-1/8 - 12	A ***12881***	4	A ***12882***	4	A ***12883***	4
1-1/4 - 7	A 12753	6	A ***12754***	6	A 12755	6
1-1/4 - 12	A ***12793***	6	A ***12794***	6	A ***12795***	6
1-3/8 - 7	A ***12756***	6	A ***12757***	6	A ***12758***	6
1-3/8 - 12	A ***12796***	6	A ***12797***	6	A ***12798***	6

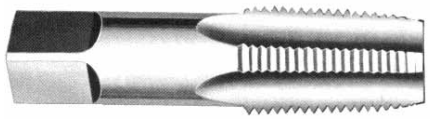
NOTE: See page 24.14 for recommended drill sizes.

NOTE: NUMBERS IN ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.

CIC 200™ HI-SPEED STEEL TAPS

TAPER PIPE TAPS

HIGH SPEED STEEL

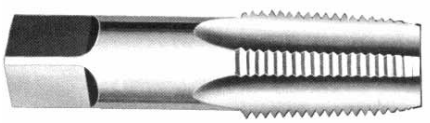


4 FLUTE TO 1/2"; 5 FLUTE 3/4" TO 1-1/4"; 7 FLUTE 1-1/2" TO 2"

SIZE	DRILL	PART	SIZE	DRILL	PART
1/8-27	11/32	A 5091	1-11.5	1-5/32	A 5096
1/4-18	7/16	A 5092	1-1/4-11.5	1-1/2	A 5097
3/8-18	37/64	A 5093	1-1/2-11.5	1-47/64	A 5098
1/2-14	23/32	A 5094	2-11.5	2-7/32	A 5099
3/4-14	59/64	A 5095	-	-	-

NOTE: See page 24.14 for recommended drill sizes.

HIGH CARBON STEEL



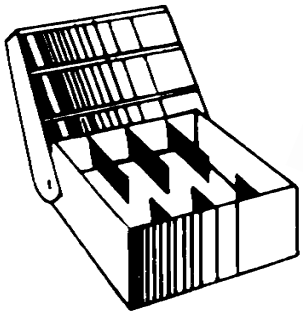
4 FLUTE TO 1/2"; 5 FLUTE 3/4" TO 1-1/4"; 7 FLUTE 1-1/2" TO 2"

SIZE	DRILL	PART	SIZE	DRILL	PART
1/8-27	11/32	A 800	1-11.5	1-5/32	A 805
1/4-18	7/16	A 801	1-1/4-11.5	1-1/2	A 806
3/8-18	37/64	A 802	1-1/2-11.5	1-47/64	A 807
1/2-14	23/32	A 803	2-11.5	2-7/32	A 808
3/4-14	59/64	A 804	-	-	-

CIC 200™ HI-SPEED STEEL TAP SETS

TAPER, PLUG AND BOTTOMING TAP SETS

Sturdy, convenient plastic cases keep taps clean and organized while protecting thread cutting edges from damage.



TAPER

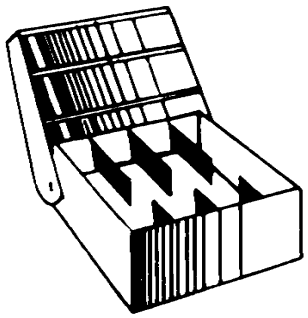
PLUG

BOTTOMING

EACH SET INCLUDES ONE OF EACH TAPER, PLUG AND BOTTOMING TAPS

SIZE		PART	SIZE		PART
2-56	A	12885	7/16-14	A	12900
4-40	A	12887	7/16-20	A	12901
5-40	A	12888	1/2-13	A	12902
6-32	A	12889	1/2-20	A	12903
8-32	A	12890	9/16-12	A	12904
10-24	A	12891	9/16-18	A	12905
10-32	A	12892	5/8-11	A	12906
12-24	A	12893	5/8-18	A	12907
1/4-20	A	12894	3/4-10	A	12908
1/4-28	A	12895	3/4-16	A	12909
5/16-18	A	12896	7/8-9	A	12910
5/16-24	A	12897	7/8-14	A	12911
3/8-16	A	12898	1-8	A	12912
3/8-24	A	12899	1-14	A	12913

BOTTOMING TAP SET



SET CONTENTS	PART
8 TAPS — 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16 and 1/2-13	7787

NOTE: See page 24.14 for recommended drill sizes.

QUICK-CUT DIE & HANDLE

ROUND DIE

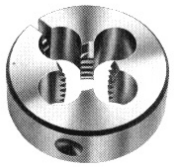
- READY TO USE HSS DIE AND HANDLE FOR QUICK REPAIR AND THREADING
- BUILT-IN GUIDE ASSURES ACCURATE STARTING AND NO CROSS THREADING
- CONVENIENT – ONE TOOL DOES IT ALL
- ERGONOMICALLY DESIGNED HANDLE IS COMFORTABLE TO USE
- OVERALL LENGTH IS 8-3/4" WIDE

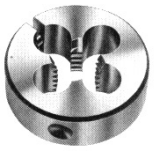
MACHINE SCREW SIZES		FRACTIONAL SIZES			
SIZE	1" O.D.	SIZE	1" O.D.	SIZE	1" O.D.
6-32 NC	A 30426	1/4-20 NC	A 30421	1/4-28 NF	A 30431
8-32 NC	A 30427	5/16-18 NC	A 30422	5/16-24 NF	A 30432
10-24 NC	A 30428	3/8-16 NC	A 30423	3/8-24 NF	A 30433
10-32 NF	A 30429	7/16-14 NC	A 30424	7/16-20 NF	A 30434
12-24 NC	A 30430	1/2-13 NC	A 30425	1/2-20 NF	A 30435

HIGH CARBON STEEL DIES

ROUND DIES — SPLIT ADJUSTING TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.





MACHINE SCREW SIZES			
SIZE	5/8" O.D.	13/16" O.D.	1" O.D.
0-80 NC	–	A 30300	A –
2-56 NC	–	A 30302	A –
4-40 NC	A 30201	A 30301	A 30401
5-40 NC	A 30203	A 30303	A 30403
6-32 NC	–	A 30305	A 30405
8-32 NC	–	A 30307	A 30407
10-24 NC	–	A 30309	A 30409
10-32 NF	–	A 30311	A 30411
12-24 NC	–	–	A 30413

PIPE SIZES			
SIZE	1" O.D.	1-1/2" O.D.	2" O.D.
1/8-27	A 4942	A 4951	-
1/4-18	A 4943	A 4952	-
3/8-18	-	A 4953	-
1/2-14	-	-	A 4901
3/4-14	-	-	A 4902

FRACTIONAL SIZES			
SIZE	1" O.D.	1-1/2" O.D.	2" O.D.
1/4-20 NC	A 20115	A 20215	A 20315
1/4-28 NF	A 20117	A 20217	A 20317
5/16-18 NC	A 20119	A 20219	A 20319
5/16-24 NF	A 20121	A 20221	A 20321
3/8-16 NC	A 20123	A 20223	A 20323
3/8-24 NF	A 20125	A 20225	A 20325
7/16-14 NC	A 20127	A 20227	A 20327
7/16-20 NF	A 20129	A 20229	A 20329
1/2-13 NC	A 20131	A 20231	A 20331
1/2-20 NF	A 20133	A 20233	A 20333
9/16-12 NC	-	A 20235	A 20335
9/16-18 NF	-	A 20237	A 20337
5/8-11 NC	-	A 20239	-
5/8-18 NF	-	A 20241	A 20341
3/4-10 NC	-	A 20243	-
3/4-16 NF	-	A 20245	A 20345
7/8-9 NC	-	-	A 20347
7/8-14 NF	-	-	A 20349
1-8 NC	-	-	A 20351

HIGH CARBON STEEL DIES

HEX DIES — SOLID TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.

- **HIGH CARBON STEEL – IDEAL FOR HAND THREADING APPLICATIONS WHEN CUTTING NEW THREADS OR REPAIRING RUSTED OR DAMAGED THREADS.**
- **HEX DIE CAN BE USED WITH DIE STOCKS AS WELL AS OPEN-END, SOCKET OR ADJUSTABLE WRENCHES.**

MACHINE SCREW SIZES

SIZE	5/8" HEX	1" HEX
4-40 NC	A 40101	A 40201
5-40 NC	A 40103	A 40203
6-32 NC	A 40105	A 40205
8-32 NC	A 40107	A 40207
10-24 NC	A 40109	A 40209
10-32 NF	A 40111	A 40211
12-24 NC	A 40113	A 40213

FRACTIONAL SIZES

SIZE	1" HEX	1-7/16" HEX	1-13/16" HEX
1/4-20 NC	A 50101	-	-
1/4-28 NF	A 50103	-	-
5/16-18 NC	A 50105	-	-
5/16-24 NF	A 50107	-	-
3/8-16 NC	A 50109	-	-
3/8-24 NF	A 50111	-	-
7/16-14 NC	A 50113	-	-
7/16-20 NF	A 50115	-	-
1/2-13 NC	A 50117	-	-
1/2-20 NF	A 50119	A 50219	-
9/16-12 NC	-	A 50221	-
9/16-18 NF	-	A 50223	-
5/8-11 NC	-	A 50225	-
5/8-18 NF	-	A 50227	-
3/4-10 NC	-	A 50229	-
3/4-16 NF	-	A 50231	-
7/8-9	-	-	A 50233
7/8-14	-	-	A 50235
1"-8	-	-	A 50237
1"-14	-	-	A 50239

SOLID HEX PIPE DIES

SIZE	1" HEX	1-7/16" HEX
1/8-27	A 4966	A 4991
1/4-18	A 4967	A 4992

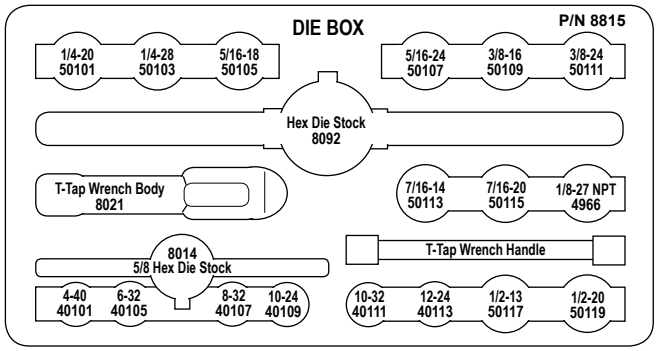
FRACTIONAL RETHREADING DIES

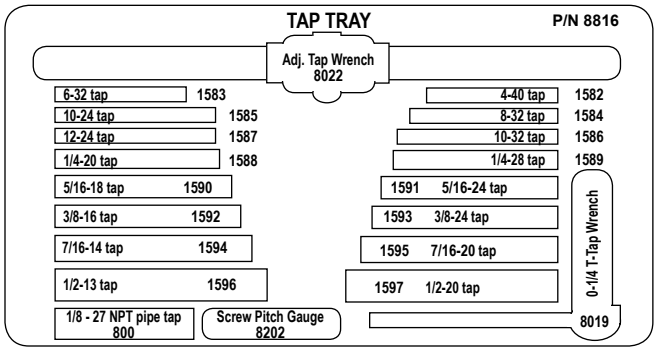
FRACTIONAL RETHREADING DIES ARE DESIGNED FOR REPAIRING DAMAGED BOLTS AND STUDS							
SIZE	**W.A.F**		**PART**	**SIZE**	**W.A.F**		**PART**
1/4-20 NC	19/32	A	60101	9/16-12 NC	1-1/16	A	60121
1/4-28 NF	19/32	A	60103	9/16-18 NF	1-1/16	A	60123
5/16-18 NC	11/16	A	60105	5/8-11 NC	1-1/4	A	60125
5/16-24 NF	11/16	A	60107	5/8-18 NF	1-1/4	A	60127
3/8-16 NC	25/32	A	60109	3/4-10 NC	1-7/16	A	60129
3/8-24 NF	25/32	A	60111	3/4-16 NF	1-7/16	A	60131
7/16-14 NC	7/8	A	60113	7/8-9 NC	1-5/8	A	60133
7/16-20 NF	7/8	A	60115	7/8-14 NF	1-5/8	A	60135
1/2-13 NC	1-1/16	A	60117	1-8 NC	1-13/16	A	60137
1/2-20 NF	1-1/16	A	60119	1-14 NF	1-13/16	A	60139

CIC 200™ SHOOTER TAP AND DIE SETS

CIC 200™ SHOOTER TAP AND HEX DIE SET

Forty-one piece set (17 taps and 17 dies) combines the most popular sizes of CIC 200 Shooter Taps and Dies in a sturdy polyethylene case.





CIC 200™ SHOOTER TAP AND HEX DIE SETS		PART
COMPLETE SET CONTAINS: TAPS: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Shooter Taps DIES: 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 Hex Dies (5/8") 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Hex Dies (1") 1/8-27 Pipe Die 1", 1" and 5/8" Hex Die Stocks, 1/8-27 Pipe Tap, 0-1/4 Tap Wrench, 1/4 to 1/2 Tap Wrench, 0-1/2 Adjustable Tap Wrench and Screw Pitch Gauge	A	8822
DIE BOX SET CONTAINS: DIES: 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 Hex Dies (5/8") 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Hex Dies (1") 1/8-27 Pipe Die 1", 1" and 5/8" Hex Die Stocks	A	8815
TAP TRAY SET CONTAINS: TAPS: 4-40, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20 Shooter Taps 1/8-27 Pipe Tap, 0-1/4 Tap Wrench, 1/4 to 1/2 Tap Wrench, 0-1/2 Adjustable Tap Wrench and Screw Pitch Gauge	A	8816

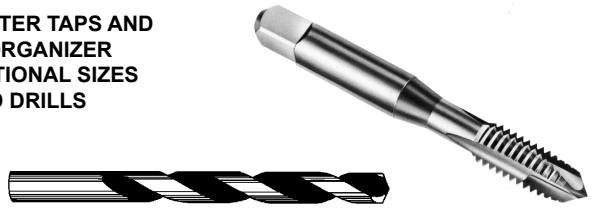
IMPORTANT: Use Red Lion Tool Cool II P/N 74185 for maximum cooling, smoother cutting and extended tool life.

NOTE: See page 24.14 for recommended drill sizes.

CIC 200™ TAP SETS & DRILL SETS

PRO SHOOTER TAP AND DRILL ORGANIZER

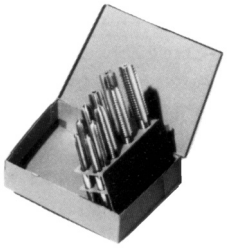
- CONTAINS 26 CIC 200™ PRO SHOOTER TAPS AND DRILLS IN A STURDY 3-DRAWER ORGANIZER
- 13 OF THE MOST POPULAR FRACTIONAL SIZES
- STORES HUNDREDS OF TAPS AND DRILLS
- 29 COMPARTMENTS
- 14-1/2"W x 7-1/4"H x 7-1/4"D



CONTENTS	PART
Pro Shooter Taps – 4-40, 6-32, 8-32, 10-24, 10-32, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 1/2-13 and 1/2-20 Drills – #43. #35, #29, #24, #20, #6, 7/32, "H", "J", "P", "R", 7/16 and 29/64	61603

PRO SHOOTER TAP INDEX

- TEN OF THE MOST POPULAR SIZES OF OUR CIC 200™ PRO SHOOTER TAPS IN A HANDY STEEL INDEX
- IDEAL FOR ALL MAINTENANCE PERSONNEL.
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION.
- 10 PIECE INDEX 3-3/8" x 4-5/8" x 1-1/8"



CONTENTS	PART
PRO SHOOTER TAP INDEX 10 TAPS – 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20	61602

SHOOTER TAP AND DRILL ORGANIZER

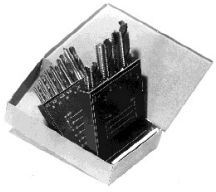
- THIRTY-TWO PIECE SET (15 TAPS AND 17 DRILLS) IN A STURDY STEEL 3-DRAWER ORGANIZER
- STORES HUNDREDS OF TAPS AND DRILLS
- 26 COMPARTMENTS
- 14-1/2" x 7-1/4" x 7-1/4"

CONTENTS	PART
SHOOTER TAP ORGANIZER TAPS – 2 ea. of 6-32, 8-32, 10-24, 10-32 & 5/16-18 3 ea. of 1/4-20 1 ea. of 3/8-16 and 1/2-13 DRILLS – 3 ea. of #35, #29, #23 and #20 2 ea. of #5 1 ea. of G, O and 7/16	7786

HIGH SPEED SHOOTER TAP AND DRILL INDEXES

The perfect match – CIC 200™ High Speed Shooter Taps and CIC 200™ Quad Point Drills.

- IDEAL FOR ALL MAINTENANCE PERSONNEL
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION
- 18 PIECE INDEX 6-32 TO 1/2-13



DESCRIPTION	PART
HIGH SPEED SHOOTER TAP AND DRILL INDEX 9 TAPS – 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 and 1/2-13 9 DRILLS – 35, 29, 23, 20, 5, G, O, 3/8 and 7/16	61601
PRO SHOOTER TAP AND DRILL INDEX 9 TAPS – 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 and 1/2-13 9 DRILLS – 35, 29, 24, 20, 6, H, P, 3/8 and 7/16	61621

- IDEAL FOR ALL MAINTENANCE PERSONNEL
- STURDY STEEL CASE PROVIDES PROTECTION FOR LONGER LIFE AND PROPER ORGANIZATION
- 12 PIECE INDEX 4-40 TO 12-24
- AVAILABLE IN CIC 200™ OR PRO SHOOTER CONFIGURATIONS

DESCRIPTION	PART
CIC 200™ SHOOTER TAP AND DRILL INDEX	61688
PRO SHOOTER TAP AND DRILL INDEX	61687
CONTENTS: 6 TAPS – 4-40, 6-32, 8-32, 10-24, 10-32 and 12-24 6 DRILLS – 43, 36, 29, 25, 21 and 16	

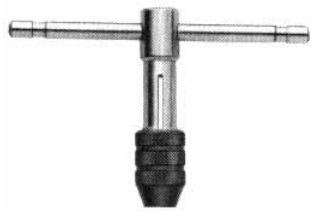
NOTE: See page 24.14 for recommended drill sizes.

TAP AND DIE TOOLS

TAP WRENCHES AND DIE STOCKS

Tap wrenches and die stocks securely hold taps and dies for precise tapping and thread forming.

"T" TAP WRENCHES



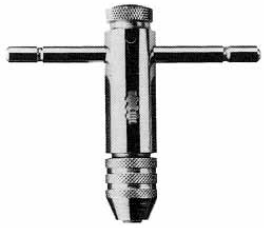
SLIDING HANDLE WITH SPRING TENSION

SIZE		PART
0 to 1/4	A	8019
1/4 to 1/2	A	8021

TAP WRENCHES

SIZE		PART
0 to 1/2	A	8022
3/8 to 1	A	8024

RATCHETING TAP WRENCHES



- REVERSIBLE RATCHET TAP WRENCH MAKES ALL TAPPING PROJECTS EASY
- POSITIVE GRIP KNURLED NUT FOR EASY TIGHTENING
- SPRING TENSION SLIDING HANDLE IDEAL FOR TIGHT PLACES AND EXTRA LEVERAGE

SIZE		PART
0 to 1/4	A	8013
1/4 to 1/2	A	8018

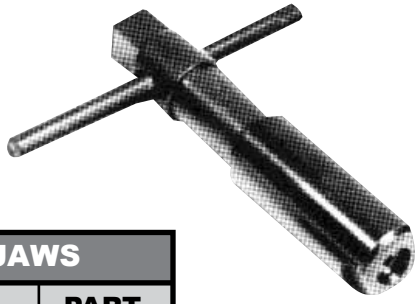
DIE STOCKS

POLISHED HANDLES WITH NON-SLIP GRIP

SIZE	DIE		PART
1	ROUND	A	8015
1-1/2	ROUND	A	8016
2	ROUND	A	8017
5/8"	HEX	A	8014
1	HEX	A	8092

TAP AND REAM ALIGNER (FITS 0-80 TO 1/2" TAPS)

Eliminates up to 85% of unnecessary tap breakage. Fits taps from 0-80 to 1/2".



P/N 8585

EXTRA JAWS	
SIZE	PART
A (0-80 / 1/4")	8591
B (1/4" to 1/2")	8593

FEATURES:

- PERFECT ALIGNMENT — GUIDE AUTOMATICALLY SQUARES UP THE TAP OR REAMER WITH THE SURFACE ON WHICH IT IS SET.
- EASY TO CHANGE — A SLIGHT TURN OF THE T-HANDLE IS SUFFICIENT TO LOOSEN THE TAP OR TO CLAMP IT.
- T-HANDLE — SLIDING ARM PROVIDES EXTRA LEVERAGE FOR LARGE TAPS AND REAMERS.
- ACCURATELY MADE.
- GUIDE — BASE OF GUIDE HAS TWO 120° VEES WHICH ALSO ACCEPTS ROUND PARTS.

TAP DRILL CHART – DRILL SIZES

DESIGNED FOR MAINTENANCE

The following table shows the Theoretical Percentage of Thread obtained from stock sizes of drills.
A 60% thread is adequate for most tapped hole requirements. Greater percentages of thread do not materially increase the strength of the tapped hole, except in the case of very short thread engagement or soft materials. When increasing the percentage of thread, you substantially increase the force required to drive the tap with very little increase in holding power.

TAP	DRILL	DEC. EQUIV.	% OF THREAD	TAP	DRILL	DEC. EQUIV.	% OF THREAD
2-56	50	.0700	62	3/8-16	5/16	.3125	72
4-40	43	.0890	65	3/8-16	O	.3160	68
5-40	38	.1015	65	3/8-24	Q	.3320	71
6-32	36	.1065	71	3/8-24	R	.3390	58
6-32	7/64	.1094	64	7/16-14	U	.3680	70
6-32	35	.1100	63	7/16-14	3/8	.3750	62
8-32	29	.1360	62	7/16-20	25/64	.3906	65
10-24	25	.1495	69	1/2-13	27/64	.4219	73
10-24	24	.1520	64	1/2-13	7/16	.4375	58
10-24	23	.1540	61	1/2-20	29/64	.4531	65
10-32	21	.1590	68	9/16-12	31/64	.4844	68
10-32	20	.1610	64	9/16-18	33/64	.5156	58
12-24	16	.1770	66	5/8-11	17/32	.5313	75
12-24	15	.1800	60	5/8-11	35/64	.5469	62
1/4-20	7	.2010	70	5/8-18	37/64	.5781	58
1/4-20	6	.2040	65	3/4-10	21/32	.6563	68
1/4-20	5	.2055	63	3/4-16	11/16	.6875	71
1/4-28	3	.2130	72	7/8-9	49/64	.7656	72
1/4-28	7/32	.2188	59	7/8-9	25/32	.7812	61
5/16-18	F	.2570	72	7/8-14	13/16	.8125	62
5/16-18	G	.2610	66	1-8	7/8	.8750	73
5/16-24	I	.2720	67	1-8	57/64	.8906	64
5/16-24	J	.2770	58	1-14	15/16	.9375	61

METRIC HEX SHANK COMBO DRILL & TAPS

CIC 200™ METRIC HEX SHANK COMBINATION DRILL AND TAPS

- Create holes and tap in a single operation. No center drilling or punching.
- Quick change hex shank makes it ideal for use in portable power drills.
- Its taper neck design significantly reduces drill & tap breakage.
- A 135° split point permits holes and threads to be cut at high speeds.
- Durability provided by high molybdenum content high speed steel.
- More holes per drill than ordinary twist drills, especially in cordless power tools.
- Functional black & gold surface treatment holds lubricant for smoother drilling.

Applications:
- Construction
- Electrical
- Maintenance
- Industrial
- Automotive
- Farm Implement Equipment

6 PIECE METRIC SET
Contains these tap diameters:

- M4x.7
- M5x.8
- M6x1
- M8x1.25
- M10x1.5
- M12x1.75

Packed in a rugged plastic case.

P/N 8847

SIZE / TPI	HEX SHANK	OVERALL LENGTH	DRILL DIA.	DRILL LENGTH	THREAD LENGTH		PART
M4x.7	1/4″	61 mm	3.42 mm	8 mm	13 mm	A	12914
M5x.8	1/4″	65 mm	4.34 mm	10 mm	15 mm	A	12915
M6x1	1/4″	69 mm	5.17 mm	12 mm	17 mm	A	12916
M8x1.25	1/4″	78 mm	6.96 mm	16 mm	22 mm	A	12917
M10x1.5	11/32″	84 mm	8.75 mm	20 mm	24 mm	A	12918
M12x1.75	11/32″	91 mm	10.54 mm	24 mm	27 mm	A	12919

METRIC PRO COMBO DRILL & TAPS

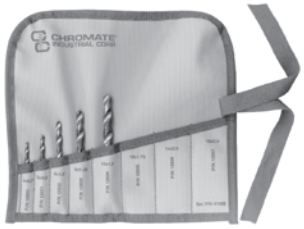
METRIC PRO COMBO DRILL AND TAPS

APPLICATIONS:
Construction, Electrical, Maintenance, Industrial, Automotive and Farm Implement Equipment

MATERIALS:
Aluminum, Brass, Bronze, Cast Iron, Steel and Zinc

- **TWO OPERATIONS IN ONE SETUP**
- **PERFORM AT HIGH RPM IN ANY MATERIAL WHERE HIGH SPEED STEEL CUTTING TOOLS ARE USED**
- **118° DRILL PILOT IS SPECIFICALLY DESIGNED AND MANUFACTURED TO CLOSE TOLERANCES TO PRODUCE THE PROPER SIZE HOLE FOR TAPPING**
- **DESIGNED TO OPERATE AT SPEEDS BETWEEN THE NORMAL TAPPING SPEED AND DRILLING SPEED FOR THE SPECIFIED MATERIALS**
- **CLASS 2B FIT & H3 TOLERANCES**
- **NOTE: TO ACCOMMODATE TAPPING OPERATION, THE MACHINE MUST BE CAPABLE OF REVERSING TO WITHDRAW THE TAP**

SIZE / TPI	NO. OF FLUTES	DRILL DIA.	OVERALL LENGTH	DRILL LENGTH	THREAD LENGTH		PART
4 x 0.7	2	3.3 mm	64.0 mm	8.0 mm	12.0 mm	A	12930
5 x 0.8	2	4.2 mm	68.0 mm	10.0 mm	15.0 mm	A	12931
6 x 1.0	2	5.0 mm	82.0 mm	12.0 mm	18.0 mm	A	12932
8 x 1.25	2	6.8 mm	94.0 mm	16.0 mm	21.0 mm	A	12933
10 x 1.5	2	8.5 mm	105.0 mm	20.0 mm	22.0 mm	A	12934
12 x 1.75	2	10.2 mm	113.0 mm	24.0 mm	29.0 mm	A	12935
14 x 2.0	2	12.0 mm	123.0 mm	28.0 mm	30.0 mm	A	12936
16 x 2.0	2	14.0 mm	134.0 mm	32.0 mm	32.0 mm	A	12937



METRIC PRO COMBO DRILL AND TAP POUCH ASSORTMENT
Contains 5 Drills/Taps – 4mm x 0.7mm, 5mm x 0.8mm, 6mm x 1.0mm, 8mm x 1.25mm and 10mm x 1.5mm

A 61663

CIC 200™ METRIC HI-SPEED STEEL TAPS

METRIC PRO "SHOOTER" TAPS

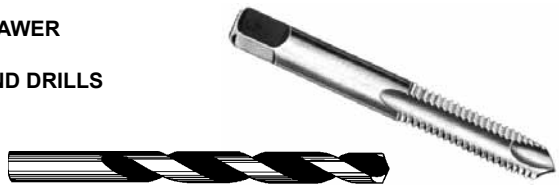
Metric Pro "Shooter" Taps provide the ultimate versatility, precision and durability for tapping mild steel, stainless steel, medium carbon steel and aluminum. Designed to run at higher tapping speeds up to 60 fpm for aluminum and 50 fpm for steel.

- **CONSTRUCTED OF CHROMIUM, VANADIUM, MOLYBDENUM AND COBALT ALLOYS**
- **CUTS MATERIALS UP TO 55 ROCKWELL "C"**
- **SUPERIOR DESIGN ACTUALLY "SHOOTS" CHIPS OUT AHEAD OF THE TAP**

SIZE	# FLUTES		PART	SIZE	# FLUTES		PART	SIZE	# FLUTES		PART
M3 x 0.5	2	A	12941	M6 x 1.0	2	A	12944	M10 x 1.50	3	A	12946
M4 x 0.7	2	A	12942	M8 x 1.25	2	A	12945	M12 x 1.75	3	A	12947
M5 x 0.8	2	A	12943	–	–		–	–	–		–

METRIC SHOOTER TAP AND DRILL ORGANIZER

- **20-PIECE SET IN A STURDY 3-DRAWER ORGANIZER**
- **STORES HUNDREDS OF TAPS AND DRILLS**
- **28 COMPARTMENTS**
- **14-1/2" x 7-1/4" x 7-1/4"**



CONTENTS	PART
SHOOTER TAPS 2.5mm x 0.45, 3mm x 0.5, 3.5mm x 0.60, 4mm x 0.7, 5mm x 0.8, 6mm x 1.0, 7 x 1.00, 8mm x 1.25, 10mm x 1.5, & 12mm x 1.75	7788
METRIC DRILLS 2.05mm, 2.5mm, 2.9mm, 3.3mm, 4.2mm, 5.0mm, 6.0mm, 6.7mm, 8.5mm and 10.2mm	
ORGANIZER ALSO HAS COMPARTMENTS FOR THE FOLLOWING ADDITIONAL SIZES:	
SHOOTER TAPS *9 x 1.25, 11 x 1.50, 16mm x 2 and 20mm x 2.5*	
METRIC DRILLS *8.0mm, 9.5mm, 14.0mm & 17.5mm*	

CIC 200™ METRIC HI-SPEED STEEL TAPS

SHOOTER AND BOTTOMING TAPS

SHOOTER

8820

SIZE mm	FLUTES	TAP PART	DRILL SIZE	DRILL PART
2.5mm x 0.45	2	A 69001	2.05mm (#46)	J 68521 (10046)
3mm x 0.50	2	A 69002	2.5mm (#38)	J 68525 (10038)
3.5mm x 0.60	2	A 69056	2.90mm (#32)	J 68529 (10032)
4mm x 0.70	2	A 69003	3.3mm (#29)	J 68533 (10029)
4mm x 0.75	2	A 69050	3.3mm (#30)	J 68533 (10030)
5mm x 0.80	2	A 69004	4.2mm (#18)	J 68542 (10018)
5mm x 0.90	2	A 69051	4.0mm (#20)	J 68540 (10020)
6mm x 1.00	2	A 69005	5.0mm (#7)	F 68550 (10007)
7mm x 1.00	2	A 69052	6.0mm (B)	C 68560 (10202)
8mm x 1.00	2	A 69006	7.0mm (J)	C 68570 (10210)
8mm x 1.25	2	A 69007	6.8mm (I)	C 68568 (10209)
9mm x 1.00	3	A 69053	8.0mm (5/16)	F 68580 (91020)
9mm x 1.25	3	A 69054	8.0mm (5/16)	F 68580 (91020)
10mm x 1.25	3	A 69008	8.75mm (S)	C — (10219)
10mm x 1.50	3	A 69009	8.5mm (R)	C 68585 (10218)
11mm x 1.50	3	A 69055	9.5mm (3/8)	D 68595 (91024)
12mm x 1.50	3	A 69010	10.5mm (Z)	C 68605 (10226)
12mm x 1.75	3	A 69011	10.5mm (13/32)	D 68605 (91026)
16mm x 2.00	3	A 69015	14.0mm (9/16)	A — (91238)
20mm x 2.50	3	A 69019	17.5mm (45/64)	A — (91247)

24

BOTTOMING

SIZE mm	FLUTES	TAP PART	DRILL SIZE	DRILL PART
3mm x 0.50	3	A 69028	2.5mm or #38	J 10038
4mm x 0.70	4	A 69029	3.3mm or #29	J 10029
5mm x 0.80	4	A 69030	4.2mm or #18	J 10018
6mm x 1.00	4	A 69031	5.0mm or #7	F 10007
8mm x 1.25	4	A 69033	6.8mm or I	C 68570
10mm x 1.50	4	A 69035	8.5mm or "R"	C 10218
12mm x 1.75	4	A 69037	10.5mm or 13/32	D 68605
14mm x 1.25	4	A 69039	31/64	—
16mm x 2.00	4	A 69041	9/16	A 91238
18mm x 1.50*	4	A 69043	21/32	—
20mm x 2.50	4	A 69045	45/64	A 91247

*For spark plugs.

PIPE TAP

SIZE	DRILL	PART
1/8 - 28 BSP	8.8mm or 11/32	A 810

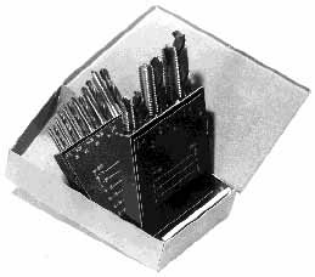
METRIC TAPS AND DRILLS

CIC 200™ HIGH SPEED SHOOTER TAP & QUAD POINT DRILL INDEX

The most popular sizes of our CIC 200™ Metric Shooter Taps and Quad Point Drills organized in a sturdy steel case.

18 PIECE INDEX

- **IDEAL FOR ALL MAINTENANCE PERSONNEL**
- **18-PIECE INDEX 2.5mm - 12mm**
- **STURDY STEEL CASE PROVIDES FOR LONGER LIFE AND PROPER ORGANIZATION**



CONTENTS		PART
9 TAPS — 2.5mm x .45, 3mm x .5, 3.5mm x .6, 4mm x .7, 5mm x .8, 6mm x 1, 8mm x 1.25, 10mm x 1.5 and 12mm x 1.75 9 DRILLS — 2.05mm, 2.5mm, 2.9mm, 3.3mm, 4.2mm, 5.0mm, 6.7mm, 8.5mm and 10.2mm	A	61684

METRIC QUICK-CUT DIE AND HANDLE

METRIC ROUND DIES

- **READY TO USE HSS DIE AND HANDLE FOR QUICK REPAIR AND THREADING**
- **BUILT-IN GUIDE ASSURES ACCURATE STARTING AND NO CROSS THREADING**
- **CONVENIENT – ONE TOOL DOES IT ALL**
- **ERGONOMICALLY DESIGNED HANDLE IS COMFORTABLE TO USE**
- **OVERALL LENGTH IS 8-3/4" WIDE WITH THE EXCEPTION OF 3MM x 0.50, 4MM x 0.70 AND 5MM x 0.80 WHICH ARE 7" WIDE**

METRIC SCREW SIZES

SIZE		1" HEX	SIZE		1" HEX
3mm x 0.50	A	30414	8mm x 1.25	A	30418
4mm x 0.70	A	30415	10mm x 1.50	A	30419
5mm x 0.80	A	30416	12mm x 1.75	A	30420
6mm x 1.00	A	30417	-		-

METRIC HIGH CARBON STEEL DIES

METRIC HEX DIES — SOLID TYPE

Heat-treated to resist breakage and thread wear. Precise threads are accurately formed for longer tool life. Right-hand threads. Marked with starting side and size.

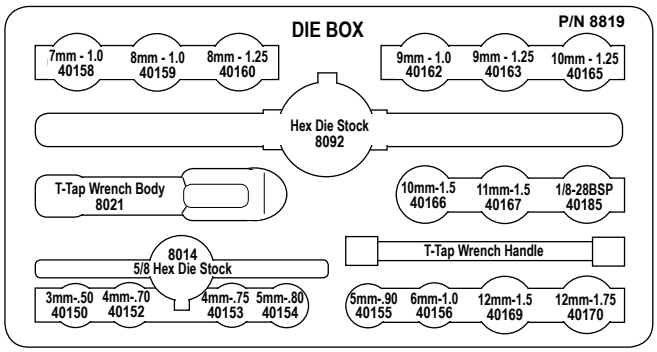
METRIC SCREW SIZES					
SIZE		5/8" HEX	SIZE		1" HEX
3mm x 0.50	A	40150	7mm x 1.00	A	40158
4mm x 0.70	A	40152	8mm x 1.00	A	40159
4mm x 0.75	A	40153	8mm x 1.25	A	40160
5mm x 0.80	A	40154	9mm x 1.00	A	40162
5mm x 0.90	A	40155	9mm x 1.25	A	40163
6mm x 1.00	A	40156	10mm x 1.25	A	40165
—		—	10mm x 1.50	A	40166
—		—	11mm x 1.50	A	40167
—		—	12mm x 1.50	A	40169
—		—	12mm x 1.75	A	40170

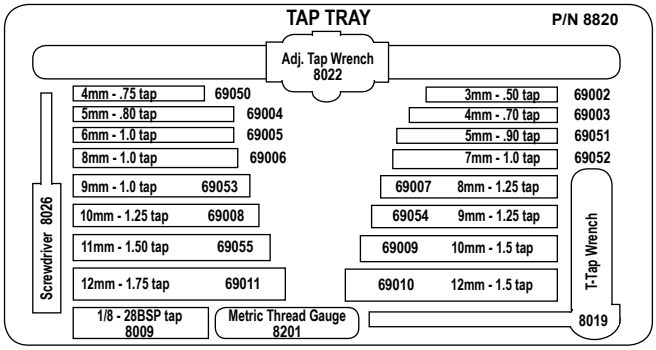
PIPE DIES		
SIZE		1" HEX
1/8 - 28 BSP	A	40185

CIC 200™ METRIC SHOOTER TAP & DIE SET

METRIC SHOOTER TAP AND HEX DIE SET

Forty-one piece set (17 taps and 17 dies) combines the most popular sizes of CIC 200™ Metric Taps and Dies in a sturdy polyethylene case.





METRIC SHOOTER TAP AND HEX DIE SET		PART
CONTENTS: TAPS: 3mm-.50, 4mm-.70, 4mm-.75, 5mm-.80, 5mm-.90, 6mm-1.0, 7mm-1.0, 8mm-1.0, 8mm-1.25, 9mm-1.0, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50 and 12mm-1.75 DIES: 3mm-.50, 4mm-.70, 4mm-.75, 5mm-.80, 5mm-.90, 6mm-1.0, 7mm-1.0, 8mm-1.0, 8mm-1.25, 9mm-1.0, 9mm-1.25, 10mm-1.25, 10mm-1.50, 11mm-1.50, 12mm-1.50 and 12mm-1.75 1/8-28 Pipe Tap and Hex Die, 1" and 5/8" Hex Die Stocks, 0-1/4 and 1/4 - 1/2 T-Taps, 0-1/2 Adjustable Tap Wrench, Metric Screw Pitch Gage, 1 Screwdriver	A	8821

END MILLS

- **Single and Double End**
- **Standard and Long Length**
- **Miniature, Hi-Cob Roughing and Ball End Designs**

CHROMATE END MILLS PROVIDE PRECISION CUTTING AND DURABILITY FOR ALL MILLING OPERATIONS. Manufactured from the finest alloys and heat treated for strength and long life, Chromate End Mills will satisfy all your slotting, keying, pocketing and other milling operations.

CIC 200™ END MILLS

SINGLE END — STANDARD LENGTH

TYPE 520 - TWO FLUTE

- CENTER CUTTING.
- STANDARD LENGTH, TWO FLUTE, MEDIUM HELIX TOOLS.
- RECOMMENDED FOR SLOTTING OPERATIONS, POCKETS, KEYWAYS AND OTHER GENERAL PURPOSE WORK, INCLUDING PLUNGE MILLING.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/8	3/8	3/8	2-5/16	A 62001
3/16	3/8	7/16	2-5/16	A 62002
1/4	3/8	1/2	2-5/16	A 62003
5/16	3/8	9/16	2-5/16	A 62004
3/8	3/8	9/16	2-5/16	A 62005
7/16	3/8	13/16	2-1/2	A 62006
1/2	3/8	13/16	2-1/2	A 62007
1/2	1/2	1	3	A 62008
9/16	1/2	1-1/8	3-1/8	A 62009
5/8	1/2	1-1/8	3-1/8	A 62010
11/16	1/2	1-5/16	3-5/16	A 62011
3/4	1/2	1-5/16	3-5/16	A 62012
5/8	5/8	1-5/16	3-7/16	A 62013
11/16	5/8	1-5/16	3-7/16	A 62014
3/4	5/8	1-5/16	3-7/16	A 62015
13/16	5/8	1-1/2	3-5/8	A 62016
7/8	5/8	1-1/2	3-5/8	A 62017
15/16	5/8	1-1/2	3-5/8	A 62018
1	5/8	1-1/2	3-5/8	A 62019
3/4	3/4	1-5/16	3-9/16	A 62020
7/8	3/4	1-1/2	3-3/4	A 62021
1	3/4	1-1/2	3-3/4	A 62022
7/8	7/8	1-1/2	3-3/4	A 62023
1	7/8	1-1/2	3-3/4	A 62024
1-1/8	7/8	1-5/8	3-7/8	A 62025
1-1/4	7/8	1-5/8	3-7/8	A 62026
1	1	1-5/8	4-1/8	A 62027
1-1/8	1	1-5/8	4-1/8	A 62028
1-1/4	1	1-5/8	4-1/8	A 62029
1-3/8	1	1-5/8	4-1/8	A 62030
1-1/2	1	1-5/8	4-1/8	A 62031
1-1/4	1-1/4	1-5/8	4-1/8	A 62032
1-1/2	1-1/4	1-5/8	4-1/8	A 62033
1-3/4	1-1/4	1-5/8	4-1/8	A 62034
2	1-1/4	1-5/8	4-1/8	A 62035

TYPE 540 - MULTIPLE FLUTE

- STANDARD LENGTH, MULTIPLE FLUTE, MEDIUM HELIX TOOLS.
- RECOMMENDED FOR FINISHING OPERATIONS FOLLOWING HEAVY ROUGHING CUTS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTES	PART
1/8	3/8	3/8	2-5/16	4	A 62081
3/16	3/8	1/2	2-3/8	4	A 62082
1/4	3/8	5/8	2-7/16	4	A 62083
5/16	3/8	3/4	2-1/2	4	A 62084
3/8	3/8	3/4	2-1/2	4	A 62085
7/16	3/8	1	2-11/16	4	A 62086
1/2	3/8	1	2-11/16	4	A 62087
1/2	1/2	1-1/4	3-1/4	4	A 62088
9/16	1/2	1-3/8	3-3/8	4	A 62089
5/8	1/2	1-3/8	3-3/8	4	A 62090
11/16	1/2	1-5/8	3-5/8	4	A 62091
3/4	1/2	1-5/8	3-5/8	4	A 62092
5/8	5/8	1-5/8	3-3/4	4	A 62093
11/16	5/8	1-5/8	3-3/4	4	A 62094
3/4	5/8	1-5/8	3-3/4	4	A 62095
13/16	5/8	1-7/8	4	6	A 62096
7/8	5/8	1-7/8	4	6	A 62097
15/16	5/8	1-7/8	4	6	A 62098
1	5/8	1-7/8	4	6	A 62099
3/4	3/4	1-5/8	3-7/8	4	A 62100
7/8	3/4	1-7/8	4-1/8	4	A 62101
1	3/4	1-7/8	4-1/8	4	A 62102
7/8	7/8	1-7/8	4-1/8	4	A 62103
1	7/8	1-7/8	4-1/8	4	A 62104
1-1/8	7/8	2	4-1/4	6	A 62105
1-1/4	7/8	2	4-1/4	6	A 62106
1	1	2	4-1/2	4	A 62107
1-1/8	1	2	4-1/2	6	A 62108
1-1/4	1	2	4-1/2	6	A 62109
1-3/8	1	2	4-1/2	6	A 62110
1-1/2	1	2	4-1/2	6	A 62111
1-1/4	1-1/4	2	4-1/2	6	A 62112
1-1/2	1-1/4	2	4-1/2	6	A 62113
1-3/4	1-1/4	2	4-1/2	6	A 62114
2	1-1/4	2	4-1/2	8	A 62115

NOTE: Due to special processing allow 2-3 weeks for delivery

CIC 200™ END MILLS (Cont'd.)

SINGLE END — LONG LENGTH

TYPE 525 - TWO FLUTE

- LONG LENGTH, (NON-EXTENSION TYPE), TWO FLUTE, MEDIUM HELIX TOOLS.
- RECOMMENDED FOR SLOTTING OPERATIONS, POCKETS, KEYWAYS AND OTHER GENERAL PURPOSE WORK, INCLUDING PLUNGE MILLING.
- LONGER FLUTE LENGTH ALLOWS FOR DEEPER SLOTS AND POCKETS.
- CENTER CUTTING.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH		PART
3/8	3/8	1-1/4	3-1/4	A	62041
1/2	1/2	2	4	A	62042
5/8	5/8	2	4-1/8	A	62043
3/4	3/4	2-1/4	4-1/2	A	62044
7/8	7/8	2-1/4	4-3/4	A	62045
1	1	3	5-1/2	A	62046
1-1/8	1	3	5-1/2	A	62047
1-1/4	1	3	5-1/2	A	62048
1-1/4	1-1/4	3	5-1/2	A	62049
1-1/2	1-1/4	3	5-1/2	A	62050
1-3/4	1-1/4	3	5-1/2	A	62051
2	1-1/4	3	5-1/2	A	62052

TYPE 546 - FOUR FLUTE

- LONG LENGTH, FOUR FLUTE, CENTER CUTTING.
- RECOMMENDED FOR GENERAL PURPOSE WORK.
- LONGER FLUTE PROVIDES FOR DEEPER CAVITY MILLING.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTES		PART
1/4	3/8	1-1/4	3-1/16	4	A	62061
5/16	3/8	1-3/8	3-1/8	4	A	62062
3/8	3/8	1-1/2	3-1/4	4	A	62063
1/2	1/2	2	4	4	A	62064
5/8	5/8	2-1/2	4-5/8	4	A	62065
3/4	3/4	3	5-1/4	4	A	62066
7/8	7/8	3-1/2	5-3/4	4	A	62067
1	1	4	6-1/2	4	A	62068
1-1/4	1-1/4	4	6-1/2	4	A	62069
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-

SINGLE END

TYPE 541 - FOUR FLUTE STANDARD

- STANDARD LENGTH, FOUR FLUTE, CENTER CUTTING.
- RECOMMENDED FOR GENERAL PURPOSE OPERATIONS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH		PART
1/8	3/8	3/8	2-5/16	A	62121
3/16	3/8	1/2	2-3/8	A	62122
1/4	3/8	5/8	2-7/16	A	62123
5/16	3/8	3/4	2-1/2	A	62124
3/8	3/8	3/4	2-1/2	A	62125
1/2	1/2	1-1/4	3-1/4	A	62126
5/8	5/8	1-5/8	3-3/4	A	62127
11/16	5/8	1-5/8	3-3/4	A	62128
3/4	3/4	1-5/8	3-7/8	A	62129
7/8	7/8	1-7/8	4-1/8	A	62130
1	1	2	4-1/2	A	62131
1-1/8	1	2	4-1/2	A	62132
1-1/4	1-1/4	2	4-1/2	A	62133
1-1/2	1-1/4	2	4-1/2	A	62134
-	-	-	-		-
-	-	-	-		-

TYPE 545 - MULTIPLE FLUTE LONG

- LONG LENGTH, MULTIPLE FLUTE, MEDIUM HELIX TOOLS.
- RECOMMENDED FOR FINISH MILLING OPERATIONS.
- DESIGNED FOR WORK ON WIDE SURFACES AND DEEP SLOTS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTES		PART
1/4	3/8	1-1/4	3-1/16	4	A	62141
5/16	3/8	1-3/8	3-1/8	4	A	62142
3/8	3/8	1-1/2	3-1/4	4	A	62143
7/16	1/2	1-3/4	3-3/4	4	A	62144
1/2	1/2	2	4	4	A	62145
5/8	5/8	2-1/2	4-5/8	4	A	62146
3/4	3/4	3	5-1/4	4	A	62147
7/8	7/8	3-1/2	5-3/4	4	A	62148
1	1	4	6-1/2	4	A	62149
1-1/8	1	4	6-1/2	6	A	62150
1-1/4	1	4	6-1/2	6	A	62151
1-1/2	1	4	6-1/2	6	A	62152
1-1/4	1-1/4	4	6-1/2	6	A	62153
1-1/2	1-1/4	4	6-1/2	6	A	62154
1-3/4	1-1/4	4	6-1/2	6	A	62155
2	1-1/4	4	6-1/2	8	A	62156

NOTE: Due to special processing allow 2-3 weeks for delivery.

CIC 200™ END MILLS (Cont'd.)

DOUBLE END REGULAR LENGTH

TYPE 522 - TWO FLUTE

- DOUBLE-ENDED VERSION OF SERIES 520 SINGLE-END TOOLS.
- RECOMMENDED FOR SLOTTING, KEYING AND GENERAL PURPOSE OPERATIONS.
- CENTER CUTTING.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/8	3/8	3/8	3-1/16	A 62200
5-32	3/8	7/16	3-1/8	A 62201
3/16	3/8	7/16	3-1/8	A 62202
7/32	3/8	1/2	3-1/8	A 62203
1/4	3/8	1/2	3-1/8	A 62204
9/32	3/8	9/16	3-1/8	A 62205
5/16	3/8	9/16	3-1/8	A 62206
11/32	3/8	9/16	3-1/8	A 62207
3/8	3/8	9/16	3-1/8	A 62208
13/32	1/2	13/16	3-3/4	A 62209
7/16	1/2	13/16	3-3/4	A 62210
15/32	1/2	13/16	3-3/4	A 62211
1/2	1/2	13/16	3-3/4	A 62212
9/16	5/8	1-1/8	4-1/2	A 62213
5/8	5/8	1-1/8	4-1/2	A 62214
11/16	3/4	1-5/16	5	A 62215
3/4	3/4	1-5/16	5	A 62216
7/8	7/8	1-9/16	5-1/2	A 62217
1	1	1-5/8	5-7/8	A 62218

TYPE 542 - FOUR FLUTE

- DOUBLE-ENDED VERSION OF SERIES 540 SINGLE-END TOOLS.
- RECOMMENDED FOR FINISHING OPERATIONS FOLLOWING ROUGH CUTS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/8	3/8	3/8	3-1/16	A 62231
5/32	3/8	7/16	3-1/8	A 62232
3/16	3/8	1/2	3-1/4	A 62233
7/32	3/8	9/16	3-1/4	A 62234
1/4	3/8	5/8	3-3/8	A 62235
9/32	3/8	11/16	3-3/8	A 62236
5/16	3/8	3/4	3-1/2	A 62237
11/32	3/8	3/4	3-1/2	A 62238
3/8	3/8	3/4	3-1/2	A 62239
13/32	1/2	1	4-1/8	A 62240
7/16	1/2	1	4-1/8	A 62241
15/32	1/2	1	4-1/8	A 62242
1/2	1/2	1	4-1/8	A 62243
9/16	5/8	1-3/8	5	A 62244
5/8	5/8	1-3/8	5	A 62245
11/16	3/4	1-5/8	5-5/8	A 62246
3/4	3/4	1-5/8	5-5/8	A 62247
13/16	7/8	1-7/8	6-1/8	A 62248
7/8	7/8	1-7/8	6-1/8	A 62249
1	1	1-7/8	6-3/8	A 62250

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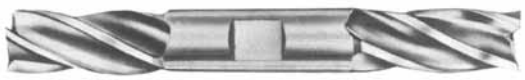
TYPE 543 - FOUR FLUTE

- CENTER CUTTING.
- DOUBLE-ENDED VERSION OF SERIES 541 SINGLE-END TOOLS.
- RECOMMENDED FOR SLABBING, SHALLOW POCKETING, TRACER MILLING, DIE SINKING AS WELL AS GENERAL PURPOSE OPERATIONS.



MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/8	3/8	3/8	3-1/16	A 62261
3/16	3/8	1/2	3-1/4	A 62262
1/4	3/8	5/8	3-3/8	A 62263
5/16	3/8	3/4	3-1/2	A 62264
3/8	3/8	3/4	3-1/2	A 62265
1/2	1/2	1	4-1/8	A 62266
5/8	5/8	1-3/8	5	A 62267
3/4	3/4	1-5/8	5-5/8	A 62268
7/8	7/8	1-7/8	6-1/8	A 62269
1	1	1-7/8	6-3/8	A 62270

NOTE: Due to special processing allow 2-3 weeks for delivery.

CIC 200™ END MILLS (Cont'd.)

HI-COB ROUGHING

TYPE 490

- **GENERAL PURPOSE**
- **RECOMMENDED FOR USE WHERE HEAVY ROUGHING CUTS ARE TO BE FOLLOWING WITH A FINISHING OPERATION.**
- **PROVIDE MAXIMUM METAL REMOVAL IN MINIMUM TIME.**

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	NO. OF FLUTES	PART	
1/2	1/2	1-1/4	3-1/4	4	A	62161
1/2	1/2	2	4	4	A	62162
5/8	5/8	1-5/8	3-3/4	4	A	62163
5/8	5/8	2-1/2	4-5/8	4	A	62164
3/4	5/8	1-5/8	3-7/8	4	A	62165
3/4	5/8	3	5-1/4	4	A	62166
3/4	3/4	1-5/8	3-7/8	4	A	62167
3/4	3/4	3	5-1/4	4	A	62168
7/8	3/4	1-7/8	4-1/8	4	A	62169
7/8	3/4	3-1/2	5-3/4	4	A	62170
7/8	7/8	1-7/8	4-1/8	4	A	62171
7/8	7/8	3-1/2	5-3/4	4	A	62172
1	3/4	2	4-1/4	4	A	62173
1	1	2	4-1/2	4	A	62174
1	1	4	6-1/2	4	A	62175
1-1/8	1	2	4-1/2	4	A	62176
1-1/4	3/4	4	6-1/4	6	A	62177
1-1/4	1-1/4	2	4-1/2	6	A	62178
1-1/4	1-1/4	3	5-1/2	6	A	62179
1-1/4	1-1/4	4	6-1/2	6	A	62180
1-1/2	3/4	4	6-1/4	6	A	62181
1-1/2	1-1/4	2	4-1/2	6	A	62182
1-1/2	1-1/4	3	5-1/2	6	A	62183
1-1/2	1-1/4	4	6-1/2	6	A	62184
1-1/2	1-1/4	5	7-1/2	6	A	62185
1-3/4	1-1/4	4	6-1/2	6	A	62186
2	1-1/4	2	4-1/2	6 or 8	A	62187
2	1-1/4	4	6-1/2	6 or 8	A	62188
2	2	3	6-3/4	6 or 8	A	62189
2	2	4	7-3/4	6 or 8	A	62190
2	2	6	9-3/4	6 or 8	A	62191
2	2	8	11-3/4	6 or 8	A	62192

NOTE: Due to special processing allow 2-3 weeks for delivery.

CIC 200™ MINIATURE END MILLS

DOUBLE END – TWO FLUTE

TYPE 562 - STUB LENGTH

- TWO FLUTE WITH MEDIUM HIGH HELIX ANGLE.
- RECOMMENDED FOR USE AT HIGHER SPEEDS REQUIRED FOR SMALL DIAMETER END MILLS IN SLOTTING, ENGRAVING, POCKETING AND SIMILAR OPERATIONS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/32	3/16	3/64	2	A 62281
3/64	3/16	1/16	2	A 62282
1/16	3/16	3/32	2	A 62283
5/64	3/16	1/8	2	A 62284
3/32	3/16	9/64	2	A 62285
7/64	3/16	5/32	2	A 62286
1/8	3/16	3/16	2	A 62287
9/64	3/16	7/32	2	A 62288
5/32	3/16	15/64	2	A 62289
11/64	3/16	1/4	2	A 62290
3/16	3/16	9/32	2	A 62291

TYPE 563 - STANDARD LENGTH

- TWO FLUTE WITH MEDIUM HIGH HELIX ANGLE.
- RECOMMENDED FOR USE AT HIGHER SPEEDS REQUIRED FOR SMALL DIAMETER END MILLS IN SLOTTING, ENGRAVING, POCKETING AND SIMILAR OPERATIONS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/32	3/16	3/32	2-1/4	A 62301
3/64	3/16	9/64	2-1/4	A 62302
1/16	3/16	3/16	2-1/4	A 62303
5/64	3/16	15/64	2-1/4	A 62304
3/32	3/16	9/32	2-1/4	A 62305
7/64	3/16	21/64	2-1/4	A 62306
1/8	3/16	3/8	2-1/4	A 62307
9/64	3/16	13/32	2-1/4	A 62308
5/32	3/16	7/16	2-1/4	A 62309
11/64	3/16	1/2	2-1/4	A 62310
3/16	3/16	1/2	2-1/4	A 62311

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DOUBLE END - FOUR FLUTE

TYPE 566 - STUB LENGTH

- FOUR FLUTE WITH MEDIUM HIGH HELIX ANGLE.
- RECOMMENDED FOR USE AT HIGHER SPEEDS IN SLOTTING, ENGRAVING, POCKETING AND SIMILAR OPERATIONS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/16	3/16	3/32	2	A 62321
3/32	3/16	9/64	2	A 62322
1/8	3/16	3/16	2	A 62323
5/32	3/16	15/64	2	A 62324
3/16	3/16	9/32	2	A 62325

TYPE 567 - STANDARD LENGTH

- FOUR FLUTE WITH MEDIUM HIGH HELIX ANGLE.
- RECOMMENDED FOR USE AT HIGHER SPEEDS IN SLOTTING, ENGRAVING, POCKETING AND SIMILAR OPERATIONS.

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART
1/16	3/16	3/16	2-1/4	A 62331
3/32	3/16	9/32	2-1/4	A 62332
1/8	3/16	3/8	2-1/4	A 62333
5/32	3/16	7/16	2-1/4	A 62334
3/16	3/16	1/2	2-1/4	A 62335

NOTE: Due to special processing allow 2-3 weeks for delivery.

CIC 200™ BALL END MILLS

STANDARD AND LONG LENGTH

TYPE 521 - STANDARD LENGTH

- *REGULAR LENGTH, TWO FLUTE.*
- *RECOMMENDED FOR MILLING FILLETS AND BOTTOM SLOTS WITH A RADIUS AND FOR ROUNDING THE BOTTOM OF BLIND HOLES. EXCELLENT FOR TEMPLATE FOLLOWER APPLICATIONS.*
- *CENTER CUTTING.*

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART	
1/8	3/8	3/8	2-5/16	A	62341
3/16	3/8	1/2	2-3/8	A	62342
1/4	3/8	5/8	2-7/16	A	62343
5/16	3/8	3/4	2-1/2	A	62344
3/8	3/8	3/4	2-1/2	A	62345
7/16	1/2	1	3	A	62346
1/2	1/2	1	3	A	62347
9/16	1/2	1-1/8	3-1/8	A	62348
5/8	1/2	1-1/8	3-1/8	A	62349
3/4	1/2	1-5/16	3-5/16	A	62350
5/8	5/8	1-3/8	3-1/2	A	62351
3/4	3/4	1-5/8	3-7/8	A	62352
7/8	3/4	1-7/8	4-1/8	A	62353
7/8	7/8	2	4-1/4	A	62354
1	3/4	2-1/4	4-1/2	A	62355
1	1	2-1/4	4-3/4	A	62356
1-1/8	1	2-1/4	4-3/4	A	62357
1-1/4	1-1/4	2-1/2	5	A	62358
1-1/2	1-1/4	2-1/2	5	A	62359

TYPE 526 - LONG LENGTH

- *LONGER VERSION OF SERIES 521, TWO FLUTE.*
- *RECOMMENDED FOR SIMILAR OPERATIONS AS THE SERIES 521, ALLOWING FOR WORKING IN DEEPER CAVITIES AND POCKETS.*

MILL DIA.	SHANK DIA.	LENGTH SHAFT	LENGTH OF CUT	OVERALL LENGTH	PART	
1/8	3/8	13/16	3/8	2-3/8	A	62371
3/16	3/8	1-1/8	1/2	2-11/16	A	62372
1/4	3/8	1-1/2	5/8	3-1/16	A	62373
5/16	3/8	1-3/4	3/4	3-5/16	A	62374
3/8	3/8	1-3/4	3/4	3-5/16	A	62375
7/16	1/2	1-7/8	1	3-11/16	A	62376
1/2	1/2	2-1/4	1	4	A	62377
5/8	5/8	2-3/4	1-3/8	4-5/8	A	62378
3/4	3/4	3-3/8	1-5/8	5-3/8	A	62379
1	1	5	2-1/2	7-1/4	A	62380
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-
-	-	-	-	-		-

TYPE 544 - STANDARD LENGTH

- **REGULAR LENGTH, FOUR FLUTE, CENTER CUTTING.**
- **RECOMMENDED FOR TRACER MILLING, DIE SINKING, FILLET MILLING AND SIMILAR OPERATIONS WHERE A BALL-END MILL IS REQUIRED.**
- **CENTER CUTTING.**

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART	
3/8	3/8	3/4	2-1/2	A	62411
1/2	1/2	1-1/4	3-1/4	A	62412
5/8	5/8	1-5/8	3-3/4	A	62413
3/4	3/4	1-5/8	3-7/8	A	62414
7/8	7/8	1-7/8	4-1/8	A	62415
1	1	2	4-1/2	A	62416
1-1/4	1-1/4	2	4-1/2	A	62417
1-1/2	1-1/4	2	4-1/2	A	62418
-	-	-	-		-
-	-	-	-		-

TYPE 523 - STANDARD LENGTH

- **REGULAR LENGTH, TWO FLUTE, DOUBLE-END MILLS WITH SAME FEATURES AS 521 SERIES.**
- **RECOMMENDED FOR MILLING FILLETS AND BOTTOM SLOTS, ROUNDING THE BOTTOM OF BLIND HOLES.**

MILL DIA.	SHANK DIA.	LENGTH OF CUT	OVERALL LENGTH	PART	
1/8	3/8	3/8	3-1/16	A	62391
3/16	3/8	7/16	3-1/8	A	62392
1/4	3/8	1/2	3-1/8	A	62393
5/16	3/8	9/16	3-1/8	A	62394
3/8	3/8	9/16	3-1/8	A	62395
7/16	1/2	13/16	3-3/4	A	62396
1/2	1/2	13/16	3-3/4	A	62397
5/8	5/8	1-/8	4-1/2	A	62398
3/4	3/4	1-5/16	5	A	62399
1	1	1-5/8	5-7/8	A	62300

NOTE: Due to special processing allow 2-3 weeks for delivery.

SUGGESTED SPEED AND FEED DATA FOR COBALT HIGH SPEED STEEL END MILL IN VARIOUS APPLICATIONS AND MATERIALS.

	Heat-Resistant Austenitic Alloys Heat-Resistant Nickel Base Alloys High Strength Stainless Alloys High Strength Titanium Alloys		High Tensile Steel Medium Strength Stainless Steels Medium Strength Titanium Alloys		Medium Tensile Steels Unalloyed Titanium Alloys Heat-Resistant Ferritic Low Alloys		Mild Steel Forging Hard Brass and Bronze Copper		Mild Steels Cast Iron Brass Bronze		Aluminum Aluminum Alloys Plastics Wood	
Number of Flutes	2 or More Flutes		2 or More Flutes		2 or More Flutes		2 or More Flutes		2 or More Flutes		2 or More Flutes	
Diam. of End Mills	Speed 10-20SPM	Feed	Speed 30-40SPM	Feed	Speed 50-60SPM	Feed	Speed 70-90SPM	Feed	Speed 100-120SPM	Feed	Speed 200-400SPM	Feed
	RPM	Inch/Min	RPM	Inch/Min	RPM	Inch/Min	RPM	Inch/Min	RPM	Inch/Min	RPM	Inch/Min
1/16"	*	–	1834-2445	3/4"	3057-3668	1-1/4"	4280-5502	4"	6112-7333	3-1/8"	12222Up	5-1/8"
3/32"	*	–	1222-1426	3/4"	2038-2445	1-1/4"	2853-3668	4"	4073-4890	3-1/8"	8146Up	5-1/8"
1/8"	*	–	917-1222	3/4"	1528-1834	1-1/4"	2139-2750	4"	3056-3667	3-1/2"	6112Up	5-1/2"
3/16"	204-407	1/2"	611-815	1-1/4"	1019-1222	1-5/8"	1426-1834	4-3/4"	2037-2445	4"	4074-8148	5-7/8"
1/4"	153-309	1/2"	458-611	1-1/4"	764-917	1-5/8"	1070-1376	5-1/8"	1528-1833	4-3/4"	3056-6112	8"
5/16"	122-244	1/2"	357-489	1-5/8"	611-733	2"	856-978	5-1/2"	1222-1467	5-7/8"	2444-4888	12"
3/8"	102-204	5/8"	306-408	2"	509-611	2"	713-916	5-7/8"	1019-1222	6-5/16"	2038-4076	14"
7/16"	87-175	5/8"	262-349	2"	437-524	2"	611-786	5-7/8"	873-1048	6-5/16"	1746-3492	16"
1/2"	76-153	3/4"	229-305	2-3/8"	382-459	2"	535-688	4-3/4"	764-917	5-7/8"	1528-3056	16"
3/16"	68-137	3/4"	204-272	2-3/8"	340-407	2"	475-611	4"	678-805	5-1/2"	1356-2712	16"
5/8"	61-122	3/4"	184-245	2-3/8"	306-367	2-3/8"	428-552	4"	611-733	5-1/2"	1222-2444	16"
11/16"	55-112	3/4"	167-222	2-3/8"	278-333	2-3/8"	389-500	4"	555-671"	5-1/2"	1110-2220	16"
3/4"	51-102	3/4"	153-203	2"	254-306	2-3/8"	357-458	3-1/2"	509-611	5-1/8"	1018-2036	16"
13/16"	47-95	3/4"	142-190	2"	237-284	2-3/8"	332-427	3-1/2"	491-568	5-1/8"	938-1876	15"
7/8"	44-87	3/4"	131-185	2"	219-262	2-3/8"	306-392	3-1/2"	473-524	4-3/4"	872-1744	14"
15/16"	40-81	3/4"	123-163	2"	205-246	2"	287-366	3-1/8"	427-491	4-3/4"	814-1628	13"
1"	38-76	3/4"	115-153	1-5/8"	191-229	2"	267-344	3-1/8"	382-458	4-3/4"	764-1528	12"
1-1/8"	34-68	3/4"	102-135	1-5/8"	170-204	2"	238-306	2-3/4"	340-407	4-3/4"	680-1360	10"
1-1/4"	31-61	3/4"	92-123	1-1/4"	153-183	2"	214-274	2-3/4"	306-367	4"	612-1224	8-1/2"
1-3/8"	28-56	3/4"	83-111	1-1/4"	139-167	2"	195-250	2-3/8"	278-333	4"	556-1112	7"
1-1/2"	25-51	5/8"	76-102	1-1/4"	127-153	2"	178-229	2-3/8"	255-306	3-1/2"	510-1070	6"
1-5/8"	35	5/8"	70-94	1-1/4"	118-141	1-5/8"	165-212	2"	235-282	3-1/8"	470-940	6"
1-3/4"	32	5/8"	66-88	1-1/4"	109-131	1-5/8"	153-196	2"	218-262	2-3/4"	436-872	5-1/2"
1-7/8"	30	5/8"	62-81	3/4"	102-122	1-1/4"	143-183	1-5/8"	204-244	2-3/4"	408-816	5-1/2"
2"	29	5/8"	57-76	3/4"	96-115	1-1/4"	134-172	1-5/8"	191-229	2-3/8"	382-764	4-3/4"

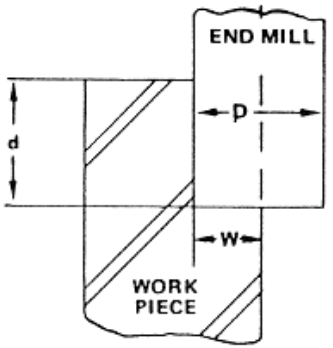
CHROMATE INDUSTRIAL CORP.
Bohemia, N.Y. 11716 516/567-2200

The above speeds and feeds are applicable for slotting cuts, half (1/2) diameter deep. For deeper slotting cuts or cavity applications, feed should be decreased.

CHROMATE - Quality...Service...Performance

SUGGESTED SPEED AND FEED DATA FOR COBALT HIGH SPEED STEEL ROUGHING CUT END MILL IN VARIOUS APPLICATIONS AND MATERIALS.

Materials Mill Dia.	Mild Steel Forging Hard Brass Bronze Copper		High Tensile Steel Medium Strength- Stainless Steel, Medium Strength- Titanium Alloys		Medium Tensile Steel Unalloyed Titanium- Alloys, Heat Resistant- Ferritic Low Alloys		Cast Iron Brass Bronze		Aluminum	
	RPM	FEED INCH/MIN.	RPM	FEED INCH/MIN.	RPM	FEED INCH/MIN.	RPM	FEED INCH/MIN.	RPM	FEED INCH/MIN.
1/2	690	3-1/2"	460	1-3/8"	535	2-3/8"	645	4"	2520	17"
5/8	550	4-3/8"	370	1-1/2"	430	2-3/8"	515	4-1/2"	2020	18"
3/4	460	4-5/8"	305	2"	355	2-3/4"	425	5"	1680	16"
7/8	395	4-1/2"	260	2"	305	2-3/4"	365	5"	1440	15"
1	345	4-1/8"	230	1-3/4"	265	2-1/2"	320	4-1/2"	1260	13"
1-1/8	305	4"	200	1-3/4"	235	2-3/8"	285	4-1/8"	1120	12"
1-1/4	275	4-5/8"	180	2-1/8"	215	2-3/4"	255	5"	1000	10"
1-1/2	230	4"	150	2"	175	2-3/4"	215	4-1/8"	840	9"
1-3/4	195	3-3/4"	130	1-3/4"	150	2-1/2"	180	4"	720	8"
2	170	3-3/8"	115	1-3/4"	130	2-3/8"	160	3-1/2"	630	7"



1/2" up to 1-1/8" —— d = 1.5D W = 0.5D

1-1/4" up to 2" —— d = 1.0D W = 0.5D

CHROMATE® INDUSTRIAL CORP.

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CHROMATE - Quality...Service...Performance

25A.2

PORTA-PAK Specials

BOSCH SABER SAW BLADE

P/N 17894

- Saber/Jig Saw Blades - Bosch shank
- Bi-metal construction of high cobalt content
- High speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Less breakage and lasts longer than conventional carbon and all high speed steel blades

QTY	BOSCH SAW BLADE	PART #	QTY	BOSCH SAW BLADE	PART #
3	3" x 14 TPI	19212	3	3" x 18 TPI	19213
3	3" x 24 TPI	19216	3	4" x 8 TPI	19217

JIG/SABER SAW BLADE

P/N 17895

- Saber/Jig Saw Blades - 1/4" shank
- Bi-metal construction of high cobalt content
- High speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Less breakage and lasts longer than conventional carbon and all high speed steel blades

QTY	JIG/SABER SAW BLADE	PART #	QTY	JIG/SABER SAW BLADE	PART #
3	2-3/4" x 18 TPI	19202	3	2-3/4" x 24 TPI	19203
4	3-5/8" x 10 TPI	19200	4	3-5/8" x 14 TPI	19201

PORTA-PAK Specials

COARSE RECIPROCATING SAW BLADES

P/N 17896

- Reciprocating saw blade - 1/2" shank
- Bi-metal construction of high cobalt content
- High speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Less breakage and lasts longer than conventional carbon and all high speed steel blades

QTY	RECIPROCATING SAW BLADE	PART #	QTY	RECIPROCATING SAW BLADE	PART #
4	6" x 10 TPI	19410	3	6" x 5/8 TPI	19455
4	6" x 10/14 TPI	19405			

FINE RECIPROCATING SAW BLADES

P/N 17897

- Reciprocating saw blades- 1/2" shank
- Bi-metal construction of high cobalt content
- High speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Less breakage and lasts longer than conventional carbon and all high speed steel blades

QTY	RECIPROCATING SAW BLADE	PART #	QTY	RECIPROCATING SAW BLADE	PART #
4	6" x 14 TPI	19414	3	6" x 24 TPI	19420
4	6" x 18 TPI	19417			

PORTA-PAK Specials

4" RECIPROCATING SAW BLADE

P/N 17898

- Reciprocating saw blades - 1/2" shank
- Bi-metal construction of high cobalt content, high speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Bi-metal blades reduce breakage and last longer than conventional carbon and all high steel blades
- Wider, thicker blades provide higher beam strength and greater rigidity allowing more feed pressure for faster cutting with less distortion

QTY	4" RECIPROCATING SAW BLADE	PART #	QTY	4" RECIPROCATING SAW BLADE	PART #
5	4" x 14 TPI	19413	5	4" x 18 TPI	19416
4	4" x 24 TPI	19419			

TCG RECIPROCATING SAW BLADE

P/N 17899

- Thousands of particles of tungsten carbide (one of the hardest materials known) are permanantly bonded to tough alloy steel, forming a cutting edge of uncomparable ability
- They will cut through the hardest of steels and most abrasive materials with ease

QTY	TCG RECIPROCATING SAW BLADE	PART #	QTY	TCG RECIPROCATING SAW BLADE	PART #
1	3-1/2" x 1/4	22760	2	4" x 5/8	22740
2	6 x 5/8	22780			

PORTA-PAK Specials

RECIPROCATING SAW HANDLE

P/N 19511

RECIPROCATING SAW HANDLE

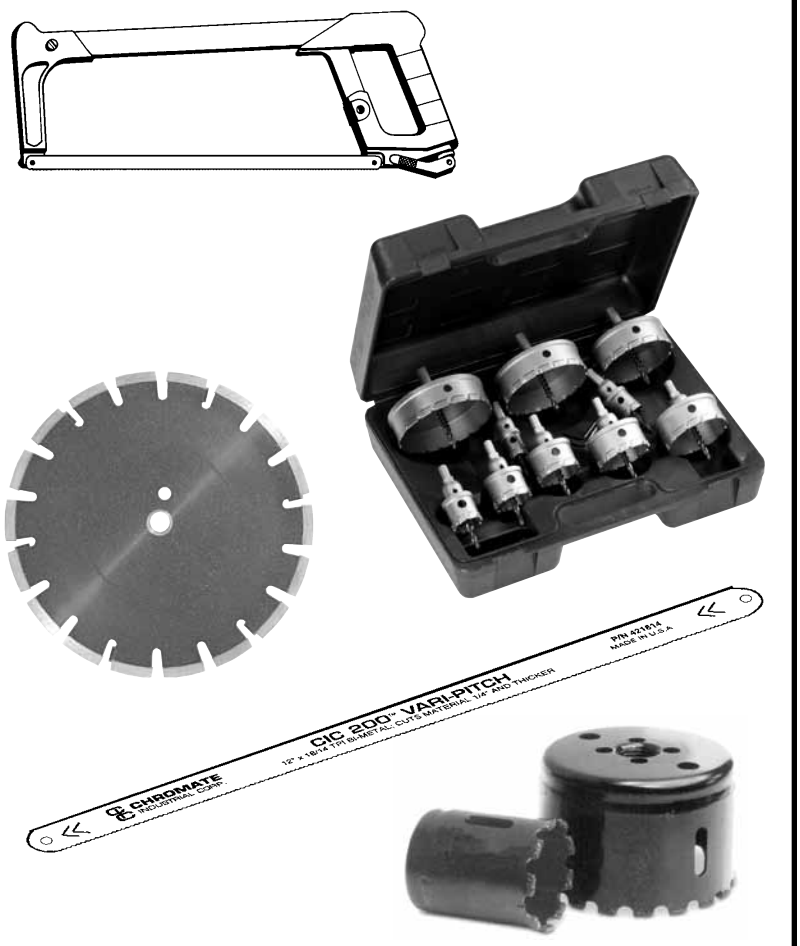
- Handle uses any standard reciprocating saw blade
- Quick-twist lock holds blade or bit holder in place quickly and easily
- Ergonomic handle with angled setting for added leverage
- Also uses any standard 1/4" bit holder, nut driver, power bit, etc.
- Handles store 6 of the most popular insert bits: #5 & #6 slotted, #1 & #2 phillips and T15 & T20 torx bits

RECIPROCATING SAW BLADES

- Reciprocating saw blades - 1/2" shank
- Bi-metal construction of high cobalt content, high speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability
- Bi-metal blades reduce breakage and last longer than conventional carbon and all high steel blades
- Wider, thicker blades provide higher beam strength and greater rigidity allowing more feed pressure for faster cutting with less distortion

QUANTITY	DESCRIPTION	PART #
1	RECIPROCATING HOLDER WITH 6 INSERT BITS	30385H
1	MAGNETIC BIT HOLDER	83020
2	6-6T CIC 200™ BI-METAL RECIPROCATING BLADE	19408
2	6-10T CIC 200™ BI-METAL RECIPROCATING BLADE	19410
2	6-18T CIC 200™ BI-METAL RECIPROCATING BLADE	19417
2	6-24T CIC 200™ BI-METAL RECIPROCATING BLADE	19420
1	#5 SLOTTED INSERT BIT	83071
1	#6 SLOTTED INSERT BIT	83072
1	#1 PHILLIPS INSERT BIT	83021
1	#2 PHILLIPS INSERT BIT	83022
1	T15 TORX INSERT BIT	83055
1	T20 TORX INSERT BIT	83056

SAW BLADES



- **Hacksaw Blades**
- **Reciprocating Saw Blades**
- **Sabre/Jig Saw Blades**
- **Band Saw Blades**
- **Hole Saws**
- **Carbide Tipped Hole Cutters**
- **Tough, Wear-Resistant Blades**
- **Diamond Blades**
- **Hardened, High-Speed Steel Cutting Edges**

CHROMATE SAW BLADES CUT THROUGH HARDER MATERIALS, FASTER AND MORE DURABLY THAN ORDINARY SAW BLADES. Manufactured from the finest alloy steels to exacting specifications. Always use Chromate Saw Blades for maximum speed, accuracy and performance.

CHROMATE INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

CIC 200™ BI-METAL HACKSAW BLADES

OUTPERFORMS ORDINARY HACKSAW BLADES

Outperforms ordinary hacksaw blades for cutting common steels, stainless steel, cast iron, aluminum, brass, copper, inconel and others.

VARI-PITCH TOOTH DESIGN

- **SUPER SHARP TOOTH DESIGN –**
  ASSURES EASIER STARTING AND FASTER CUTTING
- **HARD ALLOY BACK BEAM –**
  PROVIDES MAXIMUM STRENGTH AND RESISTANCE TO BENDING, TWISTING, BINDING AND VIBRATION
- **UNIQUE, HIGH STRENGTH ALLOY TEETH –**
  MAINTAINS SHARPNESS AND DURABILITY WHILE CUTTING THE TOUGHEST JOBS
- **FLEXIBLE AND SHATTER-RESISTANT –**
  FOR GREATER SAFETY

TEETH PER INCH	LENGTH	MATERIALS	PART
18-14	12"	1/4" and Thicker	421814
24-20	12"	1/16" to 1/4" Thick	422420
32-26	12"	Up to 1/16" Thick	423226

TRI-PITCH TOOTH DESIGN

32 TPI *gets the cut started*

24 TPI *allows for more aggressive strokes*

18 TPI *completes the cutting stroke*

- **LEAD OFF WITH 32 TPI, 24 TPI IN THE MIDDLE AND 18 TPI FINISHES THE CUT –**
  DEPENDING ON THE MATERIAL, YOU HAVE THE OPTION OF ISOLATING ONE SECTION OF THE BLADE OR UTILIZING MAXIMUM CUTTING EFFICIENCY WITH ALL THREE
- **SUPER SHARP TOOTH DESIGN –**
  ASSURES EASIER STARTING AND FASTER CUTTING
- **HARD ALLOY BACK BEAM –**
  PROVIDES MAXIMUM STRENGTH AND RESISTANCE TO BENDING, TWISTING, BINDING AND VIBRATION
- **UNIQUE, HIGH STRENGTH ALLOY TEETH –**
  MAINTAINS SHARPNESS AND DURABILITY WHILE CUTTING THE TOUGHEST JOBS
- **FLEXIBLE AND SHATTER-RESISTANT –**
  FOR GREATER SAFETY

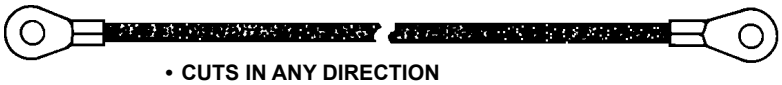
TEETH PER INCH	LENGTH	MATERIALS	PART
18-24-32	12"	1/4" and Thinner	42182432

CIC 200™ TUNGSTEN CARBIDE HACKSAW BLADES

SUPER HARD TUNGSTEN CARBIDE

Super hard tungsten carbide particles permanently bonded to a strong alloy steel allows these blades to cut through the toughest materials.

CIC 200™ TUNGSTEN CARBIDE HACKSAW AND RODSAW BLADES



17770

P/N 22600

- CUTS IN ANY DIRECTION
- CUTS CONTOURS AND ANGLES
- 360° CUTS THROUGH TOUGH MATERIALS

P/N 22700

- STRAIGHT CUTTING THROUGH TOUGH MATERIALS
- VIRTUALLY UNBREAKABLE

CUTS THROUGH:

- CABLES
- CAST IRON
- CEMENT
- CERAMIC TILE
- BRICK
- CHROME PLATED PARTS
- HYDRAULIC HOSES
- STAINLESS STEEL
- TAIL PIPES
- VALVE STEMS
- CHAINS
- HARDENED STEEL
- SLATE
- BRAKE MATERIALS
- GLASS
- RUSTED BOLTS
- TITANIUM
- SPRINGS
- MARBLE
- AND MUCH, MUCH MORE!

DESCRIPTION	LENGTH		PART
ROD SAW BLADE	12"	A	22600
HACKSAW BLADE	12"	A	22700

HACKSAW FRAME

"BLACK MAX" SUPER HEAVY DUTY HIGH TENSION HACKSAW FRAME

- PRECISION CAST ALUMINUM/STEEL FRAME.
- LEVER TENSIONS BLADE TO 60,000 P.S.I. WITH 8 FULL TURNS.
- BLADE WON'T BIND IN TOUGH MATERIALS OR STRUCTURALS.
- CUTS AT 90°, 45° OR FLUSH.
- USE AS JAB SAW OR COMPASS SAW.
- EXTENDS BLADE LIFE AND MINIMIZES BLADE BREAKAGE.

DESCRIPTION		PART
"BLACK MAX" HACKSAW FRAME	A	30386

CIC 200™ POWER HACKSAW BLADES

WELDED EDGE

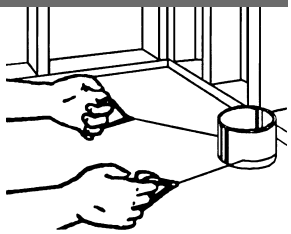
High speed steel cutting edge welded to alloy back for faster cutting and longer life.

LENGTH	WIDTH	THICKNESS	TEETH PER INCH	WORK THICKNESS		PART
12	1	.050	14	1/8	A	52495
14	1	.050	14	1/8	A	52500
12	1	.050	10	1/2	A	52605
14	1	.050	10	1/2	A	52608
14	1-1/4	.062	10	1/2	A	52610
17	1	.050	10	1/2	A	52612
17	1-1/4	.062	10	1/2	A	52614
14	1-1/4	.062	6/4	5/8	A	52700
14	1-1/2	.075	6/4	5/8	A	52701
18	1-3/4	.088	6/4	5/8	A	52705
21	1-3/4	.088	6/4	5/8	A	52706
14	1-1/4	.062	6	5/8	A	52710
18	1-1/4	.062	6	5/8	A	52725
18	1-1/2	.075	6	5/8	A	52730
18	1-3/4	.088	6	5/8	A	52735
21	1-3/4	.088	6	5/8	A	52740
14	1-1/2	.075	4	7/8	A	52745
18	1-3/4	.088	4	7/8	A	52755
21	1-3/4	.088	4	7/8	A	52760
24	2	.100	4	7/8	A	52765

PVC CABLE SAW

HEAVY DUTY RUST-PROOF STAINLESS STEEL CABLE

- **CONSTRUCTED OF RUST-PROOF STAINLESS STEEL CABLE**
- **ACTUALLY MELTS THROUGH PVC PIPE IN SECONDS**
- **CUTS UP TO 4" PLUMBING OR ELECTRICAL PVC**
- **IDEAL FOR TIGHT SPOTS AND IN-GROUND REPAIRS**
- **SAW LIFE APPROXIMATELY 60 TO 100 CUTS**



DESCRIPTION		PART
PVC CABLE SAW – 26" LENGTH	A	22610

CIC 200™ BI-METAL SAW BLADES

RECIPROCATING SAW BLADES — 1/2" SHANK

Bi-metal construction of high cobalt content, high speed steel teeth welded to shatter-resistant alloy steel back for faster cutting and greater durability. Bi-metal blades reduce breakage and last longer than conventional carbon and all high speed steel blades.

METAL CUTTING

WIDER, THICKER BLADES:
- Provide higher beam strength and greater rigidity allowing more feed pressure for faster cutting with less distortion

MATRIX CUTTING EDGE:
- High cobalt content (8%) for better shock and heat resistance – assuring faster cutting, longer life and less tooth strippage

19417

19413

19418

19426

19429

17660

17713

TUBE ASSORTMENTS:
17657, Metal Magicians #1
17658, Metal Magicians #2

TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
14	4 x 3/4 x .035	Heavy gauge metals 1/8" and thicker. Bar stock and angles.	I	19413
14	6 x 3/4 x .035	Heavy gauge metals 1/8" and thicker. Bar stock and angles.	I	19414
14	9 x 3/4 x .035	Heavy gauge metals 1/8" and thicker. Bar stock and angles.	E	19429
18	4 x 3/4 x .035	Heavy gauge metals 18 gauge to 1/8" thick. Conduit, pipe, channels & tubing.	I	19416
18	6 x 3/4 x .035	Heavy gauge metals 18 gauge to 1/8" thick. Conduit, pipe, channels & tubing.	I	19417
18	8 x 3/4 x .035	Heavy gauge metals 18 gauge to 1/8" thick. Conduit and tubing.	F	19418
18	12 x 3/4 x .035	Heavy gauge metals 18 gauge to 1/8" thick. Conduit, pipe, channels & tubing.	F	19428
24	4 x 3/4 x .035	Metals 18 gauge and under. Trim, tubing and galvanized pipe.	I	19419
24	6 x 3/4 x .035	Metals 18 gauge and under. Trim, tubing and galvanized pipe.	I	19420
18	3 x 1/4 x .035	Scroll cutting in light gauge ferrous and non-ferrous metals, wood and aluminum under 1/8" thick.	I	19426

WOOD CUTTING

19409

19424

TUBE ASSORTMENTS:
17656, Wood Wizards

17661

TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
6	6 x 3/4 x .050	Fast cutting in all woods or nail-embedded wood. General roughing in work.	E	19408
6	9 x 3/4 x .050	Fast cutting in all woods or nail-embedded wood. General roughing in work.	E	19424
6	12 x 3/4 x .050	Fast cutting in all woods or nail-embedded wood. General roughing in work.	E	19409
10/14	12 x 3/4 x .050	All woods, plastic, cast aluminum, nail-embedded wood, soil, pipe.	E	19218

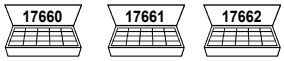
CIC 200™ BI-METAL SAW BLADES

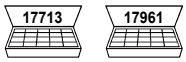
RECIPROCATING SAW BLADES — 1/2" SHANK

WOOD AND METAL CUTTING

19410

19405





19427

19411

TUBE ASSORTMENTS:
17656, Wood Wizards
17657, Metal Magicians #1
17658, Metal Magicians #2
17659, HD Hybrids

19441, 19445 & 19448 ANNIHILATOR™ BLADE

19453-19458 DEMOLITION™ BLADE

TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
10/14	6 x 3/4 x .050	All woods, plastic, cast aluminum, nail-embedded wood & soil pipe.	E	19405
10	6 x 3/4 x .035	Wood, nail-embedded wood, compositions, plastic, cast aluminum & non-ferrous metals.	E	19410
10	8 x 3/4 x .035	All woods, nail-embedded wood, cast aluminum & light gauge metals.	E	19427
10/14	8 x 3/4 x .050	All woods, plastic, cast aluminum, nail-embedded wood & soil pipe.	E	19411
14	6 x 1 x .042	For cutting wood, nail-embedded wood and metal (Annihilator™ Blade).	C	19441
14	9 x 1 x .042	For cutting wood, nail-embedded wood and metal (Annihilator™ Blade).	C	19445
14	12 x 1 x .042	For cutting wood, nail-embedded wood and metal (Annihilator™ Blade).	C	19448
5/8	6 x 7/8 x .062	For cutting wood, nail-embedded wood and metal (Demolition™ Blade)	E	19455
6	9 x 7/8 x .062	For cutting wood, nail-embedded wood and metal (Demolition™ Blade).	C	19453
10	9 x 7/8 x .062	For cutting wood, nail-embedded wood and metal (Demolition™ Blade).	C	19454
6	12 x 7/8 x .062	For cutting wood, nail-embedded wood and metal (Demolition™ Blade).	B	19457
10	12 x 7/8 x .062	For cutting wood, nail-embedded wood and metal (Demolition™ Blade).	B	19458

FIRE AND RESCUE BLADES

- Wavy tooth set reduces pinching during cuts
- Profile designed for plunge cutting
- Smooth, quick and efficient cutting of layered materials
- For professional extrication uses
- Reliable, long lasting cutting edge
- Cuts more smoothly through a variety of materials without binding

19421

19422

19423

TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
10	6 x 7/8 x 0.062	Fast cutting, demolition, nail-embedded wood, composites, plastics, metals	A	19421
10	9 x 7/8 x 0.062	Fast cutting, demolition, nail-embedded wood, composites, plastics, metals	A	19422
10	12 x 7/8 x 0.062	Fast cutting, demolition, nail-embedded wood, composites, plastics, metals	A	19423

CIC 200™ BI-METAL SAW BLADES

RECIPROCATING SAW BLADES — 1/2" SHANK

19477

PLASTER CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
6	6 x 3/4 x .035	Plaster with metal lathe, plaster board, sheet rock and plaster walls. Tooth design cuts on forward and back stroke.	I	19477

SABRE / JIG SAW BLADES — 1/4" SHANK

19207

19200

19201

19202

19203

METAL CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
18	2-3/4 x 3/8 x .035	Metal under 18 gauge	I	19202
24	2-3/4 x 3/8 x .035	Ferrous and non-ferrous metal to 1/8" thick	I	19203
WOOD CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
6	3-5/8 x 3/8 x .035	Wood, fiberboard, coarsecut.	I	19207
10	3-5/8 x 3/8 x .035	Wood, plywood, hard-board, smooth finish of wood and plastic.	I	19200
WOOD AND METAL CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
14	3-5/8 x 3/8 x .035	Mild steel, non-ferrous metals, fiberglass, hard rubber and nail-embedded wood.	I	19201

CIC 200™ BI-METAL SAW BLADES

SABRE / JIG SAW BLADES — BOSCH SHANK

19214

19213

19217

19216

19212

METAL CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
14	3 x 3/8 x .035	Ferrous and non-ferrous metals 1/8" and thicker	E	19212
18	3 x 3/8 x .035	Metals over 18 gauge. Tubing, conduit.	E	19213
24	3 x 3/8 x .035	Thin metals, plastics. Fine cuts under 18 gauge.	E	19216

WOOD CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
6	4 x 5/16 x .050	Wood, fiberboard, roughing work and fast cutting.	E	19214
8	4 x 5/16 x .040	General purpose wood cutting, compositions & plastic.	E	19217

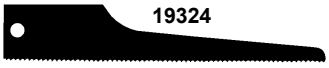
BI-METAL AIR SAW BLADES

PNEUMATIC SABRE SAW BLADES

Bi-metal construction cuts through pipe, mild steel, aluminum, plastic and fiberglass.

19314

19318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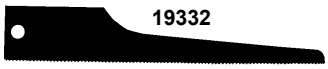

19332

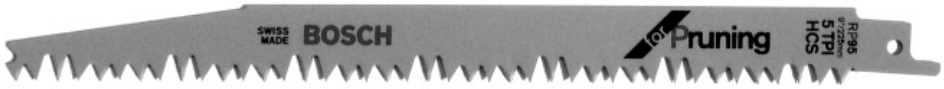
DESCRIPTION	LENGTH	TPI		PART
Bi-Metal Blade	3"	14	E	19314
Bi-Metal Blade	3"	18	E	19318
Bi-Metal Blade	3"	24	E	19324
Bi-Metal Blade	3"	32	E	19332

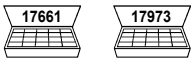
CIC 200™ STANDARD SAW BLADES

DURABLE CARBON AND HIGH-SPEED STEEL CONSTRUCTION

Milled teeth, set and hardened for maximum performance in metal, wood and other materials.

RECIPROCATING SAW BLADES – 1/2" SHANK





WOOD CUTTING				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
5	9 x 3/4 x .050	Very fast cutting, roughing-in work in wood, pruning	E	19401

SABRE / JIG SAW BLADES – 1/4" SHANK

19499

19406 ***"RAZOR-EDGE"***

19407 ***"RAZOR-EDGE"***

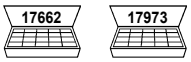
WOOD CUTTING / SPECIAL PURPOSE				
TEETH PER INCH	DIMENSIONS L x W x T	RECOMMENDED USES		PART
10	4 x 5/16 x .050	Reverse teeth for cutting laminated materials from top side to eliminate chipping. Extra-fine cut.	E	19499
10	4 x 5/16 x .050	Softwood, hardwood, plywood, chipboard, plastic up to 2" thick, clean/fast cutting	E	19406
6	4 x 5/16 x .050	Softwood, hardwood, plywood, chipboard, plastic up to 2" thick, clean/fast cutting	E	19407

CIC 200™ TUNGSTEN CARBIDE EDGE SAW BLADES

A CUTTING EDGE OF UNCOMPARABLE ABILITY

Thousands of particles of tungsten carbide (one of the hardest materials known) are permanently bonded to tough alloy steel, forming a cutting edge of uncomparable ability. They will cut through the hardest of steels and most abrasive materials with ease.

RECIPROCATING SAW – 1/2" UNIVERSAL SHANK



DESCRIPTION	LENGTH	GRIT	PART	
Standard Blade	4"	Coarse	B	22740
Standard Blade	6"	Coarse	B	22780
Standard Blade	8"	Coarse	A	22782

SABRE/JIG SAW – 1/4" UNIVERSAL SHANK

DESCRIPTION	LENGTH	GRIT	PART	
Standard Blade	2-7/8"	Medium	B	22720

SABRE/JIG SAW – BOSCH TYPE SHANK

DESCRIPTION	LENGTH	GRIT	PART	
Standard Blade	3"	Medium	B	22800

Sāf-T-Küt™ CARBIDE TIPPED SAW BLADES

RECIPROCATING SAW BLADES – 1/2" SHANK

Designed to safely cut through drywall and plaster without damaging hidden lines within walls. The carbide tipped blades were developed by contractors just like you that were spending time and money fixing mistakes created by old style blades.

- **Fits any reciprocating saw**
- **Keeps plumbing and electrical lines safe**
- **Cuts through drywall and plaster easily**
- **Eliminates dust**

DRYWALL AND PLASTER CUTTING

DESCRIPTION	LENGTH	PART	
Specialty Blade	2-1/8"	B	19270

DIAMOND/DOUBLE TANG RECIP SAW BLADES

LENOX DIAMOND & DIAMOND DOUBLE TANG RECIPROCATING SAW BLADES

- **NICKEL ALLOY-BRAZED DIAMOND PARTICLES** maintain sharpness to keep cutting after conventional carbide grit fails.
- **DOUBLE TANG** allows end user to flip blade around reducing amount of wasted grit and maximizing cost per cut. *Extends the life of the blade 6X longer (9" & 11" blades)!*
- **CUTS 3X FASTER***
  A narrow kerf design enables thinner, faster cuts.
- **STRAIGHT, CLEAN CUTS**
  Unlike bulky snap cutters which crush pipes and leave ragged, uneven cuts, LENOX DIAMOND cuts clean.
- **VERSATILE**
  Cuts cast iron, tile, brick and natural stone.

*Speed measured cutting 4" cast iron pipe at maximum speed vs. the leading competitor.

19283 - 8"

19285 - 11"

19284 - 9"

LENOX DIAMOND

GRIT	DIMENSIONS L x W x T	RECOMMENDED USES	PART	
Diamond	8" x 3/4" x .040"	Cuts cast iron, tile, brick and natural stone	A	19283
Diamond	9" x 3/4" x 042"	Cuts cast iron, tile, brick and natural stone	A	19284
Diamond	11" x 3/4" x 042"	Cuts cast iron, tile, brick and natural stone	A	19285

RECIPROCATING SAW ASSORTMENT

FOR ANY STANDARD RECIPROCATING SAW BLADE

Assortment comes with one CIC 200™ Bi-Metal Reciprocating Blade and one 6-18T CIC 200™ Bi-Metal Reciprocating Blade.

RECIPROCATING SAW HANDLE ASSORTMENT

- **HANDLE USES ANY STANDARD RECIPROCATING SAW BLADE**
- **QUICK-TWIST LOCK HOLDS BLADE AND BIT HOLDER IN PLACE QUICKLY AND EASILY**
- **ERGONOMIC HANDLE WITH ANGLED SETTING FOR ADDED LEVERAGE**
- **ALSO USES ANY STANDARD 1/4" BIT HOLDER, NUT DRIVER, POWER BIT, ETC.**
- **HANDLES STORE 6 OF THE MOST POPULAR INSERT BITS: #5 & #6 SLOTTED, #1 & #2 PHILLIPS, AND T15 * T20 TORX BITS**
- **EASY-LOCK BLADE AND BIT CLAMP TWISTS AND LOCKS THE BLADE OR BITS IN PLACE**

Handle

83020

19408

19417

Handle Angled

DESCRIPTION		PART
RECIPROCATING SAW HANDLE ASSORTMENT (1 each) Reciprocating Saw Handle, Magnetic Bit Holder, #5 & #6 Slotted Insert Bits, #1 & #2 Phillips Insert Bits, T15 & T20 Torx Insert Bits, 6-6T CIC 200™ Bi-Metal Reciprocating Blade and 6-18T CIC 200™ Bi-Metal Reciprocating Blade	A	30385

CIC 200™ SUPER WELD™ BAND SAW BLADES

WELDED-TO-LENGTH

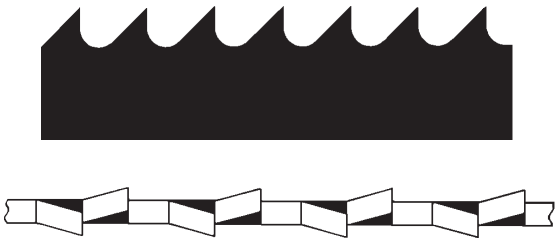
For all difficult cutting applications including stainless, alloy and high carbon heat-treated steels. Bi-metal construction of high speed steel edge welded to spring steel back, custom cut and welded to your machine specifications.

VARI-PITCH — SPECIAL SET

FASTER, SMOOTHER AND QUIETER CUTS WITH INCREASED PROTECTION AGAINST TOOTH STRIPPAGE.

WIDTH	THICKNESS	TEETH/IN.		PART	WIDTH	THICKNESS	TEETH/IN.		PART
1/4	.025	14/10	A	19621	1	.035	8/5	A	19635
1/2	.025	12/8	A	19622	1	.035	6/4	A	19633
1/2	.025	10/6	A	19623	1	.035	4/3	A	19636
3/4	.035	14/10	A	19624	1	.035	3/2	A	19634
3/4	.035	12/8	A	19626	1-1/4	.042	10/6	A	19639
3/4	.035	10/6	A	19627	1-1/4	.042	8/5	A	19644
3/4	.035	8/5	A	19625	1-1/4	.042	6/4	A	19645
3/4	.035	6/4	A	19628	1-1/4	.042	4/3	A	19648
1	.035	14/10	A	19629	1-1/4	.042	3/2	A	19649
1	.035	12/8	A	19631	1-1/2	.050	3/2	A	19654
1	.035	10/6	A	19632	1-1/2	.050	6/4	A	19659

STANDARD TOOTH — RAKER SET

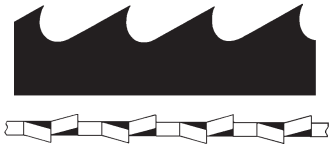


THE MOST POPULAR TOOTH AND SET CONFIGURATIONS FOR MOST GENERAL PURPOSE CUTTING APPLICATIONS.

WIDTH	THICKNESS	TEETH/IN.		PART	WIDTH	THICKNESS	TEETH/IN.		PART
1/4	.025	14	A	19638	3/4	.035	8	A	19655
1/4	.025	10	A	19637	3/4	.035	6	A	19656
3/8	.025	14	A	19643	1	.035	10	A	19653
3/8	.025	10	A	19642	1	.035	8	A	19657
3/8	.025	8	A	19641	1	.035	6	A	19658
1/2	.025	14	A	19647	1	.035	4	A	19662
1/2	.025	10	A	19646	1-1/4	.042	6	A	19666
3/4	.035	14	A	19652	1-1/4	.042	4	A	19669
3/4	.035	10	A	19651	—	—	—		—

CIC 200™ SUPER WELD™ BAND SAW BLADES

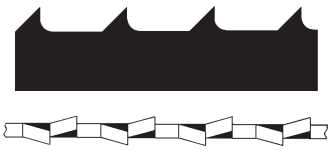
HOOK TOOTH — RAKER SET



DESIGNED FOR HARDER, NON-FERROUS METALS OR LARGER SECTIONS OF MILD STEEL OR WOOD. REMOVES MORE MATERIAL WITH LESS FEED PRESSURE.

WIDTH	THICKNESS	TEETH/IN.	PART	WIDTH	THICKNESS	TEETH/IN.	PART
1/4	.025	6	A 19960	1	.035	4	A 19964
3/8	.025	4	A 19961	1	.035	3	A 19965
1/2	.025	4	A 19962	1-1/4	.042	3	A 19966
3/4	.035	3	A 19963	-	-	-	-

SKIP TOOTH — RAKER SET



RECOMMENDED FOR SOFT OR STRINGY METALS SUCH AS ALUMINUM, MAGNESIUM, COPPER OR WOOD. FACILITATES REMOVAL OF CHIPS.WILL NOT CLOG GULLETS AS WITH STANDARD TOOTH FORMS.

WIDTH	THICKNESS	TEETH PER INCH	PART
1	.035	4	A 19968

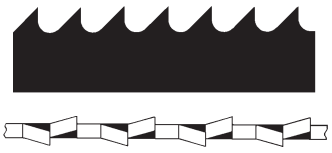
VARI-PITCH — SPECIAL SET

FASTER, SMOOTHER AND QUIETER CUTS WITH INCREASED PROTECTION AGAINST TOOTH STRIPPAGE.

WIDTH	THICKNESS	TEETH PER INCH	PART
5/8	.035	14/10	A 19650

PORTABLE BAND SAW BLADES

STANDARD TOOTH — RAKER SET



THE MOST POPULAR TOOTH AND SET CONFIGURATION FOR MOST GENERAL PURPOSE CUTTING OPERATIONS.

LENGTH	WIDTH	TEETH/IN.	PART	LENGTH	WIDTH	TEETH/IN.	PART
44-7/8"	1/2	24	C 19929	53-3/4"	1/2	18	C 19933
44-7/8"	1/2	18	C 19930	53-3/4"	1/2	14	C 19934
44-7/8"	1/2	14	C 19931	53-3/4"	1/2	10	C 19935
44-7/8"	1/2	10	C 19932	54"	1/2	14/10	C 19940
53-3/4"	1/2	24	C 19936	54"	1/2	18/14	C 19945

CARBON HARD BACK BAND SAW BLADES

WELDED-TO-LENGTH

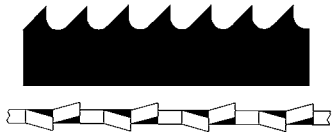
For cutting light structurals, pipe tubing and similar light duty applications. Carbon steel construction. Available welded-to-length or in 100 foot coils.

VARI-PITCH — SPECIAL SET

FASTER, SMOOTHER AND QUIETER CUTS WITH INCREASED PROTECTION AGAINST TOOTH STRIPPAGE.

WIDTH	THICK.	TEETH/IN.	PART	100' COILS	WIDTH	THICK.	TEETH/IN.	PART	100' COILS
1/4	.025	14/10	I 19664		3/4	.032	14/10	I 19676	T 19616
3/8	.025	14/10	I 19668	T 19612	3/4	.032	12/8	I 19677	T 19608
1/2	.025	14/10	I 19672	T 19614	3/4	.032	10/6	I 19678	T 19617
1/2	.025	12/8	I 19673	T 19607	1	.035	12/8	I 19681	T 19618
1/2	.025	10/6	I 19674	T 19615	1	.035	10/6	I 19682	T 19609
					1	.035	6/4	I 19683	T 19619

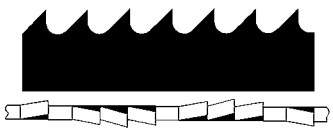
STANDARD TOOTH — RAKER SET



THE MOST POPULAR TOOTH AND SET CONFIGURATIONS FOR MOST GENERAL PURPOSE CUTTING APPLICATIONS.

WIDTH	THICK.	TEETH/IN.	PART	100' COILS	WIDTH	THICK.	TEETH/IN.	PART	100' COILS
1/4	.025	24	I 19739	–	5/8	.032	14	I 19751	T 19813
1/4	.025	18	I 19762	T 19801	5/8	.032	10	I 19752	T 19814
1/4	.025	14	I 19741	T 19802	5/8	.032	8	I 19753	T 19815
1/4	.025	10	I 19742	T 19803	3/4	.032	14	I 19767	T 19816
3/8	.025	18	I 19764	T 19804	3/4	.032	12	I 19766	T 19817
3/8	.025	14	I 19743	T 19805	3/4	.032	10	I 19754	T 19818
3/8	.025	10	I 19744	T 19806	3/4	.032	8	I 19755	T 19819
3/8	.025	8	I 19745	T 19807	3/4	.032	6	I 19756	T 19820
1/2	.025	24	I 19746	T 19808	1	.035	14	I 19769	T 19821
1/2	.025	18	I 19765	–	1	.035	10	I 19768	T 19822
1/2	.025	14	I 19747	T 19810	1	.035	8	I 19771	T 19823
1/2	.025	10	I 19748	T 19811	1	.035	6	I 19772	T 19824
1/2	.025	6	I 19749	T 19812	–	–	–	–	–

STANDARD TOOTH — WAVY SET



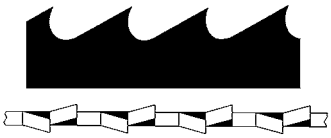
DESIGNED TO BE STRONGER AND MORE DURABLE THAN OTHER TOOTH SETS. HOWEVER, IT PRODUCES A SLOWER, COARSER CUT.

WIDTH	THICK.	TEETH/IN.	PART	100' COILS	WIDTH	THICK.	TEETH/IN.	PART	100' COILS
1/4	.025	32	I 19711	T 19826	3/4	.032	14	I 19714	T 19829
1/2	.025	14	I 19712	T 19827	3/4	.032	10	I 19715	T 19830
3/4	.032	18	I 19713	T 19828	-	-	-	-	-

DUE TO SPECIAL PROCESSING ALLOW 2-3 WEEKS FOR DELIVERY OF CUSTOM CUT & WELDED BLADES.

CARBON HARD BACK BAND SAW BLADES

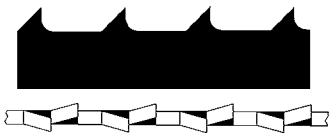
HOOK TOOTH — RAKER SET



DESIGNED FOR HARDER, NON-FERROUS METALS OR LARGER SECTIONS OF MILD STEEL OR WOOD. REMOVES MORE MATERIAL WITH LESS FEED PRESSURE.

WIDTH	THICK.	TEETH/IN.	PART	100' COILS	WIDTH	THICK.	TEETH/IN.	PART	100' COILS
1/4	.025	6	I 19900	t 19851	1/2	.025	3	I 19907	t 19858
1/4	.025	4	I 19901	t 19852	3/4	.032	6	I 19908	t 19859
3/8	.025	6	I 19902	t 19853	3/4	.032	3	I 19909	t 19860
3/8	.025	4	I 19903	t 19854	1	.035	3	I 19910	t 19861
1/2	.025	6	I 19905	t 19856	1	.035	2	I 19911	t 19862
1/2	.025	4	I 19906	t 19857	–	–	–	–	–

SKIP TOOTH — RAKER SET

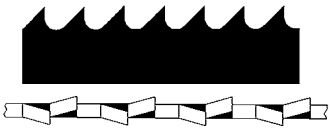


RECOMMENDED FOR SOFT OR STRINGY METALS SUCH AS ALUMINUM, MAGNESIUM, COPPER OR WOOD. FACILITATES REMOVAL OF CHIPS. WILL NOT CLOG GULLETS AS WITH STANDARD TOOTH FORMS.

WIDTH	THICK.	TEETH/IN.	PART	100' COILS	WIDTH	THICK.	TEETH/IN.	PART	100' COILS
1/4	.025	6	I 19920	t 19840	1/2	.025	4	I 19924	t 19844
1/4	.025	4	I 19921	t 19841	1/2	.025	3	I 19925	t 19845
3/8	.025	3	I 19923	t 19843	3/4	.032	3	I 19926	t 19846
–	–	–	–	–	1	.035	3	I 19927	t 19847

PORTABLE BAND SAW BLADES

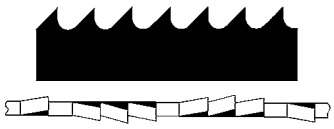
STANDARD TOOTH — RAKER SET



THE MOST POPULAR TOOTH AND SET CONFIGURATION FOR MOST GENERAL PURPOSE CUTTING OPERATIONS.

LENGTH	WIDTH	THICKNESS	TEETH/IN.	PART	LENGTH	WIDTH	THICKNESS	TEETH/IN.	PART
44-7/8"	1/2	.020	18	C 19684	54"	1/2	.025	24	C 19688
44-7/8"	1/2	.020	14	C 19685	54"	1/2	.025	18	C 19689
53-3/4"	1/2	.020	18	C 19686	54"	1/2	.025	14	C 19690
53-3/4"	1/2	.020	14	C 19687	54"	1/2	.025	10	C 19691

STANDARD TOOTH — WAVY SET



LENGTH	WIDTH	THICKNESS	TEETH/IN.	PART
54"	1/2	.025	14	C 19679

VARI-PITCH TOOTH — SPECIAL SET

LENGTH	WIDTH	THICKNESS	TEETH/IN.	PART
54"	1/2	.025	14/10	C 19675

BAND SAW SELECTION GUIDE

TOOTH SELECTION

Teeth and gullets both cut the chips and remove them from the work. The different tooth forms affect the way in which the job is performed.

TOOTH FORM

STANDARD TOOTH face is perpendicular to the back of the blade. Gullets are rounded which allows good chip curl, and facilitates removal of chips from the kerf (cut). Standard tooth is used in most cutting applications and is available in pitches of from 4 to 32 teeth per inch.

Although **SKIP TOOTH** faces are perpendicular to the back of the blade in this form also, gullets are longer and flatter. In softer materials this facilitates removal of chips which might clog standard form gullets. Recommended for soft or stringy metals such as aluminum, magnesium, copper or wood.

HOOK TOOTH has a 10% positive rake, which pulls the blade into the work. This "digging" action allows hook tooth blades to remove more material with less feed pressure. Hook tooth is popular for harder, non-ferrous metals or larger sections of mild steel or wood.

VARIABLE PITCH blades offer teeth varying in size, set and gullet depth. This variation brings teeth into the work at constantly changing angles for faster, smoother and quieter cutting. The varying gullet sizes also allow increased protection against tooth strippage when blades are used on a wide range of materials and/or dimensions.

TOOTH PITCH

PITCH is the number of teeth per inch. The rule of thumb is that three teeth minimum must be in contact with the work at all times. After that rule is satisfied, hard and/or small cross sections require finer pitch (more teeth per inch); large sections or softer materials take a coarser pitch.

The right pitch is critical! Too few teeth can destroy the blade by stripping teeth. Too many teeth will cut inefficiently, greatly increasing the time required per cut and reducing the number of cuts from each blade.

SET SELECTION

The teeth of most saw blades are set, or angled, to make a cut wider than the blade body so that the back of the blade can pass through the work without binding.

RAKER SET

A recurring sequence of teeth — one set right, one set left and one not set. Those teeth set to the sides "saw" the work while the straight tooth clears or "rakes" the chips from the work. Raker set is used in the vast majority of band sawing applications.

WAVY SET

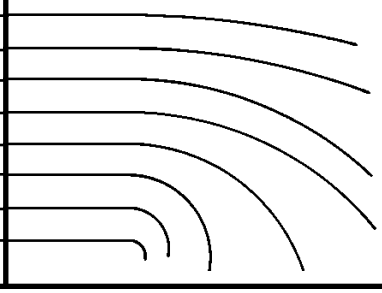
Three teeth with varying sets to the right followed by one straight tooth and three teeth with varying sets to the left. Because three teeth share the cutting and the set extends below the gullets, wavy set teeth are less likely to strip than raker set teeth. Offsetting their stronger construction, wavy set blades cut slower and produce a coarser finish than raker set blades.

NOTE: VARI-PITCH blades are specially set to suit each tooth design. Their sets do not necessarily conform to any of the above descriptions.

RADIUS SELECTION CHART

BLADE WIDTH	RADIUS
1"	7-1/4"
3/4"	5-7/16"
5/8"	3-3/4"
1/2"	2-1/2"
3/8"	1-7/16"
1/4"	5/8"
3/16"	5/16"
1/8"	1/8"

For maximum strength and rigidity, we recommend using the widest blade possible, depending on the cutting application.



CIRCULAR SAW BLADES

STEEL & FERROUS METAL CIRCULAR SAW BLADES

- Ferrous circular saw blades have been designed with a durable C-6 carbide grade and triple chip tooth grind to ensure -a long cutting life in ferrous metals.
- Specially formulated micro grain carbide tips with titanium and tantalum. Lasts longer and leaves a burr free cut with little to no sparks or dust, commonly associated with abrasives.
- They also cut 5 to 10 times faster and last up to 30 times longer than abrasives, this allows fewer blade changes and increased production.
- They can also be used for cutting non-ferrous metals.

Features
- Professional Grade C-6 Carbide
- Laser Cut Expansion Slots
- Triple Chip Grind
- Precision Ground Carbide Tips
- Tensioned & Hardened Steel Plate
- Surface Ground Steel Plate

Cuts Ferrous Metals
- Steel studs
- Angle iron
- Pipe
- Rebar
- Channel
- Flat stock
- Conduit

Cuts Non-Ferrous Metals
- Aluminum
- Copper
- Brass

For use with

Note: Blades with more teeth are generally better suited for thinner material. Blades with less teeth are better suited for thicker material.

DIAMETER	TEETH	GRIND	ARBOR	MAX RPM		PART
7-1/4"	36	TCG	5/8"	5,800	A	19041
8"	48	TCG	5/8"	5,800	A	19042
10"	52	TCG	1" with 5/8" bushing	5,200	A	19051
10"	80	TCG	5/8"	5,200	A	19052
14"	80	TCG	1"	1,800	A	19043
14"	120	TCG	1"	1,800	A	19044

CIRCULAR SAW BLADES

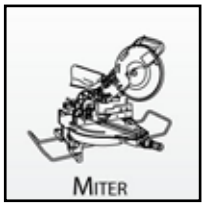
ALUMINUM & NON-FERROUS METAL CIRCULAR SAW BLADES

- Non-ferrous blades have been designed with a negative hook angle, triple chip tooth grind, and precision ground micro grain carbide tips.
- The specially formulated tungsten carbide lasts longer than other carbide grades and leaves burr free cuts in all types of non-ferrous metals.
- The 10" and larger feature copper plugged expansion slots for reduced noise and vibration.
- Smaller diameter blades feature laser cut expansion slots and heat vents for cooler operation.

Features
- Professional Grade C-1 Carbide
- Negative Hook Angle
- Copper Plugged Expansion Slots
- Triple Chip Grind
- Tensioned & Hardened Steel Plate
- Surface Ground Steel Plate

Cuts Non-Ferrous Metals
- Aluminum
- Copper
- Brass
- Bronze
- Most plastics

For use with



Warning: Never attempt to cut steel or ferrous metals with these blades. It is highly recommended that you use a liquid lubricant or coolant when cutting non ferrous metals. Proper clamping devices should be employed.

DIAMETER	TEETH	GRIND	ARBOR	KERF		PART
7-1/4"	60	TCG	5/8"	0.075"	A	19045
10"	100	TCG	5/8"	0.110"	A	19046
12"	120	TCG	1"	0.118"	A	19047

CIRCULAR SAW BLADES

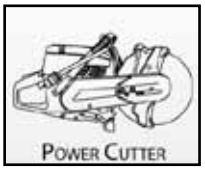
RESCUE AND DEMOLITION CIRCULAR SAW BLADE

- The rescue and demolition blade has been designed with a reinforced shoulder design, heavy duty steel plate, negative hook angle, and fracture resistant carbide tips.
- These blades are very popular with firefighters for rescue operations and general demolition work. Cuts through most building materials.

Features
- Professional Grade Carbide
- Negative Hook Angle
- Reinforced Shoulder Design
- Flat Top Grind
- Heavy Duty Steel Plate
- Fracture Resistant Carbide Tips

Cuts
- Roofing
- Shingles
- Thin non-ferrous metals
- Wood with embedded nails
- Most plastics

For use with



Warning: Never use these blades on multi-purpose cutoff saws, including gas powered, unless the saw has a guard that completely covers both the upper and lower half of the blade. This guard must extend to the lowest point of the cutting teeth on the bottom of the blade. Read and follow all instructions that came with your machine. Use with extreme caution and care.

DIAMETER	TEETH	GRIND	ARBOR	KERF		PART
14"	30	FTG	1" with 7/8" & 20mm bushings	0.134"	A	19048

STACK DADO SETS

- The 16 piece stack dado blade sets are perfect for the woodworker who wants a premium cut at an affordable price. The precision ground C-4 micro grain carbide tips stay sharp longer.
- The high tooth count saws and chippers produce smooth bottom dado cuts ranging from 1/4" to 29/32".
- The full body chippers make for an easier setup and less vibration when compared to other sets that feature wing style chippers.
- Also includes detailed dado setup instructions and a shim set for fine dado adjustments.

Features
- Professional Grade C-4 Carbide
- Full Body Dado Chippers
- Precision Ground Carbide Tips
- Storage/Carrying Case
- Shim Set for Fine Adjustments

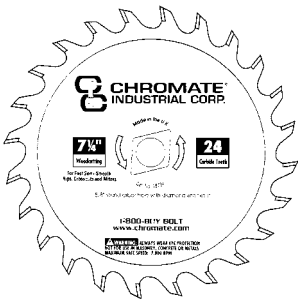
Cuts
- Hardwood
- Softwood
- Plywood

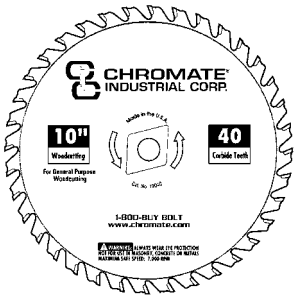
For use with

DIAMETER	DADO SAW TEETH	ARBOR	CHIPPER TEETH		PART
6"	30	5/8"	5	A	19049
8"	42	5/8"	6	A	19050

CIRCULAR SAW BLADES

FOR WOODCUTTING





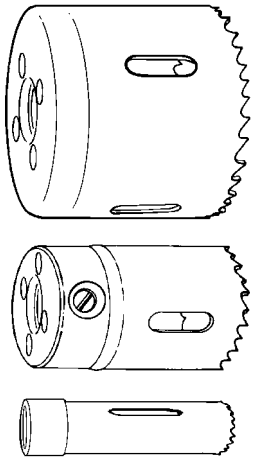
- **TOUGH TUNGSTEN CARBIDE TIPS STAY SHARPER LONGER**
- **THIN KEY FOR FASTER, SMOOTHER CUTS**

TEETH PER INCH	SIZE	RECOMMENDED USES		PART
16	5-3/8	For smooth woodcutting	A	19520
24	7-1/4 x 5/8" round arbor hole with diamond knockout	For fast semi-smooth rips, crosscuts and miters	A	19724
40	7-1/4 x 5/8" round arbor hole with diamond knockout	For smooth woodcutting	A	19740
40	10"	For general purpose woodcutting	A	19040

CIC 200™ HOLE SAWS

BI-METAL, VARIABLE PITCH TOOTH DESIGN

CIC 200™ hole saws cut faster and longer – saving time, money and labor.



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VARIABLE PITCH TOOTH DESIGN:
- **CUTS UP TO 48% FASTER THAN 6 T.P.I.**
- **CUTS UP TO 30% FASTER THAN STANDARD VARIABLE PITCH HOLE SAWS.**
- **REDUCED HARMONICS AND SUPERIOR CHIP CLEARANCE REQUIRES LESS FEED PRESSURE AND REDUCES POSSIBILITY OF TEETH DULLING.**

M3 HIGH SPEED STEEL CUTTING EDGE:
- **MORE WEAR RESISTANT THAN OTHER EDGE MATERIALS FOR LONGER LIFE.**
- **MORE RESISTANT TO SOFTENING AT HIGH TEMPERATURES — REDUCING POSSIBILITY OF TEETH DULLING AT HIGH RPM'S.**

1-3/8" DEPTH:
- **CUTS THROUGH 2" DIMENSIONAL LUMBER IN ONE PASS — REDUCING LABOR COSTS AND ELIMINATING NEED FOR DEEP HOLE SAWS.**

1/2-20 ARBOR HOLE

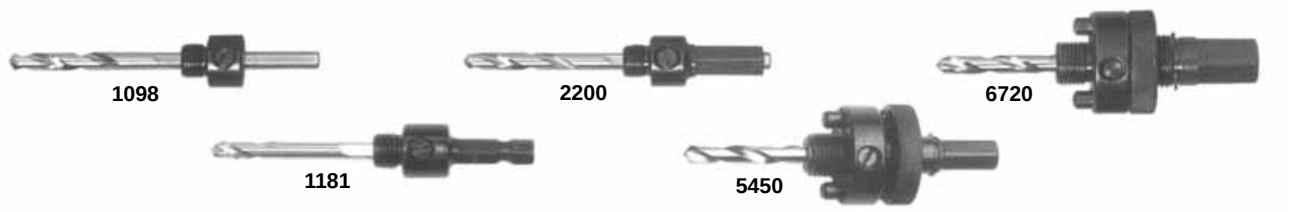
DIAMETER	PIPE ENTRANCE	PART	DIAMETER	PIPE ENTRANCE	PART
9/16 (14mm)	1/4	A 1009	15/16 (24mm)	1/2	A 1015
5/8 (16mm)	1/4	A 1010	1 (25mm)	1/2	A 1016
11/16 (17mm)	1/4	A 1011	1-1/16 (27mm)	1/2	A 1017
3/4 (19mm)	3/8	A 1012	1-1/8 (29mm)	3/4	A 1018
13/16 (21mm)	3/8	A 1013	1-3/16 (30mm)	3/4	A 1019
7/8 (22mm)	1/2	A 1014	-	-	-

5/8-18 ARBOR HOLE

DIAMETER	PIPE ENTRANCE	PART	DIAMETER	PIPE ENTRANCE	PART
1-1/4 (32mm)	3/4	A 1020	2-3/4 (70mm)	2-1/2	A 1044
1-5/16 (33mm)	3/4	A 1021	2-7/8 (73mm)	2-1/2	A 1046
1-3/8 (35mm)	3/4	A 1022	3 (76mm)	2-1/2	A 1048
1-7/16 (37mm)	3/4	A 1023	3-1/8 (79mm)	2-1/2	A 1050
1-1/2 (38mm)	1-1/4	A 1024	3-1/4 (83mm)	3	A 1052
1-9/16 (40mm)	1-1/4	A 1025	3-3/8 (86mm)	3	A 1054
1-5/8 (41mm)	1-1/4	A 1026	3-1/2 (89mm)	3	A 1056
1-11/16 (43mm)	1-1/4	A 1027	3-5/8 (92mm)	3	A 1058
1-3/4 (44mm)	1-1/2	A 1028	3-3/4 (95mm)	3	A 1060
1-13/16 (46mm)	1-1/2	A 1029	3-7/8 (98mm)	3-1/2	A 1062
1-7/8 (48mm)	1-1/2	A 1030	4 (102mm)	3-1/2	A 1064
2 (51mm)	1-1/2	A 1032	4-1/8 (105mm)	3-1/2	A 1066
2-1/16 (52mm)	1-1/2	A 1033	4-1/4 (108mm)	3-1/2	A 1068
2-1/8 (54mm)	1-1/2	A 1034	4-3/8 (111mm)	4	A 1070
2-1/4 (57mm)	2	A 1036	4-1/2 (114mm)	4	A 1072
2-5/16 (59mm)	2	A 1037	4-3/4 (121mm)	4-1/2	A 1076
2-3/8 (60mm)	2	A 1038	5 (127mm)	4-1/2	A 1080
2-1/2 (64mm)	2	A 1040	5-1/2 (140mm)	5	A 1088
2-9/16 (65mm)	2	A 1041	5-3/4 (146mm)	5	A 1092
2-5/8 (67mm)	2-1/2	A 1042	6 (152mm)	5	A 1096

CIC 200™ HOLE SAWS

ARBORS AND ADAPTERS



ARBORS

SHANK TYPE	THREAD SIZE	FITS SAWS		PART
1/4-ROUND	1/2-20	1009-1019	A	1098
3/8-HEX	1/2-20	1009-1019	A	1181
7/16-HEX	1/2-20	1009-1019	A	2200
7/16-HEX W/LOCK PINS	5/8-18	1020-1096	A	5450
5/8-HEX	5/8-18	1020-1096	A	6720

DESCRIPTION		PART
ARBOR ADAPTER (BUSHING) — Use with 1098, 1181, and 2200 for larger size hole saws with 5/8-18 hole size	A	3391
REPLACEMENT PILOT DRILLS — Size 1/4" fits 1098, 2200 and 5450 arbors	A	3992
Size 1/4" fits 1181 arbor	A	3994
HIGH-TORQUE BACKUP PLATES		
Drive plates used between the hole saw and arbor to distribute driving torque when cutting with larger saws		
Size 3" - 4-1/2"	A	3981
Size 4-1/4" - 6"	A	3982
EXTENSION FOR 7/16" ARBORS — For use with 2200 and 5450 arbors **/** Length 12" — 7/16 Drive	A	3989

HOLE SAW SETS

The most popular hole saws and arbors packed in high-impact polyethylene cases.

DESCRIPTION		PART
MECHANICS HOLE SAW SET (7-PIECE) 7/8" (P/N 1014), 1" (P/N 1016), 1-1/8" (P/N 1018), 1-1/4" (P/N 1020) and 1-1/2" (P/N 1024) Hole Saws, 1/4" Round Shank Arbor with 1/2"-20 Threads (P/N 1098) and Arbor Adapter (P/N 3391)	A	8826
INDUSTRIAL HOLE SAW SET (13-PIECE) 3/4" (P/N 1012), 1-3/4" (P/N 1028), 7/8" (P/N 1014), 1-1/8" (P/N 1018), 1-3/8" (P/N 1022), 1-1/2" (P/N 1024), 2" (P/N 1032), 2-1/8" (P/N 1034), and 2-1/2" (P/N 1040) Hole Saws, 1/4" Round Shank Arbor with 1/2"-20 Threads (P/N 1098), 7/16" Hex Shank Arbor with 1/2"-20 Threads (P/N 2200), 7/16" Hex Arbor w/Lock Pins, 5/8"-18 Threads (P/N 5450), and 12" Long 7/16" Drive Extension (P/N 3989)	A	8829
LARGE INDUSTRIAL HOLE SAW SET (19-PIECE) 3/4" (P/N 1012), 7/8" (P/N 1014), 1-1/8" (P/N 1018), 1-3/8" (P/N 1022), 1-1/2" (P/N 1024), 1-3/4" (P/N 1028), 2" (P/N 1032), 2-1/4" (P/N 1036), 2-1/2" (P/N 1040), 3" (P/N 1048), 3-1/4" (P/N 1052), 3-5/8" (P/N 1058), 3-3/4" (P/N 1060), 4-1/4" (P/N 1068) and 4-1/2" (P/N 1072) Hole Saws, 1/4" Round Shank Arbor with 1/2"-20 Threads (P/N 1098), 7/16" Hex Shank Arbor with 1/2"-20 Threads (P/N 2200), 7/16" Hex Arbor w/Lock Pins, 5/8"-18 Threads (P/N 5450), and 12" Long 7/16" Drive Extension (P/N 3989)	A	8831

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

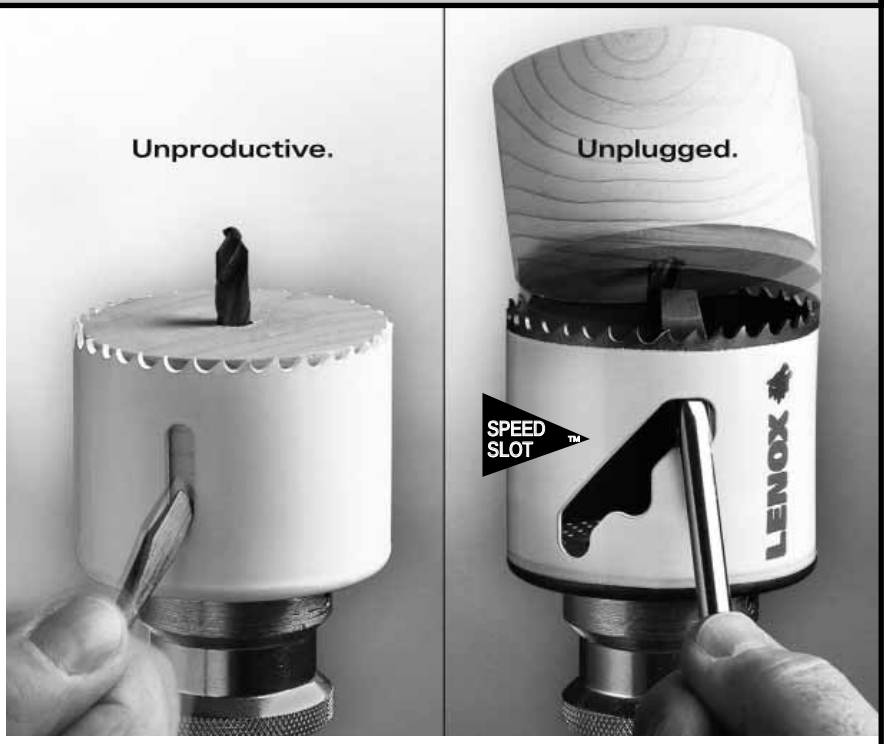
LONG LASTING, FAST CUTTING AND VERSATILE

CUTTING THE HOLE
IS PRODUCTIVE.

STRUGGLING TO REMOVE
THE PLUG ISN'T.

Bi-Metal Hole Saws cut wood two times faster and last twice as long cutting through metal, compared to the previous generation.
The job goes even faster with the revolutionary SPEED SLOT™, which makes plug removal easy.

TRY IT YOURSELF AND
BE MORE PRODUCTIVE.



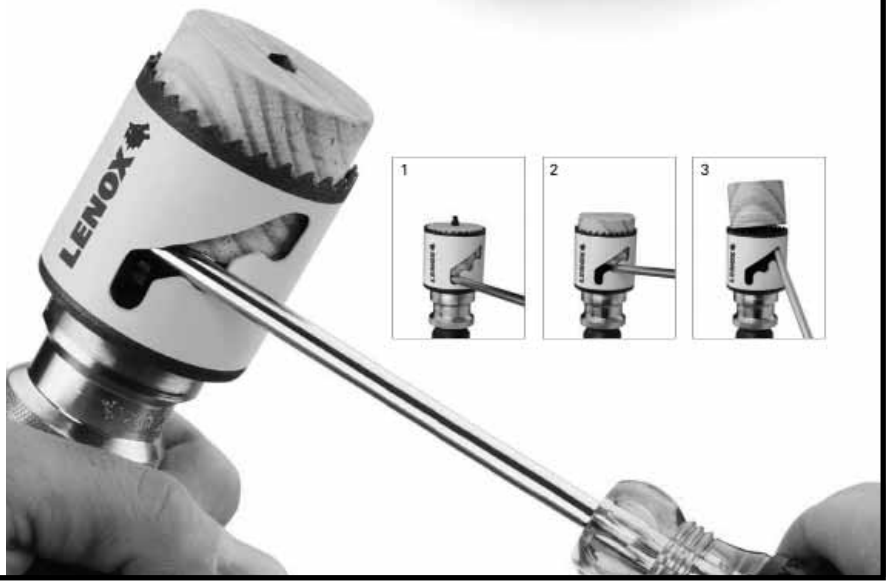
SPEED SLOT™ HOLE SAWS
Up to 2X Life

THE SPEED SLOT HOLE SAW OUTPERFORMS ALL COMPETITORS IN WOOD CUTTING, PLUG REMOVAL, AND METAL CUTTING APPLICATIONS.

THE PATENT PENDING SPEED SLOT
Features a staircase design for easy plug removal. The slot is wider than most and is placed lower on the hole saw with multiple leverage points to easily eject the plug with a standard screwdriver.

CUTTING EFFICIENCY
The hole saw is 10 percent taller than the previous model to deliver cleaner cuts through two-by lumber. The SPEED SLOT efficiently removes saw dust and chips while producing a fast cut and preventing the plug from getting stuck in the saw.

UP TO 2X LIFE IN METAL CUTTING
This new hole saw features up to twice the life as our prior model when cutting metal. An enhanced tooth geometry, a thin kerf design, and an advanced coating contribute to the efficiency of the cutting process by removing material faster, therefore generating less heat while cutting.



LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

PART NUMBERS FOR ORDERING

PLUG REMOVAL AS EASY AS 1-2-3
SPEED SLOT™ features a staircase design for easy plug removal.

UP TO 2X LIFE IN METAL CUTTING
Enhanced tooth geometry, a thin kerf design, and an advanced coating contribute to the efficiency of the cutting process.

Bold italic text = Non-stock item
Please allow for up to 2 weeks for delivery.

DIAMETER IN	DIAMETER MM	P/N	PIPE TAP IN	PIPE TAP MM	PIPE ENTRANCE IN	PIPE ENTRANCE MM	SNAP-BACK™ ARBOR	PILOT DRILL
9/16"	***14.3***	***51700***	–	–	–	–	1093	51753
5/8"	***15.9***	***51701***	–	–	–	–	1093	51753
11/16"	***17.5***	***51702***	–	–	–	–	1093	51753
3/4"	19.1	51703	1/2"	12.7	3/8"	9.5	1093	51753
25/32"	***19.8***	***51712***	–	–	–	–	1093	51753
13/16"	***21.6***	***51704***	–	–	–	–	1093	51753
7/8"	22.2	51705	3/4"	19.1	1/2"	12.7	1093	51753
15/16"	***23.8***	***51706***	–	–	–	–	1093	51753
1"	25.4	51707	–	–	–	–	1093	51753
1-1/16"	***27.0***	***51708***	–	–	–	–	1093	51753
1-1/8"	28.6	51709	1"	25.4	3/4"	19.1	1093	51753
1-3/16"	***30.2***	***51710***	–	–	–	–	1093	51753
1-1/4"	31.8	51711	–	–	–	–	1095, 1094	51753, 51754
1-5/16"	***33.3***	***51713***	–	–	–	–	1095, 1094	51753, 51754
1-3/8"	34.9	51714	–	–	1"	25.4	1095, 1094	51753, 51754
1-7/16"	***36.5***	***51715***	–	–	–	–	1095, 1094	51753, 51754
1-1/2"	38.1	51716	1-1/4"	31.8	–	–	1095, 1094	51753, 51754
1-9/16"	***39.7***	***51717***	–	–	–	–	1095, 1094	51753, 51754
1-5/8"	***41.3***	***51718***	–	–	–	–	1095, 1094	51753, 51754
1-11/16"	***42.9***	***51719***	–	–	–	–	1095, 1094	51753, 51754
1-3/4"	44.5	51720	1-1/2"	38.1	1-1/4"	31.8	1095, 1094	51753, 51754
1-13/16"	***46.0***	***51721***	–	–	–	–	1095, 1094	51753, 51754
1-7/8"	***47.6***	***51722***	–	–	–	–	1095, 1094	51753, 51754
2"	50.8	51723	–	–	1-1/2"	38.1	1095, 1094	51753, 51754
2-1/16"	***52.4***	***51724***	–	–	–	–	1095, 1094	51753, 51754
2-1/8"	54.0	51725	–	–	–	–	1095, 1094	51753, 51754
2-1/4"	57.2	51726	2"	50.8	–	–	1095, 1094	51753, 51754
2-3/8"	***60.3***	***51727***	–	–	–	–	1095, 1094	51753, 51754
2-1/2"	63.5	51728	–	–	2"	50.8	1095, 1094	51753, 51754
2-9/16"	***65.1***	***51729***	–	–	–	–	1095, 1094	51753, 51754
2-5/8"	***66.7***	***51730***	***2-1/2"***	***63.5***	–	–	1095, 1094	51753, 51754
2-11/16"	***68.3***	***51731***	–	–	–	–	1095, 1094	51753, 51754
2-3/4"	***69.9***	***51732***	–	–	–	–	1095, 1094	51753, 51754
2-7/8"	***73.0***	***51733***	–	–	–	–	1095, 1094	51753, 51754
3"	76.2	51734	–	–	2-1/2"	63.5	1095, 1094	51753, 51754
3-1/8"	***79.4***	***51735***	–	–	–	–	1095, 1094	51753, 51754
3-1/4"	***82.6***	***51736***	***3"***	***76.2***	–	–	1095, 1094	51753, 51754
3-3/8"	85.7	51737	–	–	–	–	1095, 1094	51753, 51754
3-1/2"	88.9	51738	–	–	–	–	1095, 1094	51753, 51754
3-5/8"	***92.1***	***51739***	–	–	***3"***	***76.2***	1095, 1094	51753, 51754
3-3/4"	***95.3***	***51740***	***3-1/2"***	***85.7***	–	–	1095, 1094	51753, 51754
3-7/8"	***98.4***	***51741***	–	–	–	–	1095, 1094	51753, 51754
4"	101.6	51742	–	–	–	–	1095, 1094	51753, 51754
4-1/8"	***104.8***	***51743***	–	–	***3-1/2"***	***85.7***	1095, 1094	51753, 51754
4-1/4"	***108.0***	***51744***	***4"***	***95.3***	–	–	1095, 1094	51753, 51754
4-3/8"	***111.1***	***51745***	–	–	–	–	1095, 1094	51753, 51754
4-1/2"	114.3	51746	–	–	–	–	1095, 1094	51753, 51754
4-5/8"	***117.5***	***51747***	–	–	***4"***	***95.3***	1095, 1094	51753, 51754
4-3/4"	***120.7***	***51748***	***4-1/2"***	***108***	–	–	1095, 1094	51753, 51754
5"	***127.0***	***51749***	–	–	–	–	1095, 1094	51753, 51754
5-1/2"	***139.7***	***51750***	–	–	–	–	1095, 1094	51753, 51754
6"	***152.4***	***51751***	–	–	–	–	1095, 1094	51753, 51754

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

RECOMMENDED RPM – METALS

DIAMETER IN	DIAMETER MM	MILD STEEL	TOOL & STAINLESS	CAST IRON	BRASS	ALUMINUM
9/16"	14.3	580	300	400	790	900
5/8"	15.9	550	275	365	730	825
11/16"	17.5	500	250	330	665	750
3/4"	19.1	460	230	300	600	690
25/32"	19.8	425	210	280	560	630
13/16"	20.6	425	210	280	560	630
7/8"	22.2	390	195	260	520	585
15/16"	23.8	370	185	245	495	555
1"	25.4	350	175	235	470	525
1-11/16"'	27.0	325	160	215	435	480
1-1/8"	28.6	300	150	200	400	450
1-3/16"	30.2	285	145	190	380	425
1-1/4"	31.8	275	140	180	360	410
1-5/16"	33.3	260	135	175	345	390
1-3/8"	34.9	285	145	190	380	425
1-7/16"	36.5	240	120	160	315	360
1-1/2"	38.1	230	115	150	300	345
1-9/16"	39.7	220	110	145	290	330
1-5/8"	41.3	210	105	140	280	315
1-11/16"	42.9	205	100	135	270	305
1-3/4"	44.5	195	95	130	250	295
1-13/16"	46.0	190	95	125	250	285
1-7/8"	47.6	180	90	120	240	270
2"	50.8	170	85	115	230	255
2-1/16"	52.4	165	80	110	220	245
2-1/8"	54.0	160	80	105	210	240
2-1/4"	57.2	150	75	100	200	225
2-3/8"	60.3	140	70	95	190	220
2-1/2"	63.5	135	65	90	180	205
2-9/16"	65.1	130	65	85	175	200
2-5/8"	66.7	130	65	85	170	195
2-11/16"	68.3	125	60	80	160	185
2-3/4"	69.9	125	60	80	160	185
2-7/8"	73.0	120	60	80	160	180
3"	76.2	115	55	75	150	170
3-1/8"	79.4	110	55	70	140	165
3-1/4"	82.6	105	50	70	140	155
3-3/8"	85.7	100	50	65	130	150
3-1/2"	88.9	95	45	65	130	145
3-5/8"	92.1	95	45	60	120	140
3-3/4"	95.3	90	45	60	120	135
3-7/8"	98.4	85	40	55	110	130
4"	101.6	85	40	55	110	130
4-1/8"	104.8	80	40	55	110	120
4-1/4"	108.0	80	40	55	110	120
4-3/8"	111.1	75	35	50	100	105
4-1/2"	114.3	75	35	50	100	105
4-5/8"	117.5	75	35	50	100	105
4-3/4"	120.7	70	35	45	90	95
5"	127.0	70	35	45	90	95
5-1/2"	139.7	65	30	40	85	90
6"	152.4	65	30	40	85	90

APPLICATIONS

- Wood
- Nail-embedded Wood
- Non-ferrous Metal
- Plastics and Composites
- Metal
- Stainless Steel
- Drywall/Plaster
- Cement board

SIZE RANGE
9/16" – 1-7/16"

SIZE RANGE
1-1/2" – 6"

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

SNAP-BACK™ ARBORS

FOR SPEED SLOT™ HOLE SAWS*
No Tools. No adaptors. No screwing around.

QUICK CHANGE
Faster and easier to engage/disengage hole saw

PREVENTS THREADS FROM STRIPPING
Drives off pins, not threads

NO TOOLS NEEDED
Prevents hole saw from locking on arbor

NO ADAPTOR REQUIRED
Arbor threads directly into all hole saws

SAFE
No pinch points

FAST
Sleeve does not have to be held back to engage/disengage arbor; no secondary tightening

EASIER PLUG REMOVAL

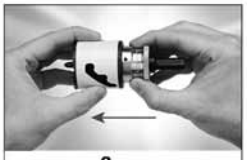
P/N 1095

P/N 1093

P/N 1094

Pull.

Twist.


Snap.

FITS HOLE SAWS	SIZES IN	SIZES MM	THREAD SIZE	SHANK TYPE	SHANK SIZE IN	SHANK SIZE MM	PART	
51711 – 51751	1-1/4" – 6"	31.8 – 152.4	5/8-18	Hex	1/2" & larger	12.7 & larger	A	1095
51700 – 51710	9/16" – 1-3/16"	14 – 30	1/2-20	Hex	3/8" & larger	9.5 & larger	A	1093
51711 – 51751	1-1/4" – 6"	31.8 – 152.4	5/8-18	Hex	3/8" & larger	9.5 & larger	A	1094

*Snap-Back™ Arbors recommended only for SPEED SLOT™ Hole Saws P/Ns 51700 – 51751.

PILOT DRILLS

FOR SNAP-BACK™ ARBORS
A perfect fit.

ADDED DURABILITY
Hardened carbon steel or strength

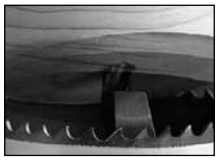
STARTS ON CONTACT
Split point pilot drill for faster penetration and less walking

FASTER PENETRATION

LESS WALKING

P/N 51754

P/N 51753



FOR SNAP-BACK™ ARBOR	CHUCK SIZE IN	CHUCK SIZE MM	DIAMETER IN	LENGTH IN	DESCRIPTION	PART	
1095	1/4"	6.4	1/4"	4"	Pilot Drill for Snap-Back™ Arbors	A	51754
1093 & 1094	1/4"	6.4	1/4"	3"	Pilot Drill for Snap-Back™ Arbors	A	51753

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – GENERAL PURPOSE KITS

5 PIECE KIT - P/N 8886

Bi-Metal Speed Slot™ Hole Saws and Snap-Back™ Arbor with Pilot Drill.

- **Hole Saw Sizes:**
  - 2" (P/N 51723)
  - 3" (P/N 51734)
  - 3-3/8" (P/N 51737)
  - 4-1/8" (P/N 51743)
- **Snap-Back™ Arbor:** P/N 1095
- **Case Size:** 10" H x 14" W **• Case P/N:** 8886C

9 PIECE KIT - P/N 8887

Bi-Metal Speed Slot™ Hole Saws, Snap-Back™ Arbor with Pilot Drill, and Three Pilot Drills.

- **Hole Saw Sizes:**
  - 2-1/8" (P/N 51725)
  - 2-9/16" (P/N 51729)
  - 3-1/4" (P/N 51736)
  - 3-3/4" (P/N 51740)
  - 4-3/4" (P/N 51748)
- **Snap-Back™ Arbor:** P/N 1095
- **Pilot Drills:** (3) P/N 51754
- **Case Size:** 10" H x 14" W **• Case P/N:** 8886C

9 PIECE KIT - P/N 8888

Bi-Metal Speed Slot™ Hole Saws and Two Snap-Back™ Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 7/8" (P/N 51705)
  - 1" (P/N 51707)
  - 1-1/4" (P/N 51711)
  - 1-3/8" (P/N 51714)
  - 1-1/2" (P/N 51716)
  - 1-3/4" (P/N 51720)
  - 2-1/8" (P/N 51725)
- **Snap-Back™ Arbors:** P/N 1093 and P/N 1094
- **Case Size:** 8" H x 11" W **• Case P/N:** 8888C

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – GENERAL PURPOSE KITS

17 PIECE KIT - P/N 8889

LENOX

Bi-Metal Speed Slot™ Hole Saws, One Snap-Back™ Arbor with Pilot Drill, One Standard Arbor, and Three Pilot Drills.

- **Hole Saw Sizes:**

- 5/8"	(P/N 51701)	- 1-3/8"	(P/N 51714)
- 3/4"	(P/N 51703)	- 1-1/2"	(P/N 51716)
- 7/8"	(P/N 51705)	- 1-3/4"	(P/N 51720)
- 1"	(P/N 51707)	- 2"	(P/N 51723)
- 1-1/8"	(P/N 51709)	- 2-1/2"	(P/N 51728)
- 1-1/4"	(P/N 51711)	- 3"	(P/N 51734)

- **Snap-Back™ Arbor:** P/N 1095
- **Standard Arbor:** P/N 1091
- **Pilot Drills:** (3) P/N 51754
- **Case Size:** 10" H x 14" W • **Case P/N:** 8889C

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26 PIECE "BIG DADDY" KIT - P/N 8890

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, One Standard Arbor, and Two Pilot Drills.

- **Hole Saw Sizes:**

- 3/4"	(P/N 51703)	- 2-1/2"	(P/N 51728)
- 7/8"	(P/N 51705)	- 2-11/16"	(P/N 51731)
- 1"	(P/N 51707)	- 3"	(P/N 51734)
- 1-1/8"	(P/N 51709)	- 3-1/4"	(P/N 51736)
- 1-3/8"	(P/N 51714)	- 3-3/8"	(P/N 51737)
- 1-1/2"	(P/N 51716)	- 3-5/8"	(P/N 51739)
- 1-3/4"	(P/N 51720)	- 3-3/4"	(P/N 51740)
- 2"	(P/N 51723)	- 4-1/8"	(P/N 51743)
- 2-1/8"	(P/N 51725)	- 4-1/2"	(P/N 51746)
- 2-1/4"	(P/N 51726)	- 4-3/4"	(P/N 51748)

- **Snap-Back™ Arbors:** P/N 1095 and P/N 1093
- **Standard Arbor:** P/N 1091
- **Pilot Drills:** (2) P/N 51754 and (1) P/N 51753
- **Case Size:** 10" H x 14" W • **Case P/N:** 8890C

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – ELECTRICIAN'S KITS

9 PIECE KIT - P/N 8891

LENOX

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, and One Arbor Adapter.

- **Hole Saw Sizes:**
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-3/8" (P/N 51714)
  - 1-3/4" (P/N 51720)
  - 2" (P/N 51723)
  - 2-1/2" (P/N 51728)
- **Snap-Back™ Arbors:** P/N 1093 and P/N 1095
- **Arbor Adapter:** P/N 1090
- **Case Size:** 8" H x 11" W
- **Case P/N:** 8888C

10 PIECE KIT - P/N 8892

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, One Pilot Drill and One Arbor Adapter.

- **Hole Saw Sizes:**
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-3/8" (P/N 51714)
  - 1-3/4" (P/N 51720)
  - 2" (P/N 51723)
  - 2-1/2" (P/N 51728)
- **Snap-Back™ Arbors:** P/N 1093 and P/N 1095
- **Pilot Drill:** P/N 51754
- **Arbor Adapter:** P/N 1090
- **Case Size:** 10" H x 14" W
- **Case P/N:** 8892C

17 PIECE KIT - P/N 8893

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, and Three Pilot Drills.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-3/8" (P/N 51714)
  - 1-3/4" (P/N 51720)
  - 2" (P/N 51723)
  - 2-1/2" (P/N 51728)
  - 2-11/16" (P/N 51731)
  - 3" (P/N 51736)
  - 3-5/8" (P/N 51737)
  - 4-1/8" (P/N 51743)
  - 4-3/4" (P/N 51748)
- **Snap-Back™ Arbor:** P/N 1095 and P/N 1093
- **Pilot Drills:** (2) P/N 51754 and (1) P/N 51753
- **Case Size:** 10" H x 14" W
- **Case P/N:** 8890C

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – PLUMBER'S KITS

9 PIECE KIT - P/N 8894

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill and One Arbor Adapter.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-3/8" (P/N 51714)
  - 2" (P/N 51723)
  - 2-1/2" (P/N 51728)
- **Snap-Back™ Arbors:** P/N 1095 and P/N 1095
- **Arbor Adapter:** P/N 1090
- **Case Size:** 8" H x 11" W
- **Case P/N:** 8888C

10 PIECE KIT - P/N 8895

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, One Pilot Drill and One Arbor Adapter.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-1/2" (P/N 51716)
  - 1-3/4" (P/N 51720)
  - 2-1/4" (P/N 51726)
- **Snap-Back™ Arbors:** P/N 1093 and P/N 1095
- **Pilot Drill:** P/N 51754
- **Arbor Adapter:** P/N 1090
- **Case Size:** 10" H x 14" W
- **Case P/N:** 8892C

17 PIECE KIT - P/N 8896

Bi-Metal Speed Slot™ Hole Saws, Two Snap-Back™ Arbors with Pilot Drill, and Three Pilot Drills.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-1/2" (P/N 51716)
  - 1-3/4" (P/N 51720)
  - 2-1/4" (P/N 51726)
  - 2-9/16" (P/N 51729)
  - 3" (P/N 51736)
  - 3-1/2" (P/N 51738)
  - 4" (P/N 51742)
  - 4-1/4" (P/N 51744)
  - 4-1/2" (P/N 51746)
- **Snap-Back™ Arbor:** P/N 1095 and P/N 1093
- **Pilot Drills:** (2) P/N 51754 and (1) P/N 51753
- **Case Size:** 10" H x 14" W
- **Case P/N:** 8890C

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – TRADE KITS

REFRIGERATION KIT
8 PIECES - P/N 8897

LENOX

Bi-Metal Speed Slot™ Hole Saws and Two Snap-Back™ Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 5/8" (P/N 51701)
  - 7/8" (P/N 51705)
  - 1-1/8" (P/N 51709)
  - 1-3/8" (P/N 51714)
  - 1-5/8" (P/N 51718)
  - 2-1/8' (P/N 51725)
- **Snap-Back™ Arbors:** P/N 1093 and P/N 1094
- **Case Size:** 8" H x 11" W
- **Case P/N:** 8888C

WELDER'S KIT
8 PIECES - P/N 8898

Bi-Metal Speed Slot™ Hole Saws, and Two Snap-Back™ Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1" (P/N 51707)
  - 1-1/4" (P/N 51711)
  - 1-1/2" (P/N 51716)
  - 2" (P/N 51723)
- **Snap-Back™ Arbors:** P/N 1095 and P/N 1093
- **Case Size:** 8" H x 11" W
- **Case P/N:** 8888C

AUTOMOTIVE KIT
7 PIECES - P/N 8899

Bi-Metal Speed Slot™ Hole Saws, Snap-Back™ Arbor with Pilot Drill and Arbor Adapter.

- **Hole Saw Sizes:**
  - 3/4" (P/N 51703)
  - 7/8" (P/N 51705)
  - 1" (P/N 51707)
  - 1-1/8" (P/N 51709)
  - 1-1/4" (P/N 51711)
- **Snap-Back™ Arbors:** P/N 1093
- **Arbor Adapter:** P/N 1090
- **Case Size:** 4-11/16" H x 7-1/2" W
- **Case P/N:** 8899C

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

LENOX™ BI-METAL SPEED SLOT™ HOLE SAWS

HOLE SAW KITS – MINI TRADE KITS

PLUMBER'S MINI KIT
7 PIECES - P/N 8977

LENOX

Bi-Metal Speed Slot® Hole Saws and Two Snap-Back® Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 1-1/4" - 2"
  - 1-3/8" - 2-1/2"
  - 1-1/2"
- **Snap-Back® Arbors:** P/N 1094 and P/N 1095
- **Case Size:** 9" L x 5" W x 3-3/4" H

ELECTRICIAN'S MINI KIT
8 PIECES - P/N 8978

Bi-Metal Speed Slot® Hole Saws and Two Snap-Back® Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 7/8" - 1-3/4"
  - 1-1/8" - 2"
  - 1-3/8" - 2-1/2"
- **Snap-Back® Arbors:** P/N 1094 and P/N 1095
- **Case Size:** 9" L x 5" W x 3-3/4" H

CONTRACTOR'S MINI KIT
7 PIECES - P/N 8979

Bi-Metal Speed Slot® Hole Saws and Two Snap-Back® Arbors with Pilot Drill.

- **Hole Saw Sizes:**
  - 7/8" - 1-1/2"
  - 1-1/8" - 2"
  - 1-3/8"
- **Snap-Back® Arbors:** P/N 1094 and P/N 1095
- **Case Size:** 9" L x 5" W x 3-3/4" H

Kits are non-stock items, please allow up to 10 days after receipt of order for delivery.

CIC 200™ SHEET METAL HOLE CUTTERS

MAKE CLEAN, ACCURATE, BURR-FREE HOLES FAST!

FEATURES

Cut clean, accurate, burr-free holes fast! For sheet metal, plate, tube stock and plastic up to 1/2" thick (7/8" to 1-1/2"); up to 1/4" thick (5/16" to 3/4").

Three Kits:
P/N 8903 – 5/16" to 1-1/2"
P/N 8902 – 7/8" to 1-1/2"
P/N 8901 – 5/16" to 3/4"

Made in the USA

Tray Assortment:
P/N 17686 – 5/16" to 1-1/2"

- CIC 200™ Sheet Metal Hole Cutters are made from hardened M2 H.S.S. and precision ground to exacting specifications.
- A patented tooth geometry provides smooth cutting action from start to finish. There's no stalling, jagged edges or damage to surrounding material.
- A heavy cutter wall provides sturdiness, easy chip evacuation
- Far superior to twist drills and hole saws. 3x faster, and no comparison in quality.
- Lasts 10x longer than hole saws.

APPLICATIONS

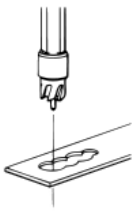
See demo Video!

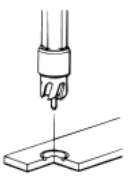
- Electrical Installations
- Pipe and Tubing
- Conduit Work
- Sheet Metal
- Thin Plate Fabrication
- Spotweld Removal
- Maintenance and Repair
- Production Fabrication of Products
- HVAC
- PHCC
- Automotive Fabrication and Repair

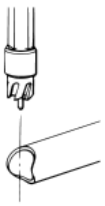
KIT COMPONENTS – PART NUMBER / DESCRIPTION

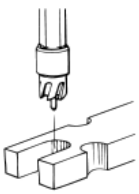
COMPONENT P/N	DESCRIPTION	SMALL KIT, P/N 8901	LARGE KIT, P/N 8902	COMBO KIT, P/N 8903
51800	5/16" Cutter	1		1
51801	3/8" Cutter	1		1
51802	7/16" Cutter	1		1
51803	1/2" Cutter	1		1
51804	9/16" Cutter	1		1
51805	5/8" Cutter	1		1
51806	3/4" Cutter	1		1
51813	7/8" Cutter		1	1
51814	1" Cutter		1	1
51815	1-1/8" Cutter		1	1
51816	1-1/4" Cutter		1	1
51817	1-3/8" Cutter		1	1
51818	1-1/2" Cutter		1	1
51807	Arbor, 5/16" to 3/4"	1		1
51819	Arbor, 7/8" to 1-1/2"		1	1
51808	Pilot Pin (for Arbor 51807)	3		3
51820	Pilot Pin (for Arbor 51819)		2	2
51809	Stop Washer	1		1
51810	Spacer Washer	1		1
51821	Hex Washer		1	1
51812	Center Punch	1	1	1
51811	Hex Key (1/8")	1	Not Included	1
8901C	Empty Case (P/N 8901)	1		
8902C	Empty Case (P/N 8902)		1	
8903C	Empty Case (P/N 8903)			1

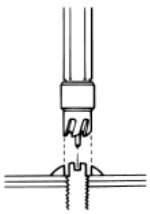
DO MORE THAN JUST DRILL HOLES.


Drill Slots


Groove to Depth


Tube Joints


Partial Holes


Remove Bolt, Screw, & Rivet Heads

Remove Frozen Nuts

Red Lion™ Cutting Wax
P/N 74559 – 2 oz.
For best performance apply to end and inside of cutter.

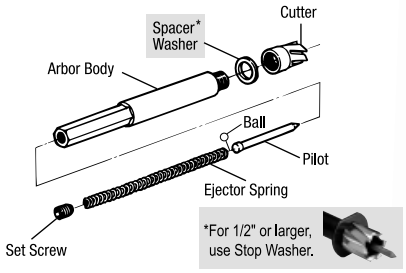
CIC 200™ SHEET METAL HOLE CUTTERS

MAKE CLEAN, ACCURATE, BURR-FREE HOLES FAST!

SHEET METAL HOLE CUTTER KIT P/N 8901

Diameters:
5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4"

Use with:
Hand held drills or drill presses with a 3/8" chuck.



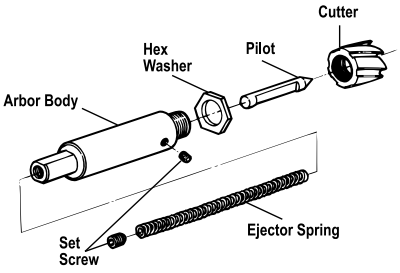
Material	Recommended Speeds (RPM)						
	Cutter Diameter / Part Number						
	5/16" 51800	3/8" 51801	7/16" 51802	1/2" 51803	9/16" 51804	5/8" 51805	3/4" 51806
Tool Steel or Stainless	600	500	450	400	350	300	250
Mild Steel	1200	1000	900	800	700	600	500
Soft Aluminum	9600	8000	7200	6400	5600	4800	4000

For sheet metal, plate, tube stock and plastic up to 1/4" thick.

LARGE DIAMETER HOLE CUTTER KIT P/N 8902

Diameters:
7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2"

Use with:
Hand held drills or drill presses with a 1/2" chuck.



Material	Recommended Speeds (RPM)					
	Cutter Diameter / Part Number					
	7/8" 51813	1" 51814	1-1/8" 51815	1-1/4" 51816	1-3/8" 51817	1-1/2" 51818
Tool Steel or Stainless	220	190	170	150	140	130
Mild Steel	440	380	340	310	280	260
Soft Aluminum	3400	2980	2650	2380	2170	1990

For sheet metal, plate, tube stock and plastic up to 1/2" thick.

HOLE CUTTERS COMBO KIT P/N 8903

Diameters:
5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4", 7/8", 1", 1-1/8", 1-1/4", 1-3/8", 1-1/2"

Use with:
Hand held drills or drill presses with a 3/8" chuck (5/16" to 3/4"), or with 1/2" chuck (7/8" to 1-1/2").

Material	Recommended Speeds (RPM)												
	Cutter Diameter / Part Number												
	5/16" 51800	3/8" 51801	7/16" 51802	1/2" 51803	9/16" 51804	5/8" 51805	3/4" 51806	7/8" 51813	1" 51814	1-1/8" 51815	1-1/4" 51816	1-3/8" 51817	1-1/2" 51818
Tool Steel or Stainless	600	500	450	400	350	300	250	220	190	170	150	140	130
Mild Steel	1200	1000	900	800	700	600	500	440	380	340	310	280	260
Soft Aluminum	9600	8000	7200	6400	5600	4800	4000	3400	2980	2650	2380	2170	1990

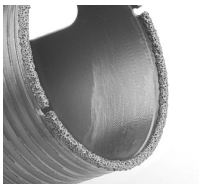
For sheet metal, plate, tube stock and plastic up to 1/2" thick (7/8" to 1-1/2"); up to 1/4" thick (5/16" to 3/4").

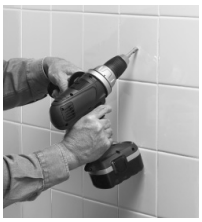
DIAMOND HOLE SAWS

MORE HOLES. LESS TIME.

LENOX

8808 & 8823





FEATURES

- Long lasting – Continuous, brazed edge lasts longer in tile & stone
- Fast, easy cutting – Low torque, little pressure required
- Easier plug removal – Over-sized slot in hole saw for easy plug removal
- No Arbor Required
- More holes in less time

APPLICATIONS

• Porcelain • Ceramic • Slate • Granite • Marble • Glass • Fiberglass • Travertine • Cement board • Laminates

DIAMETER IN	DIAMETER MM	PIPE TAP IN	PIPE TAP MM	PIPE ENTRANCE IN	PIPE ENTRANCE MM	DESCRIPTION		PART
3/16"	5	–	–	–	–	Diamond Hole Saw, 3/16"	A	51755
1/4"	6	–	–	–	–	Diamond Hole Saw, 1/4"	A	51756
5/16"	8	–	–	–	–	Diamond Hole Saw, 5/16"	A	51757
3/8"	10	–	–	–	–	Diamond Hole Saw, 3/8"	A	51758
1/2"	13	–	–	–	–	Diamond Hole Saw, 1/2"	A	51759
5/8"	15	–	–	–	–	Diamond Hole Saw, 5/8"	A	51760
3/4"	19	3/4"	13	3/8"	10	Diamond Hole Saw, 3/4"	A	51761
1"	25	–	–	–	–	Diamond Hole Saw, 1"	A	51762
1-3/8"	35	–	–	1"	25	Diamond Hole Saw, 1-3/8"	A	51763

9-PIECE PORTA-PAK

SIZES: 3/16" to 1-3/8"

DESCRIPTION		PART
Diamond Hole Saws / 9-Piece Kit	A	8808

4-PIECE KIT

SIZES: 3/16" to 3/8"

DESCRIPTION		PART
Diamond Hole Saws / 4-Piece Kit	A	8823

DIAMOND HOLE CUTTERS

EXCEPTIONAL PERFORMANCE IN A RANGE OF APPLICATIONS

FEATURES

- Available Sizes: 3/4" to 4"
- Tough diamond grit for long life
- Thin kerf segmented edges for fast, smooth hole-cutting
- Suitable for a wide range of users
- Diamond tipped by vacuum brazing for a permanent bond
- Users will enjoy long tool life and consistent, fast penetration
- A complete range of arbor accessories are available

APPLICATIONS

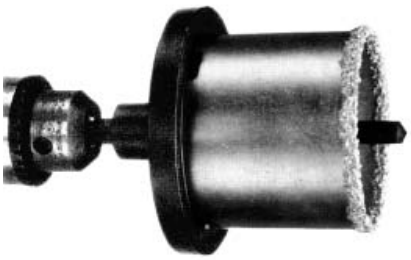
- Hard Tile
- Fiberglass
- Stone
- Cement Board
- Pipes
- Waste Pipes
- Cabling
- Porcelain
- Wood
- Thick Plastic Tubing
- Thin Plastic
- Plexi
- Granite
- Marble
- Slate
- Iron
- Glass
- Laminate Flooring
- Hardie Board

DESCRIPTION	SIZE	PART	
Diamond Hole Cutter	3/4"	A	51770
Diamond Hole Cutter	7/8"	A	51771
Diamond Hole Cutter	1-1/8"	A	51772
Diamond Hole Cutter	1-1/4"	A	51773
Diamond Hole Cutter	1-3/8"	A	51774
Diamond Hole Cutter	1-1/2"	A	51775
Diamond Hole Cutter	1-3/4"	A	51776
Diamond Hole Cutter	2"	A	51777
Diamond Hole Cutter	2-1/4"	A	51778
Diamond Hole Cutter	2-1/2"	A	51779
Diamond Hole Cutter	3"	A	51780
Diamond Hole Cutter	3-1/4"	A	51781
Diamond Hole Cutter	3-11/32"	A	51782
Diamond Hole Cutter	3-1/2"	A	51783
Diamond Hole Cutter	4"	A	51784
Arbor	3/4" to 1-1/8"	A	51785
Arbor	1-1/4" to 4"	A	51786
Pilot Drill	–	A	51787

CIC 200™ TUNGSTEN CARBIDE GRIT HOLE SAWS

CUTS THROUGH THE MOST DIFFICULT MATERIALS

Incredible, multi-purpose hole saw cuts faster and lasts longer than any conventional hole saw. Cuts easily through extremely tough materials other hole saws barely scratch!



APPLICATIONS:

- Ceramic tile
- Brick
- Cement
- Masonry
- Abrasive construction material
- Sandstone
- Fiberglass
- Polyamide
- Laminates
- Composition board
- Plastics
- Wood with glue or nails
- Plywood
- Molded fiberboard
- Plaster
- Drywall

Not for metal-cutting applications

INCREDIBLY FAST AND EASY TO USE!

Cuts through ceramic tile, brick, masonry and fiberglass like butter, leaving a perfectly round, smooth hole without chipping or cracking. Provides a professional look when running conduit, pipe, plumbing or electrical fixtures. An invaluable time, money and labor saver!

- **TUNGSTEN CARBIDE PARTICLES PERMANENTLY BONDED TO STEEL—**
  PROVIDES THE SHARPEST, MOST DURABLE CUTTING SURFACE FOR CUTTING EXTREMELY HARD AND ABRASIVE MATERIALS ORDINARY HOLE SAWS CANNOT CUT
- **SELF-SHARPENING —**
  WHEN A CARBIDE PARTICLE CHIPS, A NEW SHARPER SURFACE IS CREATED
- **2-1/2" CUTTING DEPTH —**
  DEEPER THAN ANY OTHER COMPETITIVE PRODUCT
- **"BAYONET" STYLE MANDREL —**
  ALLOWS QUICK CHANGE OF HOLE SAWS AND SECURELY HOLDS ANY ONE OF FIVE DIFFERENT SIZES
- **CARBIDE PILOT DRILL —**
  EASILY DRILLS THROUGH VIRTUALLY ANY SURFACE AND FITS ANY VARIABLE SPEED HAND DRILL OR DRILL PRESS
- **5 SIZES — 1-1/4", 2-1/8", 2-5/8", 2-7/8" AND 3-1/4"**

TUNGSTEN CARBIDE GRIT HOLE SAWS

DIAMETER	PIPE ENTRANCE		PART
1-1/4"	3/4	A	1102
2-1/8"	1-5/8	A	1104
2-5/8"	2-1/8	A	1106
2-7/8"	2-3/8	A	1108
3-1/4"	2-3/4	A	1110

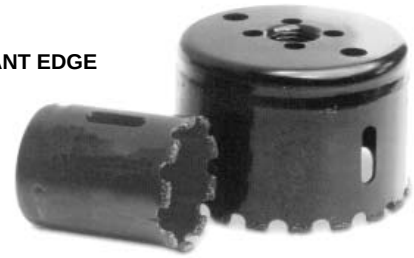
DESCRIPTION		PART
Bayonet Mandrel	A	1100
Tungsten Carbide File	A	15575

TOUGH-GRIT™ TUNGSTEN CARBIDE HOLE SAWS

FOR HIGH SHOCK AND HIGH VIBRATION APPLICATIONS

LASTS UP TO 10 TIMES LONGER THAN CONVENTIONAL HOLE SAWS!

- **IDEAL FOR CUTTING HARDENED STEEL, CINDER BLOCKS, CERAMIC TILES, MARBLE, CAST IRON PIPE, PATIO TILES, BRICK, FIBERGLASS, HARDWOODS, COMPOSITES, ETC.**
- **SUPER RESISTANCE TO HEAT, WEAR AND ABRASION WITH SHOCK RESISTANT BACK**
- **TUNGSTEN CARBIDE GRIT IS BONDED TO ALLOY BACKS WITH A GULLETED, SNAG RESISTANT EDGE**
- **1-1/2" CUTTING DEPTH**



P/N 8827

13-PIECE TOUGH-GRIT™ TUNGSTEN CARBIDE HOLE SAW KIT

- 3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/4" and 2-1/2" Hole Saws
- 3/8 Hex Arbor for P/N 51012-51019
- 7/16 Hex Arbor for 51020-51096, 1
- 2" Extension and Molded Storage Case

DIAMETER	PIPE ENTRANCE		PART	DIAMETER	PIPE ENTRANCE		PART	DIAMETER	PIPE ENTRANCE		PART
3/4	3/8	A	51012	2"	1-1/2	A	51032	4"	–	A	51064
13/16	–	A	***51013***	2-1/16	–	A	***51033***	4-1/8	3-1/2	A	***51066***
7/8	1/2	A	51014	2-1/8	–	A	51034	4-1/4	–	A	***51068***
15/16"	–	A	***51015***	2-1/4	–	A	51036	4-3/8	–	A	***51070***
1"	–	A	51016	2-5/16	–	A	***51037***	4-1/2	4"	A	51072
1-1/16	–	A	***51017***	2-3/8	–	A	51038	4-3/4	–	A	***51076***
1-1/8	3/4	A	51018	2-1/2	2"	A	51040	5"	–	A	***51080***
1-3/16	–	A	***51019***	2-9/16	–	A	***51041***	5-1/2	–	A	***51088***
1-1/4	–	A	51020	2-5/8	–	A	***51042***	5-3/4	–	A	***51092***
1-5/16	–	A	***51021***	2-3/4	–	A	51044	6"	–	A	***51096***
1-3/8	1"	A	51022	2-7/8	–	A	***51046***	6-3/8	–	A	***51097***
1-7/16	–	A	***51023***	3"	2-1/2	A	51048	6-5/8	–	A	***51098***
1-1/2	–	A	51024	3-1/8	–	A	***51050***	6-7/8	–	A	***51099***
1-9/16	–	A	***51025***	3-1/4	–	A	51052	3/8 Hex Arbor for P/N 51012-51019		A	51100
1-5/8	–	A	***51026***	3-3/8	–	A	51054				
1-11/16	–	A	***51027***	3-1/2	–	A	***51056***	7/16 Hex Arbor for P/N 51020-51099		A	51101
1-3/4	1-1/4	A	51028	3-5/8	3"	A	***51058***				
1-13/16	–	A	***51029***	3-3/4	–	A	51060	Replacement Drill for 51100		A	51102
1-7/8	–	A	***51030***	3-7/8	–	A	***51062***	Replacement Drill for 51101		A	51103

NOTE: NUMBERS IN ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

THE ULTIMATE SOLUTION TO DRILLING THICK STEEL

The perfect, portable tool for the professional electrician, plumber, mechanic and general contractor. An extremely productive tool that is a cost effective alternative to bi-metal holesaws.

APPLICATIONS

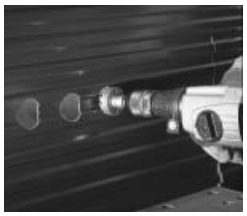
- Junction/Switch Boxes
- Metal Studs
- Electrical Appliances
- Lighting Fixtures
- Auto Body Repair
- Truck/Trailer Frames
- Ductile Pipe
- *Anywhere a standard holesaw just won't cut it!*

INCREDIBLY FAST & EASY TO USE!

For cutting pipe, thick steel, steel plate, iron, aluminum, copper, cast iron and stainless steel up to 1" thick. An invaluable time, money and labor saver!

- **SPECIAL TUNGSTEN CARBIDE TEETH**
  SUPERIOR WEAR AND HEAT RESISTANCE. CUTS STAINLESS STEEL AND TOUGH ALLOYS

- **ONE-PIECE CONSTRUCTION**
  NO ASSEMBLY REQUIRED AND ASSURES STABLE, ACCURATE DRILLING
- **EJECTOR SPRING AND PILOT DRILL**
  (INCLUDED AND ASSEMBLED) – EJECTS THE SLUG SAVING TIME AND AGGRAVATION TRYING TO REMOVE SLUGS



- **SAFETY COLLAR STOP**
  PREVENTS OVER PENETRATION FOR SAFER, FASTER OPERATION

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

DIAMETER	STEEL (RPM)	PART	DIAMETER	STEEL (RPM)	PART	DIAMETER	STEEL (RPM)	PART
9/16"	700-1000	A 51109	1-7/16"	300-600	A 51123	2-1/2"	150-300	A 51136
5/8"	700-1000	A 51110	1-1/2"	300-600	A 51124	2-5/8"	150-300	A 51137
11/16"	700-1000	A 51111	1-9/16"	300-600	A 51125	2-3/4"	150-300	A 51138
3/4"	700-1000	A 51112	1-5/8"	200-500	A 51126	3"	150-300	A 51139
13/16"	700-1000	A 51113	1-11/16"	200-500	A 51127	3-1/4"	100-200	A 51140
7/8"	500-800	A 51114	1-3/4"	200-500	A 51128	3-1/2"	100-200	A 51141
15/16"	500-800	A 51115	1-13/16"	200-500	A 51129	3-5/8"	100-200	A 51107
1"	500-800	A 51116	1-7/8"	200-500	A 51130	3-3/4"	100-200	A 51142
1-1/16"	500-800	A 51117	1-15/16"	200-500	A 51131	4"	100-200	A 51143
1-1/8"	500-800	A 51118	2"	200-500	A 51132	4-1/8"	100-200	A 51108
1-3/16"	500-800	A 51119	2-1/8"	200-400	A 51133	4-1/4"	100-200	A 51144
1-1/4"	300-600	A 51120	2-1/4"	200-400	A 51134	4-1/2"	100-200	A 51145
1-5/16"	300-600	A 51121	2-3/8"	150-300	A 51135			
1-3/8"	300-600	A 51122	2-9/16"	150-300	A 51106			

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTER ACCESSORIES

DESCRIPTION	PART
Pilot Drill for Hole Cutters	A 51146
Spring for Carbide Hole Saw	A 51148
Carbide Tipped Pilot Drill	A 51149
Extender – Precision machined tool steel, extends hole cutters by 4" (for 1/2" shank)	A 51104
Extender – Precision machined tool steel, extends hole cutters by 4" (for 3/8" shank)	A 51105

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

RAZORQWIK™ TRADE SETS

The perfect, portable tool for the professional electrician, plumber, mechanic and general contractor. An extremely productive tool that is a cost effective alternative to bi-metal holesaws. For cutting pipe, thick steel, steel plate, iron, aluminum, copper, cast iron and stainless steel up to 1" thick.

MASTER ELECTRICIAN SET P/N 8801

10 piece set contains the following diameters:

- 7/8"
- 1-1/8"
- 1-3/8"
- 1-3/4"
- 2"
- 2-1/2"
- 3"
- 3-5/8"
- 4-1/8"
- 4-1/2"

Packed in a rugged plastic case.

STARTER ELECTRICIAN SET P/N 8802

6 piece set contains the following diameters:

- 7/8"
- 1-1/8"
- 1-3/8"
- 1-3/4"
- 2"
- 2-1/2"

Packed in a rugged plastic case.

PLUMBER SET P/N 8803

6 piece set contains the following diameters:

- 3/4"
- 7/8"
- 1-1/8"
- 1-1/2"
- 1-3/4"
- 2-1/4"

Packed in a rugged plastic case.

MECHANICAL SET P/N 8804

10 piece set contains the following diameters:

- 5/8"
- 3/4"
- 7/8"
- 1"
- 1-1/8"
- 1-1/4"
- 1-3/8"
- 1-1/2"
- 1-3/4"
- 2"

Packed in a rugged plastic case.

DOOR SET P/N 8805

For professional lock installation in steel doors, with a cutting depth of 2", it is perfect for drilling steel door lockset holes.

4 piece set contains the following diameters:

- 7/8"
- 1"
- 1-1/2"
- 2-1/8"

Packed in a rugged plastic case.

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

DOOR LOCK HOLE CUTTERS

For drilling steel door lockset holes. Cuts through steel doors up to 2" thick. Truly an invaluable time, money and labor saver!

RAZORQWIK™ CARBIDE TIPPED DOOR LOCK CUTTERS

DESCRIPTION	DIAMETER	STEEL (RPM)		PART NO.
Carbide Tipped Door Lock Cutter	1-1/2"		A	51167
Carbide Tipped Door Lock Cutter	2-1/8"		A	51168
Pilot	–	–	A	51169
Screw	–	–	A	51147

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTER KITS

P/N 8839

P/N 8838

	DESCRIPTION		PART
Standard	**4-Piece RazorQwik™ Carbide Tipped Hole Cutter Kit** 5/8" (P/N 51110), 3/4" (P/N 51112), 7/8" (P/N 51114) and 1" (P/N 51116) Hole Cutters with 4 Pilot Drills and 4 Ejector Springs Packed in a Steel Case	A	8839
Bolt Sizes	**4-Piece RazorQwik™ Carbide Tipped Hole Cutter Kit** 11/16" (P/N 51111), 13/16" (P/N 51113), 15/16" (P/N 51115) and 1-1/16" (P/N 51117) Hole Cutters with 4 Pilot Drills and 4 Ejector Springs Packed in a Steel Case	A	8837
Pipe/Conduit	**5-Piece RazorQwik™ Carbide Tipped Hole Cutter Kit** 7/8" (P/N 51114), 1-1/8" (P/N 51118), 1-3/8" (P/N 51122), 1-3/4" (P/N 51128) and 2" (P/N 51132) Hole Cutters with 5 Pilot Drills and 5 Ejector Springs Packed in a Steel Case	A	8838
	Case Only	A	8838C
	6-Piece RazorQwik™ Carbide Tipped Hole Cutter Kit 5/8" (P/N 51110), 3/4" (P/N 51112), 7/8" (P/N 51114), 1-3/16" (P/N 51119), 1-1/2" (P/N 51124), 2" (P/N 51132) Hole Cutters with 6 Pilot Drills and 6 Ejector Springs Packed in a Rugged Plastic Case	A	8806

RAZORQWIK™ STUBBY CARBIDE TIPPED HOLE CUTTERS

THE ULTIMATE SOLUTION TO DRILLING UP TO 1/8" THICK STEEL

The perfect, portable tool for the professional electrician, plumber, mechanic and general contractor. An extremely productive tool that is a cost effective alternative to bi-metal holesaws.

INCREDIBLY FAST AND EASY TO USE!

For cutting steel plate, stainless steel, sheet metal and tubing up to 1/8" thick. An invaluable time, money and labor saver!

- **SPECIAL TUNGSTEN CARBIDE TEETH – SUPERIOR WEAR AND HEAT RESISTANCE. CUTS STAINLESS STEEL AND TOUGH ALLOYS**
- **ONE-PIECE CONSTRUCTION – NO ASSEMBLY REQUIRED AND ASSURES STABLE, ACCURATE DRILLING**
- **EJECTOR SPRING AND PILOT DRILL (INCLUDED AND ASSEMBLED) – EJECTS THE SLUG SAVING TIME AND AGGRAVATION TRYING TO REMOVE SLUGS**
- **SAFETY COLLAR STOP – PREVENTS OVER PENETRATION FOR SAFER, FASTER OPERATION**
- **1/4" HEX SHANK – FOR USE IN QUICK-CHANGE ADAPTERS**
- **FAST, CLEAN CUTS EVERY TIME**
- **PERFECT FOR USE IN BATTERY POWERED DRILLS BECAUSE THEY CUT QUICKLY WITH LOW POWER**

APPLICATIONS:

- Junction/Switch Boxes
- Metal Studs
- Electrical Appliances
- Lighting Fixtures
- Auto Body Repair
- Truck/Trailer Frames
- Ductile Pipe
- *Anywhere a standard holesaw just won't cut it!*

RAZORQWIK™ STUBBY CARBIDE TIPPED HOLE CUTTERS

DIAMETER	STEEL (RPM)		PART
5/8"	700-1000	A	51150
11/16"	700-1000	A	51151
3/4"	700-1000	A	51152
13/16"	700-1000	A	51153
7/8"	500-800	A	51154
15/16"	500-800	A	51155
1"	500-800	A	51156
1-1/16"	500-800	A	51157
1-1/8"	500-800	A	51158
1-3/16	500-800	A	51159
1-1/4	300-600	A	51160
1-5/16	300-600	A	51161
1-3/8	300-600	A	51162
Pilot Drill for Stubby Carbide Hole Cutters		A	51163
Screw for Stubby Carbide Hole Cutters		A	51164
Spring for Stubby Carbide Hole Cutters		A	51165
1/4 and 3/8 Quick Change Adapter		A	51166

RAZORQWIK™ STUBBY CARBIDE TIPPED HOLE CUTTER KITS

Part #8812

	DESCRIPTION		PART
Standard	**6-Piece RazorQwik™ Stubby Carbide Tipped Hole Cutter Kit** 5/8" (P/N 51150), 3/4" (P/N 51152), 7/8" (P/N 51154), 1" (P/N 51156), 1-1/8" (P/N 51158) Stubby Hole Cutters, Quick Change Adapter, 5 Pilot Drills and 5 Ejector Springs Packed in a Steel Case	A	8812
Pipe/Conduit	**6-Piece RazorQwik™ Stubby Carbide Tipped Hole Cutter Kit** (2) 7/8" (P/N 51154), (2) 1-1/8" (P/N 51158), (1) 1-3/8" (P/N 51162) Stubby Hole Cutters, Quick Change Adapter, 5 Pilot Drills and 5 Ejector Springs Packed in a Steel Case	A	8813
	Case Only	A	8812C

DIAMOND BLADES

THE ULTIMATE IN CIRCULAR SAW BLADES

Turns circular saws into specialty tools. Cuts concrete, block, brick, asphalt and masonry as well as general purpose applications. These diamond blades can be used wet or dry.

NINJA STAR

- **THESE BLADES HAVE A UNIQUE COLD PRESSED CASTELLATED RIM WHICH PROVIDES FAST CHIP FREE CUTTING**
- **CUTS BRICK, BLOCK, CONCRETE, BLUESTONE, FLAGSTONE, GRANITE, ROOF TILE AND OTHER HARD MASONRY MATERIALS**

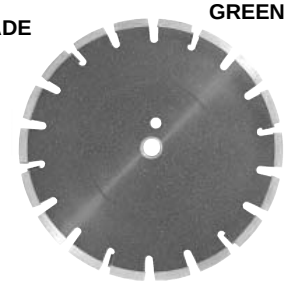
YELLOW

BLADE DIA.	ARBOR	MAX RPM		PART
4" (100mm)	7/8-5/8	15,000	A	18986
4.5" (115mm)	7/8-5/8	13,300	A	18987
7" (175mm)	DM-5/8	8,730	A	18990
10" (250mm)	7/8-5/8	6,115	A	18993

GIGANTICO

- **DESIGNED TO PROVIDE LONG BLADE LIFE AND FAST CUTS WITH IT'S 15MM JUMBO SEGMENT HEIGHT**
- **A FUNCTIONAL VALUE AT AN ECONOMICAL PRICE**
- **MEDIUM BOND BLADE IS PERFECT FOR CUTTING GENERAL PURPOSE MASONRY, BRICK, BLOCK AND CONCRETE**

GREEN

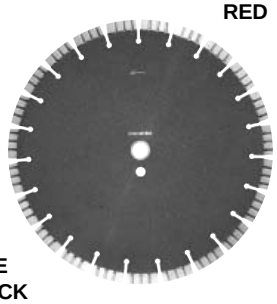


BLADE DIA.	ARBOR	MAX RPM		PART
12" (300mm)	1"-20mm	6,300	A	19014
14" (350mm)	1"-20mm	5,400	A	19015

BOHEMIAN DEVIL

- **DESIGNED WITH A DOUBLE SEGMENT HEIGHT FOR LONGER BLADE LIFE**
- **SAVES TIME WITH LESS BLADE CHANGES**
- **SEGMENTS ARE LASER WELDED WITH A SUPER SOFT BOND FOR CUTTING**
- **CUTS CURED CONCRETE, REINFORCED CONCRETE, REBAR, CONCRETE PIPE, RIGID CONCRETE PIPE (RCP) AND REFRACTORY BRICK**

RED

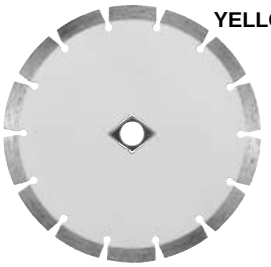


BLADE DIA.	ARBOR	MAX RPM		PART
12" (300mm)	1"-20mm	6,300	A	18994
14" (350mm)	1"-20mm	5,400	A	18995

WILD DEMON

- **.395 SEGMENTED HEIGHT (10MM) SUPREME BLADES ARE AMONG THE FINEST ON THE MARKET**
- **OUTLASTING MOST OF THE COMPETITION BY 30-40%**
- **HEAT TREATED STEEL CORE PROVIDES EXTREME BLADE STRENGTH FOR DEEP CUTS**
- **MEDIUM BOND, FOR GENERAL PURPOSE, BRICK, BLOCK AND CONCRETE**

YELLOW

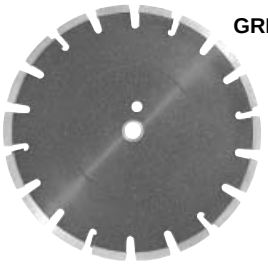


BLADE DIA.	ARBOR	MAX RPM		PART
4" (100mm)	7/8-5/8	15,000	A	18999
4.5" (115mm)	7/8-5/8	13,300	A	19000
7" (175mm)	DM-5/8	8,730	A	19003
10" (250mm)	7/8-5/8	6,115	A	19006

SLICER

- **LASER WELDED SEGMENTED BLADE IS PERFECT FOR LOW HP WALK BEHIND SAWS**
- **THE UNIQUE FEATURE OF THIS BLADE IS ITS UNDERCUT PROTECTION SYSTEM WITH C3 CARBIDE INSERTS**
- **CUTS AND CLEARS A CUTTING PATH IN ONE MOTION**
- **HARD BOND IS PERFECT FOR CUTTING ASPHALT, GREEN CONCRETE AND LIGHTWEIGHT BLOCK**

GREEN



BLADE DIA.	ARBOR	MAX RPM		PART
12" (300mm)	1"-20mm	6,300	A	19019
14" (350mm)	1"-20mm	5,400	A	19020

DIAMOND BLADES (Cont'd.)

PRO-BLADES – PRO 1, PRO 2, PRO 3, PRO 4

The PRO-BLADE is truly the finest quality professional blade in the market. With a 40% diamond concentration and a 10mm (.395) segment height, this blade cuts 30% faster and lasts up to 40% longer. Blade specifications meet or exceed demands of Department of Transportation & Professional Concrete/Asphalt Cutters. These blades are perfect for high horsepower and low RPM walk behind saws. Length of cuts: 6,000 to 18,000 inch feet.

PRO-1 Bond: Soft
Cuts: Cured concrete

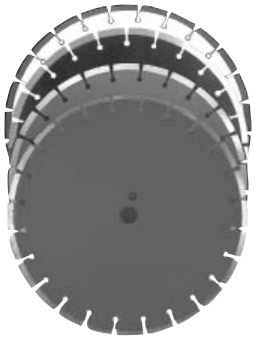
PRO-2 Bond: Medium
Cuts: Cured concrete

PRO-3 Bond: Hard
Cuts: Asphalt

PRO-4 Bond: Medium
Cuts: Asphalt over concrete

Use wet only (do not run dry).

***Also available in a Super Soft Bond**



WHITE
BLUE
GRAY
RED

BLADE DIA.	ARBOR	MODEL	MAX. RPM		PART
12" x .125	1"	Pro-1	5,095	A	19061
14" x .125	1"	Pro-1	4,365	A	19062
14" x .187	1"	Pro-1	4,365	A	19063
14" x .250	1"	Pro-1	4,365	A	19064
14" x .312	1"	Pro-1	4,365	A	19065
14" x .375	1"	Pro-1	4,365	A	19066
16" x .125	1"	Pro-1	3,280	A	19067
16" x .187	1"	Pro-1	3,280	A	19068
16" x .500	1"	Pro-1	3,280	A	19069
18" x .125	1"	Pro-1	3,395	A	19070
18" x .155	1"	Pro-1	3,395	A	19071
18" x .187	1"	Pro-1	3,395	A	19072
18" x .250	1"	Pro-1	3,395	A	19073
18" x .312	1"	Pro-1	3,395	A	19074
18" x .375	1"	Pro-1	3,395	A	19075
20" x .125	1"	Pro-1	3,055	A	19076
20" x .155	1"	Pro-1	3,055	A	19077
20" x .187	1"	Pro-1	3,055	A	19078
24" x .125	1"	Pro-1	2,550	A	19079
24" x .155	1"	Pro-1	2,550	A	19080
24" x .187	1"	Pro-1	2,550	A	19081
24" x .250	1"	Pro-1	2,550	A	19082
26" x .155	1"	Pro-1	2,350	A	19083
26" x .187	1"	Pro-1	2,350	A	19084
26" x .250	1"	Pro-1	2,350	A	19085
30" x .160	1"	Pro-1	2,040	A	19086
30" x .187	1"	Pro-1	2,040	A	19087
30" x .250	1"	Pro-1	2,040	A	19088
36" x .160	1"	Pro-1	1,700	A	19089
36" x .187	1"	Pro-1	1,700	A	19090
14" x .125	1"	Pro-2	4,365	A	19091
14" x .187	1"	Pro-2	4,365	A	19092
16" x .125	1"	Pro-2	3,280	A	19093
18" x .125	1"	Pro-2	3,395	A	19094
18" x .187	1"	Pro-2	3,395	A	19095
20" x .125	1"	Pro-2	3,055	A	19096
20" x .187	1"	Pro-2	3,055	A	19097
24" x .125	1"	Pro-2	2,550	A	19098
24" x .155	1"	Pro-2	2,550	A	19099
24" x .187	1"	Pro-2	2,550	A	19100

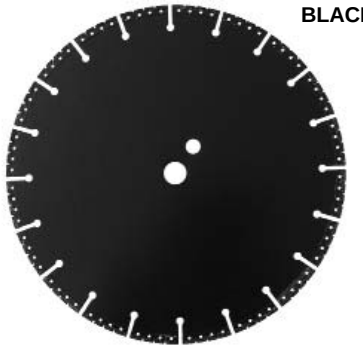
BLADE DIA.	ARBOR	MODEL	MAX. RPM		PART
26" x .155	1"	Pro-2	2,350	A	19101
26" x .187	1"	Pro-2	2,350	A	19102
30" x .187	1"	Pro-2	2,040	A	19103
36" x .187	1"	Pro-2	1,700	A	19104
12" x .125	1"	Pro-3	2,550	A	19105
14" x .125	1"	Pro-3	2,550	A	19106
14" x .187	1"	Pro-3	5,095	A	19107
14" x .250	1"	Pro-3	4,365	A	19108
14" x .312	1"	Pro-3	4,365	A	19109
14" x .375	1"	Pro-3	4,365	A	19110
14" x .500	1"	Pro-3	4,365	A	19111
16" x .125	1"	Pro-3	3,280	A	19112
16" x .187	1"	Pro-3	3,280	A	19113
16" x .250	1"	Pro-3	3,280	A	19114
16" x .500	1"	Pro-3	3,280	A	19115
18" x .125	1"	Pro-3	3,395	A	19116
18" x .155	1"	Pro-3	3,395	A	19117
18" x .187	1"	Pro-3	3,395	A	19118
18" x .250	1"	Pro-3	3,395	A	19119
18" x .312	1"	Pro-3	3,395	A	19120
18" x .375	1"	Pro-3	3,395	A	19121
20" x .125	1"	Pro-3	3,055	A	19122
20" x .155	1"	Pro-3	3,055	A	19123
20" x .187	1"	Pro-3	3,055	A	19124
24" x .125	1"	Pro-3	2,550	A	19125
24" x .155	1"	Pro-3	2,550	A	19126
24" x .187	1"	Pro-3	2,550	A	19127
24" x .250	1"	Pro-3	2,550	A	19128
26" x .160	1"	Pro-3	2,350	A	19129
26" x .187	1"	Pro-3	2,350	A	19130
30" x .187	1"	Pro-3	2,040	A	19131
36" x .187	1"	Pro-3	1,700	A	19132
14" x .125	1"	Pro-4	4,365	A	19133
16" x .125	1"	Pro-4	3,280	A	19134
18" x .125	1"	Pro-4	3,395	A	19135
18" x .187	1"	Pro-4	3,395	A	19136
24" x .187	1"	Pro-4	2,550	A	19137
26" x .187	1"	Pro-4	2,350	A	19138
30" x .187	1"	Pro-4	2,040	A	19139
36" x .187	1"	Pro-4	1,700	A	19140

DIAMOND BLADES (Cont'd.)

SABERTOOTH

The newly engineered Sabertooth Diamond Blade is designed to power cut through all hard materials with it's electroplated diamond grit, like a knife through butter.

- **Tensioned Core**
- **Diamond: MBS 940**
- **Bond: Hard**
- **Cuts: Ductile Iron, Cast Iron, Steel, PVC, Reinforced Concrete Pipe and Cured Concrete.**
- **Use Wet or Dry**
- **High Speed**

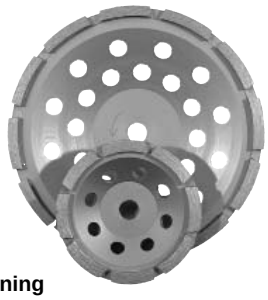


BLACK

BLADE DIA.	THICKNESS	SEG. HEIGHT	ARBOR	MAX RPM	PART	
4"	.080	5 mm	7/8"-5/8"	15,000	A	19031
4.5"	.080	5 mm	7/8"-5/8"	13,300	A	19032
7"	.080	5 mm	DM-5/8"	8,730	A	19033
10"	.110	5 mm	7/8"-5/8"	6,115	A	19034
12"	.125	5 mm	1"-20 mm	6,300	A	19035
14"	.125	5 mm	1"-20 mm	5,400	A	19036

HURRICANE 1 - SINGLE ROW CUP WHEELS

Hurricane 1 cup wheels fit most angle grinders and floor grinding machines. They are the perfect tool in construction for concrete surface preparation and tilt wall finishing. Also perfect for fast grinding and rough de-burring. Ideal for the contractor that is concerned with up front costs.



- **Bond: Soft**
- **Cuts: Grinding and de-burring and cleaning concrete, natural stone, artificial stone, and similar materials. For smoothing rough and patched floors, sidewalks, patios, driveways, streets, etc. Can also be used for grinding down bumps and rough joints on ground surfaces and slant walls.**
- **Use wet or dry**
- **High Speed**

BLADE DIA.	ARBOR	MAX. RPM	PART	
4"	5/8-11	15,000	A	19157
7"	5/8-11	8,730	A	19158

HURRICANE 2 - DOUBLE ROW CUP WHEELS

Hurricane 2 cup wheels fit most angle grinders and floor grinding machines. They are the perfect tool in construction for concrete surface preparation and tilt wall finishing. Also perfect for fast grinding and rough de-burring. Ideal for the contractor that is concerned with up front costs.

- **Bond: Soft**
- **Cuts: Grinding and de-burring and cleaning concrete, natural stone, artificial stone, and similar materials. For smoothing rough and patched floors, sidewalks, patios, driveways, streets, etc. Can also be used for grinding down bumps and rough joints on ground surfaces and slant walls.**
- **Use wet or dry**
- **High Speed**

BLADE DIA.	ARBOR	MAX. RPM	PART	
4"	5/8-11	15,000	A	19159
7"	5/8-11	8,730	A	19160

DIAMOND BLADES (Cont'd.)

RESTOR ONE

These 10mm segment height tuck point blades are ideal for the economy minded contractor who has a large restoration project to tackle and needs low up front costs. Also provides superior cutting ability for aggressive and rapid mortar removal with a minimum of equipment strain. These tuck pointer blades perform extremely well for the cost, providing fast speed and good life.

- **Bond: Soft**
- **Cuts: Mortar removal**
- **Use wet or dry**
- **High Speed**

BLADE DIA.	ARBOR	MAX. RPM		PART
4"	7/8-5/8	15,000	A	19022
4.5"	7/8-5/8	13,300	A	19023

CORE BIT - WET

These PREMIUM GRADE core bits are manufactured to the highest specifications and designed for a multitude of drilling applications. Example: cutting into highways, runways, dams, buildings, bridges, parking garages, walls, floors, culverts, drainage pipes and more. The Premium Plus has a higher concentration of diamonds; faster cuts, longer life.

- **Wet cutting**

BLADE DIA.	ARBOR	MAX. RPM		PART
2"	1-1/4"-7	–	A	19141
2.25"	1-1/4"-7	–	A	19142
2.5"	1-1/4"-7	–	A	19143
3"	1-1/4"-7	–	A	19144
3.5"	1-1/4"-7	–	A	19145
4"	1-1/4"-7	15,000	A	19146
4.25"	1-1/4"-7	–	A	19147
4.5"	1-1/4"-7	13,300	A	19148
5"	1-1/4"-7	12,000	A	19149
5.5"	1-1/4"-7	–	A	19150
6"	1-1/4"-7	10,150	A	19151
6.5"	1-1/4"-7	–	A	19152
7"	1-1/4"-7	8,730	A	19153
8"	1-1/4"-7	7,640	A	19154
10"	1-1/4"-7	6,115	A	19155
12"	1-1/4"-7	5,095	A	19156

DIAMOND CORE BITS

DIAMOND CORE BITS

- **Engineered to bore and drill fast clean holes**
- **For natural and composite materials**
- **1/4" shank**
- **Perfect for porcelain**
- **Includes extractor**

DIAMETER		PART
1/8"	D	51006
3/16"	D	51007
1/4"	D	51008
5/16"	B	51009
3/8"	B	51010
1/2"	B	51011

DIAMOND CORE BIT ASSORTMENT

- **Engineered to bore and drill fast clean holes**
- **For natural and composite materials**
- **1/4" shank**
- **Perfect for porcelain**
- **Includes extractor**

P/N 8818

OSCILLATING TOOL BLADES

BI-METAL UNIVERSAL BLADE

Features
Bi-metal universal blades are great for plunge and flush cuts in a wide range of materials.

Cuts
- Sheet metal
- Copper pipes
- Aluminum profiles
- PVC
- Wood w/ embedded nails
- Plasterboard
- Nearly all plastics

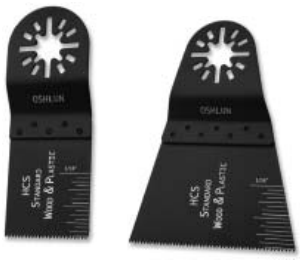
Each package includes 3 blades.

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
1-1/3"	Bi-metal	Uni-Fit Mount	Metal & Wood	A	19161

HIGH CARBON STEEL (HCS) STANDARD BLADES

Features
High carbon steel (HCS) standard blades are great for plunge and flush cuts in a wide range of non metallic materials.

Cuts
- Softwood
- Hardwood
- Particle board
- Plywood
- Fiberglass
- Plexiglass
- Nearly all plastics



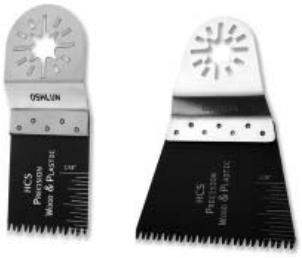
Each package includes 3 blades.

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
1-1/3"	HCS	Uni-Fit Mount	Wood & Plastic	A	19162
2-1/3"	HCS	Uni-Fit Mount	Wood & Plastic	A	19163

HIGH CARBON STEEL (HCS) PRECISION JAPAN BLADES

Features
High carbon steel (HCS) precision Japan tooth blades are great for plunge and flush cuts in a wide range of materials. Fastest cutting blade due to the large, sharp teeth.

Cuts
- Drywall
- Hardwood floors
- Molding
- Soft plastics
- Trim
- Laminated materials



Each package includes 3 blades.

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
1-1/3"	HCS	Uni-Fit Mount	Wood & Plastic	A	19164
2-1/3"	HCS	Uni-Fit Mount	Wood & Plastic	A	19165

ALL OSCILLATING TOOL BLADES FOR USE WITH...

FEIN® MultiMaster® • Bosch® Max Multi-X™ • Dremel® Multi-Max® • Craftsman® NEXTEC® • Skil® Multi-Tasker® • Milwaukee® M12™ • Tools with 3/8" round arbors

OSCILLATING TOOL BLADES

HIGH SPEED STEEL (HSS) CIRCULAR BLADE

Features
High speed steel (HSS) universal blades are great for cutting a wide range of materials.

Cuts
- Sheet metal
- Copper pipes
- Aluminum profiles
- PVC
- Wood w/embedded nails
- Brass
- Bronze
- Nearly all plastics

Each package includes 2 blades.

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
3-1/8"	HSS	Uni-Fit Mount	Metal & Wood	A	19168

HIGH SPEED STEEL (HSS) RECESSED SEGMENT BLADE

Features
High speed steel (HSS) universal blades are great for cutting a wide range of materials. Recessed design allows flush cutting. Segmented design allows cutting into corners without damaging the adjacent material.

Cuts
- Hardwood
- Softwood
- Sheet metal
- Copper pipes
- Aluminum profiles
- PVC
- Wood w/ embedded nails
- Brass
- Bronze
- Nearly all plastics

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
3-1/8"	HSS	Uni-Fit Mount	Metal & Wood	A	19166

COMBO 3 PACK – HIGH CARBON STEEL (HCS) PRECISION JAPAN BLADES

Includes
- Bi-Metal Universal Blade P/N 19161
- HCS Standard Blade P/N 19162
- HCS Precision Japan Blade P/N 19165

Cuts
- Hardwood
- Softwood
- Sheet metal
- Copper pipes
- Aluminum profiles
- PVC and Soft plastics
- Molding
- Trim
- Wood w/ embedded nails
- Brass and Bronze
- Drywall
- Hardwood floors
- Laminated materials

DESCRIPTION		PART
Combo 3 Pack	A	19170

ALL OSCILLATING TOOL BLADES FOR USE WITH...

FEIN® MultiMaster® • Bosch® Max Multi-X™ • Dremel® Multi-Max® • Craftsman® NEXTEC® • Skil® Multi-Tasker® • Milwaukee® M12™ • Tools with 3/8" round arbors

OSCILLATING TOOL BLADES

CARBIDE RECESSED SEGMENT GROUT BLADE

Features
A recessed design and it allows flush cutting. The segmented design also allows cutting into corners without damaging the adjacent material. Approximately 0.090" thick.

Removes
- Great for removing old grout from tile joints
- Can also be used to remove thin set or mortar and cut grooves in concrete

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
2-1/2"	Carbide	Uni-Fit Mount	Grout & Thin Set	A	19167

CARBIDE TRIANGULAR RASP

Features
The triangular design allows easy grinding into corners and tight spaces. The recessed design allows flush cutting.

For Grinding
- Concrete
- Stone
- Wood
- Thin set
- Mortar

Removes
- Paint
- Epoxy coatings

BLADE WIDTH	BLADE MATERIAL	ARBOR STYLE	BLADE TYPE/USAGE		PART
3-1/8"	Carbide	Uni-Fit Mount	Grout & Thin Set	A	19169

ALL OSCILLATING TOOL BLADES FOR USE WITH...

FEIN® MultiMaster® • Bosch® Max Multi-X™ • Dremel® Multi-Max® • Craftsman® NEXTEC® • Skil® Multi-Tasker® • Milwaukee® M12™ • Tools with 3/8" round arbors

OSCILLATING TOOL BLADES

M12 CORDLESS LITHIUM-ION MULTI-TOOL KIT

Features
- Tackle awkward applications on any jobsite
- Variable speed dial
- Runs at 5,000 to 20,000 OPM
  - Allows the user to match the speed to the application
- On-board fuel gauge displays the remaining run-time
- M12™ RED LITHIUM™ battery

Benefits
- Cordless
- Light weight
- Universal adaptor (included in each kit) allows the M12 Multi-Tool to be compatible with most competitive accessories on the market today

Ideal For
- Maintenance repair technicians
- Remodelers
- Contractors
- Electricians

Applications
- Flush cuts
- Plunge cuts
- Removing grout
- Grinding thinset
- Sanding
- Scraping

P/N M2426-22

Kit Contents
- 2426 M12™ Cordless LITHIUM-ION Multi-Tool
- Adapter
- Wood Cutting Blade
- Sanding Pad
- (5) Assorted Sanding Sheets
- (2) M12 RED LITHIUM™ Batteries
- Charger
- Contractor Bag

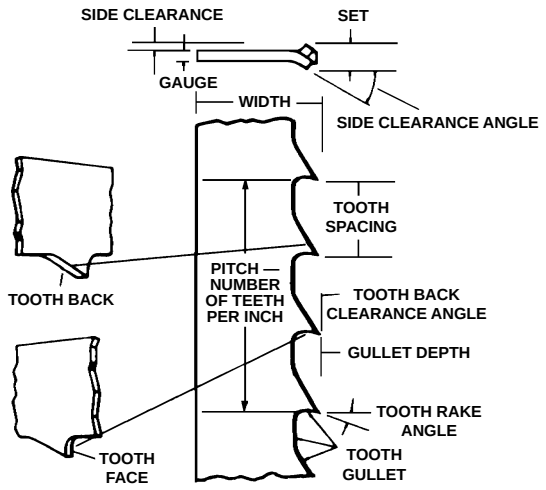
Specifications

• Voltage:	12V
• Speed Settings:	12
• OPM:	5,000 - 20,000
• Battery:	RED LITHIUM™
• Charge Time:	30 Minutes
• Length:	10-7/8"
• Weight:	2.1 lbs

CHROMATE BAND SAW TROUBLESHOOTING

1. **PREMATURE AND EXCESSIVE TOOTH WEAR**
   - Feed pressure too light. Increase it.
   - Lower band velocity.
   - Insufficient coolant (apply at point of cut, saturate teeth and kerf evenly).
   - Improper coolant.
   - Improper tooth selection, use a finer pitch.
   - Improper break-in with new band. Velocity and feeding should be reduced the first few cuts.
   - Teeth are running the wrong direction. Be sure teeth are pointing in proper direction.
   - Incorrect insert size for the band, allowing them to strike teeth.
2. **BLADE VIBRATION**
   - Increase or decrease band velocity.
   - Increase tension of band.
   - Teeth too coarse for workpiece.
   - Increase feed pressure.
   - Material not securely vised.
   - Use a Vari-Pitch tooth blade.
3. **TOOTH STRIPPAGE**
   - Teeth too coarse for workpiece.
   - Material not securely vised.
   - Improper coolant.
   - Insufficient coolant.
   - Too much feed pressure — reduce for good chip curl.
   - Band velocity too low — increase speed.
   - Gullet may be loading up — use higher viscosity lubricant or coolant.
4. **FINISHED CUT SURFACE TOO ROUGH**
   - Improper tooth selection — choose a finer pitch.
   - Increase band velocity.
   - Decrease feed rate.
   - Apply sufficient coolant.
5. **PREMATURE BLADE BREAKAGE**
   - Thickness of blade too heavy for diameter of wheels and speed of machine.
   - Increase or decrease velocity.
   - Check wheels for defects.
   - Teeth too coarse for workpiece — use a finer pitch.
   - Decrease blade tension.
   - Decrease feeding force.
   - Brittle weld — increase annealing period, decreasing heat gradually.
   - Check for proper adjustment of band guides, saw guide arms, saw guide inserts and back-up bearings.
   - Apply sufficient coolant.
6. **BLADE MAKING BELLY-SHAPED CUTS**
   - Increase tension.
   - Adjust guides closer to workpiece.
   - Teeth too fine — use a coarser pitch.
   - Decrease feed force.
7. **GULLET LOADING**
   - Teeth too fine for workpiece — use a coarser pitch.
   - Apply proper coolant or lubricant.
   - Decrease band velocity.
8. **BAND DEVELOPS A NEGATIVE CAMBER**
   - Band is riding on saw guide backup bearing too heavily. Adjust band for alignment on top and bottom wheels.
   - Check band wheel alignment.

GLOSSARY OF INDUSTRIAL TERMINOLOGY



AGE HARDENING — A process of aging that increases strength and hardness and ordinarily decreases the ductility of metals.

ALLOY — A substance with metallic properties composed of two or more chemical elements, at least one of which is metal.

BLADE TENSION — The resistance a saw blade has to back deflection when subjected to the edge thrust of feed pressure.

BEAM STRENGTH — The resistance a saw blade has to back deflection when subjected to the edge thrust of feed pressure.

CAMBER — An arcing or bending of the back or cutting edge of the saw blade. In positive camber the cutting edge arcs backward; in negative camber the cutting edge arcs forward.

CARBON STEEL — The result of carbon being added to iron in the making of steel.

CHATTER — Rumbling sound in the machine caused by trying to take too heavy a cut. The sound comes from overloading the machine or transmission.

CHIP — A small fragment of material removed by each tooth on the cutting edge.

CHIP CLEARANCE — The gullet area between two teeth.

CHIP WELDING — The fusing of the entire chip to tooth face. It is caused by extreme heating of the tooth and material.

COOLANT — A liquid used to dissipate heat in the saw and workpiece. The term often is used loosely as a synonym for cutting fluid, encompassing the concept of lubricating properties as well as cooling effects.

CUTTING RATE — The speed at which the cross sectional area of the workpiece is cut, expressed in square inches of cutting per minute.

E.T.S. (Every Tooth Set) - Each tooth is alternately set left then right, used generally in woodworking and for non-ferrous metals. Also known as alternate set.

FEED — The pressure exerted by the workpiece against the cutting edge of a saw blade expressed in pounds.

FEED RATE — The linear travel of the workpiece into the blade, usually expressed in inches per minute.

FLEX BACK (Regular metal cutting) — Saw blade with hardened teeth but a relatively soft back.

FRICTION SAWING — A method of sawing ferrous materials. It utilizes the frictional heat generated by high blade velocity and heavy feed pressure to soften the material. Then the saw blade removes the softened material.

GULLET — The space within the curved area between two saw blade teeth.

HARD BACK — A type of high carbon, spring tempered back, saw blade.

HIGH SPEED STEEL — Steel which does not soften even at red heat and, therefore, can be used in saw blades at high speeds and feeds that generate great heat.

HOOK TOOTH — A tooth form consisting of a shallow gullet and widely spaced teeth having a positive rake angle.

KERF — The slot made by a cutting tool in parting materials.

NESTING — Assembling multiple workpieces in a pile, or "nest" in order to saw a large number of parts at one time. Same as stacking, but nesting usually refers to rounds or tubing.

PITCH — The number of teeth per inch in a saw blade.

POINTS — The tips of teeth in a saw blade.

RAKE ANGLE — The anglle the tooth face makes with respect to a perpendicular line from the back edge of the blade. It is positive when the tooth angles forward in the direction of the cutting action and negative when it angles backward from the direction of the cutting action.

SET — The bending of teeth in a saw blade to the left and/or right of center. The setting of teeth enables a saw blade to cut straighter, to clear the chips from the kerf, and to allow the back of the band to clear the cut and not bind.

SIDE CLEARANCE — The difference in dimension between the set of the teeth and the back of the blade. It provides space for maneuvering the band in contour cuts, prevents lead when making straight cuts and minimizes transfer of frictional heat to the work.

SKIP TOOTH — A tooth form consisting of a shallow gullet with widely spaced teeth to provide for ample chip clearance.

STANDARD TOOTH (Conventional tooth) — A tooth form consisting of a deep gullet with a smooth radius at the bottom.

STRIPPAGE — When one or more teeth are pulled or break out of a saw.

TWIST — The tendency of a saw blade to spiral after use.

WAVY SET — A saw tooth pattern having one group of teeth set to the right and the next group of teeth set to the left to give the appearance of a wave when viewed from the top of the blade.

WORK HARDNESS — A hard quality developed in metal as a result of cold working, dull band saw teeth, excessive band speed or too light feed pressure.

GENERAL INFORMATION

CHROMATE BAND SAW BLADES

I — HOW TO WRITE THE BAND SAW BLADE ORDER

QUANTITY ORDER	QUANTITY SHIP	STOCK NUMBER	PRICE		PER	EXTENSION		*	DESCRIPTION
Ⓐ 110		19664	1	83	FT.	201	30		1/4 x 14/10 Vari-Pitch Carbon Hardback
									10 Feet 3 Inches Long
									INTERNAL NOTE: 10 blades @ 10' 3" long
Ⓑ 10		19600	3	40	E	34	00		Tri-Temp BSB Weld Charge
						235	30		

EXPLANATION:

Ⓐ **BSB's Are Billed To The Next Highest Full Foot**

10'3" = 11 Feet

Number of Blades: X 10

Total Feet Billed: 110

Ⓑ **Number of Cut and Welded Blades Ordered**

NOTE: WELD CHARGE P/N FOR SUPERWELD BLADES IS 19600

II — BSB ORDER PROCESSING

Band saw blades are custom cut and welded to order. Due to special processing required, allow 2-3 weeks for delivery.

III — TOOTH SELECTION

TOO COARSE **TOO FINE** **CORRECT**

Fewer than 3 teeth in the work may cause tooth strippage. More than 24 teeth will also lead to tooth strippage and/or gullet clogging. Best results are obtained with 6-12 teeth, achieved by correct combination of tooth pitch and proper vise loading.

Therefore, the general practice is to choose finer teeth per inch on small or thin sections and coarser teeth on large or thicker sections. Also, soft or gummy materials can be best cut by using a coarser tooth. This choice will prevent chips from jamming and clogging the gullets, reducing the efficiency of the blade.

CHROMATE GUIDE TO BAND SAW BLADE SIZES FOR POPULAR MACHINES

Machine	Length	Width
Amada V300	7'10½"	⅛"-¾"
Amada V300	8'6"	⅛"-¾"
Amada V400, V900	11'3"	⅛"-1"
Amada H250SA	11'8"	1"
Amada V500	11'8"	⅛"-3"
Amada V500	12'11"	⅛"-3"
Amada VM1000	15'0"	¼"
Amada H450H, H340HD	15'4"	1½"
Amada WM500	15'7"	¼"
Amada H600	25'0"	2"
Amada H900HD	27'4"	2"
American Saw Mill 12"	6'9"	½"-¾"
Atkins #4	14'1"	⅝"-1"
Atkins #3	15'8"	⅝"-1"
Atlas Workshop 9360	5'10½"	⅛"-½"
Atlas 912, Atlas Powerking 12"	6'11"	¼"
Avey, Milband	14'9"	1"
Bainbridge	5'0"	¼"-½"
Bett-Marr 14SM	8'1"	¼"-½"
Bett-Marr 24S	9'10"	¼"-½"
Black & Decker 3120, 3121, 3122, 3123	3'8⅛"	½"
Boice Crane, 12"	6'5½"	3/16"-½"
Boice Crane 800, 14"	7'6"	3/16" ½"
Boice Crane 2300, 14"	8'2"	3/16"-¾"
Century 30	16'0"	¼"-1"
Clark-Compound	15'6"	1"
Clark, Junior	10'10"	½"-¾"
Connecticut, A-24, S, V, F	13'5"	⅛"-¾"
Crescent, Jr., Light 20"	10'10"	¼"-¾"
Crescent, Jr., Heavy, 20" B20M	11'3"	¼"-¾"
Crescent 26"	13'9"	¼"-1"
Crescent 32"	16'4"	¼"-1"
Crescent 36"	18'6"	¼"-1"
Crescent, Angle 36"	19'0"	¼"-1"
Crescent 33"	20'4"	¼"-1"
Crescent Angle 40"	21'2"	¼"-1"
Cutron, E	11'10"	¾"
DoAll, J	7'0"	1/16"-½"
DoAll, JD	7'8"	1/16"-½"
DoAll, M	9'0"	1/16"-½"
DoAll, HS, HSV, LHV, SFP, V-16, ML C-16, ML, V-36	10'0"	1/16"-½"
DoAll, Z-16A, Z-16, U-16, P-16	10'0"	⅛"
DoAll, 16-3	10'0"	¾"-1"
DoAll, 16-2A	10'0"	1"
DoAll, 16-2	10'0"	¾"
DoAll, HS-3, HSV-3, LSV-3, SFP-3, 1612-U	10'2"	1/16"-½"
DoAll, 16-3M	10'2"	½"
DoAll 16" Cloth	10'2"	¼"-7/16"
DoAll, 1612-0	10'3"	1/16"-½"
DoAll, 3613-2(2)	10'3"	1/16"-1"
DoAll, 16-1, 1612-X1	10'4"	½"
DoAll, 1612-1	10'4"	1/16"-¾"
DoAll, 3612-3(2)	10'5"	¼"-1"
DoAll, 1612-3	10'6"	¼"-1"
DoAll, 1613-2	10'6"	1/16"-1"
DoAll, MS-15	10'6"	½"-⅝"
DoAll, C-4	10'11"	¾"
DoAll, C-5a, C-10	11'0"	¾"
DoAll, C-12	11'0"	1"
DoAll, MD	11'6"	1/16"-½"
DoAll, C-41 through C-80	12'0"	1"
DoAll, TF14	13'3"	1"
DoAll, HS-30, HSV-30, LSV-30, SFP-30	13'3"	1/16"-½"
DoAll, C-7, C-8, C-9	13'4"	1"
DoAll, 30-M, 3012V	13'4"	½"
DoAll, MP-20	13'6"	1/16"-1"
DoAll, V-36(3)	13'6"	1/16"-½"
DoAll, CCS	13'10"	¼"-½"
DoAll, C-6	14'0"	1"
DoAll, 36" Cloth	14'4"	¼"-7/16"
DoAll, Cloth	14'6"	¼"-½"
DoAll, MX-20, 36-3	14'6"	1"
DoAll, Z-36A, ZV3613, ZV3616	14'6"	½"
DoAll, 36-2	14'6"	¾"
DoAll, 3612-3(2)	14'6"	¼"-1"
DoAll, 3613-2(3), 6013-2(2)	14'6"	1/16"-1"
DoAll, 26-1	14'8"	1"
DoAll, 3613-1, 36-1	14'8"	1/16"-¾"
DoAll, V-26, V-60(2), 2612, 2613-2	14'9"	1/16"-1"
DoAll, Z-26A, Z-26, 26-2 2612-1, 2612-D	14'9"	1"
DoAll, TF-20	15'0"	1"
DoAll, 26-3, 2613-3	15'6"	1"
DoAll, 26-5	17'0"	2"
DoAll, 2618-4	17'2"	¾"-1½"
DoAll, TF-24	17'3"	1"-1¼"
DoAll, 2624-5	18'0"	2"
DoAll, Bandmill	18'0"	1"-2"
DoAll, 2626-5	18'4"	2"
DoAll, Bandmill	18'5"	1"-2"
DoAll, Continental, 169, 170, P16A, P16M	19'0"	2"
DoAll, Pica Master	19'2"	½"
DoAll, ZS-3620, ZV-3620, ZW-3620	19'6"	⅛"-1"
DoAll, CO-36, HP-36	19'6"	¼"-1"
DoAll, DZR, DZW, DZ-365	19'6"	1"
DoAll, ZW-36, ZS-36, HBW, ZV-36	19'6"	⅛"-1¼"
DoAll, 36-R, 36-W, HP-36, CO-36	20'0"	¼"-2"
DoAll, V-60(3), ZV-60(3)	21'2"	1/16"-1"
DoAll, 3624-X1	21'2"	½"
DoAll, Z-36	21'3"	¼"-1"
DoAll, 2649-X1	22'0"	½"
DoAll, HS-6013, 6013-2(3)	22'3"	1/16"-1"
DoAll, Z-60, Z-60A, 60-2	22'3"	1"
DoAll, CZ-1620	22'4"	1"
DoAll, 60-3, 6013-3	22'9"	1"
DoAll, C-24	24'3"	2"
DoAll, C2424	24'3"	1"-2"
DoAll, AC-2016	26'0"	1"-2"
DoAll, Pan-Arm	28'9"	1"
Dûro, 3026	5'0"	⅛"-½"
Duro, A3027 10"	5'8"	⅛"-⅜"
Duro, 3020, 3021, 12"	6'6"	⅛"-⅜"
Duro, 3022	7'11"	⅛"-½"
Duro, D-3022, D-302275 15"	8'8"	—
Duro, E-K3023 16"	9'3"	⅛"-¾"
Emerson 10-1455, 10-1451	5'4½"	½" (.020)
Emerson, 10-1700, 10-1701	8'11"	⅝"
Ensley 721, 722	5'6"	½"
Excel	5'0"	½"
Famco #612	8'10"	⅝"
Fay & Egan 24"	13'9"	—
Fay & Egan 155-30	15'3"	—
Fay & Egan 30"	17'3"	1½"
Fay & Egan 345-36, 346-36, 60-36	18'4"	—
Fay & Egan 950-36	20'6"	2"
Fay & Egan 58-42	21'8"	—
Fay & Egan 459-42	23'2"	—
Forte, Piccolo	4'0"	½" (.020)
Forte, Mod 160	9'0"	¾"
Forte, Mod 250, 300, BA-251, SBA-240	12'0"	1"
Forte, Uniforte 400	14'3"	1"
Forte 400	16'0"	1"
Forte SBA400, SBS400, SBA500	17'9"	—
Forte SBA 401	20'4"	1½"
Forte SBS 601	24'3"	2"
Forte SBS 801	34'5"	2"
Forte SBS 1001	39'3"	2"
Gibbs-Kennedy	11'6"	¾"
Greenlee 530	3'8⅞"	½" (.020
Greenlee 521, 531	4'5¾"	½"
Greenlee 346, 1346	6'9"	½"
Greenlee 1348	8'0"	⅝"
Greenlee 348	8'10"	⅝"
Grob, S-14	7'9"	3/32"-½"
Grob, S-14, OS-20, OS-36, OSN-14, OSN-20	11'6"	1/16"-¼"
Grob, NS-18	12'0"	1/16"-1"
Grob, 4V-18	12'6"	⅛"-1"
Grob, CO-18	13'6"	¾"
Grob, HS or NS-24, HS-24	14'4"	1/16"-1"
Grob, 4V-24	14'8"	⅛"-1"
Grob, NS-3	15'0"	1/16"-½"
Grob, S-24-U	15'9"	⅛"-1"
Grob, NS-36	15'10"	1/16"-1"
Grob, 4V-36	16'0"	⅛"-1"
Grob, NS-60	20'0"	1/16"-1"
Grob, 2S-36, 6V-36	21'0"	1/16"-1"
Grob, OS-20, OSN	140'0"	3/32"-¼"
HE&M 9V	9'0"	½"-¾"
HE&M No. 500	9'0"	½"
HE&M No. 750	11'0"	¾"
HE&M No. 1000	12'10"	1"
HE&M No. 1200	15'0"	1¼"
Heston & Anderson #1	7'2"	¼"-½"
Heston & Anderson #50	7'6"	¼"-½"
Heston & Anderson #14	8'5"	¼"-½"
Houghton	12'6"	⅝"-¾"
Ideal 9A	11'1"	¾"
Jarvis 12"	6'2"	¼"-½"
Jarvis 16"	8'6"	¼"-½"
Johnson, Amada CHA 3005	12'0"	1"
Johnson, Amada VAC-500	13'3"	½"
Johnson, Amada HA16	15'0"	1¼"
Johnson, Amada H18H	15'4"	1½"
Johnson, Amada H28HD	16'6"	1½"
Johnson, Amada H24	25'0"	2"
Jones Superior 8"	4'6"	½"
Jones Superior 12"	6'5½"	½"
Jones Superior 15"	9'3"	½"
Jones Superior 20"	11'4"	½"-¾"
Jones Superior 30"	16'0"	¾"
Jones Superior (Old)	18'0"	1"
Jones Superior 36" (New)	19'0"	1"
Kalamazoo, 610, 7A, M7A, C7A	7'5"	½"-⅝"
Kalamazoo, Startrite 30T (2 and 3 wheels), 14P, 30R	9'4"-12'3"	1/16"-¾"
Kalamazoo, Startrite 18T, 18V	9'6"	1/16"-⅝"
Kalamazoo, Startrite 214	9'7"	⅝"
Kalamazoo, Startrite 314	9'7"-11'7"	⅝"
Kalamazoo, Standard 816	10'5"	¾"
Kalamazoo, Startrite 24T, 24V	10'6"	1/16"-⅝"
Kalamazoo, Startrite 24V	10'6"	1/16"-⅝"
Kalamazoo, Startrite 20T, 20R	10'10"	1/16"-¾"
Kalamazoo, 8C, 9A	10'10½"	¾"
Kalamazoo, H-9A	10'10½"	1"
Kalamazoo, Startrite 216	11'8"	1/16"-1"
Kalamazoo, Startrite 316H 2-3 wheels	11'8" to 15'0"	1/16"-1"
Kalamazoo, 824, 8A	12'1"	¾"
Kalamazoo, Startrite 30R10	12'3"	1/16"-⅝"
Kalamazoo, H-10, H-10A	12'6"	1"
Kalamazoo, H-12B, through Ser. #449	13'10¾"	1"
Kalamazoo, VTH21	16'2"	1¼"
Kalamazoo, H12B, Ser. #450 and later	14'0"	1"

CHROMATE GUIDE TO BAND SAW BLADE SIZES FOR POPULAR MACHINES

Machine	Length	Width
Kalamazoo, 1220, 13A	13'11"	1"
Kalamazoo, H-13A	14'0"	1"-1¼"
Kalamazoo, 14-A	15'6"	1¼"-1½"
Keller, B-11	7'10"	½"
Klemm #1	11'2"	¾"-⅝"
Klemm #2	15'8"	¾"
Kolle, K-16	11'0"	—
Kysor Johnson, B, M, MB-1	7'5"	½"
Kysor Johnson, R, MR-1	7'9"	⅝"
Kysor Johnson, V-14	8'2"	3/16"-¾"
Kysor Johnson, J	11'5"	¾"
Kysor Johnson, JH	11'5"	1"
Kysor Johnson, HS, HSA, A12, M12	11'6"	1"
Kysor Johnson, V-36(2)	11'6"	⅛"-1"
Kysor Johnson, V-16	11'6"	⅛"-1"
Kysor Johnson, H, HA-300	12'0"	1"
Kysor Johnson, V-20	12'8"	⅛"-1"
Kysor Johnson, H, HA-16	15'0"	1¼"
Kysor Johnson, V-36(3)	15'4"	⅛"-1"
Kysor Johnson, H-24	23'4"	1¼"
Laidlaw, JM-20, SM-20	11'0"	3/16"-⅜"
Laidlaw, CM, CMT	15'8"	1"
Laidlaw, JM-30, SM-30	16'0"-17'6"	¾"-1¼"
Laidlaw, SMT-30	16'0"	⅜"-⅝"
Lenox Mobil Mitre	7'5"	½"
Lynn Sprunger, BS-45	5'4½"	½"
Marvel, 610	8'10"	⅝"
Marvel, #81, #81A	14'6"	1"-1¼"
Marvel, #81A high column	15'6"	1"-1¼"
Marvel, #8	14'8"	¾"
Marvel, #8 high column	15'8"	¾"
Marvel, 15, 15A	15'6"	1"-1¼"
Marvel, 25A	18'10"	1¼"-1½"
Milband	12'11"	¾"
Milclark	10'10"	½"-⅝"
Moak, 20"	11'1"	¼"-¾"
Moak, 26"	14'1"	¼"-1"
Moak, 32"	16'10"	¼"-1"
Moak, 36"	19'5"	¼"-1"
Monarch, 72B, 20"	11'6"	¼"-¾"
Monarch, 61	14'0"	¼"-1"
Monarch, X25, 30"	16'8"	¼"-1"
Monarch, 38	18'6"	¼"-1"
Monarch, X40, 36"	21'1"	¼"-1"
Montgomery Ward	8'2"	¼"-½"
Napier, B	12'3"	1"
Napier, Jr.	8'4"	¾"
Northfield, 20"	11'8"	¼"-1"
Northfield, 27"	14'7"	¼"-1"
Northfield, 32"	16'6"	¼"-1"
Northfield, 36"	19'2"	¼"-1"
Oliver, 192 18"	9'8"	⅛"-½"
Oliver, 18, 117	15'9"	¼"-½"
Oliver, 217	16'0"	⅛"-1¼"
Oliver, 16, 35	19'0"	¼"-1½"
Oliver 116	19'6"	¼"-1½"
Oliver, 416	19'6"	¼"-1½"
Oliver, 15, 115, 115-RD	20'0"	¼"-2"
Oliver, 316-48	38'0"	1½"
Oliver, 318-80	49'0"	2"
Olson Mfg. Co. 0-100	8'10"	⅝"
Oster, 711	—	—
Parks, Dry Ice	7'7"	½"
Parks, #2, M-2	11'0"	¼"-¾"
Peerless, 1216-M, 1216-MH, 2216	12'0"	1"
Peerless, 1200, 1200-M, 1214, 1216, 1400	12'0"	1"
Peerless, 1200-A, 1200MA, 1218MHA	12'4"	1"
Peerless, 2400-MH	14'6"	⅛"-1"
Peerless, 2400MS, 6000M(2) 3600M(2), 4800M(2)	14'10"	⅛"-1"
Peerless, 3600-MH(3)	17'2"	⅛"-1"
Peerless, 300-MH, 3000-MS	17'4"	⅛"-1"
Peerless, 3600-MS(3)	17'6"	⅛"-1"
Peerless, 4800-MH(3)	18'2"	⅛"-1"
Peerless, 4800-MS(3)	19'8"	⅛"-1"
Peerless, 6000-MS(3)	22'8"	⅛"-1"
Peerless, 6000-MH(3)	22'8"	⅛"-1"
Pehaka, SF-4	9'10"	⅛"-¾"
Pehaka, USF-4R(2), ESM-4	9'10"	⅛"-½"
Pehaka, USF-10(2)	11'0"	⅝"-¾"
Pehaka, HSE-260	12'2"	1"
Pehaka, 200, 250, 600	12'2"	1"
Pehaka, HS-340	15'11½"	1"-1¼"
Pehaka, USF-10(3)	15'9"	⅝"-¾"
Pehaka, USF6-3	15'9"	1"-1¼"
Pehaka, HS-400	17'4¾"	1¼"
Powerking 8"	5'6"	¼"-½"
Powerking, 12"	6'5½"	¼"-½"
Powermatic, 141, 143	7'11"	⅛"-¾"
Powermatic, 140	8'3½"	⅛"-¾"
Powermatic, 181	12'6"	¼"-1"
Powermatic, 81, 87, 89	12'7"	1/16"-1"
Powermatic, 2	13'3"	⅛"-1"
Powermatic, 5, 8	15'1"	¼"-1"
Powermatic, 6	15'6"	⅛"-1"
Racine, #12, 13, 14	7'8"	⅛"-⅝"
Rekord, SSF 350	9'8"	½"
Rekord, SSF 420	10'10"	⅝"
Rekord, SSF 500	12'8"	¾"
Rigid	3'8⅞"	½" (.020)
Rigid, 945	5'4½"	½"
Rigid, 970	8'11"	¾"
Rockwell, Porta-Band 725, 726, 524	3'8⅞"	½" (.020)
Rockwell, Porta-Band 9728	5'5¾"	½"
Rockwell, 14"	7'9½"	⅛"-¾"
Rockwell, 7V	7'11½"	½"
Rockwell, 6W	8'11"	¾"
Rockwell, 7 and 7A	11'0"	1"
Rockwell, 10, 10A, 12A	12'6"	1"
Rockwell, 20"	12'6"	⅛"-1"
Rockwell, 9" x 16"	12'10"	¾"-1"
Roll-In, All Purpose	9'0"	¼"-¾"
Roll-In, Journeyman	12'6"	⅛"-1"
Sears Roebuck, 2428	6'8"	⅛"-½"
Sears Roebuck, 2377	11'0"	⅛"-¾"
Shopmaster	5'4½"	½"
Stockbridge, 6"	12'5½"	⅝"-¾"
Stockbridge, 9"	13'0"	⅝"-¾"
Stockbridge, 12"	15'5½"	¾"
Summit 250A	11'8"	1"
Summit 350	15'1"	1"
Summit 500S	17'8½"	1¼"
Superior 8"	4'6"	⅛"-½"
Superior 12"	6'5½"	⅛"-½"
Superior 20"	11'4"	¼"-¾"
Superior 30"	16'0"	½"-1"
Superior 36"	19'6"	½"-1"
Tannewitz, EV24	13'6"	⅛"-1¼"
Tannewitz, E24	13'7"	⅛"-1¼"
Tannewitz, 24MH, M, MS	14'6"	⅛"-1"
Tannewitz, 36MH(2), 48MH(2), 60MH(2), 84MH, 84MS	14'10"	⅛"-1"
Tannewitz, 36M	16'10½"	1/16"-½"
Tannewitz, 30", P1, P1E, P3, PH, PHE, P-130	17'0"	⅛"-1¼"
Tannewitz, 36MH(3), MS(3)	17'2"	⅛"-1"
Tannewitz, PV-1-ME, P-1-NE	17'6"	⅛"-1¼"
Tannewitz, 30MH, M, MS	17'10"	⅛"-1"
Tannewitz, 48M, 48MH(3), 48MS(3), 60M	18'2"	1/16"-½"
Tannewitz, 36", G3	19'6"	2"
Tannewitz, 36", GH, GHE, G-1, G1E, GV1	19'9"	⅛"-2"
Tannewitz, GHN, GH, NE, G1, G-1-NE	20'4"	½"-2"
Tannewitz, RV	20'10"	⅛"-2"
Tannewitz, 42", R1, R1E, RU1, R3, RH, RF1E, RHE	22'0"	⅛"-2"
Tannewitz, 60MS(3)	22'3"	1/6"-1"
Tannewitz, 60MH(3)	22'8"	⅛"-1"
Tannewitz, 6000MH	25'2"	⅛"-1¼"
Tannewitz, S-1-E	25'0"	⅛"-2"
Tannewitz, SV-1-NE	26'6"	⅛"-2"
Tannewitz, SVTNE, S-52	27'3"	⅛"-1¼"
Temac, S53B	6'9"	⅜"-½"
Temac, MODM	8'0"	⅜"-½"
Thompson, H.G., Milbrand A59, A60	15'0"	1"
Thompson	15'8"	⅝"-¾"
Walker-Turner, 10"	5'2"	¼"-½"
Walker-Turner, 12"	6'6"	3/16"-½"
Walker-Turner, 14"	8'⅛"	3/16"-¾"
Walker-Turner, 16" 1151MCB	9'3½"	½"
Walker-Turner, 16" 1105MBN	9'6¾"	¼"-¾"
Walker-Turner, 20"	11'9"	1"
Wallace, 14"	7'7"	¼"-½"
Wallace, 16"	9'0"	¼"-¾"
Wells, 49, 300, 49A, Junior	5'0"	½"
Wells, 72	5'9"	½"
Wells, 58B	7'9"	½"
Wells, No. 5	8'2½"	½"
Wells, 600	8'2½"	⅝"
Wells, 9	9'5"	½"
Wells, 8, 7A, 7B, 875	11'6"	¾"
Wells, 1000, 800, 850, 1075	11'6"	1"
Wells, 54G	12'10"	1"
Wells, 1200, 1270	13'6"	1"
Wells, 12	13'7"	1"
Wells, 54W	15'10"	1"-1¼"
Wells, 14	15'4"	1¼"
Wells, 20	16'0"	1"
Wells, 12-20G, 48"	21'0"	1¼"
Wells, 1224H	21'8"	1¼"-1½"
Wells, 1220G, 60"	23'8"	1¼"
Wells, 1220G, 72"	31'3"	1¼"
Wells, 2400	33'0"	1"
Wells, 2400	35'11"	1½"
W. F. Wells & Sons, A7, A, A6	7'10"	½"
W. F. Wells & Sons, W, L9, L, M, W9, H	11'6"	¾"
W. F. Wells & Sons, 0-050	13'2"	1"
W. F. Wells & Sons, F14, F, D	14'5"	1"
W. F. Wells & Sons, 014, F15, D	14'5"	1"
W. F. Wells & Sons, J24	16'9"	1"
W. F. Wells & Sons, VC025	17'2"	1"-1¼"
W. F. Wells & Sons, B25	19'8"	1¼"
W. F. Wells & Sons, X60	20'10"	1¼"
W. F. Wells & Sons, QJ-24	21'0"	1¼"
W. F. Wells & Sons, G-30	22'6"	1¼"
W. F. Wells & Sons, T40	26'11"	1¼"
W. F. Wells & Sons, S-40	27'9"	1¼"
W. F. Wells & Sons, T6940	31'0"	1¼"
Williamson, #2	20'9"	1"
Williamson, #3	24'6"	1"
Wright, P, 1, 2, 3	15'8"	⅝"-¾"
Wright, 4	19'0"	⅝"-¾"
Yates American, W14	7'9½"	¼"-½"
Yates American, W16	9'4"	¼"-½"
Yates American, 20"	11'10"	¼"-¾"
Yates American, 30"	17'2"	¼"-1"
Yates American, 36"	20'0"	½"-1"
Yates American, 42"	22'8"	½"-1"

SAW BLADES

CROSS REFERENCE CHART

1/2" SHANK RECIPROCATING BLADES

PART	INDUSTRY TYPE		PART	INDUSTRY TYPE	
19404	1-418/14	(39484)	19422	1-432	(40432)
19405	1-618/14	(39684)	19426	3-218	(42018)
19410	1-610	(40610)	19427	3-224	(42024)
19411	1-810	(40810)	19431	4-314	(43114)
19412	1-214	(40314)	19442	6-607	(44007)
19413	1-414	(40414)	19447	7-606	(46606)
19414	1-614	(40614)	19449	7-610	(46610)
19415	1-218	(40318)	19452	7-618	(46618)
19416	1-418	(40418)	19456	8-612/8	(47628)
19417	1-618	(40618)	19468	9-603	(49603)
19419	1-424	(40424)	19477	12-608	(52060)
19420	1-624	(40624)			

1/4" SHANK SABRE SAW BLADES

PART	INDUSTRY TYPE		PART	INDUSTRY TYPE	
19481	RM 50	(28050)	19487	RM 61	(28057)
19482	RM 51	(28051)	19491	RW 20	(29020)
19483	RM 52	(28052)	19492	RW 21	(29021)
19484	RM 53	(28053)	19498	RW 31	(30031)
19485	RM 54	(28054)	19499	RW 32	(30032)

SAW BLADES (Cont'd.)

REPLACEMENT CHART

1/2" SHANK RECIPROCATING SAW BLADES

CIC	AMERICAN LENOX	BLACK & DECKER	BOSCH	CAPEWELL	MALCO	MILWAUKEE SAWZALL 48-00-	PORTER-CABLE ROCKWELL	SKIL	WESTLUND FIT-AL
19410	610R		S918H	70640			12415	71041	HDM310
19411	810R					2175		71042	HDM410
19412		40111			2-MC14	1171			HDM114
19413	414R	40112		70620	3-MC14	1172	12447	71043	FR214
19414	614R	40113	S918B	70650	4-MC14	1179	12421	71044	FR314
19415		40114			2-MC18	1173			HDM118
19416	418R	40115	S518E	70630	3-MC18	1174	12418	71045	FR218
19417	618R	40116	S918EF	70660	4-MC18	1184	12427	71046	FR318
19419	424R	40117		77170	3-MC24	1176	12424	71047	HDM224
19420	624R	40125	S918A	70670	4-MC24	2171	12433		HDM324
19422		40118	S518G	77160	3-MC32	1178	12430	71048	HDM232
19426	318RC	40119		77140	2-MS18	1102	12436	71053	MC218
19427		40120		77150	2-MS24	1103	12439	71055	MC224
19431	314RC				2-HS14	1162	12445	71052	HDMC214
19442	656R	40098	S644D	77000	3-S6	1031	12400	71061	WC608
19447		40100	S744D	77410	4-HD6	1012	12408	71066	W406
19449		40103		77420	3-HD8	1014	12411	71069	TB410
19452		40106		77430	4-18	1066	12414		
19456			S811H			1014			
19468		40107			6-T3	1002		71056	
19477	636RP	40127	S828D	77520	4-P6	1052	12469	71076	P405

1/4" SHANK SABRE SAW BLADES

CIC	AMERICAN LENOX	BLACK & DECKER	BOSCH	CAPEWELL	MALCO	MILWAUKEE SAWZALL 48-42-	PORTER-CABLE ROCKWELL	SKIL	WESTLUND FIT-AL
19481	380J								
19482	314J	49490	83506	80010	814	0100	12516		J8
19483	318J	31020	83534		818	0120	12517		J9
19484	354J	31021	83535	80020	824	0140	12518	24086	J10
19485	324J	49491	83507	80030	832		12519	24087	J11
19487	340JV					0101	12515	24085	
19488									
19491		49504		80060		0200	12501		
19492		49505		80070		0220	12502		J4
19498		39754		80110	510	0600	12508	22645	J6
19499		54370	83533			0640	12512		

WARNING!

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Important Hole Saw Safety Information. All operators must read and understand safety information thoroughly and completely before using hole saws.

RECOMMENDED OPERATING SPEEDS FOR BI-METAL SAWS

Size Inches	Size MM	Mild Steels	Tool and Stainless Steels	Cast Iron	Brass	Aluminum	Wood
9/16	14	580	300	400	790	900	1500
5/8	16	550	275	365	730	825	1500
11/16	17	500	250	330	665	750	1500
3/4	19	460	230	300	600	690	1500
25/32	20	480	240	315	632	660	1500
13/16	21	425	210	280	560	635	1500
7/8	22	390	195	260	520	585	1500
15/16	24	370	185	245	495	555	1500
1	25	350	175	235	470	525	1350
1-1/16	27	325	160	215	435	480	1350
1-1/8	29	300	150	200	400	450	1350
1-3/16	30	285	145	190	380	425	1200
1-1/4	32	275	140	180	360	410	1200
1-5/16	33	260	135	175	345	390	1200
1-3/8	35	250	125	165	330	375	1200
1-7/16	37	240	120	160	315	360	1200
1-1/2	38	230	115	150	300	345	1200
1-9/16	40	220	110	145	290	330	1050
1-5/8	41	210	105	140	280	315	1050
1-11/16	43	205	100	135	270	305	1050
1-3/4	44	195	95	130	260	295	1050
1-13/16	46	190	95	125	250	285	1050
1-7/8	48	180	90	120	240	270	1050
2	50	170	85	115	230	255	1000
2-1/16	52	165	80	110	220	245	1000
2-1/8	54	160	80	105	210	240	1000
2-1/4	57	150	75	100	200	225	1000
2-5/16	59	145	75	100	195	225	1000
2-3/8	60	140	70	95	190	220	1000
2-7/16	62	135	70	95	185	215	900
2-1/2	64	135	65	90	180	205	900
2-9/16	65	130	65	85	175	200	900
2-5/8	67	130	65	85	170	195	900
2-11/16	68	125	60	82	165	190	900
2-3/4	70	125	60	80	160	185	750
2-7/8	73	120	60	80	160	180	750
3	76	115	55	75	150	170	750
3-1/8	79	110	55	70	140	165	600
3-1/4	83	105	50	70	140	155	600
3-3/8	86	100	50	65	130	150	600
3-1/2	89	95	45	65	130	145	600
3-5/8	92	95	45	60	120	140	600
3-3/4	95	90	45	60	120	135	500
3-7/8	99	90	45	60	120	135	500
4	102	85	40	55	110	130	450
4-1/8	105	80	40	55	110	120	450
4-1/4	108	80	40	55	110	120	450
4-3/8	111	80	40	50	100	120	450
4-1/2	114	75	35	50	100	105	400
4-3/4	121	70	35	45	95	95	400
5	127	65	30	45	90	90	400
5-1/2	140	60	25	40	85	85	400
6	152	55	25	35	75	80	400

PIPE TAP AND PIPE ENTRANCE SIZES

HOLE SAW DIAMETER	USE FOR PIPE TAP SIZE	USE FOR PIPE ENTRANCE SIZE
9/16"	3/8"	1/4"
3/4"	1/2"	3/8"
7/8"	3/4"	1/2"
1-1/8"	1"	3/4"
1-3/8"	–	1"
1-1/2"	1-1/4"	–
1-3/4"	1-1/2"	1-1/4"
2"	–	1-1/2"
2-1/4"	2"	–
2-1/2"	–	2"
2-5/8"	2-1/2"	–
3"	–	2-1/2"
3-1/4"	3"	–
3-5/8"	–	3"
3-3/4"	3-1/2"	–
4-1/8"	–	3-1/2"
4-1/4"	4"	–
4-1/2"	–	4"
4-3/4"	4-1/2"	–
5-1/4"	5"	–

ARBORS

Shank Size	Our P/N	Thread Size	Fits Saws (Diameter)
1/4" Round	1098	1/2" - 20	9/16" - 1-3/16"
3/8" Hex	1181	1/2" - 20	9/16" - 1-3/16"
7/16" Hex	2200	1/2" - 20	9/16" - 1-3/16"
7/16" Hex Pin Drive	5450	5/8" - 18	1-1/4" - 6"
5/8" Hex Pin Drive	6720	5/8" - 18	1-1/4" - 6"

NOTE: Use the correct lubricant. For ferrous metals, feed generous amounts of any commercially available cutting oil into the cut. Paraffin or beeswax is suitable for aluminum. Cast iron is cut dry. When cutting materials such as transite, no lubricant is necessary, but a water spray reduces heat and dust and flushes away chips.

CHROMATE® INDUSTRIAL CORP.

100 DaVinci Drive, Bohemia, NY 11716
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SEE REVERSE FOR DETAILED WARNINGS

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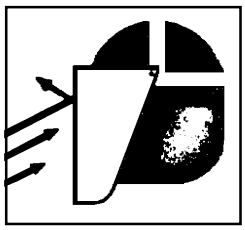


A

B

C

THIS MESSAGE IS BROUGHT TO YOU BY THE HAND TOOLS INSTITUTE

HOLE SAW SAFETY REQUIREMENTS

1. **SAFETY GOGGLES:** Safety goggles or full face shields MUST BE WORN by all operators. Comply with ANSI Z87.1 "OCCUPATIONAL EYE AND FACE PROTECTIONS". **See figure A.**
2. When drilling in material that causes dust, a dust mask shall be worn. **See figure B.**
3. **SPEEDS:** Observe all speed restrictions indicated on the saws, containers, labels, or as printed on the reverse side. The maximum safe free speed (MSFS or MAX MFS) should not be exceeded under any circumstances.

   NOTE: "MSFS" or "MAX MFS" means maximum safe free speed (RPM) spinning free with no work applied. The efficient cutting speed is less than the MSFS.
4. **HAND PROTECTION:** Use gloves while mounting, disassembling and operating hole saws. Keep hands in sight and clear of all moving parts. Do not put hands or fingers around, on, or below any rotating cutting tools. **See figure C.**
5. **STANDARDS:** Observe and comply with all of the requirements of the AMERICAN NATIONAL STANDARDS INSTITUTE "ANSI/ASME B 94.54-1984" "SPECIFICATIONS FOR HOLE SAWS, HOLE SAW ARBORS, AND HOLE SAW ACCESSORIES".

HOLE SAW OPERATING INSTRUCTIONS

1. Select the proper pilot drill, arbor, and saw. Use the correct arbor for the saw you plan to operate. See table on reverse side.
2. When using positive drive quick interchange arbors, retract pins and screw arbor into saw as far as possible. Adjust drive pins into saw by backing off saw just enough to align the drive pin hole with the pins. Then drop pins for engagement.
3. Be sure drive pins are fully engaged at all times and check frequently.
4. Be sure arbor shank is properly inserted in chuck and tighten the chuck with chuck key. Chuck jaws should engage flats of hex shank.
5. Never install or disassemble the saw and arbor by inserting a screw driver or similar tool in the knock-out slots. The saw can shatter or distort.
6. Be sure to clean chips and slugs frequently to avoid heat build-up or stripping of teeth. Frequent clearing by intermittent withdrawal is mandatory except on thin sheet material. This is especially necessary when using the saw in a vertical position, such as in a drill press.
7. Follow the recommended operating speeds found in the table on the reverse side. Too fast or too slow a speed will dull the hole saw or burr the work piece and shorten the life of the hole saw.
8. Use the correct work angles for the hole saw, which is perpendicular to the work. Tilting or bouncing the hole saw when cutting will overload the teeth and cause tooth strippage. This practice also produces a rough, non-round hole.

SEE REVERSE FOR IMPORTANT SPECIFICATIONS AND OPERATING GUIDELINES

CHROMATE

CIC 200™ CARBIDE ROTARY FILES

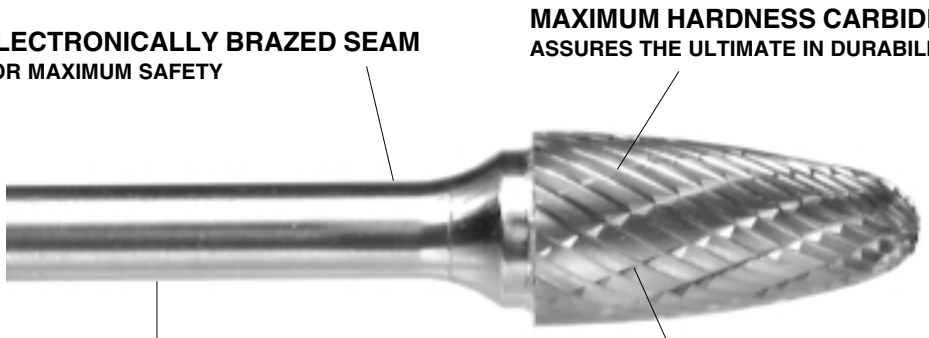
SHARPNESS AND DURABILITY THAT OUTPERFORMS THEM ALL

CIC 200™ CARBIDE ROTARY FILES

PRECISION CUTTING EDGES AND DURABILITY THAT STAND UP TO THE TOUGHEST INDUSTRIAL APPLICATIONS

- Manufactured from C2 grade carbide for superior performance
- Precision manufacturing process delivers consistant reliability
- Double cut flutes for rapid metal removal
- Smaller, finer chips for easier disposal
- Reduced pulling for better operating control
- Rockwell "C" 91.8 hardness
- Ideal for use on all steels, iron, masonite, fiberglass, weldments and titanium alloys

RAPID STOCK REMOVAL WITH BETTER CONTROL



THE FINEST ROTARY FILES FOR ALL MAINTENANCE JOBS

CHROMATE®
INDUSTRIAL CORP.

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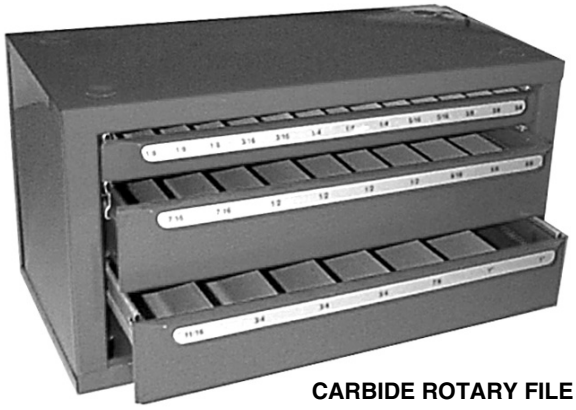
CIC 200™ CARBIDE ROTARY FILE ORGANIZER

SOLID CARBIDE WITH 1/4" SHANK

SIZES/STYLES EMBOSSED ON FRONT OF EACH COMPARTMENT



- Contains 13 of the most popular Carbide Rotary Files
- Stores hundreds of files in one place
- Eliminates misplaced rotary files

P/N 61608

CARBIDE ROTARY FILE CABINET:
14-1/2" W x 7-1/4" H x 7-1/4" D

➤ ONE CONVENIENT LOCATION FOR ALL YOUR FILES

➤ THE RIGHT SIZE ALWAYS AVAILABLE

➤ CONTROLS YOUR CARBIDE ROTARY FILE INVENTORY

QTY.	FILE SIZE	QTY.	FILE SIZE	QTY.	FILE SIZE
1	1/4 x 5/8 Cylindrical	1	1/4 x 5/8 Pointed Tree	1	1/4 x 1 Cone
1	1/4 x 5/8 Cylindrical Radius End	1	1/4 x 5/8 Tapered Radius	1	1/2 x 1-1/8 Tapered Radius End
1	1/4 Ball	1	3/8 x 3/4 Cylindrical Radius End	1	1/2 x 1 Cylindrical Radius End
1	1/4 x 3/8 Oval	1	3/8 x 5/8 Oval		
1	1/4 x 5/8 Round Tree	1	3/8 x 3/4 Pointed Tree		

SAVES MONEY, TIME AND LABOR

FLAP DISCS, TYPE 27 & TYPE 29/ZIRCONIA ALUMINA

P/N 17665 – 4-1/2" X 7/8" – 40, 60, 80, 120 GRITS

P/N 33970 4-1/2" x 7/8" TYPE 27 40 GRIT	**P/N 33971** 4-1/2" x 7/8" TYPE 27 60 GRIT	**P/N 33972** 4-1/2" x 7/8" TYPE 27 80 GRIT	**P/N 33973** 4-1/2" x 7/8" TYPE 27 120 GRIT	EXPANSION	EXPANSION
P/N 33975 4-1/2" x 7/8" TYPE 27 XL 40 GRIT	**P/N 33976** 4-1/2" x 7/8" TYPE 27 XL 60 GRIT	**P/N 33977** 4-1/2" x 7/8" TYPE 27 XL 80 GRIT	**P/N 33978** 4-1/2" x 7/8" TYPE 27 XL 120 GRIT	EXPANSION	EXPANSION
P/N 33980 4-1/2" x 7/8" TYPE 29 40 GRIT	**P/N 33981** 4-1/2" x 7/8" TYPE 29 60 GRIT	**P/N 33982** 4-1/2" x 7/8" TYPE 29a 80 GRIT	**P/N 33983** 4-1/2" x 7/8" TYPE 29 120 GRIT	EXPANSION	EXPANSION
P/N 33985 4-1/2" x 7/8" TYPE 29 XL 40 GRIT	**P/N 33986** 4-1/2" x 7/8" TYPE 29 XL 60 GRIT	**P/N 33987** 4-1/2" x 7/8" TYPE 29 XL 80 GRIT	**P/N 33988** 4-1/2" x 7/8" TYPE 29 XL 120 GRIT	EXPANSION	EXPANSION

PN 17665 **FLAP DISC BIN ASSORTMENT**

PORTA-PAK Specials

O-RINGS

1/16 P/N 19501
3/32 P/N 19502
1/8 P/N 19506

- O-Rings withstand temperatures of -40 to +300°F
- Resists gasoline, motor oil, transmission oil, water, mild acids, mild alkalis, anti-freeze
- Use in drain plug gaskets, fuel lines, engine seals, carburetors, garden power equipment

1/16 O-RINGS P/N 19501

QTY	O-RING SIZE	PART #
50	1/8 x 1/4 - 1/16 O-RING	60001
50	1/4 x 3/8 - 1/16 O-RING	60005
40	3/8 x 1/2 - 1/16 O-RING	60007
30	1/2 x 5/8 - 1/16 O-RING	60009

3/32 O-RINGS P/N 19502

QTY	O-RING SIZE	PART #
50	1/8 x 5/16 - 3/32 O-RING	63104
50	1/4 x 7/16 - 3/32 O-RING	63108
40	3/8 x 9/16 - 3/32 O-RING	60026
30	1/2 x 11/16 - 3/32 O-RING	60028

1/8 O-RINGS P/N 19506

QTY	O-RING SIZE	PART #
40	3/16 x 7/16 - 1/8 O-RING	63201
40	1/4 x 1/2 - 1/8 O-RING	63202
30	3/8 x 5/8 - 1/8 O-RING	63204
25	1/2 x 3/4 - 1/8 O-RING	63206

PORTA-PAK Specials

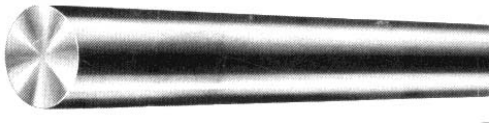
METRIC BUNA-N O-RINGS

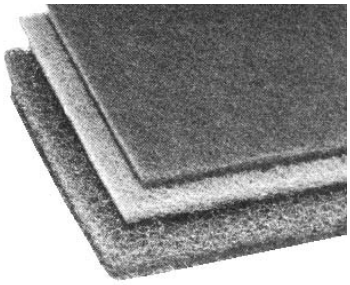
P/N 19507

- Tough, 70 durometer Buna "N" (Nitrile Rubber) stock – provides superior resistance to gasoline, motor oil, transmission oil, hydraulic fluids, anti-freeze, mild acids, mild alkalies and water
- Precision manufactured to exacting specifications – assuring maximum leakage protection
- Temperature range: -65°F to 300°F (-54°C to 149°C)
- Ideal for use in engines, equipment, fuel systems, carburetors, drain lines, etc.

QUANTITY	O-RING SIZE	PART #
50	2mm x 6 x 10 O-RING	60923
50	2mm x 8 x 12 O-RING	60925
40	2mm x 10 x 14 O-RING	60927
30	2mm x 12 x 16 O-RING	60929

SHOP SUPPLIES





- Hose Clamps, 2-Ear Clamps, Constant Pressure Clamps
- Key Stock, O-Rings, Files, Abrasives, Cut-off Wheels, Wire Brushes
- Utility Knives, Shop Tools, Air Guns, Pliers and Specialty Tools
- Quality Industrial Tapes
- Springs, Hooks, Screw Eyes, Screw Extractors, Thread Locking Products
- Wipes, Absorbents and Spill Containment
- Work Lighting, Emergency Lighting, LED Flashlights
- Bioremediation Parts Washer - SmartWasher® Systems

FROM ABRASIVES TO WIRE BRUSHES, CHROMATE FULFILLS ALL YOUR SHOP SUPPLY REQUIREMENTS. **Quality products designed for professional use, in professional shops.**

CHROMATE INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

BAR AND KEY STOCK

JUST CUT, FILE AND FIT

Make your own machinery keys by simply cutting, filing and fitting key and bar stock. Bars are greaseless, rust-resistant and easily identified from size marked on each bar.

ROUND BAR STOCK

3 FOOT LENGTHS

- **50% STRONGER THAN HOT-ROLLED STEEL**
- **COLD DRAWN, POLISHED, UNPLATED FINISH**
- **MACHINE CUT ENDS**
- **OPEN-HEARTH STEEL**
- **TENSILE STRENGTH - 85,000 P.S.I.**
- **BRINELL HARDNESS - 165 TO 180**
- **TOLERANCES: +.000" TO -.002"**

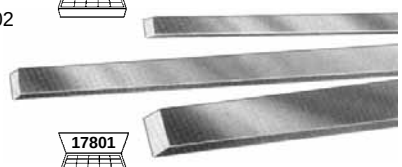
SIZE		PART	SIZE		PART
1/8	F	5471	1/2	C	5483
3/16	F	5473	9/16	C	5485
1/4	F	5475	5/8	C	5487
5/16	C	5477	3/4	A	5489
3/8	C	5479	7/8	A	5491
7/16	C	5481	1	A	5493

SQUARE KEY STOCK

PLATED
- MACHINE CUT ENDS
- TOLERANCES: -.000 TO +.002 IN BOTH DIMENSIONS
- P.S.I. - 85,000
- B.H.N. - 165 TO 180

UNDERSIZED & UNPLATED
- MACHINE CUT ENDS
- TOLERANCES: -.002 TO +.000 IN BOTH DIMENSIONS
- P.S.I. - 85,000
- B.H.N. - 165 TO 180

17800



17801

12" LENGTHS

PLATED		PART	UNPLATED		PART
1/16	E	60180	1/16	E	50180
3/32	E	60181	3/32	E	50181
1/8	E	60182	1/8	E	50182
3/16	E	60183	3/16	E	50183
1/4	E	60184	1/4	E	50184
5/16	E	60185	5/16	E	50185
3/8	E	60186	3/8	E	50186
7/16	C	60187	7/16	C	50187
1/2	C	60188	1/2	C	50188
5/8	B	60189	5/8	B	50189
3/4	A	60190	3/4	A	50190
1"	A	60191	1"	A	50191

WOODRUFF KEYS

7744

WIDTH X DIA.		PART	WIDTH X DIA.		PART
3/32 x 1/2	R	60144	3/16 x 1-1/8	N	60156
3/32 x 5/8	R	60145	3/16 x 1-1/4	N	60157
1/8 x 1/2	R	60146	1/4 x 3/4	R	60158
1/8 x 5/8	R	60147	1/4 x 7/8	R	60159
1/8 x 3/4	R	60148	1/4 x 1	R	60160
5/32 x 5/8	R	60149	1/4 x 1-1/8	N	60161
5/32 x 3/4	R	60150	1/4 x 1-1/4	N	60162
5/32 x 7/8	R	60151	5/16 x 1	N	60163
3/16 x 5/8	R	60152	5/16 x 1-1/8	N	60164
3/16 x 3/4	R	60153	5/16 x 1-1/4	N	60165
3/16 x 7/8	R	60154	3/8 x 1	N	60166
3/16 x 1	R	60155	3/8 x 1-1/4	L	60167

SQUARE KEY STOCK ASSORTMENT

- **7 MOST POPULAR SIZES**
- **A "MUST" FOR EVERY SHOP**
- **HUNDREDS OF APPLICATIONS**
- **A MULTI-PURPOSE ITEM USED IN ALL PHASES OF MAINTENANCE**
- **THE RIGHT SIZE AVAILABLE EVERY TIME**

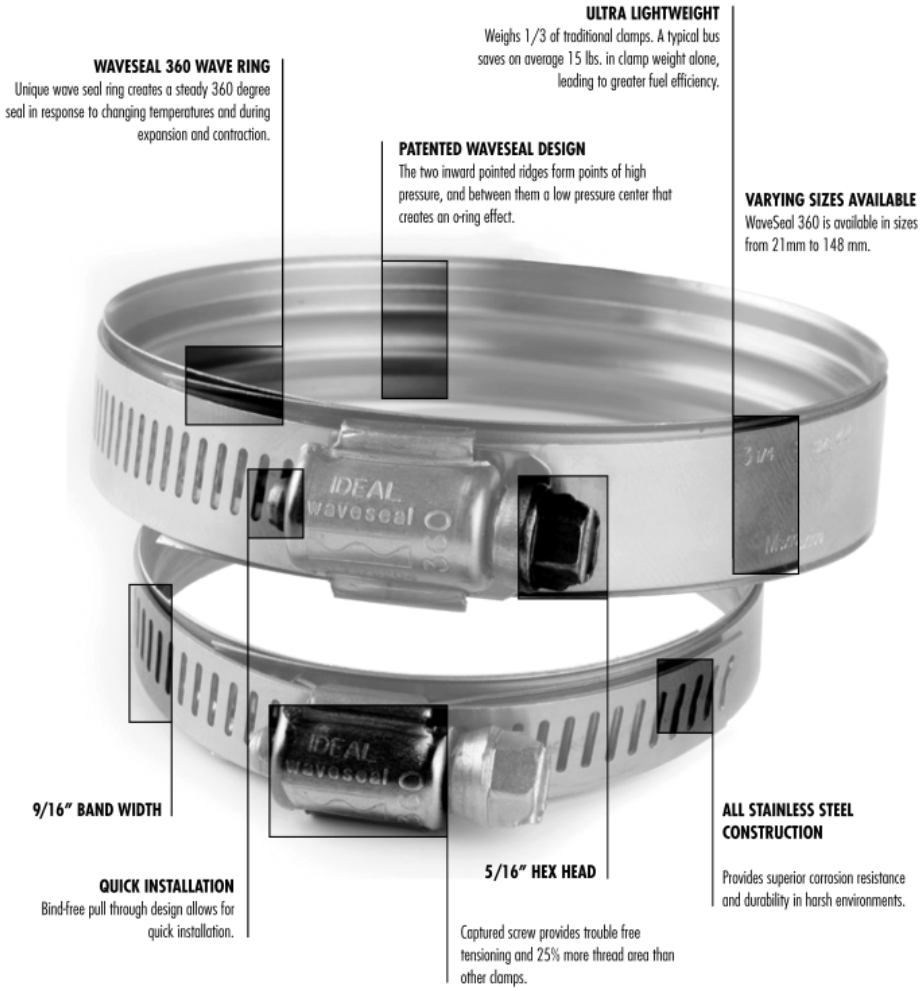
DESCRIPTION		PART
31 PIECE ASSORTMENT • 5 each — 1/8, 3/16, 1/4, 5/16 and 3/8 • 3 each — 7/16 • 3 each — 1/2	A	7793

CONSTANT PRESSURE CLAMPS

Did you know hoses can leak when there is a wide variation in underhood temperatures?

Thermal expansion and contraction loosens hose clamps over time. When leaks happen, it is usually something critical. The WaveSeal 360™ hybrid smart clamp solves this problem. Now you can purchase a hose clamp that's smart enough to adjust to the changing underhood environment. It's a whole new way to think about connections because the WaveSeal 360™:

- Utilizes a patented wave ring technology that self adjusts automatically as thermal cycling occurs
- Expands or contracts as the sealed joint changes, maintaining a constant, steady pressure 360 degrees around the connection
- Produces a sealing o-ring effect that prevents leakage
- Is much lighter, smarter and more compact than T-bolt and Belleville clamps
- All stainless steel construction



Discover the Holding Power of the WaveSeal 360™

Thermal cycling, cold flow & temperature fluctuations are among the main reasons leaks occur. The uniquely engineered W-shaped profile of the WaveSeal 360™ hybrid smart clamp secures hose connections and prevents the unwanted flow of fluids and air. Through its patented smart hybrid technology, the clamp seals in a steady 360-degree pattern in response to pressure and temperature changes. With its compact design and lower profile, you get the optimal heavy-duty constant tension clamp without all the bulk.

U.S. Patent No. 7,178,204 B2

P/N		SIZE	MIN-MAX Diameter (mm)	MIN-MAX Diameter (inch)
30280	I	0016	21 to 33	13/16 to 1-19/64
30281	I	0019	27 to 35	1-1/16 to 1-3/8
30282	I	0020	26 to 40	1 to 1-9/16
30283	I	0022	29 to 43	1-1/8 to 1-11/16
30284	I	0024	30 to 46	1-3/16 to 1-13/16
30285	E	0028	34 to 52	1-5/16 to 2-1/16
30286	E	0032	39 to 59	1-9/16 to 2-5/16
30287	E	0034	41 to 62	1-5/8 to 2-7/16
30288	E	0036	43 to 65	1-11/16 to 2-9/16
30289	E	0040	46 to 71	1-13/16 to 2-13/16
30290	E	0044	52 to 78	2-1/16 to 3-1/16
30291	E	0048	56 to 84	2-3/16 to 3-5/16
30292	E	0052	60 to 91	2-3/8 to 3-9/16
30293	E	0056	64 to 97	2-1/2 to 3-13/16
30294	E	0060	68 to 103	2-11/16 to 4-1/16
30295	E	0064	71 to 110	2-13/16 to 4-5/16
30296	E	0072	81 to 122	3-3/16 to 4-13/16
30297	E	0080	90 to 135	3-9/16 to 5-5/16
30298	C	0088	97 to 148	3-13/16 to 5-13/16

CONSTANT PRESSURE CLAMPS

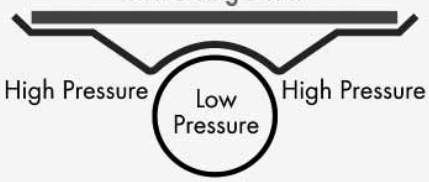
How the WaveSeal 360™ Beats T-Bolt & Belleville Clamps

The WaveSeal 360™ Clamp was designed in response to the leakage attributed to thermal cycling, plus today's challenging lighter weight and space constraints.

Integrated Two-piece Design
The WaveSeal 360™ is comprised of two main parts, the clamp assembly and the wave ring

- The wave ring is high quality stainless steel and inside the clamp
- Specifically tempered, thin gauge steel reacts to temperatures
- Becomes a smart clamp on the hose, expanding or contracting with temperatures
- The clamp rides on this ring so pressure is more evenly distributed around the hose

The O-ring Effect



Seals Tight, Seals Right
The wave ring cross section resembles a W. When torqued under the clamp, the two points of high pressure surround the low point in between. This creates a powerful low pressure area much like an o-ring, which holds the hose securely and uniformly, maintaining a steady 360° seal.

Ultra Lightweight and Compact
The WaveSeal 360's™ lightweight design can literally shave pounds of vehicle weight while its low profile fits in tight spaces.

Tested Tough
Recent leak pressure tests show that the WaveSeal 360™ clamp performed better in thermal cycling than typical constant tension clamps, Belleville spring or spring loaded T-bolt styles. Further testing revealed WaveSeal 360™ performs even better over time when compared to other leading brands in the same category.

WaveSeal 360™ Clamps are engineered to last longer, and perform better than old-school clamps in the most demanding applications.

Passenger Car Cooling and Forced Induction Systems
Higher underhood temperatures associated with lower emissions lead to stress on cooling systems and turbos under pressure. Spring and worm gear clamps can leak under pressure.

Heavy Duty Cooling and Forced Induction Systems
This extended life, high vibration and thermal cycling prone environment makes turbo, radiator, heater and other cooling system hoses loosen more often with old-school clamps.

Off Highway Applications
Constant vibration and destructive shock peaking cause stress on traditional clamps.

Industrial and Hardware Applications
Corrosive environments, extreme temperatures and high vibration combine to cause traditional clamps to fail.

Extreme Climate Applications
Harsh environmental conditions require additional security for a hose connection, and old-style clamps fail regularly. Vehicles used in arctic or desert environments are more than transport, they're a lifeline.

Racing Applications
Experimental and high performance engines maximize performance... along with high heat and vibration under the cowl. The clamps should be just as high-tech.

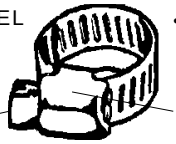
HOSE CLAMPS

WORM DRIVE TYPE

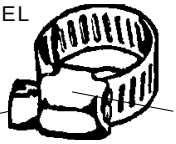
Secures all types of push on hose in fuel line, air line, radiator, vacuum and heater applications. Stainless steel and tough precision engineered construction prevents rust and corrosion.

MINI-CLAMPS — UNLINED (5/16" BAND)

ALL STAINLESS STEEL



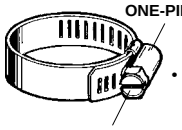
PART STAINLESS STEEL



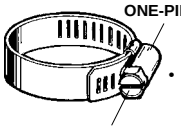
CLAMP RANGE	INDUSTRY #	ALL STAINLESS STEEL	PARTIAL STAINLESS STEEL	CLAMP RANGE	INDUSTRY #	ALL STAINLESS STEEL
1/4 to 5/8	4	40507	40404	1/2 to 1	8	40511
5/16 to 7/8	6	40508	40406	5/8 to 1-1/4	12	40513

HEAVY-DUTY HOSE CLAMPS — LINED AND UNLINED (9/16" BAND)

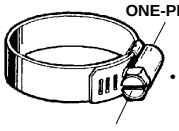
ALL STAINLESS STEEL



PART STAINLESS STEEL



LINED CLAMP
ALL STAINLESS STEEL

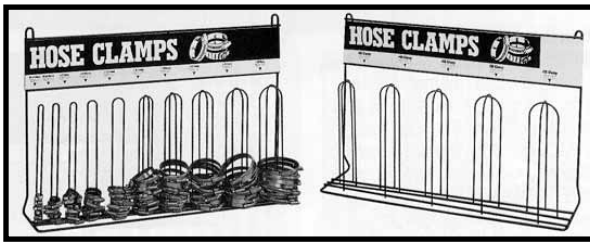


- LINER PROTECTS SOFT RUBBER HOSE FROM EXTRUSION AND SHEARING THROUGH THE CLAMP BAND NOTCHES, YET STILL PROVIDES FULL SEALING EFFICIENCY.
- NO SPOT WELDS TO RUPTURE — IDEAL FOR USE WITH SILICONE HOSE AND OTHER HOSES MADE OF SOFT MATERIALS.
- ALL STAINLESS STEL CONSTRUCTION FOR HIGH CORROSION RESISTANCE.

CLAMP RANGE	INDUSTRY #	UNLINED ALL S/S	UNLINED PARTIAL S/S	LINED ALL S/S	CLAMP RANGE	INDUSTRY #	UNLINED ALL S/S	UNLINED PARTIAL S/S	LINED ALL S/S
3/8 to 7/8	6	30006	30306	-	1-5/16 to 3-1/4	44	30044	30344	30244
7/16 to 1	8	30008	30308	30208	1-5/8 to 3-1/2	48	30048	30348	30248
1/2 to 1-1/8	10	30010	30310	30210	1-7/8 to 3-3/4	52	30052	30352	30252
1/2 to 1-1/4	12	30012	30312	30212	2-1/8 to 4	56	30056	30356	30256
3/4 to 1-1/2	16	30016	30316	30216	2-5/8 to 4-1/2	64	30064	30364	30264
3/4 to 1-3/4	20	30020	30320	30220	3-1/8 to 5	72	30072	30372	30272
1 to 2	24	30024	30324	30224	3-5/8 to 5-1/2	80	30080	30380	-
1-5/16 to 2-1/4	28	30028	30328	30228	4-1/4 to 6	88	30088	30388	-
1-9/16 to 2-1/2	32	30032	30332	30232	4-3/4 to 6-1/2	96	30096	30496	-
7/8 to 2-3/4	36	30036	30336	30236	4 to 7	104	30104	30314	-
1-1/8 to 3	40	30040	30340	30240	5-7/8 to 7-3/4	114	30116	-	-

HOSE CLAMP ASSORTMENTS

Sturdy steel wire rack keeps all your hose clamps in one convenient location. Ten of each of the most popular sizes. Easy to pull, easy to return, with no more missing boxes.



DESCRIPTION	PART
Assortment #1 (Industry #4 through #36) Contains 10 each of 40507, 40508, 30006, 30010, 30012, 30016, 30020, 30028, 30032 and 30036	A 7794
Assortment #2 (Industry #40 through #72) Contains 10 each of 30040, 30048, 30052, 30056 and 30072	A 7796

2-EAR CLAMPS

MATERIALS CAN BE SECURELY FASTENED

2-Ear Clamps are suitable for use by OEMs, but also for maintenance, repair and service purposes. With this type of clamp, rubber hoses, plastic tubing, electrical cables, welding hoses, and other materials can be securely fastened.

Compared to 1-ear clamps, 2-ear clamps are suitable for a wider diameter range. The geometry of the closed ears increases the effective clamping force, and provides a degree of elasticity to accommodate changes in size of the parts being joined, such as may be caused by thermal expansion or vibration. For perfect sealing, it is essential that the ears are correctly closed during installation.

ZINC PLATED

- **STURDY DESIGN FOR GOOD, PERMANENT SEALING**
- **IDEAL FOR AIR AND LIQUID LINES**
- **FAST, SIMPLE, SECURE INSTALLATION**
- **2-EAR DESIGN GIVES INCREASED CLAMPING RANGE**
- **DE-BURRED EDGES PREVENTS DAMAGE TO CLAMPED PARTS**
- **DEFORMATION OF EARS PROVIDES VISUAL INDICATION THE CLAMP IS CLOSED**

SIZE RANGE (INCH)	SIZE RANGE (MILLIMETERS)		PART
9/32" - 23/64"	7 - 9	N	30117
5/16" - 7/16"	8.1 - 11	N	30118
27/64" - 33/64"	10.8 - 13	N	30119
31/64" - 19/32"	12.5 - 15	L	30120
5/8" - 3/4"	16 - 19	L	30121
41/64" - 51/64"	16.2 - 20	L	30122
3/4" - 29/32"	19 - 23	L	30123
53/64" - 31/32"	21 - 25	I	30124
57/64" - 1-1/16"	22.5 - 27	I	30125
15/16" - 1-7/64"	24 - 28	I	30126
1-3/64" - 1-7/32"	26.3 - 31	I	30127
1-5/32" - 1-11/32"	29.3 - 34	I	30128

MANUALLY OPERATED HAND TOOLS FOR 2-EAR CLAMPS

The appropriate manually operated hand tool **(P/N 66385 or 66386)** is applied to the ears and closed with sufficient force to draw the lower radii together to a position where obvious component compression is evident and the clamp ear assumes a symmetrical “omega” shaped formation.

Side Jaw Pincers, P/N 66385
(One item per pkg.)

Standard Jaw Pincers, P/N 66386
(One item per pkg.)

O-RINGS – BUNA-N

BUNA "N" COMPOUND

General purpose O-Rings withstand temperatures of -40°F to +300°F.

RESISTS:
- GASOLINE
- MOTOR OIL
- TRANSMISSION OIL
- WATER
- MILD ACIDS
- MILD ALKALIS
- ANTI-FREEZE

USE IN:
- DRAIN PLUG GASKETS
- FUEL LINES
- ENGINE SEALS
- CARBURETORS
- GARDEN POWER EQUIPMENT

1/16" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
1/32	3/32	001	N 63001	9/16	11/16	015	N 60010	1-1/2	1-5/8	029	N 60020
3/64	9/64	002	N 60000	5/8	3/4	016	N 60011	1-5/8	1-3/4	030	N 60090
1/16	3/16	003	N 60083	11/16	13/16	017	N 60012	1-3/4	1-7/8	031	N 60091
5/64	13/16	004	N 60084	3/4	7/8	018	N 60013	1-7/8	2	032	N 60092
3/32	7/32	005	N 60085	13/16	15/16	019	N 60014	2	2-1/8	033	N 60093
1/8	1/4	006	N 60001	7/8	1	020	N 60015	2-1/8	2-1/4	034	N 60094
5/32	9/32	007	N 60002	15/16	1-1/16	021	N 60016	2-1/4	2-3/8	035	N 60095
3/16	5/16	008	N 60003	1	1-1/8	022	N 60017	2-3/8	2-1/2	036	N 60096
7/32	11/32	009	N 60004	1-1/16	1-3/16	023	N 60018	2-1/2	2-5/8	037	N 60097
1/4	3/8	010	N 60005	1-1/8	1-1/4	024	N 60019	2-5/8	2-3/4	038	N 60098
5/16	7/16	011	N 60006	1-3/16	1-5/16	025	N 60086	2-3/4	2-7/8	039	N 63039
3/8	1/2	012	N 60007	1-1/4	1-3/8	026	N 60087	2-7/8	3	040	N 63040
7/16	9/16	013	N 60008	1-5/16	1-7/16	027	N 60088	3	3-1/8	041	N 63041
1/2	5/8	014	N 60009	1-3/8	1-1/2	028	N 60089	–	–	–	–

3/32" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
1/16	1/4	102	N 63102	15/16	1-1/8	119	N 60035	2	2-3/16	136	N 63136
3/32	9/32	103	N 63103	1	1-3/16	120	N 60036	2-1/16	2-1/4	137	N 63137
1/8	5/16	104	N 63104	1-1/16	1-1/4	121	N 60037	2-1/8	2-5/16	138	N 63138
5/32	11/32	105	N 63105	1-1/8	1-5/16	122	N 60038	2-3/16	2-3/8	139	N 63139
3/16	3/8	106	N 63106	1-3/16	1-3/8	123	N 60039	2-1/4	2-7/16	140	N 63140
7/32	13/32	107	N 63107	1-1/4	1-7/16	124	N 60040	2-5/16	2-1/2	141	N 63141
1/4	7/16	108	N 63108	1-5/16	1-1/2	125	N 63125	2-3/8	2-9/16	142	N 63142
5/16	1/2	109	N 63109	1-3/8	1-9/16	126	N 63126	2-7/16	2-5/8	143	N 63143
3/8	9/16	110	N 60026	1-7/16	1-5/8	127	N 63127	2-1/2	2-11/16	144	N 63144
7/16	5/8	111	N 60027	1-1/2	1-11/16	128	N 63128	2-9/16	2-3/4	145	N 63145
1/2	11/16	112	N 60028	1-9/16	1-3/4	129	N 63129	2-5/8	2-13/16	146	N 63146
9/16	3/4	113	N 60029	1-5/8	1-13/16	130	N 63130	2-11/16	2-7/8	147	N 63147
5/8	13/16	114	N 60030	1-11/16	1-7/8	131	N 63131	2-3/4	2-15/16	148	N 63148
11/16	7/8	115	N 60031	1-3/4	1-15/16	132	N 63132	2-13/16	3	149	N 63149
3/4	15/16	116	N 60032	1-13/16	2	133	N 60041	2-7/8	3-1/16	150	N 63150
13/16	1	117	N 60033	1-7/8	2-1/16	134	N 63134	3	3-3/16	151	N 63151
7/8	1-1/16	118	N 60034	1-15/16	2-1/8	135	N 63135	–	–	–	–

O-RINGS – BUNA-N (Cont'd.)

1/8" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
3/16	7/16	201	N 63201	15/16	1-3/16	213	N 60052	1-3/4	2	224	N 60063
1/4	1/2	202	N 63202	1	1-1/4	214	N 60053	1-7/8	2-1/8	225	N 63225
5/16	9/16	203	N 63203	1-1/16	1-5/16	215	N 60054	2	2-1/4	226	N 63226
3/8	5/8	204	N 63204	1-1/8	1-3/8	216	N 60055	2-1/8	2-3/8	227	N 63227
7/16	11/16	205	N 63205	1-3/16	1-7/16	217	N 60056	2-1/4	2-1/2	228	N 63228
1/2	3/4	206	N 63206	1-1/4	1-1/2	218	N 60057	2-3/8	2-5/8	229	N 63229
9/16	13/16	207	N 63207	1-5/16	1-9/16	219	N 60058	2-1/2	2-3/4	230	N 63230
5/8	7/8	208	N 60047	1-3/8	1-5/8	220	N 60059	2-5/8	2-7/8	231	N 63231
11/16	15/16	209	N 60048	1-7/16	1-11/16	221	N 60060	2-3/4	3	232	N 63232
3/4	1	210	N 60049	1-1/2	1-3/4	222	N 60061	2-7/8	3-1/8	233	N 63233
13/16	1-1/16	211	N 60050	1-5/8	1-7/8	223	N 60062	3	3-1/4	234	N 63234
7/8	1-1/8	212	N 60051	–	–	–	–	–	–	–	–

3/16" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
7/16	13/16	309	N 63309	1-1/16	1-7/16	319	N 63319	2	2-3/8	329	N 60073
1/2	7/8	310	N 63310	1-1/8	1-1/2	320	N 63320	2-1/8	2-1/2	330	N 60074
9/16	15/16	311	N 63311	1-3/16	1-9/16	321	N 63321	2-1/4	2-5/8	331	N 60075
5/8	1	312	N 63312	1-1/4	1-5/8	322	N 63322	2-3/8	2-3/4	332	N 60076
11/16	1-1/16	313	N 63313	1-5/16	1-11/16	323	N 63323	2-1/2	2-7/8	333	N 60077
3/4	1-1/8	314	N 63314	1-3/8	1-3/4	324	N 63324	2-5/8	3	334	N 60078
13/16	1-3/16	315	N 63315	1-1/2	1-7/8	325	N 60069	2-3/4	3-1/8	335	N 60079
7/8	1-1/4	316	N 63316	1-5/8	2	326	N 60070	2-7/8	3-1/4	336	N 60080
15/16	1-5/16	317	N 63317	1-3/4	2-1/8	327	N 60071	3	3-3/8	337	N 60081
1	1-3/8	318	N 63318	1-7/8	2-1/4	328	N 60072	–	–	–	–

O-RING BULK STOCK 10 FT. LENGTHS

SIZE	PART	SIZE	PART
3/32	A 840	1/4	A 843
1/8	A 841	5/16	A 844
3/16	A 842	3/8	A 845

RL INSTANT ADHESIVE

DESCRIPTION	PART
Red Lion™ Instant Adhesive	C 74516

O-RING SPLICING KIT

- **NO WAITING**
- **ELIMINATES DOWN TIME**
- **MAKES ALL 300 STANDARD O-RINGS AND MANY SPECIALS**
- **INCLUDES SPECIAL RAPID-SET ADHESIVES**
- **INGENIOUS SPLICING NEVER FAILS**

DESCRIPTION	PART
CONTENTS: 7 feet of each: 3/32", 1/8", 3/16" and 1/4" 1 razor blade, 1 cutting and splicing jig, 1 tube rapid-set adhesive and 4 pieces o-ring Nitrile Buna-N cord stock	A 60099

O-RINGS – VITON

VITON COMPOUND

Viton compound for high temperature and chemical resistant applications.

17754

FEATURES:
- **BROAD TEMPERATURE RANGE -15°F to +400°F**
- **EXCELLENT CHEMICAL COMPATIBILITY RESISTS ACIDS, SILICON FLUIDS, SOLVENTS AND OILS**
- **LOW COMPRESSION SET**
- **BROWN IN COLOR FOR EASY IDENTIFICATION**

RECOMMENDED FOR USE WITH:
- **PETROLEUM OILS**
- **SOLVENTS**
- **SILICONE FLUIDS AND GREASES**
- **DIESTER LUBRICANTS**
- **ACIDS**

1/16" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
1/32	3/32	001	R 61001	9/16	11/16	015	R 61050	1-1/2	1-5/8	029	R 61060
3/64	9/64	002	R 61040	5/8	3/4	016	R 61051	1-5/8	1-3/4	030	N 61030
1/16	3/16	003	R 61003	11/16	13/16	017	R 61052	1-3/4	1-7/8	031	N 61031
5/64	13/16	004	R 61004	3/4	7/8	018	R 61053	1-7/8	2	032	N 61032
3/32	7/32	005	R 61005	13/16	15/16	019	R 61054	2	2-1/8	033	N 61033
1/8	1/4	006	R 61041	7/8	1	020	R 61055	2-1/8	2-1/4	034	N 61034
5/32	9/32	007	R 61042	15/16	1-1/16	021	R 61056	2-1/4	2-3/8	035	N 61035
3/16	5/16	008	R 61043	1	1-1/8	022	R 61057	2-3/8	2-1/2	036	N 61036
7/32	11/32	009	R 61044	1-1/16	1-3/16	023	R 61058	2-1/2	2-5/8	037	N 61037
1/4	3/8	010	R 61045	1-1/8	1-1/4	024	R 61059	2-5/8	2-3/4	038	E 61038
5/16	7/16	011	R 61046	1-3/16	1-5/16	025	R 65025	2-3/4	2-7/8	039	E 61039
3/8	1/2	012	R 61047	1-1/4	1-3/8	026	R 65026	2-7/8	3	040	E 65040
7/16	9/16	013	R 61048	1-5/16	1-7/16	027	R 61027	3	3-1/8	041	E 65041
1/2	5/8	014	R 61049	1-3/8	1-1/2	028	R 65028	–	–	–	–

3/32" THICK

I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
1/16	1/4	102	R 61102	15/16	1-1/8	119	R 61070	2	2-3/16	136	I 65136
3/32	9/32	103	R 61103	1	1-3/16	120	R 61071	2-1/16	2-1/4	137	I 65137
1/8	5/16	104	R 61104	1-1/16	1-1/4	121	R 61072	2-1/8	2-5/16	138	I 65138
5/32	11/32	105	R 65105	1-1/8	1-5/16	122	R 61073	2-3/16	2-3/8	139	I 65139
3/16	3/8	106	R 65106	1-3/16	1-3/8	123	R 61074	2-1/4	2-7/16	140	I 65140
7/32	13/32	107	R 65107	1-1/4	1-7/16	124	R 61075	2-5/16	2-1/2	141	I 65141
1/4	7/16	108	R 65108	1-5/16	1-1/2	125	N 65125	2-3/8	2-9/16	142	I 65142
5/16	1/2	109	R 65109	1-3/8	1-9/16	126	N 65126	2-7/16	2-5/8	143	I 65143
3/8	9/16	110	R 61061	1-7/16	1-5/8	127	N 65127	2-1/2	2-11/16	144	I 65144
7/16	5/8	111	R 61062	1-1/2	1-11/16	128	N 65128	2-9/16	2-3/4	145	I 65145
1/2	11/16	112	R 61063	1-9/16	1-3/4	129	N 65129	2-5/8	2-13/16	146	I 65146
9/16	3/4	113	R 61064	1-5/8	1-13/16	130	N 65130	2-11/16	2-7/8	147	I 65147
5/8	13/16	114	R 61065	1-11/16	1-7/8	131	N 65131	2-3/4	2-15/16	148	I 65148
11/16	7/8	115	R 61066	1-3/4	1-15/16	132	N 65132	2-13/16	3	149	I 65149
3/4	15/16	116	R 61067	1-13/16	2	133	N 61076	2-7/8	3-1/16	150	I 61150
13/16	1	117	R 61068	1-7/8	2-1/16	134	N 65134	3	3-3/16	151	I 65151
7/8	1-1/16	118	R 61069	1-15/16	2-1/8	135	N 65135	–	–	–	–

O-RINGS – VITON (Cont'd.)

1/8" THICK											
I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
3/16	7/16	201	R 65201	1	1-1/4	214	R 61083	2	2-1/4	226	I 65226
1/4	1/2	202	R 65202	1-1/16	1-5/16	215	R 61084	2-1/8	2-3/8	227	I 65227
5/16	9/16	203	R 65203	1-1/8	1-3/8	216	R 61085	2-1/4	2-1/2	228	I 65228
3/8	5/8	204	R 65204	1-3/16	1-7/16	217	R 61086	2-3/8	2-5/8	229	I 65229
7/16	11/16	205	R 65205	1-1/4	1-1/2	218	R 61087	2-1/2	2-3/4	230	I 65230
1/2	3/4	206	R 65206	1-5/16	1-9/16	219	R 61088	2-5/8	2-7/8	231	I 65231
9/16	13/16	207	R 65207	1-3/8	1-5/8	220	R 61089	2-3/4	3	232	I 65232
5/8	7/8	208	R 61077	1-7/16	1-11/16	221	R 61090	2-7/8	3-1/8	233	I 65233
11/16	15/16	209	R 61078	1-1/2	1-3/4	222	R 61091	3	3-1/4	234	I 65234
3/4	1	210	R 61079	1-5/8	1-7/8	223	R 61092	–	–	–	–
13/16	1-1/16	211	R 61080	1-3/4	2	224	R 61093	–	–	–	–
7/8	1-1/8	212	R 61081	1-7/8	2-1/8	225	R 65225	–	–	–	–
3/16" THICK											
I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART	I.D. (A)	O.D. (B)	INDUSTRY#	PART
7/16	13/16	309	I 61309	1-1/16	1-7/16	319	I 65319	2	2-3/8	329	E 61329
1/2	7/8	310	I 65310	1-1/8	1-1/2	320	I 65320	2-1/8	2-1/2	330	E 61330
9/16	1/16	311	I 65311	1-3/16	1-9/16	321	I 61321	2-1/4	2-5/8	331	E 61331
5/8	1	312	I 61312	1-1/4	1-5/8	322	I 61322	2-3/8	2-3/4	332	E 61332
11/16	1-1/16	313	I 61313	1-5/16	1-11/16	323	I 61323	2-1/2	2-7/8	333	E 61333
3/4	1-1/8	314	I 61314	1-3/8	1-3/4	324	I 61324	2-5/8	3	334	E 61334
13/16	1-3/16	315	I 61315	1-1/2	1-7/8	325	I 61094	2-3/4	3-1/8	335	E 61335
7/8	1-1/4	316	I 61316	1-5/8	2	326	I 61095	2-7/8	3-1/4	336	E 61336
15/16	1-5/16	317	I 65317	1-3/4	2-1/8	327	I 61096	3	3-3/8	337	E 61337
1	1-3/8	318	I 65318	1-7/8	2-1/4	328	E 61328	–	–	–	–

O-RING COMPATIBILITY CHART

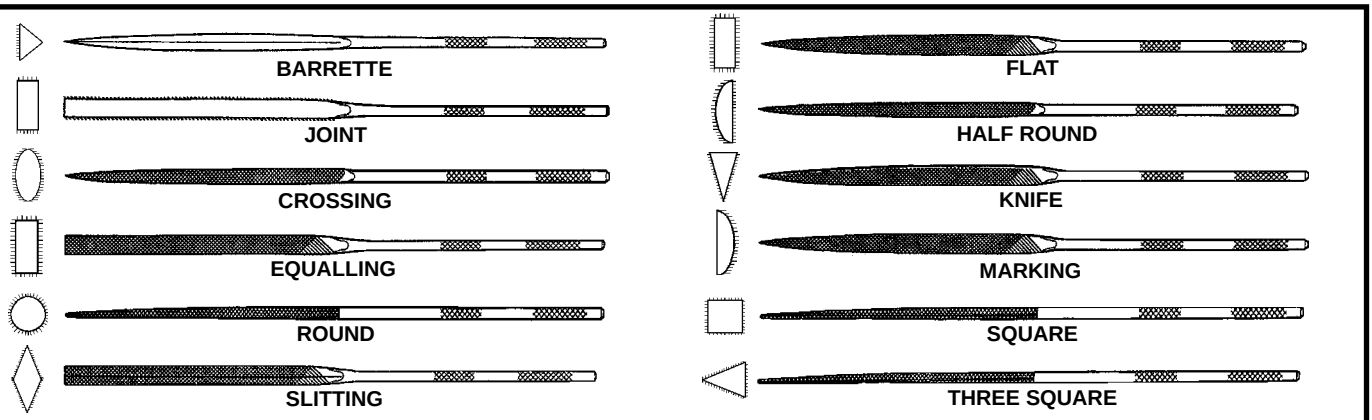
GENERAL PROPERTIES OF O-RING MATERIALS					
	BUNA-N	VITON		BUNA-N	VITON
Temperature Range	-40°F to +300°F	-15°F to +400°F	**Compression Set**	Good	Good
RESISTANCE TO:			RESISTANCE TO:		
Tearing	Good	Good	**Concentrated Alkalies**	Good	Excellent
Abrasion	Excellent	Good	**Synthetic Lubricants (Silicone Grease)**	Good	Excellent
Ozone	Poor	Excellent			
Weather	Poor	Excellent	**High Aniline Lubricants (ASTM Oil #1 or MIL-L-6082)**	Excellent	Excellent
Cold Water	Excellent	Fair	**Low Aniline Lubricants (ASTM Oil #3 or MIL-H-5606)**	Excellent	Excellent
Hot Water	Good	Poor	**Animal / Vegetable Oils**	Good	Excellent
Steam	Poor	Poor	**Aliphatic Hydrocarbons (Fuel Oil A)**	Excellent	Excellent
Dilute Acids	Good	Excellent			
Concentrated Acids	Good	Excellent	**Aromatic Hydrocarbons (Fuel Oil C or Toluene)**	Poor	Excellent
Dilute Alkalies	Good	Excellent			

Temperature ranges and chemical compatibility are for general comparisons.

NEEDLE FILES

SWISS PATTERN ROUND HANDLE

For those tight spots and precision filing jobs where regular files cannot reach. Files are all No. 2 x 6-1/4" length.

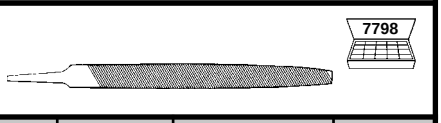


ALL TWELVE STYLES ARE AVAILABLE IN A COMPLETE ASSORTMENT PACKED IN A CONVENIENT PLASTIC CASE

TYPE		PART	TYPE		PART	TYPE		PART	TYPE		PART
Barrette	A	15560	Flat (Warding)	A	15564	Round	A	15568	Needle File Handle	C	15573
Joint (Sq. Edge)	A	15561	Half Round	A	15565	Slitting	A	15569	**12-Piece Assortment**	A	**15572**
Crossing	A	15562	Knife	A	15566	Square	A	15570			
Equalling (Hand)	A	15563	Marking	A	15567	Three Square	A	15571			

CIC 200™ RAPID CUT FILES

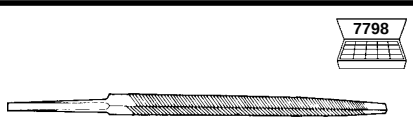
MILL FILES



LTH.	SIZE	COARSENESS		PART
8"	13/16 x 5/32	Bastard	A	15500
10"	1 x 3/16	Bastard	A	15504

For use in workshops and sharpening mill and circular saws, hoes, axes, spades, shovels, etc. Also for draw filing and finishing metal.

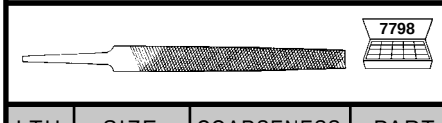
TAPER SAW FILES



LTH.	SIZE	COARSENESS		PART
6"	3/8	Slim	A	15536

For use in hand filing of all types of saws with 60º angle teeth. The single cut edges set and cut for filing gullets between saw teeth.

FLAT FILES



LTH.	SIZE	COARSENESS		PART
8"	13/16 x 7/32	Bastard	A	15508
10"	1 x 1/4	Bastard	A	15512

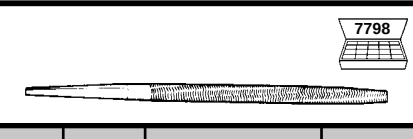
For use in factories, machine shops, and garages because of its ability to work on iron, steel, etc.; and quick removal of stock from plain surfaces.

SQUARE FILES

LTH.	SIZE	COARSENESS		PART
8"	5/16	Bastard	A	15540

For use in filing grooves, square holes, inside corners and for finishing cutting tools.

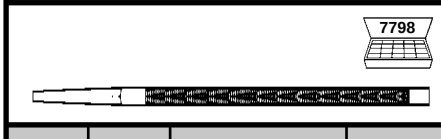
ROUND (RAT TAIL) FILES



LTH.	SIZE	COARSENESS		PART
6"	1/4	Bastard	A	15516
8"	5/16	Bastard	A	15520
10"	3/8	Bastard	A	15524

For use in enlarging circular holes, moldings, concave surfaces and rounded grooves.

CHAIN SAW FILES



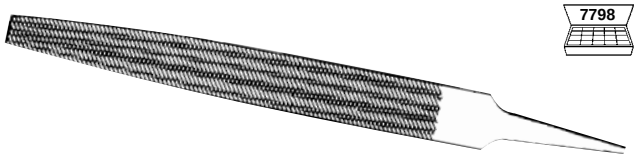
LTH.	SIZE	COARSENESS		PART
8"	7/32	-	A	15544
8"	3/16	-	A	15548
8"	5/32	-	A	15552

For use in filing saw chain. Also can be used to clean and dress up gullets of some saws.

CIC 200™ RAPID CUT FILES (Cont'd.)

HALF ROUND FILES

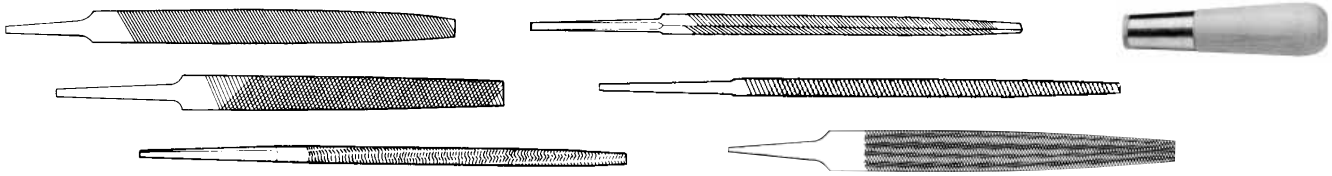
Half round side can be used for filing rounded holes, concave corners, crevices, etc. Can also be used on flat surfaces.



LTH.	SIZE	COARSENESS		PART
8"	3/4 x 7/32	Bastard	A	15528
10"	15/16 x 9/32	Bastard	A	15532

CIC 200™ RAPID CUT FILE ASSORTMENT

Provides your shop with the most valuable, quality files for all your maintenance and repair needs. Use for sharpening, deburring, beveling, honing, scraping, lathe filing, edging, deflashing, etc.



DESCRIPTION		PART
RAPID CUT FILE ASSORTMENT 2 ea. — 8" Mill Bastard, 10" Mill Bastard, 8" Flat Bastard, 6" Round Bastard, 8" Round Bastard, 10" Round Bastard, 6" Slim Taper Saw, 8 x 7/32 Chain Saw, 8 x 3/16 Chain Saw, 8 x 5/32 Chain Saw and Wooden Handles 1 ea. — 10" Flat Bastard, 8" Half-Round Bastard, 10" Half-Round Bastard and 8" Square Bastard	A	7798

WOODEN FILE HANDLES

GREATER SAFETY

- **A PROPERLY FITTED HANDLE WILL ENCOURAGE BETTER WORK AND MAKE THE JOB EASIER AND SAFER**
- **WOOD HANDLES ABSORB HAND MOISTURE MORE READILY FOR EVEN GREATER SAFETY**

DESCRIPTION		PART
4" to 8" Wooden File Handles	D	15553
6" to 10" Wooden File Handles	D	15555
8" to 12" Wooden File Handles	D	15556

BLACK MAXI™ HAND FILES

SUPERIOR DURABILITY AND FASTER CUTTING

BLACK MAXI FILE TRAY ASSORTMENT

- **SPECIAL BLACK OXIDE COATING LASTS LONGER, RESISTS LOADING AND RUSTING**
- **HANDY ASSORTMENT OF THE MOST COMMONLY USED FILES**
- **ALL FILES COME COMPLETE WITH WOODEN FILE HANDLES**
- **INCLUDES:**
  - **10" FLAT BASTARD**
  - **10" HALF ROUND BASTARD**
  - **10" ROUND BASTARD**
  - **10" MILL BASTARD**
  - **9" SQUARE BASTARD**
  - **10" FLAT SMOOTH**
  - **7" SLIM TAPER**
  - **FILE CARD**

DESCRIPTION		PART
Metal Tray Assortment	A	17841T

MILL

- **FOR USE IN SHARPENING, DRAW FILING, LATHE WORK AND GENERAL SHOP USE**
- **SINGLE CUT ON THE SIDES AND EDGES, TAPER TOWARD THE POINT IN WIDTH**

LENGTH	SIZE	COARSENESS		PART
8"	13/16 x 5/32	Bastard	A	15580
10"	1 x 3/16	Bastard	A	15581

TAPER SAW

- **DESIGNED FOR FILING ALL TYPES OF SAWS WITH 60° ANGLE TEETH**
- **TRIANGULAR IN SHAPE, HAVE CUT EDGES AND TAPER TOWARD THE POINT IN WIDTH AND THICKNESS**

LENGTH	SIZE	COARSENESS		PART
6"	3/8	Slim	A	15537
7"	3/8	Double Extra Slim	A	15538

THREE SQUARE

- **EXCELLENT FOR CLEANING OUT CORNERS OR FOR USE ON CUTTERS, TAPS & FLAT SURFACES**
- **DOUBLE CUT AND TAPER TOWARD THE POINT IN WIDTH AND THICKNESS**
- **EXCLUSIVE "WAVY TOOTH" DESIGN**

LENGTH	SIZE	COARSENESS		PART
6"	5/16	Bastard	A	15541
8"	3/8	Bastard	A	15542

FLAT

- **EXCELLENT FOR "HOGGING" OR RAPID STOCK REMOVAL**
- **DOUBLE CUT ON BOTH SIDES, SINGLE CUT ON EDGES AND TAPER TOWARD THE POINT IN WIDTH**

LENGTH	SIZE	COARSENESS		PART
8"	13/16 x 7/32	Bastard	A	15582
10"	1 x 1/4	Bastard	A	15583
10"	1 x 1/4	Smooth	A	15584

BLACK MAXI™ HAND FILES (Cont'd)

ROUND (RAT TAIL)

- **INTENDED FOR ENLARGING AND ROUNDING OUT CIRCULAR OPENINGS OR CONCAVE SURFACES**
- **DOUBLE CUT AND TAPER TOWARD THE POINT IN WIDTH AND THICKNESS**

17841T & 17922

LENGTH	SIZE	COARSENESS		PART
6"	1/4	Bastard	A	15585
8"	15/16	Bastard	A	15586
10"	3/8	Bastard	A	15587

HALF ROUND

- **USE FOR ROUNDING OUT HOLES, CORNERS AND CREVICES**
- **DOUBLE CUT ON BOTH SIDES AND TAPER TOWARD THE POINT IN WIDTH AND THICKNESS**

17841T & 17922

LENGTH	SIZE	COARSENESS		PART
8"	5/16	Bastard	A	15590
10"	15/16	Bastard	A	15591

FLAT MULTI-CUT

- **OBTAIN ALMOST ANY REQUIRED FINISH SIMPLY BY CHANGING THE FEED PRESSURE**
- **SINGLE CUT COARSE TOOTH FILES THAT TAPER TOWARD THE POINT IN WIDTH**
- **DESIGN FEATURES A DIAMOND PATTERN "DOUBLE CHIP-BREAKER" ALLOWING FOR FAST REMOVAL WHILE LEAVING A SMOOTH FINISH**

17922

LENGTH	SIZE	COARSENESS		PART
8"	7/32	–	A	15550
10"	3/16	–	A	15554

ALL-PURPOSE

- **BUILT-IN HANDLE PROVIDES MAXIMUM VERSATILITY FOR A WIDE RANGE OF APPLICATIONS**
- **DOUBLE CUT ON ONE SIDE, SINGLE CUT ON THE OTHER**
- **HAS ONE EDGE CUT AND ONE EDGE SAFE (UNCUT) FOR SHOULDER FILING AND IS PARALLEL IN WIDTH AND THICKNESS**

17922

LENGTH	SIZE	COARSENESS		PART
10"	1/4	Bastard	A	15546

FILE CARD

- **FILES LAST LONGER WHEN KEPT PROPERLY CLEANED WITH FILE CARDS**
- **EXCESS BUILD-UP CAUSES CLOGGING RESULTING IN SLIPPING, SCRATCHING OR OTHER FILING INEFFICIENCIES**

17841T & 17922

DESCRIPTION		PART
File Card	A	15588

CIC 200™ CARBIDE ROTARY FILES

SOLID CARBIDE WITH 1/4" SHANK

- **MANUFACTURED FROM C2 GRADE CARBIDE FOR HIGH PERFORMANCE METAL REMOVAL**
- **PRECISION MANUFACTURING PROCESS DELIVERS DEPENDABLE REPEATABILITY, BUR AFTER BUR**
- **REDUCED PULLING FOR BETTER OPERATOR CONTROL**
- **ROCKWELL "C" 91.8**
- **IDEAL FOR USE ON ALL STEELS, IRON, MASONITE, FIBERGLASS, WELDMENTS AND TITANIUM ALLOY**

DOUBLE CUT FLUTES:

- **IDEAL FOR RAPID STOCK METAL REMOVAL**
- **SMALLER, FINER CHIPS FOR EASIER DISPOSAL**

FAST MILL CUT FLUTES:

- **DESIGNED TO REDUCE LOADING WHILE PROVIDING RAPID STOCK REMOVAL**
- **RECOMMENDED FOR ALUMINUM AND OTHER NON-FERROUS METALS**

FLAME

CYLINDRICAL

CYLINDRICAL RADIUS END

ROUND TREE

POINTED TREE

OVAL

BALL

CONE

14º TAPER-RADIUS END

SPECIFICATIONS

SHAPE	DIAMETER	LENGTH OF FLUTE	INDUSTRY TYPE	DOUBLE CUT P/N	FAST MILL CUT P/N	FAST MILL CUT 6" SHAFT P/N
CYLINDRICAL	1/4"	5/8"	SA-1	B 34003	–	–
CYLINDRICAL	3/8"	3/4"	SA-3	B 34007	–	–
CYLINDRICAL	1/2"	1"	SA-5	A 34011	A 34211	–
CYLINDRICAL RADIUS END	1/4"	5/8"	SC-1	B 34033	–	–
CYLINDRICAL RADIUS END	3/8"	3/4"	SC-3	A 34037	A 34237	–
CYLINDRICAL RADIUS END	1/2"	1"	SC-5	A 34041	–	–
ROUND TREE	1/4"	5/8"	SF-1	B 34045	A 34245	–
ROUND TREE	3/8"	3/4"	SF-3	A 34047	A 34247	–
ROUND TREE	1/2"	1"	SF-5	A 34050	A 34250	–
POINTED TREE	1/4"	5/8"	SG-1	B 34055	–	–
POINTED TREE	3/8"	3/4"	SG-3	A 34058	–	–
POINTED TREE	1/2"	1"	SG-5	A 34060	–	–
OVAL	1/4"	3/8"	SE-1	B 34065	–	–
OVAL	3/8"	5/8"	SE-3	A 34066	A 34266	A 34666
OVAL	1/2"	7/8"	SE-5	A 34067	A 34267	A 34667
BALL	1/4"	1/4"	SD-1	B 34072	–	–
BALL	3/8"	3/8"	SD-3	B 34074	–	–
BALL	1/2"	1/2"	SD-5	A 34076	A 34276	–
CONE	1/4"	1/2"	SM-1	B 34080	–	–
CONE	1/4"	1"	SM-3	A 34082	–	–
CONE	3/8"	5/8"	SM-4	A 34085	–	–
CONE	1/2"	7/8"	SM-5	A 34087	–	–
14º TAPER-RADIUS END	1/4"	5/8"	SL-1	A 34089	–	–
14º TAPER-RADIUS END	3/8"	1-1/16"	SL-3	A 34091	A 34291	–
14º TAPER-RADIUS END	1/2"	1-1/8"	SL-4	A 34092	A 34292	–
FLAME	5/16"	3/4"	SH-2	A 34099	A 34299	–
FLAME	1/2"	1-1/4"	SH-5	–	A 34300	A 34600

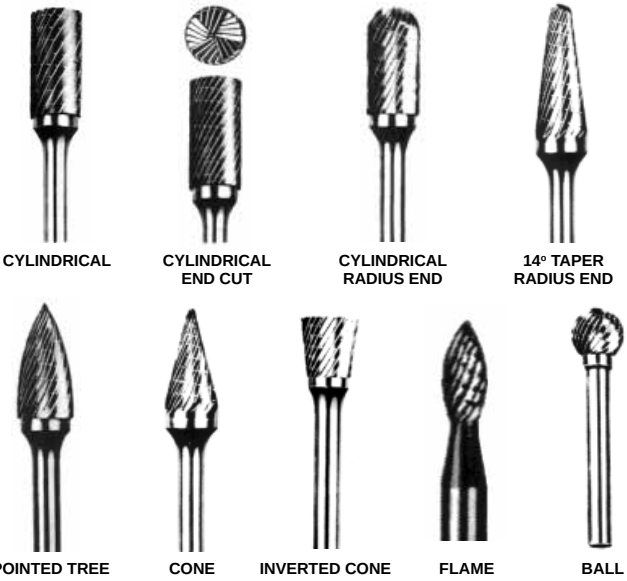
8-PC. CARBIDE ROTARY FILE INDEX

CONTENTS	PART
DOUBLE CUT: Cylindrical 1/4" x 5/8", Cylindrical Round End 1/4" x 5/8", Round Tree 1/2" x 1", Pointed Tree 3/8" x 3/4", Oval 1/2" x 7/8", Ball 1/4" x 1/4", Cone 1/2" x 7/8" and Taper Radius 1/2" x 1-1/8"	A 61604
FAST MILL CUT: Cylindrical 1/2" x 1", Cylindrical Round End 3/8" x 3/4", Round Tree 1/2" x 1", Oval 3/8" x 58", Oval 1/2" x 7/8", Ball 1/2" x 1/2", Taper Radius 1/2" x 1-1/8" and Flame 5/16" x 3/4"	A 61626

CIC 200™ MINIATURE CARBIDE ROTARY FILES

SOLID CARBIDE WITH 1/8" SHANK

- **MANUFACTURED FROM C2 GRADE CARBIDE**
  FOR HIGH PERFORMANCE METAL REMOVAL
- **PRECISION MANUFACTURING PROCESS**
  DELIVERS DEPENDABLE REPEATABILITY, BUR AFTER BUR
- **DOUBLE CUT FLUTES**
  FOR RAPID METAL REMOVAL
- **SMALLER, FINER CHIPS**
  FOR EASIER DISPOSAL
- **REDUCED PULLING**
  FOR BETTER OPERATOR CONTROL
- **ROCKWELL "C" 91.8**
- **IDEAL FOR USE ON**
  ALL STEELS, IRON, MASONITE, FIBERGLASS, WELDMENTS AND TITANIUM ALLOYS

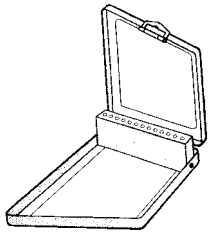


SPECIFICATIONS

SHAPE	HEAD DIA.	LENGTH OF FLUTE	INDUSTRY TYPE	PART	
CYLINDRICAL	1/4"	1/2"	SA-51	B	34100
CYLINDRICAL END CUT	1/4"	3/16"	SB-51	B	34101
CYLINDRICAL RADIUS END	1/4"	1/2"	SC-51	B	34102
BALL	1/4"	1/4"	SD-51	B	34103
OVAL	1/4"	3/8"	SE-51	B	34104
ROUND TREE	1/4"	1/2"	SF-51	B	34105
POINTED TREE	1/4"	1/2"	SG-51	B	34106
CONE	1/4"	1/2" — 22°	SM-51	B	34107
INVERTED CONE	1/4"	1/4" — 10°	SN-51	B	34108
CYLINDRICAL	1/8"	9/16"	SA-43	D	34109
CYLINDRICAL RADIUS END	1/8"	9/16"	SC-42	D	34110
BALL	1/8"	1/8"	SD-42	D	34111
OVAL	1/8"	1/4"	SE-41	D	34112
ROUND TREE	1/8"	1/2"	SF-42	D	34113
POINTED TREE	1/8"	1/2"	SG-44	D	34114
FLAME	1/8"	1/4"	SH-41	D	34115
CONE	1/8"	11/32" — 12° incl. taper	SM-41	D	34116

7-PC. MINIATURE CARBIDE ROTARY FILE INDEX

CONTENTS		PART
Contains 7 pieces: • Cylindrical 1/4" x 1/2" • Cylindrical Radius End 1/4" x 1/2" • Ball 1/4" x 1/4", Oval 1/4" x 3/8" • Round Tree 1/4" x 1/2" • Pointed Tree 1/4" x 1/2" • Cone 1/4" x 1/2"	A	61606



TITANIUM NITRIDE COATED CARBIDE BURS

MANUFACTURED IN THE U.S.A. FROM C2 TUNGSTEN CARBIDE

Features
- Manufactured in the U.S.A. from C2 tungsten carbide.
- TiN carbide burs are precision machine ground using diamond wheels and automated CNC machinery.
- Producing consistent geometry, sharp cutting edges and vibration free performance.
- All burs are Titanium Nitride coated for superior surface finish and long life.
- Types Available
  - Double-cut Burs
  - Bur Sets

Application
- TiN Carbide Burs are one of the most versatile metal working tools.
- Used in virtually every industry, burs are used in mold and pattern making, die sinking, tool making, and maintenance.

Uses
- They are used widely in these industries:
  - Automotive
  - Aerospace
  - Foundry
  - Power station
  - Engineering

Bur Types

Double-Cut
- Double-cut burs have a primary and secondary cutting edge
- The primary cutting edge does the majority of cutting, while the secondary cutting edge breaks the chips into smaller pieces which are easily disposed of
- Produces a very smooth work piece finish

Vacuum brazing
- The braze is copper, done via induction coil process
- Very strong
- Results in a safe bur
- Will not lose its head under normal use
  Note: These are spinning in excess of 20,000 rpm.

Usage Guidelines
- Do not use carbide burs in portable drill motors. Portable drill motors run at much lower speeds.

Operating Speed Recommendations
- Slower speeds for harder materials
- Higher speeds when using small burs
- Slower speeds when using long series burs

Cautions
- Running burs below recommended speeds may cause chipping.
- Do not use worn-out tools and collets. They will cause chipping.
- Running burs too fast will cause teeth to wear prematurely.
- Apply constant pressure and steady action.

APPLICATION AND SPEED RECOMMENDATIONS

SOLID CARBIDE BUR APPLICATION INFORMATION			SOLID CARBIDE BUR SPEED RECOMMENDATIONS		
MATERIAL	**SUITABILITY**		**BUR DIAMETER**	**Recommended Cutting Speed**	**Maximum Cutting Speed**
Check List	Double Cut	Non-Ferrous		(RPM)	(RPM)
Aluminum	–	✓	1/16	60,000 - 90,000	100,000
Brass	✓	✓	1/8	40,000 - 70,000	90,000
Bronze	✓	–	3/16	35,000 - 60,000	80,000
Cast Iron	✓	–	1/4	30,000 - 50,000	70,000
Copper	–	✓	5/16	20,000 - 40,000	68,000
Carbon Fiber	–	✓	3/8	20,000 - 40,000	66,000
Fiberglass	✓	–	7/16	15,000 - 40,000	58,000
Inconel	✓	–	1/2	15,000 - 40,000	50,000
Magnesium	–	✓	5/8	12,000 - 25,000	40,000
Plastics	✓	–	3/4	10,000 - 20,000	33,000
Hard Rubber	✓	–	1	7,500 - 20,000	25,000
Steel - 45-55Rc	✓	–	1-1/8	7,000 - 13,000	20,000
Steel - 55-60Rc	✓	–	1-1/2	5,000 - 10,000	17,000
Steel - Carbon	✓	–	1-3/4	4,500 - 9,000	14,000
Steel - Nickel Chrome	✓	–	2	4,000 - 8,000	12,500
Steel - Stainless	✓	–			
Steel - Weldments	✓	–			
Titanium	✓	–			
Zinc	–	✓			

TITANIUM NITRIDE COATED CARBIDE BURS

MANUFACTURED IN THE U.S.A. FROM C2 TUNGSTEN CARBIDE

8 Piece Set
P/N 63600

Includes the following:

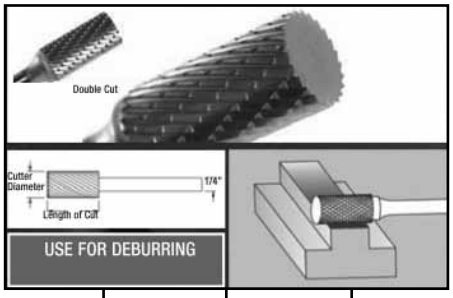
• Cylinder Radius End	SC1	P/N 34399
• Ball Shape	SD1	P/N 34423
• Cylinder Shape	SA3	P/N 34359
• Cylinder Radius End	SC3	P/N 34404
• Tree Shape Radius End	SF3	P/N 34458
• Ball Shape	SD3	P/N 34427
• Cylinder Shape	SA5	P/N 34365
• Tree Shape Radius End	SF5	P/N 34463

Note: The application of Titanium Nitride to Chromate cutting tools is performed via physical vapor deposition process. This gives the cutting tool a bright gold color. Occasionally this process results in the discoloration of the tool shank, which has no negative effect on the tool's performance.

17680

17681

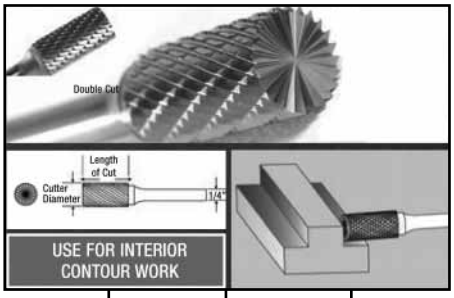
SA - Cylinder Shape



P/N		Industry Type	Cutter Diameter	Length of Cut
34350	A	*SA11*	*1/8*	*1/2*
34351	A	*SA12*	*1/8*	*5/8*
34352	A	*SA13*	*5/32*	*5/8*
34353	A	*SA14*	*3/16*	*5/8*
34354	A	SA1	1/4	5/8
34355	A	*SA1L*	*1/4*	*7/8*
34358	A	*SA2*	*5/16*	*3/4*
34359	A	SA3	3/8	3/4
34362	A	*SA3L*	*3/8*	*1*
34363	A	*SA3X*	*3/8*	*1-1/2*
34364	A	*SA4*	*7/16*	*1*
34365	A	SA5	1/2	1
34368	A	*SA6*	*5/8*	*1*
34370	A	*SA15*	*3/4*	*1/2*
34371	A	*SA16*	*3/4*	*1/2*
34372	A	*SA7*	*3/4*	*1*
34375	A	*SA8*	*7/8*	*1*
34376	A	*SA9*	*1*	*1*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

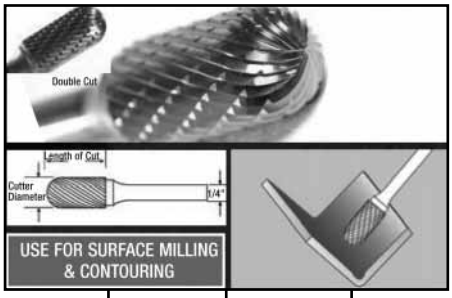
SB - Cylinder End Cut



P/N		Industry Type	Cutter Diameter	Length of Cut
34377	A	*SB11*	*1/8*	*1/2*
34378	A	*SB12*	*1/2*	*5/8*
34379	A	*SB13*	*5/32*	*5/8*
34380	A	*SB14*	*3/16*	*5/8*
34381	A	*SB1*	*1/4*	*5/8*
34382	A	*SB1L*	*1/4*	*1*
34383	A	*SB2*	*5/16*	*3/4*
34384	A	*SB3*	*3/8*	*3/4*
34385	A	*SB3L*	*3/8*	*1*
34386	A	*SB3X*	*3/8*	*1-1/2*
34387	A	*SB4*	*7/16*	*1*
34388	A	*SB5*	*1/2*	*1*
34389	A	*SB6*	*5/8*	*1*
34390	A	*SB15*	*3/4*	*1/2*
34391	A	*SB16*	*3/4*	*3/4*
34392	A	*SB7*	*3/4*	*1*
34393	A	*SB8*	*7/8*	*1*
34394	A	*SB9*	*1*	*1*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

SC - Cylinder Radius End



P/N		Industry Type	Cutter Diameter	Length of Cut
34395	A	*SC11*	*1/8*	*1/2*
34396	A	*SC12*	*1/8*	*5/8*
34397	A	*SC13*	*5/32*	*5/8*
34398	A	*SC14*	*3/16*	*5/8*
34399	A	SC1	1/4	5/8
34400	A	*SC1L*	*1/4*	*7/8*
34403	A	*SC2*	*5/16*	*3/4*
34404	A	SC3	3/8	3/4
34407	A	*SC3L*	*3/8*	*1*
34408	A	*SC3X*	*3/8*	*1-1/2*
34409	A	*SC4*	*7/16*	*1*
34410	A	SC5	1/2	1
34413	A	*SC6*	*5/8*	*1*
34415	A	*SC15*	*3/4*	*1/2*
34416	A	*SC16*	*3/4*	*3/4*
34417	A	*SC7*	*3/4*	*1*
34420	A	*SC9*	*1*	*1*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

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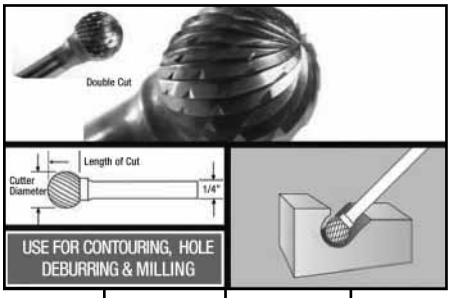
TITANIUM NITRIDE COATED CARBIDE BURS

MANUFACTURED IN THE U.S.A. FROM C2 TUNGSTEN CARBIDE

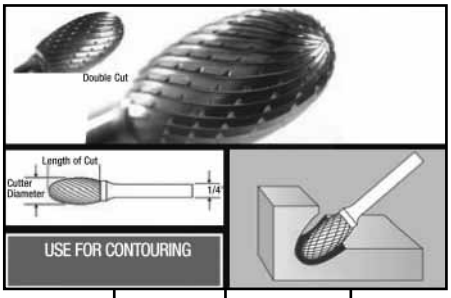
SD - Ball Shape



P/N		Industry Type	Cutter Diameter	Length of Cut
34421	A	*SD11*	*1/8*	*3/32*
34422	A	*SD14*	*3/16*	*1/8*
34423	A	SD1	1/4	7/32
34426	A	*SD2*	*5/16*	*1/4*
34427	A	SD3	3/8	5/16
34430	A	*SD4*	*7/16*	*3/8*
34431	A	SD5	1/2	7/16
34434	A	*SD6*	*5/8*	*9/16*
34436	A	*SD7*	*3/4*	*11/16*
34439	A	*SD9*	*1*	*15/16*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

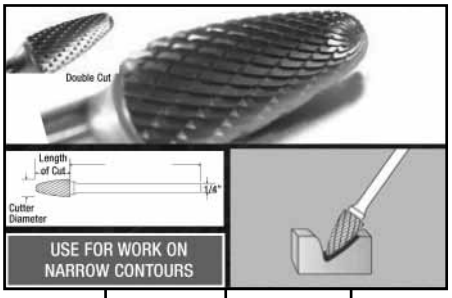
SE - Oval Shape



P/N		Industry Type	Cutter Diameter	Length of Cut
34440	A	*SE11*	*3/16*	*5/16*
34441	A	SE1	1/4	3/8
34443	A	SE3	3/8	5/8
34446	A	SE5	1/2	7/8
34449	A	*SE6*	*5/8*	*1*
34451	A	*SE7*	*3/4*	*1*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

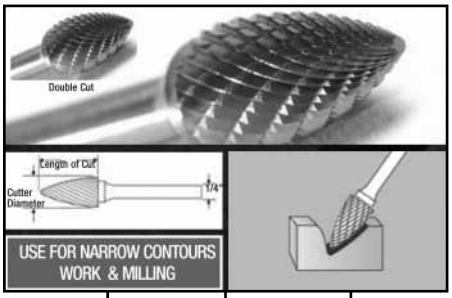
SF - Tree Shape Radius End



P/N		Industry Type	Cutter Diameter	Length of Cut
34454	A	*SF11*	*1/8*	*1/2*
34455	A	SF1	1/4	3/4
34458	A	SF3	3/8	3/4
34461	A	*SF4*	*7/16*	*1*
34462	A	*SF13*	*1/2*	*3/4*
34463	A	SF5	1/2	1
34466	A	*SF6*	*5/8*	*1*
34468	A	*SF7*	*3/4*	*1*
34469	A	*SF14*	*3/4*	*1-1/4*
34472	A	*SF15*	*3/4*	*1-1/2*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

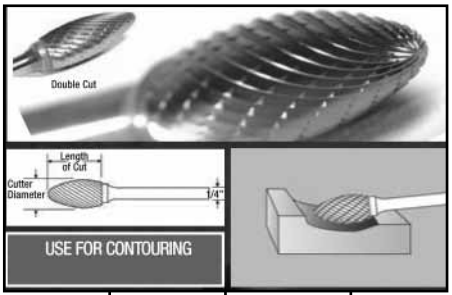
SG - Tree Shape



P/N		Industry Type	Cutter Diameter	Length of Cut
34473	A	SG1	1/4	5/8
34475	A	*SG2*	*5/16*	*3/4*
34476	A	SG3	3/8	3/4
34478	A	*SG13*	*1/2*	*3/4*
34479	A	SG5	1/2	1
34481	A	*SG6*	*5/8*	*1*
34482	A	*SG7*	*3/4*	*1*
34483	A	*SG15*	*3/4*	*1-1/2*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

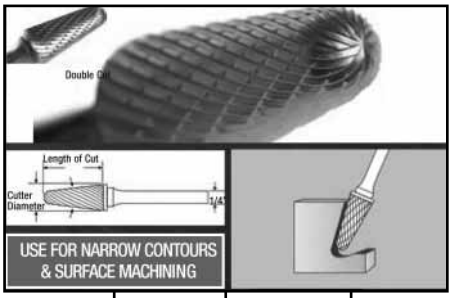
SH - Flame Shape



P/N		Industry Type	Cutter Diameter	Length of Cut
34484	A	*SH1*	*1/4*	*5/8*
34485	A	*SH2*	*5/16*	*3/4*
34487	A	*SH5*	*1/2*	*1-1/4*
34489	A	*SH6*	*5/8*	*1-7/16*
34490	A	*SH7*	*3/4*	*1-5/8*

Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

SL - 14° Taper Radius End



P/N		Industry Type	Cutter Diameter	Length of Cut
34491	A	SL1	1/4	5/8
34493	A	*SL2*	*5/16*	*7/8*
34494	A	SL3	3/8	1-1/16
34497	A	SL4	1/2	1-1/8
34500	A	*SL5*	*5/8*	*1-3/16*
34502	A	*SL6*	*5/8*	*1-5/16*
34504	A	*SL7*	*3/4*	*1-1/2*

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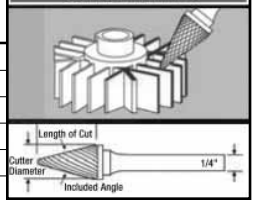
TITANIUM NITRIDE COATED CARBIDE BURS

MANUFACTURED IN THE U.S.A. FROM C2 TUNGSTEN CARBIDE

SM - Cone Shape

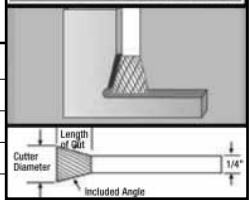
P/N		Industry Type	Cutter Diameter	Length of Cut
34507	A	*SM1*	*1/4*	*1/2*
34508	A	SM2	1/4	3/4
34509	A	*SM3*	*1/4*	*1*
34510	A	SM4	3/8	5/8
34511	A	SM5	1/2	7/8
34512	A	*SM6*	*5/8*	*1*



Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

SN - Inverted Cone Shape

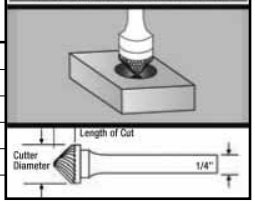
P/N		Industry Type	Cutter Diameter	Length of Cut
34513	A	*SN1*	*1/4*	*5/16*
34514	A	*SN2*	*3/8*	*3/8*
34515	A	*SN4*	*1/2*	*1/2*
34516	A	*SN6*	*5/8*	*3/4*
34517	A	*SN7*	*3/4*	*5/8*



Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

SK - 90° Cone Shape

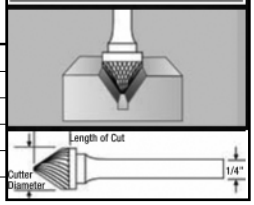
P/N		Industry Type	Cutter Diameter	Length of Cut
34518	A	*SK1*	*1/4*	*1/8*
34519	A	*SK3*	*3/8*	*3/16*
34520	A	*SK5*	*1/2*	*1/4*
34521	A	*SK6*	*5/8*	*5/16*
34522	A	*SK7*	*3/4*	*3/8*
34523	A	*SK9*	*1*	*1/2*



Bold italic text = Non-stock item. Please allow 4-6 weeks for delivery.

SJ - 60° Cone Shape

P/N		Industry Type	Cutter Diameter	Length of Cut
34524	A	*SJ1*	*1/4*	*3/16*
34525	A	*SJ3*	*3/8*	*5/16*
34526	A	*SJ5*	*1/2*	*7/16*
34527	A	*SJ6*	*5/8*	*9/16*
34528	A	*SJ7*	*3/4*	*11/16*
34529	A	*SJ9*	*1*	*15/16*



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ABRASIVES

QUICK-LOK™ ABRASIVES

Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites. Just a half twist and they're securely locked in place; a half twist again and it's off. Ideal for use with air tools & flex-shaft grinders.

BRISTLE BRUSHES / DISCS

IDEAL FOR:
- CLEANING
- FINISHING
- BLENDING
- DEBURRING

USE ON:
- CORNERS
- WELDS
- OTHER AREAS WHERE EXTRA CONFORMABILITY IS REQUIRED

USE FOR:
- CLEANING RIVETS, WELDS AND CORNERS

17694
17850

- **50 GRIT - GREEN**
- **80 GRIT - YELLOW**
- **120 GRIT - WHITE**

SIZE	MAX RPM	PART
1" x 50 Grit - Green	30,000	B 45689
1" x 80 Grit - Yellow	30,000	B 45694
1" x 120 Grit - White	25,000	B 45696
2" x 50 Grit - Green	25,000	B 45690
2" x 80 Grit - Yellow	25,000	B 45692
2" x 120 Grit - White	25,000	B 45697
3" x 50 Grit - Green	18,000	B 45691
3" x 80 Grit - Yellow	18,000	B 45693
3" x 120 Grit - White	25,000	B 45698
4.5" x 50 Grit - Green	12,000	A 45703
4.5" x 80 Grit - Yellow	12,000	A 45704
4.5" x 120 Grit - White	12,000	A 45705
Radial Versions		
3" x 3/8 x 50 Grit - Green	25,000	B 45720
3" x 3/8 x 80 Grit - Yellow	25,000	B 45721
3" x 3/8 x 120 Grit - White	25,000	B 45722

ABRASIVE DISCS

17738
17739

Color-coded disc buttons for easy grade identification:
Brown = 36 Orange = 60 White = 120

PREMIUM ALUMINUM OXIDE MINERALS ON DURABLE RESIN BOND AND FIBRE BACKING

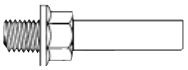
GRIT	2" DIA	3" DIA	4" DIA
36	L 45655	I 45661	I 45667
60	L 45657	I 45663	I 45669
120	L 45660	I 45666	I 45672

MINI FLAP DISCS

- **HIGH QUALITY ZIRCONIUM EFFECTIVE ON MATERIALS FROM MILD STEEL TO EXOTIC TITANIUM ALLOYS, COMPOSITES & PLASTICS**
- **COMBINES GRINDING & FINISHING IN 1 STEP**
- **ALLOWS ACCESS TO TIGHT AREAS**

GRIT	2" DIA	3" DIA
40	C 33937	C 33943
80	C 33939	C 33945
120	C 33941	C 33946

THREADED SHAFT AND BACK-UP PADS



17738-17741
& 17850

1/4" THREADED SHAFT

BACK-UP PAD

SIZE	MAX RPM	PART
1" Dia.	30,000	A 45634
2" Dia.	25,000	A 45638
3" Dia.	18,000	A 45642
4" Dia.	12,000	A 45644
1/4" Threaded Shaft		A 45630

STRIPPING DISCS

- **EXTRA-COURSE DISCS ARE CONSTRUCTED FROM AN OPEN, NON-LOADING WEB**
- **MAKES TOUGH CLEANING AND STRIPPING JOBS QUICK AND EASY**
- **CLEANS FASTER AND SAFER THAN WIRE BRUSHES**

2" DIA	3" DIA	4" DIA
E 45617	E 45618	E 45619

SURFACE COND. DISCS

- **NON-WOVEN NYLON IMPREGNATED WITH ABRASIVE PARTICLES**
- **PROVIDES A BUR-FREE SURFACE**
- **SUITABLE FOR PAINTING OR COATING**
- **IDEAL FOR RUST, OXIDE AND COATING REMOVAL**

17740
17741
17076

Very Fine (VFN) = Blue
Medium = Maroon
Coarse = Brown

DIA.	VFN	MEDIUM	COARSE
2"	L 45683	L 45681	L 45682
3"	L 45684	I 45685	I 45686
4"	–	I 45687	I 45688

ABRASIVES

QUICK-LOK™ ABRASIVES

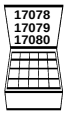
Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites. Just a half twist and they're securely locked in place; a half twist again and it's off. Ideal for use with air tools & flex-shaft grinders.

3M™ CERAMIC CLOSED COAT ABRASIVE GRAIN ROLOC™ DISCS

Premium 3M™ Ceramic Closed Coat Abrasive Grain Roloc™ Discs are constructed on a YN weight, with a durable water resistant polyester cloth backing. Resin bonded for heat resistance. 3M™ Roloc™ Discs provide a fast, efficient method for grinding, blending, leveling and finishing on all types of metal. Each disc is color coded by grade.*

- Long life
- Fast cutting
- 100% ceramic mineral
- Can be run wet or dry

* Grade	3M™ Roloc™ Disc Button Color
24	Black
36	Brown
60	Orange
80	Yellow
120	White



DESCRIPTION	GRADE (GRIT)		PART	DESCRIPTION	GRADE (GRIT)		PART
3" Roloc™ Discs	24	I	45605	2" Roloc™ Discs	60	L	45602
2" Roloc™ Discs	24	L	45600	3" Roloc™ Discs	80	I	45608
3" Roloc™ Discs	36	I	45606	2" Roloc™ Discs	80	L	45603
2" Roloc™ Discs	36	L	45601	3" Roloc™ Discs	120	I	45609
3" Roloc™ Discs	60	I	45607	2" Roloc™ Discs	120	L	45604

PRESSURE SENSITIVE ADHESIVE (PSA) DISCS

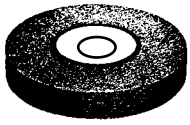
Chromate abrasive tools only use premium abrasive grains. Whether sanding or grinding wood, plastics, metals or polishing to a required finish, Chromate has the abrasive substrate to efficiently finish the job.

- **Packaged in roll form for convenient use**
- **Stick-on paper disc holders**
- **Cost effective for sanding materials that load**
- **Semi-open coat with load-resistant size coat for aggressive cutting action**
- **For edge breaking, surface blending**
- **For grinding and stock removal**

DESCRIPTION	GRIT		PART	DESCRIPTION	GRIT		PART
6" PSA Gold	80	T	45712	6" PSA Gold	220	T	45717
6" PSA Gold	100	T	45713	6" PSA Gold	240	T	45718
6" PSA Gold	120	T	45714	6" PSA Gold	320	T	45719
6" PSA Gold	150	T	45715	6" PSA Stick-on Holder	–	A	45710
6" PSA Gold	180	T	45716				

BENCH AND PEDESTAL GRINDING WHEELS

- **QUALITY AND RELIABILITY FOR GENERAL BENCH GRINDING**
- **FOR ALL TYPES OF STEEL**
- **INCLUDES ADAPTERS TO FIT VARIOUS GRINDING MACHINES**



***IMPORTANT*: All Wheels are manufactured under rigid quality conditions to insure product strength and safety. However, approved guards must be used for operator protection (ANSI Code B7.1).**

SIZE	MAX. R.P.M.	ADAPTERS		PART	SIZE	MAX. R.P.M.	ADAPTERS		PART
6 x 3/4 x 1	4,140	1/2, 5/8, 3/4	A	33830	8 x 1 x 1	3,600	5/8, 3/4, 7/8	A	33834
7 x 1 x 1	3,600	1/2, 5/8, 3/4	A	33832	–	–	–		–

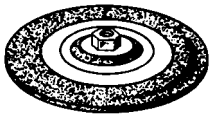
ABRASIVES

CIC 200™ RAPID CUT WHEELS

RAISED HUB ABRASIVE WHEELS

ALUMINUM OXIDE ABRASIVE WITH REINFORCED RESINOID BONDING TO INSURE QUALITY, FAST CUTTING AND LONG LIFE IN EVERY WHEEL. THE PERFECT CHOICE FOR:

- GRINDING AND SMOOTHING WELD SEAMS
- CLEANING METAL SURFACES BEFORE WELDING
- METAL CLEAN-UP PRIOR TO PAINTING
- USE ON AIR OR ELECTRIC POWERED, RIGHT ANGLE OR VERTICAL SHAFT GRINDERS
- ALUMINUM OXIDE MEDIUM (60 GRIT)



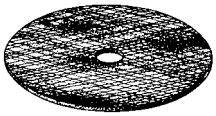
P/Ns 33800, 33803, 33805
33816, 33817 w/o Connection

SIZE	MAX. R.P.M.		PART	SIZE	MAX. R.P.M.		PART	SIZE	MAX. R.P.M.		PART
3 x 1/4 x 3/8	20,400	F	33880	4-1/2 x 1/4 x 5/8-11	13,580	B	33817	7 x 1/4 x 5/8-11	8,500	B	33800
4 x 1/8 x 5/8	15,280	F	33898	4-1/2 x 1/4 x 7/8	12,000	F	33899	7 x 1/4 x 7/8	8,500	B	33802
4 x 1/4 x 5/8	15,280	D	33815	7 x 1/16 x 5/8-11	8,500	B	33803	9 x 1/4 x 5/8-11	6,600	B	33805
4-1/2 x 1/16 x 7/8	13,580	D	33814	7 x 1/16 x 7/8	8,500	B	33804	9 x 1/4 x 7/8	6,600	B	33810
4-1/2 x 1/16 x 5/8-11	13,580	B	33816	–	–		–	–	–		–

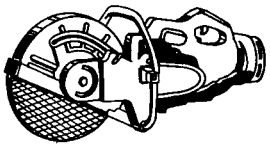
CUT-OFF WHEELS

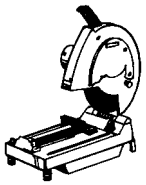
HIGH SPEED CUT-OFF WHEELS

- **WHEELS TO 4" DIAMETER**
- **MANUFACTURERED WITH ZIRCONIUM ALUMINUM FOR LONGER LIFE.**



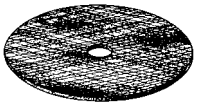
D.M. = DIAMOND MOUNT ARBOR





SIZE	MAX R.P.M.		PART	SIZE	MAX R.P.M.		PART	SIZE	MAX R.P.M.		PART
1 x 1/32 x 1/4	61,100	F	33856	3 x 1/16 x 1/4	20,375	F	33872	4 x 1/8 x 1/4	15,280	F	33892
1 x 1/16 x 1/4	61,100	F	33858	3 x 1/16 x 3/8	20,375	F	33874	4 x 1/8 x 3/8	15,280	F	33894
2 x 1/32 x 1/4	30,600	F	33861	3 x 1/8 x 1/4	20,375	F	33876	4 x 1/8 x 1/2	15,280	F	33896
2 x 1/32 x 3/8	30,600	F	33863	3 x 1/8 x 3/8	20,375	F	33878	4-1/2 x 1/8 x 7/8	13,300	F	33895
2 x 1/16 x 1/4	30,560	F	33860	4 x 1/32 x 1/4	21,000	F	33882	4-1/2 x 3/32 x 7/8	13,300	F	33897
2 x 1/16 x 3/8	30,560	F	33862	4 x 1/32 x 3/8	21,000	F	33884	7 x 3/32 x D.M.	8,730	B	33900
2 x 1/8 x 1/4	30,560	F	33864	4 x 1/16 x 1/4	15,280	F	33886	8 x 3/32 x D.M.	7,640	B	33905
2 x 1/8 x 3/8	30,560	F	33866	4 x 1/16 x 3/8	15,280	F	33888	12 x 7/64 x 1	5,095	B	33910
3 x 1/32 x 1/4	24,200	F	33868	4 x 1/16 x 1/2	15,280	F	33890	14 x 7/64 x 1	4,365	A	33915
3 x 1/32 x 3/8	24,200	F	33870	–	–		–	–	–		–

E-Z KUT® FIBER DISCS



- **PLIABLE DISCS THAT WORK EXCEPTIONALLY WELL FOR BOTH ROUGH AND FINE GRINDING ON FLAT AND IRREGULAR SURFACES**
- **ALUMINUM OXIDE – RESIN BOND CLOSED COAT**
- **HIGHLY ELASTIC RESINOID BONDING PREVENTS GRAIN PARTICLES FROM PREMATURE DISLODGING**
- **FOR USE ON ANGLE GRINDERS**
- **7/8" CENTER HOLE**
- **USE FOR FINISHING OF WELDS, DEBURRING AND CLEANING OF FERROUS MATERIAL, FIBERGLASS, COPPER AND WOOD**

SIZE	GRIT		PART	SIZE	GRIT		PART	SIZE	GRIT		PART	SIZE	GRIT		PART
5"	24	I	45700	5	50	I	45702	7"	36	E	45709	7"	60	E	45711

ABRASIVES

CUT-OFF WHEELS & GRINDING WHEELS

TYPE 27 – REINFORCED

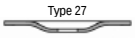
Size: 4-1/2" x .045" x 7/8"
RPM: 13,300

- Zirconia and Aluminum Oxide mixture
- General purpose wheel
- Zirconia grain allows for faster cutting and longer life
- For steel and stainless steel applications

DESCRIPTION		PART
Type 27 Reinforced Cut-Off Wheels	E	33818

TYPE 27 – CONTAMINATE-FREE

Size: 4-1/2" x .045" x 7/8"
RPM: 13,300



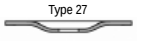
- ≤ 0.1% iron, sulfur, or chlorine for rust-free and corrosion-free results
- High quality grain mixture is more friable and cuts freely
- White Aluminum Oxide grain
- For stainless steel, food grade and nuclear applications

DESCRIPTION		PART
Type 27 Contaminant Free Cut-Off Wheels	E	33819

TYPE 27 – GREEN GRINDING WHEEL / CONTAMINATE-FREE

P/N 33928
Size: 7" x 5/32" (4mm) x 7/8"
Grit: 36
RPM: 8,500

P/N 33929
Size: 4-1/2" x 5/32" (4mm) x 7/8"
Grit: 36
RPM: 13,300



- Exceptionally fast grinding
- Premium grain allows for high performance grinding action
- 50% faster metal removal than aluminum oxide wheels
- Contains less than 0.1% of sulfur & chlorine and virtually no iron
- Grain and bond engineered for cooler working
- Does not discolor or warp stainless steel
- Engineered for smoother, quieter working and less operator fatigue
- For grinding Stainless Steel • Mild Steel • Hard Face • Titanium • Inconel • Aluminum
- Great for tank fabrication • power plant maintenance • metal fabrication

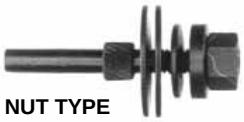
DESCRIPTION		PART
Type 27 Green Grinding Wheel / Contaminate-Free, 7" Diameter	E	33928
Type 27 Green Grinding Wheel / Contaminate-Free, 4-1/2" Diameter	E	33929

ABRASIVES (Cont'd.)

CIC 200™ RAPID CUT MANDRELS

HUMMER WHEEL MANDRELS

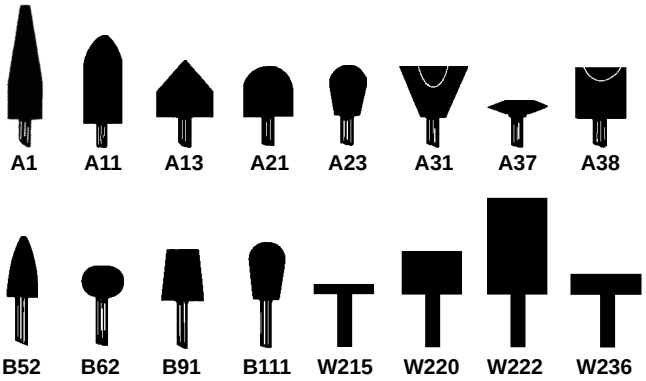
- **FLUSH MANDRELS TIGHTEN BY SCREW, CAN HANDLE ANY NUT-TYPE MANDREL APPLICATION.**
- **ALLOW EASY ACCESS TO AREAS INACCESSIBLE WITH NUT-TYPE MANDRELS (EX: FLUSH CUTS AND CORNER CUTS).**



NUT TYPE

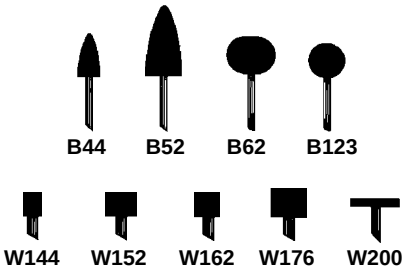
TYPE	SHANK SIZE	ARBOR HOLE SIZE	WHEEL THICKNESS	PART	
FLUSH SET	1/4" and 3/8"	1/4" and 3/8"	1/32" - 1/4"	C	33955
NUT	1/4"	1/4"	1/32" - 3/8"	B	33950
ADAPTER	1/4"	3/8"	1/32" - 1/4"	A	33801

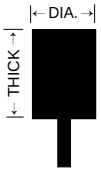
MOUNTED POINTS



1/4" SHANKS

- **FOR HIGH-SPEED AIR AND ELECTRIC GRINDERS.**
- **IDEAL FOR GRINDING DIES, CASTINGS, WELD SEAMS AND OTHER GENERAL METAL REMOVAL APPLICATIONS.**
- **MANUFACTURED WITH ALUMINUM OXIDE GRAIN AND VITRIFIED BOND.**





1/8" SHANKS

SHAPE NO.	DIA.	THICK	SHANK	MAX. R.P.M.	PART	
A1	3/4	2-1/2	1/4"	19,800	B	33840
A11	7/8	2	1/4"	19,860	B	33841
A13	1-1/8	1-1/8	1/4"	33,950	B	33842
A21	1	1	1/4"	34,500	B	33843
A23	3/4	1	1/4"	39,370	B	33844
A31	1-3/8	1	1/4"	27,780	B	33845
A37	1-1/4	1/4	1/4"	30,560	B	33846
A38	1	1	1/4"	34,500	B	33847
B52	3/8	3/4	1/4"	81,000	B	33848
B62	1/2	3/8	1/4"	71,250	B	33849
B91	1/2	5/8	1/4"	61,500	B	33850
B111	7/16	11/16	1/4"	66,000	B	33851
W215	1	1/8	1/4"	38,200	B	33852
W220	1	1	1/4"	25,500	B	33853
W222	1	2	1/4"	15,900	B	33854
W236	1-1/2	1/2	1/4"	25,470	B	33855
B44	7/32	3/8	1/8"	68,400	E	33825
B52	3/8	3/4	1/8"	45,370	E	33826
B62	1/2	3/8	1/8"	41,020	E	33827
B123	3/16	3/16	1/8"	104,250	E	33828
W144	1/8	1/4	1/8"	105,000	E	33829
W152	3/16	1/4	1/8"	105,000	E	33835
W162	1/4	3/8	1/8"	68,400	E	33836
W176	3/8	1/2	1/8"	45,370	E	33837
W200	3/4	1/8	1/8"	50,930	E	33838

IMPORTANT: All Wheels are manufactured under rigid quality conditions to insure product strength & safety. However, approved guards must be used for operator protection (ANSI Code B7.1).

ABRASIVES (Cont'd.)

PORTABLE SNAGGING WHEELS

OUTLASTS ALUMINUM OXIDE WHEELS 3 TO 1

TYPE II DESIGN

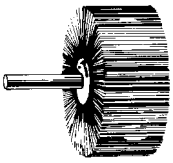
MANUFACTURED FROM A SPECIAL COMBINATION OF ABRASIVE ALLOYS THAT PROVIDE RUGGED, DURABLE, COOL FREE-CUTTING GRINDING PERFORMANCE.

PERFECT FOR:

- **CLOSE GRINDING IN TIGHT CORNERS.**
- **QUICK METAL REMOVAL.**
- **NOTCH-FREE GRINDING AND SMOOTHING OF WELD SEAMS.**
- **PRE-WELD CLEANING.**
- **REMOVAL OF IMPERFECTIONS AND METAL PREPARATION PRIOR TO PAINTING.**

SIZE	MAX. R.P.M.		PART	SIZE	MAX. R.P.M.		PART
4"/3" x 2" x 5/8-11	9,070	A	33820	6"/4-3/4" x 2" x 5/8-11	6,050	A	33824
5"/3-3/4" x 2" x 5/8-11	7,260	A	33822	-	-		-

ALUMINUM OXIDE FLAP WHEELS



- **ALUMINUM OXIDE COATED FLAPS.**
- **MANDREL MOUNTED ON FIXED 1/4" SOLID SHANK.**
- **FULL PACK GRIT, RESIN BONDED SEGMENTS.**
- **REMOVES WORK MARKS; SURFACE IMPERFECTIONS.**
- **POLISHES DIE WORK, SPOT WELDS, FIBERGLASS FORMS.**
- **DEBURRS STAINLESS STEEL; BLENDS AND POLISHES.**
- **REMOVES SCALE, RUST, PIT MARKS FROM STEEL.**

WHEEL DIA.	WIDTH	GRIT	MAX. R.P.M.		PART	WHEEL DIA.	WIDTH	GRIT	MAX R.P.M.		PART
1	1	60	25,000	A	60713	2	1	60	23,000	A	60708
1	1	80	25,000	A	60715	2	1	80	23,000	A	60710
1-1/2	1	60	25,000	A	60714	2	1	120	23,000	A	60712
1-1/2	1	80	25,000	A	60716	3	1	60	20,000	A	60702
1-1/2	1	120	25,000	A	60718	3	1	80	20,000	A	60704
-	-	-	-		-	3	1	120	20,000	A	60706

BRAKE HUB CLEANING DISCS

Remove Rust and Corrosion Quickly

Brake hub cleaning disc and holder combine an aggressive 3-D disc construction with a unique, center hole attachment system for improved productivity. The system removes rust and corrosion quickly, even in hard to reach places. The attachment provides quick disc changes with the convenience of running on high-speed tools. All this adds up to saving time, increasing speed and effectiveness on the brake job.

Features

- Extremely tough 3-D web
- Non-metallic attachment system and disc pad holder
- Unique attachment system, Type H
- Disc holder is designed to fit on a variety of tools with collets or chucks
- Discs contain no wire filaments
- Potential for injury from flying wires is eliminated

Benefits

- Removes rust and corrosion without excessive metal removal or gouging of the metal
- Attachment button and holder are made of tough polymers that will not damage the wheel stud threads
- Disc locks securely; 1/2 turn on, 1/2 turn off (fits over wheel stud)
- Ideal for use on right angle air tools
- Helps to maintain AOEM surface milling marks
- Cleans the area fast while protecting the threads

- **P/N 45616**
  Brake Hub Cleaning Disc (Pkg. 2)
- **P/N 45615**
  Brake Hub Cleaning Disc Holder

ABRASIVES (Cont'd.)

ABRASIVE CLOTH SHOP ROLLS

- FAST CUTTING ALUMINUM OXIDE GRAIN THAT IS RESIN BONDED TO A FLEXIBLE "J" WEIGHT CLOTH BACKING
- USE FOR ALL FERROUS AND NON-FERROUS METALS, WOOD AND FIBERGLASS
- DESIGNED FOR EASY WORKABILITY AND LONG LIFE IN ALL MAINTENANCE, MACHINE SHOP OR PRODUCTION APPLICATIONS

ROLL SIZE (W x L)	GRIT		PART
1-1/2" x 150 Feet	60	A	60819
1-1/2" x 150 Feet	80	A	60820
1-1/2" x 150 Feet	100	A	60821
1-1/2" x 150 Feet	120	A	60822
1-1/2" x 150 Feet	180	A	60824
1-1/2" x 150 Feet	220	A	60825
1-1/2" x 150 Feet	240	A	60827
1-1/2" x 150 Feet	320	A	60826
1-1/2" x 150 Feet	400	A	60828

CLOTH SHEET ABRASIVE CLOTH

- ALUMINUM OXIDE SHEETS
- RESIN OVER RESIN CONSTRUCTION CLOTH BACKING FOR DURABILITY AND FLEXIBILITY
- STRONG BOND RESISTANT TO HEAT AND MOISTURE
- SUPERIOR PERFORMANCE ON FERROUS & NON-FERROUS MATERIALS, WOOD, PLASTIC AND FIBERGLASS
- WATER-RESISTANT

SIZE	GRIT		PART
9 x 11	36	I	60841
9 x 11	60	I	60844
9 x 11	80	I	60845
9 x 11	100	I	60846
9 x 11	120	I	60847
9 x 11	180	I	60849
9 x 11	240	I	60850
9 x 11	320	I	60852
9 x 11	400	I	60853
9 x 11	Assortment Pack (5 Sheets Each) 36, 80, 120, 240 and 320	A	60855

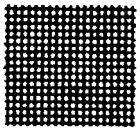
ALUMINUM OXIDE AND SILICONE CARBIDE HAND PADS

- FLEXIBLE NON-WOVEN NYLON IMPREGNATED WITH ABRASIVE GRAIN.
- OPEN STRUCTURE PREVENTS LOADING.
- CAN BE USED WET OR DRY.
- DESIGNED FOR GENERAL CLEANUP, LIGHT DEBURRING, BLENDING AND SATIN FINISHING ON ALL TYPES OF FERROUS AND NON-FERROUS METALS.

SIZE	TYPE	COLOR		PART
6" x 9"	General Purpose A/O	Maroon	I	60838
6" x 9"	Ultra-Fine S/C	Gray	I	60840
6" x 9"	Coarse A/O	Brown	E	45750

SILICONE CARBIDE SCREEN-BAK ABRASIVE ROLLS

- OPEN SCREEN FOR HIGH SPEED SANDING.
- USE WET OR DRY.
- OUTPERFORMS ALL OTHER HAND SANDING ABRASIVES.
- NON-CLOGGING, NO LOADING, USE BOTH SIDES FOR METAL, WOOD, PLASTIC, GLASS AND CERAMIC APPLICATIONS.
- LEAVES SURFACES FREE OF LINES, SCRATCHES AND MARKS.



IDEAL FOR:

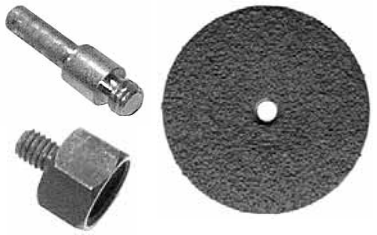
- BODY REPAIRS.
- CLEANING BRASS, COPPER, COPPER TUBING AND ENDS.
- REMOVING GLAZE FROM NEW PARTS.
- SMOOTHING ROUGH SPOTS, DEBURRING AND CLEANING MOST SURFACES.

ROLL SIZE (W x L)	GRIT		PART
1-1/2" x 30'	80	A	60830
1-1/2" x 30'	120	A	60832
1-1/2" x 30'	180	A	60834
1-1/2" x 75'	120	A	60835
Assort. (3 rolls 1-1/2" x 30')	1 ea. 80, 120, 180	A	17711

ABRASIVES (Cont'd.)

TRIM KUT™ SANDING DISCS

- **TOUGH ALUMINUM OXIDE GRAIN – IMPREGNATED INTO DURABLE PLASTIC (POLYAMIDE) BACKING**
- **EXTREMELY LIGHTWEIGHT – FOR EASY USE WITH POWER HAND TOOLS**
- **EASILY TRIMMED – EXPOSING NEW CUTTING SURFACE AND MAXIMIZING ABRASIVE**
- **CAN BE USED ALL THE WAY TO THE CORE – FOR ULTIMATE CONSUMPTION AND VALUE**
- **NO TOOLING – SIMPLY SPIN-ON AND SPIN-OFF**



17776

APPLICATIONS:
- **CLEANING IMPERFECTIONS**
- **BLENDING WELDS**
- **EDGE GRINDING**

SIZE / DIAMETER	GRIT		PART	SIZE / DIAMETER	GRIT		PART
3	36	E	33960	5	36	E	33963
3	60	E	33961	5	60	E	33964
3	120	E	33962	5	120	E	33965
Trim-Kut Mandrel with 1/4" Shank		B	33966	Trim-Kut Mandrel with 5/8-11 Thread Anchor		B	33967

SURFACE PREP WHEELS

- **SURFACE PREPARATION FOR STEEL, ALUMINUM, STAINLESS AND NON-FERROUS METALS**
- **LIGHT DEBURRING**
- **REMOVING DISCOLORATION CAUSED BY WELDING OR CUTTING**
- **PAINT AND RUST REMOVAL**
- **ALUMINUM OXIDE FOR FINE FINISH WORK**
- **SILICON CARBIDE FOR SUPER FINE FINISH WORK**

MAXIMUM RPM – 8500

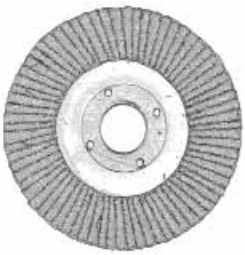
SIZE	GRADE	GRAIN	COLOR		PART	SIZE	GRADE	GRAIN	COLOR		PART
7 x 7/8	Fine	Alum. Oxide	Maroon	E	33920	7 x 7/8	Super Fine	Silicon Carb.	Grey	E	33922
7 x 5/8-11	Fine	Alum. Oxide	Maroon	E	33921	7 x 5/8-11	Super Fine	Silicon Carb.	Grey	E	33923

POW-R-CUT™ FLAP DISCS / TYPE 29

This multi-layered, resin bonded, zirconium aluminum abrasive disc is excellent for grinding of welded seams, deburring, beveling, rust removal and surface blending. With multi-layer construction, new abrasive is constantly being exposed, giving the surface a consistent and uniform finish. Ideal for use on stainless steel, cast iron, high strength aluminum, bronze and copper as well as low alloy steel.

- High removal rate for increased productivity
- Soft, cool cutting prevents burning and allows contouring
- Unique fiberglass hub wears simultaneously with abrasive And will not damage the work surface
- Longer life assures lowered costs
- Low noise and no vibrations provide Smoother finish with less fatigue
- Requires less pressure for improved results & longer use

Recommended applications:
- 40 Grit – for unalloyed and low-alloyed steels, Stainless steels of low tensile strength
- 80 Grit – for high temperature alloys



New wheel

The wheel grinds continuously as it wears

A fully consumed flap disc

FLAP DISC ADAPTER NUT:
- **5/8-11 THREAD TO ADAPT POW-R-CUT™ DISCS TO TOOLS WITH THREADED SHANK**

SIZE	GRIT	MAXIMUM RPM		PART
4-1/2 x 7/8	40	13,000	C	33930
4-1/2 x 7/8	80	13,000	C	33932
4-1/2 x 7/8	120	13,000	C	33931
7 x 7/8	40	8,500	C	33933
7 x 7/8	80	8,500	C	33935
FLAP DISC ADAPTER NUT			D	33940

ABRASIVES – FLAP DISCS, TYPE 27 & 29, Z3

ZIRCONIA

USA MADE

CONTAMINATE-FREE Iron, Sulfur, and Chlorine ≤ 0.1%

Right Angle Grinder

Z3 FLAP DISCS – 4-1/2'' X 7/8''

DESCRIPTION AND APPLICATIONS

- Premium Zirconia Alumina grain with a poly/cotton heat treated backing. The poly/cotton combination provides low stretch and strength for the high Zirconia concentration that Z3 contains.
- Special optimized resin bond offers maximum cutting capacity, strong edge stability and long life.
- Fastest grain removal in the marketplace for carbon based steels (26% more than the competition) and second best after Stainless discs on stainless steels, while offering excellent life.
- For aggressive use and heavy duty applications.
- Active grinding agent provides cool cutting with light pressure.
- High Density (XL) flap discs have aproximately 35% to 55% more material than Regular Density Z3 flap discs. High Density flap discs require high output angle grinders for best results.

Regular Density
Fast removal rate for aggressive use and heavy duty applications.

High Density (XL)
Approximately 35-55% more material than regular Z3 flap discs.

40 Grit discs shown.

Flap Disc Adapter Nut
P/N 33940
With 5/8-11 thread to adapt Z3 USA Made Flap Discs to tools with threaded shank.

Abrasive Wheel Dispenser
P/N 50032

- For 4-1/2" diameter flap discs, cut-off wheels, etc.
- Heavy-duty construction with flip top for loading discs
- Wide-mouth bottom for easy-access dispensing
- Gravity feed
- Can hold up to 25 flap discs
- 4 holes for wall mounting
- Dimensions: 16-1/8" H x 6-1/4" W x 5-1/4" D

ABRASIVES – FLAP DISCS, TYPE 27 & 29, Z3

TYPE 27 – REGULAR DENSITY

40, 60, 80, 120 GRIT

T-27
For working on flat grinding surfaces. Best choice for smooth finishing.

Regular Density
Fast removal rate for aggressive use and heavy duty applications.

SIZE	GRIT		PART NO.	RPM
4-1/2" x 7/8"	40	A	33970	13,300
4-1/2" x 7/8"	60	A	33971	13,300
4-1/2" x 7/8"	80	A	33972	13,300
4-1/2" x 7/8"	120	A	33973	13,300

T-27 / Flat - For working on flat grinding surfaces. Most efficient when used between 0°-15° angle. The best choice for smooth finishing.

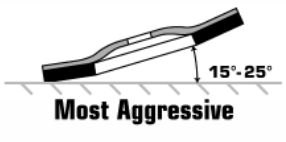
TYPE 29 – REGULAR DENSITY

40, 60, 80, 120 GRIT

T-29
For working on contoured and edge work. Flaps are angled at 8 degrees for greater surface contact and aggressive use.

Regular Density
Fast removal rate for aggressive use and heavy duty applications.

SIZE	GRIT		PART NO.	RPM
4-1/2" x 7/8"	40	A	33980	13,300
4-1/2" x 7/8"	60	A	33981	13,300
4-1/2" x 7/8"	80	A	33982	13,300
4-1/2" x 7/8"	120	A	33983	13,300



T-29 / Conical - For working on contoured and edge work. Flaps are angled at 8 degrees for greater surface contact and aggressive use. Best used at 15°-25° angle.

TYPE 27 – HIGH DENSITY (XL)

40, 60, 80, 120 GRIT

T-27
For working on flat grinding surfaces. Best choice for smooth finishing.

High Density
Approximately 35-55% more material than regular Z3 flap discs.

SIZE	GRIT		PART NO.	RPM
4-1/2" x 7/8"	40	A	33975	13,300
4-1/2" x 7/8"	60	A	33976	13,300
4-1/2" x 7/8"	80	A	33977	13,300
4-1/2" x 7/8"	120	A	33978	13,300

TYPE 29 – HIGH DENSITY (XL)

40, 60, 80, 120 GRIT

T-29
For working on contoured and edge work. Flaps are angled at 8 degrees for greater surface contact and aggressive use.

High Density
Approximately 35-55% more material than regular Z3 flap discs.

SIZE	GRIT		PART NO.	RPM
4-1/2" x 7/8"	40	A	33985	13,300
4-1/2" x 7/8"	60	A	33986	13,300
4-1/2" x 7/8"	80	A	33987	13,300
4-1/2" x 7/8"	120	A	33988	13,300

BRUSHES

DISPOSABLE PAINT/CHIP BRUSHES

- **NATURAL WOOD HANDLE**
- **100% PURE WHITE BRISTLES**
- **BRISTLES SET IN EPOXY FOR SOLVENT RESISTANCE**

17880

SIZE	PART	SIZE	PART	SIZE	PART
1"	J 21576	2"	J 21578	3"	F 21580
1-1/2"	J 21577	2-1/2"	F 21579	4"	21581

3-1/2'' TAMPICO BRUSH

THIS BRUSH IS SET IN A WOOD BLOCK,
GENEROUSLY FILLED WITH WHITE TAMPICO.

A USEFUL AND INEXPENSIVE TOOL FOR APPLYING A VARIETY OF MATERIALS SUCH AS:

- **THICK CHEMICALS**
- **MASONRY CEMENT**
- **LIQUID WATERPROOFING ON ROUGH SURFACES**
- **BLOCK SIZE - 6-3/8'' X 1-11/16''**

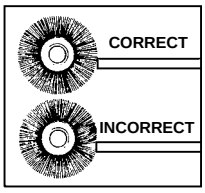
P/N 21575

WIRE WHEELS BRUSHES

- **HEAVILY FILLED WITH HIGH QUALITY, OIL TEMPERED CRIMPED WIRE PROVIDING A CONTINUOUS BRUSHING ACTION FOR A FINE FINISH**
- **FIXED ARBOR DESIGN ALLOWS FOR INDIVIDUAL OR MULTIPLE BRUSH ASSEMBLIES**

INCREASE OPERATOR SAFETY AND EXTEND BRUSH LIFE BY:

1. **INSPECTING BRUSH FOR DAMAGE, RUST OR FOREIGN MATERIAL BEFORE MOUNTING.**
2. **USING ONLY MACHINES THAT HAVE ENOUGH POWER TO MAINTAIN RATED SPINDLE SPEEDS YET NOT EXCEED THE MAXIMUM SAFE FREE SPEED OF THE BRUSH. (NOTE: RECOMMENDED MOTOR SIZE FOR A 6" WHEEL IS 1/2 H.P. 3,450 RPM)**
3. **MAKING SURE ALL MACHINE GUARDS ARE IN PLACE BEFORE USING AND ALWAYS WEARING EYE PROTECTION.**
4. **PREVENTING WIRES FROM BECOMING OVER-STRESSED BY APPLYING ONLY ENOUGH PRESSURE FOR THE WIRE TIPS TO COME IN CONTACT WITH THE WORK. (LETTING THE WIRE TIPS DO ALL THE WORK).**
5. **PREVENTING WIRE TIPS FROM BECOMING DULL, BY REVERSING BRUSH ROTATION PERIODICALLY.**



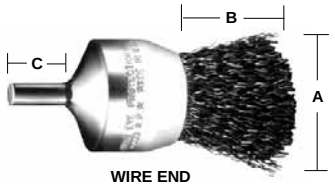
DIAMETER	WIRE SIZE	FACE WIDTH	TRIM LENGTH	ARBOR ARBOR HOLE	MAX. SAFE FREE R.P.M.	PART NUMBER
6	.014	3/4	1-1/8	5/8-1/2	6,000	A 41300
6	.020	3/4	1-1/8	5/8-1/2	6,000	A 41305
8	.014	3/4	1-1/2	5/8-1/2	4,500	A 41308

RECOMMENDED SURFACE SPEEDS FOR TYPICAL BRUSHING APPLICATIONS

APPLICATION	SURFACE FT./MIN.	R.P.M.	APPLICATION	SURFACE FT./MIN.	R.P.M.
Removing Butts	5,500 to 7,500	3,750 - 4,500	Cleaning (Dry)	4,000 to 5,500	2,500 - 3,450
Removing Scale	7,500 to 10,000	5,000 - 6,000	Cleaning (Wet)	1,900 to 4,000	1,500 - 2,500
Cleaning Welds	7,200 to 9,400	5,000 - 6,000	Surface Polishing	6,400 to 8,000	4,500 - 5,000
Edge Bending	4,700 to 7,500	3,000 - 4,500	Surfacing Buffing	8,000 to 10,000	6,000

BRUSHES (Cont'd.)

WIRE END BRUSHES



WIRE END

CIRCULAR FLARED END

HOLLOW END

STEM MOUNTED

KNOTTED CUP

HIGH QUALITY, OIL TEMPERED, CRIMPED WIRE PROVIDES SUPERIOR CUTTING CHARACTERISTICS AND FATIGUE RESISTANCE WHILE A STANDARD 1/4" STEM MAKES THEM PERFECT FOR USE IN PORTABLE AIR, ELECTRIC AND DRILL PRESS CHUCKS

TYPICAL APPLICATIONS:
- **WELD CLEANING**
- **MOLD CLEANING**
- **DEBURRING**
- **POLISHING TOOLS, DIES AND MOLDS**
- **REMOVING RUST AND PAINT**
- **SPOT PAINTING**

DESCRIPTION	(A) DIA.	(B) TRIM LENGTH	(C) STEM	WIRE SIZE	PART		MAX. SAFE FREE SPEED RPM
Wire End	1/2	7/8	1/4	.014	B	41320	20,000
Wire End	3/4	7/8	1/4	.014	B	41315	20,000
Circular Flared End	1-1/2	—	1/4 x 7/8	.006	A	41325	20,000
Circular Flared End	3	—	1/4 x 7/8	.008	A	41326	15,000
Hollow End	1-3/4	3/4	1/4	.0118	A	41330	13,000
Stem Mounted	2	—	1/4	.0118	A	41335	20,000
Stem Mounted	3	—	1/4	.014	A	41336	20,000
Knotted Cup	4	1-1/4	5/8-11	.014	A	41350	8,500
Knotted Cup	6	1-3/8	5/8-11	.014	A	41352	6,000

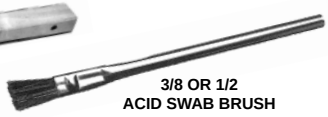
HAND SCRATCH BRUSHES

PIPE/TUBE BRUSH FEATURES:
- **CLEANS BOTH THE INSIDE AND OUTSIDE OF COPPER TUBING IN PREPARATION FOR SOLDER WHEN SWEATING PIPES**
- **CLEANS MOST POPULAR 1/2" AND 3/4" I.D. TUBE AND 5/8" & 7/8" O.D. TUBE**
- **HARDENED STEEL BRUSHES AND POLYPROPYLENE BODY FOR STRENGTH AND DURABILITY**

HAND SCRATCH BRUSHES FEATURES:

- **CONSTRUCTED OF HEAVY GAUGE WIRE EMBEDDED IN A HEAVY DUTY HARDWOOD HANDLE**
- **USE FOR REMOVING PAINT, RUST, SCALE, SOLDER CHIPS AND DIRT**
- **CLEANS METAL PARTS, THREADS, FILES, ETC.**

GENERAL PURPOSE


3/8 OR 1/2 ACID SWAB BRUSH

1/2 OR 3/4 TUBE FITTING BRUSH

4-IN-1 PIPE/TUBE BRUSH

S/S SHOE HANDLE

NYLON, BRASS OR STAINLESS STEEL SMALL SCRATCH PLASTIC HANDLE

DESCRIPTION	ROWS	OVERALL LENGTH	TRIM	BRUSH LENGTH	PART	
General Purpose	4 x 19	13-1/4	1-1/8	6	B	41310
S/S Shoe Handle	4 x 16	10	1-1/8	5-1/2	A	41312
S/S Small Scratch	3 x 7	7-7/8	1/2	1-3/8	C	41340
Brass Small Scratch	3 x 7	7-7/8	1/2	1-3/8	C	41342
Nylon Small Scratch	3 x 7	7-7/8	1/2	1-3/8	B	41347
3/8 Acid Swab	–	5-3/4	3/4	3/8 (width)	J	41345
1/2 Acid Swab	–	5-3/4	3/4	1/2 (width)	J	41346
1/2 S/S Tube Fitting	–	6-1/2	–	1/2 (width)	B	41348
3/4 S/S Tube Fitting	–	6-1/2	–	3/4 (width)	B	41349
4-in-1 Pipe/Tube Brush	–	7-1/2	–	3/4 (width) and 1" (width)	A	41344

SCRAPERS

RAZOR BLADE SCRAPER

SCRAPER FEATURES:
- **Retractable blade**
- **Strong, galvanized, non-rusting steel**
- **Comfortable, form-fitted grip**

BLADE FEATURES:
- **High quality, carbon steel double-beveled ground razor edge**
- **Folded steel backing (crimped/both ends) holds blade securely**
- **Individually wrapped in cardboard sleeves**

DESCRIPTION		PART
Industrial Scraper	E	66403
#9 Industrial Blades	T	66402

HAND SCRAPERS

- **STAINLESS STEEL SCRAPERS HAVE A THREADED HANDLE TO FIT ANY WOOD OR ALUMINUM POLE – EASY ACCESS FOR HARD TO REACH AREAS**

- **ROLLERGRIP HANDLE ENSURES YEARS OF DEPENDABLE SERVICE AND A FIRM AND COMFORTABLE GRIP**

DESCRIPTION		PART
3-1/8" Flat Stainless Steel	A	66405
3" 20º Stainless Steel	A	66406

SUPER SCRAPERS

- **Unique head design for easy blades changes and proper angle for scraping**
- **Durable and dependable**
- **The 4"ergonomicly designed scraper will get into the tightest places**
- **Use the 8" and 13" scraper for those tough to reach areas**

DESCRIPTION		PART
4" Mini Scraper	A	66407
8" Super Scraper	A	66408
13" Super Scraper	A	66409

UTILITY KNIVES

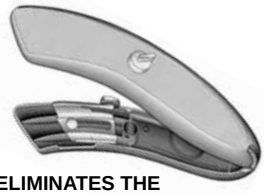
AUTO-LOAD UTILITY KNIFE

- **SLIDER KNOB AUTOMATICALLY LOADS NEW BLADE**
- **SIDE LOADING 5 BLADE CHAMBER**
- **NO PARTS TO LOSE**
- **ERGONOMIC HANDLE WITH RUBBER GRIP**
- **PUSH BUTTON BLADE REMOVAL**

DESCRIPTION		PART
"AUTO-LOAD" UTILITY KNIFE WITH 5 BLADES	A	66412

ERGO-KNIFE™

- **HINGED HANDLE MAKES IT EASY TO CHANGE BLADES**
- **ERGONOMICALLY DESIGNED TO PROVIDE MAXIMUM POWER WITH MINIMUM FATIGUE**
- **INTERNAL BLADE CADDY HOLDS BLADES SAFELY AND CONVENIENTLY**
- **PATENTED QUICK RELEASE HANDLE ELIMINATES THE NEED FOR A SCREWDRIVER OR TOOLS TO CHANGE BLADES**
- **RETRACTABLE BLADE FOR EASY USE AND SAFE STORAGE**



DESCRIPTION		PART
"ERGO-KNIFE" UTILITY KNIFE WITH 6 BLADES (1 COMBO, 5 STRAIGHT)	A	66410

BLADES

METAL BLADES

ROUND BLADE

BI-METAL UTILITY KNIFE BLADE

HOOK BLADE

- **PATENT PROTECTED**
- **BLUE FOR INSTANT RECOGNITION**
- **UNBREAKABLE – SPRING BACKING STEEL FLEXES BUT WILL NOT BREAK**
- **STAYS SHARPER 3X LONGER – HIGH SPEED STEEL EDGE HEAT TREATED TO HIGHER HARDNESS THAN STANDARD CARBON**

PLASTIC BLADES

DOUBLE SIDED BLADE

DESIGNED WITH 2 SHARP EDGES. FOR SCRAPING, CLEANING AND PEELING, NOT FOR CUTTING. WON'T DAMAGE SURFACE MATERIAL. BREAKS BOND BE-TWEEN SURFACE AND SUBSTANCE TO BE REMOVED.

DESCRIPTION		PART
Hook Blade	N	66418
Round Blade	N	66421
Economy Straight Blade*	T	66414
Bi-metal Utility Knife Blade*	A	66415
Bi-metal Utility Knife Blade Dispenser Pack*	T	66415-100
General Purpose Double-sided Plastic Blade	N	66423
Irwin "Safety Knife" Blades (Pkg. 5)	E	66506
Irwin "Safety Knife" Blades (Pkg. 50)	R	66506-50
Irwin "Safety Knife" Blades (Pkg. 100)	T	66506-100
Serrated Shark Knife Blades (Pkg. 5)	E	66508
Serrated Shark Knife Blades (Pkg. 50)	R	66508-50
Serrated Shark Knife Blades (Pkg. 100)	T	66508-100

*0.025 thick

UTILITY KNIVES (Cont'd.)

SUPERKNIFE™

- 17912B
- 17912S

- ANODIZED ALUMINUM HANDLE & STAINLESS STEEL
- ERGONOMIC STYLE / WITH BELT CLIP
- ONE STEP BLADE CHANGE – NO TOOLS REQUIRED
- DURABLE AND LIGHTWEIGHT
- FOLDING BLADE HOLDER ACCEPTS MOST STANDARD UTILITY BLADES INCLUDING CONTRACTOR GRADE

- THE ULTIMATE UTILITY KNIFE CARRYING CASE
- HOLDS REPLACEMENT BLADES
- VERSATILE STAINLESS STEEL BELT CLIP
- ACCOMMODATES 2" BELTS
- DURABLE BALLISTIC NYLON

DESCRIPTION		PART
SUPERKNIFE – SILVER	A	66500S
SUPERKNIFE – BLACK	A	66500B
SUPERKNIFE CASE	A	66500CASE

MINI SUPERKNIFE™

- THE ULTIMATE UTILITY KNIFE HOLDS STANDARD MINI UTILITY BLADES
- RELEASE BUTTON LOCKS OPEN, LOCKS CLOSED
- FOLDS DOWN TO 1-3/4"
- KEYCHAIN LANYARD
- INCLUDES 3 SPARE BLADES
- AVAILABLE INBLACK AND SILVER

INCLUDES 3 SPARE BLADES

INSTRUCTIONS FOR REPLACING BLADES:

1. Remove the phillips screw holding the blade in the knife.
2. Once the screw is removed, holding the knife away from your body, slowly remove the old blade.
3. Replace the new sharp blade and reinstall the phillips screw.
4. Tighten firmly to remove any movement in the blade.

DESCRIPTION		PART
MINI SUPERKNIFE – SILVER	A	66501S
MINI SUPERKNIFE – BLACK	A	66501B
MINI STRAIGHT BLADE	N	66417

SAFETY CUTTER

Take it anywhere in the workplace for most small cutting jobs. Safely put it in a pocket when finished. The spring-back blade keeps you safely away from the blade while cutting and when you are not.

- Designed for right or left-handed use
- Ultra Sharp – Cut Boxes, Tape, String, Paper or Plastic
- Folds Up To Safely Conceal Blade When Not In Use
- Blunt Safety Tip Blade Prevents Puncture Wounds
- Convenient Size Fits In Pocket Or Attached To A Lanyard

DESCRIPTION		PART
Safety Cutter	A	66503
Replacement Blades	A	66504

IRWIN SELF RETRACTING "SAFETY KNIFE"

- Self-retracting spring action returns blade safely into the housing when not in use
- Bi-metal safety blade with blunted ends inhibits puncture wounds
- Two blade positions:
  - 2 mm extension for box cutting
  - Full extension for general use
- Interlocking nose reduces blade wobble
- Ergonomic grip fits comfortably in the hand

Replacement Blades
- Pkg. 5 P/N 66506
- Pkg. 50 P/N 66506-50
- Pkg. 100 P/N 66506-100

DESCRIPTION		PART
IRWIN Self Retracting Safety Knife (includes one IRWIN bi-metal safety blade)	A	66505

SHARK UTILITY KNIFE - WIRE STRIPPER & UTILITY KNIFE

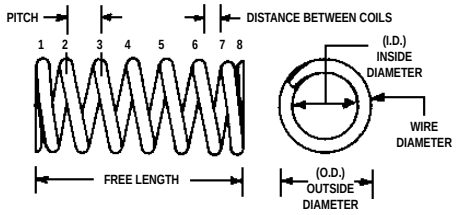
- Precision-ground stripping holes for easy removal of wire insulation. For wire sizes: 10, 12, 14, 16, 18 AWG
- Longer lasting, faster cutting muiti-purpose serrated blades
- Quick change blade feature
- Extra blade storage compartment
  - Loaded with 4 serrated blades

Serrated Replacement Blades
- Pkg. 5 P/N 66508
- Pkg. 50 P/N 66508-50
- Pkg. 100 P/N 66508-100

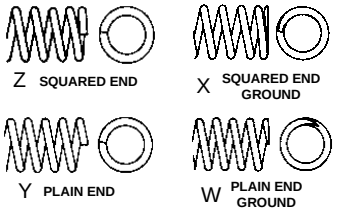
DESCRIPTION		PART
SHARK UTILITY KNIFE (with total of 5 serrated blades)	A	66507

STEEL WIRE SPRINGS

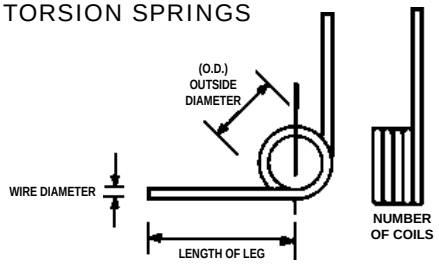
COMPRESSION SPRINGS



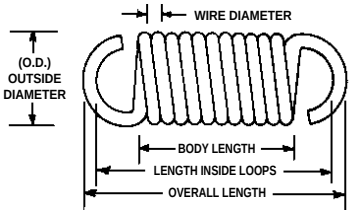
TYPES OF ENDS USED ON COMPRESSION SPRINGS



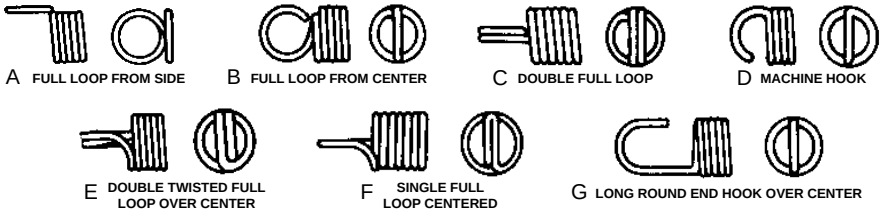
TORSION SPRINGS



EXTENSION SPRINGS



TYPES OF ENDS USED ON EXTENSION SPRINGS



WIRE DIA.	O.D.	OVERALL LTH.	BODY LTH.	ENDS	INDUST. PART		PART	WIRE DIA.	O.D.	OVERALL LTH.	BODY LTH.	ENDS	INDUST. PART		PART
.020	5/32	1-7/8	1-5/8	A	1	M	60201	.047	3/8	2-3/16	1-7/16	B	97X	M	60297
.035	1/4	2-1/2	2	C	2	M	60202	.041	15/32	2-1/4	1-3/8	A	100X	M	60300
.032	1/4	2-1/4	2	A	3	M	60203	.029	3/16	2	1-5/8	B	401	M	60401
.041	5/16	2-11/16	2-3/16	A	4	M	60204	.042	1/4	2-11/32	1-7/8	B	402	M	60402
.062	1/2	2-5/16	1-3/8	A	5	M	60205	.035	1/4	3	2-1/2	B	403	M	60403
.035	3/8	2	1-1/4	B	6	M	60206	.020	9/32	2-1/2	2	B	404	M	60404
.054	15/32	2-7/16	1-1/2	A	8	M	60208	.062	1/2	2-5/16	1-3/8	A	405	M	60405
.062	7/16	2-15/16	2	B	9	M	60209	.029	1/4	1-7/8	1-5/16	B	406	M	60406
.041	13/32	2-3/4	2	A	10	M	60210	.054	15/32	2-7/16	1-1/2	A	408	M	60408
.047	3/8	2-11/16	2	A	11	M	60211	.062	7/16	2-15/16	2	B	409	M	60409
.062	1/2	3-5/8	2-9/16	C	27	M	60227	.041	13/32	2-3/4	2	A	410	M	60410
.105	3/4	2-5/16	1-1/4	D	28	M	60228	.062	1/2	3-1/2	2-1/2	C	426	M	60426
.047	7/16	3-11/16	3	A	29	M	60229	.105	3/4	1-3/4	5/8	D	432	M	60432
.041	1/2	3-13/16	3	A	30	M	60230	.105	3/4	1-15/16	13/16	D	433	M	60433
.105	3/4	1-15/16	13/16	D	31	M	60231	.105	3/4	2-3/16	1-1/16	D	434	M	60434
.105	3/4	1-3/4	5/8	D	34	M	60234	.105	3/4	2-5/16	1-1/4	D	435	M	60435
.041	5/16	3-7/16	2-7/8	A	36	M	60236	.105	3/4	2-5/8	2-5/8	1-1/2	436	M	60436
.041	9/32	6-1/2	6	A	38	M	60238	.105	3/4	2-13/16	1-3/4	D	437	M	60437
.062	21/32	5-3/8	4-3/8	E	40	J	60240	.105	3/4	3	1-7/8	D	438	M	60438
.080	1/2	6	5	E	42	J	60242	.105	3/4	3-3/8	2-1/4	D	439	M	60439
.080	5/8	5-7/8	4-3/4	F	44	J	60244	.022	5/16	2-1/2	1-1/8	G	440	M	60440
.041	21/32	4-7/8	4	A	46	J	60246	.020	11/32	2	17/32	G-B	441	M	60441
.047	15/32	6-3/4	3-5/16	G	50	J	60250	.042	7/32	1-3/4	13/16	G	442	M	60442
.035	11/32	4	2-3/8	G	51	M	60251	.047	1/4	1-11/16	3/4	G	443	M	60443
.047	7/16	5	2-1/8	G	52	M	60252	.049	7/32	2-3/16	1-3/16	G	444	M	60444
.072	9/16	3-15/16	2-7/8	A	53	M	60253	.041	5/16	2-1/16	1	G-B	445	M	60445
.062	1/2	9-3/4	8-3/4	C	62	J	60262	.072	9/16	3-5/8	15/16	G	446	J	60446
.091	3/4	10-1/4	3-9/16	G	63	J	60263	.054	11/32	6-7/8	2-13/16	G	447	J	60447
.105	3/4	8	6-3/8	B	64	J	60264	.062	1/2	6-1/8	2-11/16	G	448	J	60448
.066	3/8	2-3/16	1-7/16	B	66X	M	60266	.062	11/32	7-1/2	3-3/8	G	449	J	60449
.041	5/16	2-3/16	1-9/16	B	68X	M	60268	.072	9/16	6-5/8	2-9/16	G	450	J	60450
.032	5/16	2-1/8	1-9/16	B	70X	M	60270	.072	1/2	1-5/8	13/16	D	914	M	60461
.054	7/16	1-15/16	1	B	73X	M	60273	.080	1/2	1-11/16	1	D	1114	M	60462
.028	15/64	1-1/2	1	B	75X	M	60275	.105	3/4	1-3/4	5/8	D	612	M	60463
.041	5/16	1-11/16	1-3/16	B	78X	M	60278	.105	3/4	2-3/16	1-1/16	D	1012	M	60464
.029	3/16	1-11/16	1-1/4	B	81X	M	60281	.105	3/4	2-5/8	1-1/2	D	1412	M	60465
.032	7/32	2	1-5/8	B	83X	M	60283	.105	3/4	2-13/16	1-3/4	D	1612	M	60466
.037	3/16	2	1-5/8	B	86X	M	60286	.105	3/4	3	1-7/8	D	1812	M	60467
.041	3/8	2	1-3/16	B	88X	M	60288	.105	3/4	3-3/8	2-1/4	D	2112	M	60468
.035	9/32	2-7/16	1-7/8	A	91X	M	60291	.105	3/4	3-13/16	2-11/16	D	2512	M	60469
.020	1/4	2-5/16	1-7/8	B	93X	M	60293	.105	3/4	5-1/2	4	B	210	M	60471

STEEL WIRE SPRINGS (Cont'd.)

COMPRESSION SPRINGS

WIRE DIA.	O.D.	OVERALL LTH.	ENDS	INDUST. PART	PART	WIRE DIA.	O.D.	OVERALL LTH.	ENDS	INDUST. PART	PART
.054	1/2	1-3/4	Z	13	M 60213	.022	1/4	1-7/8	Z	72X	M 60272
.091	5/8	1-3/4	Z	14	M 60214	.025	5/16	1-7/16	Z	74X	M 60274
.072	5/8	2	Z	16	M 60216	.041	5/16	2	Z	76X	M 60276
.041	5/16	1-3/8	Z	17	M 60217	.035	3/8	1-7/16	Z	77X	M 60277
.020	5/16	1-1/2	Z	18	M 60218	.041	3/8	1-15/16	Z	79X	M 60279
.030	13/64	2-1/4	Z	19	M 60219	.062	1/2	1-7/16	Z	80X	M 60280
.015	7/32	1-5/8	Z	20	M 60220	.047	1/2	1-3/4	Z	82X	M 60282
.022	3/16	1-5/16	Z	21	M 60221	.041	7/16	1-7/16	Z	84X	M 60284
.032	7/32	1-1/4	Z	22	M 60222	.054	5/8	1-9/16	Z	85X	M 60285
.026	5/16	1-7/8	Z	23	M 60223	.032	15/64	1-3/4	Z	87X	M 60287
.041	5/16	2-5/16	Z	24	M 60224	.062	5/8	2	Z	89X	M 60289
.023	1/4	2	Z	25	M 60225	.035	5/16	1-1/2	Z	90X	M 60290
.047	7/16	3	Z	26	M 60226	.032	5/16	1-11/16	Z	92X	M 60292
.062	7/16	3-1/4	Z	32	M 60232	.025	1/4	2	Z	94X	M 60294
.047	21/64	3-5/16	Z	33	M 60233	.047	5/16	1-1/2	Z	95X	M 60295
.080	15/32	2-3/8	Z	35	M 60235	.047	3/8	1-1/2	Z	96X	M 60296
.047	15/32	1-1/8	Z	37	M 60237	.032	1/4	1-7/16	Z	98X	M 60298
.080	11/16	1-1/2	Z	39	M 60239	.025	3/8	1-7/8	Z	99X	M 60299
.062	1/2	2-13/16	Z	41	M 60241	.047	7/16	1-3/4	Z	412	M 60412
.062	11/16	3	Z	43	M 60243	.091	5/8	1-3/4	Z	413	M 60413
.047	3/4	3-3/8	Z	45	M 60245	.072	9/16	1-3/4	Z	415	M 60415
.080	7/8	3-7/16	Z	47	M 60247	.041	5/16	1-3/8	Z	416	M 60416
.080	7/16	5	Y	48	M 60248	.020	5/16	1-1/2	Z	417	M 60417
.105	31/32	3-3/4	Z	49	M 60249	.030	13/64	2-1/4	Z	418	M 60418
.041	15/32	5-1/4	Z	54	M 60254	.015	7/32	1-5/8	Z	419	M 60419
.062	13/16	3-1/4	Z	55	M 60255	.023	3/16	1-5/16	Z	420	M 60420
.120	1-1/32	5-3/8	Z	56	J 60256	.020	3/16	1-1/8	Z	421	M 60421
.105	3/4	3	Z	57	M 60257	.026	5/16	1-7/8	Z	422	M 60422
.120	1-1/4	4-5/8	Z	58	J 60258	.041	5/16	2-5/16	Z	423	M 60423
.135	1	3-3/4	Z	59	J 60259	.023	1/4	2	Z	424	M 60424
.072	11/16	9-1/2	Z	60	J 60260	.047	7/16	3	Z	425	M 60425
.120	15/16	9-7/8	Z	61	J 60261	.028	21/64	1-1/8	Z	427	M 60427
.041	5/8	2-11/16	Z	65	M 60265	.047	5/16	1-1/2	Z	428	M 60428
.028	21/64	1-1/8	Z	67X	M 60267	.020	1/4	2	Z	429	M 60429
.020	1/4	2	Z	69X	M 60269	.025	5/16	1-7/16	Z	430	M 60430
.020	3/16	1-1/2	Z	71X	M 60271	.032	1/4	1-7/16	Z	431	M 60431

CONE COMPRESSION SPRINGS

WIRE DIA.	MIN. O.D.	MAX. O.D.	OVERALL LTH.	ENDS	INDUST. PART	PART
.041	13/32	11/16	1	Z	7	M 60207*
.041	13/32	11/16	1	Z	407	M 60407**

*YELLOW PLATE **ZINC PLATE

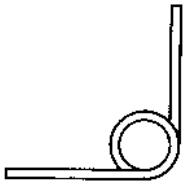
DOUBLE CONE COMPRESSION SPRINGS

WIRE DIA.	MIN. O.D.	MAX. O.D.	OVERALL LTH.	ENDS	INDUST. PART	PART
.047	7/16	11/16	2	Z	12	M 60212
.054	5/16	9/16	2	Z	411	M 60411

27

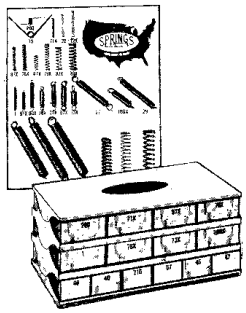
STEEL WIRE SPRINGS (Cont'd.)

TORSION SPRINGS



WIRE DIAMETER	OUTSIDE DIAMETER	LEG LENGTH	COILS	INDUSTRY PART		PART
.072	1/2	2-1/4	1	15	M	60215
.072	1/2	2-1/4	2	414	M	60414

SPRING ASSORTMENTS



250 PIECE ASSORTMENT

DESCRIPTION		PART
• Plastic cabinet with 15 plastic drawers • 250 springs (27 different types) • Colorful counter display card which can also be hung on the wall. • Dimensions: 10" Wide x 6" Deep x 9" High	A	60460

400 PIECE ASSORTMENT

DESCRIPTION		PART
• Metal wall display with 50 mounted springs. • 2-drawer metal cabinet with 52 compartments. • 400 springs; 50 different numbers. • Each compartment is clearly numbered to correspond with the actual numbered items mounted on the metal display. • Includes P/N 60401 to 60450 • Dimensions: 8" High x 20" Wide x 12" Deep	A	60400

1000 PIECE ASSORTMENT

DESCRIPTION		PART
• Metal display with spring assortment. • Matching metal 4-drawer cabinet. • Includes P/N 60201 to 60300 • Dimensions: 18" High x 20" Wide x 12" Deep • Each compartment is clearly numbered to correspond with the actual numbered items mounted on the metal display.	A	60200

MECHANIC'S WIRE

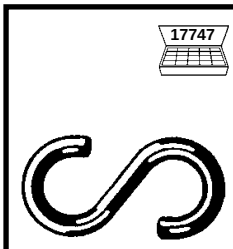
GALVANIZED STEEL WIRE

- **FLEXIBLE STEEL WIRE GALVANIZED FOR DURABILITY**
- **HANGS CONDUIT, PIPE, ETC.**
- **MAKES TEMPORARY/EMERGENCY REPAIRS**

WIRE GAUGE	SIZE		PART	WIRE GAUGE	SIZE		PART
14 ga.	5 Lb. Spool	A	60390	18 ga.	5 Lb. Spool	A	60392
16 ga.	5 Lb. Spool	A	60391	–	–		–

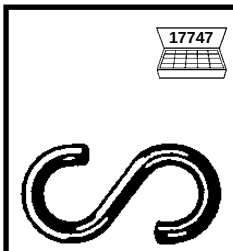
"S" HOOKS

ZINC PLATED STEEL



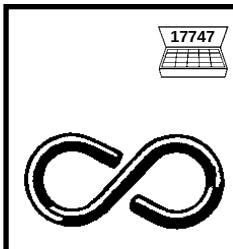
HEAVY OPEN STYLE

WIRE SIZE	DECIMAL EQUIVALENT	OVERALL LENGTH	INSIDE DIA. OF "S"		PART
14	.080	1	5/16	T	1900
7	.177	1-1/2	7/16	R	1901
6	.192	1-3/4	17/32	R	1902
2	.262	2	9/16	R	1903
0	.306	2-1/2	25/32	N	1904
0	.306	3	15/16	N	1905



LIGHT OPEN STYLE

WIRE SIZE	DECIMAL EQUIVALENT	OVERALL LENGTH	INSIDE DIA. OF "S"		PART
9	.148	1-1/2	5/8	R	1960
8	.162	1-7/8	3/4	R	1961
6	.192	2-1/8	7/8	R	1962
5	.207	2-7/16	1	N	1963
2	.262	2-3/4	1-1/8	N	1964



LIGHT CLOSED STYLE

WIRE SIZE	DECIMAL EQUIVALENT	OVERALL LENGTH	INSIDE DIA. OF "S"		PART
12	.105	1-1/8	5/16	T	1993
11	.120	1-1/4	3/8	T	1992
10	.135	1-5/8	1/2	T	1991
9	.148	2-1/8	3/4	T	1990

EYEBOLTS

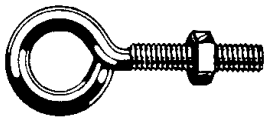
REGULAR TURNED EYE

- **ZINC PLATED STEEL EYEBOLTS**
- **NUT ASSEMBLED TO BOLT**
- **ROLLED THREADS**
- **U.S. STANDARD**

SIZE	THREAD LENGTH	SHANK LENGTH	INSIDE DIA. EYE		PART
3/16 x 2-1/2	1-1/4	1-5/8	1/2	N	60881
3/16 x 3	2	2-1/4	1/2	N	60882
1/4 x 2	3/4	1	9/16	N	60883
1/4 x 3	1-3/4	2	9/16	N	60884
1/4 x 4	2-3/4	3	9/16	N	60885
1/4 x 5	3-3/8	4	9/16	N	60886
1/4 x 6	4	5	9/16	N	60887
1/4 x 8	4	7	9/16	N	60888
5/16 x 3-1/4	1-3/4	2	3/4	N	60889
5/16 x 4	2-1/2	2-3/4	3/4	N	60890
5/16 x 5	3-1/4	3-3/4	3/4	N	60891
5/16 x 6	4	4-3/4	3/4	N	60892
5/16 x 8	4	6-3/4	3/4	L	60893
3/8 x 4	2	2-1/4	1	N	60894
3/8 x 5	3	3-1/4	1	L	60895
3/8 x 6	4	4-1/4	1	L	60896
3/8 x 8	4	6-1/4	1	L	60897
1/2 x 6	3-1/4	3-3/4	1-1/4	I	60900
1/2 x 8	4	5-3/4	1-1/4	E	60901
1/2 x 10	4	8	1-1/4	E	60902
1/2 x 12	4	9-1/8	1-1/4	E	60903

SMALL TURNED EYE

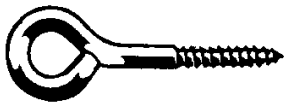
- **ZINC PLATED STEEL**



SIZE	THREAD LENGTH	SHANK LENGTH	INSIDE DIA. EYE		PART
5/32 x 1-5/8	1	1-1/8	1/4	R	60808
3/16 x 2	1-1/4	1-5/16	5/16	R	60809
7/32 x 2-3/16	1-1/2	1-3/8	3/8	R	60810
1/4 x 2-5/8	1-3/8	1-9/16	1/2	R	60811
5/16 x 3-1/4	1-1/2	2-1/4	1/2	N	60812
3/8 x 3-3/4	2-1/4	2-1/2	5/8	N	60813

LAG SCREW

- **ZINC PLATED STEEL**

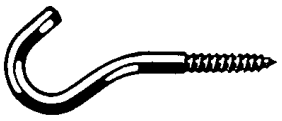


SIZE	THREAD LENGTH	SHANK LENGTH	WIRE SIZE	INSIDE DIA EYE		PART
1/4 x 3-3/4	1-1/2	2-3/4	3	1/2	N	1166
1/4 x 5	1-1/2	4	3	1/2	N	1167
5/16 x 4	1-5/8	2-3/4	0	5/8	I	1168
5/16 x 6	1-5/8	4-3/4	0	5/8	I	1169
3/8 x 4-1/2	2	3-1/16	000	3/4	I	1170
3/8 x 8	2	5-9/16	000	3/4	I	1171

SCREW HOOKS

HEAVY HOOK LAG SCREW

- **ZINC PLATED STEEL**



SIZE	HOOK OPENING	THREAD LENGTH	WIRE SIZE		PART
1/4 x 4-1/4	1	1-1/2	3	I	1172

MACHINE THREAD WITH NUT

- **ZINC PLATED STEEL**

SIZE	HOOK OPENING	THREAD LTH		PART
3/16 x 2	1-1/8	1-3/16	R	60869
7/32 x 2-1/4	1-3/8	1-5/16	R	60870
1/4 x 2-5/8	1-1/2	1-5/8	R	60871
5/16 x 3-1/8	1-7/8	1-7/8	N	60872
3/8 x 3-3/4	2	2-1/4	L	60873

SCREW EYES

LARGE SCREW EYES

- **ZINC PLATED STEEL**

17747

WIRE SIZE	OVERALL LENGTH	SHANK LENGTH	INSIDE DIA. EYE	PART	
000	3-7/8	2-1/16	1-1/8	I	1138
0	2-7/8	1-9/16	13/16	I	1139
2	2-5/8	1-5/16	23/32	N	1140
4	2-3/16	1-1/8	39/64	N	1141
6	1-15/16	31/32	17/32	N	1142
9	1-9/16	3/4	7/16	R	1144
10	1-3/8	11/16	13/32	R	1145
12	1-3/16	37/64	3/8	R	1146
14	1-1/16	1/2	11/32	R	1147

MEDIUM SCREW EYES

17747

WIRE SIZE	OVERALL LGTH	SHANK LGTH	INSIDE DIA. EYE	PART	
4	2-1/16	1-1/8	31/64	T	1148
6	1-13/16	1	7/16	T	1149
8	1-9/16	13/16	25/64	T	1150
10	1-5/16	11/16	21/64	T	1151
12	1-1/8	19/32	9/32	T	1152
14	15/16	1/2	1/4	T	1153

SMALL SCREW EYES

17747

WIRE SIZE	OVERALL LGTH	SHANK LGTH	INSIDE DIA. EYE	PART	
4	1-15/16	1-1/8	19/64	T	1154
6	1-5/8	1	17/64	T	1155
8	1-3/8	13/16	15/64	T	1156
10	1-3/16	11/16	7/32	T	1157
12	15/16	37/64	3/16	T	1158
14	13/16	1/2	5/32	T	1159
16	11/16	7/16	9/64	T	1160

SMALL SCREW EYES SHORT SHANK

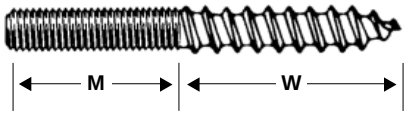
17747

WIRE SIZE	OVERALL LGTH	SHANK LGTH	INSIDE DIA. EYE	PART	
10	1	1/2	7/32	T	1161
12	3/4	3/8	3/16	T	1162
14	11/16	3/8	5/32	T	1163
16	9/16	9/32	9/64	T	1164
17	1/2	7/32	1/8	T	1165

HANGER BOLTS

FULLY THREADED HANGER BOLTS

- **ONE END HAS WOOD SCREW THREAD AND THE OTHER END IS THREADED TO HOLD A NUT**
- **SCREWS ONE END INTO WOOD AND THE EXPOSED END PROVIDES A MACHINE THREADED STUD FOR CORNER BRACKETS, NUTS, HOOKS, ETC.**



17923

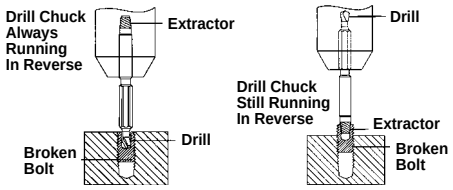
SIZE	MACHINE THREAD (M)	WOOD THREAD (W)		PART	SIZE	MACHINE THREAD (M)	WOOD THREAD (W)		PART
10-24 x 1-1/2	5/8	7/8	T	21120	5/16-18 x 2-1/2	1	1-1/2	R	21143
10-24 x 2	1	1	T	21122	5/16-18 x 3	1-1/2	1-1/2	R	21145
10-24 x 2-1/2	1	1-1/2	T	21123	5/16-18 x 3-1/2	1-1/2	2	R	21146
10-24 x 3	1-1/2	1-1/2	T	21124	5/16-18 x 4	2	2	R	21147
1/4-20 x 1-1/2	5/8	7/8	T	21126	3/8-16 x 2-1/2	1	1-1/2	N	21153
1/4-20 x 2	1	1	T	21128	3/8-16 x 3	1-1/2	1-1/2	N	21154
1/4-20 x 2-1/2	1	1-1/2	T	21130	3/8-16 x 3-1/2	1-1/2	2	N	21155
1/4-20 x 3	1-1/2	1-1/2	T	21132	3/8-16 x 4	2	2	N	21156

EXTRACTORS

MICRO POWER-OUT™ EXTRACTORS

The Micro Power-Out™ Extractor Set has many of the same features as our larger extractors but its design is a bit different. Put the micro tool into your reversible electric or battery powered drill, extractor side in, set it for reverse and drill your hole. Take the tool out, turn it around so that the drill side is inserted into the chuck and you have your extractor. Insert the extractor tip into the hole you just drilled and remove your broken screw. That's it! Fast, easy and dependable.

- **SELF-CENTERING DRILL TIP**
- **SHORT, TOUGH DRILL BODY**
- **LEFT HAND CUTTING EDGE**
- **DRILL BIT AND EXTRACTOR IN ONE**
- **EASY, TIME SAVING OPERATION**
- **DRILLS GRADE 8 BOLTS**



SIZE	DRILLING SPEED	EXTRACTING SPEED		PART
#5 and #6 (M3)	700-800 RPM	350 RPM (1/4 speed)	A	13084
#8 (M4)	650-750 RPM	470 RPM (1/3 speed)	A	13085
#10 (M5)	600-700 RPM	840 RPM (3/5 speed)	A	13086
1/4" (M6)	475-575 RPM	1400 RPM (full speed)	A	13087
Micro Drill-Out™ Extractor Set (4-Piece Set)			A	61616

POWER-OUT™ BROKEN BOLT EXTRACTORS

- **QUICKLY AND EASILY REMOVES BROKEN BOLTS**
- **EASY, TIME SAVING OPERATION**
- **FAST AND REUSABLE**
- **SELF-CENTERING TIP**
- **LEFT HAND DRILL BIT AND EXTRACTOR IN ONE**
- **HEAT TREATED HIGH QUALITY TOOL STEEL**
- **USE IN A VARIABLE SPEED REVERSIBLE HAND DRILL**

SIZE	DRILLING SPEED	EXTRACTING SPEED		PART
1/4" (M6)	700-800 RPM	350 RPM (1/4 speed)	A	13080
5/16" (M8)	650-750 RPM	470 RPM (1/3 speed)	A	13081
3/8" (M10)	600-700 RPM	840 RPM (3/5 speed)	A	13082
1/2" (M12)	475-575 RPM	1400 RPM (full speed)	A	13083
Power-Out™ Broken Bolt Extractor Kit (4-Piece Set)			A	61609

X-OUT™ DAMAGED SCREW REMOVER

- **REMOVES STRIPPED PHILLIPS, TORX AND HEX SOCKET SCREWS, BUT CAN BE USED ON A VARIETY OF SCREW HEADS**
- **QUICK CHANGE SHANK FOR FAST, EASY TOOL CHANGES**

SCREW DIA.	DRILLING SPEED	EXTRACTING SPEED		PART
#6 - #8	650-750 RPM	470 RPM (1/3 speed)	A	13096
#8 - #10	600-700 RPM	840 RPM (3/5 speed)	A	13097
#10 - #14	475-575 RPM	1400 RPM (full speed)	A	13098
X-Out™ Screw Remover Kit (3-Piece Set)			A	61623

MICRO AND POWER-OUT™ EXTRACTORS "COMPLETE SET"

Drill Bit and Extractor in One!

- Short, tough drill body allows flexibility & visibility
- Self-centering tip that will not walk or wander
- Left hand cutting edge (drill set for reverse)
- Requires a very shallow drill depth 1/4"-1/2" or 6mm - 12mm
- Extracts standard and metric sizes
- Drills up to & including grade 8 bolts or 10.9 class
- Warms the bolt up – easing the extraction process
- Uses the power of the drill to extract the bolt

COMPLETE SET CONTAINS:		PART
Broken Bolt Extractors: 5/16" (M8), 3/8" (M10) and 1/2" (M12) Micro Broken Bolt Extractors: #5 and #6 (M3), #8 (M4), #10 (M5) and 1/4" (M6)	A	61617

EXTRACTORS

SPIRAL SCREW EXTRACTORS

17934

SIZE	SCREW SIZE	DRILL SIZE	PART	
1	#8 to 1/4	5/64	A	13060
2	#12 to 5/16	7/64	A	13061
3	5/16 to 716	5/32	A	13062
4	7/16 to 9/16	1/4	A	13063
5	9/16 to 3/4	19/64	A	13064
6	3/4 to 1	13/32	A	13065
7	1 to 1-3/8	17/32	A	13066
8	1-3/8 to 1-3/4	13/16	A	13067
9	1-3/4 to 2-1/8	1-1/16	A	13068

SPIRAL SCREW EXTRACTOR SET CONTENTS					
1 - 5 SPIRAL	A	13070	6 - 9 SPIRAL	A	13072
1 - 6 SPIRAL	A	13071	4 - 6 SPIRAL	A	13073

SQUARE SCREW EXTRACTORS

- **MADE FROM RUGGED, HIGH CARBON STEEL TO HANDLE THE STRESS OF REMOVING BROKEN BOLTS**
- **IDEAL FOR SOFT MATERIALS OR THIN-WALLED PIECES SUCH AS PIPE AND FITTINGS**
- **WILL NOT EXPAND SOFT MATERIAL BEING REMOVED RESULTING IN EASIER REMOVAL**
- **GRIPS INTO SIDES OF DRILL HOLE AND REMOVES BROKEN PART WITHOUT DAMAGING THE THREADED HOLE**

METHOD OF USE:

1. **After drilling hole with either right or left handed drill bit, (left is recommended) insert extractor, turn counter clockwise.**

SIZE	SCREW SIZE	DRILL SIZE	PART	
1	3/16 to 5/16	9/64	A	13074
2	3/8	3/16	A	13075
3	7/16 and 1/8 NPT	15/64	A	13076
4	1/2 - 9/16 & 1/4 NPT	5/16	A	13077
5	5/8 and 3/8 NPT	3/8	A	13078

SQUARE SCREW EXTRACTOR SET CONTENTS		
1 THROUGH 5 SQUARE	A	13069

DOUBLE EDGE SCREW EXTRACTORS

- Removes damaged screws and bolts without damaging threads
- Double edge can be used for both right and left hand drills
- Superior non-slip engagement with screw or bolt to be removed

17934

P/N 12059
Includes Sizes #1 through #3

P/N 12060
Includes Sizes #1 through #5

P/N 61624, Metal Index
Includes Sizes #1 through #7

SIZE	FOR USE ON BOLT SIZE	CHROMATE PILOT DRILL		PART
#1	#10 - 1/4"	11005 (1/8")	A	12061
#2	5/16" - 3/8"	11007 (3/16")	A	12062
#3	7/16" - 1/2"	11009 (1/4")	A	12063
#4	1/2" - 9/16"	11012 (11/32")	A	12064
#5	5/8" - 3/4"	11015 (7/16")	A	12065
#6	7/8" - 1"	*use 9/16"	A	12066
#7	1" - >1"	*use 3/4"	A	12067
3-Piece Set in Pouch (Includes Sizes #1 through #3)			A	12059
5-Piece Set in Pouch (Includes Sizes #1 through #5)			A	12060
Complete Set in a Metal Index (Includes Sizes #1 through #7)			A	61624

* Special order only.

EXTRACTORS

TAP EXTRACTORS FOR MACHINE SCREWS AND HAND TAPS

- **FOR MACHINE SCREW AND HAND TAPS**
- **REMOVES BROKEN TAPS WITHOUT DAMAGING THE THREADS OR REQUIRING A LARGER HOLE TO BE DRILLED**
- **TAP EXTRACTORS ARE MADE TO MATCH THE FLUTES OF THE TAPS – FINGERS FIT INTO FLUTES TO REMOVE THE BROKEN TAP SAFELY AND EFFECTIVELY**
- **SQUARE SHANK FITS STANDARD TAP HANDLES**

1. **Thoroughly remove all chips of the broken tap. Insert the extractor fingers into the flutes of the broken tap, pushing them gently but firmly into position.**
2. **Push the holder down until it touches the broken tap. Slide the sleeve down until it touches the work. (Both are important).**
3. **Apply a tap wrench to the square end of the holder. Twist forward and backward a few times to loosen, then back out the broken tap.**

61637

61639

TAP SIZE	# FLUTES	PART	TAP SIZE	# FLUTES	PART	REPLACEMENT FINGERS	PART	REPLACEMENT FINGERS	PART
#4	3	A 12034	5/16	4	A 12019	For 12034	A 12034F	For 12019	A 12019F
#5	3	A 12035	3/8	4	A 12020	For 12035	A 12035F	For 12020	A 12020F
#6	3	A 12036	7/16	4	A 12021	For 12036	A 12036F	For 12021	A 12021F
#8	4	A 12015	1/2	4	A 12022	For 12015	A 12015F	For 12022	A 12022F
#10	4	A 12016	5/8	4	A 12023	For 12016	A 12016F	For 12023	A 12023F
#12	4	A 12017	3/4	4	A 12024	For 12017	A 12017F	For 12024	A 12024F
1/4	4	A 12018				For 12018	A 12018F		

TAP EXTRACTOR SETS: 6-Piece Set contains 1 each: 12016, 12018, 12019, 12020, 12021 and 12022	A 61637	**61637CASE** (Case Only)
13-Piece Set contains 1 each: 12034, 12035, 12036, 12015, 12016, 12017, 12018, 12019, 12020, 12021, 12022, 12023 and 12024	A 61639	**61639CASE** (Case Only)

PIPE AND STUD EXTRACTORS

- **FOUR-POINT GRIP, WHICH ASSURES STRONG BITE**
- **SHALLOW GRIP, WHICH LESSENS EXPANSION AND JAMMING**
- **INSTANT RELEASE FROM BITE AFTER JOB IS COMPLETED**
- **RUST-RESISTANT BLACK OXIDE FINISH**

61641

PIPE EXTRACT. SIZE	BROKEN PIPE SIZE	BROKEN STUD OR SCREW SIZE	PART	PIPE EXTRACT. SIZE	BROKEN PIPE SIZE	BROKEN STUD OR SCREW SIZE	PART
#1	1/8	3/8	A 12041	#5	3/4	1-1/8 or 1-1/4	A 12045
#2	1/4	1/2	A 12042	#6	1"	1-1/2 or 1-3/4	A 12046
#3	3/8	5/8 or 3/4	A 12043	#7	1-1/4	2"	A 12047
#4	1/2	–	A 12044	#8	1-1/2	2-1/4 or 2-1/2	A 12048
#10	–	7/8 or 1"	A 12040	#9	2"	3 or 3-1/2	A 12049

5-Piece Pipe Extractor Set in Plastic Case includes 12041, 12042, 12043, 12044, 12045	A 61628	**61628CASE** (Case Only)
7-Piece Pipe Extractor Set in Plastic Case includes 12040 through 12046	A 61641	

EXTRACTORS

CIC 200™ BROKEN STUD REMOVAL KIT

Quickly and easily removes broken screws, studs, cap screws, pipe fittings, etc. Packed in a sturdy, metal index.

SPIRAL SCREW EXTRACTORS:
- HIGH CARBON STEEL CONSTRUCTION FOR STRENGTH AND DURABILITY
- SHARP SPIRAL FLUTES BITE QUICKLY INTO BROKEN STUD OR BOLT FOR SOLID GRIP
- REMOVES BROKEN STUDS OR BOLTS WITHOUT DAMAGING THREADS IN HOLE
- SAVES TIME, MONEY AND LABOR

LEFT HAND DRILLS:
- REVERSE DRILLING ACTUALLY THREADS OUT BROKEN STUDS OR BOLTS
- SPECIAL TOOL STEEL ALLOY FOR SUPERIOR STRENGTH, FASTER HEAT DISSIPATION AND LONGER LIFE
- EXTENDED FLUTES FOR FAST CHIP REMOVAL AND COOLER RUNNING
- CUTS STANDARD, STAINLESS, TOOL AND EXOTIC STEELS

CONTENTS		PART	
SPIRAL EASY OUTS — #1, #2, #3, #4 and #5. **USE TAP AND REAM ALIGNER P/N 8585**	LEFT HAND DRILLS — 5/64, 7/64, 5/32, 1/4 and 19/64.	A	61676

INTERNAL PIPE WRENCHES

- **FOR REMOVAL OF BROKEN THREADED ENDS OF PIPE, PIPE PLUGS AND FITTINGS**
- **HEX BODY CAN BE USED WITH A WRENCH**
- **PIPE SIZES ARE MARKED ON EACH WRENCH**
- **HEAT TREATED ALLOY STEEL, PLATED TO PREVENT RUST**
- **SIZE STAMPED ON BODY**
- **CONFORMS TO GOV. SPECS. GGG-W643B**

SIZE	LENGTH		PART
3/8" (9.7mm)	3-3/4" (95.25mm)	A	54481
1/2" (12mm)	3-3/4" (95.25mm)	A	54482
3/4" (20mm)	3-3/4" (95.25mm)	A	54483
1" (25mm)	3-3/4" (95.25mm)	A	54484
Internal Pipe Wrench Set (4-Piece Set) Sizes 3/8" to 1"		A	54480

AUTOMATIC CENTER PUNCH

- Press down on the handle to automatically strike a blow and mark centers
- Knurled cap turns to adjust stroke impact (light to heavy)
- Points are hardened tool steel and can be removed for regrinding and replacement

DESCRIPTION		PART
5-1/4 Adjustable Auto-matic Center Punch	A	66430
Replacement Pin	A	66429

EXTRACTORS

IRWIN BOLT EXTRACTORS

- When you are faced with a rounded-off, rusted-tight or painted-over bolt, bolt extractors will break it free
- Reverse spiral flutes are designed to bite down to provide maximum gripping power
- High carbon steel ensures longer life and greater durability
- Universal lobular design fits all types of fasteners
- 3/8'' & 1/2'' square drive for use with hand ratchets, impact wrenches, and air ratchets
- Hexagonal flats for use withflat wrench, pliers, adjustablewrench, sockets or VISE-GRIP® locking pliers

17054

IRWIN. HANSON.

DRIVE SIZE	REMOVES FRACTIONAL BOLTS	REMOVES METRIC BOLTS	DESCRIPTION		PART
3/8"	1/4"	N/A	1/4" Bolt Extractor	A	22151
3/8"	5/16"	8mm	5/16" & 8mm Bolt Extractor	A	22152
3/8"	3/8"	N/A	3/8" Bolt Extractor	A	22153
3/8"	N/A	10mm	10mm Bolt Extractor	A	22154
3/8"	7/16"	11mm	7/16" & 11mm Bolt Extractor	A	22155
3/8"	N/A	12mm	12mm Bolt Extractor	A	22156
3/8"	1/2"	N/A	1/2" Bolt Extractor	A	22157
3/8"	N/A	13mm	13mm Bolt Extractor	A	22158
3/8"	9/16"	14mm	9/16" & 14mm Bolt Extractor	A	22159
3/8"	5/8"	16mm	5/8" & 16mm Bolt Extractor	A	22160
3/8"	N/A	17mm	17mm Bolt Extractor	A	22161
3/8"	11/16"	N/A	11/16" Bolt Extractor	A	22162
3/8"	3/4"	19mm	3/4" & 19mm Bolt Extractor	A	22163
1/2"	3/4"	19mm	3/4" & 19mm Bolt Extractor	A	22164
1/2"	13/16"	21mm	13/16" & 21mm Bolt Extractor	A	22165
1/2"	7/8"	22mm	7/8" & 22mm Bolt Extractor	A	22166
1/2"	15/16"	24mm	15/16" & 24mm Bolt Extractor	A	22167
1/2"	1"	N/A	1" Bolt Extractor	A	22168

13 PIECE PROFESSIONAL SET

DESCRIPTION		PART
• Set includes bolt extractors to remove bolt sizes: - 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4" - 8mm, 10mm, 11mm, 12mm, 13mm, 14mm, 16mm, 17mm, 19mm • Drive size: 3/8" • Plastic Case	A	8881

P/N 8882

P/N 8883

5 PIECE BASE SET & 5 PIECE EXPANSION SET

DESCRIPTION		PART
Base Set: • Set includes bolt extractors to remove bolts sizes: - 3/8'', 7/16'', 1/2'', 9/16'', 5/8'' and 11mm, 14mm, 16mm • Drive size: 3/8'' • Includes most commonly used sizes • Plastic Case (accommodates expansion set P/N 8883)	A	8882
Expansion Set: • Set includes bolt extractors to remove bolts sizes: - 5/16'', 11/16'', 3/4'' and 8mm, 10mm, 13mm, 19mm • Drive size: 3/8''	A	8883

EXTRACTORS

IRWIN HEX HEAD MULTI-SPLINE SCREW EXTRACTORS

- Designed to remove broken studs, bolts, socket screws and fittings for high torque applications
- Aggressive left-hand spiral design for extra gripping power

17053

IRWIN HANSON.

RECOMMENDED DRILL BIT DIA.	HEX HEAD SIZE	BOLT DIAMETER	DESCRIPTION		PART
1/8"	1/2"	#12	1/8" Hex Head Multi-Spline Screw Extractor	A	22126
5/32"	1/2"	1/4"	5/32" Hex Head Multi-Spline Screw Extractor	A	22127
3/16"	1/2"	5/16"	5/32" Hex Head Multi-Spline Screw Extractor	A	22128
7/32"	1/2"	3/8"	7/32" Hex Head Multi-Spline Screw Extractor	A	22129
1/4"	1/2"	7/16"	1/4" Hex Head Multi-Spline Screw Extractor	A	22130
9/32"	1/2"	1/2"	9/32" Hex Head Multi-Spline Screw Extractor	A	22131
5/16"	1/2"	9/16"	5/16" Hex Head Multi-Spline Screw Extractor	A	22132
11/32"	1/2"	5/8"	11/32" Hex Head Multi-Spline Screw Extractor	A	22133
3/8"	1/2"	11/16"	3/8" Hex Head Multi-Spline Screw Extractor	A	22134
13/32"	1/2"	3/4"	13/32" Hex Head Multi-Spline Screw Extractor	A	22135
7/16"	5/8"	13/16"	7/16" Hex Head Multi-Spline Screw Extractor	A	22136
15/32"	5/8"	7/8"	15/32" Hex Head Multi-Spline Screw Extractor	A	22137
1/2"	5/8"	15/16"	1/2" Hex Head Multi-Spline Screw Extractor	A	22138
17/32"	3/4"	1"	17/32" Hex Head Multi-Spline Screw Extractor	A	22139
9/16"	3/4"	1-1/16"	9/16" Hex Head Multi-Spline Screw Extractor	A	22140
19/32"	3/4"	1-1/8"	19/32" Hex Head Multi-Spline Screw Extractor	A	22141
5/8"	3/4"	1-3/16"	5/8" Hex Head Multi-Spline Screw Extractor	A	22142
21/32"	7/8"	1-1/4"	21/32" Hex Head Multi-Spline Screw Extractor	A	22143
11/16"	7/8"	1-5/16"	11/16" Hex Head Multi-Spline Screw Extractor	A	22144
23/32"	7/8"	1-3/8"	23/32" Hex Head Multi-Spline Screw Extractor	A	22145
3/4"	7/8"	1-7/16"	3/4" Hex Head Multi-Spline Screw Extractor	A	22146
25/32"	1"	1-1/2"	25/32" Hex Head Multi-Spline Screw Extractor	A	22147
13/16"	1"	1-9/16"	13/16" Hex Head Multi-Spline Screw Extractor	A	22148
27/32"	1"	1-5/8"	27/32" Hex Head Multi-Spline Screw Extractor	A	22149
7/8"	1"	1-11/16"	7/8" Hex Head Multi-Spline Screw Extractor	A	22150

10 PIECE SET

DESCRIPTION		PART
10 Piece Set Includes: • 1/8" through 13/32" • Plastic Case	A	8880

EXTRACTORS

IRWIN BOLT-GRIP™ DEEP WELL EXTRACTORS

- Deep well design fits over exposed studs & reaches recessed fasteners
- Reduced profile head enables use in confined spaces
- 3/8" square drive for use with hand ratchets, impact wrenches, and air ratchets
- Hexagonal flats for use with flat wrench, pliers, adjustable wrench, sockets, or VISE-GRIP® locking pliers
- When you are faced with a rounded-off, rusted-tight or painted-over bolt, these bolt extractors will break it free
- Reverse spiral flutes are designed to bite down to provide maximum gripping power
- High carbon steel ensures longer life and greater durability
- Universal lobular design fits all types of fasteners

IRWIN.

DRIVE SIZE	REMOVES FRACTIONAL BOLTS	REMOVES METRIC BOLTS	DESCRIPTION		PART
3/8"	3/8"	N/A	3/8" Bolt-Grip™ Deep Well Extractor	A	22169
3/8"	7/16"	11mm	7/16" & 11mm Bolt-Grip™ Deep Well Extractor	A	22170
3/8"	1/2"	N/A	1/2" Bolt-Grip™ Deep Well Extractor	A	22171
3/8"	9/16"	14mm	9/16" & 14mm Bolt-Grip™ Deep Well Extractor	A	22172
3/8"	5/8"	16mm	5/8" & 16mm Bolt-Grip™ Deep Well Extractor	A	22173

5 PIECE SET

DESCRIPTION		PART
Set Includes: • Deep Well extractors to remove bolts sizes: - 3/8", 7/16", 1/2", 9/16", 5/8" - 11mm, 14mm, 16mm, • Drive size: 3/8" • Plastic Case	A	8884

EXTRACTORS

IRWIN POWER-GRIP™ SCREW & BOLT EXTRACTORS

- Easily removes damaged screws and bolts
- Designed for use with power tools
- 1/4'' hex shank fits most drills and quick change adaptors
- When you are faced with a rounded-off, rusted-tight or painted-over bolt, these bolt extractors will break it free
- Reverse spiral flutes are designed to bite down to provide maximum gripping power
- High carbon steel ensures longer life and greater durability
- Universal lobular design fits all types of fasteners

IRWIN.

DRIVE SIZE	REMOVES FRACTIONAL BOLTS	REMOVES METRIC BOLTS	DESCRIPTION		PART
1/4''	3/16''	N/A	3/16'' Power-Grip™ Screw & Bolt Extractor	A	22174
1/4''	1/4''	N/A	1/4'' Power-Grip™ Screw & Bolt Extractor	A	22175
1/4''	5/16''	8mm	5/16'' & 8mm Power-Grip™ Screw & Bolt Extractor	A	22176
1/4''	3/8''	N/A	3/8'' Power-Grip™ Screw & Bolt Extractor	A	22177
1/4''	N/A	10mm	10mm Power-Grip™ Screw & Bolt Extractor	A	22178
1/4''	7/16''	11mm	7/16'' & 11mm Power-Grip™ Screw & Bolt Extractor	A	22179
1/4''	1/2''	N/A	1/2'' Power-Grip™ Screw & Bolt Extractor	A	22180

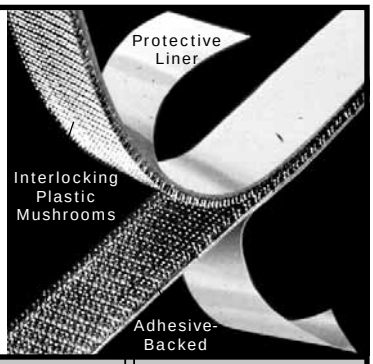
7 PIECE SET

DESCRIPTION		PART
Set Includes: • Power-Grip bolt extractors remove bolt sizes: - 3/16'', 1/4'', 5/16'', 3/8'', 7/16'', 1/2'' - 8mm, 10mm, 11mm • Drive size: 1/4'' hex shank • Plastic Case	A	8885

CIC 200™ SUPERLOCK RECLOSABLE FASTENERS

ADHESIVE BACKED SELF-MATING STRIPS

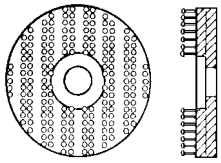
- **UNIQUE MUSHROOM SHAPED STEMS – SNAP TOGETHER FOR INSTANT, SECURE RECLOSABLE FASTENING**
- **ENGAGES TO ITSELF OR USE WITH SUPERLOCK DISCS – FOR UNLIMITED NUMBER OF APPLICATIONS**
- **HIGH BOND STRENGTH PRESSURE SENSITIVE ADHESIVE – PROVIDES EXCELLENT ADHESION AND RESISTANCE TO PLASTICIZER MIGRATION**
- **WIDE TEMPERATURE RANGE PERFORMANCE SUPPORTS STATIC LOADS FROM -20ºF to 200ºF**
- **DURABLE CONSTRUCTION – MAINTAINS EXCELLENT DISENGAGEMENT STRENGTH ASSURING OVER 1000 CLOSURES**
- **UV RESISTANT FOR DURABILITY AND LONG LIFE**
- **ADHERES TO: BARE METALS, PAINTED METALS, GLASS, FIBERGLASS, SEALED WOOD, ABS, ACRYLIC, POLYCARBONATE, POLYSTYRENE, RIGID VINYL AND PLASTICIZED VINYL**



DESCRIPTION	DISENGAGEMENT STRENGTH	PART	
1" x 6" SUPERLOCK RECLOSABLE FASTENER (STRIPS)	38 LBS.	J	2884
1" x 15 FEET SUPERLOCK RECLOSABLE FASTENER (CONTINUOUS ROLL)	38 LBS.	A	2883

ROUND SELF-MATING DISCS

- **RIGID POLYOLEFIN CONSTRUCTION – PROVIDES POSITIVE LOCKING, RECLOSABLE FASTENING FOR ATTACHING REMOVABLE DECORATIVE PANELS, COWLINGS, ACCESS PANELS, ETC.**
- **EASILY MOUNTED WITH METAL, WOOD OR MACHINE SCREWS**
- **MAINTAINS EXCELLENT DISENGAGEMENT STRENGTH – PROVIDING OVER 1000 RECLOSURE CYCLES**



DESCRIPTION	TENSILE STRENGTH	CLEVAGE STRENGTH	SHEAR STRENGTH	PART	
1-3/16" DIAMETER SUPERLOCK RECLOSABLE FASTENERS	35 LBS.	22 LBS.	4 LBS.	R	2888

SUGGESTED MOUNTING SCREWS FOR ROUND SUPERLOCK DISCS

DESCRIPTION	SIZE	PART	
PHILLIPS BINDING HEAD METAL SCREW	6 x 1/2	U	1507
	6 x 3/4	U	1509
SLOTTED ROUND HEAD WOOD SCREW	6 x 1/2	U	8509
	6 x 3/4	U	8511

SUPERLOCK LITE RECLOSABLE FASTENERS

- **SAVES TIME AND MONEY – EASY TO INSTALL, HOOK AND LOOP ALL IN ONE**
- **REUSABLE – CAN BE USED AGAIN AND AGAIN FOR MAXIMUM EFFICIENCY**
- **VERSATILE – CAN BE CUT TO ANY LENGTH**
- **SECURES QUICKLY AND EASILY – REMAINS LOCKED WITHOUT SLIPPING**
- **IDEAL FOR USE ON CABLE AND WIRE ASSEMBLIES, FIBER OPTIC INSTALLATIONS OR BUNDLING AND WRAPPING OF MANY ITEMS**
- **RATED TO TEMPERATURES UP TO 212ºF (100ºC)**
- **THICKNESS = 33 MILS (0.033 INCHES)**
- **SHEAR STRENGTH = 20 PSI • TENSILE STRENGTH = 40 LBS (1/2" WIDTH)**

DESCRIPTION	PART	
1/2" x 25 YARD SUPERLOCK LITE	A	32886
1" x 25 YARD SUPERLOCK LITE	A	32887
8" SUPERLOCK LITE STRAPS – (3/4" x 25 yard approx. 112 pieces per roll)	A	32888
DISPENSER	A	32883

BUMPERS

APPLIES QUICKLY AND EASILY WHEREVER PROTECTION IS NEEDED

- **UL RECOGNIZED COMPONENT**
- **EASY "PEEL-OFF" BACKING**
- **SUPERIOR ABRASION RESISTANCE**
- **CRACK-RESISTANT AND RESILIENT**
- **NON-STAINING AND NON-MARRING**
- **VIBRATION AND SHOCK DAMPENING**
- **SUPERB COEFFICIENT OF FRICTION AND RESISTANCE TO SKIDDING**
- **CONTAINS NO PLASTICIZERS, OILS OR FILLERS**

APPLICATIONS:
Cutting Boards, Picture Frames, Cabinet Doors, Sliding Doors, Computers, Appliances, Office Equipment, Desktop Calculators

DESCRIPTION	COLOR		PART
.14 x .50 Cylindrical	Clear	U	62730
.15 x .375 Hemispherical	Clear	U	62731
.25 x .50 Cylindrical	Clear	U	62732
.14 x .50 Cylindrical Recessed	Clear	U	62733
.125 x .375 Cylindrical	Black	V	62734
.23 x .50 Square	Black	U	62735
.30 x .81 Square	Black	T	62736
.40 x .88 Circular Recessed	Black	T	62737
.60 x 1.81 Circular Recessed	Clear	I	62738

MAGNETIC TOOLS

MAGNETIZER/DEMAGNETIZER

The Magnetizer/Demagnetizer is ideal for use with screwdrivers, nut drivers, wrenches, tweezers, and other steel tools. The simple yet powerful design quickly converts any tool blade into a magnetic retrieval tool. The Magnetizer/Demagnetizer can also be used to remove magnetism from tools and make them safe for use with sensitive electronics.

- For use with screwdrivers, nut drivers, taps, wrenches and other steel objects
- Magnetizer turns bladed tools into powerful retrieval tools
- Demagnetizer makes tools safe for use with electronic equipment
- Great for magnetizing a screwdriver when working with small fasteners

TO MAGNETIZE
Insert the blade of the tool into the opening of the Magnetizer/Demagnetizer and slide back and forth. Continue this procedure until you reach the desired level of magnetism.

TO DEMAGNETIZE
Rub the blade of the tool along the outside of the Magnetizer/Demagnetizer. Continue this procedure until the tool is completely demagnetized.

Magnetizer Demagnetizer	A	66424

MAGNETIC STUD FINDER

- **Positively locates screws and steel studs with powerful rare earth magnets**
- **Easily locates studs and screws**
- **Rotating vial for level and plumb**
- **Guaranteed No False Positives - Magnet sticks to screw or steel stud**
- **No batteries required**
- **Will pull itself to a nail or screw**

DESCRIPTION		PART
Magnetic Stud Finder	A	66396

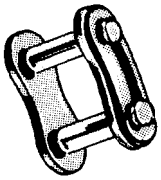
HEAVY-DUTY MAGNETIC PICK-UP TOOL

- **THIS POWERFUL RARE EARTH MAGNET QUICKLY AND SAFELY PICKS UP METAL CHIPS, FASTENERS, NUTS AND BOLTS AND MORE**
- **SIMPLY WAVE OVER DEBRIS AND RELEASE BY PULLING THE KNOB**

DESCRIPTION		PART
Heavy Duty Magnetic Pick-Up Tool	A	66395

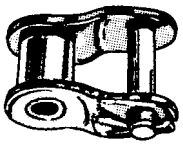
CHAIN LINKS

CONNECTING AND OFFSET LINKS



CONNECTING LINKS

- **LEAKPROOF LUBRICATION**
  PROVIDES TWO TO ONE LONGER LIFE OVER CONVENTIONAL CURLED BUSHING ROLLER CHAINS, EVEN IN THE MOST SEVERE APPLICATIONS
- **COLD FORMED, ONE-PIECE CONSTRUCTION**
  FOR BETTER FATIGUE CHARACTERISTICS, PROVIDING MINIMAL INITIAL ELONGATION AND LONGER LIFE
- **UNIFORMITY OF CONTACT POINT BETWEEN PIN AND BUSHING**
  INCREASES WEAR RESISTANCE AND DECREASES ELONGATION

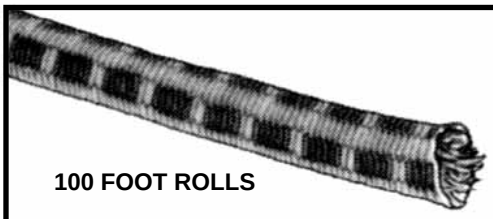


OFFSET LINKS

CONNECTING		PART	OFFSET		PART
#35	L	60490	#35	I	60480
#40	L	60491	#40	I	60481
#41	L	60492	#41	I	60482
#50	L	60493	#50	I	60483
#60	I	60494	#60	F	60484
#80	I	60495	#80	D	60485
#120	D	60496	#120	B	60486

ELASTIC SHOCK CORD AND HOOKS

MAKE ANY LENGTH SHOCK CORD



100 FOOT ROLLS

P/N 60380 (Nylon)

P/N 60381 (Nylon)

P/N 60382 / 60383 (Metal) (Includes Hog Rings)

- **MAKE SHOCK CORD ASSEMBLIES IN THE EXACT LENGTH YOU NEED BY CUTTING TO DESIRED LENGTH AND ATTACHING HOOKS.**
- **RESILIENT, MULTI-STRAND RUBBER CORE GIVES SHOCK CORD MAXIMUM STRETCH WITHOUT BREAKING.**
- **WHITE NYLON COVERED CORD IS STRONGER THAN POLYPROPYLENE TYPES AND RESISTS SALT WATER AND CHLORINE.**
- **MOLDED SHOCK CORD HOOKS (P/N'S 60380 AND 60381) ARE RUST AND CORROSION PROOF ELIMINATING THE TRADITIONAL METAL CRIMP RING. THEY SECURELY GRIP BY MEANS OF A PATENTED FASTENING MECHANISM. THE SLIP RING CONCEALS THE END OF THE SHOCK CORD, GIVING IT A CLEAN, FINISHED APPEARANCE.**

SIZE	COLOR	HOOK PART #		SHOCK CORD PART #
1/4" x 100'	White with Black Stripe	R	60380	A 60374
5/16" x 100'	White with Yellow Stripe	Q	60381	A 60375
3/8" x 100'	White with Red Stripe	Q	60382	A 60376
1/2" x 100'	White with Blue Stripe	Q	60383	A 60377

GRADE 30 WELDED PROOF COIL CHAINS

- **LOW CARBON STEEL UTILITY CHAIN**
- **A WIDE RANGE OF GENERAL PURPOSE USES**
- **ZINC PLATED**
- **USED FOR TOWING, LOGGING AND BINDING**
- **ASTM A391 AND ASTM A413**

SIZE	WORK LOAD LIMIT	PART	SIZE	WORK LOAD LIMIT	PART
1/4 x 75 Ft.	1,300 Lbs.	A 60505	3/8 x 35 Ft.	2,650 Lbs.	A 60507
5/16 x 50 Ft.	1,900 Lbs.	A 60506	–	–	–

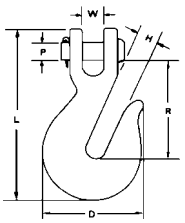
QUICK LINKS

- **ZINC PLATED**
- **FAST, EASY CONNECTIONS**
- **USE AS REPAIR LINK, CONNECTING LINK OR ATTACHING DEVICE**
- **STANDARD JAW**

CHAIN SIZE	WORK LOAD LIMIT	GAP	INSIDE WIDTH	INSIDE LENGTH	PART
1/4	880 Lbs.	9/32	9/16	1-3/4	I 60500
5/16	1,540 Lbs.	3/8	11/16	2-5/16	I 60501
3/8	1,980 Lbs.	7/16	3/4	2-7/16	E 60502
1/2	3,300 Lbs.	19/32	15/16	3-3/16	B 60503

CLEVIS GRAB HOOKS

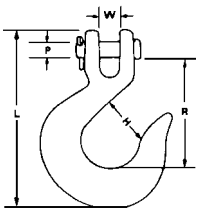
- **GRADE 43**
- **MADE FOR USE WITH PROOF COIL CHAIN (GRADE 30)**
- **HEAT TREATED – HIGH TEST STAMPED ON EVERY HOOK**



CHAIN SIZE	WORK LOAD LIMIT	W	D	H	L	P	R	PART
1/4	2,600 Lbs.	5/16	1-15/16	3/8	3-3/8	5/16	2	A 60510
5/16	4,000 Lbs.	3/8	2-1/4	7/16	3-15/16	3/8	2-3/8	A 60511
3/8	5,400 Lbs.	7/16	2-11/16	1/2	4-1/2	7/16	2-11/16	A 60512
1/2	9,200 Lbs.	19/32	3-5/16	21-32	5-39/64	9/16	3-23/64	A 60517

CLEVIS SLIP HOOKS

- **GRADE 43**
- **MADE FOR USE WITH PROOF COIL CHAIN (GRADE 30)**
- **HEAT-TREATED**



CHAIN SIZE	WORK LOAD LIMIT	W	H	P	R	PART
1/4	2,600 Lbs.	5/16	15/16	11/32	2-5/16	A 60513
5/16	4,000 Lbs.	3/8	1-1/16	13/32	2-9/16	A 60514
3/8	5,400 Lbs.	7/16	1-1/4	1/2	3	A 60515
1/2	9,200 Lbs.	19/32	1-3/4	9/16	3-15/16	A 60516

MACHINERY EYE BOLTS – SHOULDER PATTERN

- **DESIGNED FOR LIFTING**
- **HOT GALVANIZED DROP FORGED**
- **MADE OF C-1035 STEEL**
- **COARSE THREAD CLASS 2A**
- **SHOULDER PATTERN**

DIA.	SHANK LENGTH	MAX. LENGTH	MAX. WORK LOAD LIMIT LBS.	PART	DIA.	SHANK LENGTH	MAX. LENGTH	MAX. WORK LOAD LIMIT LBS.	PART
1/4	1	3	500	I 60540	5/8	1-3/4	4-1/2	4,000	D 60546
5/16	1-1/8	4	900	I 60541	3/4	2	5	5,000	B 60547
3/8	1-1/4	4-1/2	1,300	I 60542	7/8	2-1/4	5	7,000	A 60548
7/16	1-3/8	4-1/2	2,000	E 60543	1	2-1/2	5	9,000	A 60549
1/2	1-1/2	4-1/2	2,400	E 60544	-	-	-	-	-

U-BOLT WITH PLATE

- **USED TO SECURE PIPE, HOSE AND TUBING IN VARIOUS STRUCTURAL MOUNTING APPLICATIONS**
- **STEEL ZINC PLATED**
- **MADE IN USA**

DIAMETER	WIDTH	LENGTH	PART	DIAMETER	WIDTH	LENGTH	PART
1/4	9/16	1-1/4	I 60560	5/16	1-3/4	4-1/2	I 60577
1/4	3/4	1-1/4	I 60561	5/16	2	2-11/16	I 60578
1/4	3/4	2-1/4	I 60562	5/16	2	4-3/4	I 60579
1/4	1	1-3/4	I 60563	3/8	1-1/4	2-1/4	I 60583
1/4	1	2-3/4	I 60564	3/8	1-1/2	2-1/2	E 60585
1/4	1-1/8	2	I 60565	3/8	2	2-5/8	E 60587
1/4	1-1/8	3-1/8	I 60566	3/8	2-1/2	3-1/8	E 60588
1/4	1-1/4	2-1/4	I 60567	3/8	3	6-5/8	E 60590
1/4	1-1/2	2-3/4	I 60568	1/2	3	4-1/2	B 60592
1/4	1-3/4	3	I 60569	1/2	3-1/2	8-1/2	B 60594
1/4	2	3-1/4	I 60570	1/2	4-1/2	6	B 60596
5/16	1	2-3/16	I 60571	-	-	-	-

WIRE ROPE CLIPS

MALLEABLE:
- **PRECISION MANUFACTURED AND GALVANIZED**
- **MEETS FEDERAL SPECIFICATIONS FF-C-450, TYPE 1, CLASS 2**
- **SHOULD BE USED IN LIGHT DUTY, NON-CRITICAL APPLICATIONS ONLY**

DROP FORGED:
- **PRECISION MANUFACTURED AND GALVANIZED**
- **MEETS FEDERAL SPECIFICATIONS FF-C-450, TYPE 1, CLASS 1**
- **FOR HEAVY DUTY APPLICATIONS**

MALLEABLE

ROPE SIZE	TYPE	PART	ROPE SIZE	TYPE	PART
1/8	Galvanized	E 12000	1/8	Plain	I 12003
3/16	Galvanized	E 12001	3/16	Plain	I 12004
1/4	Galvanized	E 12002	1/4	Plain	I 12005

DROP FORGED

ROPE SIZE	TYPE	PART	ROPE SIZE	TYPE	PART
5/8	Galvanized	B 12006	1/4	Galvanized	E 12010
3/4	Galvanized	A 12007	5/16	Galvanized	E 12011
1/8	Galvanized	E 12008	3/8	Galvanized	B 12012
3/16	Galvanized	E 12009	1/2	Galvanized	B 12013

TURNBUCKLES

EYE & EYE AND HOOK AND EYE

- **MAXIMUM STRENGTH AND EASY ADJUSTMENT OF WIRE ROPE ATTACHMENTS**
- **HOT DIP GALVANIZED**
- **FORGED BODY**
- **HEAT TREATED**
- **MEETS SPECIFICATIONS FF-T-791B, TYPE 1, FORM 1, EYE & EYE CLASS 4 AND HOOK & EYE CLASS 6**

EYE & EYE

HOOK & EYE

EYE AND EYE

THREAD DIA.	TYPE		PART	THREAD DIA.	TYPE		PART
3/8 x 6	Plain	A	11196 (Round)	5/8 x 9	Galvanized	A	11205 (Tear Drop)
1/2 x 6	Plain	A	11197 (Round)	1/4 x 4	Plain	A	11206 (Tear Drop)
5/8 x 9	Plain	A	11198 (Round)	5/16 x 4-1/2	Plain	A	11207 (Tear Drop)
5/8 x 12	Plain	A	11199 (Round)	3/8 x 6	Galvanized	A	11208 (Tear Drop)
–	–		–	1/2 x 6	Plain	A	11209 (Tear Drop)

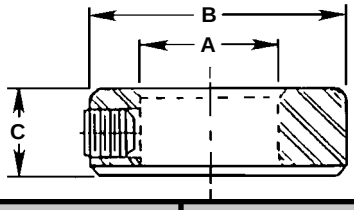
HOOK AND EYE

THREAD DIA.	TYPE		PART	THREAD DIA.	TYPE		PART
1/4 x 4	Plain	A	11200	1/2 x 6	Plain	A	11203
5/16 x 4-1/2	Plain	A	11201	1/2 x 9	Plain	A	11204
3/8 x 6	Plain	A	11202	–	–		–

SHAFT COLLARS

SET SCREW SHAFT COLLAR

- **HEX SOCKET SET SCREW LOCKS SHAFT**
- **ZINC PLATED AND STAINLESS STEEL**



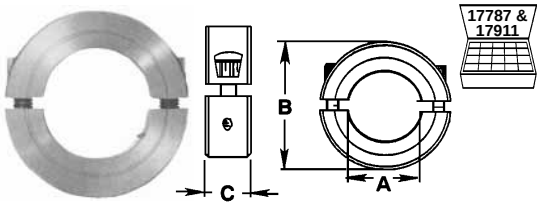
NOMINAL DIA.	MIN. (A)	MAX. (A)	OD (B)	WIDTH (C)	SET SCREW	ZINC PLATED		STAINLESS	
1/8	.1260	.1280	3/8	1/4	6-32	L	3800	E	23800
3/16	.1885	.1905	7/16	1/4	8-32	L	3801	E	23801
1/4	.2510	.2530	1/2	5/16	10-32	L	3802	E	23802
5/16	.3135	.3155	5/8	5/16	10-32	L	3803	E	23803
3/8	.3760	.3780	3/4	3/8	1/4-20	L	3804	E	23804
7/16	.4385	.4405	7/8	7/16	1/4-20	L	3805	E	23805
1/2	.5010	.5030	1	7/16	1/4-20	L	3806	E	23806
9/16	.5635	.5655	1	7/16	1/4-20	L	3807	B	23807
5/8	.6260	.6280	1-1/8	1/2	5/16-18	I	3808	B	23808
11/16	.6885	.6905	1-1/4	9/16	5/16-18	I	3809	B	23809
3/4	.7510	.7530	1-1/4	9/16	5/16-18	I	3810	B	23810
13/16	.8135	.8155	1-1/2	9/16	5/16-18	I	3811	B	23811
7/8	.8760	.8780	1-1/2	9/16	5/16-18	I	3812	B	23812
15/16	.9385	.9504	1-5/8	5/8	5/16-18	I	3813	A	23813
1	1.0010	1.0030	1-5/8	5/8	5/16-18	I	3814	A	23814
1-1/16	1.0635	1.0665	1-3/4	5/8	5/16-18	I	3815	A	23815
1-1/8	1.1260	1.1290	1-3/4	5/8	5/16-18	I	3816	A	23816
1-3/16	1.1885	1.1915	2	11/16	3/8-16	I	3817	A	23817
1-1/4	1.2510	1.2540	2	11/16	3/8-16	I	3818	A	23818
1-3/8	1.3760	1.3790	2-1/8	3/4	3/8-16	I	3820	A	23820
1-1/2	1.5010	1.5040	2-1/4	3/4	3/8-16	I	3822	A	23822
1-5/8	1.6260	1.6290	2-1/2	13/16	3/8-16	E	3824	A	23824
2	2.0010	2.0040	3	7/8	1/2-13	E	3830	A	23830
2-5/16	2.3135	2.3165	3-1/4	15/16	1/2-13	A	3834	A	23834

SHAFT COLLARS (Cont'd.)

CLAMP TYPE SHAFT COLLAR

SINGLE SPLIT

- CLAMP DESIGN PROVIDES A FULL RADIAL HOLD ON SHAFT
- TIGHTEN CAP SCREW TO SECURE
- GREATER CLAMPING FORCE THAN SET SCREW SHAFT COLLARS
- BLACK OXIDE



DOUBLE SPLIT

NOMINAL BORE (A)	OD (B)	WIDTH (C)	CLAMP SCREW (D)	SINGLE SPLIT		DOUBLE SPLIT	
3/16	5/8	.313	4-40	I	3835	B	23900
1/4	.688	.313	4-40	I	3836	B	23901
5/16	11/16	.313	4-40	I	3837	B	23902
3/8	7/8	.343	6-32	I	3838	B	23903
7/16	15/16	.375	6-32	I	–	B	23904
1/2	1-1/8	.406	8-32	I	3840	B	23905
9/16	1-1/4	.437	10-32	E	–	B	23906
5/8	1-5/16	.437	10-32	E	3842	B	23907
11/16	1-3/8	.437	10-32		–	B	23908
3/4	1-1/2	1/2	1/4-28		3844	B	23909
13/16	1-5/8	1/2	1/4-28		–	B	23910
7/8	1-5/8	1/2	1/4-28		–	B	23911
15/16	1-3/4	1/2	1/4-28		–	B	23912
1	1-3/4	1/2	1/4-28		3848	B	23913
1-1/16	1-7/8	1/2	1/4-28		–	B	23914
1-1/8	1-7/8	1/2	1/4-28		–	B	23915
1-3/16	2-1/16	1/2	1/4-28		–	B	23916
1-1/4	2-1/16	1/2	1/4-28		–	B	23917
1-5/16	2-1/8	9/16	1/4-28		–	B	23918
1-3/8	2-1/4	9/16	1/4-28		–	B	23919
1-7/16	2-1/4	9/16	1/4-28		–	B	23920
1-1/2	2-3/8	9/16	1/4-28		–	B	23921
1-9/16	2-3/8	9/16	1/4-28		–	B	23922
1-5/8	2-5/8	11/16	5/16-24		–	A	23923
1-11/16	2-3/4	11/16	5/16-24		–	A	23924
1-3/4	2-3/4	11/16	5/16-24		–	A	23925
1-13/16	2-7/8	11/16	5/16-24		–	A	23926
1-7/8	2-7/8	11/16	5/16-24		–	A	23927
1-15/16	3	11/16	5/16-24		–	A	23928
2	3	11/16	5/16-24		–	A	23929
2-1/16	3-1/8	3/4	5/16-24		–	A	23930
2-1/8	3-1/4	3/4	5/16-24		–	A	23931
2-3/16	3-1/4	3/4	5/16-24		–	A	23932
2-1/4	3-1/4	3/4	5/16-24		–	A	23933
2-5/16	3-3/8	3/4	5/16-24		–	A	23934
2-3/8	3-1/2	3/4	5/16-24		–	A	23935
2-7/16	3-1/2	3/4	5/16-24		–	A	23936
2-1/2	3-3/4	7/8	3/8-24		–	A	23937
2-9/16	3-7/8	7/8	3/8-24		–	A	23938
2-5/8	3-7/8	7/8	3/8-24		–	A	23939
2-11/16	4	7/8	3/8-24		–	A	23940
2-3/4	4	7/8	3/8-24		–	A	23941
2-13/16	4-1/4	7/8	3/8-24		–	A	23942
2-7/8	4-1/4	7/8	3/8-24		–	A	23943
2-15/16	4-1/4	7/8	3/8-24		–	A	23944
3	4-1/4	7/8	3/8-24		–	A	23945

TIE-DOWNS

STRETCH-N-SECURE FLEX CORD

Features
- Industry standard 8 mm core
- Latex rubber core covered in a weather resistant braid combined with a high quality molded hook with safety hasp
- These bungee cords will stay put and will not scratch
- Stretches up to 50%
- UV protected
- Weather resistant

Applications
- Power cords • Hoses • Pipes • Wood Piles

DESCRIPTION		PART
40" Length - Blue Cord	A	60378
24" Length - Yellow Cord	A	60379

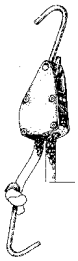
RUBBER HOLD DOWN STRAPS

- **2 TO 1 STRETCH RATIO**
- **100 % RUBBER**
- **REINFORCED EYELETS**
- **2 PLATED "S" HOOKS INCLUDED**

LENGTH		PART
10"	I	60385
15"	I	60386
21"	I	60387
31"	I	60388

ROPE RATCHETS

- **UNIQUE, COMPACT RATCHET SYSTEM SECURES A WIDE VARIETY OF ITEMS QUICKLY AND EASILY**
- **QUICKLY SECURE ITEMS TIGHTLY WITHOUT SLIPPING**
- **RELEASES WITH THUMB LEVER**
- **NO COMPLICATED KNOTS TO TIE AND UNTIE**
- **WILL NOT STRETCH LIKE ELASTIC CORDS**
- **TOUGH, WEATHER RESISTANT NYLON ROPE**
- **WILL WORK WITH COMPARABLE SIZE ROPE OR CORD**



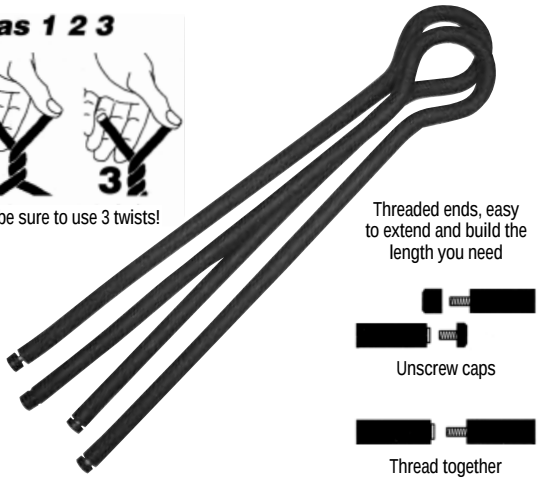
SIZE	MAX. LOAD		PART
1/8 x 6'	75 LB.	A	60395
1/4 x 10'	150 LB.	A	60396
3/8 x 10'	250 LB.	A	60397
1/2 x 10'	500 LB.	A	60398

KWIKTWIST® GIANT WIRE TIES

Features
- **32" Length**
- **1/2" Diameter**
- **Will not scratch surfaces**
- **Won't stretch or break**
- **Holds up to 100 lbs**
- **Safer than bungees**
- **Reusable**
- **Floats**
- **UV resistant**
- **Threaded ends**
- **Create your own lengths**

Uses
- **Secure gates and fences**
- **Secure items on boats**
- **Secure animal trailers**
- **Secure animal carriers**
- **Organize storage**
- **Organize garages**
- **Organize trucks**
- **Hang hoses & tools**
- **Hang work lights**
- **Hang water & feed buckets**
- **Hang or extend plant baskets**
- **Tie down tarps & covers**
- **Tie back trees and shrubs**
- **Tidy up computer cables**
- **Bundle up lawn furniture**

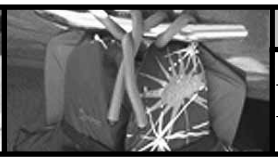
For maximum strength, be sure to use 3 twists!



Threaded ends, easy to extend and build the length you need

Unscrew caps

Thread together

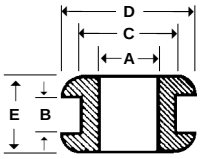


SIZE	COLOR		PART
32" X 1/2"	Black	B	60367
32" X 1/2"	Red	B	60368
32" X 1/2"	Blue	B	60369

RUBBER GROMMETS

USE FOR INSULATING, VIBRATION DAMPING, SEALING AND ABRASION CONTROL

- **USE FOR INSULATING, VIBRATION DAMPENING, SEALING, ABRASION CONTROL AND ELECTRICAL CORD PROTECTION**
- **MADE FROM A BLACK NATURAL RUBBER BASE COMPOUND**
- **HARDNESS IS 50-60 SHORE A DUROMETER**
- **TEMPERATURE RESISTANT TO 180°F**



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A I.D. BORE	B GROOVE WIDTH	C GROOVE DIA.	D O.D. DIA.	E OVERALL THICKNESS	PART	A I.D. BORE	B GROOVE WIDTH	C GROOVE DIA.	D O.D. DIA.	E OVERALL THICKNESS	PART
5/32	1/16	1/4	3/8	3/16	T 62700	3/8	1/16	1"	1-1/4	1/4	N 62712
3/16	1/16	5/16	1/2	1/4	R 62701	3/8	1/8	5/8	7/8	3/8	R 62713
3/16	3/32	9/32	7/16	7/32	T 62702	3/8	1/4	5/8	7/8	1/2	R 62714
3/16	1/4	5/16	7/16	3/8	T 62703	1/2	3/32	3/4	31/32	9/32	N 62715
15/64	3/16	3/8	5/8	3/8	N 62704	1/2	3/32	25/32	1-1/16	11/32	N 62716
1/4	1/16	3/8	1/2	7/32	T 62705	1/2	1/8	3/4	1	1/2	N 62717
1/4	1/16	7/16	5/8	3/16	T 62706	1/2	1/4	13/16	1-1/16	1/2	N 62718
5/16	1/16	7/16	9/16	3/16	R 62707	5/8	1/8	7/8	1-1/8	3/8	N 62719
5/16	1/16	3/4	1"	5/16	N 62708	5/8	1/16	7/8	1-1/8	5/16	R 62720
5/16	1/8	9/16	13/16	3/8	R 62709	3/4	1/16	1-1/16	1-3/8	3/8	N 62721
5/16	1/4	9/16	13/16	1/2	R 62710	3/4	1/4	1-1/4	1-5/8	7/16	I 62722
3/8	1/16	1/2	5/8	1/4	T 62711	1"	1/16	1-3/8	1-3/4	7/16	I 62723

WIPES

ALL-PURPOSE WIPERS FOR ALL MAINTENANCE APPLICATIONS

- Made from highly absorbent fibers that provides strength and soft, cloth-like feel
- Designed for soaking-up oil, grease or water based fluids on hands, small parts, machinery, etc.
- Economical – can be used over and over

Applications:
- Metal industries – metal stamping, lathes, cnc machines, screw machines
- Automotive manufacturing and support industries
- Plastics – injection and blow molding
- Commercial printing and general manufacturing

DESCRIPTION		PART
Quarter Fold Wipers 50/Pack	D	28225

SUPER PREP TOWEL

- Reusable cloth-like towel wipes dry and virtually lint free
- High performance
- Chemically pure – binder & contaminant free
- Ideal rag replacement towel
- Convenient portable tote box With rugged handle
- Absorption rate = 6x dry weight
- Highly absorbent in aqueous Liquids, oil and solvents
- Solvent resistant – won't breakdown In most aggressive solvents

DESCRIPTION		PART
Super Prep Towels – 200 Count	A	28220

HI-PER WIPES

- Professional quality, all-purpose Bonded cellulose wipers
- Ideal for general purpose wiping
- Ultra absorbent – wipes Totally dry
- Low lint and solvent resistant
- Convenient portable tote box With rugged handle

DESCRIPTION		PART
Hi-Per Wipes – 225 Count	A	28221

SANDWICH ERASER SPONGE – INDUSTRIAL MELAMINE* CLEANING TOOL

Features
- The design is 2 parts melamine foam (white) and a polyurethane center (blue).
- Great for use on any water washable surface to remove a variety of soils and stains.
- Twice the amount of cleaning surface plus blue durability strip means longer useful life.
- Handles a wide range of cleaning tasks eliminating the need for multiple cleaning products.
- Great for really tough jobs!

For use on
- Tables
- White boards
- Counters
- Walls
- Scuffs on floors
- Scuffs on seats
- Sinks
- Lavatory surfaces
- Tile
- Lighting fixtures
- Light graffiti removal
- Any other surface that needs cleaning including painted surfaces

* Melamine material is genuine Basotect®, manufactured by BASF.

EASY TO USE!
USE ONLY WATER!
NO CHEMICALS REQUIRED!

DESCRIPTION		PART
Sandwich Eraser Sponge (200 pcs.)	U	28238
Sandwich Eraser Sponge (10 pcs.)	I	28238-10

WIPES

1-2-3 TOWEL

Features
- A hygienic towel
- Made from cellulose cotton fiber
- Biodegradable
- Environmentally safe
- Great large size of 9" x 10"
- Comes in a convenient pack of 10

Applications
- Construction sites
- Medical / Fire & Rescue
- Military
- Commercial

Just Add Water!

When you're ready to freshen up, simply wet, unfold, and use. It's as easy as 1, 2, 3!

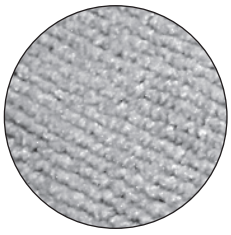
DESCRIPTION		PART
1-2-3 Towel (9" x 10")	A	85093

MICROFIBER WIPES

Perfect for all industries, including janitorial, sanitation, housekeeping, daycare centers, automotive, hospitals, nursing homes, etc.

Features
- Microfiber outperforms and outlasts cotton cloth towels.
- Machine washable and reusable, reduces paper waste disposal.
- Extremely durable, lasts through more washes per towel.
- More absobent than traditional cotton or paper towels

Specifications
- 80% Polyester / 20% Polyamide (Nylon)
- 16" x 16" (40.64 cm x 40.64 cm)
- 50 grams – Microfiber is so absorbent that over time, a "dry" towel can actually increase in weight!



DESCRIPTION		PART
Microfiber Wipes, 12/Pack – Blue	J	28233

WIPES

HAND TOWELS

Centerfeed Hand Towels

- Offers one-at-a-time service, and reduces waste
- High capacity, reduces labor and refills
- Few, or no moving parts, nothing to jam or break
- High absorbency, means less towels used
- Touch only dispensing towel reduces cross contamination
- Made from 100% recycled fiber
- Provides environmental benefits
- 600 towels per roll

100% Recycled

EcoLogo℠ Certified Towel, Tissue and Napkin Products

P/N 28237

Centerfeed Dispenser

- Simplify and complement any environment, providing a clean, hygienic appearance
- Our new design ensures easy and intuitive maintenance, refilling and use
- High capacity cabinets are ideal for high traffic environments
- No cross contamination from levers or cranks
- The portion control feature dispenses one towel every time
- Cabinets are simple and reliable offering low maintenance costs

Applications

- Auto Shops
- Work Benches
- Maintenance Areas
- Offices
- Plumbing Sites
- Marinas
- Break Rooms
- Kitchens
- Construction Sites
- Printing & Painting Areas
- Manufacturing

P/N 1788

DESCRIPTION		PART
Hand Towels (600 towels per roll)	A	28237
Centerfeed Dispenser	A	1788

TOWELS IN A TUB

Chromate Advanced Shop Wipes with Bucket Dispenser

- Removable lid for easy on-off quick access.
- Pop top is resealable, angled and connected to water channels for maximum protection.
- Handle designed for easy portability and added convenience.
- Dispensing disk designed for single towel dispensing to reduce pilferage and lower cost-in-use.
- Plastic container is durable to protect against dry or wet chemicals.
- Stackable packaging design allows for more efficient packing and storage.

- Sheet Size: 9.9" x 13.1"
- Tub Size: 10" x 8.5" x 9"
- 200 Wipes

Chromate Advanced Shop Wipes Refill

- Best all purpose with cloth like softness
- Absorbs large spills and leaks
- Janitorial maintenance wiping
- Patient hygiene
- Line wiping and cleaning
- Absorbs oil and water
- Works on grease and grime
- Industrial cleaning and maintenance
- Can be used on hands and face
- 200 Wipes

DESCRIPTION		PART
Towels In A Tub with Dispenser	A	28216
Towels In A Tub – Refill	A	28217

ANTI-FATIGUE MAT

ALLEVIATES STRESS TO THE BACK AND LEGS

Anti-fatigue mats alleviate stress to the back and legs where people have to continually stand or walk, which in turn increases worker productivity. The non-slip surface means that the mat is ideal for use in wet or dry conditions to reduce slip hazards. The implementation of ergonomic concepts offers tremendous value to any company, and can be realized with the creation of comfortable, healthy and safe work environments. We know that standing workers are less fatigued while working, and feel less discomfort at the end of the day, if they stand on anti-fatigue mats. This has been proven time and time again.

- Outstanding Anti-fatigue qualities
- UV Stable
- Solid Nitrile Rubber top surface for excellent chemical resistance
- 100% Nitrile Rubber border remains flexible for the life of the mat and will not crack or curl.
- Textured Nitrile Rubber surface for superior slip resistance
- Welding Safe
- Closed-cell Nitrile/PVC cushion backing provides long lasting comfort
- Closed-cell cushion backing is permanently molded to the Nitrile Rubber surface, providing a comfortable long lasting mat.
- Thicknesses: 5/8"
- Available in black
- Certified slip-resistant by the National Floor Safety Institute.
- Recommended for use in work stations, assembly lines, shipping lines and other areas where workers stand for extended periods.

DESCRIPTION		PART
Anti-Fatigue Mat, 3' x 5'	A	28229

TOE WARMERS

KEEPS YOU WARM IN THE COLDEST WEATHER

- Adhesive Toe Warmers provide up to 5 hours of heat
- Warmers are activated when the plastic outer wrap is removed, and the inner cloth pouch is exposed to the air
- Perfect for keeping extremities warm while working outdoors in cold weather
- After use, the biodegradable cloth pouch may be simply thrown away

DESCRIPTION	PART
Toe Warmers (48 pair of Toe Warmers per box)	66384

MINI HAND WARMERS

STAY WARM AND COMBAT THE COLD

- Simply tear open the package and wait 10 minutes for them to heat up fully
- A simple, yet effective technology
- Combines several natural elements such as carbon, iron powder and vermiculite to generate an exothermic reaction
- Environmentally safe (non-toxic)
- Mini Hand Warmers deliver up to 8 hours of air activated heat and relief from the cold
- Warmers maintain a minimum temp of 104°F / average temp of 135°F / maximum temp of 156°F
- Heating can be suspended at any time by resealing the inserts in an airtight container or plastic bag

APPLICATIONS

• Industrial Safety • Construction • Emergency Services • Military • Rail Yards • Outdoor Maintenance • Outdoor Recreation • Motor Biking

***** IDEAL SIZE FOR USE WITH WINTER WATERPROOF GLOVES, P/Ns 59203 & 59204 *****

DESCRIPTION		PART
Mini Hand Warmers (1 Pair)	A	59205

ROUGH SERVICE LIGHT BULBS

Lasts longer under adverse operating conditions – 2000 to 4000 hours.
Up to 4X longer than the average life of most rough service bulbs.

STANDARD

- **RESISTS SHOCK AND VIBRATION**
- **BRASS BASE**

50 WATTS	75 WATTS	100 WATTS
F 28952	F 28950	F 28951

TUFF SKIN COATED

- **PROVIDES SAFETY FROM GLASS CUTS, ELECTRIC SHOCK AND BURNS WHEN BULBS ARE BROKEN**
- **RESISTS THERMAL SHOCKS, PRECIPITATION, SCRATCHES AND MOLTEN SPLATTER**
- **NO FRAGMENTATION OF GLASS IF ACCIDENTALLY BROKEN**

60 WATTS	75 WATTS	100 WATTS
F 28953	F 28954	F 28955

WOBBLELIGHTS

36'' PORTABLE JOBSITE LIGHTING - WOBBLELIGHT

Features

- Patented counter-weighted self-righting design!
- Floating shock system protects bulb from impact
- Low heat output, no hot surfaces
- High-impact thermoplastic housing and lens
- 400 watt Metal Halide Work Light
- Lumens: 40,000
- 360° lighting – Adjustable to 180° with optional reflector
- Plugs into 120V AC supply
- Convenience receptacle for connecting units in series

P/N 66345

Applications

- Ideal for applications requiring temporary high-output lighting

Replacement/Optional Parts

- Bulb “400 watt” P/N 66346
- 180° reflector P/N 66347
- Body back panel P/N 66335
- Body front panel P/N 66336
- Dome cap P/N 66337
- Dome and cap P/N 66338

27'' PORTABLE JOBSITE LIGHTING - WOBBLELIGHT JR.

Features

- Patented counter-weighted self-righting design!
- Floating shock system protects bulb from impact
- Energy efficient, 85 watt, compact fluorescent bulb
- Instant-on technology
- Lumens: 5,000
- Low heat output, no hot surfaces
- High-impact thermoplastic housing and lens
- 360° lighting – Adjustable to 180° with optional reflector
- Integrated 5-foot power cord

P/N 66344

Applications

Ideal for applications requiring temporary energy efficient lighting.

Replacement/Optional Parts

- CFL bulb, 85 watt P/N 66343
- 180° reflector P/N 66342

ADVANCED AREA LIGHTING SYSTEM

MAINTENANCE FREE LED ARRAY WITH LIFE EXPECTANCY OF OVER 50,000 HOURS

The Advanced Area Lighting System is bringing several dynamic products to the market, offering up to 56 hours of bright LED light.*

The product range starts with the compact single head beam (P/N 66301) that fits easily into confined spaces and extends to the four head beam (P/N 66307) which is capable of turning night into day. All units employ a silent, rechargeable sealed battery freeing you to work anywhere on or off the grid, no generator necessary.

* Stated runtimes based on low power setting and consecutive head activation. High power and simultaneous head use will lower total runtime.

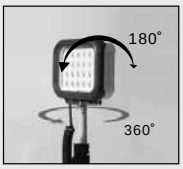
Each product is designed with LED technology to provide a better quality of light, high reliability and low energy consumption.

The result is an energy efficient lighting solution with low long-term operating and maintenance costs.

MODEL P/N	LIGHT HEADS	RUNTIME* (PER HEAD/CONSECUTIVE)
66301	1	15
66302	1	15
66303	1	15
66304	1	10
66305	1	6
66306	2	14/28
66307	4	14/56
66308	3	N/A

PRODUCT HIGHLIGHTS

All contents stow inside a Pelican Protector Case™



Direct light where it is needed with fully articulating heads

Low battery warning system and waterproof activation switch.

3 mode waterproof switch with battery charge indicator

GREEN
60 – 100% capacity

AMBER
20 – 60% capacity

RED
0 – 20% capacity

SPECIFICATIONS

Description	Wide Beam Lighting System	Stealth Beam Lighting System	Spot Beam Lighting System	Safety Beam Lighting System	Tripod 7' Remote Area Light	Dual Portable Floodlight Station	Quad Portable Floodlight Station	Shelter Lighting System
Model P/N	**66301 66301YLW**	**66302**	**66303**	**66304 66304GRN**	**66305 66305YLW**	**66306 66306YLW**	**66307 66307YLW**	**66308***
Light Source	High Flux LEDs	Infrared 940nm	High Flux LEDs	High Flux LEDs	LED	High flux LEDs	High flux LEDs	High Flux LEDs
Lamp Heads	1	1	1	1	1	2	4	3
No. of LEDs	24	24	24	18	10	24 (per head)	24 (per head)	24 white / 12 red (per head)
Beam Spread	90˚	N/A	10˚	90˚	120˚	90˚	90˚	210˚ Diffused
Batteries	12v Rechargeable, Sealed	12v Rechargeable, Sealed	12v Rechargeable, Sealed	NiMH	NiMH	12v Rechargeable, Sealed	12v Rechargeable, Sealed	N/A
Tested Lumen Value	1000 (Low) 2000 (High)	N/A	1000 (Low) 2000 (High)	750 (Low) 1500 (High)	1200 (Low) 2400 (High)	2000 (Low) 4000 (High)	4000 (Low) 8000 (High)	1200 (red) 6000 (white)
Battery Burn Time	15 hrs. (Low) 8 hrs. (High)	15 hrs. (Low) 8 hrs. (High)	15 hrs. (Low) 8 hrs. (High)	10 hrs. (Low) 5 hrs. (High)	6 hrs. (Low) 3 hrs. (High)	14 hrs. (Low) 7 hrs. (High)	14 hrs. (Low) 7 hrs. (High) per head	N/A
Dimensions	7.9" x 15.8" x 9.1" (20 x 40 x 23 cm)	7.9" x 15.8" x 9.1" (20 x 40 x 23 cm)	7.9" x 15.8" x 9.1" (20 x 40 x 23 cm)	7.9" x 15.8" x 9.1" (20 x 40 x 23 cm)	7.9" x 37.4" (20 x 95 cm)	13.8" x 22" x 9" (35.1 x 55.9 x 22.9 cm)	19.6" x 24.8" x 11.9" (49.7 x 63 x 30.3 cm)	16.3" x 4.1" (cylindrical) (41.4 x 10.4 cm cylindrical)
Mast Extended Height	32.3" (82 cm)	32.3" (82 cm)	32.3" (82 cm)	32.3" (82 cm)	86.3"(219 cm)	70.9" (180 cm)	72.9" (185 cm)	N/A
Weight	22.7 lbs. (10.3 kg)	22.1 lbs. (10 kg)	22.05 lbs. (10 kg)	17.6 lbs. (7.98 kg)	16.1 lbs. (7.3 kg)	50.7 lbs. (23 kg)	88.2 lbs. (40 kg)	29.8 lbs. (13.5 kg)
Colors	Yellow, Black	Gray	Black	Orange, Green	Yellow, Black	Yellow, Black	Yellow, Black	Black
Approvals	CE	CE	CE	CI D2	CE	CE	CE	CE

* Figures calculated from LED manufacturer data.

DELIVERY: PLEASE ALLOW UP TO 10 DAYS, AFTER RECEIPT OF ORDER.

SYMBOLS: Light Emitting Diode light source Rechargeable battery

ADVANCED AREA LIGHTING SYSTEM

MAINTENANCE FREE LED ARRAY WITH LIFE EXPECTANCY OF OVER 50,000 HOURS

WIDE BEAM, STEALTH BEAM AND SPOT BEAM SYSTEM

Wide Beam Lighting System
P/Ns 66301 • 66301YLW

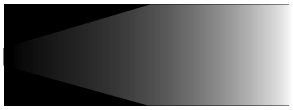
- The perfect unit for hard to reach places and at 22 lbs., it is easily transported up stairs or ladders
- Its compact size and fully extendable mast with 360° rotating light head make tight spaces easily accessible
- Dual power outputs illuminate a second optional head making it adaptable and expandable
- Solid state high efficiency circuitry withstands rigorous industrial use day in and day out

Wide Beam
- P/N 66301
- P/N 66301YLW

- Wide 90° beam
- Large area coverage

Stealth Beam Lighting System
P/N 66302

- Enhances night vision optics to provide improved visibility in complete darkness



Stealth Beam
- P/N 66302

- Night vision compatible infrared 7° LED beam
- Low thermal signature

Spot Beam Lighting System
P/N 66303

- Produces a 10° tight beam spread that reaches hundreds of yards for effective search and rescue

Spot Beam
- P/N 66303

- Focused 10° beam
- 200 yard reach

SAFETY BEAM LIGHTING SYSTEM

Safety Beam Lighting System
P/Ns 66304 • 66304GRN

- Battery powered safety approved LED remote area light
- Class I Division 2 approved
- Fills the demanding requirements of professionals working in hazardous locations
- Lightweight advanced battery technology
- Ultra-portable at just 17.6 lbs.
- 90° beam spread and a rotating head are ideal for lighting large areas
- High and low beam coupled with a low battery indicator aid in managing time and output needs with accuracy

ADVANCED AREA LIGHTING SYSTEM

MAINTENANCE FREE LED ARRAY WITH LIFE EXPECTANCY OF OVER 50,000 HOURS

DUAL PORTABLE FLOODLIGHT STATION

Dual Portable Floodlight Station
P/Ns 66306 • 66306YLW

- Solid-state mounted LEDs coupled with a thermally efficient light engine and a Pelican Protector Case™
- Gives the user the ultimate maintenance-free portable floodlight station
- Get the job done efficiently, safely and on time
- A rugged Pelican Protector Case™ houses all its light heads and a multi-stage universal charger for total self-contained convenience
- Also equipped with a telescopic handle and rugged wheels for ease of transport

QUAD PORTABLE FLOODLIGHT STATION

Quad Portable Floodlight Station
P/Ns 66307 • 66307YLW

- Contains four heads that will illuminate 360°
- Uses solid-state mounted LEDs coupled with a thermally efficient light engine
- A rugged Pelican Protector Case™ houses all its light heads and a multi-stage universal charger for total self-contained convenience
- Equipped with a telescopic handle
- Rugged wheels for ease of transport

ADVANCED AREA LIGHTING SYSTEM

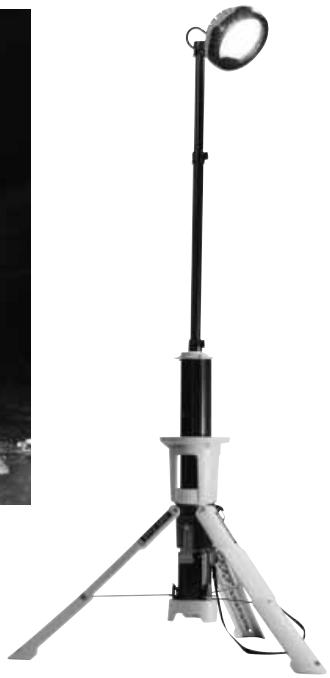
MAINTENANCE FREE LED ARRAY WITH LIFE EXPECTANCY OF OVER 50,000 HOURS

TRIPOD 7' REMOTE AREA LIGHT

Tripod 7' Remote Area Light
P/Ns 66305 • 66305YLW

- The most innovative unit to date
- Fast to light up ravines, confined spaces, river banks... anyplace your apparatus can't go
- Deployed, the mast extends 7 feet high, shining light over low obstructions encountered by traditional lantern style lights
- A 120° beam spread
- Up to 2400 lumens brightness
- The entire emergency area will have the the light you need for a safe and swift operation
- Maintenance free
- Uses super tough LED lamp modules and NiMH batteries
- Up to 14 hours of continuous light

Coming Soon!
- Safety approved version
- Class I Division 1 approved
- Same great features as P/N 66305 and P/N 66305YLW

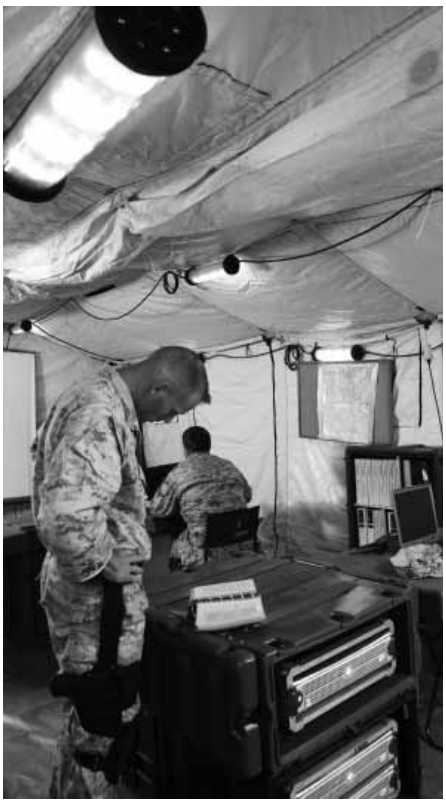


SHELTER LIGHTING SYSTEM

Shelter Lighting System
P/N 66308

- The Shelter Lighting System provides soldiers with safe, secure and silent LED interior shelter lighting
- LED illuminated either red or white light
- The light output color (red or white) is selected via an inline switch
- Extremely rugged and is tested to a 3 meter concrete drop-test, offering survivability not found in fluorescent lighting
- Light heads are linked together and secured via hanging straps inside the temporary shelter/accommodation
- Each light head can be independently switched on or off
- The system is powered by the enclosed universal AC power supply

The Kit Contains:
- 3 UV stable LED light heads
- (3)12 ft. connector cables
- Hanging straps
- Power supply
- Rugged Pelican Protector Case™



FLASHLIGHTS

DURACELL® PROCELL® FLASHLIGHT

- **Convenient pop-out hanging ring**
- **High density polypropylene construction for durability**
- **Shock, corrosion and water resistant**
- **Ribbed non-slip grip**
- **Heavy duty switches and switch guard for longer life**
- **Non-roll barrel design**
- **Non-conductive hanger ring**
- **Integrated spare bulb holder**
- **Computerized parabolic reflector**
- **Uses 2 D-Cell alkaline batteries (not included) – Order with P/N 29201**

P/N 66404

LED FLASHLIGHTS

STREAMLIGHT® TWIN-TASK™ FLASHLIGHT

- **Patented led/xenon combo for super brightness and ultra-long run time**
- **Computer-machined – exacting tolerances for superior quality**
- **Anodized aluminum – for lightweight design**
- **Water-resistant, o-ring sealed – great for outdoor use**
- **Unbreakable polycarbonate lens – for durability and long life**
- **Adjustable focus – provides wide and narrow beam**
- **Micro-faceted reflector – increased brightness**
- **Enhanced knurled grip – ease of handling**
- **Lanyard included**
- **100,000 hour LEDs**

P/N 66400

LIFETIME WARRANTY!
Uses 3 "C" Alkaline Batteries (Not Included)

3-Modes:

3 LEDs	**6 LEDs**	**XENON**
Run Time 160 Hours	Run Time 100 Hours	Run Time 5 Hours

DESCRIPTION		PART
STREAMLIGHT TWIN-TASK™ FLASHLIGHT	A	66400
REPLACEMENT XENON BULB	A	66400X

MAGNETIC LED STICK LIGHT

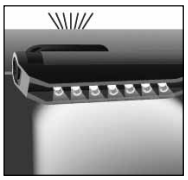
POWERFUL POCKET-SIZED FLOODLIGHT!

- **7 super-bright LEDs - 75 lumens output**
- **Powerful magnet for flush, secure attachmen**
- **Extra strong magnet in handle provides an extra hand as well as handy pick-up tool**
- **Has a pocket clip that moves 0°-180° to flood in light at every angle**
- **Produces a floodlight effect as well as directional**
- **Water resistant and rugged**
- **Runs more than 10 hours**
- **Uses 3 AAA batteries (included)**
- **Replacement batteries (P/N 29204)**

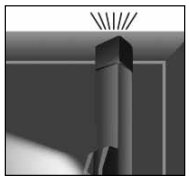
Pocket clip rotates 0°-180°.

Magnetically attach to a vertical surface!

Magnetically attach to a horizontal surface!



Magnetically attach to vertical surface!



P/N 66328

LED FLASHLIGHTS

LED LIGHT (SAFETY ORANGE)

- **Flashlight – Floodlight**
- **Bright white LEDs**
- **35,000 hour life**
- **Small size – Light weight**
- **Safety orange housing**
- **Impact and chemical resistant**
- **Removable hanger-hook and magnet**
- **Rechargeable high quality NiMH battery**
- **Long run-time per charge**
- **Home and car chargers included**

SlimLine Flashlight – P/N 66380

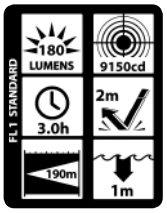
- **Flashlight:** 1 LED = 65 Lumens
- **Floodlight:** 60 LEDs = 120 Lumens
- **Run-time:** 4 hrs. flashlight, 4 hrs. floodlight
- **Charge time:** 4 hours
- **Length:** 11.5"
- **Weight:** 12.0 oz

P/N 66380

WATERPROOF LED FLASHLIGHT

WITH GLASS FILLED NYLON POLYMER HOUSING

- **CREE® LED technology**
- **50,000 + hours LED life**
- **Waterproof: IP-X7 Rating**
- **180 Lumens**
- **Momentary or constant-on flashlight**
- **Sharp focused beam**
- **Aircraft-grade 6061-T6 aluminum tail-cap with type 3 hard anodized finish**
- **Non-slip grip**
- **Large textured tail-switch**
- **1" Handle diameter fits most scope/flashlight mounts**
- **1.25" Head diameter accepts 3rd party filters**
- **Impact & chemical resistant**
- **Removable pocket clip**
- **Available in Black, Yellow & Tan**
- **Two CR-123 lithium batteries included**



- **Lumens:** 180
- **Run-time:** 3 hours
- **Beam distance:** 190 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Length:** 5.5"
- **Head diameter:** 1.25"
- **Handle diameter:** 1.035"
- **Weight:** 4.4 oz.

P/N 66321BLA

Yellow and tan housing colors are also available. (non-stock items*).

- P/N 66321YEL
- P/N 66321TAN

*** Please call for delivery.**

DESCRIPTION		PART
Waterproof LED Flashlight – Black	A	66321BLA
Waterproof LED Flashlight – Yellow	A	66321YEL
Waterproof LED Flashlight – Tan	A	66321TAN
Replacement Lithium Batteries, Type CR-123	B	28899

LED FLASHLIGHTS

TECHNICIAN'S FLOODLIGHT

Features
- Over 300 lumens of brilliant white light with no hot spots or dark spots
- Strong, retractable hook allows you to hang it
- Dual rare-earth magnets, for fastening it to a work-space
- Removable belt clip
- Head tilts 180° and rotates 360°
- 6 AA rechargeable NiMH battery pack included, with smart recharger
- Run-time: High: 2 hours continuous, Low: 8 hours
- Battery condition indicator light
- Ergonomic light-weight, secure grip
- Includes a 12V charger and a 120V charger
- Flared base allows standing light on end
- Standard 1/4-20 threaded hole in base for tripod (not included)
- Length: 10-1/4" (26 cm)
- Weight: 1 lb (0.5 kg)

Applications
- Automotive
- Industrial
- HVAC repairmen
- IT maintenance
- Emergencies
- Power Outages

THE BEST PROFESSIONAL LED WORK LIGHT!

P/N 66340

Details

Brightness: High: 300 emitter lumens
LOW: 75 emitter lumens

Color: Cool White

LED: Cree XP-G, 5 W

Material: High impact ABS, except hook, which is glass reinforced ABS

Head Adjustment: Tilt tension adjustment screw prevents head from flopping

Hook length: 3" (7.5 cm) when extended, retracts into body of floodlight

Hook diameter: 1" (2.5 cm)

Magnets: 2 co-planar, nickel-plated, neodymium rare-earth magnets

Charger: Smart switching charger, 120 VAC with standard “Type A”, 2 prong plug

Recharge Time: About 6 hours

POCKET FLOODLIGHT™

Features
- Up to 10X Brighter than ordinary penlights
- Pure Cool White LED High Performance Light
- Lightweight & Compact
- Clips easily and comfortably into any pocket
- Indestructible Aluminum T6 with Black Type II Anodized Body
- Water & Dirt Resistant
- Rugged tailcap switch – rated at 100,000 cycles

P/N 66341

Applications
- Designed for all technicians in a demanding shop
- For use in manufacturing or maintenance environments

Details
- **Brightness:** 120 lumens
- **Forward Current:** 400 mA
- **Battery Voltage:** Between 3.3 and 4.8 volts
- **Batteries:** 3 AAAA alkaline, *included*
- **Run-Time:** 2 hours to half brightness / 4 hours light w/ typical intermittent use
- **Reflector:** Custom design w/ bright center spot. Orange peel (OP) surface for an even beam.
- **Switch Tailcap:** Click ON / Click OFF. Rubber cap seals out dirt and grit.
- **Water Resistant:** Threaded joints have rubber O-ring seals. Sealed tailcap switch.
- **Head Diameter:** 9/16" (14 mm)
- **Body Diameter:** 7/16" (10 mm)
- **Body length:** 6" (15 cm)

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

LED FLASHLIGHTS

RED LED POCKET FLOODLIGHT™

Features
- Up to 10X brighter than ordinary "Red" LED penlights
- LED high performance light
- Lightweight and compact
- Clips easily and comfortably into any pocket
- T6 Aluminum with Red Type II Anodized Body
- Water and dirt resistant
- Rugged tailcap switch – rated at 100,000 cycles
- Energizer batteries included

P/N 66333

Applications
- Preserves night vision of individuals
- Reading flight plans
- Security
- Reading equipment in the dark
- Aviators
- Doctors/Nurses monitoring patients
- Astronomers
- Military/Police operating equipment
- Emergency Service Personnel
- Photographers
- Ushers

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

Details

BRIGHTNESS:	46 lumens
LED, WAVELENGTH:	Cree Xp-C, Red 620-630 nm
FORWARD CURRENT:	350 mA
BATTERY VOLTAGE:	Between 3.3 and 4.8 volts
BATTERIES:	3 AAAA alkaline (included)
RUN-TIME:	2 hours to half brightness / 4 hours light with typical intermittent use
REFLECTOR:	Custom design with bright center spot. Orange peel (OP) surface for a huge floodlight beam.
SWITCH TAILCAP:	Click ON / click OFF, plus half-press momentary on. Rubber cap seals out dirt & grit.
WATER RESISTANT:	Threaded joints have rubber O-ring seals. Tailcap switch is sealed with a rubber cap.
HEAD DIAMETER:	9/16" (14 mm)
BODY DIAMETER:	7/16" (10 mm)
BODY LENGTH:	6" (15 cm)

PROFESSIONAL UV LED INSPECTION FLOODLIGHT™

Features
- Up to 20X brighter than ordinary UV penlights
- High performance UV LED light
- Lightweight and compact
- Clips easily and comfortably into any pocket
- T6 Aluminum with Violet Type II Anodized Body
- Water and dirt resistant
- Rugged tailcap switch – rated at 100,000 cycles
- Energizer batteries included

P/N 66334

Applications
- A/C refrigerant dye leak detection
- Hairline crack detection/Quality control
- Fluorescent hand stamp verification
- Dog, cat & rodent urine stain detection
- Restroom cleanliness inspection
- Document and lab analysis
- Crime scene investigation
- Paint authentication
- Currency verification
- Bacteria detection
- Gem inspection
- UV curing

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

Details

BRIGHTNESS:	120 mW emitter radiant flux
LED, WAVELENGTH:	UltraViolet (UVA) 400-405 nm
FORWARD CURRENT:	350 mA
BATTERY VOLTAGE:	Between 3.3 and 4.8 volts
BATTERIES:	3 AAAA alkaline (included)
RUN-TIME:	2 hours to half brightness / 4 hours light with typical intermittent use
REFLECTOR:	Custom design with bright center spot. Orange peel (OP) surface for a huge floodlight beam.
SWITCH TAILCAP:	Click ON / click OFF, plus half-press momentary on. Rubber cap seals out dirt & grit.
WATER RESISTANT:	Threaded joints have rubber O-ring seals. Tailcap switch is sealed with a rubber cap.
HEAD DIAMETER:	9/16" (14 mm)
BODY DIAMETER:	7/16" (10 mm)
BODY LENGTH:	6" (15 cm)

CAUTION: *Wear 100% UVA blocking safety glasses when using. Do not shine the light in anyone's eyes.*

LED FLASHLIGHTS

INTRINSICALLY SAFE LED PENLIGHTS

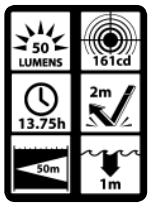
- **30 or 50 Lumens/Class I, II, III, Division I, Groups A-G**
- **CREE® LED technology – 50,000+ hours LED life**
- **30 or 50 Lumens**
- **13.75/18 hours run-time**
- **Ultra-compact and super slim**
- **Powerful light output designed to illuminate very tight spaces**
- **Single tail-cap switch provides momentary or constant-on functionality**
- **Sharp focused beam for distance illumination (50/40 meters)**
- **Waterproof: IP-X7 Rating**
- **Engineered polymer housing**
- **Impact & chemical resistant**
- **Built-in pocket/belt clip**

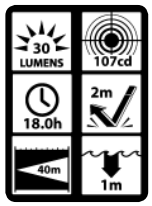
Safety Rating

cETLus Listed Intrinsically Safe for use in Class I II III Div 1
SECRURITE INTRINSEQUE Groups A,B,C,D,E,F & G Hazardous Locations

Specifications – P/N 66316

- **Lumens:** 50
- **Run-time:** 13.75 hrs
- **Beam distance:** 50 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Length:** 6.8"
- **Diameters:** 0.6" head / 0.5" handle
- **Weight:** 1.5 oz
- **Power:** 3 AAAA batteries (P/N 29207) included





Specifications – P/N 66317*

- **Lumens:** 30
- **Run-time:** 18 hrs
- **Beam distance:** 40 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Length:** 5.8"
- **Diameters:** 0.9" head / 0.7" handle
- **Weight:** 1.9 oz
- **Power:** 2 AAA batteries (P/N 29204) included

*Non-stock item, please call for delivery.

INTRINSICALLY SAFE LED HEADLAMPS

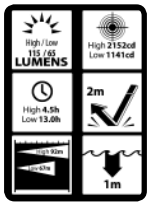
- **Dual-Function/Class I, II, III, Division I, Groups A-G**
- **Multi-position tilt head design with elastic head strap (with non-slip lining) and a heavy-duty rubber head strap for use on a hard hat**
- **Selectable high or low brightness spotlight operation**
- **CREE® LED technology – 50,000+ hours LED life**
- **High-brightness spotlight – 115/60 Lumens Low-brightness spotlight – 65/40 Lumens**
- **Focused spotlight beam for distance illumination (92/80 meters)**
- **Waterproof: IP-X7 Rating**
- **Engineered polymer housing**
- **Single switch located on top of light**
- **Impact & chemical resistant**
- **3 AAA premium batteries (included), reorder using P/N 29204**

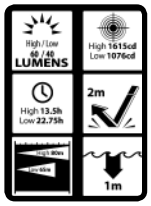
Safety Rating

cETLus Listed Intrinsically Safe for use in Class I II III Div 1 SECRURITE INTRINSEQUE Groups A,B,C,D,E,F & G Hazardous Locations
-20C ≤ Tamb ≤+40C
• Ex ia IIC T3 Ga Class 1 Zone 0
• AEx ia IIC T3 Ga, Zone 20
• AEx ia IIIC T 165C Da

Specifications – P/N 66318

- **Spotlight Lumens:** High - 115 / Low - 65
- **Run-time:** High - 4.5 hrs / Low - 13 hrs
- **Beam distance:** 92 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Dim:** 2.4" width x 1.9" height x 1.8" depth
- **Weight:** 3.5 oz





Specifications – P/N 66319*

- **Spotlight Lumens:** High - 60 / Low - 40
- **Run-time:** High - 13.5 hrs / Low - 22.75 hrs
- **Beam distance:** 80 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Dim:** 2.4" width x 1.9" height x 1.8" depth
- **Weight:** 3.5 oz

*Non-stock item, please call for delivery.

LED FLASHLIGHTS

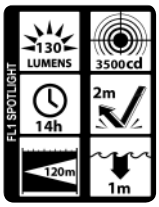
INTRINSICALLY SAFE LED HEADLAMPS

- **Designed for hazardous workplace environments**
- **Safe to use in potentially explosive atmospheres**
- **Night vision red floodlight or high contrast green floodlight**
- **Spotlight • Two level white floodlight • Colored floodlight**
- **Spotlight CREE® LED technology - 50,000 hour life**
- **White / red / green floodlight LEDs - 35,000 hour life**
- **Full or half power white floodlight for extended run-time**
- **Waterproof IP-X7**
- **Impact and chemical resistant**
- **Two switch light control**
- **Behind the head battery pack for comfort and balance**
- **Adjustable ratchet tilt headlamp**
- **Width: 3.3" • Height: 3.3" • Depth: 3.5" • Weight: 9.5 oz.**
- **Rubber hardhat strap included**
- **3 premium alkaline AA batteries – Reorder with P/N 29203**

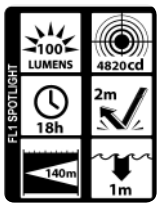
Safety Rating
- cETLus Listed Intrinsically Safe for use in Class I II III Div 1 SECRURITE INTRINSEQUE
- Groups A,B,C,D,E,F & G Hazardous Locations
- -20C ≤ Tamb ≤+40C • Ex ia IIC T3 Ga Class 1 Zone 0 AEx ia IIC T3 Ga, Zone 20 • AEx ia IIIC T 165C Da

P/N 66326 P/N 66327

Specifications - P/N 66326
- Spotlight: 130 lumens
- Floodlight: 100 lumens - full power, 25 half-power
- Dual-Light: 190 Lumens
- Green floodlight: 21 lumens
- Run-time hours:
  - Spotlight: 14
  - Floodlight at full power: 12.5
  - Floodlight at half-power: 70
  - Dual-light: 6
  - Green floodlight: 37

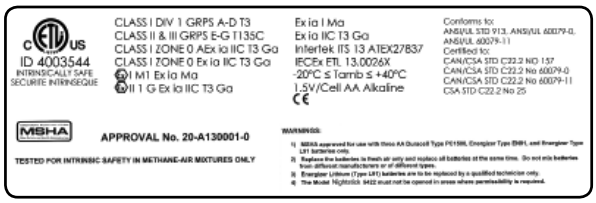


Specifications - P/N 66327
- Spotlight: 100 lumens
- Floodlight: 90 lumens - full power, 20 half-power
- Dual-Light: 175 Lumens
- Red floodlight: 18 lumens
- Run-time hours:
  - Spotlight: 18
  - Floodlight at full power: 13.5
  - Floodlight at half-power: 75
  - Dual-light: 6.5
  - Red floodlight: 37



INTRINSICALLY SAFE LED DUAL-LIGHT

Designed for hazardous workplace environments and is safe to use in potentially explosive atmospheres.



- Dual-Light Innovation®
- 120 Lumen CREE® LED
- Sharp Focused Flashlight
- Broad Beam Floodlight
- 50,000 hour LED life
- Separate switches for flashlight & floodlight
- Momentary or constant-on
- Non-slip grip textured push-buttons
- Rugged hi-visibility green polymer housing
- Impact and chemical resistant
- Built-in pocket clip and lanyard
- Rating: XP-67
- Length: 7.0 in (178 mm)
- Limited lifetime warranty

ANSI Performance
- Flashlight: 120 Lumens
- Floodlight: 120 Lumens
- Dual-Light: 240 Lumens
- Flashlight beam distance: 170 m
- Run-time: 17.5 hours Flashlight/Floodlight and 4.5 hours Dual-light

P/N 66339

Note: Order batteries with P/N 29203 (Duracell PC1500, MSHA approved batteries). See instruction manual for details. 3 AA alkaline batteries are not included.

LED FLASHLIGHTS

DUAL LIGHT W/ DUAL MAGNETS

130 Flashlight Lumens / 110 Floodlight Lumens

- **Flashlight – Floodlight – Dual-light**
- **CREE® LED technology**
- **Flashlight beam distance, 181 meters**
- **50,000 + hours LED life**
- **Momentary or constant-on flashlight**
- **Sharp focused beam for distance illumination**
- **Unfocused wide-beam floodlight for close-up illumination**
- **Dual-light (flashlight & floodlight at same time) for maximum versatility**
- **Powerful integrated magnets built into the base and clip for multiple hands-free options**
- **Engineered polymer housing, red or black**
- **Non-slip grip**
- **Dual body switches**
- **Waterproof, IP-X7 rating**
- **Impact and chemical resistant**
- **Built-in pocket/belt clip**
- **Includes removable lanyard**
- **3 AA premium batteries included**

Flashlight

Floodlight

Dual-Light

P/N 66310
RED

Specifications

- Lumens:
  - Flashlight: 130 lumens
  - Floodlight: 110 lumens
  - Dual-light: 235 lumens
- Run-time:
  - Flashlight: 9.5 hrs
  - Floodlight: 10.5 hrs
  - Dual-light: 5 hrs
- Beam distance: 181 meters (594 ft)
- Water rating: IP-X7 waterproof
- Drop rating: 2 meters
- Length: 7"
- Head diameter: 1.8"
- Handle diameter: 1" x 1.3"
- Weight: 6.4 oz

Included Items

- Light with integrated magnets and built-in pocket/belt clip
- Removable lanyard
- 3 AA premium batteries

Replacement Batteries

- Duracell® Procell®
  AA alkaline batteries
  Pkg: 8
  P/N 29203

P/N 66312B*
BLUE TRAFFIC
CONE

P/N 66311*
BLACK

Non-stock item. Please call for delivery.

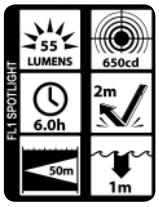
SAFETY LED LIGHTS - HEADLAMP - WATERPROOF

- **Spotlight – Floodlight – Dual-light**
- **Water proof IP-X7**
- **Small in size, big in light output**
- **Perfect hands-free lighting solution**
- **Wear on head or mount on hard-hat**
- **Premium super bright white LEDs**
- **Single LED Deep Reflector Spotlight with CREE® LED Technology**
- **12 LED Floodlight**
- **Spotlight - 50,000 hour life**
  Floodlight - 35,000 hour life
- **Impact & chemical resistant**
- **Single switch light control**
- **Adjustable ratchet tilt head lamp**
- **Non-slip elastic band**
- **3 AAA batteries included**

P/N 66329

Features/Specifications

- **Spotlight:** 55 Lumens
- **Floodlight:** 40 Lumens
- **Dual-light:** 80 lumens
- **Run-time:**
  - Spotlight: 6 hours
  - Floodlight: 8 hours
  - Dual-light: 5 hours
- **Width:** 2.44"
- **Height:** 1.75"
- **Depth:** 1.88"
- **Weight:** 3.7 oz.



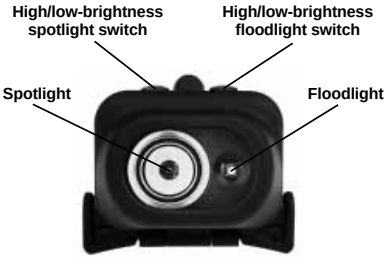
LED FLASHLIGHTS

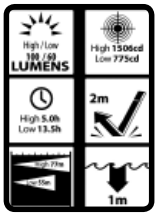
SAFETY LED LIGHTS - MULTI-FUNCTION HEADLAMP

Dual Brightness Spotlight/Floodlight & Dual-light

- **CREE® LED technology – 50,000+ hours LED life**
- **Top mounted dual switches provide: High/low-brightness spotlight & High/low-brightness floodlight**
- **Dual-light (spotlight & white floodlight mode at same time) for maximum versatility**
- **Spotlight: 100/60 Lumens / Floodlight: 90/50 Lumens / Dual-light: 115 Lumens**
- **Multi-position adjustable ratchet tilt head design with non-slip elastic head strap**
- **Focused spotlight beam for distance illumination**
- **Unfocused wide-beam floodlight for close-up illumination**
- **Engineered polymer housing**
- **Waterproof: XP-X7 Rating**
- **Impact and chemical resistant**
- **Powered by 3 AAA batteries, included (reorder with P/N 29204)**

P/N 66315





Features/Specifications

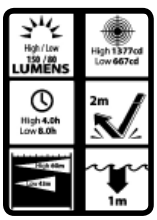
- **Lumens:**
  - High spotlight-100 **/** Low spotlight-60
  - High floodlight-90 **/** Low floodlight-50
  - Dual-light-115
- **Run-time:**
  - High spotlight-5 hrs **/** Low spotlight-13.5 hrs,
  - High floodlight-4.25 hrs **/** Low floodlight-13.75 hrs
  - Dual-light-3.5 hrs
- **Beam distance:** 77 meters
- **Water rating:** IP-X7
- **Drop rating:** 2 meters
- **Width:** 2.6in
- **Height:** 2.1in
- **Depth:** 1.8in
- **Weight:** 3.3oz

SAFETY LED LIGHTS - MULTI-FUNCTION HEADLAMP

Dual Brightness Spotlight, White/Red/Green Floodlight & Dual-light

- **CREE® LED technology – 50,000+ hours LED life**
- **Top mounted dual switches provide: High/low-brightness spotlight and White/red/green floodlight**
- **Dual-light (spotlight & white floodlight mode at same time) for maximum versatility**
- **Colored floodlight for night-vision preservation**
- **Spotlight – 150/80 Lumens / White Floodlight – 100 Lumens / Red Floodlight – 9 Lumens Green Floodlight – 18 Lumens / Dual-light – 180 Lumens**
- **Multi-position adjustable ratchet tilt head design with non-slip elastic head strap**
- **Focused spotlight beam for distance illumination**
- **Unfocused wide-beam floodlight for close-up illumination**
- **Engineered polymer housing**
- **Waterproof: XP-X7 Rating**
- **Impact and chemical resistant**
- **Powered by 3 AAA batteries, included (reorder with P/N 29204)**

P/N 66323



Features/Specifications

- **Lumens:**
  - High spotlight-150 **/** Low spotlight-80
  - White floodlight-100
  - Red floodlight-9
  - Green floodlight-18
  - Dual-light-180
- **Run-time:**
  - High spotlight-4 hrs **/** Low spotlight-8 hrs,
  - White floodlight-4 hrs **/** Red floodlight-25 hrs
  - Green floodlight-22.5 hrs **/** Dual-light-3 hrs
- **Beam distance:** 60 meters
- **Water rating:** IP-X7
- **Drop rating:** 2 meters
- **Width:** 2.6in
- **Height:** 2.1in
- **Depth:** 1.8in
- **Weight:** 3.3oz

LED FLASHLIGHTS

66 LED RECHARGEABLE MAGNETIC WORK LIGHT

Spotlight **Floodlight**

- **Dual Function / Spotlight – Floodlight**
- **35,000 hour LED life**
- **60 LED Floodlight / 6 LED Spotlight**
- **Bright white LEDs**
- **Impact and chemical resistant housing**
- **Rechargeable NiMH battery pack**
- **8 hour charge time**
- **AC & DC adapters included**
- **Will stand upright on flat surface**
- **Dual position magnetic hook attaches to top or side**
- **Water resistant: IP-X4 rating**

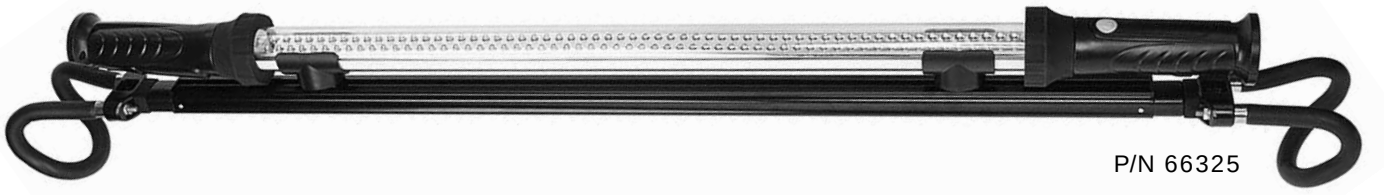
Features/Specifications
- Spotlight: 32 Lumens
- Floodlight: 230 Lumens
- Run-time: Spotlight 18 hours / Floodlight 3 hours
- Dual integrated magnets & hook
- Single rocker switch
- Water rating: IP-X4 water resistant
- Length: 14.25" (without hook)
- Weight: 16 oz. with battery

P/N 66358

Magnetic Hook
P/N 66358HOOK

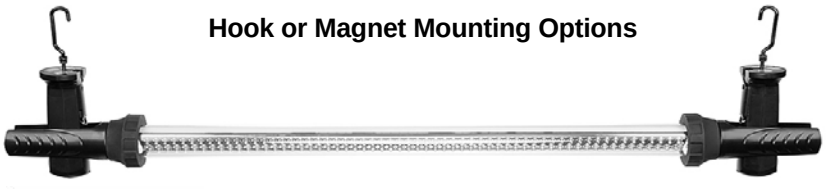
RECHARGEABLE 120 LED UNDER-HOOD WORK LIGHT

- **Under-hood illumination**
- **Interior illumination**
- **120 premium LEDs**
- **35,000 hour life**
- **Two light levels (full or half power)**
- **Use in the shop or roadside**
- **Use with or without the carrier**
- **Internal NiMH battery pack**
- **AC & DC chargers included**
- **Shop and car chargers included**
- **Chemical resistant housing**
- **Moisture and impact resistant**
- **Magnetic or hanger-hook mounting**
- **Spring loaded carrier extends 77"**



P/N 66325

Hook or Magnet Mounting Options



Magnets on Both Ends

Magnetic Mounts

Hang-Hooks

Specifications
- 1 Row (60 LED)
  Lumens: 150
  Run-time: 6.5 hours
- 2 Rows (120 LED)
  Lumens: 330
  Run-time: 3.5 hours
- Charge Time: 6 hours (AC or DC chargers)
- Length: 48"
- Weight: 4.9 lbs

LED FLASHLIGHTS

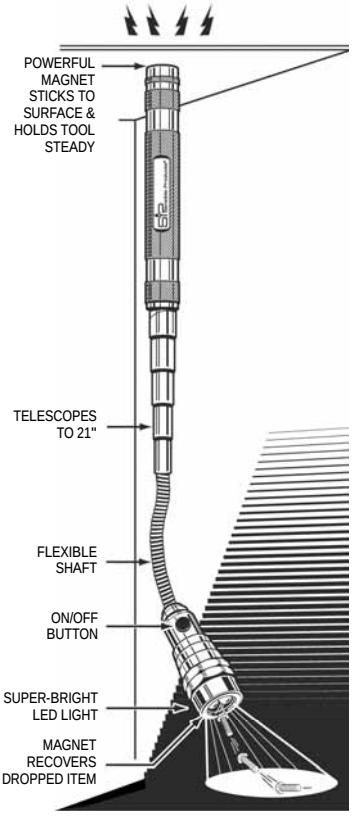
EXTENDABLE MAGNETIC LED FLASHLIGHT

- **Metal casing**
- **Weight: 3.5 ounces**
- **Magnet at light is for powerful retrieval**
- **Magnet on grip acts as a third hand**
- **3 super-bright LEDs**
- **Extends from 6.5" to 21"**
- **Flexible shaft to access hard-to-reach places**
- **A pick-up tool and a flashlight**
- **Uses Four LR44 1.5V batteries (included)**

- **Replacement batteries - 4 pack (P/N 29206)**
- **Utility holster with metal belt clip (P/N 70005)**
- **Magnetic inspection mirror (P/N 66349M)**

Magnetic inspection mirror shown on flashlight.

P/N 66349

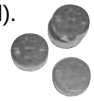


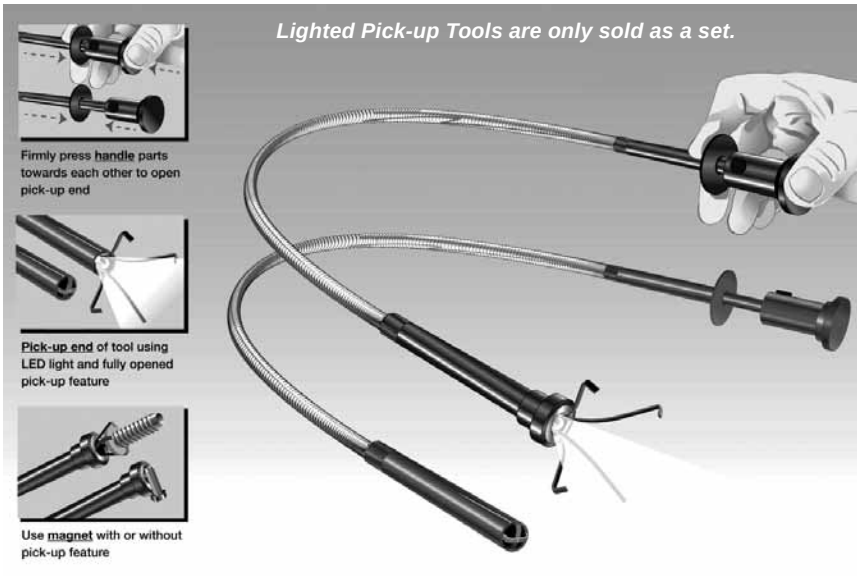
LIGHTED PICK-UP TOOLS

P/N 66324 - A SET OF 2 FLEXIBLE, LIGHTED PICK-UP TOOLS WITH DURABLE STORAGE CASE

Makes it fast and easy to find and retrieve the small object that always falls through your fingers! See and reach into awkward spaces where only the lighted pick-up tool can fit.

- The **Blue Lighted Pick-up Tool is magnetic** and works well when picking up metal objects.
- The **Red Lighted Pick-up Tool is not magnetic** and is great when a magnet would be a drawback.
- Both are flexible and made to fit into cramped spaces as well as reach around obstacles.
- Handy LED light with easy On/Off button.
- Approximately 24 inches long.
- Both tools use 3 LR-44 batteries (included). Reorder with P/N 29206 (4-pack).





LED FLASHLIGHTS

MULTI-FUNCTION LED FLASH/FLOODLIGHT

- **Flashlight – Floodlight – Dual-Light**
- **Single body switch**
- **Flashlight with CREE® LED technology – 50,000 + hours LED life**
- **Floodlight with premium LED technology – 35,000 + hours LED life**
- **Momentary or constant-on flashlight**
- **Sharp focused beam flashlight**
- **Wide-beam unfocused floodlight**
- **Engineered polymer housing**
- **Non-slip grip – Comfortable oval shape**
- **Soft touch finish**
- **Water resistant**
- **Impact and chemical resistant**
- **2 AAA premium alkaline batteries included**

- **Lumens:**
  - Flashlight - 60
  - Floodlight - 25
  - Dual-light - 50
- **Run-time:**
  - Flashlight - 4 hrs
  - Floodlight - 4 hrs
  - Dual-light - 3 hrs

- **Beam distance:** 50 meters
- **Water rating:** IP-X6 water resistant
- **Drop rating:** 2 meters
- **Length:** 4.7"
- **Width:** 1.1" x 0.8"
- **Weight:** 2.2 oz

P/N 66322

SAFETY LED LIGHTS - CLAMP LIGHT

Features/Specifications
- **Spotlight:** 65 Lumens
- **Floodlight:** 24 Lumens
- **Dual-Light:** 89 Lumens
- Detachable Light with Magnetic Base
- 2 Beam Flashlight
- Run-time: Up to 18 hours

P/N 66359

Self Standing

- **Spotlight/Flashlight – Floodlight – Dual-light**
- **35,000 hour LED life**
- **1 Spotlight LED**
- **12 Floodlight LEDs**
- **Multi-function locking clamp**
  - **Stands by itself**
  - **Secures to round objects and flat objects**

2 Beam Flashlight

Round Stock

- **Light reaches out in all directions**
  - **Light swivels 360°**
  - **Light tilts 180° +**
- **Impact & moisture resistant safety orange light housing**
- **Engineered polymer clamp base**
- **Premium AAA batteries included**

Square Stock

Detachable Light with Magnetic Base

LED FLASHLIGHTS

SAFETY LED LIGHTS - HEAVY DUTY - 300/400 LUMENS

P/N 66354

- **Flashlight – Floodlight – Dual-light**
- **Anti-roll Tri-Lobal Design**
- **Bright LEDs – 50,000 hour life**
- **Microprocessor controlled**
- **Impact and chemical resistant housing**
- **Replaceable NiMH battery pack**
- **Rechargeable**
- **3 hour charge time**
- **AC & DC adapters included**
- **Made in the USA**

Features/Specifications

- **Flashlight**: 300 Lumens
- **Floodlight**: 400 Lumens
- **Run-time**:
  - Flashlight or floodlight 9 hours
  - Flashlight strobe 24+ hours
  - Dual-light 4 hours
  - Dual-light strobe 7 hours
- Selectable flashlight or floodlight strobe
- Vehicle mount
- Moisture resistant
- Traffic Cone Accessories
  - Red P/N 66355R
  - Yellow P/N 66355Y

SAFETY LED LIGHTS - HEAVY DUTY - 160/200 LUMENS

P/N 66356

- **Flashlight – Floodlight – Dual-light**
- **Anti-roll Tri-Lobal Design**
- **Bright LEDs – 50,000 hour life**
- **Impact and chemical resistant housing**
- **Replaceable NiMH battery pack**
- **Rechargeable**
- **3 hour charge time**
- **AC & DC adapters included**
- **Made in the USA**

Features/Specifications

- **Flashlight**: 160 Lumens
- **Floodlight**: 200 Lumens
- **Run-time**:
  - Flashlight 6 hours
  - Floodlight 2 hours
  - Both 2 hours
- Dual-switch control
- Tandem operation
- Auto-strobe
- Waterproof to 3 feet (IP-67)
- Traffic Cone Accessories
  - Red P/N 66357R
  - Yellow P/N 66357Y

SAFETY FLARES

FOR LONG DISTANCE ILLUMINATION

- **PROVIDES LONG DISTANCE ILLUMINATION FOR SAFETY DURING EMERGENCY ROAD-SIDE SITUATIONS**
- **VISIBLE IN FOG, RAIN OR SNOW**
- **EASY TO IGNITE WITH SELF-CONTAINED STRIKER**
- **20 MINUTE DURATION**
- **36 FLARES IN A CASE**

DESCRIPTION	PART
20 MINUTE NON-SPIKE SAFETY FLARES (Package Quantity: 36 Flares)	59080

EARLY WARNING TRIANGLE KIT

REFLECTIVE SAFETY WARNING SYSTEM

- **Instant Alert for Oncoming Motorists**
- **Meets US Federal Motor Vehicle Safety Standard No. 125 for Warning Devices**
- **Weighted Base for Stability**
- **Kit Includes 3 Reflective Triangles**

APPLICATIONS
- **Emergency Assistance**
- **Truck / Auto Accidents**
- **Hazardous Conditions**
- **Visually Alerts Authorities Quickly**

DESCRIPTION		PART
EARLY WARNING TRIANGLE KIT	A	59082

GLOW STICKS

A DEPENDABLE LIGHT SOURCE THAT LASTS FOR 12 HOURS

- **A DEPENDABLE LIGHT SOURCE WHENEVER AND WHEREVER YOU NEED IT, LIGHT LASTS FOR 12 HOURS**
- **NON-TOXIC / NON-FLAMMABLE / WEATHERPROOF**
- **MADE WITH CYALUME® TECHNOLOGY (10 mL FLUID)**
- **TO ACTIVATE REMOVE FROM FOIL WRAPPER, BEND, SNAP AND SHAKE**

DESCRIPTION		PART
6" GLOW STICKS – 12 HOUR	J	59081

THREAD RESTORERS

INTERNAL THREAD RESTORERS

- QUICKLY ADJUSTABLE TO ANY THREAD DIAMETER AND PITCH WITHIN THE SIZE RANGE INDICATED ON THE TOOL
- APPLICABLE TO MOST KINDS OF THREAD – INCH, METRIC, RH OR LH, FINE OR COARSE
- A MAJOR ADVANTAGE OVER TAPS IS THE ABILITY TO ENTER BELOW THE FIRST DAMAGED GROOVES, OFTEN AT THE START OF THE THREAD – AND WORK IN AN OUTWARD DIRECTION
- THE BLADE (62 RC), GUIDED BY THE EXISTING UNDAMAGED THREAD TO REGROOVE THE DAMAGED SECTION

P/N 40136

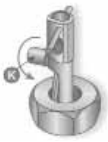
P/N 40137

P/N 40138

P/N 40140

P/N 40135

#1
Turn knurled knobs (K) to fully retract the blade (B) into the housing (H). Insert tool into the threaded hole or bore to be repaired.


#2
Turn knurled knob (K) to extend blade (B) into a thread groove on an undamaged section and tighten by hand only.

#3
Rotate tool by the cross-road, as shown, in the desired direction.

STANDARD THREAD	PIPE SIZE		PART	BLADES		PART
5/16" - 7/16" (8mm - 11mm) Thread Restorer	1/8" - 3/16"	A	40131	Replacement Blade for 40131	A	40131B
1/2" - 5/8" (12mm - 16mm) Thread Restorer	1/4" - 3/8"	A	40132	Replacement Blade for 40132	A	40132B
11/16" - 13/16" (16mm - 20mm) Thread Restorer	3/8" - 1/2"	A	40133	Replacement Blade for 40133	A	40133B
7/8" - 1-1/4" (22mm - 32mm) Thread Restorer	1/2" - 7/8"	A	40134	Replacement Blade for 40134	A	40134B
1-1/4" - 2-1/8" (32mm - 54mm) Thread Restorer	7/8" - 1-3/4"	A	40135	Replacement Blade for 40135	A	40135B
THREAD RESTORER SETS:						
1/2" - 1-1/4" (12mm - 32mm) 3-Pc Set contains 1 each: 40132, 40133 and 40134					A	40136
1/2" - 2-1/8" (12mm - 54mm) 4-Pc Set contains 1 each: 40132, 40133, 40134 and 40135					A	*40137*
1/4" - 3/4" External and 1/2" - 13/16" Internal 3-Pc Combo Set contains 1 each: 40141, 40132 and 40133					A	40138
5/32" - 1-1/2" External & 1/2" - 1-1/4" Internal 5-Pc Combo Set contains 1 each: 40141, 40142, 40132, 40133 & 40134					A	*40140*

NOTE: Item numbers in italics are non-stock items

EXTERNAL THREAD RESTORERS

- AN ESSENTIAL TOOL FOR REPAIRING THREADS ON BOLTS IN MAINTENANCE, GARAGES, PLUMBING, CONSTRUCTION, AGRICULTURE AND ENGINEERING
- ADJUSTS TO FIT ANY THREAD DIAMETER AND PITCH
- NO MEASURING OF THREAD REQUIRED
- CAN BE USED ON RIGHT OR LEFT HAND THREADS
- APPLICABLE TO ALL KINDS OF THREADS – BOTH INCH & METRIC
- TWO HARDENED STEEL BLADES (58 RC), GUIDED BY THE EXISTING THREAD, REGROOVE THE DAMAGED AREA

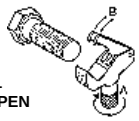
P/N 40143

P/N 40141

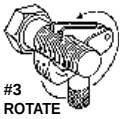
P/N 40142

- REVERSIBLE BLADES PREVENTS DAMAGE TO PIPE SURFACE
- SPECIAL APERTURE FOR EXTENSION ROD (INCLUDED) FOR GREATER TORQUE

P/N 40130


#1
OPEN
Turn handle (A) to raise blades (B). Place over bolt to be repaired.

#2
CLOSE
Turn handle (A) to lower blades into grooves of thread and tighten lightly.


#3
ROTATE
Turn Thread Restorer in the direction of the arrow shown.

DESCRIPTION		PART	BLADES		PART
5/32" - 11/16" (4mm - 18mm) Thread Restorer	A	40141	2-Pack Blades for 40141	A	40146
11/16" - 1-1/2" (17mm - 38mm) Thread Restorer	A	40142	2-Pack Blades for 40142	A	40147
1-1/4" - 5" (32mm - 128mm) Thread Restorer	A	40143	2-Pack Blades for 40143	A	40148
5/32" - 1/2" (4mm - 13mm) Threadmate™ (Universal Thread Repair Tool)				A	40130
5/32" - 1-1/2" (4mm - 38mm) 4-Pc Combo Pack contains 1 each: 40141, 40142, 40146 and 40147				A	40144
5/32" - 5" (4mm - 128mm) 8-Pc Combo Pack contains 1 each: **40141, 40142, 40143, 40146, 40147, 40148, extension rod & cleaner**				A	40145

SHEARS AND SNIPS

SPECIALIZED SNIPS

FEATURES
- Three types to choose from:
  - Cuts left and straight
  - Cuts right and straight
  - Cuts straight and wide curves
- Hot-drop forged steel blades for a sharper cutting edge and greater strength
- Cuts 18 ga Cold-Roll Steel and 23 ga Stainless Steel
- Ergonomically designed ProTouch™ Grips and long-life spring increase leverage and optimize each cut
- Multiple pivot pins that provide compound cutting action
- E-Z close latch

APPLICATIONS
- For cutting sheet metal, vinyl, plastic, rubber and more

P/N 78052

P/N 78053

P/N 78054

DESCRIPTION	SIZE OF SNIP	LENGTH OF CUT	CUTTING CAPACITY		PART
Cuts left and straight	10" (254 mm)	1-5/16" (33 mm)	Cold-Roll Steel 18 ga / Stainless Steel 23 ga	A	78052
Cuts right and straight	10" (254 mm)	1-5/16" (33 mm)	Cold-Roll Steel 18 ga / Stainless Steel 23 ga	A	78053
Cuts straight and wide curves	10" (254 mm)	1-5/16" (33 mm)	Cold-Roll Steel 18 ga / Stainless Steel 23 ga	A	78054

ALL PURPOSE SHEARS

- **Compact, with a tough, strong NYGLASS® composite body**
- **Comfortable and ready to cut almost anything**

Designed to cut: cardboard, tar paper, insulation, upholstery, leather, cords, light sheet metals, vinyls, banding straps, plastics, screen, carpet and more

17914

DESCRIPTION		PART
All-purpose shears	A	78033

UPRIGHT SNIPS

- Patent pending 90º handle/blade design
  – Makes cutting easier by not breaking or bending the wrist
- Unique push or pull cutting motion – makes cutting easier in confined areas
- Snip can turn or rotate in hand while cutting circles
  – Reduces cutting time and increases productivity
- Creates ergonomic wrist and hand posture which improves wrist range motion
  And safety by elevating hands above edges and surfaces
- Unbreakable blades – hot drop-forged of molybdenum alloy steel and heat treated
  For exceptional strength, durability and sharpness
- Right handed snips cut left (counterclockwise) and left handed snips cut right (clockwise)

DESCRIPTION		PART
Right handed upright snips (red handle)	A	78035
Left handed upright snips (red handle)	A	78035L

CHISEL AND PUNCH SET

STRIKING TOOLS

- **MANUFACTURED OF HARDENED CHROME VANADIUM STEEL FOR SUPERIOR STRENGTH AND PERFORMANCE**
- **CHISELS & PUNCHES ARE QUENCHED AND TEMPERED AS A WHOLE TO GUARANTEE EXCELLENT RESILIENCE TO HARD WORKING STRESS AND PROVIDES LONGER LIFE**
- **HARDENED STRIKING HEADS RESIST SPLINTERING AND/OR MUSHROOMING**
- **MEETS DIN 7255 STANDARDS**

PRECAUTIONS:
- **ALWAYS WEAR SAFETY GLASSES**
- **SELECT THE RIGHT STRIKING TOOL AND AN APPROPRIATE HAMMER SIZE FOR BEST POSSIBLE APPLICATION**
- **AVOID WORKING ON HARDENED MATERIAL EXCEEDING 40 HRC FOR DANGER OF BEING INJURED BY SPLINTERING**
- **GRIND AWAY BURRS OCCURRING ON THE STRIKING HEAD AT REGULAR INTERVALS**
- **ALWAYS CHECK THE CUTTING EDGE FOR WORK-WORN EDGES THAT NEED TO BE REGROUND PRIOR TO USE**

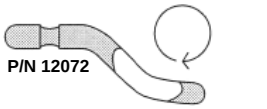
P/N 12050

DESCRIPTION		PART	DESCRIPTION		PART
1/2" x 6" FLAT COLD CHISEL	A	12051	1/8 x 4-3/4 TAPER PUNCH	A	12055
1/2" x 5" FLAT COLD CHISEL	A	12052	5/32 x 4-3/4 TAPER PUNCH	A	12056
5/32" x 5" CROSSCUT CHISEL	A	12053	CHISEL & PUNCH INDEX ONLY	A	8809
5/32 x 4-3/4 CENTER PUNCH	A	12054	6-PIECE CHISEL & PUNCH SET WITH INDEX	A	12050

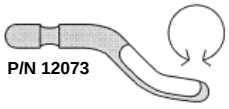
DEBURRING TOOLS

STANDARD DUTY

- **TAKES ALL B-SERIES BLADES**
- **SET INCLUDES ONE B-10 BLADE AND ONE B-20 BLADE**
- **HOLDER TELESCOPES FROM 1/2" TO 5"**
- **HANDLE HAS STORAGE COMPARTMENT FOR SPARE BLADES**
- **BLADE CAN BE INSERTED AT 90° FOR DEBURRING CROSS HOLES**
- **HANDLE HAS LIFETIME GUARANTEE**



P/N 12072



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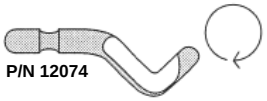


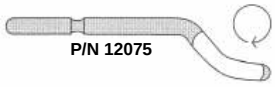
P/N 12074

P/N 12070

DESCRIPTION		PART
Deburring Blade B-10 (HSS for steel and aluminum)	I	12072
Deburring Blade B-20 (HSS for brass and cast iron; can rotate clockwise and counterclockwise)	I	12073
Deburring Blade B-30 (HSS; removes internal and external burrs simultaneously from holes drilled into tubing and sheet metal)	I	12074
Deburring Tool w/B-Series Blades Complete Set	A	12070

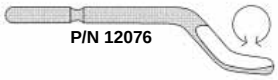
HEAVY DUTY

- **TAKES ALL HEAVY DUTY E-SERIES BLADES**
- **SET INCLUDES ONE E-100 BLADE, ONE E-200 BLADE AND ONE E-300 BLADE**
- **HOLDER TELESCOPES FROM 1/2" TO 5"**
- **HANDLE HAS STORAGE COMPARTMENT FOR SPARE BLADES**
- **HANDLE HAS LIFETIME GUARANTEE**

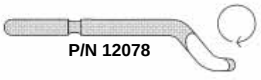


P/N 12075

P/N 12077



P/N 12076



P/N 12078

P/N 12079

P/N 12071

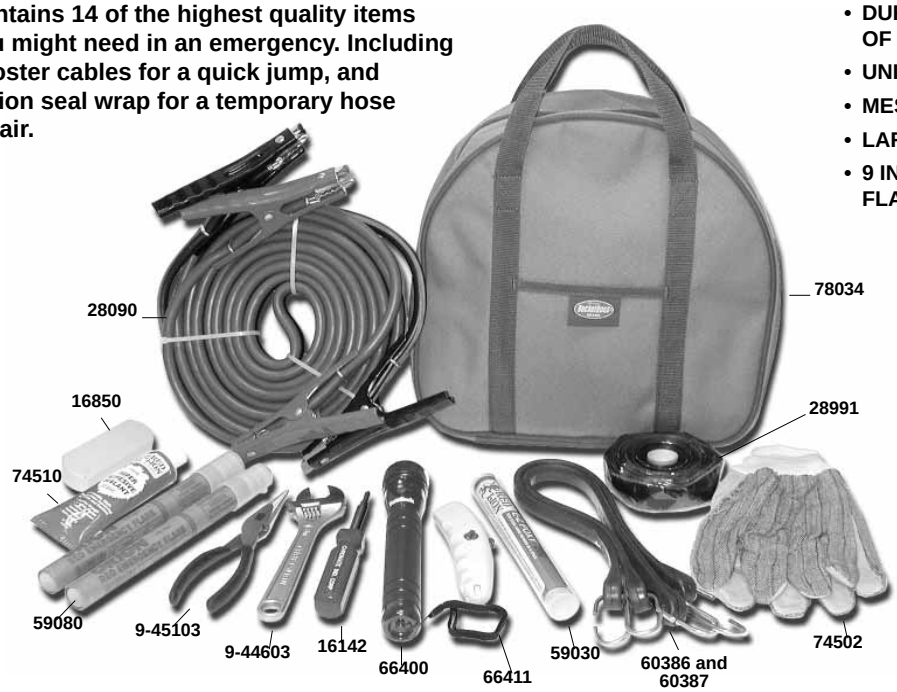
DESCRIPTION		PART
Deburring Blade Heavy Duty E-100 (Heavy Duty HSS for steel and aluminum)	I	12075
Deburring Blade Heavy Duty E-200 (Heavy Duty HSS for brass and cast iron)	I	12076
Deburring Blade Heavy Duty E-300 (Heavy Duty HSS; removes internal and external burrs simultaneously from holes drilled into tubing and sheet metal)	I	12079
Deburring Blade Heavy Duty E-350 (Heavy Duty HSS for straight edges on all materials)	I	12077
Deburring Blade Heavy Duty E-101 (Heavy Duty HSS for holes as small as 7/64" diameter in steel and aluminum)	I	12078
Deburring Tool w/E-Series Blades Complete Set	A	12071

EMERGENCY TOOL / REPAIR KIT

THE ULTIMATE EMERGENCY TOOL/REPAIR KIT

Contains 14 of the highest quality items you might need in an emergency. Including booster cables for a quick jump, and fusion seal wrap for a temporary hose repair.

- **DURABLE, EASY-TO-TRANSPORT CASE MADE OF RUGGED DOUBLE-WALL CONSTRUCTION**
- **UNIQUE DESIGN FITS UNDER OR BEHIND SEATS**
- **MESH POUCH FOR GLOVES, RAGS, ETC.**
- **LARGE COMPARTMENT FOR JUMPER CABLES**
- **9 INTERIOR POCKETS CRADLE TOOLS, FLASHLIGHT, ROAD FLARES AND MORE**



P/N 61681

DESCRIPTION		PART	DESCRIPTION		PART
EMERGENCY TOOL/REPAIR KIT BAG ONLY	A	78034	3C TWIN-TASK STREAMLIGHT (includes batteries)	A	66400
HD BOOSTER CABLES 4ga x 16"	A	28090	ERGO-KNIFE (comes with one blade)	A	66411
FIRST AID BANDAGE KIT	A	16850	RED LION E-Z POXY 200	A	74502
RED LION SUPER ADHESIVE SEALANT	A	74510	15" RUBBER STRAP WITH HOOKS	A	60386
EMERGENCY FLARES	A	59080	21" RUBBER STRAP WITH HOOKS	A	60387
8" LONG NOSE PLIERS	A	9-45103	ECONOMY SPLIT LEATHER GLOVES	A	59030
8" CRESCENT WRENCH	A	9-44603	1x 36 FUSION SEAL ELECTRICAL WRAP	A	28991
CHROMATE 4-in-1 SCREWDRIVER	A	16142	EMERGENCY REPAIR KIT – COMPLETE SET	A	61681

PORTABLE POCKET

HOLD MORE STUFF

- **VERSATILE DESIGN CARRIES FASTENERS OR A TAPE MEASURE**
- **USE ALONE OR ATTACH TO A TOOL BELT FOR ADDED CAPACITY**
- **WIDE-OPENING POUCH HOLDS NAILS, SCREWS AND OTHER FASTENERS**
- **ELASTIC LOOPS HOLD PEN, PENCIL OR SCREWDRIVER**

GSA CARPENTER'S PENCIL (GSA167560)
- **Contractor's tool for measuring wooden structures**
- **Includes Chromate logo, website and GSA contract information**

6-IN-1 SCREWDRIVER (16142)
- **Heavy-duty steel with plastic handle**
- **Comes complete with 2 slotted and 2 phillips tips**

CENTER POINT TAPE MEASURE (162446)
- **Patented center-finding scale**
- **Standard layout marks**
- **.050-gauge blade for long standout**
- **Tough ABS housing for long life**
- **Heavy-duty spring for smooth retract**
- **High visibility safety yellow color**
- **Triple rivet hook connection**
- **Made in USA**

DESCRIPTION		PART	DESCRIPTION		PART
PORTABLE POCKET BAG ONLY	A	78036	CENTER POINT TAPE MEASURE	A	162446
CARPENTERS' PENCIL (GSA)	A	GSA167560	BUCKET BOSS® PORTABLE POCKET - COMPLETE SET	A	61674
4-IN-1 SCREWDRIVER	A	16142			

TIRE REPAIR KIT

SEALS THE INJURY COMPLETELY THROUGH THE TIRE

- **SEALS THE INJURY COMPLETELY THROUGH THE TIRE, KEEPING OUT MOISTURE AND CONTAMINATES THAT CAN CAUSE THE CORDS TO RUST AND CAUSE TIRE SEPARATION**
- **CONFORMS TO THE SHAPE OF THE INJURY, UNLIKE HARD-CURED REPAIRS THAT FORCE THE INJURY TO CONFORM TO THE SHAPE OF THE PLUG**
- **CONFORMS TO THE SIZE AND SHAPE OF THE INJURY & ELIMINATES STRESS TO THE BELTS AND PRESERVE THE TIRE BODY WHILE COMPLETELY SEALING OUT MOISTURE AND DIRT**

KIT INCLUDES:
- PROFESSIONALLY ENGINEERED HEAVY DUTY HIGH IMPACT MOLDED CASE WITH INDUSTRIAL STRENGTH LATCH
- HEAVY DUTY 12 OZ CHROME T-HANDLE WITH REPLACEABLE NEEDLE
- SPIRAL DESIGNED PROBE CLEANS INJURY WITHOUT CAUSING ADDITIONAL STRESS OF THE TIRE
- HARDENED STEEL SET SCREW HOLDS NEEDLE OR PROBE IN PLACE WITHOUT STRIPING
- CHROME OPEN-EYE INSERTION NEEDLE
- HARDENED STEEL ALLEN WRENCH FOR EASY REPLACING PROBE NEEDLE OR OPEN-EYE NEEDLE
- RAZOR BLADE TO CUT OFF EXCESS REPAIR
- LARGE JAR OF INSERTION LUBE, MAKES INSERTING PROBE AND REPAIR EASY
- 40 PERMANENT REPAIRS, 4 INCHES LONG WITH CARBON BLACK ADDED TO STRENGTHEN REPAIRS AND MATCH THE COLOR OF THE TIRE
- INSTRUCTION GUIDE PERMANENTLY ADHERED TO INNER LID

DESCRIPTION		PART
TIRE REPAIR KIT	A	78028
4" REPLACEMENT STRIPS	I	78023
TIRE REPAIR LUBE	A	78024

PAINT STICKS & PAINT MARKERS

PAINT STICKS

- **REAL PAINT IN STICK FORM**
- **WEATHER-RESISTANT, UV-RESISTANT**
- **IDEAL FOR LAYOUT, COLOR CODING, FABRICATION AND IDENTIFICATION**
- **MARKS THROUGH OIL AND WATER**
- **MARKS ON SMOOTH, ROUGH, RUSTY OR DIRTY SURFACES**
- **FOR USE ON METAL, WOOD, PLASTIC, CONCRETE, RUBBER, GLASS, CARDBOARD AND PAPER**
- **LEAD-FREE**
- **MARKING RANGE: -50ºF to 150ºF (-46ºC to 66ºC)**

DESCRIPTION		PART
Cold Surf – White	J	28400
Cold Surf – Yellow	J	28401
Cold Surf – Red	J	28402
Cold Surf – Black	J	28403

VALVE ACTION PAINT MARKERS

- **MARKS WITH REAL PAINT, DRIES IN 3 MINUTES**
- **NIB RELEASE PAINT AS NEEDED FOR CONTINUOUS MARKING**
- **MARKS ON ALL SURFACES INCLUDING METAL, WOOD, GLASS, PLASTIC, RUBBER CARDBOARD AND PAPER**
- **LEAD FREE, LOW HALOGENS**
- **DURABLE METAL BARREL**
- **MEETS CALIFORNIA VOC REGULATIONS**
- **MARKING RANGE: -50ºF to 150ºF (-46ºC to 66ºC)**

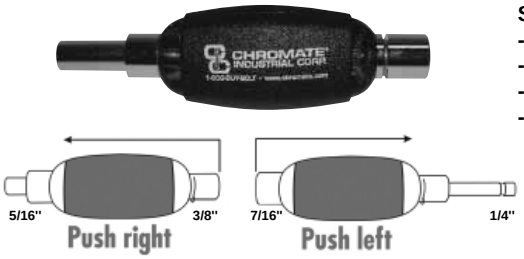
DESCRIPTION		PART
Valve Action Marker – White	B	28404
Valve Action Marker – Yellow	B	28405
Valve Action Marker – Red	B	28406
Valve Action – Black	B	28407

4 in 1 MULTI-SOCKET TOOLS

INCH AND METRIC TOOLS

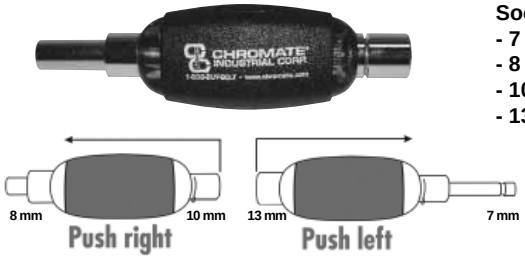
- **Replaces the four most common nut drivers with one tough, yet compact, tool.**
- **Telescoping action provides 2 socket sizes at each end.**
- **High-torque grip has textured, non-slip surface.**
- **Tough, high quality industrial steel construction.**
- **Color-coded grip ends for easy recognition.**

Standard Tool **P/N 2550**



Socket Sizes
- **1/4"**
- **3/8"**
- **5/16"**
- **7/16"**

Metric Tool **P/N 2555**

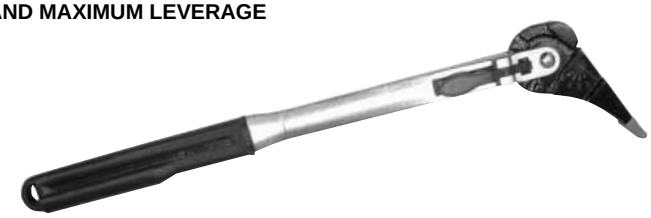


Socket Sizes
- **7 mm**
- **8 mm**
- **10 mm**
- **13 mm**

PRY-ANGLE BAR

SMALL ENOUGH FOR A TOOLBOX

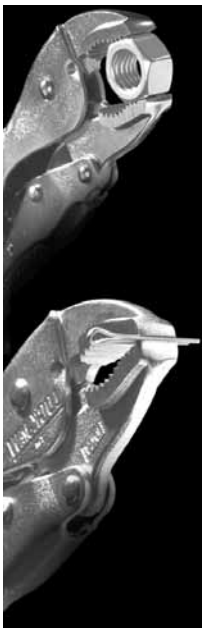
- **PRY BAR HEAD ADJUSTS 5 WAYS FOR ACCESS IN DIFFICULT AREAS AND MAXIMUM LEVERAGE**
- **EASILY ADJUSTED AND LOCKED IN PLACE WITH SPRING-LOADED THUMB LEVER AT 180º, 155º, 130º, 105º or 80º POSITIONS**
- **16" LONG – SMALL ENOUGH FOR A TOOLBOX AND LONG ENOUGH FOR SUPERIOR LEVERAGE**
- **RATED UP TO 350 LBS. OF TORQUE/LOAD**



DESCRIPTION		PART
Pry-Angle Bar 16"	A	66394

LOCK-JAW PLIERS

SELF-ADJUSTING AND LOCKING



- **Chrome molybdenum steel**
  For durability and rust prevention.
- **Grab thick or grab thin**
  Patented locking mechanism allows the jaws to automatically adjust to any size with equal pressure. Eliminates the knob hassle.
- **Easy squeeze comfort release lever**
  Stays locked until you release it.
- **Set and forget pressure control**
  Dial in the amount of gripping force from slight to extreme and forget it. Regardless of the size of object you want to grab.
- **No slip texture grip**
  Stays in your hands.

DESCRIPTION		PART
6" Curved Jaw Self-Adjusting Plier	A	66387
10" Curved Jaw Self-Adjusting Plier	A	66388
7" Needle Nose Self-Adjusting Plier	A	66389
Self-Adjusting Pliers 2-Piece Set (Includes 6" and 10" Curved Jaw)	A	66387SET2
Self-Adjusting Pliers 2-Piece Set (Includes 10" Curved and 7" Needle Nose)	A	66389SET2
Self-Adjusting Pliers 3-Piece Set (Includes 6", 10" Curved Jaw and 7" Needle Nose)	A	66387SET3

ZIP-IT DRAIN UNCLOGGER

THE AMAZING FAST & EASY WAY TO CLEAR CLOGGED DRAINS

- **Unclogs sinks, showers and tubs**
- **Clears drains of hair and other debris in seconds**
- **No dangerous or harsh chemicals are needed**
- **Non-Toxic**
- **Safe for the environment**
- **Fast, simple and easy to use**
- **Strong Poly Construction**
- **Made in the USA**

Here's how it works!

1 **Insert ZIP-IT into the clogged drain. Make sure to push until handle meets the top of the drain.**

2 **Pull ZIP-IT back slowly to avoid possible splashing of debris. Throw away after each use. Do not attempt to clean sharp edges. May cause serious injury.**

DESCRIPTION		PART
Zip-It Drain Unclogger	A	66300

"V" JAW PLIERS

IRWIN GROOVE LOCK "V" JAW PLIERS

- Simple push of innovative press-n-slide button adjusts lower jaw 2X faster than traditional groove joint pliers
- Multi-Groove Ratcheting System has twice the groove positions than any other groove joint pliers, providing precise jaw positioning to grip any type of surface
- Anti-pinch, non-slip ProTouch Grips provide comfort, control and less hand fatigue
- Right angle teeth grip in all directions for maximum bite
- Metal Injection Molding (MIM) process for precision parts - Delivers strength and exceptional performance

P/N	Size	Jaw Capacity	Pipe Size	Nut Size (Across Flats)
66360	8"	1-3/4"	1"	30 mm (1.18")
66361	10"	2-1/4"	1-1/2"	40 mm (1.57")
66362	12"	2-3/4"	2"	50 mm (1.96")

P/N 8814

DESCRIPTION		PART
8" Groove Lock "V" Jaw Plier	A	66360
10" Groove Lock "V" Jaw Plier	A	66361
12" Groove Lock "V" Jaw Plier	A	66362
Groove Lock "V" Jaw Pliers "3 Piece Set" (*Includes: P/Ns 66360, 66361 & 66362*)	A	8814

INSULATED PLIERS SET

IRWIN® VISE-GRIP® 1000V INSULATED PLIERS

Three Piece Insulated Pliers Set
- Insulated 7" Combination Pliers
- Insulated 8" Long Nose Pliers
- Insulated 6" Standard Diagonal Cutter

Features
- Individually tested at factory
- All tools meet ASTM, IEC, VDE and DIN specifications
- Strong gripper teeth
- Slim profile nose reaches into tight areas
- Hardened teeth
- Red and yellow handles denotes international color for safety
- ProTouch™ grips provide maximum comfort and reduced hand fatigue
- Lifetime guarantee

P/N 8849

P/N 66208

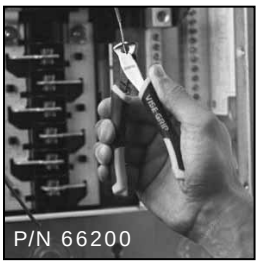
P/N 66209

P/N 66210

PART		DESCRIPTION	SIZE	JAW LENGTH	JAW WIDTH	JAW THICKNESS	WIRE CUTTER
66208	A	Insulated 7" Combination Pliers	7"	1-1/2"	1-1/8"	7/16"	Yes
66209	A	Insulated 8" Long Nose Pliers	8"	3"	13/16"	3/8"	Yes
66210	A	Insulated 6" Standard Diagonal Pliers	6"	7/8"	7/8"	7/16"	Yes
8849	A	Insulated Pliers 3 Piece Set (*Includes: P/Ns 66208, 66209 & 66210*)					

MINI TRADITIONAL PLIERS SET

IRWIN® VISE-GRIP® PLIERS



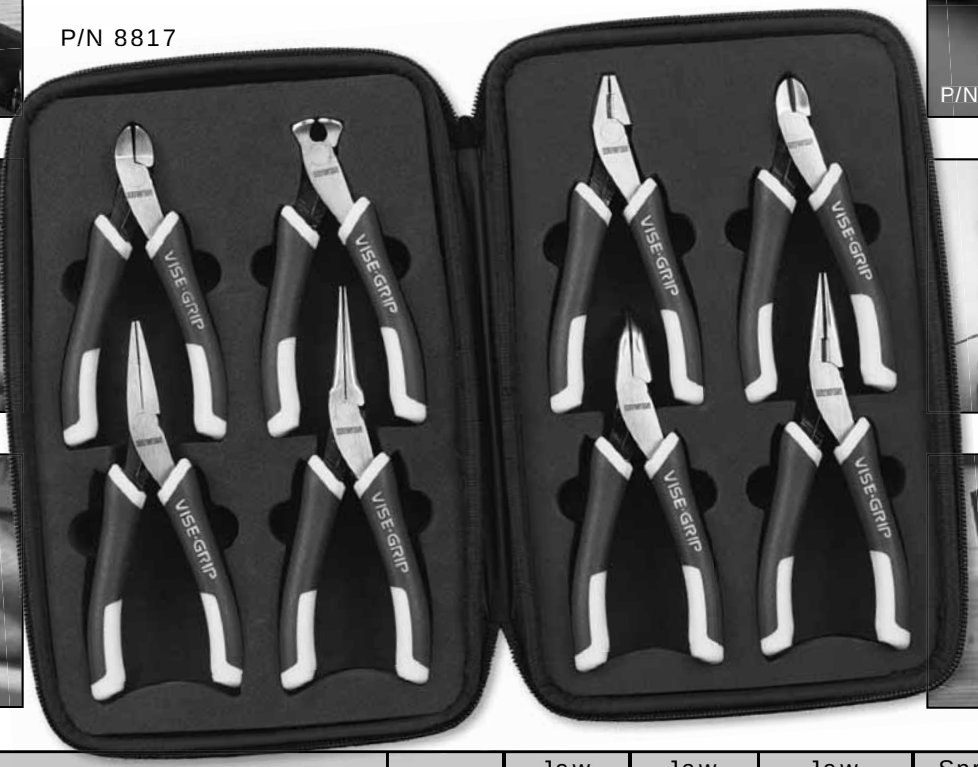
Eight Piece Mini Pliers Set Includes:

- 4-1/4" End Nipper
- 5-1/4" Flat Nose Plier
- 5-1/4" Long Nose Plier
- 4-3/4" Lineman's Plier
- 4-1/2" Flush Cut Diagonal
- 4-1/4" Diagonal Cutter
- 5-1/2" Needle Nose Plier
- 5" Bent Nose Plier

IRWIN. VISE-GRIP®

Pliers include ProTouch™ grips which provide extra comfort and control with less hand fatigue and allow precise control on small work pieces. Included are induction hardened edges on cutting pliers and formed teeth on gripping pliers.

P/N 8817



PART		DESCRIPTION	Size	Jaw Length	Jaw Width	Jaw Thickness	Spring Loaded	Wire Cutter
66200	A	4-1/4" End Nipper with Spring	4-1/4"	5/16"	9/16"	11/32"	Yes	Yes
66201	A	5-1/4" Flat Nose Plier	5-1/4"	1-1/4"	9/16"	11/32"	Yes	No
66202	A	5-1/4" Long Nose Plier with Cutter & Spring	5-1/4"	1-1/4"	9/16"	11/32"	Yes	Yes
66203	A	4-3/4" Lineman's Pliers with Spring	4-3/4"	5/8"	9/16"	11/32"	Yes	Yes
66204	A	4-1/2" Flush Cut Diagonal Pliers with Spring	4-1/2"	17/32"	9/16"	11/32"	Yes	Yes
66205	A	4-1/2" Standard Diagonal Pliers with Spring	4-1/2"	17/32"	9/16"	11/32"	Yes	Yes
66206	A	5-1/2" Needle Nose Pliers with Spring	5-1/2"	1-11/16"	9/16"	11/32"	Yes	No
66207	A	5" Bent Nose Pliers with Spring	5"	1-1/8"	9/16"	11/32"	Yes	No
8817	A	Mini Traditional Pliers Set (Includes all 8 pliers)						

MINI TRADITIONAL PLIERS

IRWIN® VISE-GRIP® PLIERS

P/N 66200

4-1/4" End Nipper with Spring

- High leverage for greater force at the jaw
- Induction hardened cutting edge that stays sharp longer
- Nickel chromium steel construction for overall strength and durability
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66204

4-1/2" Flush Cut Diagonal Pliers with Spring

- High leverage for greater force at the jaw
- Induction hardened cutting edge that stays sharp longer
- Nickel chromium steel construction for overall strength and durability
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66201

5-1/4" Flat Nose Pliers with Spring

- High leverage for greater force at the jaw
- Machined jaws for maximum gripping power
- Nickel chromium steel construction for overall strength and durability
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66205

4-1/2" Standard Diagonal Pliers with Spring

- Induction hardened cutting edge that stays sharp longer
- High leverage for greater force at the jaw
- Nickel chromium steel construction for overall strength and durability
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66202

5-1/4" Long Nose Pliers with Cutter and Spring

- Induction hardened cutting edge that stays sharp longer
- Machined jaws for maximum gripping power
- Nickel chromium steel construction for overall strength and durability
- High leverage for greater force at the jaw
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66206

5-1/2" Needle Nose Pliers

- Slim needle nose with fine tip for precision work
- Smooth jaws prevent surface marring
- Nickel chromium steel construction for overall strength and durability
- High leverage for greater force at the jaw
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66203

4-3/4" Lineman's Pliers with Spring

- Induction hardened cutting edge that stays sharp longer
- Machined jaws for maximum gripping power
- Nickel chromium steel construction for overall strength and durability
- High leverage for greater force at the jaw
- ProTouch™ grips
- Spring loaded – easy gripping

P/N 66207

5" Bent Nose Pliers

- 45° bend in nose
- Smooth jaws prevent surface marring
- Nickel chromium steel construction for overall strength and durability
- High leverage for greater force at the jaw
- ProTouch™ grips
- Spring loaded – easy gripping

SPECIALTY TOOLS

BIONIC WRENCH™

Fits 14 Wrench Sizes (SAE and Metric)

- Easy to use
  - Squeeze and turn
  - No guessing bolt sizes
- Distributes equal force on all sides of bolts
- Will not slip, strip, round off fasteners or bust knuckles
- Corrosion resistant
- Made in the USA

6" Tool – P/N 66365
Grips connections and fasteners from 1/4" to 9/16" and 7 to 14 mm

8" Tool – P/N 66367
Grips connections and fasteners from 1/2" to 3/4" and 12 to 20 mm

10" Tool – P/N 66364
Grips connections and fasteners from 3/4" to 1-1/4" and 19 to 30 mm

BIONIC GRIP WITH INTERLOCK™

For Pipes, In-line Connections & Fasteners

- Easily adjust to pipes, fasteners, and in-line connections
- Automatic interlock enhances torque
  - Squeeze and turn
- 4 jaws maximize gripping strength; minimizes tube distortion
- Corrosion resistant
- Made in the USA

6" Tool – P/N 66363
Grips pipe, connections and fasteners from 1/4" to 9/16" and 7 to 14 mm

8" Tool – P/N 66368
Grips pipe, connections and fasteners from 1/2" to 3/4" and 13 to 20 mm

10" Tool – P/N 66366
Grips pipe, connections and fasteners from 7/8" to 1-1/4" and 21 to 30 mm

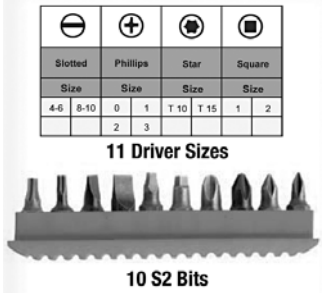
BIT DR.® – RATCHETING SCREWDRIVER

Bit Dr.®
Ratcheting Screwdriver

The Cure For the Common Screwdriver®

- **11 full-size drivers**
- **Flexible driver system**
  - **6 driving positions (includes 90° torque enhancing)**
  - **7 length adjustments**
- **Magnetic 1/4" hex drive**
- **Driving force engages ratchet-like function**
- **Compact size:** 4" x 1-1/2" x 5/8"
- **Hardened steel components, nickel plated for corrosion protection**
- **Integrated bit carriage has cushioned rubber grips**
- **Ergonomic molded glass-reinforced nylon handle**
- **Fingertip control**
- **Made in the USA**

P/N 66369



VERTICAL CLAMP LOCKING TOOL

THE WORLDS SMALLEST LOCKING TOOL FOR VERTICAL CLAMPING

The MicroGrip 2000 is the worlds smallest locking tool for vertical clamping. It's a high performance tool for professionals. Made with strength and durability to last! It has an ergonomic design, with smooth rounded edges, and the single-handed locking and release action to free up the other hand for positioning work pieces.
The straight line motion of the mobile jaw allows vertical clamping in tight spots.

- Length 3-5/8"
- Jaw capacity: 15/32"
- Body made of heat treated aircraft aluminum alloy
- Welding spatter resistant
- Non-corrosive & lightweight
- Adjustable Brass screw
- Mobile jaw dissipates heat
- Hollow fixed jaw allows tool to be attached/bolted to fixtures and permits connection of earth cables for efficient grounding near the weld

DESCRIPTION		PART
Microgrip 2000 Vertical Clamp Locking Tool	A	66381

SPRING CLAMPS

CLAMP WITH TUCK-IN HOOK

- **2" CLAMP CAPACITY – IDEAL FOR DEEP CLAMPING JOBS**
- **ERGONOMIC CLAMP GRIP IS DESIGNED FOR EASY, COMFORTABLE CLAMPING**
- **TUCK-IN HOOK'S 1" CAPACITY TEMPORARILY HOLDS TUBING, CABLES, DECORATIONS, ETC.**
- **PIVOTING V-GROOVED JAW PADS OPEN 2" WIDE TO PROVIDE FIRM, EVEN HOLD**
- **LIGHTWEIGHT GLASS-FILLED NYLON CONSTRUCTION IS RUST RESISTANT AND DURABLE**

DESCRIPTION		PART
Clamp with Tuck-In Hook	B	66390

VACUUM BASE SPRING CLAMP

- **ADHERES TO MOST NON-POROUS SURFACES - GLASS, TILE, MIRRORS, VARNISHED WOOD OR METAL**
- **JAWS OPEN TO 1-1/4" WIDE ON THE 3/4" CLAMP AND 7/8" ON THE 1/2" CLAMP**
- **INCLUDES PIVOTING JAW PADS THAT PROVIDE A FIRM, EVEN HOLD**

DESCRIPTION		PART
Vacuum Base Spring Clamp	I	66392

BIOREMEDIATION PARTS WASHER

SMARTWASHER® MOBILE PARTS/BRAKE WASHER

The SmartWasher® uses a unique technology called bioremediation. (Ozzys) breakdown "eat" the grease and oil or carbon-based products in the OzzyJuice and turn those contaminants into harmless carbon dioxide and water EVAPORATION.

Microbes (Ozzys) continuously eat the contaminants out of the OzzyJuice leaving it clean and strong every time. The microbes (Ozzys) will "eat" grease, oil, mineral spirits, solvents and other petroleum based products, just to name a few. Because of bioremediation and as long as the SmartWasher is maintained properly, the customer should NEVER have to change the fluid.

OzzyJuice Eats:
- Crude Oil
- Hydraulic Transmission Fluid
- Cutting Oils
- Ink/Toner
- Asphalt
- Burned-On Carbon
- Automotive Varnish
- Animal Fat
- Impacted Grease
- Fifth Wheel Grease
- Resin Products
- Automotive Grease
- Bearing Grease
- Solder & Flux
- Motor Oil
- Creosote

SmartWasher®
P/N 27723

Overall Dimensions	43" x 27" x 42"
Inside Sink Dimensions	27" x 23" x 8"
Parts Washer Structure	Heavy-Duty HDPE
Controls	Toggle Switch
Pump Capacity	300 gph
Adjustable Thermostat	105º to 115º F
Flow Control Timer	10 Minutes
Standard Equipment	Customized Dolly
Certified	ETL (UL/CSA), CE, NSF
SmartWasher Start-up Kit	Ships completely assembled, with one OzzyMat™ and enough OzzyJuice® to get started.

OzzyJuice® Parts/Brake Solution
P/N 27724

OzzyJuice® Degreaser Solution
P/N 27726

OzzyJuice® Truck Degreasing Solution
P/N 27727

OzzyJuice® Metal Degreasing Solution
P/N 27728

OzzyJuice® Aircraft/Weapon Degreaser
P/N 27729

OzzyJuice® Heavy Duty Degreaser Solution
P/N 27731

OzzyMat™ Multi-Layer Fluid Activator
P/N 27725

OzzyMat™ Single Layer Fluid Activator
P/N 27730

BIOREMEDIATION PARTS WASHER

OVERVIEW OF SMARTWASHER® SYSTEMS

SmartWasher® Mobile Parts/Brake Washer

P/N 27723

- 300 gph Pump
- Onboard Diagnostics / Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 43" x 27" x 42"
- Inside Sink Dimensions: 27" x 23" x 8"
- Customized Dolly

- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Signature

P/N 27722

- 300 gph Pump
- Onboard Diagnostics
- Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 39" x 29" x 40"
- Inside Sink Dimensions: 26" x 17" x 8"

- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Super Sink XE

P/N 27721

- 300 gph Pump
- Onboard Diagnostics / Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 47" x 38" x 42"
- Inside Sink Dimensions: 41" x 26" x 8"
- 2 brush stations, light kit and parts basket

- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Super Sink

P/N 27720

- 300 gph Pump
- Onboard Diagnostics
- Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 47" x 38" x 42"
- Inside Sink Dimensions: 41" x 26" x 8"

- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

All SmartWashers ship completely assembled with one OzzyMat™ & enough OzzyJuice® to get started.

INDUSTRIAL QUALITY TAPE

3M™ VHB™ HEAVY DUTY MOUNTING TAPES

The Convenience and Simplicity of a Tape Fastener. Ideal for use in many interior & exterior bonding applications and in many situations.

- Can replace rivets, spot welds, liquid adhesives and other permanent fasteners.
- Made with acrylic foam which is viscoelastic in nature. This gives the foam energy absorbing and stress relaxing properties which provides these tapes with their unique characteristics.
- The acrylic chemistry provides outstanding durability performance. These tapes utilize a variety of specific foam, adhesive, color and release liner types to provide each product/family with specific features.
- These features can include adhesion to specific or a broad range of materials, conformability, high tensile strength, high shear and peel adhesion, resistance to plasticizer migration, and UL746C recognition. 3M™ VHB™ Tapes have excellent durability and excellent solvent and moisture resistance.

VHB = Very High Bond

Black Tape, P/N 28762
3/4" x 15 yds / 45 mil
Matches the modified acrylic adhesive on both sides of very conformable foam, providing adhesion to the broadest range of substrates, including most powder coated paints.

Clear Tape, P/N 28763
3/4" x 15 yds / 40 mil
Excellent for applications where clear or colorless is desired. The general purpose adhesive on both sides is suitable for high surface energy substrates.

DESCRIPTION		PART
3M BLACK TAPE "VHB" – 3/4" x 15 yds, 45 mil	A	28762
3M CLEAR TAPE "VHB" – 3/4" x 15 yds, 40 mil	A	28763

INDUSTRIAL QUALITY TAPE

3M™ TEMFLEX™ COTTON FRICTION TAPE 1755

Cotton Cloth with Thermosetable Rubber Resin

3M™ Temflex™ Cotton Friction Tape 1755 is a high-grade, black friction tape designed to provide mechanical protection against abrasion and cut-through for cable, wire splices and connections insulated with rubber electrical tape.

The 13 mil thick tape is composed of a high-quality cotton fabric, coated on both sides with an electrical-grade, solvent-free, rubber adhesive.

1755 Tape has high break strength and low stretch, making it ideal as a heavy-duty binding and harnessing tape.

- Provide abrasion and cut-through protection on wire and cable splices
- Provide mechanical protection for rubber electrical tape
- Provide bundling, binding and spot holding on wire harnesses
- Provide protection on sharp edges, to prevent scratching or cut through

DESCRIPTION		PART
3M TEMFLEX COTTON FRICTION TAPE 1755 – 1" x 60', 13 mil	A	28774

SCOTCH™ GLASS CLOTH ELECTRICAL TAPE 27 & 69

Class “B” and “H” Insulation
Ideal for holding and strapping applications up to 200°C.

3M offers exceptionally flexible and conformable glass cloth backings on the market with high-temperature resistance and tensile strength. With excellent absorption of resins and varnishes plus cut-through and edge-tear resistance.

27 Tape
This is a 7 mil woven glass cloth tape with a **rubber thermosetting** pressure-sensitive adhesive sold on a 3 in paper core in bulk, and is for electrical OEM customers. UL Recognized 150°C. Printable.

69 Tape
This is a 7 mil woven glass cloth tape with a **silicone** pressure-sensitive adhesive sold on a 3 inch core in bulk, and is for electrical OEM customers. UL Recognized 200°C. Printable.

DESCRIPTION		PART
SCOTCH GLASS CLOTH ELECTRICAL TAPE 27 – 3/4" x 66'	A	28772
SCOTCH GLASS CLOTH ELECTRICAL TAPE 69 – 3/4" x 66'	A	28773

INDUSTRIAL QUALITY TAPE

HI-STRENGTH DOUBLE-SIDED TAPE

- **BLACK POLYETHYLENE FOAM TAPE (1/32" THICK) WITH A HEAVY COATING OF AN AGGRESSIVE, HIGH PERFORMANCE, ACRYLIC ADHESIVE ON BOTH SIDES**
- **THE CLOSED CELL POLYETHYLENE FOAM RETAINS ITS FLEXIBILITY MAKING IT IDEAL FOR APPLICATION ON IRREGULAR OR EMBOSSED SURFACES EXPOSED TO EXTREME TEMPERATURE AND HUMIDITY**
- **ACRYLIC ADHESIVE STRENGTH INCREASES WITH AGE**
- **RESISTANT TO SOLVENTS AND CHEMICALS**
- **FOR MOUNTING EXTERIOR TRIM, SIDE MOULDINGS, EMBLEMS, NAMEPLATES**

SIZE		PART
1/2" x 50' moulding tape	A	28761
3/4" x 50' mounting tape	A	28771

ANTI-SEIZE TAPE

- **EASY TO APPLY FROM HANDY PLASTIC SPOOL**
- **DISCOURAGES SEIZING, GALLING AND CARBON FUSING**
- **NON-TOXIC, NON-FLAMMABLE, NON-STAINING**
- **INHIBITS CORROSION, RUSTING AND GALVANIC PITTING**
- **EFFECTIVE ACROSS A BROAD RANGE OF TEMPS.: -450°F to 2600°F (-268° TO 1426°C)**
- **WILL NOT SQUEEZE OUT AND RUB OFF LIKE GREASE BASED PRODUCTS**
- **COMPATIBLE WITH A WIDE RANGE OF CHEMICALS**
- **MEETS MIL SPECS: T-27730A (ASG) & A-A-58092**
- **ALSO USE FOR SEALING STAINLESS STEEL PIPE & FITTINGS**

COPPER: For cleaner high-temperature threaded anti-seize applications. Reduces required torque. Applied easily, seals tightly, overcomes high temperature seizing. *Temp. range: -450° to 1800°F*

NICKEL: For applications where copper cannot be used including chemical, extremely high temperatures, and harsher environments. Made specifically for stainless steel threads. *Temp. range: -450° to 2600°F*

CERAMIC: Formulated specifically for anti-seize applications typical to food industry. All materials FDA approved. *Temperature range: -450° to 2100°F*

SIZE		PART
1/2" x 600" Copper	B	32902
1/2" x 600" Nickel	B	32903
1/2" x 600" Ceramic	B	32904

BLUE PAINTER'S MASKING TAPE

- **REMOVES CLEANLY AND EASILY WITHOUT ADHESIVE TRANSFER OR SURFACE DAMAGE UP TO 14 DAYS, EVEN IN DIRECT SUNLIGHT**
- **MEDIUM ADHESION**
- **IDEAL FOR PAINTED WALLS, TRIM, WOODWORK, GLASS AND METAL**

SIZE		PART
1/2" x 60 yd Blue Painter's	A	32875
1" x 60 yd Blue Painter's	A	32876
2" x 60 yd Blue Painter's	A	32877

PTFE PIPE TAPE

High Density PTFE Tape and Yellow Gas Line:
Meets: MIL-T-27730 & CID A-A-58092
CSA Requirement #4-90
4 Mil Thickness

Standard and Import PTFE Tape:
Meets: MIL-T-27730A 3.5 Mil Thickness

- **TEMPERATURE RANGE -400°F to 500°F (-240°C to 260°C)**
- **FORMS A PERMANENT SEAL FOR the LIFE OF THE CONNECTION**
- **APPROVED BY THE USDA AND FDA AND ARE NON-TOXIC UNDER NORMAL USAGE (DO NOT BURN, PTFE MATERIALS EMIT A TOXIC GAS IF INCINERATED)**
- **ALL PIPE JOINT SEALING APPLICATIONS**
- **AVAILABLE IN HIGH DENSITY, STANDARD OR LOW DENSITY COMPOSITIONS**
- **GREEN/OXYGEN TAPE IS SUITABLE FOR OXYGEN SERVICE SUCH AS HOSPITAL EQUIPMENT AND OXYGEN CYLINDERS**
- **PINK/PLUMBERS TAPE IS EXTRA THICK AND EXTRA DENSE FOR PIPE-FITTING**

SIZE		PART
High Density 1/2" x 520"	E	32890
High Density 3/4" x 520"	E	32891
Standard 1/2" x 520"	I	2895
Standard 3/4" x 520"	E	32895
Low Density 1/2" x 520"	I	32892
Low Density 3/4" x 520"	I	32893
Yellow Gas Line 1/2" x 520"	E	32898
Yellow Gas Line 3/4" x 520"	E	32899
Green/Oxygen 1/2" x 260"	E	32900
Pink/Plumbers 1/2" x 260"	E	32901

MASKING TAPE

- **STRONG MASKING TAPE FOR LOW AND AND HIGH TEMPERATURE USE (TO 200°F)**
- **HIGH TACK ADHESIVE**
- **CLEAN REMOVABILITY**
- **TOP MOISTURE RESISTANCE**

SIZE		PART	SIZE		PART
1" x 180'	E	2896	2" x 180'	E	2897

MASKING TAPE DROP CLOTH

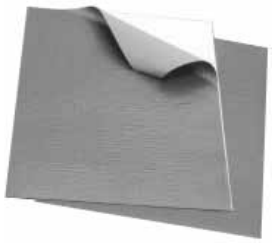
- **MASKING TAPE, MASKING PAPER AND CLEAR FILM IN ONE – SIMPLY UNROLL, APPLY AND UNFOLD FILM**
- **CLEAR FILM CLINGS TO SURFACE FOR MAXIMUM COVERAGE AND EFFECTIVENESS**
- **HANDY DISPENSER W/CUTTING BLADE**
- **WORKS AT TEMPS UP TO 250°F (120°C)**
- **SAVES TIME & MONEY – CAN BE APPLIED BY ONE PERSON**

DESCRIPTION		PART
78" x 22 YARD ROLL	A	32897
DISPENSER	A	32896

INDUSTRIAL QUALITY TAPE

DUCT SEALING SHEETS

- PERFECT FOR THE REPAIR OF TENTS, TARPS, AUTO/BOAT UPHOLSTERY, LUGGAGE SPORTS EQUIPMENT, ETC.
- SIMPLY REMOVE THE SHEET FROM THE RELEASE LINER PRESS INTO PLACE
- CAN ALSO BE CUT FOR A CUSTOM FIT



DESCRIPTION		PART
Duct Sealing Sheets 8-1/2" x 11"	I	32870
Duct Sealing Sheets 4" x 4"	I	32871

DOUBLE SIDED FOAM TAPE

- COATED WITH AN ACRYLIC PRESSURE SENSITIVE ADHESIVE PROVIDES HIGH ULTIMATE BOND AND SHEAR STRENGTH
- IDEAL FOR GENERAL PURPOSE MOUNTING AND JOINING
- HIGH TEMPERATURE RESISTANCE TO 220°F (104°C)
- HIGH SOLVENT RESISTANCE
- BONDS MIRRORS TO WALLS OR FURNITURE
- BONDS ACOUSTIC PANELS TO WALLS
- MOUNT AIR FRESHENERS AND SOAP DISPENSERS
- MOUNT INTERIOR SIGNS AND NAMEPLATES

DESCRIPTION		PART
1/16 x 1" x 36 yard roll	A	2881
1/8 x 1" x 36 yard roll	A	28818

CLEAR DUCT SEALING

- CLEAR DUCT TAPE MAKES REPAIRS LESS OBVIOUS
- UV AND WATER RESISTANT FOR BOTH INDOOR & OUTDOOR USE
- CAN BE TORN LENGTHWISE AND CROSSWISE FOR ADDED CONVENIENCE AND VERSATILITY
- LASTS UP TO 6 TIMES LONGER THAN OTHER HEAVY-DUTY DUCT TAPE BASED ON ACCELERATED WEATHERING
- UNWINDS AND SEPARATES EASILY, EVEN WHEN THE STICK SIDES MEET

DESCRIPTION		PART
Clear Duct Sealing 2" x 60'	A	42885

CAMOUFLAGE TAPE (MATTE FINISH)

- INSTANTLY CAMOUFLAGES ALL TYPES OF HUNTING AND OUTDOOR GEAR
- DESIGNED TO BE CUT AND TRIMMED TO COVER ODDLY SHAPED OR MOVING PARTS SUCH AS SCOPE KNOBS & OTHER FUNCTIONAL CONTROLS
- IMPROVES GRIP, QUIETS CLANKING GEAR, AND PROTECTS EXPENSIVE EQUIPMENT FROM SCRATCHES
- INSULATES HANDS FROM HOT AND COLD SURFACES
- WEATHER RESISTANT AND WATERPROOF
- KEEPS FIREARMS AND BOWS FROM SLIPPING ON ROCKS, STEEP TERRAIN, BRANCHES, TREE STANDS AND OTHER SURFACES
- IDEAL FOR CAMOUFLAGING ITEMS SUCH AS OUTBOARD MOTORS, OARS, FLASHLIGHTS, SMALL COOLERS, THERMOSES, DOG COLLARS AND OTHER GEAR

SIZE		PART
2" x 180' Camouflage Tape	A	32874

COLORED DUCT SEALING

- POLYETHYLENE COATED CLOTH TAPE
- AVAILABLE IN SEVEN (7) COLORS: SILVER, BLACK, RED, WHITE, BLUE, YELLOW & GREEN
- HIGHEST ADHESION AND MOISTURE RESISTANCE
- EASY TEARING
- FOR COLD OR HOT AIR DUCTS

SIZE AND COLOR		PART
2" x 180' Silver	A	2885
3" x 180' Silver	A	2887
2" x 180' Black	A	2885BK
2" x 180' Red	A	2885R
2" x 180' White	A	2885W
2" x 180' Blue	A	2885BL
2" x 180' Yellow	A	2885Y
2" x 180' Green	A	2885G

GLASS REINFORCED FILAMENT

- TOUGH – 180 LBS. / INCH PSI
- EXCELLENT SCUFF AND MOISTURE RESISTANCE
- RESISTS LENGTHWISE SPLITTING
- USE FOR TABBING, BUNDLING, UNITIZING, PROTECTING, ETC.

SIZE		PART
1" x 180' Glass Reinforced	A	2882

ANTI-SLIP TAPES

ANTI-SLIP TAPES – COLORS – 46/50/60 GRIT

Anti-Slip Tape is the preferred product line when visual warning is required to mark potential slip and fall hazards. Developed with maximum visual warning characteristics in mind. We provide the best assortment of visual cues to meet your requirements. Anti-Slip Tape is offered in 60 ft. rolls and easy to apply sections.

Features and Benefits

- Durable high traction grit surface
- Easy to apply
- Aggressive adhesive system for product longevity
- Fuel, water and fluid resistant
- Reduce the risks of slips and falls
- Ensure worker safety on potentially hazardous surfaces
- Prevent costly injuries in the workplace due to slips and falls
- Reduce Worker's Compensation claims
- NFSI - National Flooring Safety Institute certified for "high traction"
- Exceeds OSHA standards for non-slip protection on walking surfaces

Applications

- Farm Machinery
- Construction equipment
- Forklifts
- Cherry pickers
- Steps, stairs
- RVs
- Snowmobiles
- ATVs
- Garden tractors
- Lawn mowers
- Wet & oily areas
- Loading docks
- Cold storage
- Catwalks
- Platforms/ramps
- Ladders, step stools
- Scaffolds
- Airline decks
- Airline cargo holds
- Trains
- Semi-trailers
- Buses
- Ship decks
- Boats
- Conveyors
- Pulleys
- Food service areas
- Machine shops
- Auto repair shops
- Garages

DESCRIPTION		PART	DESCRIPTION		PART
2" x 60' Roll, 46 Grit, Black	A	28207	4" x 60' Roll, 60 Grit, Yellow	A	28265
4" x 60' Roll, 46 Grit, Black	A	28208	6" x 60' Roll, 60 Grit, Yellow	A	28266
6" x 60' Roll, 46 Grit, Black	A	28209	2" x 60' Roll, 60 Grit, Yellow/Black	A	28267
2" x 60' Roll, 60 Grit, Red	A	28261	4" x 60' Roll, 60 Grit, Yellow/Black	A	28268
4" x 60' Roll, 60 Grit, Red	A	28262	6" x 60' Roll, 60 Grit, Yellow/Black	A	28269
6" x 60' Roll, 60 Grit, Red	A	28263	6" x 24" Piece, 60 Grit, Caution	A	28215
2" x 60' Roll, 60 Grit, Yellow	A	28264	6" x 24" Piece, 60 Grit, Watch Your Step	A	28260

ANTI-SLIP TAPES – LOW PROFILE

- **PREVENTS SLIPS AND FALLS ON SLIPPERY SURFACES**
- **ABRASIVE GRAIN COATED PLASTIC FILM WITH PRESSURE SENSITIVE ADHESIVE**
- **SUPERIOR QUALITY MATERIALS – ASSURES LONG LIFE, DURABILITY AND RESISTANCE TO HEAVY TRAFFIC, WATER AND GREASE**
- **ABRASIVE GRAIN – PROVIDES A CONSISTENT CO-EFFICIENT OF FRICTION**
- **EASY INSTALLATION – SIMPLY POSITION, PEEL-OFF BACKING PAPER AND APPLY TO A CLEAN, DRY, OIL-FREE SURFACE**
- **CONFORMABILITY – INSTALLS OVER MOST IRREGULAR SURFACES**
- **LOW PROFILE HELPS PREVENT EDGE CURL**
- **MEETS OR EXCEEDS MOTOR VEHICLE SAFETY STANDARD NO. 302, MIL-D-17951E (SHIPS), AND NON-SLIP MIL-W-5044C TYPE IV**

Surface Compatibility: Painted wood, painted metal, sealed concrete
Application Temperature: Apply when above 50ºF

DESCRIPTION		PART
2" x 60' roll	A	28210
4" x 60' roll	A	28211

ANTI-SLIP TAPES

ANTI-SLIP TAPES – GLOW-IN-THE-DARK – 50 GRIT

The ultimate non-slip egress tape! Sudden power outages or natural disasters can increase the potential for panic, as well as the risk of injuries caused by slips and falls.

Safety grade glow-in-the-dark solution for marking stairs and corridors that are part of the emergency egress route. Offered in 60 ft. rolls.

Features and Benefits

- Manufactured with the same aggressive adhesive system as our other safety tape products
- Complies with all safety grade photoluminescent domestic and international standards
- It will adhere to most clean, dry, oil-free surfaces
- For use on painted wood, metal, sealed concrete and non-porous surfaces
- NFSI - National Flooring Safety Institute certified for "high traction"

DESCRIPTION		PART
2" x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28212
4" x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28213
6" x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28214

BARRICADE TAPE

CAUTION DO NOT ENTER / DANGER DO NOT ENTER

CAUTION DO NOT ENTER

DANGER DO NOT ENTER

- **Roll length:** 1000'
- **Roll width:** 3"
- **Thickness:** 2 mil
- Standards OSHA 1910.144
- YELLOW OR RED film with BLACK print
- Durable polyethylene
- Continuous repeating message or warning in bold black letters
- For visual warning in hazardous areas
- Temporarily control and secure identified areas on an immediate basis
- Protect pedestrians, employees and anyone who might fall into a dangerous situation

APPLICATIONS

- Road Work
- Construction Sites
- Chemical and industrial plants
- Fire and crime scenes
- Any potential dangerous areas

DESCRIPTION		PART
Barricade Tape (YELLOW WITH BLACK TYPE - CAUTION DO NOT ENTER) 1000' Roll	A	20098
Barricade Tape (RED WITH BLACK TYPE - DANGER DO NOT ENTER) 1000' Roll	A	20099

AIR BLOW GUNS

SAFETY BLOW GUN

- **Ergonomic design fits in your hand comfortably**
- **Composite body and nozzle will not scratch – sturdy and durable**
- **Light weight (4.8 oz.)**
- **1/4" female brass insert to match any plug profile**
- **Built-in hole on body so it can hang up easily on hook**
- **The shape of the trigger will not allow any dust or material inside the gun**
- **It operates with a double O-ring seal and stainless steel spring**
- **Built-in trigger stop at the handle base. Prevents the handle from being over extended and fatigued**
- **Trigger and nozzle angle are shaped in the natural air flow of the gun**

- **7.7 SCFM @ 87 PSI**
- **90 db rating**
- **Blower Force - 9.5 Oz**
- **Dynamic Pressure @ 87 PSI = 17.40 PSI**

DESCRIPTION		PART
Safety Blowgun with OSHA Venturi Nozzle	A	52233

POCKET BLO-GUN

"M" STYLE

"T" STYLE

EASY GRIP TWO FINGER AIR CONTROL ADJUSTS FROM WHISPER TO FULL VOLUME AIR FLOW

DESCRIPTION		PART
Fits 1/4 "M" style coupler body	A	52224
Fits 1/4 "T" style coupler body	A	52226

RUBBER TIP BLO-GUN

- **FULL LINE PRESSURE**
- **HEAVY DUTY**
- **LEAK-PROOF CONNECTION FOR BLOWING OUT FLUID LINES**
- **WON'T MAR DELICATE OR PAINTED SURFACES**

DESCRIPTION		PART
1/4" NPT Air Inlet with Rubber Tip	A	52230

SAFETY LEVER BLO-GUN

- **FULL FLOW**
- **LEVER EASILY CONTROLS AIR FLOW**
- **HUNDREDS OF AUTOMOTIVE/ INDUSTRIAL USES**
- **RUGGED CONSTRUCTION**
- **MEETS OSHA REQUIREMENTS**

DESCRIPTION		PART
1/4" NPT Air Inlet Nozzle Thread 7/16-27	A	52228
1/4" NPT Air Inlet w/Hang-Up Hook Nozzle Thread 1/8-27	A	52229

WELDLESS CHAIN

HEAVY ZINC COATING

Made of high quality, silver bright, galvanized steel wire. Galvanized wire is superior in rust resistance because of a heavier zinc coating than zinc plated chain. Not for lifting.

DOUBLE LOOP CHAIN

- **A GENERAL UTILITY CHAIN FOR MULTIPLE APPLICATIONS SUCH AS PORCH SWINGS, CHILDREN'S SWINGS, ANIMAL CHAINS AND LIGHT FIXTURES**
- **100 FOOT LENGTHS**

SIZE	WIRE GAUGE	WIRE DIAMETER, INCHES	LINKS PER FOOT	WEIGHT PER 100' POUNDS	WORKING LOAD LIMIT POUNDS	BREAK TEST LOAD, POUNDS		PART
#3	14	.080	10.5	6.1	90	360	T	60518
2/0	10	.135	6.6	17	255	1020	T	60519

SINGLE JACK CHAIN

- **IDEAL FOR HANGING SIGNS, LIGHTING FIXTURES AND NOVELTIES SUCH AS FLOWER POTS, CHILDREN'S TOYS AND OTHER GENERAL UTILITY APPLICATIONS**
- **100 FOOT LENGTHS**

SIZE	WIRE GAUGE	WIRE DIAMETER, INCHES	LINKS PER FOOT	WEIGHT PER 100' POUNDS	WORKING LOAD LIMIT POUNDS	BREAK TEST LOAD, POUNDS		PART
16	16	.062	23	3.0	10	40	T	60520
12	12	.105	16	8.5	29	115	T	60521

SASH CHAIN

- **SUITABLE FOR APPLICATIONS REQUIRING FLAT METAL CHAIN AND OPERATION OVER PULLEYS SUCH AS WINDOWS AND SASHES**
- **100 FOOT LENGTHS**

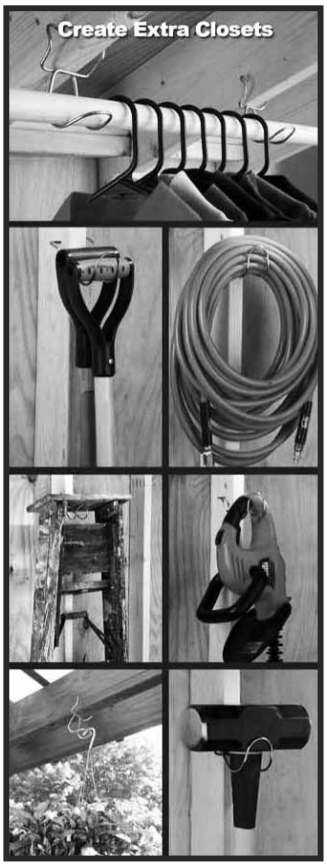
SIZE	MATERIAL SIZE INCHES	LENGTH PER 100 LINKS	APPROXIMATE WEIGHT PER 100 FEET	WORKING LOAD LIMIT POUNDS	MIN. BREAK TEST LOAD, POUNDS		PART
35	.035	56	6	106	425	T	60522

NOTE: Weights are for steel chain only and are subject to a plus or minus tolerance of 4%.

INSTANT HOOK

THE BAT HOOK®

The Instant Hook That Hangs Like A Bat!



Features
- The perfect detachable hanging solution for a multitude of storage and organizational tasks
- In just seconds, and without the need of tools or fasteners, the Bat Hook® turns underutilized wood studs and beams into highly adaptable storage space
- Firmly attaches at any angle, onto wood studs, rafters, and joists
- Just squeeze the patented “cantilevered point” clamping mechanism & slip it over any “two by” board
- Holding up to 40 lbs, the Bat Hook® grips the wood surface tighter as more load is attached
- Made from high strength galvanized steel

Benefits
- Unmatched versatility and strength
- Will withstand years of use and infinite moves
- No need for tools or fasteners

Use In
- Garages
- Basements
- Sheds
- Attics
- Decks
- Job Sites

DESCRIPTION		PART
The Bat Hook – Instant Hook	A	60366

DRIP PAN – RUBBER

DURABLE REINFORCED RUBBER COMPOSITION

Features
- 3 gallon containment
- Low and wide (17" Dia. x 4-1/2" H)
- Reusable
- Flexible rubber
- Will not crack if dropped
- Extremely resistant to cold weather cracking
- No damage if run over by vehicle

Applications
- Garages
- Motorpools
- Bleeding brake lines
- Oil changes
- Transmission fluid changes
- Soaking and cleaning parts or tools
- Anywhere leaks or spills are possible

DESCRIPTION		PART
Rubber Drip Pan	A	28309

SPILL CONTAINMENT – UNIVERSAL

FLUID ABSORBENTS – UNIVERSAL

Universal Rolls, Pads, Socks, and Drum Tops are made with Q-CEL™ technology! Q-CEL™ technology is the most significant absorbent development in almost 20 years! Industry Leading... You can take care of almost 90% of your industrial spill control with just a few absorbents.

Universal Absorbent Rolls
The market leader in absorbency vs. major competitors. Use for oil and water applications only, not for use with aggressive acids or caustics. The rolls have perforated tear-off sheets every 19''. Made with recycled fibers. Class A fire retardant.

Universal Absorbent Pads
The market leader in absorbency vs. major competitors. Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

Drum Tops
Big bulk, laminated Drum Top Pads, keep liquids from getting to the floor so there is no messy or hazardous cleanup. Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

Universal Absorbent Socks
Designed to meet the absorbency that you expect. Our socks provide great moldability in the workplace, ensuring the perfect fit for each job. Packed with our recycled fibers to help save our environment and yet is still a fast-acting sorbent.

Definitely one of our best products yet! Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

DESCRIPTION		PART
Universal Absorbent Roll, 28.5" x 125', perforated	A	28222
Universal Absorbent Socks, Gray Socks, 3" x 45"	I	28218
Universal Absorbent Pads, Gray Pads, 15" x 19", Laminated – Standard	T	28219
Drum Top Absorbent 22"	I	28224

FLUID ABSORBENTS – UNIVERSAL SPILL KIT – PORTABLE 10'' BUCKET

Universal Spill Kit
Designed to handle small and medium spills. Universal absorbents are packed inside our patented bucket to keep the contents inside safe from liquids.
Use for oil and water applications only, not for use with aggressive acids or caustics.
Made with recycled fibers. Class A fire retardant.

Spill Kit Contents:
- 6 Universal Pads (Basic Version)
- 2 Universal Socks
- 1 Hazardous Waste Disposal Bag (with plastic tie)
- 1 Pair Industrial Gloves

P/N 28230

CHROMAGIC SPILL ABSORBENT

- One absorbent for multiple types of spills
- Non-toxic and non-flammable
- Odor Free
- Environmentally safe & friendly
- 15 times more absorbent than clay based products
- Lightweight – Up to 20 times lighter than clay based products
- Will save money on shipping, storing and disposal
- Instant clean up saves time
- Meets or exceeds all OSHA and EPA requirements
- It picks up oily sheen
- Less accidents reduce Workers' Compensation
- Lightweight and powerful
- Absorbs and holds most liquids
- One pound of Chromagic can completely absorb one quart of motor oil; clay, earth, and sand products require 15 pounds of material
- Requires far less absorbent to capture a spill
- Works on all animal, vegetable, mineral, petroleum based or semi-liquid spills
- Chromagic does not, under OSHA standards, qualify as a carcinogen, or as a substance causing silicosis, a lung disease
- Non-injurious to most surfaces including cement, asphalt, tile, and carpet

P/N 28234

Sold as a twin pack.

CAUTION: Cannot be used to absorb Hydrofluoric Acid (HF)

SPILL CONTAINMENT – OIL ONLY

OIL EATER ABSORBENT DRIP PAN

The new Oil Eater Absorbent Drip pan is designed for leaks that occur in tight spaces – such as under machinery and pipes – and are too big for an absorbent pad. The Drip Pan is made of sturdy plastic and houses an eco-friendly absorbent pillow made of plant fibers and other renewable resources. When soiled, the pillow is easily removed and replaced with a new one.

DESCRIPTION		PART
Drip Pan (10" x 12" x 2")	A	28231
Replacement Pillow	A	28232

OIL ONLY ROLLS

- Oil Only Rolls are made with meltblown polypropylene.
- They are a standard grade absorbent used for oil spills.
- The rolls have perforated tear-off sheets every 19".

DESCRIPTION		PART
Oil Only Absorbent Roll, 36" x 130', Perforated	A	28223

OIL ONLY SPILL CONTAINMENT KIT – PORTABLE FIVE-GALLON PAIL

Take everything you need to clean up hazardous materials directly at the spill site.

Includes:
- 5 sorbent socks
- 5 sorbent sheets
- One pair of nitrile gloves
- Polyethylene pail with cover

Features and Benefits
- Oil only kit – Will not absorb water
- Ideal for service vehicles and for other confined areas
- Use in multiple locations
- Compact – Easy storage
- Light weight: 12 lbs
- Helps you in complying with EPA 40 CFR263.30 (a)

DESCRIPTION		PART
Oil Only Spill Containment Kit	A	28228

TRACK MAT – RAILROAD CONTAINMENT ABSORBENT

For Preventing or Controlling Oil Spills, Leaks, and Drips
The Track Mat is capable of absorbing nearly three gallons of oil or other petroleum products per square yard.

Our Track Mat is the heaviest, thickest and most absorbent barrier mat available. Its unique 3-ply construction includes an oil only polypropylene core, surrounded by an impenetrable barrier film that prevents absorbed liquids from leaching out. It also has a UV resistant cover-stock, providing an outdoor life of 12 to 18 months.

The Track Mat was originally designed for use between and outside railroad tracks, it is also widely used by transportation companies, utilities, refineries, steel mills, and in other environments in which a high absorbency barrier is required.

DESCRIPTION		PART
Track Mat Inner Roll, 59" x 100'	A	28226
Track Mat Outer Roll, 19" x 100'	B	28227

SPILL CONTAINMENT

FINE FIBER MELTBLOWN PADS AND ROLLS - UNIVERSAL/MAINTENANCE

- Top and bottom layers of fine fiber are built of densely-woven, small-diameter strands of fiber to increase surface area, enabling the mat to grip the floor and secure it for safe walking.
- A 3-ply construction with a layer of melt blown polypropylene ultrasonically sandwiched between two fine fiber layers makes this mat virtually indestructible to foot traffic.
- Polypropylene fibers creates a high-loft inner layer.

DESCRIPTION		PART
Medium weight pads – gray, 15" x 19", 21 gallons sorbent capacity	T	28310*
Double weight roll – gray, 30" x 150', 50 gallons sorbent capacity	A	28311
Single weight roll – gray, 30" x 300', 50 gallons sorbent capacity	A	28312

BONDED MELTBLOWN PADS AND ROLLS – OIL ONLY

- Twin Bonded layers of melt blown polypropylene creates high surface area.
- The mat to sucks up liquid quickly and keeps its shape when fully saturated.
- Twin layered random assembly of large diameter melt blown polypropylene fibers creates a high loft inner layer.
- Ultrasonic weld points fuse the layers of melt blown polypropylene fibers together.

DESCRIPTION		PART
Double weight pads – white, 15" x 19", 30 gallons/bale sorbent capacity	T	28313
Double weight roll – white, 30" x 150', 56 gallons/roll sorbent capacity	A	28314
Single weight roll – white, 30" x 300', 59 gallons/roll sorbent capacity	A	28315

STANDARD MELTBLOWN PADS – OIL ONLY

- Loose stacked-weave construction increases surface area on spill.
- Starts absorbing on contact.
- Fibers are left in their natural hydrophobic state.
- Hydrophobic fibers repel water (and float) while only absorbing oils and other hydrocarbons.

DESCRIPTION		PART
Double weight pads – white, 15" x 19", 34 gallons/bale sorbent capacity	T	28316*
Medium weight pads – white, 15" x 19", 27 gallons/bale sorbent capacity	U	28317*
Single weight pads – white, 15" x 19", 36 gallons/bale sorbent capacity	U	28318*

BOOMS – OIL ONLY

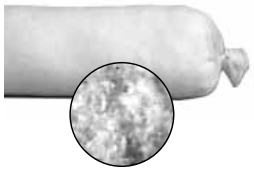
- Strong mesh outer skin encases a poly sock sleeve filled with highly sorbent polypropylene.
- Filler won't shed and booms won't sink, even when saturated with oil.
- Built in connectors link booms together.

DESCRIPTION		PART
Lint-free absorbent boom – white, 5" x 10', 35 gallons/bale sorbent capacity	D	28319

*Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

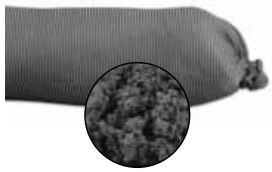
SORBENT SOCKS – OIL ONLY



- Ideal for surrounding spilled fluids to keep them from spreading.
- Easy and convenient to put into place.
- Conforms to the base of leaky machines.
- Fits snugly to absorb leaking fluids before they spread to walk areas and become slippery hazards.

DESCRIPTION		PART
Oil-only absorbent sock – white, 3" x 4', 30 gallons/case sorbent capacity	O	28320
Oil-only absorbent sock – white, 3" x 8', 30 gallons/case sorbent capacity	K	28321

SORBENT SOCKS – UNIVERSAL/MAINTENANCE



- Ideal for surrounding spilled fluids to keep them from spreading.
- Easy and convenient to put into place.
- Conforms to the base of leaky machines.
- Fits snugly to absorb leaking fluids before they spread to walk areas and become slippery hazards.

DESCRIPTION		PART
Universal absorbent sock – gray, 3" x 4', 30 gallons/case sorbent capacity	O	28322
Universal absorbent sock – gray, 3" x 8', 30 gallons/case sorbent capacity	K	28323

SPILL KITS – OIL ONLY, UNIVERSAL & HAZMAT

- Everything you need for a complete and thorough clean up of a large industrial spill.
- Screw on lid makes a tight, secure seal ensuring a secure and leak free transport to a disposal site.
- 65 gallon and 95 gallon spill kits are DOT approved.

DESCRIPTION				PART
30 Gallon Drum Spill Kit – Blue	Oil-Only	18 gallons sorbent capacity	A	28336
30 Gallon Drum Spill Kit – Blue	Universal	18 gallons sorbent capacity	A	28337
30 Gallon Drum Spill Kit – Blue	Hazmat	18 gallons sorbent capacity	A	28338
30 Gallon Drum Spill Kit Refill	Oil-Only	18 gallons sorbent capacity	A	28336REFILL
30 Gallon Drum Spill Kit Refill	Universal	18 gallons sorbent capacity	A	28337REFILL
30 Gallon Drum Spill Kit Refill	Hazmat	18 gallons sorbent capacity	A	28338REFILL
55 Gallon Drum Spill Kit – Blue	Oil-Only	44 gallons sorbent capacity	A	28333
55 Gallon Drum Spill Kit – Blue	Universal	44 gallons sorbent capacity	A	28334
55 Gallon Drum Spill Kit – Blue	Hazmat	44 gallons sorbent capacity	A	28335
55 Gallon Drum Spill Kit Refill	Oil-Only	44 gallons sorbent capacity	A	28333REFILL
55 Gallon Drum Spill Kit Refill	Universal	44 gallons sorbent capacity	A	28334REFILL
55 Gallon Drum Spill Kit Refill	Hazmat	44 gallons sorbent capacity	A	28335REFILL
65 Gallon Overpack Spill Kit – Yellow	Oil-Only	46 gallons sorbent capacity	A	28330
65 Gallon Overpack Spill Kit – Yellow	Universal	46 gallons sorbent capacity	A	28331
65 Gallon Overpack Spill Kit – Yellow	Hazmat	46 gallons sorbent capacity	A	28332
65 Gallon Overpack Spill Kit Refill	Oil-Only	46 gallons sorbent capacity	A	28330REFILL
65 Gallon Overpack Spill Kit Refill	Universal	46 gallons sorbent capacity	A	28331REFILL
65 Gallon Overpack Spill Kit Refill	Hazmat	46 gallons sorbent capacity	A	28332REFILL
95 Gallon Overpack Spill Kit – Yellow	Oil-Only	73 gallons sorbent capacity	A	28327
95 Gallon Overpack Spill Kit – Yellow	Universal	73 gallons sorbent capacity	A	28328
95 Gallon Overpack Spill Kit – Yellow	Hazmat	73 gallons sorbent capacity	A	28329
95 Gallon Overpack Spill Kit Refill	Oil-Only	73 gallons sorbent capacity	A	28327REFILL
95 Gallon Overpack Spill Kit Refill	Universal	73 gallons sorbent capacity	A	28328REFILL
95 Gallon Overpack Spill Kit Refill	Hazmat	73 gallons sorbent capacity	A	28329REFILL

Non-stock items. Please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

SPILL CART ON WHEELS – OIL ONLY, UNIVERSAL & HAZMAT

- Developed to contain spills over 100 gallons.
- 4" rubber casters allow for maximum mobility across a plant floor to quickly respond to a spill.
- Refills are also available for large spill carts.

DESCRIPTION				PART
Large Spill Kit on Wheels – White	Oil-Only	108 gallons sorbent capacity	A	28324
Large Spill Kit on Wheels – White	Universal	108 gallons sorbent capacity	A	28325
Large Spill Kit on Wheels – White	Hazmat	108 gallons sorbent capacity	A	28326
Large Spill Kit on Wheels Refill	Oil-Only	108 gallons sorbent capacity	A	28324REFILL
Large Spill Kit on Wheels Refill	Universal	108 gallons sorbent capacity	A	28325REFILL
Large Spill Kit on Wheels Refill	Hazmat	108 gallons sorbent capacity	A	28326REFILL

SPILL KIT IN ZIPPER POLY BAG – OIL ONLY & UNIVERSAL

- Use around the shop or in a vehicle.
- Kit allows a worker or driver to act quickly when responding to a spill.
- Compact enough to fit easily in a truck cab.

DESCRIPTION		PART
Poly Bag Spill Kit – Clear Poly, Oil-Only, 5 gallons sorbent capacity	A	28339
Poly Bag Spill Kit – Clear Poly, Universal, 5 gallons sorbent capacity	A	28340

SPILL KIT FOR ACIDS/CAUSTICS - 5 GALLONS

- Ideally used in battery shops or any area prone to leaking caustics.
- Sorbent capacity: 5 gallons
- Kit contains:
  - 1 Pail
  - 1 Two lb. Shaker of Neutralizers
  - 5 Acid Absorbing Pads, 15'' x 19''
  - 2 Socks
  - 2 Disposable Bags with Ties
  - 1 Scoop
  - 1 Pair of goggles
  - 1 Pair of Nitrile Gloves

DESCRIPTION		PART
Acid Spill Kit	A	28341
Acid Absorbing Pads (15'' x 19'')	E	28342

Non-stock items. Please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

SPILL PALLET – 1 DRUM

• Great for safely storing a single 55 gallon drum.

DESCRIPTION		PART
1 Drum Spill Pallet, 26" L x 26" W x 6.5" H, 15 gallons containment capacity	A	28350

SPILL PALLET (LOW PROFILE) – 2 DRUM

• Store two 55 gallon drums without worrying about spills or leaks.

DESCRIPTION		PART
2 Drum Spill Pallet, 26.25" L x 51.5" W x 6.5" H, 32 gallons containment capacity	A	28351
Poly Ramp, 45.5" L x 32" W x 8" H	A	28356

SPILL PALLET (HIGH PROFILE) – 2 DRUM

• Store two 55 gallon drums without worrying about spills or leaks.
• SPCC compliant, so you can be sure that your facility will remain clean and safe.

SPCC COMPLIANT*

DESCRIPTION		PART
2 Drum Spill Pallet, 26.25" L x 51.5" W x 15" H, 68 gallons containment capacity	A	28352

SPILL PALLET (LOW PROFILE) – 4 DRUM

• Designed for facilities storing multiple drums on location.
• SPCC compliant, so you can be sure that your facility will remain clean and safe.

SPCC COMPLIANT*

DESCRIPTION		PART
4 Drum Spill Pallet, 51.5" L x 51.5" W x 10" H, 62 gallons containment capacity	A	28353
Poly Ramp, 45.5" L x 32" W x 8" H	A	28356

Non-stock items. Please allow up to 10 days after receipt of order for delivery.
*SPCC compliant: Drum pallet must contain 110% of the largest container on pallet.

SPILL CONTAINMENT

SPILL PALLET (IN-LINE) – 4 DRUM

- Designed for facilities storing multiple drums on location.
- SPCC compliant, so you can be sure that your facility will remain clean and safe.

SPCC COMPLIANT*

DESCRIPTION		PART
4 Drum Spill Pallet, 106'' L x 30.25'' W x 6.75'' H, 63 gallons containment capacity	A	28354
Poly Ramp, 45.5'' L x 32'' W x 8'' H	A	28356

SPILL PALLET (HIGH PROFILE) – 4 DRUM

- Designed for facilities storing multiple drums on location.
- SPCC compliant, so you can be sure that your facility will remain clean and safe.

SPCC COMPLIANT*

DESCRIPTION		PART
4 Drum Spill Pallet, 26.25'' L x 51.5'' W x 15'' H, 98 gallons containment capacity	A	28355

Non-stock items. Please allow up to 10 days after receipt of order for delivery.
*SPCC compliant: Drum pallet must contain 110% of the largest container on pallet.

SPILL CONTAINMENT

ONE-PIECE SECONDARY CONTAINMENT BERMS

- One-piece secondary containment berm is easily deployed and set up by one or more people
- Deploys in minutes
- Drive in and use
- Snap-up leg supports; manufactured using high tensile patented, unbreakable, non-sparking co-polymer rods
- Leg supports snap into place creating strong dependable side walls
- Leg supports are permanently attached to containment berm

Features
- No difficult assembly
- No air needed
- Stores in a compact shippable size
- Resistant to corrosive solvents
- Long lasting
- Heavy durable fully fuel resistant to all EPA regulations for secondary containment
- High level UV standards

Ground Tarp
- 30 mils minimum reinforced fabric
- High abrasion resistance
- Puncture resistant
- Specially designed to be driven over
- Adds protection from rough sub grades
- Allows the berm systems to be deployed in almost any terrain

Track Belts
- Gives added protection for tire tracks onto and over containment berms and other areas in need of protection
- Heavy duty vinyl coated polyester core
- Rolls out ready to use

DESCRIPTION		LIQUID CAPACITY		PART
Berm	For size 10' x 10' x 12"	750 gallons	A	9-STC-1010-12
Track Belt Set	For size 10' x 10' x 12"	–	A	9-STC-TB-3-10
Ground Tarp	For size 10' x 10' x 12"	–	A	9-STC-GT-1010
Berm	For size 12' x 36' x 12"	3,240 gallons	A	9-STC-1236-12
Track Belt Set	For size 12' x 36' x 12"	–	A	9-STC-TB-3-36
Ground Tarp	For size 12' x 36' x 12"	–	A	9-STC-GT-1236
Berm	For size 12' x 60' x 12"	5,400 gallons	A	9-STC-1260-12
Track Belt Set	For size 12' x 60' x 12"	–	A	9-STC-TB-3-60
Ground Tarp	For size 12' x 60' x 12"	–	A	9-STC-GT-1260
Berm	For size 14' x 66' x 12"	6,930 gallons	A	9-STC-1466-12
Track Belt Set	For size 14' x 66' x 12"	–	A	9-STC-TB-3-66
Ground Tarp	For size 14' x 66' x 12"	–	A	9-STC-GT-1466

Non-stock items. Please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

30/45/60 GALLON FLAMMABLE CABINETS

- Safely store combustible fluids that must be stored away from any open flames or electricity
- Store up to 60 gallons
- Available in manual or self close and with one or two shelves
- Bright yellow for visibility
- 2 Doors
- 1 Shelf models
  - 4 gal. / 30 gal.
- 2 Shelf models
  - 45 gal. / 60 gal.

30 gallon flammable

45 gallon flammable

60 gallon flammable

DESCRIPTION				PART
Storage Cabinet (Self Close) – 2 Shelf	31.25" L x 31.25" W x 65" H	60 gallon capacity	A	28362
Storage Cabinet (Manual Close) – 2 Shelf	31.25" L x 31.25" W x 65" H	60 gallon capacity	A	28363
Storage Cabinet (Manual Close) – 2 Shelf	43" L x 18" W x 65" H	45 gallon capacity	A	28364
Storage Cabinet (Self Close) – 2 Shelf	43" L x 18" W x 65" H	45 gallon capacity	A	28365
Storage Cabinet (Manual Close) – 1 Shelf	43" L x 18" W x 44" H	30 gallon capacity	A	28366
Storage Cabinet (Manual Close) – 1 Shelf	17.5" L x 18" W x 22.5" H	4 gallon capacity	A	28367

45/60 GALLON PAINT AND INK STORAGE CABINETS

- Safely store up to 60 gallons of paint or ink in these cabinets.
- 3 shelf model – 40 gal.
- 5 shelf model – 60 gal.

40 gallon paint and ink

60 gallon paint and ink

DESCRIPTION				PART
Storage Cabinet (Manual Close) – 3 Shelf	43" L x 18" W x 44" H	40 gallon capacity	A	28360
Storage Cabinet (Manual Close) – 5 Shelf	43" L x 18" W x 65" H	60 gallon capacity	A	28361

GROUNDING WIRES FOR STORAGE CABINETS

- These wires provide maximum protection against any static electricity or sparks that may cause ignition of fuels, paints or inks.
- Helps comply with Uniform Fire Code, Division VIII, Section 79.803
- Used to prevent sparking around flammable or combustible liquids, when used in combination with safety cabinets.

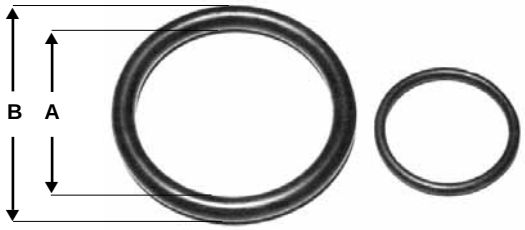
DESCRIPTION		PART
Bonding Wires – Silver, 3'	A	28368

Non-stock items. Please allow up to 10 days after receipt of order for delivery.

METRIC O-RINGS

BUNA "N" COMPOUND

- **TOUGH, 70 DUROMETER BUNA "N" (NITRILE RUBBER) STOCK – PROVIDES SUPERIOR RESISTANCE TO GASOLINE, MOTOR OIL,TRANSMISSION OIL, HYDRAULIC FLUIDS, ANTI-FREEZE, MILDACIDS,MILD ALKALIES AND WATER.**
- **PRECISION MANUFACTURED TO EXACTING SPECIFICATIONS – ASSURING MAXIMUM LEAKAGE PROTECTION.**
- **TEMPERATURE RANGE: -65ºF TO 300ºF (-54ºC TO 149ºC)**
- **IDEAL FOR USE IN ENGINES, EQUIPMENT, FUEL SYSTEMS, CARBURETORS, DRAIN LINES, ETC.**



2mm THICK

INSIDE DIA. (A)	OUTSIDE DIA. (B)	PART	INSIDE DIA. (A)	OUTSIDE DIA. (B)	PART	INSIDE DIA. (A)	OUTSIDE DIA. (B)	PART
3mm	7mm	T 60920	9mm	13mm	T 60926	15mm	19mm	T 60932
4mm	8mm	T 60921	10mm	14mm	T 60927	16mm	20mm	T 60933
5mm	9mm	T 60922	11mm	15mm	T 60928	19mm	23mm	T 60934
6mm	10mm	T 60923	12mm	16mm	T 60929	20mm	24mm	T 60935
7mm	11mm	T 60924	13mm	17mm	T 60930	25mm	29mm	T 60936
8mm	12mm	T 60925	14mm	18mm	T 60931	28mm	32mm	T 60937

2.5mm THICK

8mm	13mm	T 60957	16mm	21mm	T 60964	21mm	26mm	T 60968
10mm	15mm	T 60960	17mm	22mm	T 60965	22mm	27mm	T 60969
11mm	16mm	T 60961	18mm	23mm	T 60959	23mm	28mm	T 60970
12mm	17mm	T 60962	19mm	24mm	T 60966	24mm	29mm	T 60971
13mm	18mm	T 60958	20mm	25mm	T 60967	25mm	30mm	T 60972
14mm	19mm	T 60963						

3.0mm THICK

9mm	15mm	R 60976	25mm	31mm	R 60983	35mm	41mm	R 60993
10mm	16mm	R 60977	27mm	33mm	R 60985	36mm	42mm	R 60994
11mm	17mm	R 60978	28mm	34mm	R 60986	38mm	44mm	R 60996
19mm	25mm	R 60979	30mm	36mm	R 60988	39mm	45mm	N 60997
20mm	26mm	R 60980	32mm	38mm	R 60990	42mm	48mm	N 60998
22mm	28mm	R 60981	33mm	39mm	R 60991	45mm	51mm	N 60999
24mm	30mm	R 60982						

3.5mm THICK

28mm	35mm	N 61015	35mm	42mm	N 61019	45mm	52mm	N 61022
29mm	36mm	N 61016	38mm	45mm	N 61020			N
32mm	39mm	N 61017	42mm	49mm	N 61021			

4.0mm THICK

27mm	35mm	N 61023	44mm	52mm	L 61028	53mm	61mm	L 60944
36mm	44mm	N 61024	45mm	53mm	L 61029	54mm	62mm	L 60945
38mm	46mm	N 61025	47mm	55mm	L 60940	55mm	63mm	L 60946
39mm	47mm	L 61006	48mm	56mm	L 60941	56mm	64mm	L 60947
40mm	48mm	L 61007	50mm	58mm	L 60942	57mm	65mm	L 60948
41mm	49mm	L 61026	52mm	60mm	L 60943	60mm	68mm	L 60949
42mm	50mm	L 61008						

METRIC SQUARE KEY STOCK

- **ZINC PLATED 1045 COLD DRAWN STEEL**
- **MACHINE CUT ENDS**
- **TOLERANCES: -.000 TO +.0762mm IN BOTH DIMENSIONS**
- **P.S.I. 102,000**
- **B.H.N. 179-229**

12" LENGTHS

SIZE		PART	SIZE		PART
4mm x 4mm	E	60168	10mm x 10mm	C	60173
5mm x 5 mm	E	60169	12mm x 12mm	C	60174
6mm x 6mm	E	60170	14mm x 14mm	C	60175
7mm x 7mm	E	60171	16mm x 16mm	C	60176
8mm x 8mm	E	60172	–		–

A "MUST" FOR EVERY SHOP.
100'S OF APPLICATIONS –
A MULTI-PURPOSE ITEM USED IN ALL PHASES OF MAINTENANCE.
THE RIGHT SIZE AVAILABLE EVERY TIME.

12" LENGTHS

DESCRIPTION		PART
31 Piece Metric Square Key Stock Assortment Contains 5 each of 4mm, 5mm, 6mm, 7mm and 8mm; 3 each of 10mm and 12mm	A	7819

THREADED ROD

- **B7 High Strength Alloy Continuous Thread Rod**
- **Continuous Thread Forming Rod**
- **Protected with Special Chromate Plating**
- **Threaded Rod Couplings**
- **High Strength Nuts**

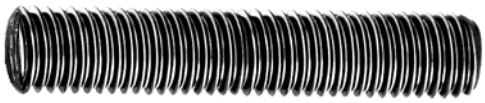
CHROMATE THREADED ROD – SPECIALLY DESIGNED HIGH STRENGTH AND FORMING RODS FOR ALL YOUR CUSTOM APPLICATIONS. Manufactured from the finest materials, they offer greater strength and durablility. Always use Chromate Threaded Rod when quality and reliability are of utmost importance.

CIC 200™ ALLOY THREADED ROD

HIGH STRENGTH CONTINUOUS THREAD ROD

B7 alloy steel with durable CIC 200™ dichromate plating. Minimum 125,000 psi tensile strength.

6-FOOT LENGTHS



SIZE	USS/ASTM	SAE	SIZE	USS
1/4	A 8600	A 7650	1-1/8-7	A 8650
5/16	A 8605	A 7655	1-1/4-7	A 8655
3/8	A 8610	A 7660	1-3/8-6	A 8660
7/16	A 8615	A 7665	1-1/2-6	A 8665
1/2	A 8620	A 7670		
9/16	A 8625	A 7675	SIZE	ASTM
5/8	A 8630	A 7680	1-1/8-8	A 7610
3/4	A 8635	A 7685	1-1/4-8	A 7615
7/8	A 8640	A 7690	1-3/8-8	A 7620
1	A 8645	A 7695	1-1/2-8	A 7625

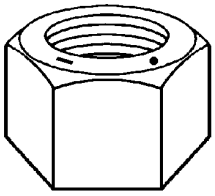
3-FOOT LENGTHS

17793

SIZE	USS/ASTM	SAE	SIZE	USS
1/4	A 8300	A 7350	1-1/8-7	A 8350
5/16	A 8305	A 7355	1-1/4-7	A 8355
3/8	A 8310	A 7360	1-3/8-6	A 8360
7/16	A 8315	A 7365	1-1/2-6	A 8365
1/2	A 8320	A 7370		
9/16	A 8325	A 7375	SIZE	ASTM
5/8	A 8330	A 7380	1-1/8-8	A 7310
3/4	A 8335	A 7385	1-1/4-8	A 7315
7/8	A 8340	A 7390	1-3/8-8	A 7320
1	A 8345	A 7395	1-1/2-8	A 7325

HIGH STRENGTH NUTS

FINISHED THICK HEX NUTS

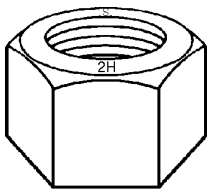


BIN

- TRIPLE HEAT TREATED
- 30% THICKER FOR GREATER HOLDING/WRENCHING POWER
- 180,000 PSI TENSILE STRENGTH
- CHROMATE PLATING AND WAXED

SIZE	USS/ASTM	SAE	USS
1/4	U 4700	U 3700	-
5/16	T 4705	T 3705	-
3/8	T 4710	T 3710	-
7/16	T 4715	T 3715	-
1/2	R 4720	R 3720	-
9/16	O 4725	O 3725	-
5/8	O 4730	O 3730	-
3/4	L 4735	L 3735	-
7/8	I 4740	I 3740	-
1	E 4745	E 3745	-
1-1/8-7	-	-	E 4746
1-1/4-7	-	-	E 4747
1-1/2-6	-	-	A 4748
-	-	-	-

2H HEAVY HEX NUTS



- TRIPLE HEAT TREATED
- EXTRA WIDTH FOR OVERSIZE WRENCHING
- MEETS ASTM 194-2H
- PLAIN FINISH

SIZE	USS/ASTM	USS	ASTM
3/8-16	R 4840	-	-
1/2-13	R 4850	-	-
5/8-11	O 4855	-	-
3/4-10	L 4860	-	-
7/8-9	L 4865	-	-
1-8	I 4870	-	-
1-1/8-7	-	E 4875	-
1-1/8-8	-	-	A 4775
1-1/4-7	-	E 4878	-
1-1/4-8	-	-	A 4780
1-3/8-6	-	E 4882	-
1-3/8-8	-	-	A 4785
1-1/2-6	-	E 4885	-
1-1/2-8	-	-	A 4790

28

THREADED ROD AND COUPLINGS

FORMING ROD — CONTINUOUS THREAD

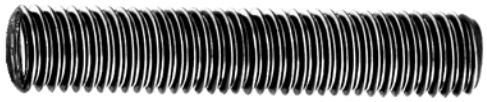
Protected with special Chromate plating. Cut, heat and bend to desired shapes.

6-FOOT LENGTHS

SIZE	USS		SAE	
6-32	D	10604		-
8-32	D	10606		-
10-24	C	10608		-
10-32		-	C	60602
1/4	C	10612	C	60604
5/16	C	10614	C	60606
3/8	C	10616	C	60608
7/16	C	10618	C	60610
1/2	C	10620	C	60612
9/16	A	10622	A	60615
5/8	A	10624	A	60618
3/4	A	10626	A	60620
7/8	A	10628		-
1	A	10630		-

3-FOOT LENGTHS

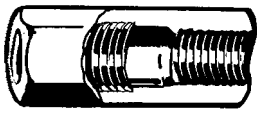
17792



SIZE	USS		SAE	
4-40	F	10302		-
6-32	F	10304		-
8-32	F	10306		-
10-24	F	10308		-
10-32		-	F	60302
12-24	F	10310		-
1/4	F	10312	F	60304
5/16	F	10314	F	60306
3/8	D	10316	D	60308
7/16	D	10318	D	60310
1/2	D	10320	D	60312
9/16	C	10322	C	60315
5/8	C	10324	C	60318
3/4	C	10326	C	60320
7/8	A	10328		-
1	A	10330		-

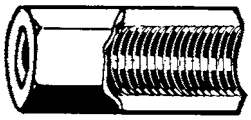
REDUCING AND HEX ROD COUPLINGS

REDUCING COUPLING



SIZE	LENGTH		PART
1/4-20 x 5/16-18	7/8	O	714
1/4-20 x 3/8-16	1	O	715
5/16-18 x 3/8-16	1	O	716
5/16-18 x 1/2-13	1-1/4	L	717
3/8-16 x 1/2-13	1-1/4	L	718
3/8-16 x 5/8-11	1-1/2	I	719
1/2-13 x 5/8-11	1-1/2	I	720
5/8-11 x 3/4-10	2-3/16	E	722

HEX ROD COUPLING



SIZE		PART
10-24 x 7/8	R	707
1/4-20 x 7/8	O	708
5/16-18 x 7/8	O	709
3/8-16 x 1	O	710
1/2-13 x 1-1/4	L	711
5/8-11 x 1-1/2	I	712
3/4-10 x 2-1/4	E	713
-		-

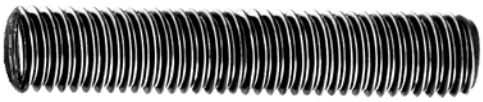
METRIC THREADED ROD

HIGH STRENGTH CONTINUOUS THREAD

Property Class 4.6. Zinc plated for extra corrosion resistance.

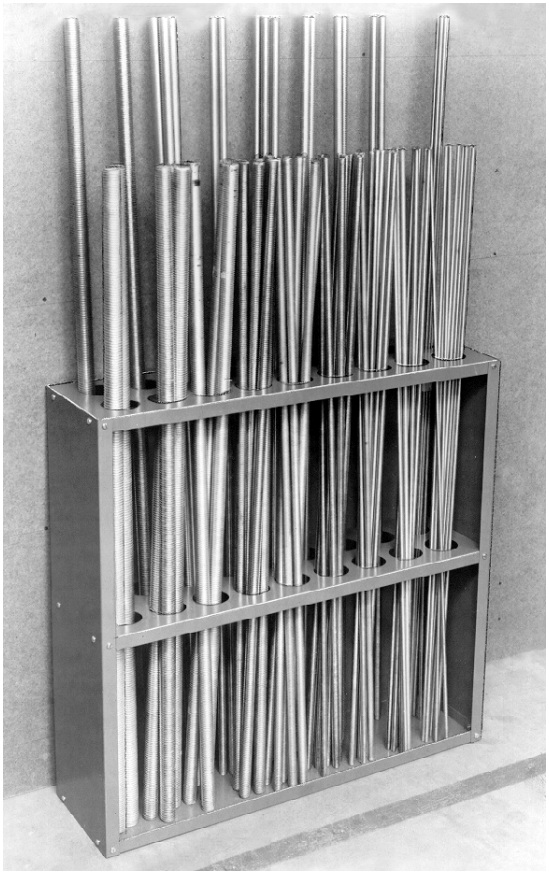
1-METER LENGTHS

- **MEETS DIN 975 SPECIFICATIONS**



SIZE mm	THREAD PITCH		PART
4	0.70	A	68651
5	0.80	A	68652
6	1.00	A	68653
8	1.25	A	68654
10	1.50	A	68655
12	1.75	A	68656
14	2.00	A	68657
16	2.00	A	68658

BIN ASSORTMENTS
CARBON STEEL THREADED ROD



You Receive an 18-Compartment Bin with 2-1/8" Diameter Holes to Separate and Protect Threaded Rods Needed in Maintenance!

PART NO. 17792

ONE STEEL 18-COMPARTMENT BIN
24" wide, 24-3/82" high, 6-7/8" deep*

*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 11 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL.

COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details) ***Use Bin Label Set #168138***

ASSORTMENT CONTAINS:
11 Sizes 3' Threaded Rod (Carbon Steel) ..... 6-32 through 3/4-10

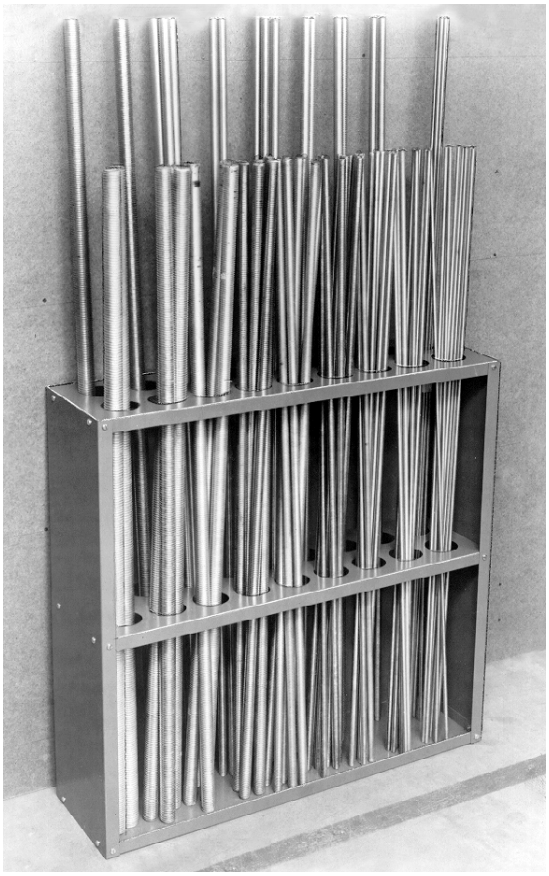
1 P/N 7960 – 18 Compartment Threaded Rod Bin

CARBON STEEL THREADED ROD

P/N 17792 — 3 FOOT LENGTHS — 11 ITEMS / 18 HOLES

6-32 x 3' THREADED ROD 10304	10-24 x 3' THREADED ROD 10308	1/4-20 x 3' THREADED ROD 10312	5/16-18 x 3' THREADED ROD 10314	3/8-16 x 3' THREADED ROD 10316	716-14 x 3' THREADED ROD 10318	1/2-13 x 3' THREADED ROD 10320	5/8-11 x 3' THREADED ROD 10324	3/4-10 x 3' THREADED ROD 10326
8-32 x 3 THREADED ROD 10306	10-32 x 3' THREADED ROD 60302							

BIN ASSORTMENTS
CIC 200 B7 ALLOY THREADED ROD



You Receive an 18-Compartment Bin with 2-1/8" Diameter Holes to Separate and Protect Threaded Rods Needed in Maintenance!

PART NO. 17793

ONE STEEL 18-COMPARTMENT BIN
24" wide, 24-3/82" high, 6-7/8" deep*

*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 7 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL.

COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details) ***Use Bin Label Set #168139***

ASSORTMENT CONTAINS:
7 Sizes 3' Threaded Rod (B7 Alloy) ..... 1/4-20 through 3/4-10

1 P/N 7960 – 18 Compartment Threaded Rod Bin

CIC 200 B7 ALLOY THREADED ROD

P/N 17793 — 3 FOOT LENGTHS — 7 ITEMS / 18 HOLES

1/4-20 x 3' THREADED ROD 8300	5/16-18 x 3' THREADED ROD 8305	3/8-16 x 3' THREADED ROD 8310						
7/16-14 x 3' THREADED ROD 8315	1/2-13 x 3' THREADED ROD 8320	5/8-11 x 3' THREADED ROD 8330	3/4-10 x 3' THREADED ROD 8335					

PORTA-PAK Specials

BRASS FITTINGS

P/N 19510

- Manufactured from virgin high density brass alloy
- Pressure – 1,200 psi operating Proof pressure up to 15,000 psi for 1/8" and 1/4" pipe, 5,000 psi on larger sizes
- Temperature: -65°F to +250°F at 1,000 psi
- Use with brass, copper or iron pipe

QUANTITY	BRASS FITTING SIZE	PART #
8	1/8 PLUG HEX HEAD - PIPE	54422
4	1/4 PLUG HEX HEAD - PIPE	54423
4	1/4 x 1/8 REDUCING COUPLING - PIPE	54233
3	3/8 x 1/8 REDUCING COUPLING - PIPE	54234
8	1/8 COUPLING - PIPE	54273
4	1/4 COUPLING - PIPE	54274

FITTINGS AND HOSE ASSEMBLIES

FEATURES

- **Brass Fittings: Compression, SAE 45° Flare, Inverted Flare, Pipe, Air Brake, Instant and Reusable**
- **Steel Fittings: Coll-O-Crimp®, SAE 37° Flare, Reusable 247 "N" and Reusable 425 "N"**
- **Black Iron Pipe Fittings**
- **Grease Fittings and Accessories**
- **Vacuum and Low Pressure Connectors**
- **Low, Medium and High Pressure Hose**
- **Brass, Nylon and Vinyl Tubing**

CHROMATE PROVIDES A FULL LINE OF SUPERIOR QUALITY FITTINGS, TUBING AND HOSE TO COVER ALL OF YOUR HYDRAULIC AND PNEUMATIC APPLICATIONS.
Whether its an air, fuel, oil, water, chemical or vacuum application . . . Chromate has the proper fitting and hose or tubing to safely satisfy your needs.

FITTING, TUBE AND HOSE SELECTION

CRITICAL FACTORS

Correct selection of tubing or hose is essential for the proper operation and safe use of the tubing, hose and related equipment. Improper selection for an application can result in leaking, bursting or other failure that could result in serious bodily injury or property damage. The following factors must be considered when selecting tubing, hose and fittings:

- Tubing/Hose Size
- Tubing/Hose Material
- Tubing/Hose Length
- Tubing/Hose and Fitting Compatibility
- Fluid or Gas Compatibility
- Bends
- Temperature
- Pressure
- Installation Design

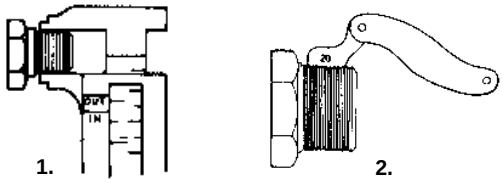
TUBE FITTING IDENTIFICATION

Four basic types of tube fittings: Flare, Flareless, Straight Thread O-Ring and Flat Face O-Ring Seal. Tube fittings seal in two ways: Flare and Flareless fittings use metal to metal contact joints, Straight Thread O-Ring and Flat Face O-Ring fittings use a rubber o-ring. Where extreme vibration is present, use Flareless, Straight Thread or Flat Face O-Ring Seal fittings.

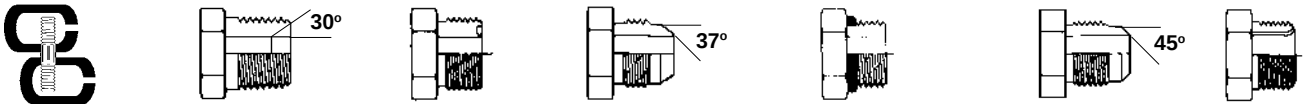
SIZING

EXAMPLE:

1. **MEASURE O.D. OF MALE THREAD, WHEN POSSIBLE.**
2. **MEASURE "THREADS PER INCH".**
3. **REFER TO CHART BELOW FOR APPROPRIATE TUBE SIZE AND ILLUSTRATION.**



FITTING THREAD SIZE COMPARISON CHART



TUBE SIZE	PIPE SIZE	FLAT FACE O-RING SEAL	37° FLARE	STRAIGHT THREAD O-RING SAE	45° FLARE	INVERTED FLARE
1/8	1/8-27	-	5/16-24	5/16-24	5/16-24	5/16-24
3/16	-	-	3/8-24	3/8-24	3/8-24	3/8-24
1/4	1/4-18	9/16-18	7/16-20	7/16-20	7/16-20	7/16-24
5/16	-	-	1/2-20	1/2-20	1/2-20	1/2-20
3/8	3/8-18	11/16-16	9/16-18	9/16-18	5/8-18	5/8-18
7/16	-	-	-	-	11/16-16	11/16-18
1/2	1/2-14	13/16-16	3/4-16	3/4-16	3/4-16	3/4-18
5/8	-	1-14	7/8-14	7/8-14	7/8-14	7/8-18
3/4	3/4-14	1-3/16 - 12	1-1/16 - 12	1-1/16 - 12	1-1/16 - 14	1-1/16 - 16
7/8	-	1-3/16 - 12	1-3/16 - 12	1-3/16 - 12	-	1-3/16 - 16
1	1 - 11-1/2	1-7/16 - 12	1-5/16 - 12	1-5/16 - 12	-	1-5/16 - 16
1-1/4	1-1/4 - 11-1/2	1-11/16 - 12	1-5/8 - 12	1-5/8 - 12	-	-
1-1/2	1-1/2 - 11-1/2	2-12	1-7/8 - 12	1-7/8 - 12	-	-
2	2 - 11-1/2	-	2-1/2 - 12	2-1/2 - 12	-	-
2-1/2	2-1/2 - 8	-	3-12	-	-	-
3	3-8	-	3-1/2 - 12	-	-	-

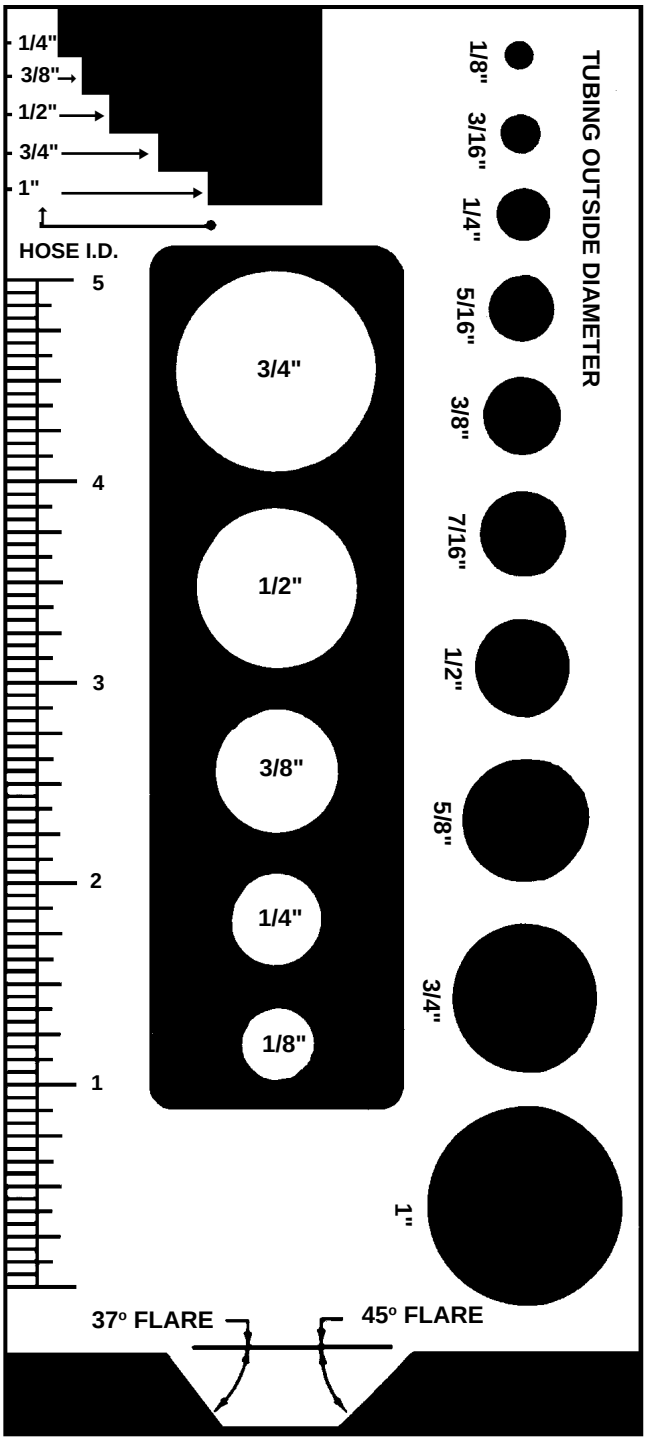
FITTING, TUBE AND HOSE SELECTION (Cont'd.)

PIPE FITTING IDENTIFICATION

The American Society of Automotive Engineers in cooperation with industry set up a standard for improvement in pipe threads. This improvement is known as the Dryseal Pipe Thread. All Chromate pipe threads are American Standard Taper Dryseal Pipe Threads (NPTF). The metal to metal seal is formed by contact at the thread crest and root.

Nominal pipe sizes do not agree with either the I.D., O.D. or thread sizes. To determine pipe size (up to 1-1/4") measure the diameter of the threads and subtract 1/4". For example, subtract 1/4" from a 1" pipe to obtain the nominal pipe size of 3/4".

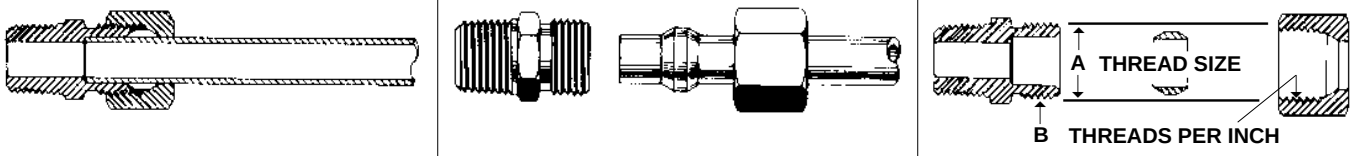
Pipe sizes can also be given in "Dash Numbers". A dash number is always the numerator of an inch over 16th. For instance, if the pipe O.D. measures 1/2", that would be converted to 16ths (8/16), but be written as -8 (dash eight).



COMPRESSION FITTINGS — BRASS

MEDIUM PRESSURE AIR, OIL, WATER AND NATURAL GAS APPLICATIONS

Manufactured from high density brass alloy. No flaring or soldering required. Easy to assemble. Available with long or short nut in wide range of styles and sizes.



SPECIFICATIONS

PRESSURE:
To 2,000 PSI — 1/8" to 1/4" Tubing
To 1,000 PSI — 5/16" to 1/2" Tubing
To 750 PSI — 3/4" to 1" Tubing

TEMPERATURE: -65°F to +250°F

VIBRATION: Fair resistance. Long nut improves vibration characteristics.

USE WITH: Copper, brass, aluminum and plastic tubing. Not recommended for steel tubing. Soft plastic tubing requires internal tube support.

CONFORMANCE: Approved by Underwriters Laboratories for hazardous liquid, and fuel equipment. Meets specifications of SAE for automotive tube fitting standards.

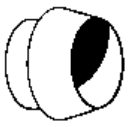
ASSEMBLY INSTRUCTIONS:
1. Slide nut, then sleeve onto tubing. The threaded end of the nut must face out.
2. Insert the tube into the fitting. Be sure the tube is bottomed on the fitting shoulder.
3. Lubricate threads and assemble nut to body.
4. Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

TUBE SIZE	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
A - THREAD SIZE	5/16	3/8	7/16	1/2	9/16	5/8	11/16	13/16	1
B - THREADS/INCH	24	24	24	24	24	24	20	18	18

BRASS SLEEVES

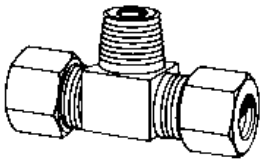
TUBE SIZE	INDUSTRY TYPE	PART	
1/8	60 x 2	R	53000
3/16	60 x 3	R	53001
1/4	60 x 4	R	53002
5/16	60 x 5	R	53003
3/8	60 x 6	R	53004
1/2	60 x 8	R	53006
5/8	60 x 10	R	53007
3/4	60 x 12	N	53008

DELRIN® SLEEVES - PLAS. TUBE



TUBE SIZE	INDUSTRY TYPE	PART	
1/4	260 x 4	R	53262
5/16	260 x 5	R	53263
3/8	260 x 6	N	53264
1/2	260 x 8	N	53265

MALE BRANCH TEE



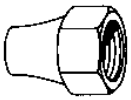
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
3/16	1/8	72 x 3	I	53208
1/4	1/8	72 x 4	I	53209
5/16	1/8	72 x 5	E	53210
3/8	1/4	72 x 6	E	53213
1/2	3/8	72 x 8	B	53215

COMPRESSION FITTINGS — BRASS (Cont'd.)

NUT

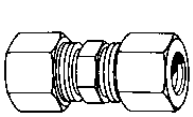
TUBE SIZE	INDUSTRY TYPE	PART
1/8	61 x 2	R 53014
3/16	61 x 3	R 53015
1/4	61 x 4	R 53016
5/16	61 x 5	R 53017
3/8	61 x 6	N 53018
1/2	61 x 8	N 53020
5/8	61 x 10	I 53021
3/4	61 x 12	E 53022

LONG NUT



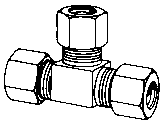
TUBE SIZE	INDUSTRY TYPE	PART
1/8	1611 x 2	I 53028
3/16	1611 x 3	I 53029
1/4	1611 x 4	N 53030
5/16	1611 x 5	N 53031
3/8	1611 x 6	N 53032
1/2	1611 x 8	I 53033
5/8	1611 x 10	E 53034
3/4	1611 x 12	E 53035

UNION



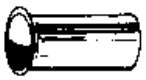
TUBE SIZE	INDUSTRY TYPE	PART
1/8	62 x 2	I 53040
3/16	62 x 3	I 53041
1/4	62 x 4	I 53042
5/16	62 x 5	I 53045
3/8	62 x 6	I 53047
1/2	62 x 8	E 53051
5/8	62 x 10	E 53053
3/4	62 x 12	A 53054

UNION TEE



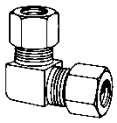
TUBE SIZE	INDUSTRY TYPE	PART
1/8	64 x 2	E 53070
3/16	64 x 3	E 53071
1/4	64 x 4	E 53072
5/16	64 x 5	E 53073
3/8	64 x 6	E 53074
1/2	64 x 8	A 53076
5/8	64 x 10	B 53077

BRASS INSERT - PLASTIC TUBE



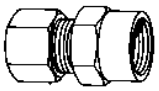
TUBE O.D.	TUBE I.D.	INDUSTRY TYPE	PART
1/8	.090	2030	T 53269
3/16	.135	2030	T 53270
1/4	.165	2030	T 53271
5/16	3/16	2030	T 53272
3/8	1/4	2030	T 53273
1/2	3/8	2030	R 53274
5/8	1/2	2030	I 53275

ELBOW



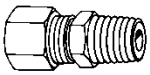
TUBE SIZE	INDUSTRY TYPE	PART
1/8	65 x 2	E 53084
3/16	65 x 3	E 53085
1/4	65 x 4	E 53086
5/16	65 x 5	E 53087
3/8	65 x 6	E 53088
1/2	65 x 8	E 53090
5/8	65 x 10	B 53091

FEMALE CONNECTOR



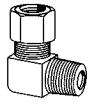
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/8	1/8	66 x 2	I 53098
3/16	1/8	66 x 3	I 53099
1/4	1/8	66 x 4	I 53100
1/4	1/4	66 x 4 x 4	I 53096
1/4	3/8	66 x 4 x 6	I 53097
1/4	1/2	66 x 4 x 8	I 53101
5/16	1/8	66 x 5	I 53102
5/16	1/4	66 x 5 x 4	I 53103
3/8	1/8	66 x 6 x 2	I 53104
3/8	1/4	66 x 6	I 53105

MALE CONNECTOR



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/8	1/8	68 x 2	I 53117
3/16	1/8	68 x 3	L 53118
1/4	1/8	68 x 4	I 53120
1/4	1/4	68 x 4 x 4	I 53121
1/4	3/8	68 x 4 x 6	I 53122
5/16	1/8	68 x 5	I 53123
5/16	1/4	68 x 5 x 4	I 53124
3/8	1/8	68 x 6 x 2	I 53126
3/8	1/4	68 x 6	I 53127
3/8	3/8	68 x 6 x 6	I 53128
1/2	1/4	68 x 8 x 4	I 53133
1/2	3/8	68 x 8	I 53134
5/8	1/2	68 x 108	E 53135

MALE ELBOW

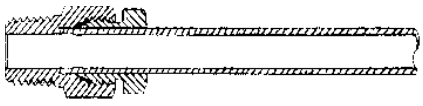


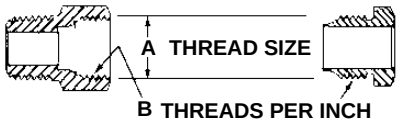
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/8	1/8	69 x 2	I 53148
3/16	1/8	69 x 3	I 53149
1/4	1/8	69 x 4	I 53151
1/4	1/4	69 x 4 x 4	I 53152
5/16	1/8	69 x 5	E 53154
5/16	1/4	69 x 5 x 4	E 53155
3/8	1/8	69 x 6 x 2	E 53157
3/8	1/4	69 x 6	E 53158
3/8	3/8	69 x 6 x 6	E 53159
1/2	1/4	69 x 8 x 4	E 53162
1/2	3/8	69 x 8	E 53163
5/8	3/8	69 x 106	B 53164
5/8	1/2	69 x 108	B 53165

DOUBLE COMPRESSION FITTINGS — BRASS

LOW PRESSURE AIR, OIL, WATER AND LUBRICATION APPLICATIONS

Manufactured from virgin high density brass alloy. Low cost. No flaring required, easy to assemble. Compact profile for tight spaces.





SPECIFICATIONS

PRESSURE:
To 500 PSI — 1/8" to 1/4" Tubing
To 250 PSI — 5/16" and 3/8" Tubing

TEMPERATURE: -65°F to +250°F

VIBRATION: Fair resistance.

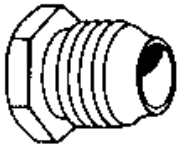
USE WITH: Copper, aluminum and plastic tubing. Not recommended for steel tubing. Soft plastic tubing requires internal tube support.

CONFORMANCE: Meets the specifications of the American Standards Association (A.S.A.) and the American Society of Mechanical Engineers (A.S.M.E.) code for pressure piping.

ASSEMBLY INSTRUCTIONS:
1. Slide nut on tubing. Threaded end of nut must face out.
2. Insert tubing into fitting. Be sure that tubing is bottomed on fitting shoulder.
3. Lubricate threads and assemble nut to fitting body.
4. Tighten assembly hand tight. From that point, tighten with a wrench 1-1/2 turns.

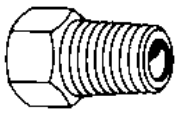
TUBE SIZE	1/8	3/16	1/4	5/16	3/8	7/16	1/2
A - THREAD SIZE	5/16	3/8	7/16	1/2	9/16	5/8	11/16
B - THREADS/INCH	24	24	24	20	20	18	16

NUT



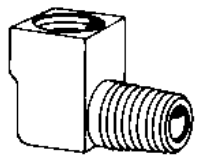
TUBE SIZE	INDUSTRY TYPE	PART	
1/8	6100 x 2	R	53818
3/16	6100 x 3	R	53819
1/4	6100 x 4	R	53820
5/16	6100 x 5	R	53821
3/8	6100 x 6	O	53822

MALE CONNECTOR



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	6200 x 2	R	53837
3/16	1/8	6200 x 3	R	53838
3/16	1/4	6200 x 3 x 4	O	53839
1/4	1/8	6200 x 4	R	53840
1/4	1/4	6200 x 4 x 4	O	53841
5/16	1/8	6200 x 5	O	53842
5/16	1/4	6200 x 5 x 4	O	53843
3/8	1/4	6200 x 6	L	53845

MALE ELBOW

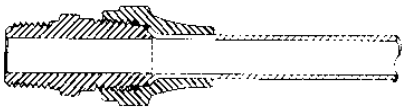


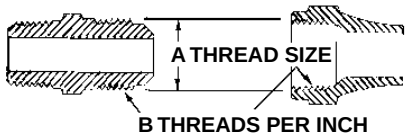
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	6400 x 2	L	53863
3/16	1/8	6400 x 3	I	53864
1/4	1/8	6400 x 4	I	53865
1/4	1/4	6400 x 4 x 4	E	53866
5/16	1/8	6400 x 5	I	53867
5/16	1/4	6400 x 5 x 4	A	53868
3/8	1/8	6400 x 6 x 2	A	53869
3/8	1/4	6400 x 6	E	53870

SAE 45° FLARE FITTINGS — BRASS

HIGH PRESSURE FUEL, OIL, AIR, WATER, LP & NATURAL GAS APPLICATIONS

Manufactured from virgin high density brass alloy. Low cost, reusable. Available with long or short nut and in wide range of styles and sizes.





SPECIFICATIONS

PRESSURE: Depends on tubing used. Will stand burst pressure of standard tubing – up to 5,000 PSI with Bundy-weld (double flared) and 3,500 PSI with copper tubing depending on size.

TEMPERATURE: -65°F to +250°F to maximum operating pressure. To +400°F under 1,000 PSI.

VIBRATION: Good – use long nut for excessive vibration.

USE WITH: Copper, brass, aluminum and brazed steel hydraulic tubing that can be flared.

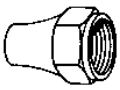
CONFORMANCE: Approved by Underwriters Laboratories (No. AU1432) for hazardous liquid, and fuel equipment. Meets specifications of SAE for automotive tube fitting standards.

ASSEMBLY INSTRUCTIONS:

1. Cut tubing squarely. Place nut onto tube.
2. Open threaded end of nut toward end of tube. Flare tube end with flaring tool to provide 45° flare.
3. Clamp tube flare between nut and nose of fitting body by screwing nut on finger tight.
4. Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

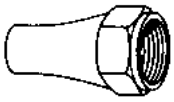
TUBE SIZE	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
A - THREAD SIZE	5/16	3/8	7/16	1/2	5/8	11/16	3/4	7/8	1-1/16
B - THREADS/INCH	24	24	20	20	18	16	16	14	14

NUT



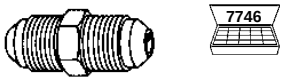
TUBE SIZE	INDUSTRY TYPE	PART	
1/8	1110 x 2	R	53893
3/16	1110 x 3	R	53885
1/4	1110 x 4	R	53886
5/16	1110 x 5	R	53887
3/8	1110 x 6	O	53888
1/2	1110 x 8	O	53890
5/8	1110 x 10	L	53894

LONG NUT



TUBE SIZE	INDUSTRY TYPE	PART	
3/16	41 x 3	O	53899
1/4	41 x 4	R	53900
5/16	41 x 5	O	53901
3/8	41 x 6	L	53902
1/2	41 x 8	I	53904

UNION

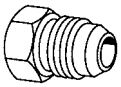


TUBE SIZE	INDUSTRY TYPE	PART	
1/8	42 x 2	O	53944
3/16	42 x 3	O	53945
1/4	42 x 4	R	53946
5/16	42 x 5	O	53947
3/8	42 x 6	L	53948
1/2	42 x 8	L	53950
5/8	42 x 10	I	53951

45° FLARE CAP

TUBE OD	INDUSTRY TYPE	PART		TUBE OD	INDUSTRY TYPE	PART	
1/8	40 x 2	I	53905	3/8	40 x 10	I	53909
3/16	40 x 3	I	53906	1/2	40 x 12	E	53910
1/4	40 x 4	I	53907	5/8	40 x 14	E	53911
5/16	40 x 5	I	53908	3/4	40 x 16	E	53912

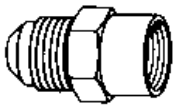
45° FLARE PLUG



TUBE OD	INDUSTRY TYPE	PART		TUBE OD	INDUSTRY TYPE	PART	
1/8	39 x 4	I	53913	3/8	39 x 12	I	53917
3/16	39 x 5	I	53914	1/2	39 x 14	E	53918
1/4	39 x 6	I	53915	5/8	39 x 16	E	53919
5/16	39 x 8	I	53916	3/4	39 x 20	E	53920

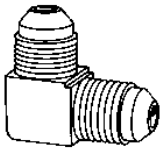
SAE 45° FLARE FITTINGS — BRASS (Cont'd.)

FEMALE CONNECTOR



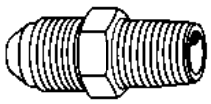
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
3/16	1/8	46 x 3	O	54019
1/4	1/8	46 x 4	R	54020
1/4	1/4	46 x 4 x 4	O	54021
5/16	1/8	46 x 5	O	54022
3/8	1/8	46 x 6 x 2	L	54024
3/8	1/4	46 x 6	O	54025
3/8	3/8	46 x 6 x 6	O	54026
1/2	3/8	46 x 8	L	54031
5/8	1/2	46 x 10	I	54035

UNION ELBOW



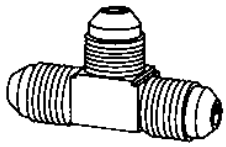
TUBE SIZE	INDUSTRY TYPE	PART	
5/8	55 x 10	D	54110

MALE CONNECTOR



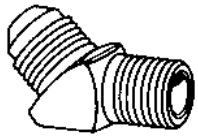
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	48 x 2	O	54056
3/16	1/8	48 x 3	R	54057
1/4	1/8	48 x 4	R	54059
1/4	1/4	48 x 4 x 4	O	54060
5/16	1/8	48 x 5	O	54063
5/16	1/4	48 x 5 x 4	O	54064
3/8	1/8	48 x 6 x 2	O	54066
3/8	1/4	48 x 6	O	54067
3/8	3/8	48 x 6 x 6	O	54068
3/8	1/2	48 x 6 x 8	L	54069
1/2	3/8	48 x 8	L	54074
1/2	1/2	48 x 8 x 8	L	54075
5/8	3/8	48 x 10 x 6	I	54077
5/8	1/2	48 x 10	I	54078

UNION TEE



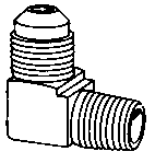
TUBE SIZE	INDUSTRY TYPE	PART	
3/16	44 x 3	I	53973
1/4	44 x 4	I	53974
5/16	44 x 5	I	53975
3/8	44 x 6	I	53976
1/2	44 x 8	E	53978

45° MALE ELBOW



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	54 x 4	I	55050
5/16	1/8	54 x 5	I	55052
3/8	1/4	54 x 6	I	55054
1/2	3/8	54 x 8	F	55056
5/8	1/2	54 x 10	D	55058

MALE ELBOW

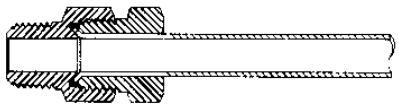


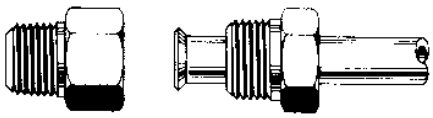
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	49 x 2	I	54086
3/16	1/8	49 x 3	L	54088
1/4	1/8	49 x 4	O	54089
1/4	1/4	49 x 4 x 4	L	54090
5/16	1/8	49 x 5	L	54092
5/16	1/4	49 x 5 x 4	I	54093
3/8	1/8	49 x 6 x 2	I	54094
3/8	1/4	49 x 6	I	54095
3/8	3/8	49 x 6 x 6	I	54096
3/8	1/2	49 x 6 x 8	I	54097
1/2	3/8	49 x 8	I	54101
1/2	1/2	49 x 8 x 8	E	54102
5/8	3/8	49 x 10 x 6	D	54104
5/8	1/2	49 x 10	D	54105

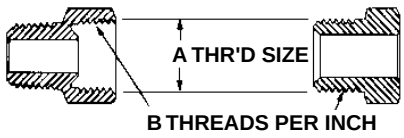
INVERTED FLARE FITTINGS — BRASS

HIGH PRESSURE AIR, OIL, WATER, LP AND NATURAL GAS APPLICATIONS

Manufactured from virgin high density brass alloy. Low cost. Seats and threads are recessed and protected. Shorter bodies fit tighter places. Shorter nut allows very close tube bends. Reusable. Broad selection of styles and sizes.







SPECIFICATIONS

PRESSURE: Depends on tubing used. Will stand burst pressure of standard tubing — up to 5,000 PSI with Bundyweld (double flared) and 3,500 PSI with copper tubing, depending on size.

TEMPERATURE: -65°F to +250°F to maximum operating pressures. To +400°F under 1,000 PSI.

VIBRATION: Excellent resistance.

USE WITH: Copper, brass, aluminum and brazed steel hydraulic tubing that can be flared.

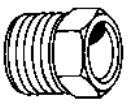
CONFORMANCE: Approved by Underwriters Laboratories (No. AU-1042) for hazardous liquid, fuel equipment, refrigeration and gas. Meets specifications of SAE for hydraulic tube fitting standards and ASA and ASME codes for pressure piping.

ASSEMBLY INSTRUCTIONS:

1. Slide nut onto tube. Threaded end of nut must face out.
2. Flare end of tube with 45° flaring tool. Check flare diameter. Examine flare for excessive thin out. On thin wall tubing, use double flare to prevent pinch-off.
3. Lubricate threads and assemble to fitting body. Tube nut should be turned hand tight.
4. Tighten assembly with wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

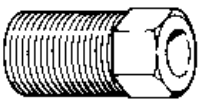
TUBE SIZE	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
A - THREAD SIZE	5/16	3/8	7/16	1/2	5/8	11/16	3/4	7/8	1-1/16
B - THREADS/INCH	28	24	24	20	18	18	18	18	16

STANDARD NUT — STEEL



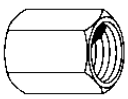
TUBE SIZE	INDUSTRY TYPE	PART	
3/16	105 x 3	T	53633
1/4	105 x 4	T	53634
5/16	105 x 5	R	53635
3/8	105 x 6	R	53636
1/2	105 x 8	O	53638

LONG NUT — STEEL



TUBE SIZE	INDUSTRY TYPE	PART	
3/16	105L x 3	T	53647
1/4	105L x 4	R	53648

UNION

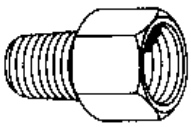


TUBE SIZE	INDUSTRY TYPE	PART	
3/16	300 x 3	O	53699
1/4	300 x 4	O	53700
5/16	300 x 5	O	53701
3/8	300 x 6	L	53702
1/2	300 x 8	I	53703

INVERTED FLARE FITTINGS — BRASS (Cont'd.)

MALE CONNECTOR

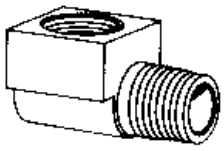
7751



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
3/16	1/8	200 x 3	N	53665
1/4	1/8	200 x 4	N	53666
1/4	1/4	200 x 4 x 4	I	53667
5/16	1/8	200 x 5	N	53668
5/16	1/4	200 x 5 x 4	I	53669
3/8	1/8	200 x 6 x 2	I	53670
3/8	1/4	200 x 6	I	53671
3/8	3/8	200 x 6 x 8	I	53672
1/2	3/8	200 x 8	I	53675

MALE ELBOW

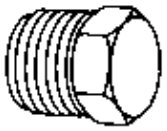
7751



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
3/16	1/8	400 x 3	I	53726
1/4	1/8	400 x 4	I	53727
1/4	1/4	400 x 4 x 4	I	53728
5/16	1/8	400 x 5	I	53729
5/16	1/4	400 x 5 x 4	I	53730
3/8	1/8	400 x 6 x 2	I	53732
3/8	1/4	400 x 6	I	53733
3/8	3/8	400 x 6 x 6	I	53734
1/2	3/8	400 x 8	I	53736
1/2	1/2	400 x 8 x 8	E	53738

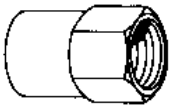
PLUG — STEEL

7751



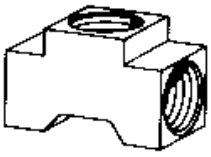
TUBE SIZE	INDUSTRY TYPE		PART
3/16	106 x 3	N	53655
1/4	106 x 4	N	53656
5/16	106 x 5	N	53657

FEMALE CONNECTOR



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
3/16	1/8	250 x 3	I	53685
1/4	1/8	250 x 4	I	53686
5/16	1/8	250 x 5	I	53688
3/8	1/4	250 x 6	I	53689

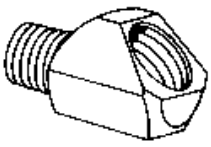
UNION TEE



TUBE SIZE	INDUSTRY TYPE		PART
3/16	702 x 3	I	53796
1/4	702 x 4	I	53797
5/16	702 x 5	I	53798
3/8	702 x 6	E	53799

45° MALE ELBOW

7751



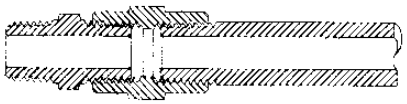
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
3/16	1/8	352 x 3	I	53712
1/4	1/8	352 x 4	I	53713
5/16	1/8	352 x 5	I	53714
3/8	1/4	352 x 6 x 4	E	53716

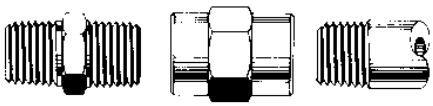
29

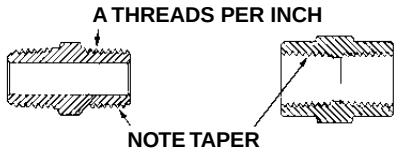
PIPE FITTINGS — BRASS

HIGH PRESSURE WATER, AIR, OIL, LP AND NATURAL GAS APPLICATIONS

Manufactured from virgin high density brass alloy. Positive mechanical seal. Large range of styles and sizes.







SPECIFICATIONS

PRESSURE: 1,200 PSI operating. Proof pressure up to 15,000 PSI for 1/8" and 1/4" pipe, 5,000 PSI on larger sizes.

TEMPERATURE: -65°F to +250°F at 1,000 PSI.

VIBRATION: Good resistance.

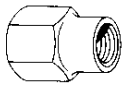
USE WITH: Brass, copper or iron pipe.

CONFORMANCE: Meets specifications of SAE automotive pipe fitting standards.

ASSEMBLY INSTRUCTIONS:
Tighten a minimum of 2-1/2 full turns past hand tight.

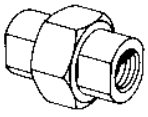
TUBE SIZE	1/8	1/4	3/8	1/2	3/4	1
A - THREADS/INCH	27	18	18	14	14	11-1/2

REDUCING COUPLING



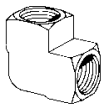
PIPE THREAD	INDUSTRY TYPE	PART	
1/4 x 1/8	3300 x 4 x 2	I	54233
3/8 x 1/8	3300 x 6 x 2	I	54234
3/8 x 1/4	3300 x 6 x 4	I	54235
1/2 x 3/8	3300 x 8 x 6	E	54236
1/2 x 1/4	3300 x 8 x 4	E	54237
3/4 x 1/2	3300 x 12 x 8	E	54238

UNION



PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3250 x 2	A	54283
1/4	3250 x 4	A	54284
3/8	3250 x 6	A	54285
1/2	3250 x 8	A	54286

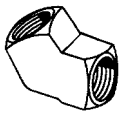
ELBOW



17844

PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3500 x 2	I	54244
1/4	3500 x 4	E	54245
3/8	3500 x 6	B	54246
1/2	3500 x 8	B	54247
3/4	3500 x 12	B	54248

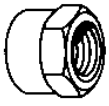
45° ELBOW



17844

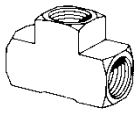
PIPE THREAD	INDUSTRY TYPE	PART	
1/8	N/A	I	54240
1/4	N/A	I	54241
3/8	N/A	E	54242
1/2	N/A	E	54243

CAP



PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3129 x 2	N	54292
1/4	3129 x 4	I	54293
3/8	3129 x 6	E	54294
1/2	3129 x 8	B	54295

TEE

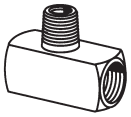


17844

PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3700 x 2	I	54254
1/4	3700 x 4	B	54255
3/8	3700 x 6	B	54256
1/2	3700 x 8	B	54257
3/4	3700 x 12	B	54258

PIPE FITTINGS — BRASS (Cont'd.)

MALE BRANCH TEES

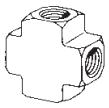


PIPE THREAD	INDUSTRY TYPE		PART
1/8	3600 x 2	E	54261
1/4	3600 x 4	E	54262
3/8	3600 x 6	E	54263

RECESSED HEX SOCKET PLUG

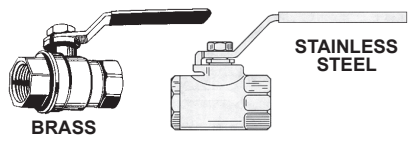
PIPE THREAD	INDUSTRY TYPE		PART
1/8	118 x 2	N	54395
1/4	118 x 4	I	54396
3/8	118 x 6	I	54397
1/2	118 x 8	I	54398

CROSS



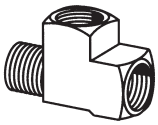
PIPE THREAD	INDUSTRY TYPE		PART
1/8	3950 x 2	D	55070
1/4	3950 x 4	D	55072
3/8	3950 x 6	D	55074
1/2	3950 x 8	B	55076

BALL VALVES



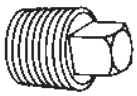
BRASS			STAINLESS STEEL		
VALVE SIZE		PART	PIPE THREAD		PART
1/4	B	54320	3/8	A	54332
3/8	B	54322	1/2	A	54333
1/2	B	54324	3/4	A	54334
3/4	A	54325	-		-
1	A	54326	-		-
1-1/4	A	54327	-		-
1-1/2	A	54328	-		-
2	A	54329			

STREET TEES



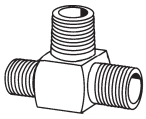
PIPE THREAD	INDUSTRY TYPE		PART
1/8	3750 x 2	E	54249
1/4	3750 x 4	E	54250
3/8	3750 x 6	E	54251

SQUARE HEAD PLUG



PIPE THREAD	INDUSTRY TYPE		PART
1/8	3151 x 2	N	54301
1/4	3151 x 4	I	54302
3/8	3151 x 6	I	54303
1/2	3151 x 8	I	54304
3/4	3151 x 12	B	54305

MALE TEES

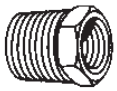


PIPE THREAD	INDUSTRY TYPE		PART
1/8	N/A	E	54252
1/4	N/A	E	54253
3/8	N/A	E	54259
1/2	N/A	E	54260

COUPLING

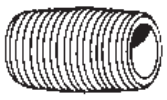
PIPE THREAD	INDUSTRY TYPE		PART
1/8	3300 x 2	N	54273
1/4	3300 x 4	I	54274
3/8	3300 x 6	E	54275
1/2	3300 x 8	E	54276
3/4	3300 x 12	B	54277

BUSHING



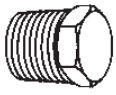
PIPE THREAD	INDUSTRY TYPE		PART	PIPE THREAD	INDUSTRY TYPE		PART
1/4 x 1/8	3220 x 2	N	54311	1/2 x 3 /8	3220 x 8 x 6	I	54316
3/8 x 1/8	3220 x 6 x 2	I	54312	3/4 x 1/8	3220 x 12 x 2	E	54310
3/8 x 1/4	3220 x 6 x 4	N	54313	3/4 x 1/4	3220 x 12 x 4	E	54317
1/2 x 1/8	3220 x 8 x 2	I	54314	3/4 x 3/8	3220 x 12 x 6	E	54318
1/2 x 1/4	3220 x 8 x 4	I	54315	3/4 x 1/2	3220 x 12 x 8	E	54319

CLOSE NIPPLE



PIPE THREAD	INDUSTRY TYPE		PART
1/8	3326 x 2	R	54335
1/4	3326 x 4	N	54336
3/8	3326 x 6	I	54337
1/2	3326 x 8	I	54338
3/4	3326 x 12	B	54339

HEX HEAD PLUGS

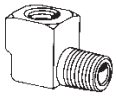


PIPE THREAD	INDUSTRY TYPE		PART
1/8	3152 x 2	N	54422
1/4	3152 x 4	N	54423
3/8	3152 x 6	I	54424
1/2	3152 x 8	I	54425
3/4	3152 x 12	E	54426

29

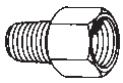
PIPE FITTINGS — BRASS (Cont'd.)

STREET ELBOW



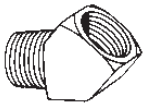
PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3400 x 2	I	54375
1/4	3400 x 4	I	54376
3/8	3400 x 6	E	54378
1/2	3400 x 8	E	54379
3/4	3400 x 12	B	54380

REDUCING ADAPTER



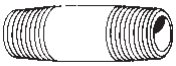
PIPE THREAD	INDUSTRY TYPE	PART	
1/4 x 1/8	3200 x 4 x 2	I	54413
3/8 x 1/8	3200 x 6 x 2	I	54414
3/8 x 1/4	3200 x 6 x 4	I	54415
1/2 x 3/8	3200 x 8 x 6	I	54416

45° STREET ELBOW



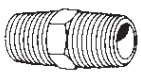
PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3350 x 2	I	54453
1/4	3350 x 4	I	54454
3/8	3350 x 6	E	54455
1/2	3350 x 8	E	54456

LONG NIPPLE



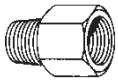
PIPE THREAD	INDUSTRY TYPE	PART	
1/8 x 1-1/2	3327 x 2	N	54345
1/4 x 1-1/2	3327 x 4	I	54346
3/8 x 1-1/2	113 x 615	I	54347
1/2 x 1-1/2	113 x 815	I	54348
1/8 x 2	3328 x 2	I	54349
1/4 x 2	3328 x 4	I	54350
3/8 x 2	3328 x 6	I	54351
1/2 x 2	113 x 820	E	54352
1/8 x 2-1/2	3329 x 2	N	54353
1/4 x 2-1/2	3329 x 4	I	54354
3/8 x 2-1/2	113 x 625	E	54355
1/2 x 2-1/2	113 x 825	E	54356
1/8 x 3	3330 x 2	I	54357
1/4 x 3	113 x 430	I	54358
3/8 x 3	113 x 630	I	54359
1/2 x 3	113 x 830	E	54360

HEX NIPPLE



PIPE THREAD	INDUSTRY TYPE	PART	
1/8 x 1/8	3325 x 2	N	54432
1/4 x 1/4	3325 x 4	I	54433
3/8 x 3/8	3325 x 6	I	54434
1/2 x 1/2	3325 x 8	I	54435
3/4 x 1/2	3325 x 12 x 8	E	54431

ADAPTER



PIPE THREAD	INDUSTRY TYPE	PART	
1/8	3200 x 2	N	54404
1/4	3200 x 4	I	54405
3/8	3200 x 6	I	54406
1/2	3200 x 8	E	54264

PIPE FITTING ACCESSORIES

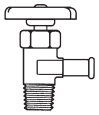
4-WAY SILLCOCK KEY

- **Use to open and close sillcocks and spigots**
- **Service most sillcocks in common use**
- **Use in place of sillcock handles**
- **4 Stems: 1/4", 9/32", 5/16", and 11/32"**
- **Durable plated steel construction**
- **Easy to use**

DESCRIPTION		PART
4-way Sillcock Key – 1/4", 9/32", 5/16", 11/32"	A	54750

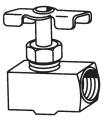
PIPE FITTINGS — BRASS (Cont'd.)

PIPE TO HOSE SHUT-OFF



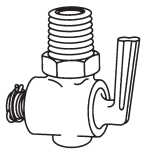
PIPE THREAD	INDUSTRY TYPE		PART
3/8	7506	A	54764

NEEDLE VALVE FEMALE PIPE



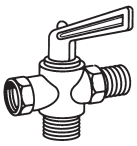
PIPE THREAD	INDUSTRY TYPE		PART
1/4 Forged	6805	A	54759

GROUND PLUG DRAIN



PIPE THREAD	INDUSTRY TYPE		PART
1/8	6891	B	54760
1/4	6892	B	54761
3/8	6893	B	54762

MULTIPLE SHUT-OFFS



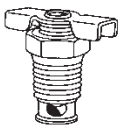
#54266
MALE TO
FEMALE PIPE

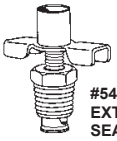
#54265
3-WAY

#54267
FEMALE TO
FEMALE PIPE

PIPE THREAD	INDUSTRY TYPE		PART
1/4	6829	A	54266
1/4	6809	A	54267
3/8	6709	A	54265

DRAIN COCK – EXTERNAL SEAT

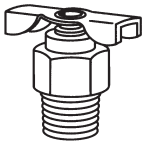




#54758
EXTERNAL
SEAT WITH BIB

PIPE THREAD	INDUSTRY TYPE		PART
1/8	801-2	B	54751
1/4	801-4	B	54752
3/8	801-6	B	54753
1/2	801-8	B	54754
1/4	807-4	B	54758

DRAIN COCK – INTERNAL SEAT



PIPE THREAD	INDUSTRY TYPE		PART
1/8	130	A	54755
1/4	1425 (HD)	A	54756
3/8	230	A	54757

PIPE FITTING ACCESSORIES

QUARTER-TURN SUPPLY LINES – FOR TOILETS AND FAUCETS

16" Toilet – P/N 51694

- 1/2" FPT Metal Swivel/Nut on supply end (includes removable 3/8" bushing)
- 7/8" Ballcock Plastic Swivel/Nut, with EPDM Cone Washer on riser end
- 16" Braided stainless supply line with PVC liner

22" Faucet – P/N 51695

- 1/2" FPT Metal Swivel/Nut on supply end (includes removable 3/8" bushing)
- Metal Swivel/Nut, 1/2-14 NPS Thread, with EPDM Cone Washer on riser end
- 22" Braided Stainless supply line with PVC liner

Features

- One-piece angle stop & supply line
- NPT connection
- 1/2" NPT fitting includes 3/8" removable bushing
- Braided stainless steel supply line
- Conical washer with support collar
- Swivel/Nut connector
- Quarter-turn valve design
- Dual levered handle
- No special installation tools required
- No-Lead design
- Operating temperature: From 40° to 150°F at a maximum working pressure of 125 psi with potable water

Material Compatibility

- Designed for use with:
  - ASTM B88 hard drawn and annealed Copper tube, Type K, L, or M, in the ½" size
  - CPVC water tube per ASTM D2846/2846M-99 in the ½" size
  - PEX water tube per ASTM F876, F877 in the ½" size using a tube liner designed by EPC (provided); and Threaded Pipe in the 1/2" and 3/8" size

Standards Council of Canada · IAPMO R&T · ANSI American National Standards Institute

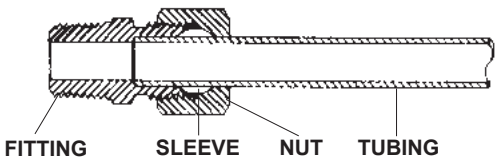
IAPMO · IAPMO STANDARDS · UPC ANSI / NSF 61 CU/CPVC

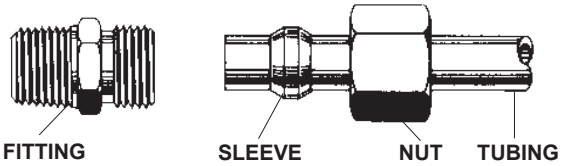
DESCRIPTION		PART
Quarter-Turn Supply Line, Toilet – 16"	A	51694
Quarter-Turn Supply Line, Faucet – 22"	A	51695

NTA AIR BRAKE FITTINGS — BRASS

MEETS ALL AIR BRAKE SPECIFICATIONS — FULLY D.O.T. APPROVED

Utilizes ribbed sleeve for compression and positive grip. Five remakes possible when disassembled. Body (less insert) interchangeable with standard air brake compression bodies.





SPECIFICATIONS

USE WITH: Nylon tubing (SAE J844, type 3).

ASSEMBLY INSTRUCTIONS:
1. Cut tubing to length required.
2. Insert tubing into fitting.
3. Tighten nut.

DISSASSEMBLY INSTRUCTIONS:
1. Remove nut and pull tubing out of fitting body.
2. Insert will remain in tubing.

RE-ASSEMBLY INSTRUCTIONS:
1. Push tubing and insert into fitting body until it bottoms.
2. Thread nut onto fitting body and tighten.

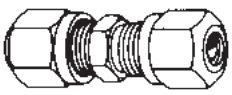
SLEEVE

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1460-4	R	55402
3/8	1460-6	R	55403
1/2	1460-8	O	55404
5/8	1460-10	L	55405
3/4	1460-12	I	55406

NUT

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1461-4	O	55410
3/8	1461-6	O	55411
1/2	1461-8	L	55412
5/8	1461-10	I	55413
3/4	1461-12	I	55414

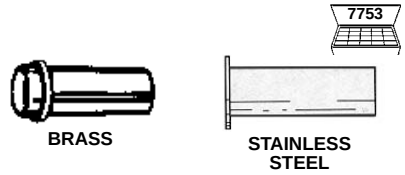
UNION



TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1462-4	I	55418
3/8	1462-6	I	55419
1/2	1462-8	F	55420
5/8	1462-10	D	55421
3/4	1462-12	B	55422

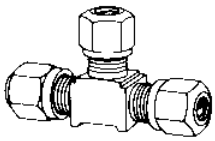
NTA AIR BRAKE FITTINGS — BRASS (Cont'd.)

TUBE INSERT



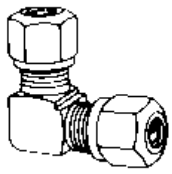
BRASS				STAINLESS STEEL		
TUBE SIZE	IND. TYPE		PART	TUBE SIZE		PART
1/4	1484-4	R	55425	1/4	N	55447
3/8	1484-6	R	55426	3/8	N	55448
1/2	1484-8	O	55427	1/2	N	55449
5/8	1484-10	L	55428	5/8	I	55450
3/4	1484-12	I	55429	-		-

UNION TEE



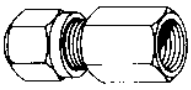
TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1464-4	D	55433
3/8	1464-6	D	55434
3/8 x 3/8 x 1/4	1464-664	D	55435
1/2	1464-8	B	55437
1/2 x 1/2 x 3/8	1464-886	B	55438

UNION ELBOW



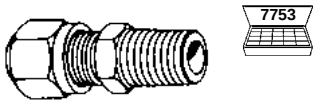
TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1465-4	D	55443
3/8	1465-6	G	55444
1/2	1465-8	D	55445
5/8	1465-10	B	55446

FEMALE CONNECTOR



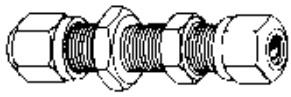
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	1466-42	I	55451
1/4	1/4	1466-44	I	55452
3/8	1/8	1466-62	I	55453
3/8	1/4	1466-64	I	55454
3/8	3/8	1466-66	G	55455
1/2	3/8	1466-86	D	55456
5/8	1/2	1466-108	B	55457
3/4	1/2	1466-128	B	55458

MALE CONNECTOR



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	1468-42	I	55463
1/4	1/4	1468-44	I	55464
1/4	3/8	1468-46	I	55465
3/8	1/8	1468-62	I	55466
3/8	1/4	1468-64	I	55467
3/8	3/8	1468-66	I	55468
3/8	1/2	1468-68	G	55469
1/2	1/4	1468-84	I	55470
1/2	3/8	1468-86	I	55471
1/2	1/2	1468-88	F	55472
5/8	3/8	1468-106	F	55473
5/8	1/2	1468-108	F	55474
3/4	1/2	1468-128	D	55475
3/4	3/4	1468-1212	D	55476

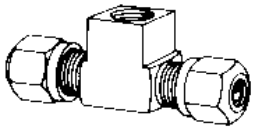
BULKHEAD UNION



TUBE SIZE	INDUSTRY TYPE	PART	
1/4	1474-4	F	55532
3/8	1474-6	F	55533
1/2	1474-8	D	55534
5/8	1474-10	B	55535

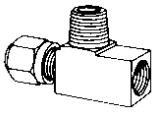
NTA AIR BRAKE FITTINGS — BRASS (Cont'd.)

FEMALE BRANCH TEE

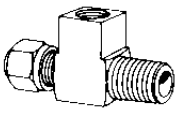


TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	1477-64	B 55538
1/2	1/4	1477-84	B 55539

ADAPTER TEE



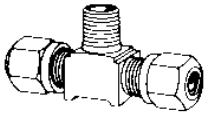
55556



55557

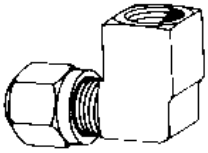
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4 x 3/8	1482-646	D 55556
3/8	3/8 x 1/4	1483-664	D 55557

MALE BRANCH TEE



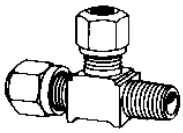
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1472-42	F 55522
1/4	1/4	1472-44	F 55523
3/8	1/8	1472-62	F 55524
3/8	1/4	1472-64	F 55525
3/8	3/8	1472-66	F 55526
1/2	3/8	1472-86	D 55527
5/8	1/2	1472-108	D 55528

FEMALE ELBOW



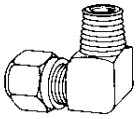
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1470-42	I 55501
3/8	1/8	1470-62	F 55502
3/8	1/4	1470-64	G 55503
3/8	3/8	1470-66	G 55504
1/2	3/8	1470-86	F 55505

MALE RUN TEE



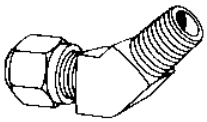
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1471-42	F 55510
1/4	1/4	1471-44	D 55511
3/8	1/4	1471-64	F 55513
3/8	3/8	1471-66	D 55514
1/2	3/8	1471-86	D 55515
5/8	1/2	1471-108	D 55516

90° MALE ELBOW



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1469-42	I 55482
1/4	1/4	1469-44	I 55483
1/4	3/8	1469-46	F 55484
3/8	1/8	1469-62	I 55485
3/8	1/8 long	1469-62 L	I 55486
3/8	1/4	1469-64	I 55487
3/8	3/8	1469-66	I 55488
3/8	1/2	1469-68	F 55489
1/2	1/4	1469-84	F 55490
1/2	3/8	1469-86	G 55491
1/2	1/2	1469-88	F 55492
5/8	3/8	1469-106	D 55493
5/8	1/2	1469-108	D 55494
3/4	1/2	1469-128	B 55495

45° MALE ELBOW



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1480-42	G 55546
3/8	1/4	1480-64	G 55547
3/8	3/8	1480-66	F 55548
1/2	3/8	1480-86	D 55549
1/2	1/2	1480-88	D 55550
5/8	1/2	1480-108	B 55551

NTA AIR BRAKE FITTINGS — BRASS (Cont'd.)

EATON — FULLER AIR TRANSMISSION FITTINGS

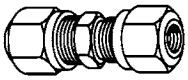
COLLET — SPLIT SLEEVE

TUBE SIZE	INDUSTRY TYPE		PART
1/8	560-2	R	55576
5/32	560-2.5	R	55575
1/4	560-4	R	55577

NUT

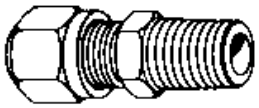
TUBE SIZE	INDUSTRY TYPE		PART
1/8	561-2	O	55580
5/32	561-2.5	O	55579
1/4	561-4	O	55581

UNION-SPLIT SLEEVE



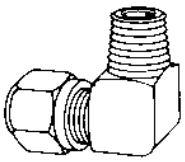
TUBE SIZE	INDUSTRY TYPE		PART
1/8	562-2	I	55584
5/32	562-2.5	I	55583
1/4	562-4	I	55585

MALE CONNECTOR — SPLIT SLEEVE



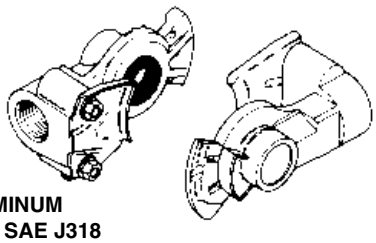
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
1/8	1/16	568-21	I	55587
1/8	1/8	568-22	I	55588
5/32	1/16	568-2.51	I	55595
5/32	1/8	568-2.52	I	55596
1/4	1/8	568-42	I	55589

90° MALE ELBOW — SPLIT SLEEVE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
1/8	1/16	569-21	I	55592
1/8	1/8	569-22	I	55593
5/32	1/8	569-2.52	I	55591
1/4	1/8	569-42	I	55594

MISCELLANEOUS AIR BRAKE FITTINGS



- DIE CAST ALUMINUM
- CONFORMS TO SAE J318
- CONNECTS TO 1/2" PIPE

GLADHAND COUPLINGS AND SEALS

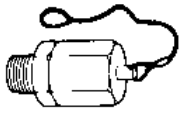
DESCRIPTION	INDUSTRY TYPE		PART
Service type coupling — connect only to service	78850	A	55597
Emergency type coupling — connect only to emergency	78851	A	55598
Universal type coupling — connects to all three styles	75150	A	55599

GLADHAND SEAL

EASY INSTALLATION LUBRICATE WITH HYDRAULIC FLUID

INDUSTRY TYPE		PART
13630	I	54763

AIR TANK DRAIN VALVE

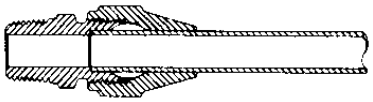


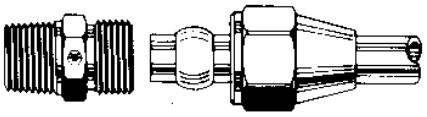
PIPE THREAD	INDUSTRY TYPE		PART
1/4	1421	A	55542

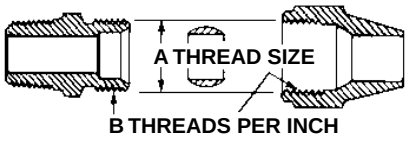
AIR BRAKE FITTINGS FOR COPPER TUBING — BRASS

EXCEEDS PRESSURE REQUIREMENTS FOR ALL AIR BRAKE SYSTEMS

Manufactured from virgin high density brass alloy. Low cost. No flare required. Easy to assemble.







SPECIFICATIONS

PRESSURE: Exceeds pressure requirements of all automotive air brake systems.

TEMPERATURE: -65°F to +250°F.

USE WITH: Copper tubing in air brake systems.

CONFORMANCE: Meets specifications and standards of SAE and MS (Military Standards).

ASSEMBLY INSTRUCTIONS:

1. Slide nut and then sleeve on tubing. Threaded end of nut must face out.
2. Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
3. Tighten assembly hand tight. From that point, tighten with a wrench the number of turns indicated below:

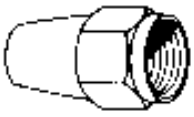
TUBE SIZE	ADD'L. # TURNS FROM HAND TIGHT
1/4, 3/8	1-3/4
1/2, 5/8, 3/4	3-1/4

TUBE SIZE	1/4	3/8	1/2	5/8	3/4
A - THREAD SIZE	7/16	17/32	11/16	13/16	1
B - THREADS/INCH	24	24	20	18	18

SLEEVE

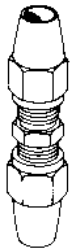
TUBE SIZE	INDUSTRY TYPE	PART
1/4	00457	T 53425
3/8	00361	T 53426
1/2	03754	T 53427
5/8	10612	R 53428
3/4	03897	R 53429

NUT



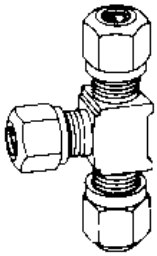
TUBE SIZE	INDUSTRY TYPE	PART
1/4	00455	R 53435
3/8	00360	O 53436
1/2	03755	L 53437
5/8	10613	I 53438
3/4	03896	E 53439

UNION



TUBE SIZE	INDUSTRY TYPE	PART
1/4	05514	I 53445
3/8	05134	I 53446
1/2	15710	E 53447
5/8	21826	A 53448
3/4	16523	A 53449
-	-	-

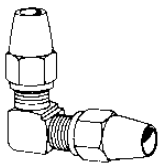
UNION TEE



TUBE SIZE	INDUSTRY TYPE	PART
1/4	B-164-4	E 53455
3/8 x 3/8 x 1/2	17663	E 53456
3/8	05106	A 53457
1/2	15712	A 53458
5/8	21984	A 53459
3/4	B-164-12	A 53460

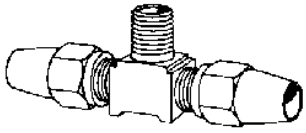
AIR BRAKE FITTINGS FOR COPPER TUBING — BRASS (Cont'd.)

UNION ELBOW



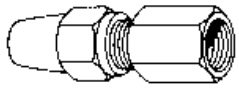
TUBE SIZE	INDUSTRY TYPE	PART
1/4	B-165-4	E 53466
3/8	05113	E 53467
1/2	22359	A 53468
5/8	22360	A 53469
3/4	B-165-12	A 53470

MALE BRANCH TEE



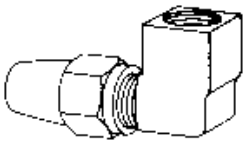
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-172-42	E 53489
3/8	1/8	17051	E 53490
3/8	1/4	05103	E 53491
3/8	3/8	05177	A 53492
1/2	3/8	15700	A 53493
5/8	1/2	21982	A 53494
3/4	1/2	B-172-128	A 53495

FEMALE CONNECTOR



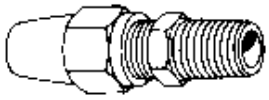
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-166-42	L 53476
3/8	1/8	05418	I 53477
3/8	1/4	05826	I 53478
3/8	3/8	05827	E 53479
1/2	3/8	15711	L 53480
1/2	1/2	B-166-88	E 53481
5/8	1/2	B-166-108	E 53482
3/4	1/2	B-166-128	A 53483

FEMALE ELBOW



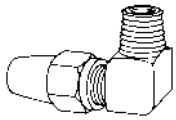
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-170-42	I 53537
3/8	1/8	B-170-62	I 53538
3/8	1/4	05135	E 53539
3/8	3/8	05830	E 53540
1/2	3/8	15702	E 53541
1/2	1/2	B-170-88	A 53542
5/8	1/2	B-170-108	A 53543

MALE CONNECTOR



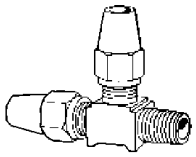
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	05127	L 53501
1/4	1/4	05183	L 53502
3/8	1/8	05509	I 53503
3/8	1/4	05053	I 53504
3/8	3/8	05824	I 53505
3/8	1/2	22063	I 53506
1/2	1/4	17690	I 53507
1/2	3/8	17525	I 53508
1/2	1/2	17691	I 53509
5/8	3/8	16685	E 53510
5/8	1/2	16684	A 53511
5/8	3/4	B-168-1012	E 53512
3/4	1/2	17621	A 53513
3/4	3/4	15762	A 53514

90° MALE ELBOW



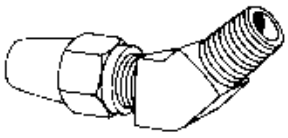
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-169-42	L 53520
1/4	1/4	24318	I 53521
3/8	1/8	05522	I 53522
3/8	1/4	05102	I 53523
3/8	3/8	05829	E 53524
3/8	1/2	22062	E 53525
1/2	1/4	20475	E 53526
1/2	3/8	15709	E 53527
1/2	1/2	16310	E 53528
5/8	3/8	21993	A 53529
5/8	1/2	21825	A 53530
3/4	1/2	B-169-128	A 53531

MALE RUN TEE



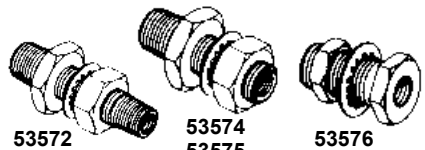
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-171-42	E 53549
1/4	1/4	B-171-44	E 53550
-	-	-	-
3/8	1/4	05103	E 53552
3/8	3/8	05177	A 53553
1/2	3/8	15700	A 53554
1/2	1/2	B-171-88	A 53555
5/8	1/2	21982	A 53556
3/4	1/2	B-171-128	A 53557

45° MALE ELBOW TUBE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	B-177-42	I 53563
3/8	1/4	20722	E 53564
1/2	3/8	20292	E 53565
5/8	1/2	22065	A 53566

BULKHEAD COUPLING



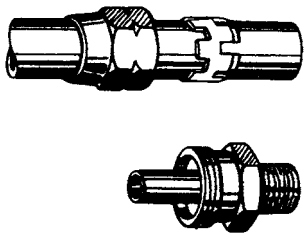
THREAD A	THREAD B	LENGTH	INDUSTRY TYPE	PART
1/2	1/4	2-15/16	05730	A 53572
1/2	1/4	3-15/16	23464	A 53573
1/2	1/4	2-5/32	05498	A 53574
1/2	1/4	2-17/32	05499	A 53575
1/4	1/4	1-1/2	05465	E 53576
1/4	1/4	5/16	21204	E 53577

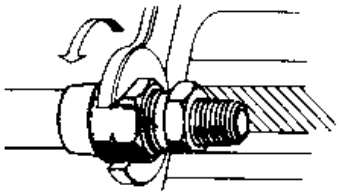
REUSABLE AIR BRAKE FITTINGS — BRASS

HOSE ENDS AND ASSEMBLIES

ASSEMBLY INSTRUCTIONS:

1. Slide nut and sleeve onto hose. Make sure bevel edge of sleeve faces out toward fitting.
2. Push hose into fitting until it bottoms.
3. Tighten nut down all the way.





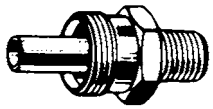
HOSE CONNECTOR ASSEMBLY

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15540	A 53583
3/8	3/8	24887	A 53584
3/8	1/2	15539	A 53585
1/2	3/8	368-86	A 55442

HOSE COUPLING NUT

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	03624	I 53591

HOSE COUPLING BODY



HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15993	I 53597
3/8	3/8	33470	E 53598
3/8	1/2	15992	E 53599

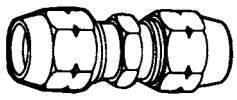
SLEEVE

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	-	03610	L 53626

HOSE CONNECTOR WITH SPRING GUARD

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15536	A 53605
3/8	3/8	23907	A 53606
3/8	1/2	15535	A 53607

HOSE SPLICER

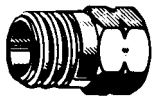


HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	-	362-6	A 55416
1/2	-	362-8	A 55417

HOSE COUPLING NUT WITH SPRING GUARD

TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	379-6	E 53614

HOSE COUPLING NUT FOR SPRING GUARD



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	03613	I 53613

SPRING GUARD

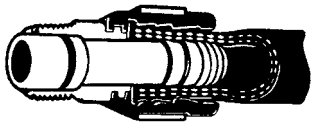
HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	01045	O 53620

AIR BRAKE HOSE REPAIR KIT

FIELD INSTALLATION KIT MEETS DOT AND SAE SPECIFICATIONS

CIC 200 Heavy Duty Air Brake Hose Repair Kit is ideal for shop and field installations and repairs of 3/8" air brake hose. Repairs are fast, simple and conform to both DOT 106 and SAE J1402 requirements. These fittings are standard original equipment with manufacturers such as Strick, Monon, Loadcraft, Dorsey, Great Dane, GMC, Pike, Trail King, etc.

FEATURES:
- **REINFORCED NYLON AND BRASS COMPONENTS**
- **DOT 106 AND SAE J1402 CERTIFIED**
- **FOR USE ON AIR CHAMBERS, RELAY VALVES, GLAD HANDS, ETC.**



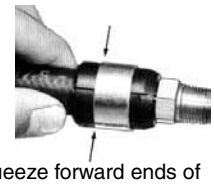
DESCRIPTION		PART
TWO 3/8" AIR BRAKE END FITTINGS	A	53420
3/8" FEMALE X 1/4" MALE ADAPTOR	R	54415

INSTALLATION PROCEDURE

1. Disassemble Kit

2. Position hose end on SHELL (A) flush with groove (see arrows).

3. Insert FITTING (B) into groove and position SHELL (C) opposite SHELL (A).



4. With assembly in hand, squeeze forward ends of shell and push and twist RETAINING RING (D) over shells to its final position as shown by arrows.

5. Insert BARB (E) into fitting. (Threaded end of barb should be greased). Push and turn to start threads. Using a 5/16" hexagon key continue to push and turn until the barb is flush inside the fitting. *NOTE: Check final assembly visually to insure that hose has not shifted position during assembly.*

QUICK DISCONNECT PNEUMATIC FITTINGS

THE FASTEST METHOD OF JOINING PNEUMATIC LINES

Manufactured from high density brass alloy and rust resistant, case hardened steel.

SPECIFICATIONS

USE WITH: All air operated equipment such as: blow guns, tire inflators, paint sprayers, air hammers, air drills, greasing equipment, oil sprays, etc.

FEATURES: Hardened steel balls engage groove in coupler plug, holding it securely against soft Buna-N seal. Assembly swivels, preventing kinking or twisting of hoses.

A sliding sleeve releases the locking balls when retracted, allowing the plug to be inserted or removed. The sleeve automatically returns to the locked position when released.

An automatic shutoff valve in the coupler seals instantly when disconnected, eliminating the need for a separate shut-off.

"M" STYLE COUPLERS

1/4" Basic Size Industrial Interchange Series

COUPLER BODY – BRASS

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	B	52200
1/4 NPT Male	1/4	B	52216
3/8 NPT Male	1/4		52201
1/4 Hose Barb	1/4		52209
3/8 Hose Barb	1/4		52213

COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	L	52218
1/4 NPT Male	1/4	L	52202
3/8 NPT Male	1/4	E	52203
1/4 Hose Barb	1/4	A	52211
3/8 Hose Barb	1/4	E	52215

"P" STYLE COUPLERS

3/8" Basic Size Tru-Flate/Parker Style Interchange Series

COUPLER BODY – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	3/8	A	52259
3/8 NPT Female	3/8	A	52256

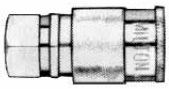
COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
3/8 NPT Male	3/8	A	52260
3/8 NPT Female	3/8	A	52264
1/4 NPT Male	3/8	A	52254
1/4 NPT Female	3/8	A	52255

"H" STYLE COUPLERS

3/8" Basic Size Industrial Interchange Series

COUPLER BODY – STEEL



PIPE THREAD	FLOW I.D.		PART
3/8 NPT Female	3/8	A	52262

COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Male	3/8	E	52217
3/8 NPT Male	3/8	A	52263

"G" STYLE COUPLERS

1/2" Basic Size Industrial Interchange Series

COUPLER BODY – STEEL

PIPE THREAD	FLOW I.D.		PART
1/2 NPT Female	1/2	A	52265
1/2 NPT Male	1/2	A	52258

COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Male	1/2	A	52278
3/8 NPT Male	1/2	A	52219
1/2 NPT Female	1/2	A	52266
1/2 NPT Male	1/2	A	52267

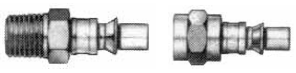
"A" STYLE COUPLERS

1/4" Basic Size ARO Style Interchange Series

COUPLER BODY – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	A	52250

COUPLER PLUG – STEEL



PIPE THREAD	FLOW I.D.		PART
1/4 NPT Male	1/4	E	52251
1/4 NPT Female	1/4	A	52257

"L" STYLE COUPLERS

1/4" Basic Size Lincoln Style Interchange Series

COUPLER BODY – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	A	52252
1/4 NPT Male	1/4	A	52249

COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Male	1/4	A	52253
1/4 NPT Female	1/4	A	52261

QUICK DISCONNECT PNEUMATIC FITTINGS (Cont'd.)

"T" STYLE COUPLERS

1/4" Basic Size Tru-Flate/Parker Style Interchange Series

COUPLER BODY – BRASS

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	B	52208
1/4 NPT Male	1/4	B	52222
1/4 NPT Male (all steel)	1/4	B	52212

COUPLER PLUG – STEEL

PIPE THREAD	FLOW I.D.		PART
1/4 NPT Female	1/4	F	52220
1/4 NPT Male	1/4	F	52210
1/4 NPT Male (use with 52212)	1/4	F	52214
3/8 Hose Barb	1/4	A	52205
3/8 P&L Hose Barb	1/4	A	52207

BALL SWIVEL FITTINGS

- ALL BRASS WITH NICKEL-PLATED BARBS PROVIDE LONGER LIFE AND SMOOTHER PERFORMANCE
- USE BETWEEN THE TOOL AND AIR SUPPLY HOSE TO ELIMINATE KINKING AND TWISTING
- OFFERED WITH 1/4" BODY SIZE INDUSTRIAL, AUTOMOTIVE AND ARO INTERCHANGE CONNECTOR ENDS
- PROVIDES A MORE NATURAL RANGE OF MOTION, A GREATER BEND ANGLE (20° to 25°, DEPENDING ON SIZE) AND FLOW CAPACITY
- INCREASES TOOL MANEUVERABILITY AND PRODUCTION CAPACITY, MINIMIZES USER FATIGUE, EXTENDS THE LIFE OF THE HOSE AND MINIMIZES COST
- SWIVEL CONVERSION FITTING ELIMINATES KINKED AND TWISTED AIR LINES WITH 360° SWIVEL

DESCRIPTION		PART
1/4" Barb x 1/4" MPT	A	52221
5/16 Barb x 1/4" MPT	A	52223
3/8" Barb x 1/4" MPT	A	52225
1/4" FPT x 1/4" MPT Swivel Conversion Fitting	A	52236
1/4" Industrial x 1/4" MPT	A	52235
1/4" Tru-Flat x 1/4" MPT	A	52237
1/4" ARO x 1/4" MPT	A	52241

MISCELLANEOUS

HOSE MENDERS — BRASS

DESCRIPTION		PART
1/4" I.D. Hose	I	52240
5/16" I.D. Hose	I	52242
3/8" I.D. Hose	I	52244

UNIVERSAL AIR COUPLERS

- ACCEPTS THE THREE MOST POPULAR 1/4" BASIC STYLE PLUGS SOLD IN THE USA
  - "A" Style - ARO (210)
  - "M" Style - Milton (Industrial Interchange)
  - "T" Style - Tru-Flate or Parker (Automotive)

- AUTOMATIC PUSH-TO-CONNECTION OPERATION
- HIGH FLOW MACHINED "WINDOW VALVE"
- CORROSION RESISTANT SOLID BRASS CONSTRUCTION
- SLEEVE GUARD PREVENT ACCIDENTAL DISCONNECTS AND PROTECTS SLEEVE FROM DAMAGE

DESCRIPTION		PART
1/4" Female	A	52268
1/4" Male	A	52269

3 IN 1 AIR MANIFOLD

- STURDY LIGHTWEIGHT ALUMINUM
- SUPPLIES 3 TOOLS FROM 1 OUTLET
- NO NEED TO CONNECT AND DISCONNECT EVERY TIME YOU WANT TO CHANGE TOOLS

DESCRIPTION		PART
3/8" NPT Inlet with three 1/4" Outlets	A	52238

29

QUICK DISCONNECTS – PUSH BUTTON

PUSH BUTTON SAFETY RELEASE COUPLINGS

- **STATE OF THE ART PUSH-BUTTON COUPLING TECHNOLOGY**
- **DOUBLE RELEASE AIR SAFETY COUPLING PREVENTS HOSE WHIP**
- **LEAKAGE FREE – "THRU O-RING" DESIGN GREATLY REDUCES EXPENSIVE AIR LEAKS**
- **FULLY INTERCHANGEABLE WITH SERIES LISTED BELOW MEETING MIL-C-4109 AND ISO 6150-B SPECIFICATIONS CONFORMS TO ISO 4144 SAFETY SPECIFICATIONS**

APPLICATIONS:

- **SAFETY REQUIRED AIR TOOLS, BLOWGUNS, AIR AUTOMATIC EQUIPMENT**
- **PAINT AND BODY SHOPS**
- **AUTOMOTIVE AND AIRCRAFT ASSEMBLY LINES**

INSTRUCTIONS:

1. The first press on the push-button decompresses the lower part of the circuit without disconnecting the plug and with reduced risk to the user.
2. The second press on the push button safely releases the plug.

ARO STYLE INTERCHANGE SERIES

"A" STYLE – 1/4"

NPT PIPE THREAD	FLOW I.D.		PART
1/4 Female	1/4	A	52296
–	–		–

INDUSTRIAL INTERCHANGE SERIES

"H" STYLE – 3/8"

NPT PIPE THREAD	FLOW I.D.		PART
3/8 Female	3/8	A	52293
3/8 Male	3/8	A	52294
–	–		–
–	-–		–

"M" STYLE – 1/4"

NPT PIPE THREAD	FLOW I.D.		PART
1/4 Female	1/4	A	52289
1/4 Male	1/4	A	52290
3/8 Female	1/4	A	52291
3/8 Male	1/4	A	52292

TRU-FLATE/PARKER STYLE INTERCHANGE SERIES

"P" STYLE – 3/8"

NPT PIPE THREAD	FLOW I.D.		PART
3/8 Female	3/8	A	52299
3/8 Male	3/8	A	52301

"T" STYLE – 1/4"

NPT PIPE THREAD	FLOW I.D.		PART
1/4 Female	1/4	A	52295
1/4 Female	3/8	A	52297

AIR BLOW GUNS

SAFETY BLOW GUN

- **Ergonomic design fits in your hand comfortably**
- **Composite body and nozzle will not scratch – sturdy and durable**
- **Light weight (4.8 oz.)**
- **1/4" female brass insert to match any plug profile**
- **Built-in hole on body so it can hang up easily on hook**
- **The shape of the trigger will not allow any dust or material inside the gun**
- **It operates with a double O-ring seal and stainless steel spring**
- **Built-in trigger stop at the handle base. Prevents the handle from being over extended and fatigued**
- **Trigger and nozzle angle are shaped in the natural air flow of the gun**

- **7.7 SCFM @ 87 PSI**
- **90 db rating**
- **Blower Force - 9.5 Oz**
- **Dynamic Pressure @ 87 PSI = 17.40 PSI**

DESCRIPTION		PART
Safety Blowgun with OSHA Venturi Nozzle	A	52233

POCKET BLO-GUN

"M" STYLE

"T" STYLE

EASY GRIP TWO FINGER AIR CONTROL ADJUSTS FROM WHISPER TO FULL VOLUME AIR FLOW

DESCRIPTION		PART
Fits 1/4 "M" style coupler body	A	52224
Fits 1/4 "T" style coupler body	A	52226

RUBBER TIP BLO-GUN

- **FULL LINE PRESSURE**
- **HEAVY DUTY**
- **LEAK-PROOF CONNECTION FOR BLOWING OUT FLUID LINES**
- **WON'T MAR DELICATE OR PAINTED SURFACES**

DESCRIPTION		PART
1/4" NPT Air Inlet with Rubber Tip	A	52230

SAFETY LEVER BLO-GUN

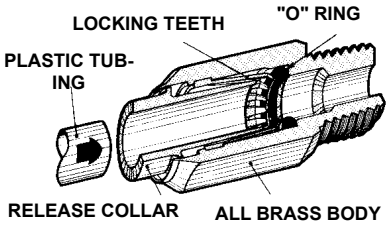
- **FULL FLOW**
- **LEVER EASILY CONTROLS AIR FLOW**
- **HUNDREDS OF AUTOMOTIVE/ INDUSTRIAL USES**
- **RUGGED CONSTRUCTION**
- **MEETS OSHA REQUIREMENTS**

DESCRIPTION		PART
1/4" NPT Air Inlet Nozzle Thread 7/16-27	A	52228
1/4" NPT Air Inlet w/Hang-Up Hook Nozzle Thread 1/8-27	A	52229

INSTANT FITTINGS – BRASS

THE FASTEST CONNECTIONS FOR AIR, FUEL, WATER AND OIL LINES

Instant pneumatic, hydraulic, instrumentation and lubrication connections. Automatic locking and sealing to maximum working pressure. Release collar for instant removal of tubing and line checks.



FOR TRUCK, HEAVY EQUIPMENT AND INDUSTRIAL USE

- **Because there is no nut, the fittings can be closely mounted.**
- **Positive gripping action of locking teeth allows tubing to withstand vibration with or without pressure.**
- **Unrestricted ID allows maximum flow.**
- **Possible to use smaller tube size where larger tubing with compression or barb fitting has been required.**
- **Fully reuseable since there are no ferrules or inserts.**
- **Elbow and tee configurations available with 360° swivel.**
- **One-piece fitting means reduced assembly time and fewer parts in inventory.**
- **Male pipe threads are pretaped with teflon.**

SPECIFICATIONS

PRESSURE: From 27" Hg to 250 PSI

TEMPERATURE: -40°F to +200°F. See tubing pressure and temperature data for tubing limitations.

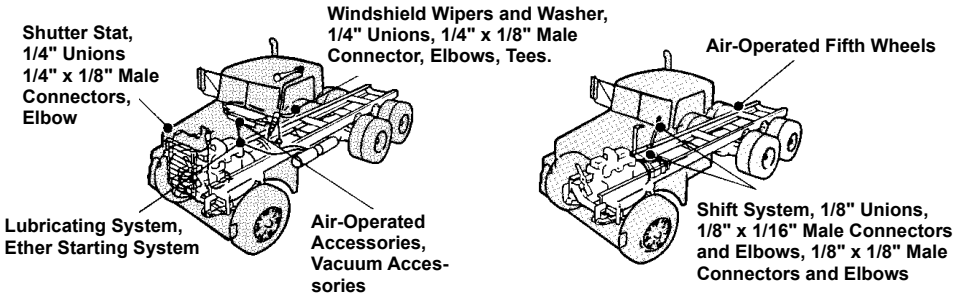
VIBRATION: Good resistance.

MATERIALS OF CONSTRUCTION: Brass body, spring brass locking teeth, oil resistant Buna N O-ring, tough Delrin® release collar.
USE WITH: Polyethylene, nylon and polyurethane tubing.

ASSEMBLY INSTRUCTIONS:
Simply push the tubing into the fitting until it bottoms.

DISASSEMBLY INSTRUCTIONS:
Push in release collar. While pressing on collar, pull out tubing.

APPLICATIONS IN SECONDARY AIR SYSTEMS



ADDITIONAL VEHICULAR APPLICATIONS

- **Truck transmission splitter lines**
- **Tag axles**
- **Air suspension seats**
- **Air horns**
- **Air-operated power windows**
- **Boost pressure gauges**
- **Vacuum advance systems**
- **Pneumatic and vacuum controls**
- **Headlight washers**
- **Air tank pressure gauges**
- **Instruments and gauges**
- **Differential locks**
- **Oil pressure gauges**
- **Fuel lines**
- **Fuel return and crossovers**

INSTANT FITTINGS – BRASS (Cont'd.)

MALE CONNECTOR

7701 & 7711

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	E	55303
1/8	1/16	E	55300
1/8	1/8	E	55301
1/8	1/4	E	55302
5/32	10-32 UNF	E	55304
5/32	1/8	E	44335
5/32	1/4	E	44336
1/4	10-32 UNF	E	55314
1/4	1/8	E	44300
1/4	1/4	E	44302
1/4	3/8	E	44304
3/16	1/8	B	44600
3/16	1/4	B	44601
5/16	1/8	E	55340
5/16	1/4	E	55341
5/16	3/8	B	44602
3/8	1/8	E	44305
3/8	1/4	E	44306
3/8	3/8	E	44308
3/8	1/2	E	44310
1/2	3/8	E	44312
1/2	1/4	E	44311
1/2	1/2	E	44314

FEMALE CONNECTOR

7701 & 7711

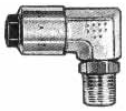
TUBE SIZE	NPT PIPE THREAD		PART
1/8	1/8	E	55335
1/8	1/4	B	***44691***
5/32	1/8	B	44692
5/32	1/4	B	***44693***
3/16	1/8	B	***44694***
3/16	1/4	A	***44695***
1/4	1/8	E	44360
1/4	1/4	E	44362
5/16	1/8	A	55336
5/16	1/4	A	55337
3/8	1/8	B	44696
3/8	1/4	B	44364
3/8	3/8	B	44366
1/2	3/8	B	44697
1/2	1/2	B	44698

MALE ELBOW

7701

TUBE SIZE	PIPE THREAD		PART
1/8	1/8	E	55306
5/32	1/4	E	44331
5/16	1/8	E	55308

360° SWIVEL ELBOW



7701 & 7770

TUBE SIZE	PIPE THREAD		PART
1/8	1/8	E	55310
5/32	1/8	B	44323
5/16	1/8	A	55311
5/16	1/4	E	55313
3/8	3/8	B	44328

UNION

7701 & 7711

TUBE SIZE	PIPE THREAD		PART
1/8	-	E	55325
5/16	-	E	55327

BULK HEAD

TUBE SIZE		
1/8	A	55312

UNION ELBOWS

7711

TUBE SIZE	PIPE THREAD		PART
5/16	-	A	55329
3/8	-	E	44442

UNION TEE

7701

TUBE SIZE	PIPE THREAD		PART
1/8	-	E	55330

MALE SWIVEL RUN TEE

7701

TUBE SIZE	PIPE THREAD		PART
1/8	1/8	E	55315

MALE SWIVEL BRANCH TEE

7701

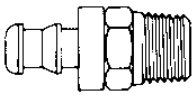
TUBE SIZE	PIPE THREAD		PART
1/8	1/8	E	55320

29

"PUSH-ON" FITTINGS FOR SOFT TUBING - BRASS

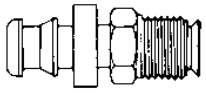
REUSABLE "PUSH-ON" FITTINGS FOR LOW PRESSURE APPLICATIONS

MALE PIPE



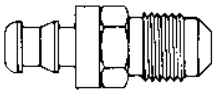
HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	10004-102	O	54555
1/4	1/4	10004-104	O	54556
3/8	1/8	10006-102	L	54557
3/8	1/4	10006-104	I	54558
3/8	3/8	10006-106	L	54559

INVERTED MALE SWIVEL



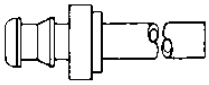
HOSE ID	TUBE SIZE	THREAD	INDUSTRY TYPE	PART	
1/4	3/16	3/8-24	10004-B03	L	54600
1/4	1/4	7/16-24	10004-B04	L	54601
1/4	5/16	1/2-20	10004-B05	I	54602
3/8	5/16	1/2-20	10006-B05	E	54604
3/8	3/8	5/8-18	10006-B06	I	54603

SAE RIGID MALE



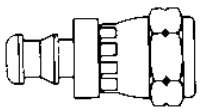
		THREAD		PART	
1/4	1/4	7/16-20	10004-304	L	54565
1/4	5/16	1/2-20	10004-305	L	54567
3/8	3/8	5/8-18	10006-306	I	54568

RIGID TUBE



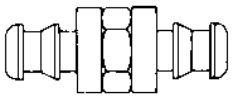
HOSE ID	TUBE SIZE	THREAD	INDUSTRY TYPE	PART	
1/4	3/16	-	10004-X03	L	54610
1/4	1/4	-	10004-X04	L	54611
1/4	5/16	-	10004-X05	L	54612
3/8	3/8	-	10006-X06	L	54613

SAE SWIVEL



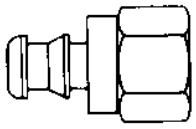
HOSE ID	TUBE SIZE	THREAD	INDUSTRY TYPE	PART	
1/4	1/4	7/16-20	10004-404	L	54573
1/4	5/16	1/2-20	10004-405	L	54574
3/8	5/16	1/2-20	10006-405	E	54576
3/8	3/8	5/8-18	10006-406	I	54575

HOSE SPLICER



HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	-	10004B-Y04	I	54582
5/16	-	10005B-Y05	I	54581
3/8	-	10006B-Y06	I	54583
1/2	-	10008B-Y08	E	54584

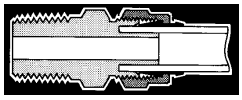
RIGID INVERTED FEMALE



HOSE ID	TUBE	THREAD	INDUSTRY TYPE	PART	
1/4	3/16	3/8-24	10004-A03	L	54589
1/4	1/4	7/16-24	10004-A04	L	54590
1/4	5/16	1/2-20	10004-A05	L	54591
3/8	3/8	5/8-18	10006-A06	E	54593
3/8	5/16	1/2-20	10006-A05	L	54592

POLY-TITE® BRASS FITTINGS

FOR INSTRUMENT, PNEUMATIC, LUBRICANT, FUEL AND COOLANT LINES



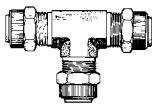
- A PREASSEMBLED, COMPACT BRASS COMPRESSION FITTING DESIGNED FOR SPEED AND EASE OF USE.
- USE WITH POLYETHYLENE, POLYPROPYLENE, VINYL, NYLON, COPPER AND ALUMINUM TUBING.

MOLDED ACETAL RESIN SLEEVE

7754

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	60P-4	T	55648
5/16	60P-5	T	55649
3/8	60P-6	T	55650
1/2	60P-8	T	55651

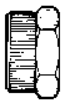
UNION TEES



7754

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	164P-4	D	55607
5/16	164P-5	D	55608
3/8	164P-6	D	55609
1/2	164P-8	B	55610

NUTS

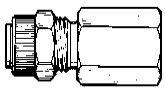


7754

FOR USE WITH POLYETHYLENE, POLYPROPYLENE AND VINYL TUBING

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	61PN-4	O	55654
5/16	61PN-5	O	55655
3/8	61PN-6	O	55656
1/2	61PN-8	L	55657

FEMALE CONNECTORS



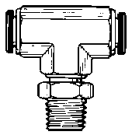
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	66P-4-2	I	55613
1/4	1/4	66P-4-4	I	55614
5/16	1/8	66P-5-2	I	55615
3/8	1/4	66P-6-4	I	55616
1/2	3/8	66P-8-6	D	55617

UNIONS

7754

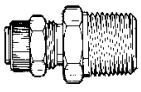
TUBE SIZE	INDUSTRY TYPE	PART	
1/4	62P-4	I	55601
5/16	62P-5	I	55602
3/8	62P-6	I	55603
1/2	62P-8	F	55604

MALE BRANCH TEES



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	172P-4-2	F	55642
1/4	1/4	172P-4-4	F	55643
5/16	1/8	172P-5-2	F	55644
3/8	1/4	172P-6-4	F	55645
1/2	3/8	172P-8-6	D	55646

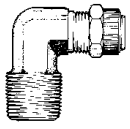
MALE CONNECTORS



7754

TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	68P-2-2	I	55619
1/4	1/8	68P-4-2	I	55620
1/4	1/4	68P-4-4	I	55621
1/4	3/8	68P-4-6	I	55622
5/16	1/8	68P-5-2	I	55623
5/16	1/4	68P-5-4	I	55624
3/8	1/8	68P-6-2	I	55625
3/8	1/4	68P-6-4	I	55626
3/8	3/8	68P-6-6	I	55627
1/2	3/8	68P-8-6	I	55628

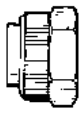
MALE ELBOWS



7754

TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/8	1/8	269P-2-2	E	55629
3/16	1/8	169P-3-2	E	55640
1/4	1/8	169P-4-2	I	55632
1/4	1/4	169P-4-4	I	55633
1/4	3/8	169P-4-6	F	55634
5/16	1/8	169P-5-2	I	55635
3/8	1/8	169P-6-2	I	55636
3/8	1/4	169P-6-4	I	55637
3/8	3/8	169P-6-6	F	55638
1/2	3/8	169P-8-6	F	55639

BRASS SLEEVE ASSEMBLY



FOR USE WITH NYLON, ALUMINUM AND COPPER TUBING (WITH NUT)

TUBE SIZE	INDUSTRY TYPE	PART	
1/4	61PB-4	O	55668
5/16	61PB-5	O	55669
3/8	61PB-6	L	55670
1/2	61PB-8	L	55671

29

SAE 37° (JIC) FLARE FITTINGS — STEEL

HYDRAULIC, INSTRUMENTATION AND CHEMICAL PROCESSING APPLICATIONS

SPECIFICATIONS:

PRESSURE: Up to 10,000 PSI depending on tube size.
VIBRATION: Good resistance.
MATERIAL: Carbon steel (AISI/SAE 12L14) Zinc, dichromate plating.
USE WITH: Copper, brass, steel, aluminum and other tubing that can flared.
CONFORMANCE: Meets ASA, ASME, SAE and MS specifications and standards.

ASSEMBLY INSTRUCTIONS:

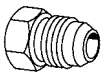
1. Slide nut on tube (threaded end of nut must face out).
2. Slide sleeve on tube (3 piece assembly only).
3. Flare end of tube. Check for proper diameter and excessive thin-out. On thin wall, welded or brazed tubing, use double flare to prevent pinch-off and cracked flares. Lubricate thread.
4. Assemble to fitting body (turning nut hand tight).
5. Tighten assembly with wrench until sold feeling is encountered. From that point, apply one-sixth turn.

TUBE SIZE	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/4	1-1/2	2
THREAD SIZE	5/16-24	3/8-24	7/16-20	1/2-20	9/16-18	3/4-16	7/8-14	1-1/16-12	1-3/16-12	1-5/16-12	1-5/8-12	1-7/8-12	2-1/2-12

STEEL FLARE CAP

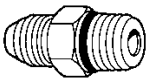
TUBE OD	INDUSTRY TYPE	PART	TUBE OD	INDUSTRY TYPE	PART
1/8	C5129 x 2	E 53871	5/8	C5129 x 10	E 53877
3/16	C5129 x 3	E 53872	3/4	C5129 x 12	E 53878
1/4	C5129 x 4	I 53873	7/8	C5129 x 14	B 53879
5/16	C5129 x 5	I 53874	1	C5129 x 16	B 53880
3/8	C5129 x 6	I 53875	1-1/4	C5129 x 20	A 53881
1/2	C5129 x 8	I 53876	1-1/2	C5129 x 24	A 53882

STEEL FLARE PLUG



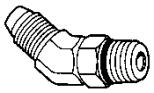
TUBE OD	INDUSTRY TYPE	PART	TUBE OD	INDUSTRY TYPE	PART
1/4	C5229 x 4	I 53883	3/4	C5229 x 12	E 53895
5/16	C5229 x 5	I 53884	7/8	C5229 x 14	B 53896
3/8	C5229 x 6	I 53889	1	C5229 x 16	B 53897
1/2	C5229 x 8	I 53891	1-1/4	C5229 x 20	B 53898
5/8	C5229 x 10	E 53892	1-1/2	C5229 x 24	A 53903

CONNECTOR — STRAIGHT THREAD O-RING



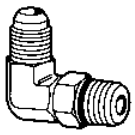
TUBE OD	PORT THREAD	INDUSTRY TYPE	PART	TUBE OD	PORT THREAD	INDUSTRY TYPE	PART	TUBE OD	PORT THREAD	INDUSTRY TYPE	PART
1/8	1/8	C5315 x 2	B 55850	1/2	3/8	C5315 x 8 x 6	D 55859	3/4	5/8	C5315 x 12 x 10	B 55867
3/16	3/16	C5315 x 3	B 55851	1/2	5/8	C5315 x 8 x 10	D 55860	3/4	1	C5315 x 12 x 16	B 55868
1/4	1/4	C5315 x 4	F 55852	1/2	3/4	C5315 x 8 x 12	D 55861	7/8	7/8	C5315 x 14	B 55869
1/4	5/16	C5315 x 4 x 5	F 55853	5/8	5/8	C5315 x 10	D 55862	1	1	C5315 x 16	B 55870
1/4	3/8	C5315 x 4 x 6	F 55854	5/8	1/2	C5315 x 10 x 8	D 55863	1	3/4	C5315 x 16 x 12	B 55871
5/16	5/16	C5315 x 5	F 55855	5/8	3/4	C5315 x 10 x 12	B 55864	1	1-1/4	C5315 x 16 x 20	A 55872
3/8	3/8	C5315 x 6	F 55856	3/4	3/4	C5315 x 12	B 55865	1-1/4	1-1/4	C5315 x 20	A 55873
3/8	1/2	C5315 x 6 x 8	F 55857	3/4	1/2	C5315 x 12 x 8	B 55866	1-1/4	1	C5315 x 20 x 16	A 55874
1/2	1/2	C5315 x 8	D 55858	-	-	-	-	-	-	-	-

45° ELBOW - STRT. THRD. O-RING



TUBE OD	PORT SIZE	INDUSTRY TYPE	PART
1/4	1/4	C5365 x 4	B 55884
5/16	5/16	C5365 x 5	B 55885
3/8	3/8	C5365 x 6	B 55886
1/2	1/2	C5365 x 8	B 55887
1/2	5/8	C5365 x 8 x 10	A 55888
5/8	5/8	C5365 x 10	A 55889
3/4	3/4	C5365 x 12	A 55890
3/4	5/8	C5365 x 12 x 10	A 55891
1	1	C5365 x 16	A 55892
1-1/4	1-1/4	C5365 x 20	A 55893

90° ELBOW — STRAIGHT THREAD O-RING

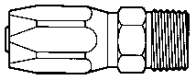


TUBE OD	PORT SIZE	INDUSTRY TYPE	PART	TUBE OD	PORT SIZE	INDUSTRY TYPE	PART
3/16	3/16	C5515 x 3	A 55901	1/2	5/8	C5515 x 8 x 10	B 55909
1/4	1/4	C5515 x 4	D 55902	5/8	5/8	C5515 x 10	B 55910
5/16	5/16	C5515 x 5	B 55903	3/4	3/4	C5515 x 12	A 55911
3/8	3/8	C5515 x 6	B 55904	3/4	5/8	C5515 x 12 x 10	A 55912
3/8	1/2	C5515 x 6 x 8	B 55905	7/8	7/8	C5515 x 14	A 55913
1/2	1/2	C5515 x 8	B 55906	1	1	C5515 x 16	A 55914
1/2 long	1/2	C5515 x 8L	A 55907	1	3/4	C5515 x 16 x 12	A 55915
1/2	3/8	C5515 x 8 x 6	B 55908	1-1/4	1-1/4	C5515 x 20	A 55916

REUSABLE 247 "N" SERIES HOSE ENDS — STEEL

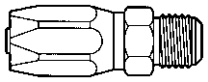
MEDIUM PRESSURE AND HIGH TEMPERATURE APPLICATIONS

MALE PIPE RIGID



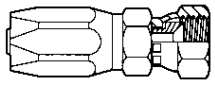
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
3/16	1/8	1/8-27	1	24704N-102	F 55770
3/16	1/4	1/4-18	1-3/16	24704N-104	F 55771
1/4	1/4	1/4-18	1-1/4	24705N-104	F 55772
5/16	1/4	1/4-18	1-1/4	24706N-104	F 55773
5/16	3/8	3/8-18	1-1/4	24706N-106	B 55774
13/32	3/8	3/8-18	1-3/8	24708N-106	B 55775
13/32	1/2	1/2-14	1-5/8	24708N-108	B 55776
1/2	1/2	1/2-14	1-5/8	24710N-108	B 55777
1/2	3/4	3/4-14	1-11/16	24710N-112	B 55778
5/8	3/4	3/4-14	1-3/4	24712N-112	B 55779

SAE 45° FLARE MALE RIGID



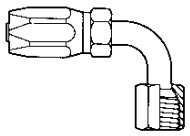
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
3/16	1/4	7/16-20	1-1/16	24704N-304	F 55784
1/4	5/16	1/2-20	1-3/16	24705N-305	F 55785
5/16	3/8	5/8-18	1-1/4	24706N-306	F 55786
13/32	1/2	3/4-16	1-1/2	24708N-308	D 55787
1/2	5/8	7/8-14	1-11/16	24710N-310	B 55788
5/8	3/4	1-1/16-14	1-7/8	24712N-312	A 55789

SAE 45° FLARE FEMALE SWIVEL



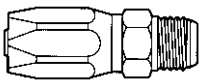
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
5/16	3/8	5/8-18	1-7/16	24706N-406	F 55806
13/32	3/8	5/8-18	1-9/16	24708N-406	D 55808
1/2	1/2	3/4-16	1-11/16	24710N-608	A 55810
5/8	3/4	1-1/16-14	2	24712N-612	A 55812

SAE 37° (JIC) FEMALE SWIVEL 90° TUBE ELBOW (Exceptions Noted)



HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
3/16	1/4	7/16-20	1-1/2	24704N-664	B 55827[C]
1/4	5/16	1/2-20	1-7/8	24705N-665	B 55828[C]
5/16	3/8	5/8-18	1-13/16	24706N-446	B 55829[B]
5/16	3/8	9/16-18	1-13/16	24706N-666	B 55830[A]
13/32	1/2	3/4-16	2-1/16	24708N-668	A 55831[C]
1/2	5/8	7/8-14	2-1/4	24710N-670	A 55832[C]
5/8	3/4	1-1/16-14	2-3/4	24712N-472	A 55833[B]
5/8	3/4	1-1/16-12	2-13/16	24712N-672	A 55834[A]
7/8	1	1-5/16-12	2-7/8	24716N-676	A 55835[A]

SAE 37° (JIC) MALE RIGID



HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
3/16	1/4	7/16-20	1-3/16	24704N-504	F 55794
1/4	5/16	1/2-20	1-1/4	24705N-505	D 55795
5/16	3/8	9/16-18	1-1/4	24706N-506	D 55796
13/32	1/2	3/4-16	1-9/16	24708N-508	D 55797
1/2	5/8	7/8-14	1-11/16	24710N-510	A 55798
5/8	3/4	1-1/16-12	1-13/16	24712N-512	A 55799
7/8	1	1-5/16-12	1-3/4	24716N-516	A 55800

SAE 37° (JIC) FEMALE SWIVEL (Exceptions Noted)

HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
3/16	1/4	7/16-20	1-5/16	24704N-604	F 55817
1/4	5/16	1/2-20	1-1/2	24705N-605	F 55818
5/16	1/4	7/16-20	1-5/16	24706N-604	F 55823
5/16	3/8	9/16-18	1-1/2	24706N-606	F 55819
13/32	1/2	3/4-16	1-3/4	24708N-608	D 55820
1/2	5/8	7/8-14	1-13/16	24710N-610	B 55821
5/8	3/4	1-1/16-12	1-15/16	24712N-612	B 55822

A — JIC 37° Flare Connection Only B — SAE 45° Flare Connection Only C — Both SAE 45° and JIC 37° Flare

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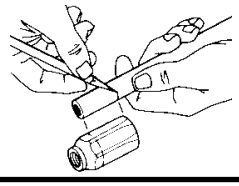
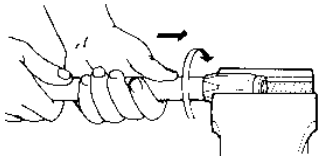
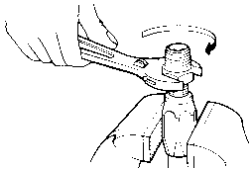
REUSABLE 425 "N" SERIES HOSE ENDS — STEEL

HIGH PRESSURE APPLICATIONS IN CONSTRUCTION, FARM AND INDUSTRIAL EQUIPMENT

Good selection of hose ends. Non-mandrel assembly. Wide variety of applications because of its use with SAE 100R2 Type AT hose.

SPECIFICATIONS

PRESSURE: Determined by maximum working pressure for hose size.

MATERIAL: Carbon steel (AISI/SAE 12L14), zinc, dichromate plating.

ASSEMBLY INSTRUCTIONS: On larger sizes assemble with the T-300 assembly machine.

1. Lubricate insert threads and I.D. of hose.
2. Measure from end of hose and mark the socket depth. Use notch on socket or see insertion depth chart below.
3. Screw hose into socket (left hand thread) to the depth marked on hose.
4. Screw insert into socket until insert touches socket.

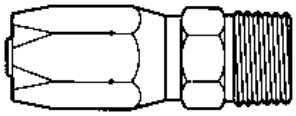
INSERTION DEPTH

HOSE I.D.	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
SCREW HOSE INTO SOCKET	1"	1-5/32"	1-3/16"	1-5/16"	1-9/16"	1-7/8"	2"	1-15/16

INDUSTRY NUMBERS FOR HOSE

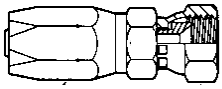
ACTUAL I.D.	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1-1/8	1-1/4	2
STD. IND. #	-3	-4	-5	-6	-8	-10	-12	-	-16	-	20	-32

MALE PIPE RIGID



HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/8	1/8-27	1-3/16	42504N-102	B 55920
1/4	1/4	1/4-18	1-3/8	42504N-104	B 55921
3/8	1/4	1/4-18	1-5/16	42506N-104	B 55922
3/8	3/8	3/8-18	1-3/8	42506N-106	B 55923
1/2	3/8	3/8-18	1-3/8	42508N-106	B 55924
1/2	1/2	1/2-14	1-5/8	42508N-108	B 55925
1/2	3/4	3/4-14	1-11/16	42508N-112	A 55926
3/4	3/4	3/4-14	1-11/16	42512N-112	B 55927
1	1	1-11/12	2	42516N-116	A 55929
1-1/4	1-1/4	1-1/4-11.5	2-7/16	42520N-120	A 55930

SAE 37° (JIC) FEMALE SWIVEL (Exceptions Noted)



HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	1/4-18	1-1/2	42504N-604	B 55950
1/4	5/16	-	1-9/16	42504N-605	B 55951
1/4	3/8	-	1-5/8	42504N-606	B 55952
3/8	3/8	3/8-18	1-1/2	42506N-406	B 55953[B]
3/8	3/8	3/8-18	1-5/8	42506N-606	B 55954
3/8	1/2	-	1-13/16	42506N-608	B 55955
1/2	1/2	1/2-14	1-13/16	42508N-608	A 55956
1/2	5/8	-	1-7/8	42508N-610	A 55957
3/4	5/8	-	1-7/8	42512N-610	A 55958
3/4	3/4	3/4-14	2	42512N-412	A 55959[B]
3/4	3/4	3/4-14	2	42512N-612	A 55960
3/4	7/8	-	2-1/16	42512N-614	A 55961
1	1	1-11/12	2-5/16	42516N-616	A 55962
1-1/4	1-1/4	1-1/4-11.5	2-3/4	42520N-620	A 55963

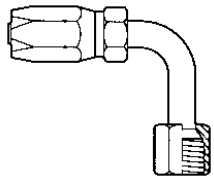
A — JIC 37° Flare Connection Only B — SAE 45° Flare Connection Only C — Both SAE 45° and JIC 37° Flare

REUSABLE 425 "N" SERIES HOSE ENDS — STEEL (Cont'd.)

SAE 37° (JIC) MALE RIGID

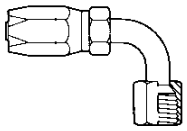
HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	1/4-18	1-3/8	42504N-504	B 55935
1/4	5/16	-	1-3/8	42504N-505	B 55936
1/4	3/8	-	1-3/8	42504N-506	A 55937
3/8	3/8	3/8-18	1-3/8	42508N-506	A 55938
3/8	1/2	-	1-1/2	42508N-508	A 55939
1/2	1/2	1/2-14	1-9/16	42508N-508	A 55940
1/2	5/8	-	1-11/16	42508N-510	A 55945
3/4	3/4	3/4-14	1-3/4	42512N-512	A 55946
1	1	1-11/12	1-15/16	42516N-516	A 55948

SAE 37° (JIC) FEMALE SWIVEL 90° TUBE ELBOW — LONG (Exceptions Noted)



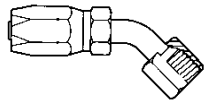
HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	1/4-18	1-3/4	42504N-644	A 55970
3/8	3/8	3/8-18	1-7/8	42506N-646	A 55971
1/2	1/2	1/2-14	2-3/16	42508N-648	A 55972
3/4	3/4	3/4-14	2-3/4	42512N-652	A 55974

SAE 37° (JIC) FEMALE SWIVEL 90° TUBE ELBOW



HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	1/4-18	1-11/16	42504N-664	A 55980
3/8	3/8	3/8-18	1-5/16	42506N-666	A 55981
1/2	1/2	1/2-14	2-1/16	42508N-668	A 55982
1/2	5/8	-	2-1/4	42508N-670	A 55983
3/4	3/4	3/4-14	2-3/4	42512N-672	A 55985
1	1	1-11/12	3-1/16	42516N-676	A 55986

SAE 37° (JIC) FEMALE SWIVEL 45° TUBE ELBOW

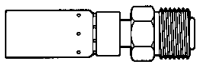


HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	1/4-18	1-7/8	42504N-684	A 55990
3/8	3/8	3/8-18	2	42506N-686	A 55991
1/2	1/2	1/2-14	2-1/4	42506N-688	A 55992
1/2	5/8	-	2-1/2	42508N-690	A 55993
3/4	3/4	3/4-14	2-13/16	42512N-692	A 55994
1	1	1-11/12	3-1/8	42516N-696	A 55995

COLL-O-CRIMP® "U" SERIES FITTINGS — STEEL

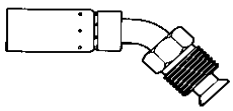
GENERAL PURPOSE LOW, MEDIUM AND HIGH PRESSURE APPLICATIONS

INVERTED MALE SWIVEL STRAIGHT



HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-24	1-11/16	04U-B04	D 54910
3/8	5/16	1/2-20	1-11/16	06U-B05	D 54911
3/8	3/8	5/8-18	1-15/16	06U-B06	D 54912
1/2	1/2	3/4-18	2-1/4	08U-B08	D 54913

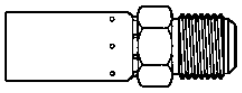
INVERTED MALE SWIVEL 45° TUBE ELBOW



HOSE ID	PIPE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-24	2-1/8	04U-B44	D 54918
3/8	5/16	1/2-20	2-1/2	06U-B45	D 54919
3/8	3/8	5/8-18	2-5/8	06U-B46	D 54920
1/2	1/2	3/4-18	3-1/8	08U-B48	D 54921

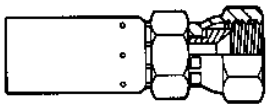
COLL-O-CRIMP® "U" SERIES FITTINGS — STEEL (Cont'd.)

SAE 37° (JIC) MALE RIGID



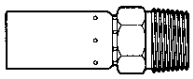
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-20	1	04U-504	F 54829
1/4	5/16	1/2-20	1	04U-505	F 54830
1/4	3/8	9/16-18	1	04U-506	F 54831
3/8	3/8	9/16-18	1	06U-506	F 54832
3/8	1/2	3/4-16	1-1/4	06U-508	F 54833
3/8	5/8	7/8-14	1-5/16	06U-510	D 54834
1/2	1/2	3/4-16	1-3/16	08U-508	D 54835
1/2	5/8	7/8-14	1-5/16	08U-510	D 54836
1/2	3/4	1-1/16-12	1-3/8	08U-512	D 54837
3/4	3/4	1-1/16-12	1-9/16	12U-512	D 54838
3/4	7/8	1-3/16-12	1-5/8	12U-514	B 54839
3/4	1	1-5/16-12	1-5/8	12U-516	B 54840
1	1	1-5/16-12	1-1/2	16U-516	B 54841

SAE 37° (JIC) FEMALE SWIVEL (Exceptions Noted)



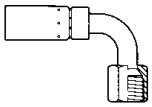
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-20	1-3/16	04U-604	F 54847[C]
1/4	5/16	1/2-20	1-1/4	04U-605	F 54848[C]
1/4	3/8	9/16-18	1-1/4	04U-606	F 54849[A]
3/8	1/4	7/16-20	1-1/4	06U-604	F 54850[C]
3/8	3/8	5/8-18	1-1/4	06U-406	F 54851[B]
3/8	3/8	9/16-18	1-5/16	06U-606	F 54852[A]
3/8	1/2	3/4-16	1-3/8	06U-608	F 54853[C]
3/8	3/4	1-1/16-12	1-3/4	06U-612	B 54854[A]
1/2	1/2	3/4-16	1-3/8	08U-608	D 54855[C]
1/2	5/8	7/8-14	1-9/16	08U-610	D 54856[C]
1/2	3/4	1-1/16-12	1-3/4	08U-612	B 54857[A]
1/2	1	1-5/16-12	1-13/16	08U-616	B 54858[A]
3/4	5/8	7/8-14	1-9/16	12U-610	B 54859[C]
3/4	3/4	1-1/16-14	1-11/16	12U-412	B 54860[B]
3/4	3/4	1-1/16-12	1-11/16	12U-612	B 54861[A]
3/4	7/8	1-3/16-12	1-11/16	12U-614	B 54862[A]
3/4	1	1-5/16-12	1-7/8	12U-616	B 54863[A]
1	1	1-5/16-12	1-13/16	16U-616	B 54864[A]

MALE PIPE RIGID



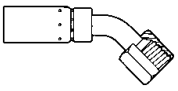
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/8	1/8-27	7/8	04U-102	F 54813
1/4	1/4	1/4-18	1-5/16	04U-104	F 54814
3/8	1/4	1/4-18	1-1/8	06U-104	F 54815
3/8	3/8	3/8-18	1-1/8	06U-106	F 54816
3/8	1/2	1/2-14	1-3/8	06U-108	F 54817
1/2	3/8	3/8-18	1-1/8	08U-106	F 54818
1/2	1/2	1/2-14	1-3/16	08U-108	F 54819
1/2	3/4	3/4-14	1-3/8	08U-112	D 54820
3/4	3/4	3/4-14	1-7/16	12U-112	D 54821
3/4	1	1-11-1/2	1-11/16	12U-116	B 54822
1	1	1-11-1/2	1-5/8	16U-116	B 54823

SAE 37° (JIC) FEMALE SWIVEL 90° TUBE ELBOW (Exceptions Noted)



HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-20	1-9/16	04U-664	B 54870[C]
3/8	1/4	7/16-20	1-7/16	06U-664	B 54871[C]
3/8	3/8	5/8-18	2-1/8	06U-446	B 54872[B]
3/8	3/8	9/16-18	1-5/8	06U-666	B 54873[A]
3/8	1/2	3/4-16	1-3/4	06U-668	B 54874[C]
1/2	1/2	3/4-16	1-3/4	08U-668	B 54875[C]
3/4	3/4	1-1/16-12	2-1/2	12U-672	A 54876[A]
1	1	1-5/16-12	2-5/8	16U-676	A 54877[A]

SAE 37° (JIC) FEMALE SWIVEL 45° TUBE ELBOW (Exceptions Noted)

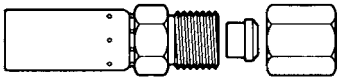


HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART
1/4	1/4	7/16-20	1-9/16	04U-684	B 54883[C]
3/8	1/4	7/16-20	1-11/16	06U-684	B 54884[C]
3/8	3/8	5/8-18	1-3/4	06U-486	B 54885[B]
3/8	3/8	9/16-18	1-3/4	06U-686	B 54886[A]
3/8	1/2	3/4-16	2	06U-688	B 54887[C]
1/2	1/2	3/4-16	2	08U-688	B 54888[C]
3/4	3/4	1-1/16-12	2-9/16	12U-692	A 54889[A]
1	1	1-5/16-12	2-3/4	16U-696	A 54890[A]

A — JIC 37° Flare Connection Only B — SAE 45° Flare Connection Only C — Both SAE 45° and JIC 37° Flare

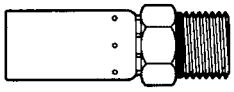
COLL-O-CRIMP® "U" SERIES FITTINGS — STEEL (Cont'd.)

FLARELESS TUBE RIGID (with Nut and Sleeve)



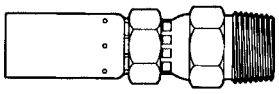
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART	
1/4	1/4	7/16-20	15/16	04U-754	D	54896
1/4	5/16	1/2-20	1	04U-755	B	54897
3/8	1/4	7/16-20	1	06U-754	D	54898
3/8	5/16	1/2-20	1	06U-755	D	54899
3/8	3/8	9/16-18	1	06U-756	D	54900
1/2	1/2	3/4-16	1-1/8	08U-758	B	54901
1/2	5/8	7/8-14	1-1/4	08U-760	B	54902
3/4	3/4	1-1/16-12	1-3/8	12U-762	B	54903
1	1	1-5/16-12	1-3/8	16U-766	B	54904

MALE STRAIGHT THREAD O-RING RIGID (Includes O-Ring)



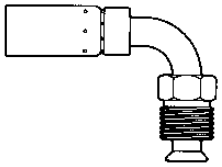
HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART	
1/4	1/4	7/16-20	13/16	04U-P04	D	54945
1/4	5/16	1/2-20	7/8	04U-P05	D	54946
1/4	3/8	9/16-18	7/8	04U-P06	D	54947
3/8	3/8	9/16-18	15/16	06U-P06	D	54948
3/8	1/2	3/4-16	1-1/16	06U-P08	D	54949
1/2	1/2	3/4-16	1-1/16	08U-P08	D	54950
1/2	5/8	7/8-14	1-1/8	08U-P10	D	54951
3/4	3/4	1-1/16-12	1-5/16	12U-P12	B	54952
1	1	1-5/16-12	1-1/4	16U-P16	B	54953

MALE PIPE SWIVEL



HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART	
1/4	1/4	1/4-18	1-7/8	04U-J04	D	54935
3/8	3/8	3/8-18	1-15/16	06U-J06	D	54936
3/8	1/2	1/2-14	2-3/16	06U-J08	D	54937
1/2	1/2	1/2-14	2-1/4	08U-J08	D	54938
3/4	3/4	3/4-14	2-9/16	12U-J12	D	54939
1	1	1-11-1/2	2-7/8	16U-J16	D	54940

INVERTED MALE SWIVEL 90° TUBE ELBOW



HOSE ID	TUBE SIZE	THREAD SIZE	HOSE CUT-OFF	INDUSTRY TYPE	PART	
1/4	1/4	7/16-24	1-5/16	04U-B64	D	54926
3/8	1/4	7/16-24	1-5/16	06U-B64	D	54927
3/8	5/16	1/2-20	1-1/2	06U-B65	D	54928
3/8	3/8	5/8-18	1-7/8	06U-B66	D	54929
1/2	1/2	3/4-18	2-1/16	08U-B68	D	54930

COLL-O-CRIMP® EQUIPMENT AND ACCESSORIES

T-400 COLL-O-CRIMP SYSTEM

COMPLETE SYSTEM INCLUDES:

PART	MODEL	DESCRIPTION
54973	T-400-1	Coll-O-Crimp® Press
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54961	T-400-5	Collet: 3/4"
54962	T-400-6	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher
54981	T-400-16	36" Hose Assembly

- **COLL-O-CRIMP PRESS WITH TOOLING FOR CRIMPING 1/4" I.D. THROUGH 1" I.D. RUBBER HOSE.**
- **ALL HOSE ASSEMBLIES AND FITTINGS NEEDED TO CONNECT PRESS TO POWER UNIT ARE INCLUDED.**

P/N 54972

COLL-O-CRIMP® EQUIPMENT AND ACCESSORIES (Cont'd.)

T-401 COLL-O-CRIMP SYSTEM WITH T-401-1 ELECTRIC PUMP

COMPLETE SYSTEM INCLUDES:

PART	MODEL	DESCRIPTION
54973	T-400-1	Coll-O-Crimp Press
54976	T-401-1	Electric Pump
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54961	T-400-5	Collet: 3/4"
54962	T-400-6	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher

- COLL-O-CRIMP PRESS WITH T-401-1 ELECTRIC PUMP. COMPLETE WITH TOOLING FOR CRIMPING 1/4" I.D. THROUGH 1" I.D. RUBBER HOSE.
- ELECTRIC HIGH VOLUME PUMP FOR FAST CRIMPING SEQUENCE. MODERATE MOTOR SPEED PROVIDES QUIET OPERATION AND LONG SERVICE. INTERNAL RELIEF VALVE ELIMINATES NEED FOR PRESSURE GAUGE AND FULLY PROTECTS HYDRAULIC SYSTEM. MOTOR: 1 H.P., 3450 RPM, 115 VOLTS, 60 CYCLE, SINGLE PHASE.
- ALL HOSE ASSEMBLIES AND FITTINGS NEEDED TO CONNECT PRESS TO ELECTRIC PUMP ARE INCLUDED.

P/N 54988

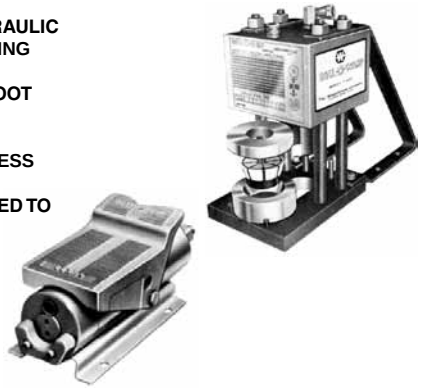
T-402 COLL-O-CRIMP SYSTEM WITH T-402-1 AIR/HYDRAULIC PUMP

COMPLETE SYSTEM INCLUDES:

PART	MODEL	DESCRIPTION
54973	T-400-1	Coll-O-Crimp Press
54977	T-402-1	Air/Hydraulic Pump
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54961	T-400-5	Collet: 3/4"
54962	T-400-6	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher

- COLL-O-CRIMP PRESS WITH T-402-1 AIR/HYDRAULIC PUMP. COMPLETE WITH TOOLING FOR CRIMPING 1/4" I.D. THROUGH 1" I.D. RUBBER HOSE.
- AIR-DRIVEN HYDRAULIC PUMP WITH HAND/FOOT TREADLE ACTUATOR FOR FAST CONTROL. USE WITH ANY AIR SUPPLY OF 40 TO 120 PSI. RELIEF VALVE PROTECTS SYSTEM REGARDLESS OF AIR PRESSURE.
- ALL HOSE ASSEMBLIES AND FITTINGS NEEDED TO CONNECT PRESS TO AIR/HYDRAULIC PUMP ARE INCLUDED.

P/N 54989



T-403 COLL-O-CRIMP SYSTEM WITH T-403-1 HAND PUMP

COMPLETE SYSTEM INCLUDES:

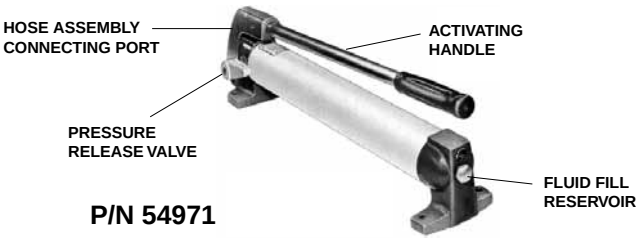
PART	MODEL	DESCRIPTION
54973	T-400-1	Coll-O-Crimp Press
54978	T-403-1	Hand Pump
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54961	T-400-5	Collet: 3/4"
54962	T-400-6	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher

- COLL-O-CRIMP PRESS WITH T-403-1 HAND PUMP. COMPLETE WITH TOOLING FOR CRIMPING 1/4" I.D. THROUGH 1" I.D. RUBBER HOSE.
- HAND PUMP IS A LOW COST POWER SOURCE FOR THE COLL-O-CRIMP PRESS. FINGER TIP CONTROL VALVE PROVIDES INSTANT RELEASE. HAS BUILT-IN SAFETY OVERLOAD VALVE.
- ALL HOSE ASSEMBLIES AND FITTINGS NEEDED TO CONNECT PRESS HAND PUMP ARE INCLUDED.

P/N 54990

T-450-2 HAND PUMP

- **DIMENSIONS:** ..... 6" WIDE, 20" LONG
- **WEIGHT:** ..... 19 LBS.
- **OPERATING PRESSURE:** ..... 0-10,000 PSI
- **RELIEF VALVE SETTING:** ..... 10,000 PSI
- **OIL VOLUME PER STROKE:** ..... .1595 CUBIC INCHES
- **RESERVOIR CAPACITY:** ..... 43 CUBIC INCHES
- **HYDRAULIC OIL:** ..... SAE GRADE 20 HYDRAULIC

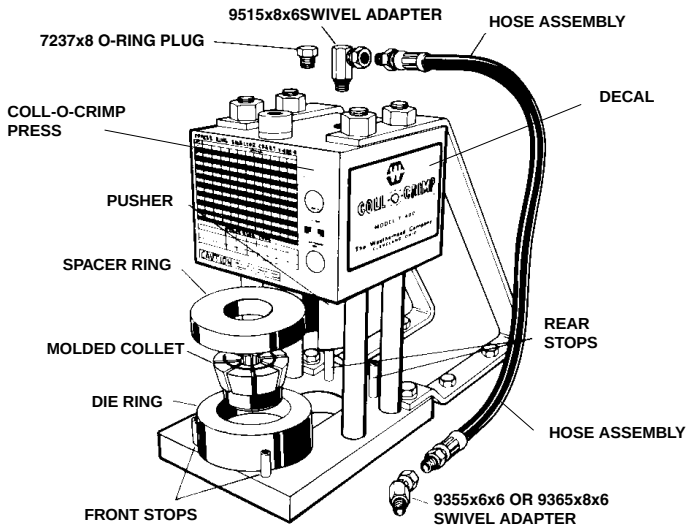


P/N 54971

COLL-O-CRIMP® EQUIPMENT AND ACCESSORIES (Cont'd.)

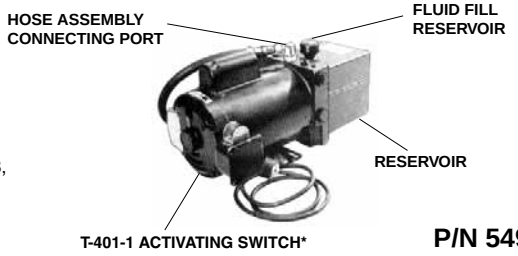
T-400-1 EQUIPMENT — INDIVIDUAL PARTS LIST

PART	MODEL	DESCRIPTION
54973	T-400-1	Coll-O-Crimp Press
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54961	T-400-5	Collet: 3/4"
54962	T-400-6	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher
54981	T-400-16	36" Hose Assembly and Fittings
54982	T-400-18	108" Hose Assembly and Fittings
54983	T-400-19	60" Hose Assembly and Fittings



T-401-1 ELECTRIC PUMP

- **DIMENSIONS:** ..... 7-1/2" HIGH, 10" WIDE, 22" LONG
- **WEIGHT:** ..... 66 LBS.
- **RESERVOIR SIZE:** ..... 145 CUBIC INCHES
- **OUTLET PORT SIZE:** ..... 3/8" NTP OR 3/4-16 STRAIGHT THREAD
- **MOTOR:** ..... 1 H.P., 3450 RPM, 115/230 VOLTS, 60 CYCLES, SINGLE PHASE
- **AMPS:** ..... AT 115 VOLTS-14, AT 230 VOLTS-7
- **HYDRAULIC OIL:** ..... GULF HARMONY 100 AW, GULF HARMONY 64 OR 68, SAE 10 GRADE**, SAE 20 GRADE, SUNVIS 931, MOBIL DTE 26, MOBIL DTE 24 (BELOW 30°F).
- **RESERVOIR CAPACITY:** ..... 3 QUARTS
- **FLOW:** ..... 0.5 GPM



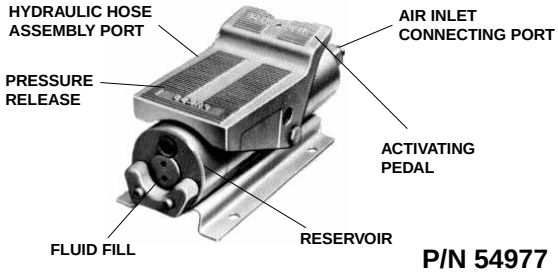
P/N 54976

*SOME MODELS HAVE PRESSURE RELEASE VALVE LOCATED WITHIN ACTIVATING SWITCH.

T-402-1 AIR/HYDRAULIC PUMP

- **DIMENSIONS:** ..... 5-1/4" HIGH, 5" WIDE, 12-1/2" LONG
- **WEIGHT:** ..... 18 LBS.
- **RESERVOIR SIZE:** ..... 24 CUBIC INCHES
- **OUTLET PORT SIZE:** ..... 3/8" NPT
- **INLET (AIR) PORT SIZE:** ..... 1/4" NPT
- **AIR PRESSURE:** ..... 30 TO 120 PSI
- **HYDRAULIC OIL:** ..... GULF HARMONY 100 AW, GULF HARMONY 64 OR 68, SAE 10 GRADE**, SAE 20 GRADE, SUNVIS 931, MOBIL DTE 26, MOBIL DTE 24 (30°F BELOW).
- **RESERVOIR CAPACITY:** ..... 1 PINT

NOTE: It is recommended that a filter, regulator and lubricator (FRL) and air pressure gauge be installed in the air line, as close as possible to the pump, to insure proper operating performance.



P/N 54977

T-403-1 HAND PUMP

- **DIMENSIONS:** ..... 6-1/4" HIGH, 4" WIDE, 21-3/4" DEEP
- **WEIGHT:** ..... 19 LBS.
- **RESERVOIR SIZE:** ..... 58 CUBIC INCHES
- **OUTLET PORT SIZE:** ..... 3/8" NPT
- **HYDRAULIC PRESSURE:** ..... 5,000 PSI MAXIMUM
- **HYDRAULIC OIL:** ..... GULF HARMONY 100 AW, GULF HARMONY 64 OR 68, SAE 10 GRADE**, SAE 20 GRADE, SUNVIS 931, MOBIL DTE 26, MOBIL DTE 24 (30°F BELOW).
- **RESERVOIR CAPACITY:** ..... 1 QUART

P/N 54978

**Use only if operating temperature is below 0°F or above 160°F.

COLL-O-CRIMP® EQUIPMENT AND ACCESSORIES (Cont'd.)

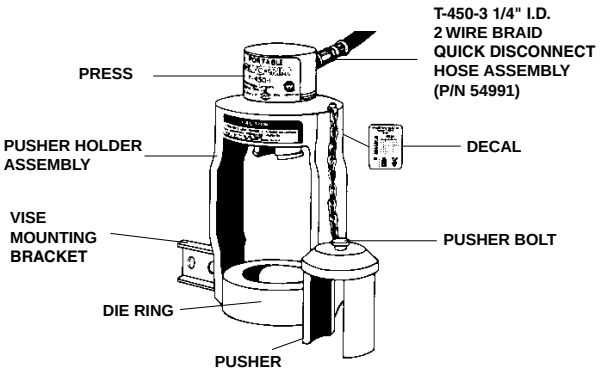
T-450 STANDARD PORTABLE COLL-O-CRIMP SYSTEM

COMPLETE SYSTEM INCLUDES:

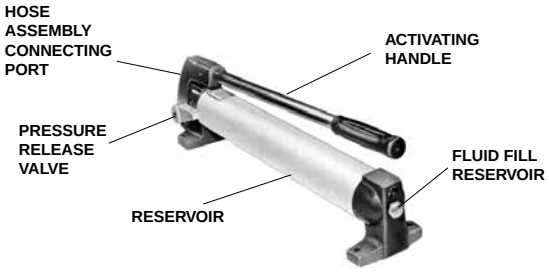
PART	MODEL	DESCRIPTION
54984	T-450-1	Portable Coll-O-Crimp Press (12-1/2" high)
54971	T-450-2	Hand Pump (10,000 psi)
54991	T-450-3	Quick Disconnect Hose Assembly

NOTE: Collets are not included.

STANDARD PORTABLE COLL-O-CRIMP PRESS WITH T-450-2 HAND PUMP. COMPLETE WITH CRIMPING CAPACITY OF 1/4" I.D. THROUGH 1" I.D. WEIGHS ONLY 31 LBS.



T-450-1 PORTABLE COLL-O-CRIMP PRESS



T-450-2 HAND PUMP

P/N 54969

CAUTION: Use the T-450-2 10,000 psi Hand Pump ONLY.

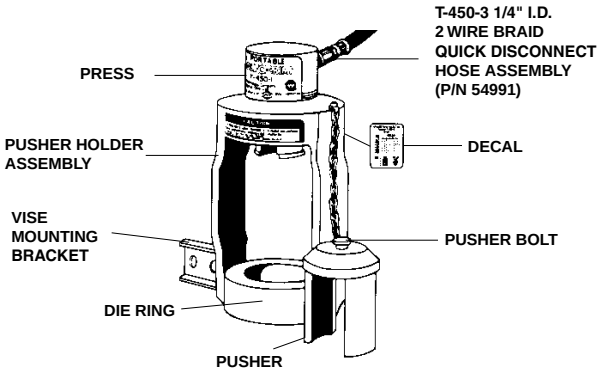
T-454 STANDARD PORTABLE COLL-O-CRIMP SYSTEM STARTER PACKAGE

COMPLETE SYSTEM INCLUDES:

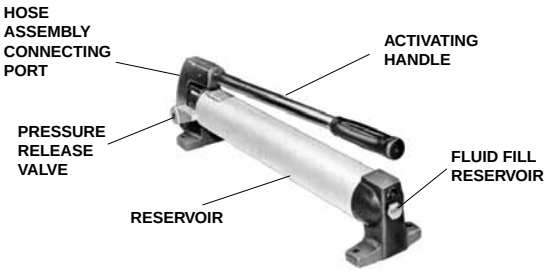
PART	MODEL	DESCRIPTION
54984	T-450-1	Portable Coll-O-Crimp Press (12-1/2" high)
54971	T-450-2	Hand Pump (10,000 psi)
54991	T-450-3	Quick Disconnect Hose Assembly
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54974	T-400-10	Spacer Ring (black)

NOTE: Press (T-450-1) has crimping capacity to 1" I.D. hose with addition of larger collets.

T-454 STARTER PACKAGE IS THE T-450 STANDARD EQUIPMENT PACKAGE COMPLETE WITH TOOLING FOR CRIMPING 1/4" I.D. THROUGH 1/2" I.D. RUBBER HOSE.

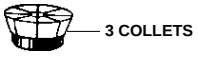


T-450-1 PORTABLE COLL-O-CRIMP PRESS



T-450-2 HAND PUMP

T-400-10 SPACER RING



T-400-2 — 1/4" COLLET
T-400-3 — 3/8" COLLET
T-400-4 — 1/2" COLLET

P/N 54970

CAUTION: Use the T-450-2 10,000 psi Hand Pump ONLY.

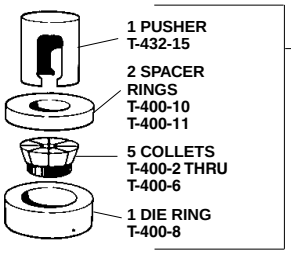
COLL-O-CRIMP® EQUIPMENT AND ACCESSORIES (Cont'd.)

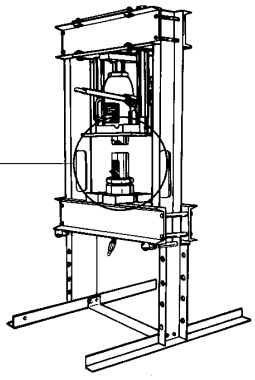
T-400-17 COLL-O-CRIMP SHOP PRESS TOOLING KIT

COMPLETE TOOLING KIT INCLUDES:

PART	MODEL	DESCRIPTION
54958	T-400-2C	Collet: 1/4"
54959	T-400-3C	Collet: 3/8"
54960	T-400-4C	Collet: 1/2"
54961	T-400-5C	Collet: 3/4"
54962	T-400-6C	Collet: 1"
54963	T-400-8	Die Ring
54974	T-400-10	Spacer Ring (black)
54975	T-400-11	Spacer Ring (silver)
54980	T-432-15	Pusher

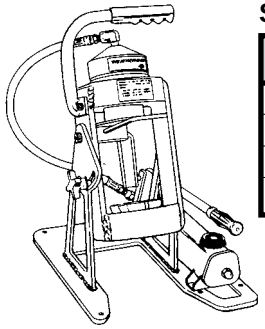
FITS MOST 25-TON SHOP PRESSES. WILL CRIMP 1 AND 2 WIRE BRAID HOSE, 1/4" THROUGH 1" I.D. IN ALL HOSE END STYLES.





P/N 54979

T-460 PORTABLE COLL-O-CRIMP SYSTEM



SYSTEM INCLUDES:

PART	MODEL	DESCRIPTION
54958	T-400-2	Collet: 1/4"
54959	T-400-3	Collet: 3/8"
54960	T-400-4	Collet: 1/2"
54974	T-400-10	Spacer Ring (black)

P/N 54985

COMPLETELY PORTABLE HOSE ASSEMBLY SYSTEM. NO ELECTRICAL POWER SOURCE IS NEEDED. HAND PUMP POWERED AND LIGHT WEIGHT, THIS CRIMPER IS IDEAL FOR ALL YOUR PORTABLE CRIMPING NEEDS.

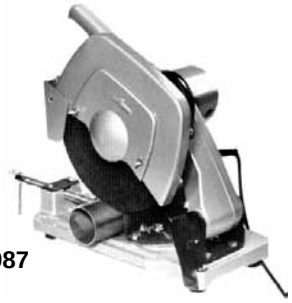
WEIGHT: ..... 45 LBS.
SIZE: ..... 3-3/4" x 13"
OPERATING PRESSURE: ..... 0-10,000 PSI
RELIEF VALVE SETTING: ..... 10,000 PSI
RESERVOIR CAPACITY: ..... 20 CU. IN.
OIL VOLUME PER STROKE ..... .055 CU. IN.
HYDRAULIC OIL..... AUTOMATIC TRANSMISSION FLUID (ATF) OR EQUIVALENT

T-60 PORTABLE CUTTER

AN EXCELLENT ALL-AROUND CUTTING MACHINE.

A PORTABLE POWER SAW THAT CAN CUT ALL HOSES, INCLUDING WIRE REINFORCED. INCLUDES THREE 14" DIAMETER ABRASIVE BLADES.

MOTOR: 3.5 H.P., 110/115 VOLTS. WEIGHT: 45 LBS.

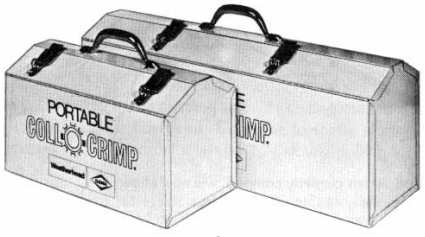


P/N 54987

T-450-10 PORTABLE STORAGE/TOOL BOX SET

A SET OF 2 TOOL BOXES FOR CONVENIENT STORAGE AND MOBILITY OF THE PORTABLE COLL-O-CRIMP PRESS, PUMP AND TOOLING.

INCLUDES ONE EACH OF THE FOLLOWING:
SMALL BOX — STORES THE T-450-1 PRESS AND SPACER RINGS. 15" x 9" x 8".
LARGE BOX — STORES HAND PUMP WITH HOSE ASSEMBLY ATTACHED PLUS A SELECTION OF COLLETS. 25" x 10" x 8".



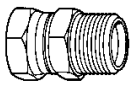
P/N 54992

SWIVEL ADAPTERS — STEEL

PRESSURE HYDRAULIC SYSTEM APPLICATIONS

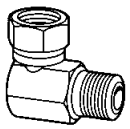
Up to 10,000 psi depending on size. Metal to metal sealing with 30° cone and NPSM thread. Carbon steel construction meets AISI/SAE 12L14. Zinc-plated, yellow dichromate finish.

FEMALE PIPE SWIVEL TO MALE PIPE STRAIGHT



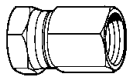
SWIVEL NUT	MALE PIPE THREAD	INDUSTRY TYPE	PART	
1/8-27	1/8-27	9205x2x2	D	55700
1/4-18	1/4-18	9205x4x4	D	55701
3/8-18	3/8-18	9205x6x6	D	55702
3/8-18	1/2-14	9205x6x8	D	55703
1/2-14	3/8-18	9205x8x6	D	55704
1/2-14	1/2-14	9205x8x8	D	55705
1/2-14	3/4-14	9205x8x12	D	55706
3/4-14	3/4-14	9205x12x12	D	55707
1-11.5	1-11.5	9205x16x16	B	55708

FEMALE PIPE SWIVEL TO MALE PIPE 90° ELBOW



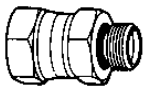
SWIVEL NUT	MALE PIPE THREAD	INDUSTRY TYPE	PART	
1/8-27	1/8-27	9405x2x2	D	55714
1/4-18	1/4-18	9405x4x4	D	55715
3/8-18	3/8-18	9405x6x6	D	55716
1/2-14	3/8-18	9405x8x6	D	55717
1/2-14	1/2-14	9405x8x8	D	55718
1/2-14	3/4-14	9405x8x12	B	55719
3/4-14	3/4-14	9405x12x12	D	55720
1-11.5	1-11.5	9405x16x16	B	55721

FEMALE PIPE SWIVEL TO FEMALE PIPE STRAIGHT



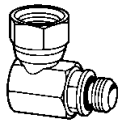
SWIVEL NUT	FEMALE PIPE THREAD	INDUSTRY TYPE	PART	
1/8-27	1/8-27	9255x2x2	D	55726
1/4-18	1/4-18	9255x4x4	D	55727
3/8-18	3/8-18	9255x6x6	D	55728
1/2-14	1/2-14	9255x8x8	D	55729

MALE STRAIGHT THREAD TO FEMALE PIPE SWIVEL STRAIGHT



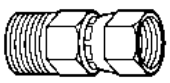
SWIVEL NUT	MALE STRAIGHT THREAD	INDUSTRY TYPE	PART	
1/4-18	7/16-20	9315x4x4	D	55734
3/8-18	7/16-20	9315x4x6	D	55735
3/8-18	9/16-18	9315x6x6	D	55736
3/8-18	3/4-16	9315x8x6	D	55737
1/2-14	3/4-16	9315x8x8	D	55738

MALE STRAIGHT THREAD TO FEMALE PIPE SWIVEL 90° ELBOW



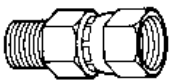
SWIVEL NUT	MALE STRAIGHT THREAD	INDUSTRY TYPE	PART	
1/4-18	7/16-20	9515x4x4	D	55743
3/8-18	7/16-20	9515x4x6	D	55744
3/8-18	9/16-18	9515x6x6	D	55745
1/2-14	9/16-18	9515x6x8	B	55746
1/2-14	3/4-16	9515x8x8	B	55747

FEMALE 37° (JIC) SWIVEL TO MALE BRITISH STANDARD PIPE THREAD



TUBE O.D.	BSP TAPERED	INDUSTRY TYPE	PART	
1/4	1/4	M9800x4x4	B	55752
3/8	1/4	M9800x6x4	B	55753
1/2	3/8	M9800x8x6	B	55754
1/2	1/2	M9800x8x8	B	55755
3/4	3/4	M9800x12x12	B	55756

FEMALE 37° (JIC) SWIVEL TO MALE METRIC THREADED PORT CONNECTIONS



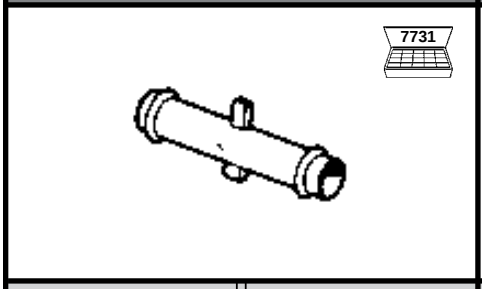
TUBE O.D.	METRIC PIPE THREAD	INDUSTRY TYPE	PART	
1/4	M10x1.0	M9700x4x6	B	55761
5/16	M12x1.5	M9700x5x8	B	55762
3/8	M14x1.5	M9700x6x10	B	55763
1/2	M16x1.5	M9700x8x12	B	55764
3/4	M24x1.5	M9700x12x20	B	55765

VACUUM AND LOW PRESSURE FITTINGS

CHEMICAL RESISTANT, HIGH IMPACT NYLON CONNECTORS

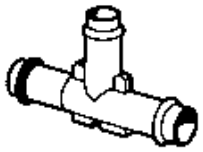
For all applications involving emission controls, shifting devices, windshield washers, etc. on trucks, cars, forklifts and equipment.

STRAIGHT CONNECTOR



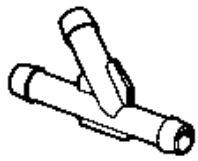
NIPPLE SIZE		PART
1/8	L	52502
3/16	L	52504
1/4	L	52506
5/16	L	52508

"T" CONNECTOR



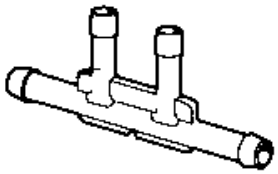
NIPPLE SIZE		PART
1/8	L	52510
3/16	L	52512
1/4	L	52514
5/16	L	52516

"Y" CONNECTOR



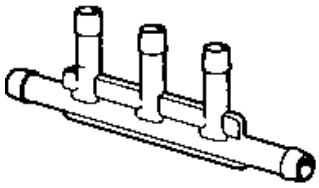
NIPPLE SIZE		PART
3/16	L	52520
1/4	L	52522
5/16	L	52524
-		-

4-WAY "T" CONNECTOR



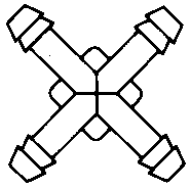
NIPPLE SIZE		PART
3/16	L	52526

5-WAY "T" CONNECTOR



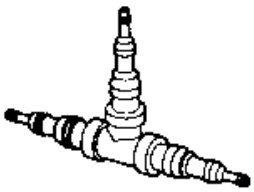
NIPPLE SIZE		PART
3/16	L	52528

"X" CONNECTOR



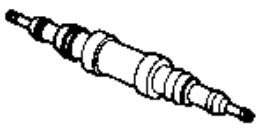
NIPPLE SIZE		PART
3/16	L	52530

ABS UNIVERSAL "T" CONNEC.



HOSE I.D.		PART
5/32, 1/4, 3/8	L	52548
-		-

ABS UNIVERSAL CONNECTOR



HOSE I.D.		PART
5/32, 1/4, 3/8	L	52550
-		-

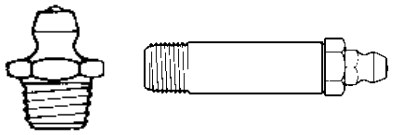
RUBBER VACUUM LINE CAP

NIPPLE SIZE		PART
3/16	L	52532
1/4	L	52534

GREASE FITTINGS AND ACCESSORIES

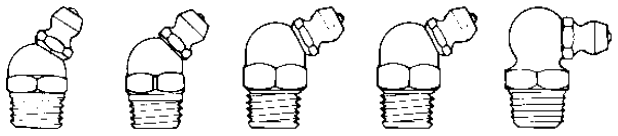
PRECISION MADE, CASE HARDENED AND CADMIUM PLATED

STRAIGHT



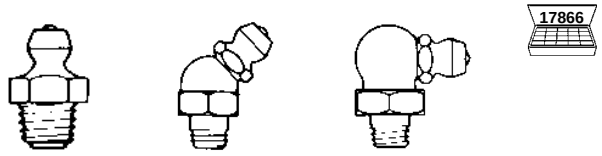
THREAD	LENGTH	INDUSTRY TYPE		PART
1/8 pipe	11/16	1610	R	54689
1/8 pipe	1-1/4	1607	L	54690
1/8 pipe	1-3/4	1669-B	I	54687
1/8 pipe	2-5/8	1684-B	E	54688
3/16 drive-in	37/64	1728	R	54717
1/4 drive-in	39/64	1743	R	54718
1/4 pipe	59/64	1627	O	54726
1/4-28 self-tap	17/32	3038	T	54709
1/4-28	17/32	1641	R	54701
1/4-28	45/64	1652	R	54702
1/4-28	15/16	1680	O	54703
1/4-28	1-1/16	1608	L	54704
5/16 drive-in	9/16	1608	R	54719
5/16-24	21/32	1711	R	54733
3/8-24	21/32	1710	R	54734

ANGLED



ANGLE	THREAD	LENGTH	INDUSTRY TYPE		PART
38º	1/8 pipe	1-1/16	1611	O	54691
45º	1/8 pipe	1	1688	O	54694
45º	1/4-28	7/8	1637	O	54706
45º	1/4-28	1	1636	O	54707
45º	1/4-28 self-tap	7/8	3045	R	54710
65º	3/16 drive-in	49/64	1646	L	54720
65º	1/4-28	25/32	3010-B1	I	54686
65º	1/8 pipe	27/32	1612	O	54692
67.5º	1/4 pipe	1-1/16	1629	L	54727
90º	1/8 pipe	13/16	1613	O	54693
90º	1/4-28	47/64	1911	O	54708
90º	1/4-28 self-tap	47/64	3248	R	54711

METRIC



ANGLE	THREAD	LENGTH	INDUSTRY TYPE		PART
Straight	6mm x 1.0	7/16	3641	R	54741
45º	6mm x 1.0	-	3637	O	54743
90º	6mm x 1.0	-	3638	O	54742
Straight	8mm x 1.0	5/8	3610	R	54744
45º	8mm x 1.0	-	3688	O	54746
90º	8mm x 1.0	-	3613	O	54745
Straight	10mm x 1.0	11/16	3710	N	54749
45º	10mm x 1.0	-	3737	N	54747
90º	10mm x 1.0	-	3738	N	54748

BUTTON HEAD GREASE FITTINGS

THREAD	LENGTH	INDUSTRY TYPE		PART
1/8 pipe	3/4	1184	I	54696
1/4 pipe	53/64	1186	I	54697
3/8 pipe	61/64	1188	I	54698
1/2 pipe	1-1/16	1190	E	54699
7/16-27 Coupler	-	-	A	54700
1/8 NPT Coupler	-	-	B	54712

MISCELLANEOUS FITTINGS

DESCRIPTION		PART
Plug – Industry Type 701	T	54705
Plastic Cap – Industry Type 206	T	54735
Midget Hydraulic Coupler 1/8 Female Pipe – Wide Angle Seal	A	54634
Grease Fitting Wrench – 1/8 Male Pipe	A	54675
Grease Fitting Wrench – 1/4 Male Pipe	A	54676

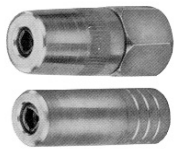
GREASE FITTINGS AND ACCESSORIES (Cont'd.)

LUBRICATION ADAPTERS AND ACCESSORIES

HYDRAULIC COUPLERS

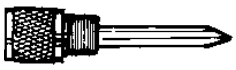
Medium Duty
- 6000 PSI maximum operating pressure
- For use with all hydraulic type grease fittings
- Small outside diameter permits easy contact with recessed fittings
- Built in ball check prevents leaks and lubricant backup
- Inlet 1/8" NPT female

Heavy Duty
- 7500 PSI maximum operating pressure
- Same as medium duty except larger outside diameter



DESCRIPTION		PART
Medium Duty Hydraulic Coupler	A	54662
Heavy Duty Hydraulic Coupler	A	54663

NEEDLE POINT ADAPTER

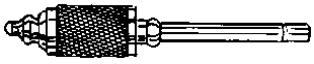


DESCRIPTION		PART
For lubricating universal joints and general greasing	A	54627

PLUG ADAPTER

DESCRIPTION		PART
For greasing front suspension and steering linkage	A	54621

UNIVERSAL JOINT ADAPTER



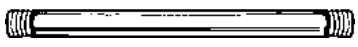
PUSH TYPE

DESCRIPTION		PART
Same as 54660, but designed for recessed fittings.	A	54659

LONG REACH ADAPTER

DESCRIPTION		PART
15" Long	A	54682
21" Long	A	54683

SEAMLESS STEEL GREASE PIPE



DESCRIPTION		PART
6" Long	I	54668
12" Long	I	54670

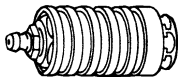
1/8" male pipe thread both ends. Used on hand operated grease guns only.

GREASE HOSE WHIPS

DESCRIPTION		PART
8" Long	A	54656
12" Long	A	54657
18" Long	A	54658

High pressure hoses for use with any type hand lever gun and coupler. Single wire braid reinforced, neoprene hose, 3/16 I.D., 1/8" male pipe thread on both ends.

HYDRAULIC COUPLER SLEEVE



DESCRIPTION		PART
Connects grease accessories to grease gun. 1/8" female pipe thread. Sliding sleeve locks coupler in place.	A	54661

29

PIPE FITTINGS – MALLEABLE BLACK IRON

CLASS 150 FOR SCHEDULE 40 PIPE

Use with iron, steel, brass or bronze piping systems for air, gas, oil, water, steam, boilers, trucks, solvents, hydraulics and odd-jobs. 150 lb. rating. All fittings conform to ASME B 16.3.

90° ELBOW — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 55101	1	E 55106
1/4	E 55102	1-1/4	A 55107
3/8	E 55103	1-1/2	A 55108
1/2	E 55104	2	A 55109
3/4	E 55105	–	–

45° ELBOW — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 55110	1	E 55115
1/4	E 55111	1-1/4	A 55116
3/8	E 55112	1-1/2	A 55117
1/2	E 55113	2	A 57000
3/4	E 55114	–	–

90° STREET ELBOW

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 55118	1	B 55123
1/4	E 55119	1-1/4	A 55124
3/8	E 55120	1-1/2	A 55125
1/2	E 55121	2	A 57001
3/4	E 55122	–	–

45° STREET ELBOW

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 57008	1	B 57013
1/4	E 57009	1-1/4	A 57014
3/8	E 57010	1-1/2	A 57015
1/2	E 57011	2	A 57016
3/4	B 57012	–	–

TEE — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 55126	1	B 55131
1/4	E 55127	1-1/4	A 55132
3/8	E 55128	1-1/2	A 55133
1/2	E 55129	2	A 55134
3/4	B 55130	–	–

STEEL MERCHANT COUPLING

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 55135	1	E 55140
1/4	E 55136	1-1/4	A 55141
3/8	E 55137	1-1/2	A 55142
1/2	E 55138	2	A 55143
3/4	E 55139	–	–

REDUCING COUPLING

PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART
1/4 x 1/8	E 55144	3/4 x 1/2	E 55147	1-1/2 x 3/4	A 55152
3/8 x 1/8	E 57024	1 x 1/4	B 55149	1-1/2 x 1	A 55153
3/8 x 1/4	E 55145	1 x 3/8	E 57029	1-1/2 x 1-1/4	A 55159
1/2 x 1/8	E 57025	1 x 1/2	E 57030	2 x 1/2	A 55154
1/2 x 1/4	E 57026	1 x 3/4	B 55148	2 x 3/4	A 55155
1/2 x 3/8	E 55146	1-1/4 x 3/4	B 55150	2 x 1	A 55156
3/4 x 1/4	E 57027	1-1/4 x 1	A 55158	2 x 1-1/4	A 55157
3/4 x 3/8	E 57028	1-1/2 x 1/2	A 55151	2 x 1-1/2	A 57023

COUPLING

PIPE THREAD	PART	PIPE THREAD	PART
1/8	B 57150	1	A 57155
1/4	B 57151	1-1/4	A 57156
3/8	B 57152	1-1/2	A 57157
1/2	B 57153	2	A 57158
3/4	B 57154	–	–

HEX BUSHING

PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART
1/4 x 1/8	E 55170	3/4 x 1/8	E 57062	1 x 3/8	E 55182	1-1/4 x 3/4	E 55184	1-1/2 x 3/4	E 55187	2 x 1/2	B 57052
3/8 x 1/8	E 55172	3/4 x 1/4	E 55179	1 x 1/2	E 55181	1-1/4 x 1	E 55185	1-1/2 x 1	E 55188	2 x 3/4	B 57058
3/8 x 1/4	E 55171	3/4 x 3/8	E 55178	1 x 3/4	E 55180	1-1/4 x 3/8	A 57056	1-1/2 x 3/8	B 57054	2 x 1	B 57059
1/2 x 1/8	E 55176	3/4 x 1/2	E 55177	1-1/4 x 1/4	A 57053	1-1/2 x 1/4	B 57055	1-1/2 x 1-1/4	B 55189	2 x 1-1/4	B 57060
1/2 x 1/4	E 55175	1 x 1/8	E 57064	1-1/4 x 1/2	E 55183	1-1/2 x 1/2	E 55186	2 x 1/4	B 57057	2 x 1-1/2	B 57061
1/2 x 3/8	E 55173	1 x 1/4	E 57063								

SQUARE HEAD PLUG - CORED

CORED SIZES: 3/4 AND 1" ONLY

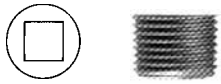
PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	55190	1	E	55195
1/4	E	55191	1-1/4	B	57073
3/8	E	55192	1-1/2	B	57074
1/2	E	55193	2	B	57075
3/4	E	55194	–		–

GROUND JOINT UNION

ASME B16.39

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	55202	1	B	55207
1/4	B	55203	1-1/4	A	55208
3/8	B	55204	1-1/2	A	55209
1/2	B	55205	2	A	55210
3/4	B	55206	–		–

SQUARE COUNTERSUNK PLUG



NOTE: 1/8 SIZE IS HEX

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57070	1/2	E	55215
1/4	E	57071	3/4	E	55216
3/8	E	57072	1	E	55217

CAP

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	55160	1/2	E	55163	1-1/4	A	55166
1/4	E	55161	3/4	E	55164	1-1/2	A	55167
3/8	E	55162	1	E	55165	2	A	55168

CLOSE NIPPLE – WELDED STEEL

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	55220	1/2	E	55223	1-1/4	A	55289
1/4	E	55221	3/4	E	55224	1-1/2	A	55298
3/8	E	55222	1	E	55225	2	A	57114

WELDED NIPPLE – WELDED STEEL

PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART
1/8	1-1/2	E	55230	3/8	5-1/2	E	55277	1	5	E	55275
1/8	2	E	55231	3/8	6	E	55256	1	5-1/2	E	55288
1/8	2-1/2	E	55236	1/2	1-1/2	E	55257	1	6	E	55276
1/8	3	E	55232	1/2	2	E	55258	1-1/4	2	E	55290
1/8	3-1/2	E	55237	1/2	2-1/2	E	55278	1-1/4	2-1/2	E	55291
1/8	4	E	55233	1/2	3	E	55259	1-1/4	3	E	55292
1/8	4-1/2	E	55238	1/2	3-1/2	E	55279	1-1/4	3-1/2	E	55293
1/8	5	E	55234	1/2	4	E	55260	1-1/4	4	E	55294
1/8	5-1/2	E	55235	1/2	4-1/2	E	55280	1-1/4	4-1/2	E	57108
1/8	6	E	55240	1/2	5	E	55261	1-1/4	5	E	55295
1/4	1-1/2	E	55241	1/2	5-1/2	E	55262	1-1/4	5-1/2	E	55296
1/4	2	E	55242	1/2	6	E	55265	1-1/4	6	E	55297
1/4	2-1/2	E	55239	3/4	1-1/2	E	55266	1-1/2	2	E	55299
1/4	3	E	55243	3/4	2	E	55267	1-1/2	2-1/2	E	57100
1/4	3-1/2	E	55247	3/4	2-1/2	E	55281	1-1/2	3	E	57101
1/4	4	E	55244	3/4	3	E	55268	1-1/2	3-1/2	E	57102
1/4	4-1/2	E	55248	3/4	3-1/2	E	55282	1-1/2	4	E	57103
1/4	5	E	55245	3/4	4	E	55269	1-1/2	4-1/2	E	57104
1/4	5-1/2	E	55249	3/4	4-1/2	E	55283	1-1/2	5	B	57105
1/4	6	E	55246	3/4	5	E	55270	1-1/2	5-1/2	B	57106
3/8	1-1/2	E	55251	3/4	5-1/2	E	55284	1-1/2	6	B	57107
3/8	2	E	55252	3/4	6	E	55271	2	2-1/2	B	57115
3/8	2-1/2	E	55250	1	2	E	55272	2	3	B	57116
3/8	3	E	55253	1	2-1/2	E	55285	2	3-1/2	B	57117
3/8	3-1/2	E	55263	1	3	E	55273	2	4	B	57118
3/8	4	E	55254	1	3-1/2	E	55286	2	4-1/2	B	57119
3/8	4-1/2	E	55264	1	4	E	55274	2	5	B	57120
3/8	5	E	55255	1	4-1/2	E	55287	2	5-1/2	B	57121
								2	6	B	57122

TUBING, HOSE AND ACCESSORIES

TUBING

COPPER

- SEAMLESS, SOFT, BRIGHT ANNEALED TUBING.
- USE FOR FUEL, OIL, WATER, GAS, ETC.
- EASY TO WORK WITH.

25 FOOT ROLL

TUBE SIZE	WALL THICKNESS	PART	TUBE SIZE	WALL THICKNESS	PART
1/8	.030	A 54509	3/8	.032	A 54513
3/16	.030	A 54510	1/2	.032	A 54515
1/4	.030	A 54511	5/8	.035	A 54516
5/16	.032	A 54512	3/4	.035	A 54517

NYLON

- MILKY COLORED SEMI-RIGID TUBING USED IN AGRICULTURE, FOOD PROCESSING AND LABORATORIES.
- PROVIDES GOOD CHEMICAL RESISTANCE TO ALIPHATICS, AMMONIA, AMMONIUM HYDROXIDE, BENZENE AND OTHER SUBSTANCES.
- TEMPERATURE RANGE: -60°F TO 180°F
- MAXIMUM WORKING PRESSURE @ 70°F: 333 PSI
- MINIMUM BURST PRESSURE @ 70°F: 1,000 PSI

50 FOOT ROLL

TUBE SIZE	TUBE I.D.	WALL THK.	PART	TUBE SIZE	TUBE I.D.	WALL THK.	PART
1/8	.096	.015	A 54536	5/16	.242	.036	A 54539
3/16	.142	.023	A 54537	3/8	.295	.040	A 54540
1/4	.190	.030	A 54538	-	-	-	A -

METRIC NYLON

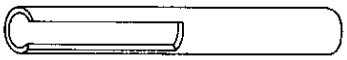
25 METERS

SIZE	PART	SIZE	PART
4mm	A 55686	8mm	A 55689
5mm	A 55687	10mm	A 55690
6mm	A 55688	12mm	A 55691

NYLON AIR BRAKE — SINGLE WALL

- FOR USE ON TRUCKS, TRACTORS, OFF-THE-ROAD EQUIPMENT
- TEMP. RANGE: -40°F to +200°F
- MAX. WORKING PRESSURE: 150 PSI
- MEETS DOT FMVSS 571-106
- DESIGNED FOR AIR BRAKE SYSTEMS, AIR CONTROL LINES, AIR GAUGE LINES, FUEL LINES (GAS, DIESEL) ANTI-FREEZE LINES, AIR SUPPLY LINES, SHIFT CONTROL LINES

SAE SPEC. J844 TYPE 3A – INDUSTRY TYPE NT-100



100 FOOT ROLL

TUBE SIZE	WALL THICKNESS	BURST RATING (PSI)	MIN. BEND RADIUS	PART
1/8	.023	1000	3/8"	A 55565
1/4	.040	1200	1"	A 55566

TUBING, HOSE AND ACCESSORIES (Cont'd.)

TUBING

NYLON AIR BRAKE — REINFORCED

- FOR USE ON TRUCKS, TRACTORS, OFF-THE-ROAD EQUIPMENT
- TEMP. RANGE: -40°F to +200°F
- MAX. WORKING PRESSURE: 150 PSI
- MEETS DOT FMVSS 571-106
- DESIGNED FOR AIR BRAKE SYSTEMS, AIR CONTROL LINES, AIR GAUGE LINES, FUEL LINES (GAS, DIESEL) ANTI-FREEZE LINES, AIR SUPPLY LINES, SHIFT CONTROL LINES

SAE SPEC. J844 TYPE 3B – INDUSTRY TYPE NT-100

100 FOOT ROLL

TUBE SIZE	WALL THICKNESS	BURST RATING (PSI)	MIN. BEND RADIUS	PART
3/8	.062	1400	1-1/2"	A 55570
1/2	.062	950	2"	A 55571
5/8	.092	900	2-1/2"	A 55572
3/4	.092	800	3"	A 55573

VACUUM AND WINDSHIELD WASHER

- SPECIAL EPSYN® COMPOUND WITHSTANDS THE EFFECTS OF HEAT, OZONE AND WASHER SOLUTIONS.
- MEETS SAE J1037 SPECIFICATIONS.
- IDEAL FOR WINDSHIELD WASHER, VACUUM OPERATED ACCESSORIES AND EMISSION CONTROL APPLICATIONS.

50 FOOT ROLL

HOSE I.D.	NIPPLE SIZE	PART	HOSE I.D.	NIPPLE SIZE	PART
7/64	1/8	A 52540	7/32	1/4	A 52544
5/32	3/16	A 52542	9/32	5/16	A 52546

POLYETHYLENE — LOW DENSITY

- NATURAL COLOR
- FLEXIBLE
- GOOD CHEMICAL RESISTANCE
- TEMP. RANGE: -40°F TO +135°F

100 FOOT ROLL

O.D. TUBE	I.D. TUBE	WALL THICKNESS	MAX PSI @ 70°F	PART
1/4	11/64	.406	150	A 55661
5/16	15/64	.062	130	A 55662
3/8	1/4	.062	125	A 55663
1/2	3/8	.062	100	A 55664

VINYL

- CLEAR, SOFT, PLIABLE
- EXCELLENT RESISTANCE TO ALCOHOLS, ANTI-FREEZE, MINERAL ACIDS AND ALKALIES
- TEMP. RANGE: -5°F TO +105°F

100 FOOT ROLL

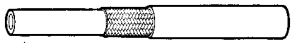
O.D. TUBE	I.D. TUBE	WALL THICKNESS	MAX PSI @ 70°F	PART
1/4	11/64	.040	55	A 55675
1/4	1/8	.062	65	A 55676
5/16	3/16	.062	55	A 55677
3/8	1/4	.062	55	A 55678
1/2	3/8	.062	40	A 55679

TUBING, HOSE AND ACCESSORIES (Cont'd.)

HOSES

NEOPRENE AIR BRAKE – REINFORCED

- MAXIMUM WORKING PRESSURE: 125 PSI
- MINIMUM BURST PRESSURE: 900 PSI
- SPECIFICATIONS: Penn State approved. SAE 40R2 type B (DOT FMVSS 571.106A1).
- CONSTRUCTION: Neoprene inner tube and cover. One ply braided fiber reinforcing material over inner wall.
- TEMPERATURE RANGE: -40°F TO +250°F.
- MAXIMUM AIR TEMPERATURE: APPROXIMATELY 160°F.

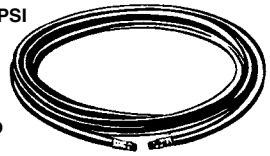


50 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART	USE WITH HOSE ENDS:
3/8	3/4	50 FEET	A 53419	REUSABLE AIR BRAKE

RUBBER COVERED AIR HOSE

- MAXIMUM WORKING PRESSURE: 300 PSI
- RESISTS OIL, GREASE AND DETERIORATION FROM OZONE
- 2-PLY REINFORCED
- EACH LENGTH OF HOSE HAS A 1/4" NPT MALE FITTING ON EACH END
- REMAINS FLEXIBLE IN USE

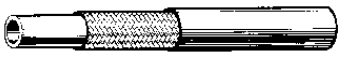


50 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
3/8	5/8	50 FEET	A 54560

LOW PRESSURE HOSE — GENERAL PURPOSE

- DESIGNED FOR LOW PRESSURE AUTOMOTIVE AND INDUSTRIAL APPLICATIONS. (HOSE CLAMPS NOT REQUIRED).
- USE FOR ASSEMBLY OF LOW PRESSURE FUEL AND OIL LINES, VACUUM GAUGE LINES, AIR LINES AND OTHER USES WHERE APPLICATION WILL NOT EXCEED WORKING PRESSURES OVER 250 PSI.
- INNER TUBE: SYNTHETIC RUBBER COMPOUNDED RESISTS DETERIORATING EFFECTS OF GASOLINE, OIL, DIESEL, FUEL, AIR, WATER, GREASE, KEROSENE AND COMMON HYDRAULIC FLUIDS.
- RUBBER OUTER COVER: TOUGH, ABRASION-RESISTANT RUBBER.
- COTTON OUTER COVER: TOUGH COTTON JACKET TREATED WITH GRAPHITE. RESISTS OIL, GASOLINE, VIBRATION, HEAT AND COLD.
- TEMPERATURE RANGE: -40°F TO +250°F. MAXIMUM AIR TEMPERATURE: 160°F.
- REINFORCEMENT: ONE PLY BRAIDED FIBER.



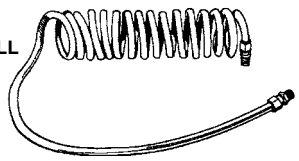
RUBBER COVER — 25 FOOT ROLL

COTTON COVER — 25 FOOT ROLL

RUBBER I.D.	RUBBER O.D.	PART	USE WITH HOSE ENDS:	COTTON I.D.	COTTON O.D.	PART
1/4	1/2	A 54546	REUSABLE "PUSH ON"	1/4	1/2	A 54547
3/8	5/8	A 54548		3/8	5/8	A 54549
1/2	3/4	A 54553		-	-	-

POLYURETHANE SELF-COILING AIR HOSE

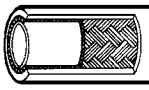
- KINK RESISTANT, LIGHT WEIGHT AND MOBILE
- SUPERIOR MEMORY, IT SNAPS BACK TO ORIGINAL SIZE
- EXCELLENT CHEMICAL, OXIDATION, HYDROLYSIS AND OZONE RESISTANCE
- 100 PSI WORKING PRESSURE AT 70°F
- 18" NON-COILED TOOL END. HOSE WILL NOT INTERFERE WITH TOOL USE.
- 360° WORKING 1/4" MALE PIPE SWIVEL FITTING ON BOTH ENDS
- TEMPERATURE -40°F TO +170°F



INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
1/4	3/8	15 FEET	A 54561
1/4	3/8	25 FEET	A 54562

FUEL LINE HOSE

- MANUFACTURED TO MEET OR EXCEED SAE J30R6, SAE J30R7 AND GM 6165M SPECIFICATIONS
- SUITABLE FOR USE WITH LEADED AND UNLEADED GASOLINE, ETHANOL AND METHANOL BASED GASOHOL AND DIESEL FUEL. DO NOT USE FOR FUEL INJECTION APPLICATION.
- CONSTRUCTED OF A NITRILE TUBE, 2-BRAID RAYON CORD REINFORCEMENT AND A HYPALON COVER
- RESISTS HEAT UP TO 257°F
- 175 PSI BURST STRENGTH

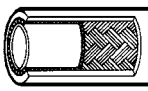


25 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
1/4	1/2	25 FEET	A 54550
5/16	9/16	25 FEET	A 54551
3/8	5/8	25 FEET	A 54552

HEATER HOSE

- PREMIUM QUALITY, INSULATED HOSE
- EPDM COVER RESIST OZONE, HIGH TEMPERATURES AND CORROSIVE ADDITIVES
- REINFORCED WALL PROTECTS AGAINST SURGING PRESSURES AND KINKING
- RED OUTER COVER
- SAFELY HANDLES ALL COOLANT SOLUTIONS AND CORROSION ADDITIVES AS WELL AS HIGH-OPERATION TEMPERATURES
- TEMPERATURE RATING



50 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART	INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
5/8	15/16	50 FEET	A 54570	3/4	1-1/16	50 FEET	A 54571

TUBING, HOSE AND ACCESSORIES

HOSES - PNEUMATIC AND HYDRAULIC

FLEXZILLA AIR HOSE & FLEXZILLA AIR HOSE ON A REEL

The FLEXZILLA™ Air Hose is made from an engineered hybrid polymer, combining the best qualities of both PVC and rubber materials and being superior to both.

- Bright Green Air Hose
- 3/8 in. x 50 ft.
- 1/4" MNPT Ends
- Bend Restrictors
- Excellent Abrasion Resistance & Superior Bend Radius
- Lightweight and Easy to Handle
- Temperature Range: -40° F to 150° F
- Working Pressure: 300 psi (20.7 bar)

P/N 54563

The FLEXZILLA™ Air Hose On A Reel

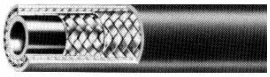
- 3/8 in. x 75 ft.
- **Levelwind™ technology** layers hose back and forth across the reel
- **Adjustable hose stopper** determines the length of the hose when retracted
- Seven position locking bracket
- **Latching mode switch** allows you to choose from latching the hose every 3 ft. or switch to free run
- 3/4" extra large swivel
- Free standing base or mount on wall
- ***REPLACEMENT HOSE for FLEXZILLA™ Air Hose On A Reel: P/N 54569***

P/N 54564

HIGH PRESSURE HYDRAULIC HOSE – TYPE H245 HI-R FLEX

- **MARINE APPLICATION J1942: FUEL AND LUBE SERVICE ACCEPTED**
- **MSHA ACCEPTED, ABS**
- **TYPICAL APPLICATIONS: HIGH PRESSURE LINES; HEAVY EQUIPMENT (MARINE, ON/OFF ROAD), CONSTRUCTION, FARM EQUIPMENT**
- **COMPATIBLE WITH: WATER/GLYCOL, WATER, GENERIC HYDRAULIC FLUIDS, AND DIESEL FUEL**
- **COVER: NEOPRENE / INNER TUBE: NITRILE BLEND**
- **REINFORCEMENT: 2 STEEL BRAIDS.**
- **TEMPERATURE RANGE: -40°F TO +212°F**

SAE 100R16, ABS



50 FOOT ROLL

HOSE I.D.	HOSE O.D.	WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	INDUSTRY TYPE	PART	USE WITH HOSE ENDS:
1/4	17/32	5,000	20,000	2	H24504	R WH24504	COLL-O-CRIMP "M" SERIES, "S" SERIES, "U" SERIES or REUSABLE 430 "U" SERIES
3/8	11/16	4,000	16,000	2-1/2	H24506	R WH24506	
1/2	13/16	3,500	14,000	3-1/2	H24508	R WH24508	
5/8	15/16	2,750	11,000	4	H24510	R WH24510	
3/4	1-3/32	2,250	9,000	4-3/4	H24512	R WH24512	
1	1-13/32	2,000	8,000	6	H24516	R WH24516	
1-1/4	1-25/32	1,625	6,500	8-1/4	H24520	R WH24520	

MEDIUM PRESSURE HYDRAULIC HOSE – TYPE H104

- **USCG FLUID POWER AND FUEL/LUBE SYSTEMS ACCEPTED.**
- **MSHA ACCEPTED.**
- **TYPICAL APPLICATIONS: MEDIUM PRESSURE HYDRAULIC LINES. FARM EQUIPMENT HYDRAULIC LINES.**
- **COVER AND INNER TUBE: NEOPRENE.**
- **REINFORCEMENT: 1 STEEL BRAID.**
- **TEMPERATURE RANGE: -40°F TO +212°F.**

SAE 100R1 TYPE AT

50 FOOT ROLL

HOSE I.D.	HOSE O.D.	WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	INDUSTRY TYPE	PART	USE WITH HOSE ENDS:
1/4	17/32	2,750	11,000	4	H104 04	R 54779	COLL-O-CRIMP "U" SERIES
3/8	11/16	2,250	9,000	5	H104 06	R 54780	
1/2	13/16	2,000	8,000	7	H104 08	R 54781	
3/4	1-3/32	1,250	5,000	9-1/2	H104 12	R 54782	
1	1-13/32	1,000	4,000	12	H104 16	R 54783	

TUBING, HOSE AND ACCESSORIES

HOSES – HYDRAULIC

MEDIUM PRESSURE HYDRAULIC HOSE — TYPE H324 POWER STEERING

- TYPICAL APPLICATIONS: PASSENGER CAR/LIGHT TRUCK POWER STEERING HOSE
- COVER AND INNER TUBE: NEOPRENE
- REINFORCEMENT: 2 FIBER BRAIDS
- TEMPERATURE RANGE: -40°F TO +250°F

SAE J188 TYPE II

50 FOOT ROLL

HOSE I.D.	HOSE O.D.	WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	INDUSTRY TYPE		PART	USE WITH HOSE ENDS:
3/8	3/4	1,400	5,600	3-1/8	H324 06	A	54788	COLL-O-CRIMP "U" SERIES

MEDIUM PRESSURE HYDRAULIC HOSE — TYPE H069 TRUCK

- TYPICAL APPLICATIONS: MEDIUM PRESSURE HYDRAULIC, AIR, OIL, FUEL OR GREASE LINES ON FORK LIFTS, TRUCKS AND OFF HIGHWAY VEHICLES, SIZES 7/8" THROUGH 3" ARE NOT DOT APPROVED
- COVER: FIBER BRAID / INNER TUBE: NITRILE
- REINFORCEMENT: 1 FIBER BRAIDS AND 1 STEEL BRAID
- TEMPERATURE RANGE: -40°F TO +300°F (3/16" TO 7/8") / -40°F TO +250°F (1/8" TO 3")

SAE 100A5, SAEJ1402 TYPE II*, DOT ALL*

50 FOOT ROLL

HOSE I.D.	HOSE O.D.	WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	INDUSTRY TYPE		PART	USE WITH HOSE ENDS:
3/16	33/64	3,000	12,000	3	H069 04	R	54800	REUSABLE 247 "N" SERIES
1/4	37/64	3,000	12,000	3-3/8	H069 05	R	54801	
5/16	43/64	2,250	9,000	4	H069 06	R	54802	
13/32	49/64	2,000	8,000	4-5/8	H069 08	R	54803	
1/2	59/64	1,750	7,000	5-1/2	H069 10	R	54804	
5/8	1-5/64	1,500	6,000	6-1/2	H069 12	R	54805	
7/8	1-15/64	800	3,200	7-3/8	H069 16	R	54806	

*Sizes 3/16 through 5/8 only.

ACCESSORIES

INTERNAL PIPE WRENCHES

- FOR REMOVAL OF BROKEN THREADED ENDS OF PIPE, PIPE PLUGS AND FITTINGS
- HEX BODY CAN BE USED WITH A WRENCH
- PIPE SIZES ARE MARKED ON EACH WRENCH
- HEAT TREATED ALLOY STEEL, PLATED TO PREVENT RUST
- SIZE STAMPED ON BODY
- CONFORMS TO GOV. SPECS. GGG-W643B

SIZE	LENGTH		PART
3/8" (9.7mm)	3-3/4" (95.25mm)	A	54481
1/2" (12mm)	3-3/4" (95.25mm)	A	54482
3/4" (20mm)	3-3/4" (95.25mm)	A	54483
1" (25mm)	3-3/4" (95.25mm)	A	54484
Internal Pipe Wrench Set (4-Piece Set) Sizes 3/8" to 1"		A	54480

DOUBLE FLARING TOOL SET

REPLACEMENT PARTS		PART
3/16 Flaring Adapter	E	54525
1/4 Flaring Adapter	E	54526
5/16 Flaring Adapter	E	54527
3/8 Flaring Adapter	A	54528
1/2 Flaring Adapter	A	54529
Spare Yoke Assembly	A	54524

P/N 54523

- DOUBLE FLARE SOFT STEEL TUBING (.040 WALL THICK.)
- HARDENED BAR ASSEMBLY
- 5 THREADED DIES (3/16, 1/4, 5/16, 3/8 AND 1/2)
- SINGLE FLARES SOFT COPPER, ALUMINUM AND BRASS 45°
- HEAT TREATED, STEEL FORGED YOKE COMPRESSOR
- HARD CHROME FLASHED, ALLOY STEEL SWIVEL

TUBING, HOSE AND ACCESSORIES

ACCESSORIES

HOSE/PIPE CUTTER

- CUTS RUBBER HOSE AND TUBING THROUGH 2" I.D.; P.E. THROUGH 1-1/2" I.D.; CLASS PVC THROUGH 1-1/4" I.D.
- REPLACEABLE STAINLESS STEL BLADE
- BLADE CLOSES INTO ITS OWN HANDLE FOR SAFE CARRYING AND HANDLING
- TOUGH, DURABLE GLASS-FILLED NYLON HANDLES
- FASTER THAN OTHER METHODS OF CUTTING
- MADE IN THE U.S.A.

SIZE		PART	SIZE		PART
Hose/Pipe Cutter	A	54505	Replacement Blade	D	54504

TUBE CUTTER

- CUTS COPPER, BRASS, ALUMINUM, STEEL AND LEAD TUBES FROM 1/8" TO 1-1/8"
- BODY AND VISE MADE OF ZAMAC DIE CAST
- HARDENED ROLLERS MAKE A PERFECT CUT, LEAVING NO CHIPS
- TUBE CUTTER WILL NOT FLATTEN THE TUBE
- HANDY SPRING REAMER BLADE IS ATTACHED

DESCRIPTION		PART
Tube Cutter	A	54491

TIGHT SPACES TUBING CUTTERS

- 3-PIECE KIT (P/N 8900)
  Packed in a durable hard plastic case
- FOR COPPER TUBING
  Diameters: 1/2" / 3/4" / 1"
  (13 mm / 19 mm / 25 mm)
- LESS BURR. MORE CUTS
  Optimized blade geometry of shock-resistant steel
- COMPACT DESIGN FOR TIGHT SPOTS
  Non-slip grooved cast aluminum body only needs 1/2" clearance to cut
- NO RUSTING
  Stainless steel rollers protect the cutter from corrosion
- QUICK IDENTIFICATION
  Color coding for easy tool recognition and cutting direction

DESCRIPTION		PART NO.
3-Piece Kit	A	8900
Tight Spaces Tubing Cutter - 1/2" (13 mm)	A	54672
Tight Spaces Tubing Cutter - 3/4" (19 mm)	A	54673
Tight Spaces Tubing Cutter - 1" (25 mm)	A	54674
Replacement Cutting Wheels (2-Pack)	B	54669

REPLACEMENT YOKE FOR FLARING TOOL

- Replacement yoke assembly only.
- The tool flares copper, brass, aluminum and steel tubing to make S.A.E. flared joints, without cracking or splitting. For 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8" tubing.

DESCRIPTION		PART
Replacement Yoke Assembly	A	54490

RATCH-CUT TUBING CUTTERS

- Allows cutting in tight spaces
- Lightweight and easy to operate
- Cuts Aluminum, Brass, Copper, plastics, PVC, and Stainless Steel.
- Use for A/C, refrigeration, electrical, plumbing, and industrial applications.

Note:
P/N 54992 is designed for the automotive trade, to service fuel lines, brake lines, vacuum lines and A/C lines.

DESCRIPTION		PART NO.
Tubing Cutter – Cuts 1/8" to 3/8" Tubing	A	54492
Replacement Wheel For 54492	A	54493
Tubing Cutter – Cuts 5/16" to 1-1/8" Tubing	A	54494
Replacement Wheel for 54494	A	54495

MIDGET TUBE CUTTER

- CUTS 1/8" THROUGH 5/8" O.D. TUBING
- HANDY IN TIGHT PLACES
- OVERALL LENGTH CLOSED – 1-3/4"
  OVERALL LENGTH OPEN – 2".

DESCRIPTION		PART
Midget Tube Cutter	A	54530

TUBE BENDERS (SPRING TYPE)

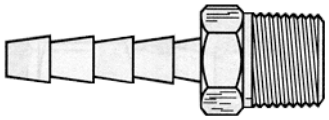
SIZE		PART	SIZE		PART
5 Pc. Set (1/4-5/8)	A	54498	3/8	I	54501
1/4	I	54499	1/2	I	54502
5/16	I	54500	5/8	E	54503

TUBING, HOSE AND ACCESSORIES

HOSE BARB FITTINGS

Made to Dryseal standards and machined from CA360 and CA345 brass. Temperature ranges from -40° to +160°F and maximum pressure at 150 psi. Ideal for air hose applications requiring corrosion resistance. Fast, easy assembly and can be used with hose clamps.

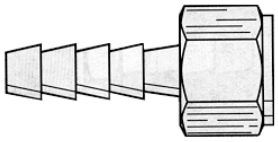
MALE HOSE BARB



17778

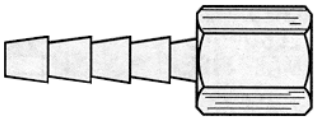
HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
1/8	1/8	I	53300	5/16	3/8	I	53309
3/16	1/8	I	53301	3/8	1/8	I	53310
3/16	1/4	I	53302	3/8	1/4	I	53311
1/4	1/8	I	53303	3/8	3/8	I	53312
1/4	1/4	I	53304	3/8	1/2	E	53313
1/4	3/8	I	53305	1/2	1/4	I	53314
1/4	1/2	E	53306	1/2	3/8	I	53315
5/16	1/8	I	53307	1/2	1/2	E	53316
5/16	1/4	I	53308	–	–		–

SWIVEL FEMALE BARB WITH BALL SEAT



HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
1/8	1/8	I	53340	3/8	1/4	I	53346
3/16	1/8	I	53341	3/8	3/8	I	53347
1/4	1/8	I	53342	3/8	1/2	E	53348
1/4	1/4	I	53343	1/2	3/8	E	53349
1/4	3/8	I	53344	1/2	1/2	E	53350
5/16	1/4	I	53345	–	–		–

FEMALE HOSE BARB



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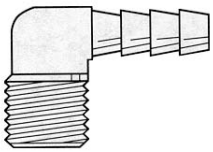
HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
3/16	1/8	E	53352	3/8	1/8	E	53359
1/4	1/8	I	53353	3/8	1/4	I	53360
1/4	1/4	I	53354	3/8	3/8	E	53361
1/4	3/8	E	53355	3/8	1/2	E	53362
5/16	1/8	E	53356	1/2	1/4	E	53363
5/16	1/4	E	53357	1/2	3/8	E	53364
5/16	3/8	E	53358	1/2	1/2	E	53365

TUBING, HOSE AND ACCESSORIES (Cont'd.)

MALE 90° ELBOW HOSE BARB



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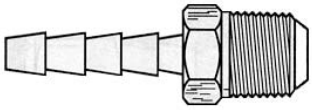
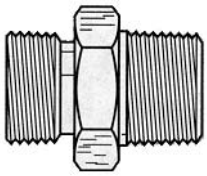
HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
1/4	1/8	E	53375	3/8	1/4	E	53380
1/4	1/4	E	53376	3/8	3/8	E	53381
5/16	1/8	E	53377	3/8	1/2	E	53382
5/16	1/4	E	53378	1/2	1/4	E	53383
3/8	1/8	E	53379	1/2	3/8	E	53384

SAE MALE HOSE BARB



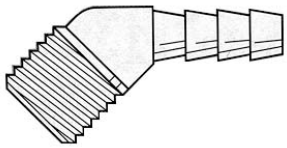
HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
3/16	1/4	E	53387	3/8	3/8	I	53391
1/4	1/4	I	53388	3/8	1/2	E	53392
1/4	3/8	I	53389	1/2	1/2	E	53393
5/16	5/16	I	53390	–	–		–3/8

ADAPTER BALL SEAT TO MALE PIPE



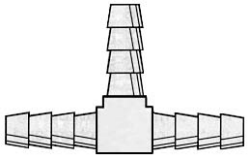
HOSE I.D.	PIPE THREAD		PART
1/4	1/4	E	53408

MALE 45° ELBOW HOSE BARB



HOSE I.D.	PIPE THREAD		PART	HOSE I.D.	PIPE THREAD		PART
1/4	1/8	E	53410	3/8	1/8	E	53413
5/16	1/8	E	53411	3/8	1/4	E	53414
5/16	1/4	E	53412	3/8	3/8	E	53415

TEE HOSE BARB



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SIZE		PART
1/4	E	53416
5/16	E	53417
3/8	E	53418

BRASS HOSE MENDER

17778

HOSE I.D.		PART	HOSE I.D.		PART
3/16	I	52239	3/8	I	52244
1/4	I	52240	1/2	E	52245
5/16	I	52242	5/8	B	52246

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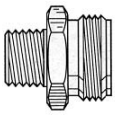
TUBING, HOSE AND ACCESSORIES (Cont'd.)

GARDEN HOSE FITTINGS

Hose barb ends are intended for use with hose clamps (see page 27.1). All female connector ends should have a garden hose washer inserted prior to usage. All garden hose ends are 3/4 garden hose thread.

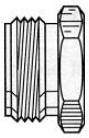
MALE GARDEN HOSE X MALE PIPE



17779

HOSE THREAD	MALE PIPE THREAD		PART
3/4	3/4	D	53283
3/4	1/2	D	53284
3/4	3/8	B	53285

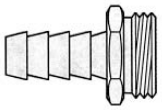
MALE GARDEN HOSE X FEMALE PIPE



17779

HOSE THREAD	MALE PIPE THREAD		PART
3/4	3/4	D	53286
3/4	1/2	D	53287

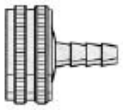
MALE GARDEN HOSE X HOSE BARB



17779

HOSE THREAD	HOSE I.D.		PART
3/4	3/4	B	53289
3/4	5/8	B	53290
3/4	1/2	B	53291

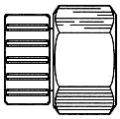
FEMALE SWIVEL GARDEN HOSE X HOSE BARB



17779

HOSE THREAD	HOSE I.D.		PART
3/4	3/4	B	53297
3/4	5/8	B	53298
3/4	1/2	B	53299

FEMALE SWIVEL GARDEN HOSE X FEMALE PIPE



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HOSE THREAD	FEMALE PIPE THREAD		PART
3/4	3/4	B	53292
3/4	1/2	B	53293

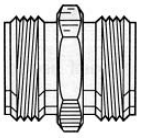
FEMALE GARDEN HOSE X MALE PIPE

17779

HOSE THREAD	FEMALE PIPE THREAD		PART
3/4	3/4	D	53295
3/4	1/2	D	53296

GARDEN HOSE UNION

MALE

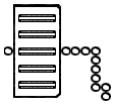


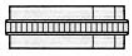
FEMALE

17779

HOSE THREAD	PIPE THREAD		PART
3/4	3/4 Male	D	53288
3/4	3/4 Female	B	53294

GARDEN HOSE CAPS





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DESCRIPTION		PART
Garden Hose Cap with Chain	D	53280
Garden Hose Cap	D	53281
Garden Hose Plastic Washer	R	53282

GARDEN HOSE

PREMIUM QUALITY – GREEN

- SPECIAL FLEX-GARD COLLAR KEEPS END OF THE HOSE KINK FREE FOR FULL WATER FLOW
- CUFF-RESISTANT RUBBER/VINYL JACKET FOR DURABILITY AND LONGER LIFE
- HIGH BURST STRENGTH TO HANDLE VARIOUS PRESSURES
- DOUBLE NYLON REINFORCED FOR ADDED PROTECTION
- HEAVY-DUTY, CRUSH-PROOF SOLID BRASS COUPLINGS ALLOWS FOR CONSISTENT AND EASY CONNECTIONS

PROFESSIONAL QUALITY – BLACK

- IDEAL FOR COMMERCIAL USE
- HOT WATER PREMIUM RUBBER WITHSTANDS TEMPERATURES UP TO 180ºF
- HIGH BURST STRENGTH TO HANDLE VARIOUS PRESSURES
- HEAVY-DUTY BRASS COUPLINGS FOR EASY CONNECTION

DESCRIPTION	I.D.	LENGTH		PART
Premium Rubber/Vinyl	5/8	50'	A	53317
Premium Rubber/Vinyl	5/8	100'	A	53318
Premium Rubber/Vinyl	3/4	50'	A	53319

DESCRIPTION	I.D.	LENGTH		PART
Professional Rubber Reinforced	5/8	50'	A	53323
Professional Rubber Reinforced	3/4	50'	A	53326

PIPE FITTINGS - GALVANIZED MALLEABLE IRON

GALVANIZED CLASS 150 FOR SCHEDULE 40 PIPE

Use with iron, steel, brass or bronze piping systems for air, gas, oil, water, steam, boilers, trucks, solvents, hydraulics and odd-jobs. 150 lb. rating. All fittings conform to ASME B 16.3.

90° ELBOW — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56200	1	E 56205
1/4	E 56201	1-1/4	A 56206
3/8	E 56202	1-1/2	A 56207
1/2	E 56203	2	A 56208
3/4	E 56204	–	–

45° ELBOW — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56215	1	E 56220
1/4	E 56216	1-1/4	A 56221
3/8	E 56217	1-1/2	A 56222
1/2	E 56218	2	A 56223
3/4	E 56219	–	–

90° STREET ELBOW

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56230	1	A 56235
1/4	E 56231	1-1/4	A 56236
3/8	E 56232	1-1/2	A 56237
1/2	E 56233	2	A 56238
3/4	E 56234	–	–

45° STREET ELBOW

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56242	1	B 56247
1/4	E 56243	1-1/4	A 56248
3/8	E 56244	1-1/2	A 56249
1/2	E 56245	2	A 56250
3/4	B 56246	–	–

TEE — FEMALE

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56349	1	A 56354
1/4	E 56350	1-1/4	A 56355
3/8	E 56351	1-1/2	A 56356
1/2	E 56352	2	A 56385
3/4	E 56353	–	–

STEEL MERCHANTCOUPLING

PIPE THREAD	PART	PIPE THREAD	PART
1/8	E 56302	1	E 56307
1/4	E 56303	1-1/4	A 56308
3/8	E 56304	1-1/2	A 56309
1/2	E 56305	2	A 56310
3/4	E 56306	–	–

REDUCING COUPLING

PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART
1/4 x 1/8	E 56251	3/4 x 3/8	E 56258	1-1/2 x 1/2	A 56271
3/8 x 1/4	E 56252	3/4 x 1/2	E 56257	1-1/2 x 3/4	A 56270
1/2 x 1/8	E 56256	1 x 3/8	A 56263	1-1/2 x 1	A 56269
1/2 x 1/4	E 56255	1 x 1/2	A 56262	1-1/2 x 1-1/4	A 56268
1/2 x 3/8	E 56254	1 x 3/4	A 56261	2 x 1	A 56274
3/4 x 1/8	E 56260	1-1/4 x 1/2	A 56267	2 x 1-1/2	A 56272
3/4 x 1/4	E 56259	1-1/4 x 1	A 56265	–	–

COUPLING

PIPE THREAD	PART	PIPE THREAD	PART
1/8	B 56390	1	A 56395
1/4	B 56391	1-1/4	A 56396
3/8	B 56392	1-1/2	A 56397
1/2	B 56393	2	A 56398
3/4	A 56394	–	–

GALVANIZED MALLEABLE IRON (Cont'd.)

HEX BUSHING

PIPE THREAD	PART	PIPE THREAD	PART	PIPE THREAD	PART
1/4 x 1/8	I 56326	3/4 x 1/8	E 56335	1-1/4 x 3/8	A 56344
3/8 x 1/4	I 56327	1 x 3/4	E 56336	1-1/2 x 1/2	B 56357
3/8 x 1/8	I 56328	1 x 1/2	E 56337	1-1/2 x 3/4	B 56358
1/2 x 3/8	I 56329	1 x 3/8	E 56338	1-1/2 x 1	B 56359
1/2 x 1/4	I 56330	1 x 1/4	E 56339	1-1/2 x 1-1/4	B 56346
1/2 x 1/8	I 56331	1 x 1/8	B 56340	2 x 1/2	B 56360
3/4 x 1/2	E 56332	1-1/4 x 1/2	C 56343	2 x 3/4	B 56361
3/4 x 3/8	E 56333	1-1/4 x 3/4	C 56342	2 x 1-1/4	A 56348
3/4 x 1/4	E 56334	1-1/4 x 1	C 56341	2 x 1-1/2	A 56347

SQUARE HEAD PLUG

***CORED SIZES: 3/4 AND 1" ONLY**

PIPE THREAD	PART
1/8	I 56364
1/4	I 56365
3/8	I 56366
1/2	I 56367
3/4	I 56368
1	I 56369

CAP

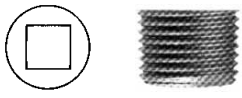
PIPE THREAD	PART	PIPE THREAD	PART
1/8	I 56293	1	E 56298
1/4	I 56294	1-1/4	A 56299
3/8	I 56295	1-1/2	A 56300
1/2	I 56296	2	A 56301
3/4	E 56297	–	–

GROUND JOINT UNION

ASME B16.39

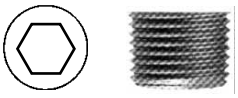
PIPE THREAD	PART	PIPE THREAD	PART
1/8	A 56314	1/2	A 56317
1/4	A 56315	3/4	A 56319
3/8	A 56316	1	A 56320

SQUARE COUNTERSUNK PLUG



PIPE THREAD	PART	PIPE THREAD	PART
1/8	T 56370	1	I 56387
1/4	T 56371	1-1/4	E 56374
3/8	T 56372	1-1/2	B 56375
1/2	R 56386	2	B 56376
3/4	N 56373	–	–

HEX PLUG



PIPE THREAD	PART
1/4	E 56377
3/8	N 56378
1/2	N 56379
3/4	E 56380

PIPE NIPPLES - GALVANIZED WELDED STEEL

CLOSE NIPPLE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	I	56400	3/4	E	56468
1/4	I	56417	1	E	56485
3/8	I	56434	1-1/4	A	56501
1/2	I	56451	1-1/2	I	56517

WELDED NIPPLE

PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART
1/8	1-1/2	I	56401	1/2	6	E	56461
1/8	2	I	56402	3/4	1-1/2	E	56469
1/8	2-1/2	I	56403	3/4	2	E	56470
1/8	3	I	56404	3/4	2-1/2	E	56471
1/8	3-1/2	I	56405	3/4	3	E	56472
1/8	4	I	56406	3/4	3-1/2	E	56473
1/8	5	E	56407	3/4	4	E	56474
1/8	6	E	56409	3/4	5	E	56476
1/4	1-1/2	I	56418	3/4	5-1/2	E	56477
1/4	2	I	56419	3/4	6	E	56478
1/4	2-1/2	I	56420	1	2	E	56486
1/4	3	I	56421	1	2-1/2	E	56487
1/4	3-1/2	I	56422	1	3	E	56488
1/4	4	I	56423	1	3-1/2	E	56489
1/4	5	E	56425	1	4	E	56490
1/4	5-1/2	E	56426	1	4-1/2	E	56491
1/4	6	E	56427	1	5	E	56492
3/8	1-1/2	I	56435	1	5-1/2	E	56493
3/8	2	I	56436	1	6	E	56494
3/8	2-1/2	I	56437	1-1/4	2	A	56502
3/8	3	I	56438	1-1/4	2-1/2	A	56503
3/8	3-1/2	E	56439	1-1/4	3	A	56504
3/8	4	E	56440	1-1/4	3-1/2	A	56505
3/8	4-1/2	E	56441	1-1/4	4	A	56506
3/8	5	E	56442	1-1/4	4-1/2	A	56507
3/8	6	E	56444	1-1/4	5	A	56508
1/2	1-1/2	I	56452	1-1/4	5-1/2	A	56509
1/2	2	I	56453	1-1/4	6	A	56510
1/2	2-1/2	I	56454	1-1/2	2	A	56518
1/2	3	I	56455	1-1/2	2-1/2	A	56519
1/2	3-1/2	I	56456	1-1/2	3	A	56520
1/2	4	I	56457	1-1/2	4	A	56527
1/2	4-1/2	E	56458	1-1/2	5	A	56524
1/2	5		56459	1-1/2	6	A	56526

PIPE FITTINGS - SCHEDULE 80 MALLEABLE BLACK IRON

CLASS 300 EXTRA HEAVY FOR SCHEDULE 80 PIPE

Use with iron, steel, brass or bronzepiping systems for air, gas, oil, water, steam, boilers, trucks, solvents, hydraulics and odd-jobs. 300 lb. rating. All fittings conform to ASME B 16.3.

90° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56600	1	B	56604
3/8	B	56601	1-1/4	A	56605
1/2	B	56602	1-1/2	A	56606
3/4	B	56603	2	A	56607

45° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56611	1	A	56615
3/8	B	56612	1-1/4	A	56616
1/2	B	56613	1-1/2	A	56617
3/4	B	56614	2	A	56618

90° STREET ELBOW

PIPE THREAD		PART	PIPE THREAD		PART
1/4	A	56622	1	A	56626
3/8	A	56623	1-1/4	A	56627
1/2	A	56624	1-1/2	A	56628
3/4	A	56625	2	A	56629

45° STREET ELBOW

PIPE THREAD		PART	PIPE THREAD		PART
1/2	A	56631	1-1/4	A	56634
3/4	A	56632	1-1/2	A	56635
1	A	56633	2	A	56636

TEE — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56630	1	A	56680
3/8	A	56677	1-1/4	A	56681
1/2	A	56678	1-1/2	A	56682
3/4	A	56679	2	A	56684

STEEL MERCHANT COUPLING

PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56637	1	A	56640
3/8	B	56638	1-1/4	A	56642
1/2	B	56639	1-1/2	A	56643
3/4	B	56641	2	A	56644

COUPLING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56850	3/4	B	56853	1-1/2	A	56856
3/8	B	56851	1	A	56854	2	A	56857
1/2	B	56852	1-1/4	A	56855	–		–

REDUCING COUPLING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
3/8 x 1/4	A	56647	1 x 1/2	B	56654	1-1/2 x 1	A	56659
1/2 x 1/4	A	56649	1 x 3/4	A	56653	1-1/2 x 1-1/4	A	56658
1/2 x 3/8	A	56648	1-1/4 x 1	B	56656	2 x 1	A	56666
3/4 x 3/8	A	56651	1-1/4 x 3/4	B	56657	2 x 1-1/4	A	56665
3/4 x 1/2	A	56650	1-1/2 x 1/2	A	56661	2 x 1-1/2	A	56664
1 x 3/8	B	56655	1-1/2 x 3/4	A	56660	–		–

CAP

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4	B	56667	3/4	B	56670	1-1/2	A	56673
3/8	B	56668	1	A	56671	2	A	56674
1/2	B	56669	1-1/4	A	56672	–		–

GROUND JOINT UNION

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4	A	56830	3/4		56833	1-1/2	A	56836
3/8	A	56831	1		56834	2	A	56837
1/2	A	56832	1-1/4		56835	–		–

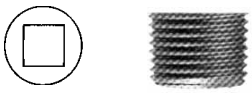
PIPE NIPPLES - SCHEDULE 80 WELDED STEEL

SQUARE HEAD PLUG - CORED

CORED SIZES:
3/4 AND 1" ONLY

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	55190	1	E	55195
1/4	E	55191	1-1/4	B	57073
3/8	E	55192	1-1/2	B	57074
1/2	E	55193	2	B	57075
3/4	E	55194	–		–

SQUARE COUNTERSUNK PLUG



PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57070	1/2	E	55215
1/4	E	57071	3/4	E	55216
3/8	E	57072	1	E	55217

CLOSE NIPPLE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56818	3/4	E	56739
1/4	E	56688	1	E	56756
3/8	E	56705	1-1/4	A	56772
1/2	E	56722	1-1/2	A	56788
–		–	2	A	56803

WELDED NIPPLE

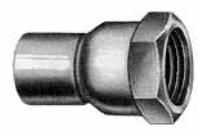
PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART
1/8	1-1/2	E	56820	3/8	6	E	56715	1	6	E	56765
1/8	2	E	56821	1/2	1-1/2	E	56723	1-1/4	2	A	56773
1/8	2-1/2	E	56822	1/2	2	E	56724	1-1/4	2-1/2	A	56774
1/8	3	E	56823	1/2	2-1/2	E	56725	1-1/4	3	A	56775
1/8	3-1/2	E	56824	1/2	3	E	56726	1-1/4	3-1/2	A	56776
1/8	4	E	56825	1/2	3-1/2	E	56727	1-1/4	4	A	56777
1/8	4-1/2	E	56826	1/2	4	E	56728	1-1/4	4-1/2	A	56778
1/8	5	E	56827	1/2	4-1/2	E	56729	1-1/4	5	A	56779
1/8	5-1/2	E	56828	1/2	5	E	56730	1-1/4	5-1/2	A	56780
1/8	6	E	56829	1/2	5-1/2	E	56731	1-1/4	6	A	56781
1/4	1-1/2	E	56689	1/2	6	E	56732	1-1/2	2	A	56787
1/4	2	E	56690	3/4	1-1/2	E	56740	1-1/2	2-1/2	A	56789
1/4	2-1/2	E	56691	3/4	2	E	56741	1-1/2	3	A	56790
1/4	3	E	56692	3/4	2-1/2	E	56742	1-1/2	3-1/2	A	56791
1/4	3-1/2	E	56693	3/4	3	E	56743	1-1/2	4	A	56792
1/4	4	E	56694	3/4	3-1/2	E	56744	1-1/2	4-1/2	A	56793
1/4	4-1/2	E	56695	3/4	4	E	56745	1-1/2	5	A	56794
1/4	5	E	56696	3/4	4-1/2	E	56746	1-1/2	5-1/2	A	56795
1/4	5-1/2	E	56697	3/4	5	E	56747	1-1/2	6	A	56796
1/4	6	E	56698	3/4	5-1/2	E	56748	2	2-1/2	A	56804
3/8	1-1/2	E	56706	3/4	6	E	56749	2	3	A	56805
3/8	2	E	56707	1	2	E	56757	2	3-1/2	A	56806
3/8	2-1/2	E	56708	1	2-1/2	E	56758	2	4	A	56807
3/8	3	E	56709	1	3	E	56759	2	4-1/2	A	56808
3/8	3-1/2	E	56710	1	3-1/2	E	56760	2	5	A	56809
3/8	4	E	56711	1	4	E	56761	2	5-1/2	A	56810
3/8	4-1/2	E	56712	1	4-1/2	E	56762	2	6	A	56811
3/8	5	E	56713	1	5	E	56763				
3/8	5-1/2	E	56714	1	5-1/2	E	56764				

WROT COPPER FITTINGS

FOR ALL PLUMBING AND HVAC APPLICATIONS

Materials and workmanship in accordance with ASME/ANSI B16.22. For proper fitting selection, use Nominal I.D. Size column for plumbing use and AC/R O.D. Size column for air conditioning and refrigeration. C = Female Solder Cup; FTG = Male Solder End; F = Female NPT Thread; M = Male NPT Thread

FEMALE ADAPTER – C X F



AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/4 x 1/4	1/8 x 1/4	E	58000
3/8 x 1/4	1/4 x 1/4	E	58001
1/2 x 1/2	3/8 x 1/2	E	58002
1/2 x 3/8	3/8 x 3/8	E	58003
1/2 x 1/4	3/8 x 1/4	E	58004
5/8 x 3/4	1/2 x 3/4	E	58005
5/8 x 1/2	1/2 x 1/2	E	58006
5/8 x 3/8	1/2 x 3/8	E	58007
5/8 x 1/4	1/2 x 1/4	E	58008
7/8 x 1"	3/4 x 1"	B	58011
7/8 x 3/4	3/4 x 3/4	B	58012
7/8 x 1/2	3/4 x 1/2	B	58013
1-1/8 x 1-1/4	1 x 1-1/4	B	58014
1-1/8 x 1"	1" x 1"	B	58015
1-1/8 x 3/4	1" x 3/4	B	58016
1-1/8 x 1/2	1" x 1/2	B	58017
1-3/8 x 1-1/2	1-1/4 x 1-1/2	A	58018
1-3/8 x 1-1/4	1-1/4 x 1-1/4	A	58019
1-3/8 x 1"	1-1/4 x 1"	A	58020
1-5/8 x 2"	1-1/2 x 2"	A	58021
1-5/8 x 1-1/2	1-1/2 x 1-1/2	A	58022
1-5/8 x 1-1/4	1-1/2 x 1-1/4	A	58023
2-1/8 x 2"	2" x 2"	A	58024

MALE ADAPTER – C X M

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8 x 1/4	1/4 x 1/4	B	58036
1/2 x 3/4	3/8 x 3/4	B	58037
1/2 x 1/2	3/8 x 1/2	B	58038
1/2 x 3/8	3/8 x 3/8	B	58039
5/8 x 1"	1/2 x 1"	B	58040
5/8 x 3/4	1/2 x 3/4	B	58041
5/8 x 1/2	1/2 x 1/2	B	58042
5/8 x 3/8	1/2 x 3/8	B	58043
5/8 x 1/4	1/2 x 1/4	B	58044
7/8 x 1"	3/4 x 1"	B	58047
7/8 x 3/4	3/4 x 3/4	B	58048
7/8 x 1/2	3/4 x 1/2	B	58049
1-1/8 x 1-1/2	1" x 1-1/2	B	58050
1-1/8 x 1-1/4	1" x 1-1/4	B	58051
1-1/8 x 1"	1" x 1"	B	58052
1-1/8 x 3/4	1" x 3/4	B	58053
1-1/8 x 1/2	1" x 1/2	B	58054
1-3/8 x 1-1/2	1-1/4 x 1-1/2	B	58055
1-3/8 x 1-1/4	1-1/4 x 1-1/4	B	58056
1-3/8 x 1"	1-1/4 x 1"	B	58057
1-5/8 x 2"	1-1/2 x 2"	A	58058
1-5/8 x 1-1/2	1-1/2 x 1-1/2	A	58059
1-5/8 x 1-1/4	1-1/2 x 1-1/4	A	58060
1-5/8 x 1"	1-1/2 x 1"	A	58061
2-1/8 x 2"	2" x 2"	A	58062
2-1/8 x 1-1/2	2" x 1-1/2	A	58063

BUSHING – FTG X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART	AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		
3/8 x 1/4	1/4 x 1/8	I	58072	7/8 x 5/8	3/4 x 1/2	E	58078
1/2 x 3/8	3/8 x 1/4	I	58073	7/8 x 1/2	3/4 x 3/8	E	58079
5/8 x 1/2	1/2 x 3/8	I	58074	1-1/8 x 7/8	1" x 3/4	E	58080
5/8 x 3/8	1/2 x 1/4	I	58075	1-1/8 x 5/8	1" x 1/2	E	58081

WROT COPPER FITTINGS (Cont'd.)

COUPLING WITHOUT STOP – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8	1/4	I	58082
1/2	3/8	I	58083
5/8	1/2	I	58084
7/8	3/4	I	58086
1-1/8	1"	E	58087
1-3/8	1-1/4	E	58088
1-5/8	1-1/2	B	58089
2-1/8	2"	B	58090

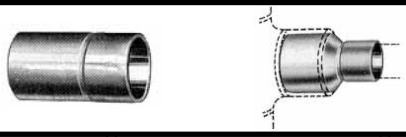
COUPLING WITH STOP – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/8	–	L	58091
3/16	–	L	58092
1/4	1/8	L	58093
5/16	3/16	L	58094
3/8	1/4	L	58095
1/2	3/8	L	58096
5/8	1/2	L	58097
7/8	3/4	I	58099
1-1/8	1"	I	58101
1-3/8	1-1/4	E	58102
1-5/8	1-1/2	E	58103
2-1/8	2"	B	58104

RED COUPLING – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8 x 1/4	1/4 x 1/8	E	58108
1/2 x 3/8	3/8 x 1/4	I	58109
5/8 x 1/2	1/2 x 3/8	I	58112
5/8 x 3/8	1/2 x 1/4	I	58113
7/8 x 3/4	3/4 x 5/8	E	58118
7/8 x 5/8	3/4 x 1/2	E	58119
7/8 x 1/2	3/4 x 3/8	E	58120
1-1/8 x 7/8	1" x 3/4	E	58122
1-1/8 x 3/4	1" x 5/8	E	58123
1-3/8 x 1-1/8	1-1/4 x 1"	B	58126
1-3/8 x 7/8	1-1/4 x 3/4	B	58127
1-5/8 x 1-3/8	1-1/2 x 1-1/4	B	58129
1-5/8 x 1-1/8	1-1/2 x 1"	B	58130
2-1/8 x 1-5/8	2" x 1-1/2	A	58133
2-1/8 x 1-3/8	2" x 1-1/4	A	58134

REDUCER – FTG X C



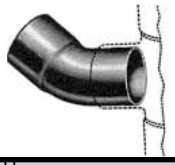
AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8 x 1/4	1/4 x 1/8	I	58138
1/2 x 3/8	3/8 x 1/4	I	58139
5/8 x 1/2	1/2 x 3/8	I	58141
5/8 x 3/8	1/2 x 1/4	I	58142
3/4 x 5/8	5/8 x 1/2	E	58143
7/8 x 3/4	3/4 x 5/8	E	58146
7/8 x 5/8	3/4 x 1/2	E	58147
1-1/8 x 7/8	1" x 3/4	E	58150
1-1/8 x 5/8	1" x 1/2	E	58152
1-3/8 x 1-1/8	1-1/4 x 1"	B	58154
1-5/8 x 1-3/8	1-1/2 x 1-1/4	B	58157
1-5/8 x 1-1/8	1-1/2 x 1"	B	58158
2-1/8 x 1-5/8	2" x 1-1/2	A	58161
2-1/8 x 1-3/8	2" x 1-1/4	A	58162

45 DEGREE ELBOW – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART	AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART	AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/4	1/8	E	58166	5/8	1/2	E	58169	1-3/8	1-1/4	B	58173
3/8	1/4	E	58167	7/8	3/4	E	58171	1-5/8	1-1/2	B	58174
1/2	3/8	E	58168	1-1/8	1"	B	58172	2-1/8	2"	B	58175

WROT COPPER FITTINGS (Cont'd.)

45 DEGREE ELBOW – FTG X C



AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8	1/4	I	58176
1/2	3/8	E	58177
5/8	1/2	I	58178
7/8	3/4	E	58180
1-1/8	1"	B	58181
1-3/8	1-1/4	B	58182
1-5/8	1-1/2	B	58183
2-1/8	2"	A	58184

90 DEGREE ELBOW – FTG X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8	1/4	E	58195
1/2	3/8	E	58196
5/8	1/2	E	58197
3/4	5/8	E	58198
7/8	3/4	E	58199
1-1/8	1"	B	58200
1-3/8	1-1/4	B	58201
1-5/8	1-1/2	B	58202
2-1/8	2"	A	58203

90 DEGREE LONG TURN ELBOW – FTG X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/4	1/8	E	58216
3/8	1/4	E	58217
1/2	3/8	E	58218
5/8	1/2	E	58219
3/4	5/8	B	58220
7/8	3/4	B	58221
1-1/8	1"	B	58222
1-3/8	1-1/4	A	58223
1-5/8	1-1/2	A	58224
2-1/8	2"	A	58225

90 DEGREE ELBOW – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/4	1/8	I	58185
3/8	1/4	I	58186
1/2	3/8	I	58187
5/8	1/2	I	58188
7/8	3/4	E	58190
1-1/8	1"	B	58191
1-3/8	1-1/4	B	58192
1-5/8	1-1/2	B	58193
2-1/8	2"	A	58194

90 DEGREE LONG TURN ELBOW – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
1/4	1/8	E	58205
5/16	3/16	E	58206
3/8	1/4	E	58207
1/2	3/8	E	58208
5/8	1/2	E	58209
3/4	5/8	E	58210
7/8	3/4	E	58211
1-1/8	1"	B	58212
1-3/8	1-1/4	B	58213
1-5/8	1-1/2	A	58214
2-1/8	2"	A	58215

UNION – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES		PART
3/8	1/4	B	58365
1/2	3/8	B	58366
5/8	1/2	B	58367
7/8	3/4	B	58368
1-1/8	1"	A	58369
1-3/8	1-1/4	A	58370*
1-5/8	1-1/2	A	58371*
2-1/8	2"	A	58372*

*CAST

WROT COPPER FITTINGS (Cont'd.)

TEE – C X C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES	PART	
1/4	1/8	E	58229
3/8	1/4	E	58238
3/8 x 3/8 x 1/4	1/4 x 1/4 x 1/8	B	58241
1/2	3/8	E	58246
1/2 x 1/2 x 3/8	3/8 x 3/8 x 1/4	B	58248
1/2 x 1/2 x 1/4	3/8 x 3/8 x 1/8	B	58250
5/8	1/2	E	58254
5/8 x 5/8 x 7/8	1/2 x 1/2 x 3/4	B	58256
5/8 x 5/8 x 1/2	1/2 x 1/2 x 3/8	B	58257
5/8 x 5/8 x 3/8	1/2 x 1/2 x 1/4	B	58258
3/4	5/8	B	58264
3/4 x 3/4 x 7/8	5/8 x 5/8 x 3/4	B	58265
7/8	3/4	E	58269
7/8 x 7/8 x 5/8	3/4 x 3/4 x 1/2	B	58272
7/8 x 5/8 x 7/8	3/4 x 1/2 x 3/4	B	58277
7/8 x 5/8 x 5/8	3/4 x 1/2 x 1/2	B	58278
1-1/8	1"	A	58282
1-1/8 x 1-1/8 x 7/8	1" x 1" x 3/4	A	58285
1-1/8 x 1-1/8 x 5/8	1" x 1" x 1/2	A	58287
1-1/8 x 7/8 x 1-1/8	1" x 3/4 x 1"	A	58290
1-1/8 x 7/8 x 7/8	1" x 3/4 x 3/4	A	58291
1-1/8 x 5/8 x 7/8	1" x 1/2 x 3/4	A	58294
1-1/8 x 5/8 x 5/8	1" x 1/2 x 1/2	A	58295
1-3/8	1-1/4	A	58296
1-3/8 x 1-3/8 x 1-1/8	1-1/4 x 1-1/4 x 1"	A	58299
1-3/8 x 1-3/8 x 7/8	1-1/4 x 1-1/4 x 3/4	A	58300
1-3/8 x 1-1/8 x 1-3/8	1-1/4 x 1" x 1-1/4	A	58303
1-3/8 x 1-1/8 x 1-1/8	1-1/4 x 1" x 1"	A	58304
1-3/8 x 7/8 x 7/8	1-1/4 x 3/4 x 3/4	A	58309
1-3/8 x 7/8 x 5/8	1-1/4 x 3/4 x 1/2	A	58310
1-5/8	1-1/2	A	58312
1-5/8 x 1-5/8 x 1-3/8	1-1/2 x 1-1/2 x 1-1/4	A	58314
1-5/8 x 1-5/8 x 1-1/8	1-1/2 x 1-1/2 x 1"	A	58315
1-5/8 x 1-5/8 x 7/8	1-1/2 x 1-1/2 x 3/4	A	58316
2-1/8	2"	A	58333
2-1/8 x 2-1/8 x 1-5/8	2" x 2" x 1-1/2	A	58335
2-1/8 x 2-1/8 x 1-3/8	2" x 2" x 1-1/4	A	58336
2-1/8 x 2-1/8 x 1-1/8	2" x 2" x 1"	A	58337
2-1/8 x 2-1/8 x 7/8	2" x 2" x 3/4	A	58338

TUBE CAP – C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES	PART	
1/4	1/8	N	58354
3/8	1/4	N	58355
1/2	3/8	N	58356
5/8	1/2	N	58357
7/8	3/4	I	58359
1-1/8	1"	I	58360
1-3/8	1-1/4	I	58361
1-5/8	1-1/2	E	58362
2-1/8	2"	B	58363

RETURN BEND – C X C

AC/R O.D. SIZES	NOMINAL I.D. PIPE SIZES	PART	
1/4	1/8	E	58373
3/8	1/4	E	58374
1/2	3/8	E	58375
5/8	1/2	B	58376
7/8	3/4	B	58377
1-1/8	1"	A	58378
1-3/8	1-1/4	A	58379
1-5/8	1-1/2	A	58380
2-1/8	2"	A	58381

PUSH FITTINGS - COPPER/PUSH-IN

Features

- For ½" to 1" diameter potable water systems
- Push fittings provide plumbing system design flexibility by allowing you to join Copper, CPVC or PEX lines with just one fitting.
- The fittings simply push together in seconds to create a perfect joint.
- No torches and no solder are required.
- They are designed to join lines from ½" to 1", meet a wide variety of plumbing codes and can be used in potable water, hot water heating, chilled water and compressed air systems.

Benefits

- Push fit
- Tool free
- Permanent fitting
- "Two step" cup design with closed face for across the "O-ring" support
- Deep cup offers deflection protection
- True "O-ring" design for leak free seals
- Pre-lubed for quick installation
- Approved for underground installations

Typical Fluid Applications

- Potable water
- Potable water system flushing chemicals
- Chilled water with corrosion inhibitors
- Hydronic heating
- Rainwater/greywater

Material Compatibility

- Push fittings are designed to operate at temperatures from 0° to 250°F and a maximum working pressure of 200 psi.
- Designed for use with ASTM B88 hard drawn and annealed Copper tube, type K, L, or M, in the ½" to 1" size range.
- For CPVC and PEX water tube per ASTM D2846/2846M.

PUSH FITTINGS - COPPER/PUSH-IN (Cont'd.)

COUPLING WITH STOP – C X C

17051

DIAMETER		PART
1/2"	B	51170
3/4"	B	51171
1"	E	***51172***

45° ELBOW – C X C

17051

DIAMETER		PART
1/2"	B	51182
3/4"	B	51183
1"	E	***51184***

REDUCER COUPLING – C X C

17051

DIAMETER 1	DIAMETER 2		PART
3/4"	1/2"	B	51173
1"	***1/2"***	I	***51174***
1"	***3/4"***	I	***51175***

45° STREET ELBOW – FTG X C

DIAMETER		PART
1/2"	I	***51185***
3/4"	I	***51186***
1"	E	***51187***

FEMALE ADADPTER – C X F

17051

DIAMETER		PART
1/2"	B	51176
3/4"	B	51177
1"	E	***51178***

90° ELBOW – C X C

17051

DIAMETER		PART
1/2"	B	51188
3/4"	B	51189
1"	E	***51190***

MALE ADAPTER – C X M

17051

DIAMETER		PART
1/2"	B	51179
3/4"	B	51180
1"	E	***51181***

90° STREET ELBOW – FTG X C

17051

DIAMETER		PART
1/2"	B	51191
3/4"	B	51192
1"	I	***51193***

Part Numbers in bold italic are non-stock items. Please allow 2-3 weeks for delivery.

PUSH FITTINGS - COPPER/PUSH-IN (Cont'd.)

90° FEMALE ELBOW – C X F NPT

17051

DIAMETER		PART
1/2"	E	***51194***
3/4"	E	***51195***
1"	E	***51196***

TUBE CAP – C

17051

DIAMETER		PART
1/2"	B	51207
3/4"	B	51208
1"	E	***51209***

90° FEMALE DROP EAR ELBOW – C X F NPT

DIAMETER		PART
1/2"	I	***51197***

DUBURRING TOOL

DIAMETER		PART
1/2"	A	***51210***

90° MALE DROP EAR ELBOW – C X M NPT

DIAMETER		PART
1/2"	I	***51198***
3/4"	E	***51199***
1"	E	***51200***

PEX LINER

SOLD IN BAGS OF FIVE PIECES

DIAMETER		PART
1/2"	A	***51211***
3/4"	A	***51212***
1"	A	***51213***

TEE FITTING – C X C X C

17051

DIAMETER		PART
1/2" x 1/2" x 1/2"	B	51201
3/4" x 3/4" x 3/4"	B	51202
3/4" x 3/4" x 1/2"	B	51203
1" x 1" x 1"	E	***51204***
1" x 1" x 1/2"	E	***51205***
1" x 1" x 3/4"	E	***51206***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

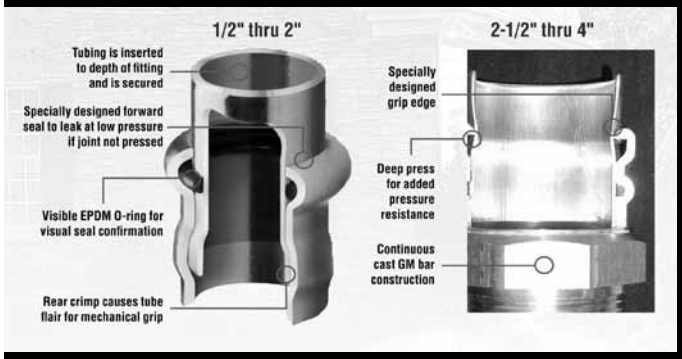
PRESS FITTINGS - COPPER/PRESS-FIT

Features

- For ½" to 4" diameter potable water systems
- Combines all the known advantages of copper with clean, rapid, heat-free joining technology.
- Press Fittings achieve a sound joint through the exertion of pressure from a press-fit tool.
- A purpose designed O-ring provides the mechanism by which a perfect seal is created.
- Ensuring that the tube is fully inserted into the fitting, the jaws of the press-fit tool are placed around the collar of the fitting, which contains an EPDM O-ring.
- With the jaws at a 90º angle to the fitting, the press-fit tool is activated and the jaws compress the O-ring tightly onto the tube creating a strong and reliable joint.

Benefits

- Leak-free joints utilizing press-fit technology
- HEAT FREE - Reduces fire hazard
- The heat-free principle of the joining process is one of the major benefits, removing the need to obtain "Hot Work" permits, which can have costly insurance implications
- Eliminates the potential of flame damage
- No glues, fluxes or solder needed
- No consumable materials - reduces material cost and storage
- Fast and simple - easy installation
- Reduce installation time by 1/3
- Connect in under 8 seconds
- Approved for underground installations



Standards Council of Canada · IAPMO R&T · ANSI American National Standards Institute · IAPMO · IAPMO STANDARDS · UPC ANSI / NSF 61 CU/CPVC

Typical Fluid Applications

- Potable water
- Potable water system flushing chemicals
- Chilled water with corrosion inhibitors
- Hydronic heating
- Rainwater/greywater

Material Compatibility

- Designed to operate at temperatures from 0° to 250°F
- Maximum working pressure of 200 psi
- For use with ASTM B88 hard drawn and annealed Copper tube, type K, L, or M, in the ½" to 4" size range

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

COUPLING WITH STOP – C X C

17050

DIAMETER		PART
1/2"	B	51214
3/4"	B	51215
1"	B	51216
1-1/4"	A	***51217***
1-1/2"	A	***51218***
2"	A	***51219***
2-1/2"	A	***51220***
3"	A	***51221***
4"	A	***51222***

COUPLING WITHOUT STOP – C X C

17050

DIAMETER		PART
1/2"	B	51223
3/4"	B	51224
1"	B	51225
1-1/4"	A	***51226***
1-1/2"	A	***51227***
2"	A	***51228***
2-1/2"	A	***51229***
3"	A	***51230***
4"	A	***51231***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

REDUCER COUPLERS – C X C

DIAMETER		PART
3/4" x 1/2"	B	51232
1" x 1/2"	I	***51233***
1" x 3/4"	B	51234
1-1/4" x 1/2"	A	***51235***
1-1/4" x 3/4"	A	***51236***
1-1/4" x 1"	A	***51237***
1-1/2" x 1/2"	A	***51238***
1-1/2" x 3/4"	A	***51239***
1-1/2" x 1"	A	***51240***
1-1/2" x 1-1/4"	A	***51241***
2" x 1/2"	A	***51242***
2" x 3/4"	A	***51243***
2" x 1"	A	***51244***
2" x 1-1/4"	A	***51245***
2" x 1-1/2"	A	***51246***
2-1/2" x 1"	A	***51247***
2-1/2" x 1-1/4"	A	***51248***
2-1/2" x 1-1/2"	A	***51249***
2-1/2" x 2"	A	***51250***
3" x 3/4"	A	***51251***
3" x 2"	A	***51252***
3" x 2-1/2"	A	***51253***
4" x 2"	A	***51254***
4" x 2-1/2"	A	***51255***
4" x 3"	A	***51256***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

COUPLER FEMALE ADAPTER – C X F

17050

DIAMETER		PART
1/2" x 1/2"	B	51257
3/4" x 3/4"	B	51258
1" x 1"	B	51259
1-1/4" x 1-1/4"	A	51260
1-1/2" x 1-1/2"	A	51261
2" x 2"	A	51262
1/2" x 3/8"	I	***51263***
1/2" x 3/4"	I	***51264***
3/4" x 1/2"	I	***51265***
1" x 1/2"	E	***51266***
1" x 3/4"	E	***51267***
1" x 1-1/4"	E	***51268***
1-1/4" x 1"	A	***51269***
1-1/4" x 1-1/2"	A	***51270***
1-1/2" x 3/4"	A	***51271***
1-1/2" x 1-1/4"	A	***51272***

FEMALE STREET ADAPTER – FTG X F

DIAMETER		PART
1/2" x 1/2"	I	***51273***
3/4" x 3/4"	I	***51274***
1" x 1"	I	***51275***
1-1/4" x 1-1/4"	A	***51276***
1-1/2" x 1-1/2"	A	***51277***
2" x 2"	A	***51278***
1-2" x 3/8"	E	***51279***
1/2" x 3/4"	E	***51280***
3/4" x 1/2"	E	***51281***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

COUPLER MALE ADAPTER – C X M

17050

DIAMETER		PART
1/2" x 1/2"	B	51282
3/4" x 3/4"	B	51283
1" x 1"	B	51284
1-1/4" x 1-1/4"	A	51285
1-1/2" x 1-1/2"	A	51286
2" x 2"	A	***51287***
2-1/2" x 2-1/2"	A	***51288***
3" x 3"	A	***51289***
4" x 4"	A	***51290***
1/2" x 3/8"	E	***51291***
1/2" x 3/4"	I	***51292***
3/4" x 1/2"	I	***51293***
1" x 3/4"	E	***51294***
1" x 1-1/4"	E	***51295***
1-1/4" x 1"	A	***51296***
1-1/4" x 1-1/2"	A	***51297***
1-1/2" x 1-1/4"	A	***51298***

MALE STREET ADAPTER – FTG X M

DIAMETER		PART
1/2"	I	***51299***
3/4"	I	***51300***
1"	I	***51301***
1-1/4"	A	***51302***
1-1/2"	A	***51303***
2"	A	***51304***
1/2" x 3/8"	E	***51305***
1/2" x 3/4"	E	***51306***
3/4" x 1/2"	E	***51307***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

45° ELBOW – C X C

17050

DIAMETER		PART
1/2"	B	51308
3/4"	B	51309
1"	B	51310
1-1/4"	A	51311
1-1/2"	A	51312
2"	A	51313
2-1/"2	A	***51314***
3"	A	***51315***
4"	A	***51316***

45° STREET ELBOW – FTG X C

DIAMETER		PART
1/2"	I	***51317***
3/4"	I	***51318***
1"	E	***51319***
1-1/4"	A	***51320***
1-1/2"	A	***51321***
2"	A	***51322***
2-1/2"	A	***51323***
3"	A	***51324***
4"	A	***51325***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

90° ELBOW – C X C

17050

DIAMETER		PART
1/2"	B	51326
3/4"	B	51327
1"	B	51328
1" x 3/4"	A	***51329***
1-1/4"	A	***51330***
1-1/2"	A	***51331***
2"	A	***51332***
2-1/2"	A	***51333***
3"	A	***51334***
3" x 2"	A	***51335***
3" x 2-1/2"	A	***51336***
4"	A	***51337***

90° STREET ELBOW – FTG X C

DIAMETER		PART
1/2"	I	***51338***
3/4"	I	***51339***
1"	I	***51340***
1-1/4"	A	***51341***
1-1/2"	A	***51342***
2"	A	***51343***
2-1/2"	A	***51344***
3"	A	***51345***
4"	A	***51346***

BALL VALVE

DIAMETER		PART
1/2"	A	***51347***
3/4"	A	***51348***
1"	A	***51349***

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

TEE FITTINGS – C X C X C

17050

DIAMETER		PART
1/2"	B	51350
3/4"	B	51351
1"	B	51352
1-1/4"	A	***51353***
1-1/2"	A	***51354***
2"	A	***51355***
2-1/2"	A	***51356***
3"	A	***51357***
4"	A	***51358***
1/2" x 1/2" x 1"	B	***51359***
1/2" x 1/2" x 3/4"	E	***51360***
3/4" x 1/2" x 3/4"	E	***51361***
3/4" x 3/4" x 1/2"	B	51362
3/4" x 1/2" x 1/2"	E	***51363***
3/4" x 3/4" x 1"	B	***51364***
1" x 3/4" x 1/2"	B	***51365***
1" x 3/4" x 3/4"	B	***51366***
1" x 3/4" x 1"	B	***51367***
1" x 1/2" x 1"	B	***51368***
1" x 1/2" x 1/2"	A	***51369***
1" x 1/2" x 3/4"	B	***51370***
1" x 3/4" x 1/2"	B	***51371***
1" x 3/4" x 3/4"	B	***51372***
1" x 3/4" x 1-1/4"	A	***51373***
1" x 1" x 1/2"	E	***51374***
1" x 1" x 3/4"	E	***51375***
1" x 1" x 1-1/4"	A	***51376***
1" x 1" x 2"	A	***51377***
1-1/4" x 1/2" x 1"	A	***51378***
1-1/4" x 1/2" x 1-1/4"	A	***51379***
1-1/4" x 3/4" x 1/2"	A	***51380***
1-1/4" x 3/4" x 3/4"	A	***51381***
1-1/4" x 3/4" x 1"	A	***51382***
1-1/4" x 3/4" x 1-1/4"	A	***51383***
1-1/4" x 3/4" x 1-1/2"	A	***51384***
1-1/4" x 1" x 1/2"	A	***51385***
1-1/4" x 1" x 3/4"	A	***51386***
1-1/4" x 1" x 1"	A	***51387***
1-1/4" x 1" x 1-1/4"	A	***51388***
1-1/4" x 1" x 1-1/2"	A	***51389***
1-1/4" x 1-1/4" x 1/2"	A	***51390***
1-1/4" x 1-1/4" x 3/4"	A	***51391***
1-1/4" x 1-1/4" x 1"	A	***51392***
1-1/4" x 1-1/4" x 2"	A	***51393***
1-1/2" x 1/2" x 1-1/4"	A	***51394***
1-1/2" x 1/2" x 1-1/2"	A	***51395***

TEE FITTINGS – C X C X C

17050

DIAMETER		PART
1-1/2" x 3/4" x 3/4"	A	***51396***
1-1/2" x 3/4" x 1"	A	***51397***
1-1/2" x 3/4" x 1-1/4"	A	***51398***
1-1/2" x 3/4" x 1-1/2"	A	***51399***
1-1/2" x 3/4" x 2"	A	***51400***
1-1/2" x 1" x 3/4"	A	***51401***
1-1/2" x 1" x 1"	A	***51402***
1-1/2" x 1" x 1-1/4"	A	***51403***
1-1/2" x 1" x 1-1/2"	A	***51404***
1-1/2" x 1" x 2"	A	***51405***
1-1/2" x 1-1/4" x 1/2"	A	***51406***
1-1/2" x 1-1/4" x 3/4"	A	***51407***
1-1/2" x 1-1/4" x 1"	A	***51408***
1-1/2" x 1-1/4" x 1-1/4"	A	***51409***
1-1/2" x 1-1/4" x 2"	A	***51410***
1-1/2" x 1-1/4" x 1-1/4"	A	***51411***
1-1/2" x 1-1/4" x 1-1/2"	A	***51412***
1-1/2" x 1-1/2" x 1/2"	A	***51413***
1-1/2" x 1-1/2" x 3/4"	A	***51414***
1-1/2" x 1-1/2" x 1"	A	***51415***
1-1/2" x 1-1/2" x 1-1/4"	A	***51416***
1-1/2" x 1-1/2" x 2"	A	***51417***
1-1/2" x 1-1/2" x 3"	A	***51418***
2" x 1/2" x 2"	A	***51419***
2" x 3/4" x 3/4"	A	***51420***
2" x 3/4" x 2"	A	***51421***
2" x 1" x 1/2"	A	***51422***
2" x 1" x 1"	A	***51423***
2" x 1" x 1-1/4"	A	***51424***
2" x 1" x 2"	A	***51425***
2" x 1-1/4" x 3/4"	A	***51426***
2" x 1-1/4" x 1"	A	***51427***
2" x 1-1/4" x 1-1/4"	A	***51428***
2" x 1-1/4" x 1-1/2"	A	***51429***
2" x 1-1/4" x 2"	A	***51430***
2" x 1-1/2" x 1/2"	A	***51431***
2" x 1-1/2" x 1-1/2"	A	***51432***
2" x 1-1/2" x 3/4"	A	***51433***
2" x 1-1/2" x 1"	A	***51434***
2" x 1-1/2" x 1-1/4"	A	***51435***
2" x 1-1/2" x 2"	A	***51436***
2" x 1-1/2" x 2-1/2"	A	***51437***
2" x 2" x 1/2"	A	***51438***
2" x 2" x 3/4"	A	***51439***
2" x 2" x 1"	A	***51440***
2" x 2" x 1-1/4"	A	***51441***

Part Numbers in bold italic are non-stock items. Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

TEE FITTINGS – C X C X C

17050

DIAMETER		PART
2" x 2" x 1-1/2"	A	*51442*
2" x 2" x 3"	A	*51443*
2-1/2" x 3/4" x 2"	A	*51444*
2-1/2" x 1" x 2"	A	*51445*
2-1/2" x 1" x 2-1/2"	A	*51446*
2-1/2" x 1-1/4" x 2-1/2"	A	*51447*
2-1/2" x 1-1/2" x 1-1/2"	A	*51448*
2-1/2" x 1-1/2" x 2"	A	*51449*
2-1/2" x 1-1/2" x 2-1/2"	A	*51450*
2-1/2" x 2" x 1"	A	*51451*
2-1/2" x 2" x 1-1/2"	A	*51452*
2-1/2" x 2" x 2"	A	*51453*
2-1/2" x 2" x 2-1/2"	A	*51454*
2-1/2" x 2" x 3"	A	*51455*
2-1/2" x 2-1/2" x 1/2"	A	*51456*
2-1/2" x 2-1/2" x 3/4"	A	*51457*
2-1/2" x 2-1/2" x 1"	A	*51458*
2-1/2" x 2-1/2" x 1-1/4"	A	*51459*
2-1/2" x 2-1/2" x 1-1/2"	A	*51460*
2-1/2" x 2-1/2" x 2"	A	*51461*
2-1/2" x 2-1/2" x 3"	A	*51462*
2-1/2" x 2-1/2" x 4"	A	*51463*
3" x 3/4" x 2-1/2"	A	*51464*
3" x 1" x 2-1/2"	A	*51465*
3" x 2" x 2"	A	*51466*
3" x 2" x 3"	A	*51467*
3" x 2-1/2" x 2"	A	*51468*
3" x 2-1/2" x 2-1/2"	A	*51469*
3" x 3" x 3/4"	A	*51470*
3" x 3" x 1"	A	*51471*
3" x 3" x 1-1/4"	A	*51472*
3" x 3" x 1-1/2"	A	*51473*
3" x 3" x 2"	A	*51474*
3" x 3" x 2-1/2"	A	*51475*
4" x 1-1/2" x 3"	A	*51476*
4" x 2" x 4"	A	*51477*
4" x 3" x 1-1/2"	A	*51478*
4" x 3" x 2"	A	*51479*
4" x 3" x 2-1/2"	A	*51480*
4" x 4" x 1/2"	A	*51481*
4" x 4" x 3/4"	A	*51482*
4" x 4" x 1"	A	*51483*
4" x 4" x 1-1/4"	A	*51484*
4" x 4" x 1-1/2"	A	*51485*
4" x 4" x 2"	A	*51486*
4" x 4" x 2-1/2"	A	*51487*
4" x 4" x 3"	A	*51488*

TUBE CAP – C

17050

DIAMETER		PART
1/2"	B	51489
3/4"	B	51490
1"	B	51491
1-1/4"	A	*51492*
1-1/2"	A	*51493*
2"	A	*51494*
2-1/2"	A	*51495*
3"	A	*51496*
4"	A	*51497*

FITTING REDUCER – FTG X C

DIAMETER		PART
3/4" x 1/2"	I	*51498*
1" x 1/2"	I	*51499*
1" x 3/4"	I	*51500*
1-1/4" x 1/2"	E	*51501*
1-1/4" x 3/4"	E	*51502*
1-1/4" x 1"	E	*51503*
1-1/2" x 1/2"	A	*51504*
1-1/2" x 3/4"	A	*51505*
1-1/2" x 1"	A	*51506*
1-1/2" x 1-1/4"	A	*51507*
2" x 1/2"	A	*51508*
2" x 3/4"	A	*51509*
2" x 1"	A	*51510*
2" x 1-1/4"	A	*51511*
2" x 1-1/2"	A	*51512*
2-1/2" x 1-1/2"	A	*51513*
2-1/2" x 2"	A	*51514*
3" x 1-1/2"	A	*51515*
3" x 2"	A	*51516*
3" x 2-1/2"	A	*51517*
4" x 2"	A	*51518*
4" x 2-1/2"	A	*51519*
4" x 3"	A	*51520*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

CROSS OVER COUPLERS

DIAMETER		PART
1/2"	I	*51521*
3/4"	E	*51522*

90° FEMALE ELBOW – C X F

DIAMETER		PART
1/2"	E	*51523*
3/4"	E	*51524*
1"	E	*51525*
1-1/4" x 1-1/4"	A	*51526*
1-1/2" x 1-1/2"	A	*51527*
2"	A	*51528*
1/2" x 3/4"	E	*51529*
3/4" x 1/2"	E	*51530*

90° DROP EAR ELBOW – C X F

DIAMETER		PART
1/2"	I	*51531*
3/4"	E	*51532*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

90° MALE ELBOW – C X M

DIAMETER		PART
1/2"	I	*51533*
3/4"	E	*51534*
1"	E	*51535*
1-1/4" x 1-1/4"	A	*51536*
1-1/2" x 1-1/2"	A	*51537*
2"	A	*51538*
1/2" x 3/4"	E	*51539*
3/4" x 1/2"	E	*51540*

FEMALE TEE FITTINGS – C X C X F

DIAMETER		PART
1/2" x 1/2" x 1/2"	E	*51541*
3/4" x 3/4" x 1/2"	E	*51542*
1" x 1" x 3/4"	E	*51543*
1" x 1" x 1/2"	B	*51544*
1-1/4" x 1-1/4" x 3/4"	A	*51545*
1-1/4" x 1-1/4" x 1/2"	A	*51546*
1-1/2" x 1-1/2" x 3/4"	A	*51547*
1-1/2" x 1-1/2" x 1/2"	A	*51548*
2" x 2" x 1/2"	A	*51549*
2" x 2" x 3/4"	A	*51550*
2-1/2" x 2-1/2" x 2"	A	*51551*
2-1/2" x 2-1/2" x 3/4"	A	*51552*
3" x 3" x 3/4"	A	*51553*
3" x 3" x 2"	A	*51554*
4" x 4" x 3/4"	A	*51555*
4" x 4" x 2"	A	*51556*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

UNION – C X C

DIAMETER		PART
1/2"	E	*51557*
3/4"	E	*51558*
1"	E	*51559*
1-1/4"	A	*51560*
1-1/2"	A	*51561*
2"	A	*51562*

FEMALE UNION – C X F

DIAMETER		PART
1/2"	E	*51563*
3/4"	E	*51564*
1"	E	*51565*
1-1/4"	A	*51566*
1-1/2"	A	*51567*
2"	A	*51568*

MALE UNION – C X M

DIAMETER		PART
1/2"	E	*51569*
3/4"	E	*51570*
1"	E	*51571*
1-1/4"	A	*51572*
1-1/2"	A	*51573*
2"	A	*51574*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

125 CLASS COMPANION FLANGE

DIAMETER		PART
2"	A	*51575*
2-1/2"	A	*51576*
3"	A	*51577*
4"	A	*51578*

TEE FITTINGS – C X C X C

DIAMETER		PART
3/4" x 3/4" x 1/2"	A	*51579*
1" x 1" x 1/2"	A	*51580*
1" x 1" x 3/4"	A	*51581*
1-1/4" x 1-1/4" x 1/2"	A	*51582*
1-1/4" x 1-1/4" x 3/4"	A	*51583*
1-1/4" x 1-1/4" x 1"	A	*51584*
1-1/2" x 1-1/2" x 3/4"	A	*51585*
1-1/2" x 1-1/2" x 1"	A	*51586*
2" x 2" x 3/4"	A	*51587*
2" x 2" x 1"	A	*51588*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

PRESS FITTINGS - COPPER/PRESS-FIT (Cont'd.)

O-RING REPLACEMENT PACKS

DIAMETER	PACKAGE QTY.		PART
1/2"	*15/Bag*	K	*51589*
3/4"	*15/Bag*	K	*51590*
1"	*10/Bag*	I	*51591*
1-1/4"	*10/Bag*	I	*51592*
1-1/2"	*10/Bag*	I	*51593*
2"	*5/Bag*	E	*51594*
2-1/2"	*5/Bag*	E	*51595*
3"	*5/Bag*	E	*51596*
4"	*5/Bag*	E	*51597*

INSERTION DEPTH GAUGE

		PART
–	A	*51598*

DEBURRING TOOL

		PART
–	A	*51599*

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

REMS AKKU-PRESS BASIC PACK

- Cordless radial press with automatic circuit control
- For producing pipe pressing joints for all common press fitting systems
- Pressing joints Ø 3/8"- 4" / 10–108 mm
- Secure crimping in seconds
- Optimum weight distribution for single-hand operation
- Automatic locking of pressing tongs
- Universal
- Handy
- Rechargeable battery pack (included)

DESCRIPTION		PART
Electric Pressing Tool	A	9-571011
Battery Pack "Rechargeable"	A	9-571510

PRESSING TONGS

- Forged and specially hardened, high-strength steel
- High compression pressing tongs
- Pressing forces of up to 100 kN (10 t)
- Specific pressing contour is precisely machined
- Manufacturing process guarantees that the machined pressing contour will be transferred correctly to the pressing joint with a long service life
- Machined to the highest quality standards
- Perfect system-conformity
- Secure pressing joints

DESCRIPTION		PART
1/2" Pressing Tong	A	9-571770
3/4" Pressing Tong	A	9-571775
1" Pressing Tong	A	9-571780
1-1/4" Pressing Tong	A	9-571785
1-1/2" Pressing Tong	A	9-571790
2" Pressing Tong	A	9-571795

XL PRESS TONGS KIT

XL Ring Kit with:
- 2-1/2", 3", 4" Crimp Rings
- Ring Actuator
- Carrying Case

DESCRIPTION		PART
XL Press Tongs Kit	A	9-R93667

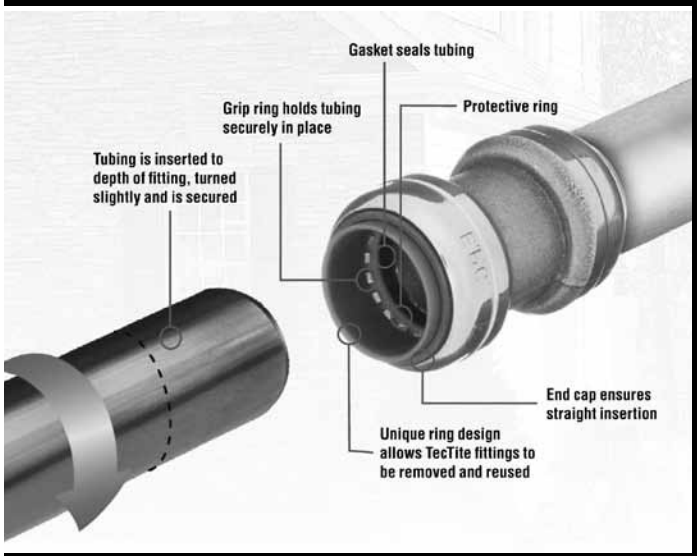
REMOVABLE FITTINGS - COPPER/PUSH-IN

Features

- For ½" to 1" diameter potable water systems
- Heat free method for joining Copper, CPVC and PEX tube
- The fittings simply push together in seconds to create a perfect joint; they are designed to save time and money on installations
- No torches and no solder are required
- Requires no extra materials beyond the fitting for Copper and CPVC tube installations
- For PEX tube installations, the use of the included tube liner is required
- The use of solder, flux, heat or special pressing tools is eliminated

Benefits

- Push fit
- Tool free
- Ideal for service and repair
- Demounting sleeve acts as a guide assuring straight insertion
- True "O-ring" design for leak free seals
- Pre-lubed for quick installation
- Approved for underground installations



Typical Fluid Applications

- Potable water
- Potable water system flushing chemicals
- Chilled water with corrosion inhibitors
- Hydronic heating
- Rainwater/greywater

Material Compatibility

- Push fittings are designed to operate at temperatures from 0° to 250°F and a maximum working pressure of 200 psi.
- Designed for use with ASTM B88 hard drawn and annealed Copper tube, type K, L, or M, in the ½" to 1" size range.
- For CPVC tube per ASTM D2846/2846M and PEX tube per ASTM F876/F877.

REMOVABLE FITTINGS - COPPER/PUSH-IN

COUPLING WITH STOP – C X C

17052

DIAMETER		PART
1/2"	B	51600
3/4"	B	51601
1"	B	51602
1-1/4"	A	***51603***
1-1/2"	A	***51604***
2"	A	***51605***

REDUCER COUPLING – C X C

17052

DIAMETER 1	DIAMETER 2		PART
3/4"	1/2"	B	51606
1"	***3/4"***	E	***51607***

FEMALE ADADPTER – C X F

17052

DIAMETER		PART
1/2"	B	51608
3/4"	B	51609
1"	B	51610
1-1/4"	A	***51611***
1-1/2"	A	***51612***
2"	A	***51613***

MALE ADAPTER – C X M

17052

DIAMETER		PART
1/2"	B	51614
3/4"	B	51615
1"	B	51616
1 x 3/4"	E	***51617***
1-1/4"	A	***51618***
1-1/2"	A	***51619***
2"	A	***51620***

45° ELBOW – C X C

DIAMETER		PART
1-1/4"	A	***51621***
1-1/2"	A	***51622***
2"	A	***51623***

45° STREET ELBOW – FTG X C

DIAMETER		PART
1-1/4"	A	***51624***
1-1/2"	A	***51625***
2"	A	***51626***

90° ELBOW – C X C

17052

DIAMETER		PART
1/2"	B	51627
3/4"	B	51628
3/4" x 1/2"	E	***51629***
1"	B	51630
1-1/4"	A	***51631***
1-1/2"	A	***51632***
2"	A	***51633***

90° DROP EAR ELBOW – C X F

DIAMETER		PART
1/2"	E	***51634***

Part Numbers in bold italic are non-stock items.
Please allow 2-3 weeks for delivery.

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REMOVABLE FITTINGS - COPPER/PUSH-IN

TEE FITTING – C X C X C

17052

DIAMETER		PART
1/2"	B	51635
3/4"	B	51636
3/4" x 1/2" x 1/2"	E	***51637***
3/4" x 1/2" x 3/4"	E	***51638***
3/4" x 3/4" x 1/2"	B	51639
1"	A	51640
1" x 1" x 3/4"	A	***51641***
1-1/4"	A	***51642***
1-1/2"	A	***51643***
2"	A	***51644***

REDUCER TEE FITTING – C X C X C

DIAMETER		PART
1-1/4" x 1-1/4" x 1/2"	A	***51645***
1-1/4" x 1-1/4" x 3/4"	A	***51646***
1-1/4" x 1-1/4" x 1"	A	***51647***
1-1/2" x 1-1/2" x 3/4"	A	***51648***
1-1/2" x 1-1/2" x 1"	A	***51649***
1-1/2" x 1-1/2" x 1-1/4"	A	***51650***
2" x 2" x 1"	A	***51651***
2" x 2" x 1-1/4"	A	***51652***
2" x 2" x 1-1/2"	A	***51653***

TUBE CAP – C

17052

DIAMETER		PART
1/2"	B	51654
3/4"	B	51655
1"	B	51656
1-1/4"	A	***51657***
1-1/2"	A	***51658***
2"	A	***51659***

DEMOUNTING CLIP

17052

DIAMETER		PART
1/2"	B	51660
3/4"	B	51661
1"	B	51662

SLIP COUPLING

17052

DIAMETER		PART
1/2"	B	51663
3/4"	B	51664
1"	A	***51665***

WATER HEATER HOSE

DIAMETER 1	DIAMETER 2		PART
1/2"	***3/4"***	A	***51666***
3/4"	***3/4"***	A	***51667***

REPAIR HOSE

DIAMETER 1	DIAMETER 2		PART
1/2"	***1/2"***	A	***51668***
3/4"	***3/4"***	A	***51669***

Part Numbers in bold italic are non-stock items. Please allow 2-3 weeks for delivery.

REMOVABLE FITTINGS - COPPER/PUSH-IN

BALL VALVES

17052

DIAMETER		PART
1/2"	A	51670
3/4"	A	51671
1"	A	***51672***

O-RING REPLACEMENT PACKS

DIAMETER		PART
1-1/4"	E	***51673***
1-1/2"	E	***51674***
2"	E	***51675***

PROTECTION RINGS

DIAMETER		PART
1-1/4"	E	***51676***
1-1/2"	E	***51677***
2"	E	***51678***

GRAB RINGS

DIAMETER		PART
1-1/4"	E	***51679***
1-1/2"	E	***51680***
2"	E	***51681***

DEMOUNT WRENCH

DESCRIPTION		PART
Wrench Tool	A	51682

RETAINING CAPS

DIAMETER		PART
1-1/4"	A	***51683***
1-1/2"	A	***51684***
2"	A	***51685***

DEMOUNT RING

DIAMETER		PART
1-1/4" to 2"	A	***51686***

PEX CONVERSION KITS

DIAMETER		PART
1-1/4"	A	***51688***
1-1/2"	A	***51689***
2"	A	***51690***

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Part Numbers in bold italic are non-stock items. Please allow 2-3 weeks for delivery.

PVC FITTINGS

SCHEDULE 40

Used in residential, commercial and irrigation systems where the temperature does not exceed 140°F including chemical processing, industrial plating, chilled water distribution, deionized water lines and chemical drainage. Meets ASTM D2466, material conforming to ASTM D1784 and meeting all class 12454-B.

MALE ADAPTER

SOCKET SIZE	MALE PIPE SIZE	PART	SOCKET SIZE	MALE PIPE SIZE	PART
1/2	1/2	R 57300	1-1/4	1-1/4	I 57303
3/4	3/4	R 57301	1-1/2	1-1/2	I 57304
1"	1"	N 57302	2"	2"	I 57305

FEMALE ADAPTER

SOCKET SIZE	FEMALE PIPE SIZE	PART	SOCKET SIZE	FEMALE PIPE SIZE	PART
1/2	1/2	N 57322	1-1/4	1-1/4	I 57325
3/4	3/4	N 57323	1-1/2	1-1/2	I 57326
1"	1"	N 57324	2"	2"	I 57327

PLUG

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	I 57334	1-1/4	I 57337
3/4	I 57335	1-1/2	E 57338
1"	I 57336	2"	E 57339

COUPLING

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	N 57340	1-1/4	I 57343
3/4	N 57341	1-1/2	I 57344
1"	N 57342	2"	I 57345

BUSHING REDUCER

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2 x 3/8	N 57306	1-1/2 x 3/4	I 57314
3/4 x 1/2	N 57307	1-1/2 x 1"	I 57315
1" x 1/2	N 57308	1-1/2 x 1-1/4	I 57316
1" x 3/4	N 57309	2" x 1/2	I 57317
1-1/4 x 1/2	I 57310	2" x 3/4	I 57318
1-1/4 x 3/4	I 57311	2" x 1"	I 57319
1-1/4 x 1"	I 57312	2" x 1-1/4	I 57320
1-1/2 x 1/2	I 57313	2" x 1-1/2	I 57321

CAP

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	N 57328	1-1/4	I 57331
3/4	N 57329	1-1/2	I 57332
1"	N 57330	2"	I 57333

TEE

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	N 57364	1-1/4 x 1-1/4 x 1/2	I 57381
3/4	N 57365	1-1/4 x 1-1/4 x 3/4	I 57382
1"	I 57366	1-1/4 x 1-1/4 x 1"	I 57383
1-1/4	I 57367	1-1/2 x 1-1/4 x 3/4	E 57384
1-1/2	I 57368	1-1/2 x 1-1/4 x 1"	E 57385
2"	E 57369	1-1/2 x 1-1/2 x 1/2	E 57386
1/2 x 1/2 x 3/4	I 57370	1-1/2 x 1-1/2 x 3/4	E 57387
3/4 x 1/2 x 1/2	I 57371	1-1/2 x 1-1/2 x 1"	E 57388
3/4 x 1/2 x 3/4	I 57372	1-1/2 x 1-1/2 x 1-1/4	E 57389
3/4 x 3/4 x 1/2	I 57373	1-1/2 x 1-1/2 x 2"	B 57390
3/4 x 3/4 x 1"	I 57374	2" x 1-1/2 x 1-1/2	B 57391
1" x 3/4 x 1/2	I 57375	2" x 2" x 1/2	E 57392
1" x 3/4 x 3/4	I 57376	2" x 2" x 3/4	E 57393
1" x 1" x 1/2	I 57377	2" x 2" x 1"	E 57394
1" x 1" x 3/4	I 57378	2" x 2" x 1-1/4	E 57395
1" x 1" x 1-1/2	E 57379	2" x 2" x 1-1/2	E 57396
1-1/4 x 1" x 3/4	E 57380	–	–

NOTE: All non-stock items – please allow 2-3 weeks delivery.

PVC FITTINGS (Cont'd.)

45 DEGREE ELBOW

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	N	57346	1-1/4	I	57349
3/4	I	57347	1-1/2	E	57350
1"	I	57348	2"	E	57351

90 DEGREE ELBOW

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	N	57352	1-1/4	I	57355
3/4	N	57353	1-1/2	I	57356
1"	N	57354	2"	E	57357

90 DEGREE ST ELBOW

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	I	57358	1-1/4	E	57361
3/4	I	57359	1-1/2	E	57362
1"	E	57360	2"	B	57363

CROSS

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	I	57397	1-1/4	E	57400
3/4	E	57398	1-1/2	B	57401
1"	E	57399	2"	B	57402

SCHEDULE 80

Used in industrial systems where the temperature does not exceed 140°F. Meets ASTM D2467 and ASTM D2464. Dimensional requirements of ASTM D1785 and all class 12454-B as specified in ASTM D1784.

BUSHING REDUCER

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2 x 1/4	E	57409	1-1/2 x 3/4	B	57417
3/4 x 1/2	E	57410	1-1/2 x 1"	B	57418
1" x 1/2	E	57411	1-1/2 x 1-1/4	B	57419
1" x 3/4	E	57412	2" x 1/2	A	57420
1-1/4 x 1/2	B	57413	2" x 3/4	A	57421
1-1/4 x 3/4	B	57414	2" x 1"	A	57422
1-1/4 x 1"	B	57415	2" x 1-1/4	A	57423
1-1/2 x 1/2	B	57416	2" x 1-1/2	A	57424

MALE ADAPTER

SOCKET SIZE	MALE PIPE SIZE		PART	SOCKET SIZE	MALE PIPE SIZE		PART
1/2	1/2	B	57403	1-1/4	1-1/4	B	57406
3/4	3/4	B	57404	1-1/2	1-1/2	B	57407
1"	1"	B	57405	2"	2"	B	57408

FLANGE

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	B	57463	1-1/4	B	57466
3/4	B	57464	1-1/2	B	57467
1"	B	57465	2"	A	57468

NOTE: All non-stock items – please allow 2-3 weeks delivery.

PVC FITTINGS (Cont'd.)

CAP

SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	B	57425	1-1/4	B	57429
1/2	B	57426	1-1/2	B	57430
3/4	B	57427	2"	A	57431
1"	B	57428	–		–

COUPLING

SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	B	57432	1-1/4	B	57436
1/2	B	57433	1-1/2	B	57437
3/4	B	57434	2"	B	57438
1"	B	57435	–		–

REDUCER COUPLING

SOCKET SIZE		PART	SOCKET SIZE		PART
3/4 x 1/2	B	57439	1-1/2 x 3/4	A	57444
1" x 1/2	B	57440	1-1/2 x 1"	A	57445
1" x 3/4	B	57441	1-1/2 x 1-1/4	A	57446
1-1/4 x 3/4	A	57442	2" x 1"	A	57447
1-1/4 x 1"	A	57443	2" x 1-1/2	A	57448

45 DEGREE ELBOW

SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	B	57449	1-1/4	A	57453
1/2	B	57450	1-1/2	A	57454
3/4	B	57451	2"	A	57455
1"	B	57452	–		–

90 DEGREE ELBOW

SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	E	57456	1-1/4	B	57460
1/2	E	57457	1-1/2	B	57461
3/4	E	57458	2"	B	57462
1"	B	57459	–		–

UNION WITH O-RING SEAL

SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	A	57485	1-1/4	A	57489
1/2	A	57486	1-1/2	A	57490
3/4	A	57487	2"	A	57491
1"	A	57488	–		–

TEE

SOCKET SIZE		PART	SOCKET SIZE		PART	SOCKET SIZE		PART	SOCKET SIZE		PART
1/4	B	57469	1-1/4	A	57473	1" x 1" x 1/2	B	57477	2" x 2" x 1/2	A	57481
1/2	B	57470	1-1/2	A	57474	1" x 1" x 3/4	B	57478	2" x 2" x 3/4	A	57482
3/4	B	57471	2"	A	57475	1-1/2 x 1-1/2 x 3/4	A	57479	2" x 2" x 1"	A	57483
1"	B	57472	3/4 x 3/4 x 1/2	B	57476	1-1/2 x 1-1/2 x 1"	A	57480	2" x 2" x 1-1/2	A	57484

NOTE: All non-stock items – please allow 2-3 weeks delivery.

PVC FITTINGS (Cont'd.)

FEMALE ADAPTER

SOCKET SIZE	FEMALE PIPE SIZE		PART	SOCKET SIZE	FEMALE PIPE SIZE		PART
1/4	1/4	N	57492	1-1/4	1-1/4	I	57496
1/2	1/2	N	57493	1-1/2	1-1/2	I	57497
3/4	3/4	N	57494	2"	2"	I	57498
1"	1"		57495	–	–		–

THREADED CAP

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	B	57516	1-1/4	B	57520
1/2	B	57517	1-1/2	B	57521
3/4	B	57518	2"	A	57522
1"	B	57519	–		–

THREADED COUPLING

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	B	57523	1-1/4	B	57527
1/2	B	57524	1-1/2	A	57528
3/4	B	57525	2"	A	57529
1"	B	57526	–		–

THREADED 45 DEGREE ELBOW

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	B	57540	1-1/4	A	57544
1/2	B	57541	1-1/2	A	57545
3/4	B	57542	2"	A	57546
1"	B	57543	–		–

THREADED 90 DEGREE ELBOW

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	B	57547	1-1/4	B	57551
1/2	B	57548	1-1/2	A	57552
3/4	B	57549	2"	A	57553
1"	B	57550	–		–

THREADED FLANGE

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2	B	57554	1-1/4	B	57557
3/4	B	57555	1-1/2	B	57558
1"	B	57556	2"	A	57559

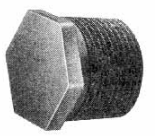
THREADED BUSHING REDUCER

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2 x 1/4	B	57499	1" x 3/4	B	57503	1-1/2 x 1/2	B	57507	2" x 1/2	A	57511
3/4 x 1/4	B	57500	1-1/4 x 1/2	B	57504	1-1/2 x 3/4	B	57508	2" x 3/4	A	57512
3/4 x 1/2	B	57501	1-1/4 x 3/4	B	57505	1-1/2 x 1"	B	57509	2" x 1"	A	57513
1" x 1/2	B	57502	1-1/4 x 1"	B	57506	1-1/2 x 1-1/4	B	57510	2" x 1-1/4	A	57514
–		–	–		–	–		–	2" x 1-1/2	A	57515

NOTE: All non-stock items – please allow 2-3 weeks delivery.

PVC FITTINGS (Cont'd.)

THREADED PLUG



PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	E	57560	1-1/4	B	57564
1/2	E	57561	1-1/2	B	57565
3/4	E	57562	2"	B	57566
1"	B	57563	–		–

THREADED TEE

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	B	57567	1-1/4	A	57571
1/2	B	57568	1-1/2	A	57572
3/4	B	57569	2"	A	57573
1"	A	57570	–		–

TRUE UNION BALL VALVE

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2	A	57581	1-1/4	A	57584
3/4	A	57582	1-1/2	A	57585
1"	A	57583	2"	A	57586

TRUE UNION BALL CHECK VALVE

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2	A	57587	1-1/4	A	57590
3/4	A	57588	1-1/2	A	57591
1"	A	57589	2"	A	57592

NIPPLE

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2 x close	I	57593	3/4 x 3-1/2	I	57609	1" x 6"	E	57624	1-1/2 x 4"	E	57640
1/2 x 1-1/2	I	57594	3/4 x 4"	I	57610	1-1/4 x close	E	57625	1-1/2 x 4-1/2	E	57641
1/2 x 2"	I	57595	3/4 x 4-1/2	I	57611	1-1/4 x 2-1/2	E	57627	1-1/2 x 5"	E	57642
1/2 x 2-1/2	I	57596	3/4 x 5"	I	57612	1-1/4 x 3"	E	57628	1-1/2 x 5-1/2	E	57643
1/2 x 3"	I	57597	3/4 x 5-1/2	I	57613	1-1/4 x 3-1/2	E	57629	1-1/2 x 6"	E	57644
1/2 x 3-1/2	I	57598	3/4 x 6"	I	57614	1-1/4 x 4"	E	57630	2" x close	E	57645
1/2 x 4"	I	57599	1" x close	I	57615	1-1/4 x 4-1/2	E	57631	2" x 2-1/2	E	57646
1/2 x 4-1/2	I	57600	1" x 2"	I	57616	1-1/4 x 5"	E	57632	2" x 3"	E	57647
1/2 x 5"	I	57601	1" x 2-1/2	I	57617	1-1/4 x 5-1/2	E	57633	2" x 3-1/2	E	57648
1/2 x 5-1/2	I	57602	1" x 3"	I	57618	1-1/4 x 6"	E	57634	2" x 4"	E	57649
1/2 x 6"	I	57603	1" x 3-1/2	I	57619	1-1/2 x close	E	57635	2" x 4-1/2	E	57650
3/4 x close	I	57604	1" x 4"	I	57620	1-1/2 x 2"	E	57636	2" x 5"	E	57651
3/4 x 2"		57606	1" x 4-1/2	I	57621	1-1/2 x 2-1/2"	E	57637	2" x 5-1/2	E	57652
3/4 x 2-1/2	I	57607	1" x 5"	I	57622	1-1/2 x 3"	E	57638	2" x 6"	E	57653
3/4 x 3"	I	57608	1" x 5-1/2	I	57623	1-1/2 x 3-1/2	E	57639	–		–

NOTE: All non-stock items – please allow 2-3 weeks delivery.

PVC FITTINGS (Cont'd.)

THREADED COUPLING REDUCER

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
3/4 x 1/2	B	57530	1-1/2 x 3/4	A	57535
1" x 1/2	B	57531	1-1/2 x 1"	A	57536
1" x 3/4	B	57532	1-1/2 x 1-1/4	A	57527
1-1/4 x 3/4	A	57533	2" x 1"	A	57538
1-1/4 x 1"	A	57534	2" x 1-1/2	A	57539

THREADED UNION WITH O-RING SEAL

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/4	A	57574	1-1/4"	A	57578
1/2	A	57575	1-1/2	A	57579
3/4	A	57576	2"	A	57580
1"	A	57577	–		–

CPVC FITTINGS

SCHEDULE 80

Used in industrial systems for hot corrosive liquids, hot and cold water distribution and similar applications above the temperature range of PVC. Has a designed stress of 2000 psi and maximum service temperature of 210°F. Conforming to ASTM D-1784 Class 23447-B.

FEMALE ADAPTER

SOCKET SIZE	FEMALE PIPE SIZE		PART	SOCKET SIZE	FEMALE PIPE SIZE		PART
1/2	1/2	B	57654	1-1/4	1-1/4	A	57657
3/4	3/4	B	57655	1-1/2	1-1/2	A	57658
1"	1"	A	57656	2"	2"	A	57659

MALE ADAPTER

SOCKET SIZE	MALE PIPE SIZE		PART	SOCKET SIZE	MALE PIPE SIZE		PART
1/2	1/2	B	57660	1-1/4	1-1/4	A	57663
3/4	3/4	B	57661	1-1/2	1-1/2	A	57664
1"	1"	A	57662	2"	2"	A	57665

BUSHING REDUCER

SOCKET SIZE		PART	SOCKET SIZE		PART	SOCKET SIZE		PART	SOCKET SIZE		PART
1/2 x 1/4	B	57666	1-1/4 x 1/2	A	57670	1-1/2 x 3/4	A	57674	2" x 3/4	A	57678
3/4 x 1/2	B	57667	1-1/4 x 3/4	A	57671	1-1/2 x 1"	A	57675	2" x 1"	A	57679
1" x 1/2	B	57668	1-1/4 x 1"	A	57672	1-1/2 x 1-1/4	A	57676	2" x 1-1/4	A	57680
1" x 3/4	B	57669	1-1/2 x 1/2	A	57673	2" x 1/2	A	57677	2" x 1-1/2	A	57681

NOTE: All non-stock items – please allow 2-3 weeks delivery.

CPVC FITTINGS (Cont'd.)

THREADED BUSHING REDUCER

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2 x 1/4	B	57682	1-1/4 x 1/2	A	57686	1-1/2 x 3/4	A	57690	2" x 3/4	A	57694
3/4 x 1/2	B	57683	1-1/4 x 3/4	A	57687	1-1/2 x 1"	A	57691	2" x 1"	A	57695
1" x 1/2	B	57684	1-1/4 x 1"	A	57688	1-1/2 x 1-1/4	A	57692	2" x 1-1/4	A	57696
1" x 3/4	B	57685	1-1/2 x 1/2	A	57689	2" x 1/2	A	57693	2" x 1-1/2	A	57697

CAP

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	B	57698	1-1/4	A	57701
3/4	B	57699	1-1/2	A	57702
1"	A	57700	2"	A	57703

THREADED CAP

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2	B	57704	1-1/4	A	57707
3/4	A	57705	1-1/2	A	57708
1"	A	57706	2"	A	57709

COUPLING

SOCKET SIZE		PART	SOCKET SIZE		PART
1/2	B	57710	1-1/4	A	57713
3/4	B	57711	1-1/2	A	57714
1"	B	57712	2"	A	57715

THREADED COUPLING

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
1/2	A	57726	1-1/4	A	57729
3/4	A	57727	1-1/2	A	57730
1"	A	57728	2"	A	57731

COUPLING REDUCER

SOCKET SIZE		PART	SOCKET SIZE		PART
3/4 x 1/2	A	57716	1-1/2 x 3/4	A	57721
1" x 1/2	A	57717	1-1/2 x 1"	A	57722
1" x 3/4	A	57718	1-1/2 x 1-1/4	A	57723
1-1/4 x 3/4	A	57719	2" x 1"	A	57724
1-1/4 x 1"	A	57720	2" x 1-1/2	A	57725

THREADED COUPLING REDUCER

PIPE THREAD SIZE		PART	PIPE THREAD SIZE		PART
3/4 x 1/2	A	57732	1-1/2 x 3/4	A	57737
1" x 1/2	A	57733	1-1/2 x 1"	A	57738
1" x 3/4	A	57734	1-1/2 x 1-1/4	A	57739
1-1/4 x 3/4	A	57735	2" x 1"	A	57740
1-1/4 x 1"	A	57736	2" x 1-1/2	A	57741

NOTE: All non-stock items – please allow 2-3 weeks delivery.

CPVC FITTINGS (Cont'd.)

TEE

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	B 57766	1-1/4	A 57769
3/4	B 57767	1-1/2	A 57770
1"	A 57768	2"	A 57771

THREADED TEE

PIPE THREAD SIZE	PART	PIPE THREAD SIZE	PART
1/2	A 57772	1-1/4	A 57775
3/4	A 57773	1-1/2	A 57776
1"	A 57774	2"	A 57777

45 DEGREE ELBOW

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	B 57742	1-1/4	A 57745
3/4	B 57743	1-1/2	A 57746
1"	B 57744	2"	A 57747

THREADED 45 DEGREE ELBOW

PIPE THREAD SIZE	PART	PIPE THREAD SIZE	PART
1/2	A 57748	1-1/4	A 57751
3/4	A 57749	1-1/2	A 57752
1"	A 57750	2"	A 57753

90 DEGREE ELBOW

SOCKET SIZE	PART	SOCKET SIZE	PART
1/2	B 57754	1-1/4	A 57757
3/4	B 57755	1-1/2	A 57758
1"	A 57756	2"	A 57759

THREADED 90 DEGREE ELBOW

PIPE THREAD SIZE	PART	PIPE THREAD SIZE	PART
1/2	B 57760	1-1/4	A 57763
3/4	B 57761	1-1/2	A 57764
1"	A 57762	2"	A 57765

NOTE: All non-stock items – please allow 2-3 weeks delivery.

STAINLESS STEEL 304 PIPE FITTINGS

CLASS 150 FOR SCHEDULE 40 PIPE

Type 304 stainless steel resists corrosion and heat. Rated for 150 lbs. operating pressure. Temperature range of -20°F to 350°F. Conforms to ANSI B16.3 and ANSI B1.20.1.

90° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	56535	1	B	56903
1/4	B	56536	1-1/4	A	56960
3/8	B	56900	1-1/2	A	56961
1/2	B	56901	2	A	56962
3/4	B	56902	–		–

45° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	56907	1	B	56908
1/4	B	56978	1-1/4	A	56982
3/8	B	56979	1-1/2	A	56983
1/2	B	56980	2	A	56984
3/4	B	56981	–		–

90° STREET ELBOW

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	57203	1	A	56917
1/4	B	56913	1-1/4	A	57204
3/8	B	56914	1-1/2	A	57205
1/2	B	56915	2	A	57206
3/4	B	56916	–		–

COUPLING

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56963	1	B	56964
1/4	E	56538	1-1/4	A	56965
3/8	E	56539	1-1/2	A	56966
1/2	B	56540	2	A	56967
3/4	B	56904	–		

HALF COUPLING

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56985	1	E	56988
1/4	E	56909	1-1/4	B	56989
3/8	E	56986	1-1/2	B	56911
1/2	E	56987	2	B	56990
3/4	E	56910	–		

TEE — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56923	1	A	56925
1/4	E	56924	1-1/4	A	57218
3/8	E	56562	1-1/2	A	57219
1/2	E	56563	2	A	57220
3/4	A	56564	–		

REDUCING COUPLING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4 x 1/8	B	56991	3/4 x 1/4	B	56994	1 x 3/4	B	56998
3/8 x 1/8	B	56912	3/4 x 3/8	B	56995	1-1/4 x 1	A	56999
3/8 x 1/4	B	56544	3/4 x 1/2	A	56545	1-1/2 x 1	A	57200
1/2 x 1/4	B	56992	1 x 3/8	B	56996	1-1/2 x 1-1/4	A	57201
1/2 x 3/8	B	56993	1 x 1/2	B	56997	2 x 1-1/2	A	57202

STAINLESS STEEL 304 PIPE FITTINGS (Cont'd.)

HEX BUSHING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4 x 1/8	E	56552	3/4 x 1/2	B	56557	1-1/4 x 1/2	A	57211
3/8 x 1/8	E	57207	1 x 1/4	B	56919	1-1/4 x 3/4	A	57212
3/8 x 1/4	E	56554	1 x 3/8	B	56920	1-1/4 x 1	A	57213
1/2 x 1/4	B	56555	1 x 1/2	B	56921	1-1/2 x 1	A	57214
1/2 x 3/8	B	56556	1 x 3/4	B	56922	1-1/2 x 1-1/4	A	57215
3/4 x 1/4	B	57208	1-1/4 x 1/4	A	57209	2 x 1	A	57216
3/4 x 3/8	B	56918	1-1/4 x 3/8	A	57210	2 x 1-1/2	A	57217

SQUARE HEAD PLUG

***CORED SIZES: 1/2" AND LARGER**

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56572	1	B	56577
1/4	E	56573	1-1/4	B	57224
3/8	E	56574	1-1/2	B	57225
1/2	B	56575	2	B	57226
3/4	B	56576	–		–

CAP

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56968	1	E	56970
1/4	E	56905	1-1/4	B	56971
3/8	E	57279	1-1/2	B	56972
1/2	E	56546	2	A	56973
3/4	E	56969	–		–

UNION

PIPE THREAD		PART	PIPE THREAD		PART
1/8	A	56906	1	A	56974
1/4	A	56547	1-1/4	A	56975
3/8	A	56548	1-1/2	A	56976
1/2	A	56549	2	A	56977
3/4	A	56550	–		–

HEX HEAD PLUG

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56568	1	B	56927
1/4	E	56569	1-1/4	B	57221
3/8	E	56570	1-1/2	B	57222
1/2	E	56571	2	A	57223
3/4	E	56926	–		–

STAINLESS STEEL 304 PIPE FITTINGS (Cont'd.)

CLOSE NIPPLE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	56929	3/4	E	56953
1/4	E	56935	1	B	56588
3/8	E	56587	1-1/4	B	57253
1/2	E	56950	1-1/2	A	57262
-		-	2	A	57270

WELDED NIPPLE

PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART
1/8	1-1/2	E	56930	3/8	5-1/2	B	57236	1	5	B	57250
1/8	2	E	56931	3/8	6	B	56949	1	5-1/2	B	57251
1/8	2-1/2	E	56932	1/2	1-1/2	E	56581	1	6	B	57252
1/8	3	E	57227	1/2	2	E	56582	1-1/4	2-1/2	B	57254
1/8	3-1/2	E	57228	1/2	2-1/2	B	56583	1-1/4	3	B	57255
1/8	4	E	57229	1/2	3	B	56584	1-1/4	3-1/2	B	57256
1/8	4-1/2	B	57230	1/2	3-1/2	B	56951	1-1/4	4	B	57257
1/8	5	B	57231	1/2	4	B	56952	1-1/4	4-1/2	A	57258
1/8	5-1/2	B	56933	1/2	4-1/2	B	57237	1-1/4	5	A	57259
1/8	6	B	56934	1/2	5	B	57238	1-1/4	5-1/2	A	57260
1/4	1-1/2	E	56936	1/2	5-1/2	B	57239	1-1/4	6	A	57261
1/4	2	E	56937	1/2	6	B	57240	1-1/2	2-1/2	A	57263
1/4	2-1/2	E	56938	3/4	2	B	56585	1-1/2	3	A	56958
1/4	3	E	56939	3/4	2-1/2	B	56586	1-1/2	3-1/2	A	57264
1/4	3-1/2	E	56940	3/4	3	B	56954	1-1/2	4	A	57265
1/4	4	E	56941	3/4	3-1/2	B	57241	1-1/2	4-1/2	A	57266
1/4	4-1/2	B	57232	3/4	4	B	56955	1-1/2	5	A	57267
1/4	5	B	56942	3/4	4-1/2	B	57242	1-1/2	5-1/2	A	57268
1/4	5-1/2	B	57233	3/4	5	B	57243	1-1/2	6	A	57269
1/4	6	B	56943	3/4	5-1/2	B	57244	2	2-1/2	A	57271
3/8	1-1/2	E	56580	3/4	6	B	57245	2	3	A	57272
3/8	2	E	56944	1	2	B	56956	2	3-1/2	A	57273
3/8	2-1/2	E	56945	1	2-1/2	B	57246	2	4	A	57274
3/8	3	E	56946	1	3	B	56957	2	4-1/2	A	57275
3/8	3-1/2	E	57234	1	3-1/2	B	57247	2	5	A	57276
3/8	4	B	56947	1	4	B	57248	2	5-1/2	A	57277
3/8	4-1/2	B	57235	1	4-1/2	B	57249	2	6	A	57278
3/8	5	B	56948								

STAINLESS STEEL 316 PIPE FITTINGS

CLASS 150 FOR SCHEDULE 40 PIPE

Type 316 stainless steel resists corrosion and heat. Rated for 150 lbs. operating pressure. Temperature range of -20°F to 350°F. Conforms to ANSI B16.3, ASTM A.351 and ASTM A-733-86.

90° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	57800	1	B	57805
1/4	B	57801	1-1/4	A	57806
3/8	B	57802	1-1/2	A	57807
1/2	B	57803	2	A	57808
3/4	B	57804	–		–

45° ELBOW — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	57836	1	B	57841
1/4	B	57837	1-1/4	A	57842
3/8	B	57838	1-1/2	A	57843
1/2	B	57839	2	A	57844
3/4	B	57840	–		–

90° STREET ELBOW

PIPE THREAD		PART	PIPE THREAD		PART
1/8	B	57869	1	A	57874
1/4	B	57870	1-1/4	A	57875
3/8	B	57871	1-1/2	A	57876
1/2	B	57872	2	A	57877
3/4	B	57873	–		–

COUPLING

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57809	1	B	57814
1/4	E	57810	1-1/4	A	57815
3/8	E	57811	1-1/2	A	57816
1/2	B	57812	2	A	57817
3/4	B	57813	–		

HALF COUPLING

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57845	1	E	57850
1/4	E	57846	1-1/4	B	57851
3/8	E	57847	1-1/2	B	57852
1/2	E	57848	2	B	57853
3/4	E	57849	–		

TEE — FEMALE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57899	1	A	57904
1/4	E	57900	1-1/4	A	57905
3/8	E	57901	1-1/2	A	57906
1/2	E	57902	2	A	57907
3/4	A	57903	–		

REDUCING COUPLING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4 x 1/8	B	57854	3/4 x 1/4	B	57859	1 x 3/4	B	57864
3/8 x 1/8	B	57855	3/4 x 3/8	B	57860	1-1/4 x 1	A	57865
3/8 x 1/4	B	57856	3/4 x 1/2	A	57861	1-1/2 x 1	A	57866
1/2 x 1/4	B	57857	1 x 3/8	B	57862	1-1/2 x 1-1/4	A	57867
1/2 x 3/8	B	57858	1 x 1/2	B	57863	2 x 1-1/2	A	57868

STAINLESS STEEL 316 PIPE FITTINGS (Cont'd.)

HEX BUSHING

PIPE THREAD		PART	PIPE THREAD		PART	PIPE THREAD		PART
1/4 x 1/8	E	57878	3/4 x 1/2	B	57885	1-1/4 x 1/2	A	57892
3/8 x 1/8	E	57879	1 x 1/4	B	57886	1-1/4 x 3/4	A	57893
3/8 x 1/4	E	57880	1 x 3/8	B	57887	1-1/4 x 1	A	57894
1/2 x 1/4	B	57881	1 x 1/2	B	57888	1-1/2 x 1	A	57895
1/2 x 3/8	B	57882	1 x 3/4	B	57889	1-1/2 x 1-1/4	A	57896
3/4 x 1/4	B	57883	1-1/4 x 1/4	A	57890	2 x 1	A	57897
3/4 x 3/8	B	57884	1-1/4 x 3/8	A	57891	2 x 1-1/2	A	57898

SQUARE HEAD PLUG

***CORED SIZES: 1/2" AND LARGER**

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57917	1	B	57922
1/4	E	57918	1-1/4	B	57923
3/8	E	57919	1-1/2	B	57924
1/2	B	57920	2	B	57925
3/4	B	57921	–		–

CAP

		PART			PART
1/8	E	57818	1	E	57823
1/4	E	57819	1-1/4	B	57824
3/8	E	57820	1-1/2	B	57825
1/2	E	57821	2	A	57826
3/4	E	57822	–		–

UNION

PIPE THREAD		PART	PIPE THREAD		PART
1/8	A	57827	1	A	57832
1/4	A	57828	1-1/4	A	57833
3/8	A	57829	1-1/2	A	57834
1/2	A	57830	2	A	57835
3/4	A	57831	–		–

HEX HEAD PLUG

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57908	1	B	57913
1/4	E	57909	1-1/4	B	57914
3/8	E	57910	1-1/2	B	57915
1/2	E	57911	2	A	57916
3/4	E	57912	–		–

STAINLESS STEEL 316 PIPE FITTINGS (Cont'd.)

CLOSE NIPPLE

PIPE THREAD		PART	PIPE THREAD		PART
1/8	E	57927	3/4	E	57971
1/4	E	57938	1	B	57981
3/8	E	57949	1-1/4	B	57991
1/2	E	57960	1-1/2	A	58500
-		-	2	A	58509

WELDED NIPPLE

PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART	PIPE THREAD	LENGTH		PART
1/8	1-1/2	E	57928	3/8	5-1/2	B	57958	1	5	B	57988
1/8	2	E	57929	3/8	6	B	57959	1	5-1/2	B	57989
1/8	2-1/2	E	57930	1/2	1-1/2	E	57961	1	6	B	57990
1/8	3	E	57931	1/2	2	E	57962	1-1/4	2-1/2	B	57992
1/8	3-1/2	E	57932	1/2	2-1/2	B	57963	1-1/4	3	B	57993
1/8	4	E	57933	1/2	3	B	57964	1-1/4	3-1/2	B	57994
1/8	4-1/2	B	57934	1/2	3-1/2	B	57965	1-1/4	4	B	57995
1/8	5	B	57935	1/2	4	B	57966	1-1/4	4-1/2	A	57996
1/8	5-1/2	B	57936	1/2	4-1/2	B	57967	1-1/4	5	A	57997
1/8	6	B	57937	1/2	5	B	57968	1-1/4	5-1/2	A	57998
1/4	1-1/2	E	57939	1/2	5-1/2	B	57969	1-1/4	6	A	57999
1/4	2	E	57940	1/2	6	B	57970	1-1/2	2-1/2	A	58501
1/4	2-1/2	E	57941	3/4	2	B	57972	1-1/2	3	A	58502
1/4	3	E	57942	3/4	2-1/2	B	57973	1-1/2	3-1/2	A	58503
1/4	3-1/2	E	57943	3/4	3	B	57974	1-1/2	4	A	58504
1/4	4	E	57944	3/4	3-1/2	B	57975	1-1/2	4-1/2	A	58505
1/4	4-1/2	B	57945	3/4	4	B	57976	1-1/2	5	A	58506
1/4	5	B	57946	3/4	4-1/2	B	57977	1-1/2	5-1/2	A	58507
1/4	5-1/2	B	57947	3/4	5	B	57978	1-1/2	6	A	58508
1/4	6	B	57948	3/4	5-1/2	B	57979	2	2-1/2	A	58510
3/8	1-1/2	E	57950	3/4	6	B	57980	2	3	A	58511
3/8	2	E	57951	1	2	B	57982	2	3-1/2	A	58512
3/8	2-1/2	E	57952	1	2-1/2	B	57983	2	4	A	58513
3/8	3	E	57953	1	3	B	57984	2	4-1/2	A	58514
3/8	3-1/2	E	57954	1	3-1/2	B	57985	2	5	A	58515
3/8	4	B	57955	1	4	B	57986	2	5-1/2	A	58516
3/8	4-1/2	B	57956	1	4-1/2	B	57987	2	6	A	58517
3/8	5	B	57957								

OIL PAN DRAIN PLUGS AND GASKETS

OIL PAN DRAIN PLUGS

STANDARD

- MADE OF STEEL
- GASKET INCLUDED

17947

THREAD SIZE		PART
1/2" diameter - 20 thread	I	54190
5/8" diameter - 18 thread	I	54191

STANDARD W/LONG TIP

- LONG TIP FOR EASIER INSTALLATION
- USED IN FORD & CHRYSLER VEHICLES WHERE LONG REACH PLUG IS NEEDED
- GASKET INCLUDED

17947

THREAD SIZE		PART
1/2" diameter - 20 thread	I	54192

OVERSIZED SELF-TAPPING

- USED TO REPLACE STANDARD STRIPPED PLUG OR WHERE STANDARD PLUG IS NOT AVAILABLE
- CASE HARDENED, PLATED
- EACH PLUG IS MARKED WITH SIZE
- GASKET INCLUDED

17947

THREAD SIZE		PART
1/2" diameter - 20 thread	I	54196
5/8" diameter - 18 thread	E	54193
11/16" diameter - 18 thread	E	54194
3/4" diameter - 16 thread	E	54195
7/8" diameter - 14 thread	B	54199

DOUBLE OVERSIZED

- USED TO REPLACE STRIPPED OUT SELF-TAPPING OVERSIZED PLUG
- CASE HARDENED, PLATED
- EACH PLUG IS MARKED WITH SIZE
- GASKET INCLUDED

17947

THREAD SIZE		PART
1/2" diameter - 20 thread	I	54197

TRIPLE OVERSIZED

- USED TO REPLACE STRIPPED OUT OVERSIZED PLUG OR SELF-TAPPING DOUBLE OVERSIZED PLUG
- CASE HARDENED, PLATED
- EACH PLUG IS MARKED WITH SIZE

17947

THREAD SIZE		PART
1/2" diameter - 20 thread	I	54198

OVERSIZED PIGGYBACK SELF-TAPPING

- NO NEED TO REMOVE ONCE INSTALLED
- FITS STRIPPED 1/2" THREADS IN OIL PAN
- FITS AM, GM, CHRYSLER AND FORD PRODUCTS THRU 1981 W/ 1/2" PAN PLUGS
- FIBER GASKET INCLUDED

17947

DESCRIPTION		PART
1/2-20 Single Oversized	B	54200
1/2-20 Double Oversized	B	54201

UNIVERSAL RUBBER DRAIN PLUGS

- FIXES STRIPPED THREADS IN OIL PANS
- EACH PLUG PACKAGED IN A PLASTIC BAG WITH INSERTING TOOL AND COMPLETE INSTRUCTIONS

17947

PLUG SIZE		PART	PLUG SIZE		PART
Fits 5/8" hole	I	54211	Fits 1/2" Double & Triple Oversize	I	54212

GASKETS

FIBER GASKETS FOR DRAIN PLUGS

17947

PLUG SIZE	FITS PART #		PART	PLUG SIZE	FITS PART #		PART
1/2 Standard	54190	N	54202	1/2 Oversized	54196	N	54206
5/8 Oversized	54193	N	54203	7/8 Oversized	54199	N	54207
11/16 Oversized	54194	N	54204	1/2 Standard (Long)	54192	N	54208
3/4 Oversized	54195	N	54205				

NYLON GASKETS

17947

PLUG SIZE	FITS PART#		PART
1/2 Standard	54190	R	54209
5/8 Standard	54191	R	54210
7/8 Standard	54199	N	54239

INSTANT FITTINGS – COMPOSITE

THE FASTEST CONNECTIONS FOR COMPRESSED AIR

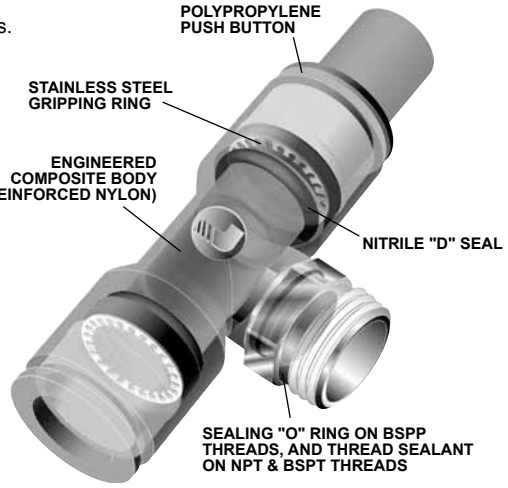
Instant pneumatic/compressed air connections. Automatic locking and sealing to maximum working pressure. Release collar for instant removal of tubing.

SPECIFICATIONS

PRESSURE: From 28" Hg to 290 psi
TEMPERATURE: -4ºF to +175ºF. See tubing pressure and temperature data for tubing limitations.
VIBRATION: Good resistance.
MATERIALS OF CONSTRUCTION:
Glass reinforced nylon 6.6 body, stainless steel gripping ring, nitrile D seal, nickel-plated brass base with thread sealant on tapered components and captive seal on parallel threads.
USE WITH: Polyethylene, nylon and polyurethane tubing.
ASSEMBLY INSTRUCTIONS: Simply push the tubing into the fitting until it bottoms out.
DIS-ASSEMBLY INSTRUCTIONS: Push in release collar. While pressing on collar, pull out tubing.

FOR INDUSTRIAL USE

- **Positive gripping action of gripping ring allows tubing to withstand vibration with or without pressure.**
- **Unrestricted ID allows maximum flow.**
- **Possible to use smaller tube size where larger tubing with compression or barb fitting has been required.**
- **Fully reuseable since there are no ferrules or inserts.**
- **Elbow and tee configurations are orientable.**
- **One-piece fitting means reduced assembly time and fewer parts in inventory.**
- **Tapered male pipe threads have pre-applied thread sealant.**



MALE RUN TEE

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	B	44642
1/8	1/8	B	44643
5/32	10-32 UNF	B	44644
5/32	1/8	B	44645
5/32	1/4	B	44646
3/16	1/8	B	44647
1/4	1/8	B	44648
1/4	1/4	B	44649
1/4	3/8	B	44650
5/16	1/8	B	44651
5/16	1/4	B	44652
5/16	3/8	B	44653
3/8	1/8	B	44654
3/8	1/4	B	44655
3/8	3/8	B	44656
3/8	1/2	A	44657
1/2	1/4	A	44658
1/2	3/8	A	44659
1/2	1/2	A	44660

MALE ELBOW

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	B	44603
1/8	1/8	E	44604
1/8	1/4	B	44605
5/32	10-32 UNF	B	44606
5/32	1/8	E	44607
5/32	1/4	B	44608
3/16	1/8	B	44609
1/4	10-32 UNF	B	44610
1/4	1/8	E	44611
1/4	1/4	E	44612
1/4	3/8	B	44613
5/16	1/8	B	44614
5/16	1/4	B	44615
5/16	3/8	B	44616
3/8	1/8	B	44617
3/8	1/4	B	44618
3/8	3/8	B	44619
3/8	1/2	B	44620
1/2	1/4	B	44621
1/2	3/8	B	44622
1/2	1/2	B	44623

MALE CONNECTOR

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	E	55303
1/8	1/16	E	55300
1/8	1/8	E	55301
1/8	1/4	E	55302
5/32	10-32 UNF	E	55304
5/32	1/8	E	44335
5/32	1/4	E	44336
1/4	10-32 UNF	E	55314
1/4	1/8	E	44300
1/4	1/4	E	44302
1/4	3/8	E	44304
3/16	1/8	B	44600
3/16	1/4	B	44601
5/16	1/8	E	55340
5/16	1/4	E	55341
5/16	3/8	B	44602
3/8	1/8	E	44305
3/8	1/4	E	44306
3/8	3/8	E	44308
3/8	1/2	E	44310
1/2	3/8	E	44312
1/2	1/4	E	44311
1/2	1/2	E	44314

INSTANT FITTINGS – COMPOSITE (Cont'd.)

BANJO ELBOW

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	B	***44624***
5/32	10-32 UNF	B	***44625***
5/32	1/8	A	***44626***
1/4	10-32 UNF	A	***44627***
1/4	1/8	A	44628
1/4	1/4	A	44629
1/4	3/8	A	***44630***
3/8	1/4	A	***44631***
3/8	3/8	A	***44632***

NOTE: *NUMBERS IN BOLD ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.*

MALE BRANCH TEE

TUBE SIZE	NPT PIPE THREAD		PART
1/8	10-32 UNF	B	44661
1/8	1/16	B	44662
1/8	1/8	B	44663
1/8	1/4	B	44664
5/32	10-32 UNF	B	44665
5/32	1/8	B	44666
5/32	1/4	B	44667
3/16	1/8	A	44668
1/4	1/8	B	44669
1/4	1/4	B	44670
1/4	3/8	B	44671
5/16	1/8	B	44672
5/16	1/4	B	44673
5/16	3/8	B	44674
3/8	1/8	B	44675
3/8	1/4	B	44676
3/8	3/8	B	44677
3/8	1/2	A	44678
1/2	1/4	A	44679
1/2	3/8	A	44680
1/2	1/2	A	44681

UNEQUAL TEE

TUBE SIZE 1	TUBE SIZE 2		PART
1/4	1/8	B	44721
3/8	1/4	B	44722
1/2	3/8	A	44723

FEMALE CONNECTOR

TUBE SIZE	NPT PIPE THREAD		PART
1/8	1/8	E	55335
1/8	1/4	B	***44691***
5/32	1/8	B	44692
5/32	1/4	B	***44693***
3/16	1/8	B	***44694***
3/16	1/4	A	***44695***
1/4	1/8	E	44360
1/4	1/4	E	44362
5/16	1/8	A	55336
5/16	1/4	A	55337
3/8	1/8	B	44696
3/8	1/4	B	44364
3/8	3/8	B	44366
1/2	3/8	B	44697
1/2	1/2	B	44698

UNION ELBOWS

TUBE SIZE		PART	TUBE SIZE		PART
1/8	E	44705	5/16	E	44709
5/32	E	44706	3/8	B	44710
3/16	B	44707	1/2	B	44711
1/4	E	44708	–		–

UNEQUAL ELBOW

TUBE SIZE 1	TUBE SIZE 2		PART
1/8	1/4	B	44712
3/8	1/4	B	44713

UNION

TUBE SIZE		PART	TUBE SIZE		PART
1/8	E	44724	5/16	E	44728
5/32	E	44884	3/8	B	44729
3/16	E	44726	1/2	B	44730
1/4	E	44727	–		–

FEMALE ELBOW

TUBE SIZE	NPT PIPE THREAD		PART
1/8	1/8	B	44633
5/32	1/8	B	44634
5/32	1/4	B	44635
1/4	1/8	B	44636
1/4	1/4	B	44637
5/16	1/8	B	44638
5/16	1/4	B	44639
3/8	1/4	B	44640
1/2	3/8	A	44641

FEMALE BRANCH TEE

TUBE SIZE	NPT PIPE THREAD		PART
1/8	1/8	B	44682
5/32	1/8	B	44683
5/32	1/4	B	44684
1/4	1/8	B	44685
1/4	1/4	B	44686
5/16	1/8	B	44687
5/16	1/4	B	44688
3/8	1/4	B	44689
1/2	3/8	A	44690

BULK HEAD UNION

TUBE SIZE		PART	TUBE SIZE		PART
1/8	B	44699	5/16	B	44702
5/32	B	44862	3/8	B	44703
1/4	B	44701	1/2	A	44704

UNION TEE

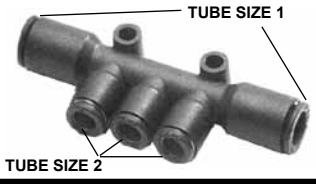
TUBE SIZE		PART	TUBE SIZE		PART
1/8	B	44714	5/16	B	44718
5/32	E	44715	3/8	B	44719
3/16	B	44716	1/2	A	44720
1/4	B	44717	–		–

INSTANT FITTINGS – COMPOSITE (Cont'd.)

45° MALE ELBOW

TUBE SIZE	NPT PIPE THREAD		PART
1/4	1/8	B	45033
1/4	1/4	B	45034
3/8	1/4	B	45035
3/8	3/8	B	45036

MULTI-TEE



TUBE SIZE 1	TUBE SIZE 2		PART
1/4	5/32	A	45042
1/4	1/4	A	45043

EXTENDED MALE ELBOW

TUBE SIZE	NPT PIPE THREAD		PART
1/4	1/8	B	45037
1/4	1/4	B	45038
3/8	1/4	B	45039
3/8	3/8	B	45040

REDUCER UNION

TUBE SIZE	TUBE SIZE		PART
1/8	1/4	E	44731
3/8	1/4	B	44732

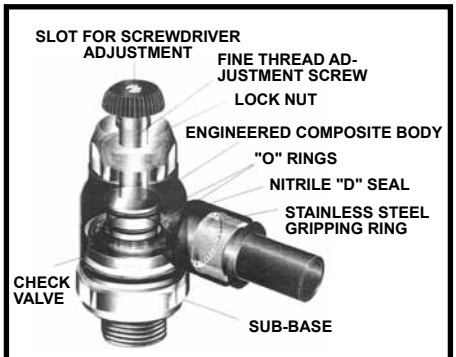
EQUAL CROSS

TUBE SIZE		
1/4	B	45041

PLUGS

TUBE SIZE		PART	TUBE SIZE		PART
5/32	B	44386	3/8	B	44388
1/4	B	44387	1/2	B	44389

FLOW CONTROLS



- PUSH-TO-CONNECT CONNECTION
- COMPACT SIZE COVERS A WIDE RANGE OF FLOW AND CYLINDER SIZE REQUIREMENTS
- LOCK NUT SECURES VALVE TO FINAL SETTING, ENSURING REPEATABILITY
- FINE THREAD FOR BETTER CONTROL ACROSS THE RANGE

KNOB / METER OUT

SIZE TUBE X NPT		PART	SIZE TUBE X NPT		PART
5/32 x 1/8	B	44899	1/4 x 1/4	A	44902
5/32 x 1/4	B	44900	3/8 x 1/4	A	44904
1/4 x 1/8	A	44901	3/8 x 3/8	A	44905

SCREW / METER OUT

SIZE TUBE X NPT		PART	SIZE TUBE X NPT		PART
5/32 x 1/8	A	***45000***	3/8 x 1/4	A	***45005***
1/4 x 1/8	A	***45002***	3/8 x 3/8	A	***45006***
1/4 x 1/4	A	***45003***	–		–

IN-LINE FLOW CONTROL

TUBE SIZE		PART	TUBE SIZE		PART
5/32	A	45028	3/8	A	45031
1/4	A	45029	1/2	A	45032
5/16	A	45030	–		–

MINI KNOB / METER OUT

SIZE TUBE X NPT		PART
1/8 x 10-32 UNF	A	45007
1/8 x 1/8 NPT	A	45008
5/32 x 10-32 UNF	A	45009
5/32 x 1/8 NPT	A	45010
1/4 x 10-32 UNF	A	45011
1/4 x 1/8 NPT	A	45012
1/4 x 1/4 NPT	A	45013

MINI SCREW / METER OUT

SIZE TUBE X NPT		PART
1/8 x 10-32 UNF	A	45014
1/8 x 1/8 NPT	A	45015
5/32 x 10-32 UNF	A	45016
5/32 x 1/8 NPT	A	45017
1/4 x 10-32 UNF	A	45018
1/4 x 1/8 NPT	A	45019
1/4 x 1/4 NPT	A	45020

NOTE: *NUMBERS IN BOLD ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.*

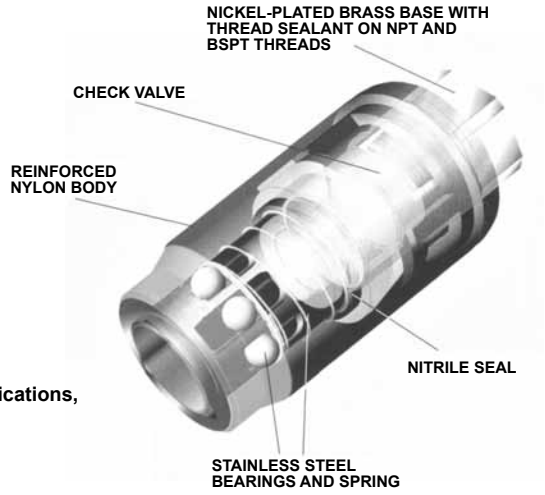
QUICK DISCONNECTS – COMPOSITE

INDUSTRIAL INTERCHANGE SAFETY COUPLER

Automatic safety coupler for pneumatic applications. Unique two turn release quickly vents down stream air pressure before disconnecting – preventing serious injuries associated with hose whip.

SPECIFICATIONS

PRESSURE: Up to 230 PSI
TEMPERATURE: -4ºF to +140ºF. See tubing pressure and temperature data for tubing limitations.
FLOW RATE: Industrial Interchange 47 scfm for 1/4" body 97 scfm for 3/8" body
MATERIALS OF CONSTRUCTION:
Glass reinforced nylon 6.6 body, stainless steel ball bearing and spring, nitril seal, reinforced polymer sleeve, nickel-plated brass, glass reinforced nylon 6.6 and nickel-plated brass with thread sealant on tapered components.
USE WITH: Industrial Interchange Plugs
CONNECTION INSTRUCTIONS: Simply push the plug into the coupler until it clicks. No rotation of the coupler is necessary.
DISCONNECTION INSTRUCTIONS:
2-Step Disconnection – The disconnection is made by the rotation of the body: a safety movement which avoids accidental disconnection.
Rotate the body first to vent downstream pressure.
1 Vents plug side – rotate coupler toward arrow #1 to vent downstream pressure – a safety movement which avoids accidental disconnection
2 Disconnects – rotate coupler toward arrow #2 to disconnect the plug



FOR INDUSTRIAL USE
- **Made from tough composite material which will stand up to the most abusive applications, yet is light weight**
- **Excellent flow characteristic**
- **Maintains excellent sealing characteristics, even after 2 million cycles**
- **Tough, impact resist material**
- **No problems that can occur with buttons or collars – 1, 2 disconnect**
- **Easy to use, lightweight materials and effortless connection**
- **Easy to handle with non-slip surface**
- **Easy to identify, clearly marked with profile design, part number and disconnection steps**

MALE STRAIGHT BODY

BODY SIZE	NPT PIPE THREAD	PART
1/4	1/4	B 44367
1/4	3/8	B 44368
3/8	3/8	B 44372

FEMALE STRAIGHT BODY

BODY SIZE	NPT PIPE THREAD	PART
1/4	1/4	B 44369
1/4	3/8	B 44370
3/8	3/8	B 44371

BARBED CONNECTOR BODY

BODY SIZE	NPT PIPE THREAD	PART
1/4	1/4	B 44373
1/4	3/8	B 44374
3/8	3/8	B 44375

INDUSTRIAL INTERCHANGE PLUGS

MALE STRAIGHT PLUG

BODY SIZE	NPT PIPE THREAD	PART
1/4	1/4	B 44376
1/4	3/8	B 44377
3/8	1/4	B 44378
3/8	3/8	B 44379

FEMALE STRAIGHT PLUG

BODY SIZE	NPT PIPE THREAD	PART
1/4	1/4	B 44380
1/4	3/8	B 44381
3/8	1/4	B 44382
3/8	3/8	B 44383

BARBED CONNECTOR PLUG

BODY SIZE	NPT PIPE THREAD	
1/4	1/4	B 44384
3/8	1/4	B 44385

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

Legris, inventors of the push-to-connect fitting, have earned a reputation as the leading specialist in push-to-connect fitting technology. Legris has employed over 30 years of experience in the research and development of the LF3600 range. LF3600 extends Legris 'know-how' from pneumatics to other industrial-applications.

The principle of the connection is the same. Instant manual connection and disconnection. No need for special tools.

Made of nickel-plated brass and fitted with a FKM "O" ring protected by a washer, LF3600 forged fittings may be used with all liquid and gaseous fluids compatible with these components, materials and temperatures up to 250°F (depending on the tube material).

Chemical Nickel-Plating: For applications where the fitting is exposed to aggressive environments, better plating is required. Legris uses high phosphorous electroless nickel-plating for the LF3600 fitting range.

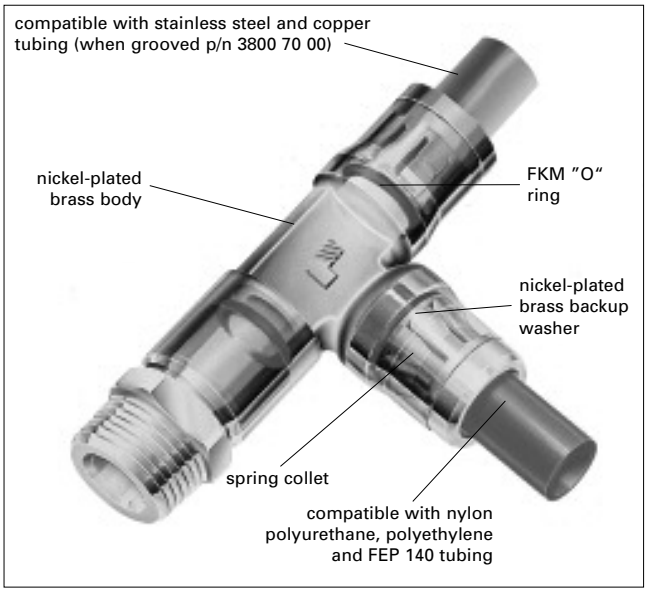
The electroless nickel-plating has a dull, flat finish. It adheres to more of the surface, such as in the root of the threads and grooves of the collet. It has better resistance to water, harsh detergents and other aggressive fluids and environments. As a result, the LF3600 series offers superior chemical, corrosion and abrasive resistance.

All materials, seals, and plating can come in contact with food.

For the quality and cleanliness of the LF3600 products, they are placed in sealed bags inside a Legris box.

technical specification

This depends on the nature and thickness of the tube, on surrounding temperature and that of the fluid used.



All items in the LF3600 range are SILICONE FREE

working temperature	from -4° to 250° F. The allowable working temperature depends on the type of tube used.						
working pressure	7 to 290 psi. The maximum pressure of the circuit depends on the type of tube used.						
suitable fluids	all liquids and gases compatible with the materials of the fitting. Examples: food fluids, cleaning/cold & hot water, steam, oils...						
materials of construction	**body:** high phosphorus FDA chemical nickel-plated brass **backup washer:** high phosphorus FDA chemical nickel-plated brass **spring collet:** high phosphorus FDA chemical nickel-plated brass **"O" ring:** FKM (FPM) fluoroelastomer conforming to FDA standard **base:** high phosphorus FDA chemical nickel-plated brass Thread sealant does not come on these products. This is so that the appropriate sealant for the application can be applied.						
maximum tightening torque for LF3600 fittings, BSPP threads and M5: (with 0602 sealing washer)	parallel thread	M5 x 0.8	G1/8"	G1/4"	G3/8"	G1/2"
	in. lb	14	70	100	266	300

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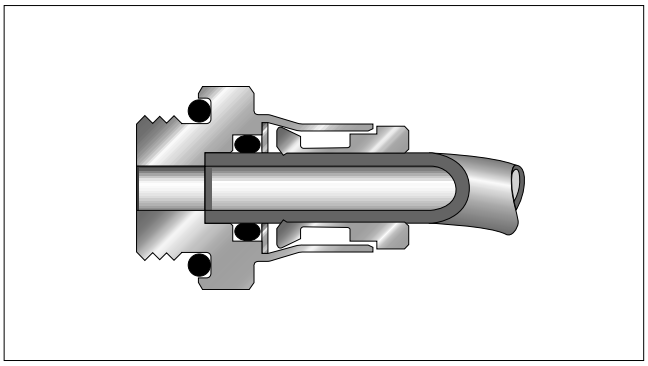
NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

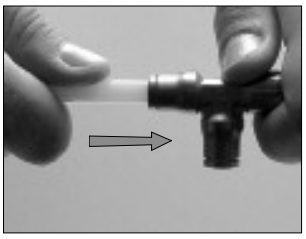
wide range

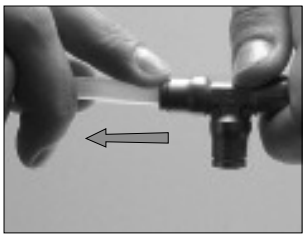
- multiple configurations and accessories
- from 5/32" to 1/2" O.D. and 4mm to 14 mm O.D.
- NPT, BSP taper, BSP parallel and metric threads
- ideal for many types of tubing
- inch to metric tube adapters



increased performance

- **excellent resistance to abrasion** and **corrosion** due to high phosphorus chemical nickel-plating individually deposited on brass components.
- working temperature from –4° to + 25°F due to **"all metal"** components (except o-ring)
- **full flow fluid passage**, minimal pressure drop
- **automatic sealing** of BSPP and metric versions via a captive seal at base
- backup washer protects the o-ring





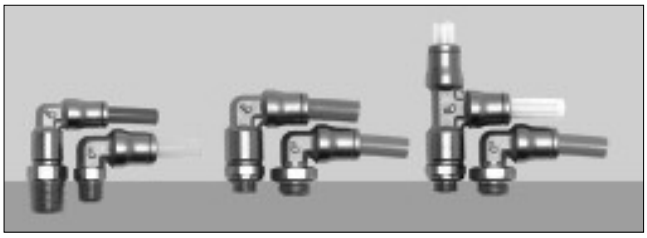
time saving connection and disconnection

- **instant manual connection** and **disconnection**
- **easy** installation

numerous applications

- suited to many **industries** including the **food industry** :

- numerous suitable fluids (food fluids, cleaning / hot and cold water, steam, oil...)
- components and chemical nickel coating conforming to FDA standard

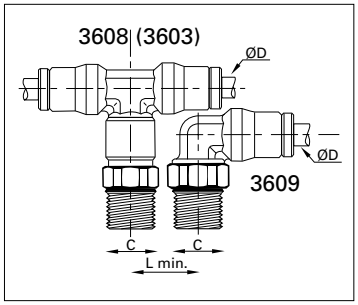


compactness and aesthetics

Each model has been redesigned to meet all requirements :

- compactness due to **small overall dimension**s with inter-connectability for configurations pictured above
- aesthetic with modernized external shapes

close spacing of LF3600 products

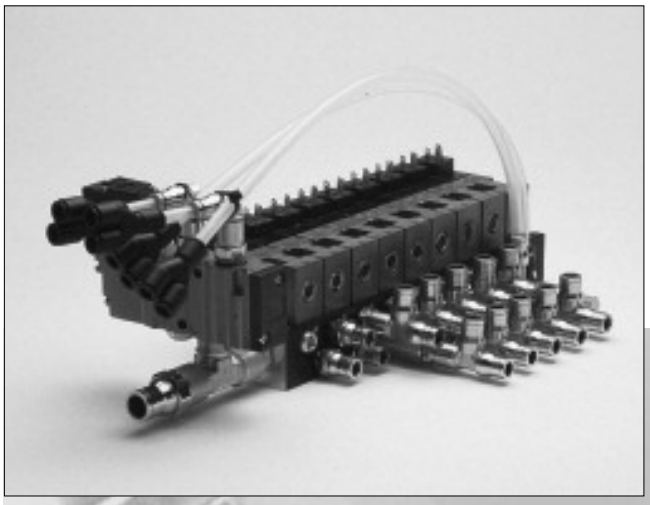


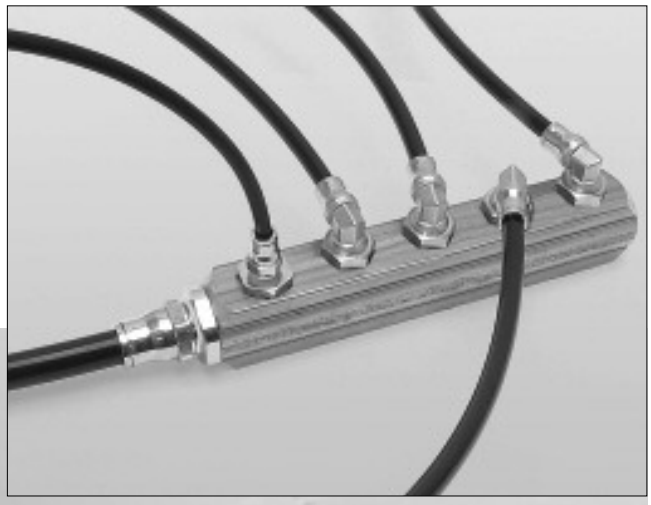
ØD in	C NPT	L min in
5/32	1/8	.57
5/32	1/4	.69
1/4	1/8	.63
1/4	1/4	.69
1/4	3/8	.79
3/8	1/4	.83
3/8	3/8	.89
3/8	1/2	1.00
1/2	3/8	.93
1/2	1/2	1.00

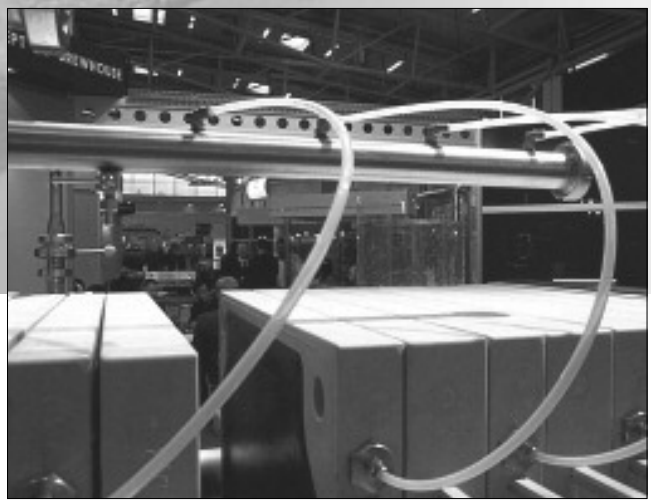
Our production process includes individual unit quality control and dating, for all LF 3600 push-to-connect fittings, in order to guarantee their quality and traceability.

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600







NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

threaded fittings

3675
taper
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3621
taper
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3601
UNF, parallel and metric
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3681
metric
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3614
parallel and metric
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3631
parallel and metric
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3609
taper
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3669
parallel
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3629
taper
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UNF, parallel and M5
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3600
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3608
taper
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3603
taper
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UNF, parallel and metric
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UNF, parallel and metric
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tube to tube fittings

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banjo body

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parallel and metric
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bulkhead connectors

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3636
parallel
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accessories

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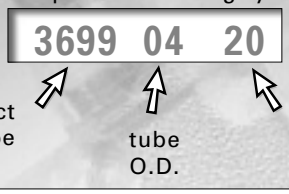
Identification
Part numbers have been chosen by a method of mnemonics.
Each LF3600 fitting is identified by:

- product type
- the outside diameter of the tube
- the thread code or second tube O.D.

Example of numbering system

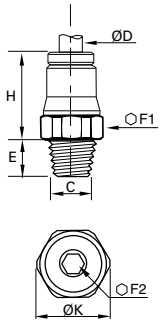


NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3675 male connector — fractional inch tube to NPT

nickel-plated brass

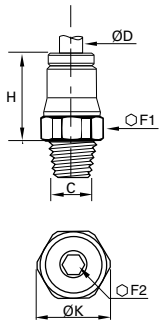


internal hexagon

ØD in	C NPT		E in	F1 mm	F2 mm	H in	K in	oz
5/32	1/8	3675 04 11	.30	11	3	.59	.47	.28
5/32	1/4	3675 04 14	.43	14	3	.59	.59	.56
1/4	1/8	3675 56 11	.30	13	4	.67	.55	.42
1/4	1/4	3675 56 14	.43	14	4	.67	.59	.60
1/4	3/8	3675 56 18	.45	18	5	.67	.77	.72
3/8	1/8	3675 60 11	.30	18	4	.97	.77	.99
3/8	1/4	3675 60 14	.43	18	7	.95	.77	1.13
3/8	3/8	3675 60 18	.45	18	8	.91	.77	1.16
3/8	1/2	3675 60 22	.59	22	8	.95	.94	1.90
1/2	3/8	3675 62 18	.45	22	9	.95	.94	1.52
1/2	1/2	3675 62 22	.59	22	10	.95	.94	1.87

3675 male connector — metric tube to BSPT

nickel-plated brass

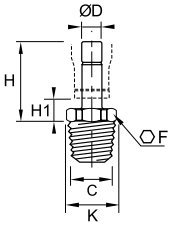


internal hexagon

ØD mm	C BSPT		F1 mm	F2 mm	H mm	K mm	kg
4	R1/8	3675 04 10	10	3	15	11	.008
4	R1/4	3675 04 13	14	3	15	15	.016
6	R1/8	3675 06 10	13	4	17	14	.012
6	R1/4	3675 06 13	14	4	17	15	.017
8	R1/8	3675 08 10	15	5	19	16	.016
8	R1/4	3675 08 13	15	6	18	16	.019
8	R3/8	3675 08 17	17	6	18.5	18.5	.028
10	R1/4	3675 10 13	18	7	23	19.5	.032
10	R3/8	3675 10 17	18	8	22.5	19.5	.033
10	R1/2	3675 10 21	22	8	22.5	24	.057
12	R1/4	3675 12 13	20	7	25.5	22	.040
12	R3/8	3675 12 17	20	9	24	22	.043
12	R1/2	3675 12 21	22	10	23	24	.053
14	R3/8	3675 14 17	22	9	27	24	.049
14	R1/2	3675 14 21	24	11	26	26	.061

3621 male stud standpipe — metric tube to BSPT

nickel-plated brass



ØD mm	C BSPT		F1 mm	H mm	H1 mm	K mm	kg
4	R1/8	3621 04 10	10	21	7	11	0.007
4	R1/4	3621 04 13	14	21	7	15	0.014
6	R1/8	3621 06 10	10	23.5	6.5	11	0.008
6	R1/4	3621 06 13	10	23.5	6.5	15	0.015
8	R1/8	3621 08 10	10	24	6.5	11	0.008
8	R1/4	3621 08 13	14	24	6.5	15	0.016
10	R1/4	3621 10 13	14	22	6.5	15	0.018
10	R3/8	3621 10 17	17	30	7.5	18.5	0.029
12	R3/8	3621 12 17	17	31	7.5	18.5	0.024
12	R1/2	3621 12 21	22	38	7.5	24	0.041
14	R1/2	3621 14 21	22	33	8	24	0.042

= suitable for food applications

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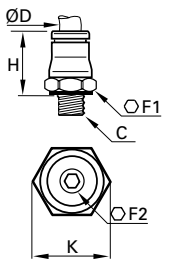
NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3601 male connector — tube to UNF, BSPP or metric

nickel-plated brass
with "O" ring seal

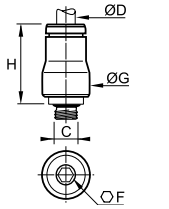


internal hexagon

ØD in	C UNF	fractional inch	F1 mm	F2 mm	H in	K in	oz
5/32	10-32	3601 04 20	10	2.5	.61	.43	.21
1/4	10-32	3601 56 20	13	2.5	.75	.55	.35
mm	**BSPP/metric**	**metric**	**mm**	**mm**	**mm**	**mm**	**kg**
4	M5x0.8	3601 04 19	10	2.5	15.5	11	.006
4	G1/8	3601 04 10	13	3	14.5	14	.010
4	M6x1	3601 04 52	10	3	16	11	.010
4	G1/4	3601 04 13	16	3	14.5	17.5	.018
4	M8x1	3601 04 56	11	3	14.5	12	.010
6	M5x0.8	3601 06 19	13	2.5	19	14	.010
6	G1/8	3601 06 10	13	4	17.5	14	.013
6	M10x1	3601 06 60	13	4	17.5	14	.013
6	G1/4	3601 06 13	16	4	17	17.5	.019
8	G1/8	3601 08 10	15	5	20	16	.016
8	G1/4	3601 08 13	16	6	18	17.5	.020
8	G3/8	3601 08 17	20	6	19	22	.029
10	G1/4	3601 10 13	18	7	25	19.5	.030
10	G3/8	3601 10 17	20	8	22.5	22	.033
10	G1/2	3601 10 21	24	8	22.5	26	.045
12	G1/4	3601 12 13	20	7	27	22	.040
12	G3/8	3601 12 17	20	9	26	22	.041
12	G1/2	3601 12 21	24	10	23.5	26	.052
14	G3/8	3601 14 17	22	9	28	24	.047
14	G1/2	3601 14 21	24	11	26.5	26	.052

3681 male connector — metric tube to M5

nickel-plated brass
with "O" ring seal



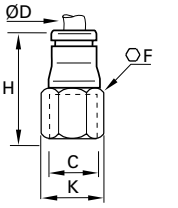
internal hexagon

ØD mm	C M5		F mm	G mm	H mm	kg
4	M5x0.8	3681 04 19	2.5	10	16	.005

= suitable for food applications

3614 female connector — metric tube to BSPP or M5

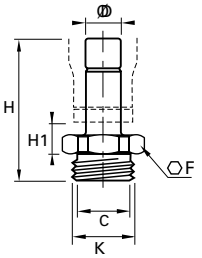
nickel-plated brass



ØD mm	C BSPP/metric		F mm	H mm	K mm	kg
4	M5x0.8	3614 04 19	10	22	11	.010
4	G1/8	3614 04 10	14	25	15	.017
4	G1/4	3614 04 13	17	29	18.5	.027
6	G1/8	3614 06 10	14	27.5	15	.018
6	G1/4	3614 06 13	17	31.5	18.5	.029
8	G1/8	3614 08 10	15	28.5	16	.023
8	G1/4	3614 08 13	17	32.5	18.5	.030
10	G3/8	3614 10 17	22	38	24	.056
12	G3/8	3614 12 17	22	39	24	.060
12	G1/2	3614 12 21	24	43.5	26	.068

3631 male standpipe — metric tube to BSPP or M5

nickel-plated brass
with 'O' ring seal



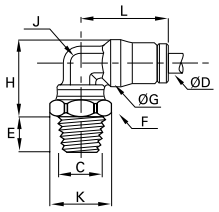
ØD mm	C BSPP/metric		F mm	H mm	H1 mm	K mm	kg
4	M5x0.8	3631 04 19	13	25.5	7	14	0.003
4	G1/8	3631 04 10	16	26.5	7	17.5	0.007
4	G1/4	3631 04 13	8	25	7.5	8.7	0.011
6	G1/8	3631 06 10	13	28	6.5	14	0.008
6	G1/4	3631 06 13	16	29	6.5	17.5	0.012
8	G1/8	3631 08 10	13	28.5	6.5	14	0.009
8	G1/4	3631 08 13	16	29.5	6.5	17.5	0.013
8	G3/8	3631 08 17	20	30.5	7.5	22	0.021
10	G1/4	3631 10 13	16	34.5	6.5	17.5	0.017
10	G3/8	3631 10 17	20	35.5	7.5	22	0.023
10	G1/2	3631 10 21	24	37	7.5	26	0.029
12	G3/8	3631 12 17	20	36.5	7.5	22	0.021
12	G1/2	3631 12 21	24	38	7.5	26	0.031
14	G1/2	3631 14 21	24	40	8	26	0.031

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3609 male elbow — fractional inch tube to NPT

nickel-plated brass

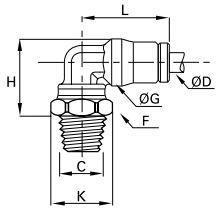


fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	1/8	3609 04 11	.30	11	.39	.59	.28	.47	.71	.56
5/32	1/4	3609 04 14	.43	14	.39	.67	.28	.60	.71	.81
1/4	1/8	3609 56 11	.30	11	.49	.69	.32	.47	.87	.92
1/4	1/4	3609 56 14	.43	14	.49	.75	.32	.60	.87	1.09
1/4	3/8	3609 56 18	.45	18	.49	.75	.32	.77	.87	1.20
3/8	1/4	3609 60 14	.43	15	.67	.93	.47	.63	1.14	2.40
3/8	3/8	3609 60 18	.45	18	.67	1.02	.47	.77	1.14	2.36
3/8	1/2	3609 60 22	.59	22	.67	1.06	.47	.94	1.14	2.54
1/2	3/8	3609 62 18	.45	18	.79	1.14	.59	.77	1.22	3.28
1/2	1/2	3609 62 22	.59	22	.79	1.14	.59	.94	1.22	3.49

3609 male elbow — metric tube to BSPT

nickel-plated brass

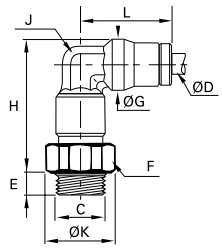


fitting will orientate about the body for positioning purposes

ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	kg
4	R1/8	3609 04 10	11	10	15	12	18	.016
4	R1/4	3609 04 13	14	10	17	15	18	.023
6	R1/8	3609 06 10	11	12	17.5	12	21.5	.026
6	R1/4	3609 06 13	14	12	19	15	21.5	.031
8	R1/8	3609 08 10	11	15	19.5	12	23.5	.040
8	R1/4	3609 08 13	14	15	21	15	23.5	.044
8	R3/8	3609 08 17	17	15	21	18.5	23.5	.048
10	R1/4	3609 10 13	15	17.5	23.5	16	29	.068
10	R3/8	3609 10 17	17	17.5	25.5	18.5	29	.067
12	R1/4	3609 12 13	15	19.5	26	16	31	.087
12	R3/8	3609 12 17	17	19.5	28.5	18.5	31	.093
12	R1/2	3609 12 21	21	19.5	28.5	23	31	.099
14	R3/8	3609 14 17	19	21.5	29	21	34	.066
14	R1/2	3609 14 21	24	21.5	30	26	34	.076

3669 extended male elbow — metric tube to BSPP or M5

nickel-plated brass with "O" ring seal

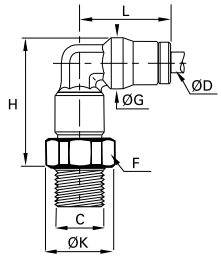


fitting will orientate about the body for positioning purposes

ØD mm	C BSPP/ M5		F mm	G mm	H mm	K mm	L mm	kg
4	M5x0.8	3669 04 19	10	10	27.5	11	18	0.015
4	G1/8	3669 04 10	13	10	25.5	14	18	0.017
6	G1/8	3669 06 10	13	12	31	14	18	0.023
6	G1/4	3669 06 13	16	12	30.5	17.5	21.5	0.028
8	G1/8	3669 08 10	14	15	33.5	15	23.5	0.031
8	G1/4	3669 08 13	16	15	34	17.5	23.5	0.036
10	G1/4	3669 10 13	18	17.5	42	19.5	29	0.053
10	G3/8	3669 10 17	20	17.5	41	22	29	0.056
12	G1/4	3669 12 13	20	19.5	47	22	31	0.075
12	G3/8	3669 12 17	20	19.5	46	22	31	0.072
14	G1/2	3669 14 21	24	21.5	49	26	34	0.094

3629 extended male elbow — metric tube to BSPT

nickel-plated brass



fitting will orientate about the body for positioning purposes

ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	kg
4	R1/8	3629 04 10	10	10	24.5	11	18	.016
6	R1/8	3629 06 10	13	12	29.5	14	21.5	.025
6	R1/4	3629 06 13	14	12	30.5	15	21.5	.031
8	R1/8	3629 08 10	14	15	32.5	15	23.5	.031
8	R1/4	3629 08 13	14	15	34	15	23.5	.036
10	R1/4	3629 10 13	18	17.5	39	19.5	29	.053

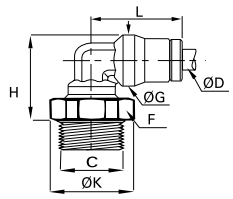
= suitable for food applications

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3699 male elbow — tube to UNF, BSPP or M5

nickel-plated brass with "O" ring seal

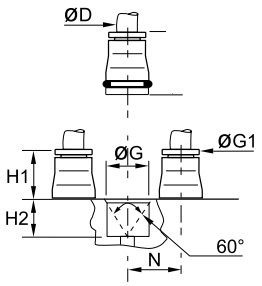


fitting will orientate about the body for positioning purposes

ØD in	C UNF	fractional inch	F mm	G in	H in	K in	L in	oz
5/32	10-32	3699 04 20	10	.39	.71	.43	.71	.49
mm	**BSPP/M5**	metric	mm	mm	mm	mm	mm	kg
4	M5	3699 04 19	10	10	18	11	18	.014
4	G1/8	3699 04 10	13	10	17	14	18	.018
4	M6	3699 04 52	10	10	18	11	18	.020
4	G1/4	3699 04 13	16	10	17.5	17.5	18	.023
4	M8	3699 04 56	11	10	18	12	18	.024
6	G1/8	3699 06 10	13	12	19	14	21.5	.026
6	M10	3699 06 60	13	12	19	14	21.5	.030
6	G1/4	3699 06 13	16	12	19.5	17.5	21.5	.032
8	G1/8	3699 08 10	13	15	20.5	14	23.5	.040
8	G1/4	3699 08 13	16	15	21.5	17.5	23.5	.044
8	G3/8	3699 08 17	20	15	21.5	22	23.5	.049
10	G1/4	3699 10 13	16	17.5	27	17.5	29	.067
10	G3/8	3699 10 17	20	17.5	25.5	22	29	.071
12	G1/4	3699 12 13	16	19.5	29.5	17.5	31	.087
12	G3/8	3699 12 17	20	19.5	28.5	22	31	.087
12	G1/2	3699 12 21	24	19.5	28.5	26	31	.107
14	G3/8	3699 14 17	20	21.5	29	22	34	.121
14	G1/2	3699 14 21	24	21.5	29.5	26	34	.124

3600 cartridge

nickel-plated brass



ØD mm		G mm	H1 mm	H2 mm	N mm	kg
4	3600 04 00	10	9	8.5	11	.006
6	3600 06 00	12	11	8.5	13.5	.009
8	3600 08 00	15	12.5	8.5	16	.014
10	3600 10 00	17.5	14.5	10.5	20	.020
12	3600 12 00	19.5	15	10.5	22.5	.022
14	3600 14 00	21.5	16.5	12	25	.032

The use of this cartridge
- avoids the need to cut threads
- permits the part to be press fitted
- enables instant tube connection and disconnection

Please contact us to discuss the choice of material into which the cartridge will be inserted.

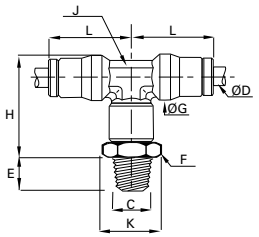
= suitable for food applications

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3608 male branch tee — fractional inch tube to NPT to tube

nickel-plated brass

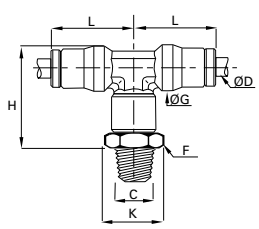


fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H in	J in	K in	L in	oz
5/32	1/8	3608 04 11	.30	11	.39	.87	.28	.47	.71	.71
5/32	1/4	3608 04 14	.43	14	.39	1.04	.28	.59	.71	.93
1/4	1/8	3608 56 11	.30	13	.49	1.18	.32	.55	.87	1.16
1/4	1/4	3608 56 14	.43	14	.49	1.22	.32	.59	.87	1.34
1/4	3/8	3608 56 18	.45	18	.49	1.22	.32	.77	.87	1.54
3/8	1/4	3608 60 14	.43	18	.67	1.54	.47	.77	1.14	2.89
3/8	3/8	3608 60 18	.45	18	.67	1.61	.47	.77	1.14	2.82
3/8	1/2	3608 60 22	.59	22	.67	1.61	.47	.94	1.14	3.10
1/2	3/8	3608 62 18	.45	22	.79	1.85	.59	.94	1.22	3.81
1/2	1/2	3608 62 22	.59	22	.79	1.89	.59	.94	1.22	4.41

3608 male branch tee — metric tube to BSPT to tube

nickel-plated brass

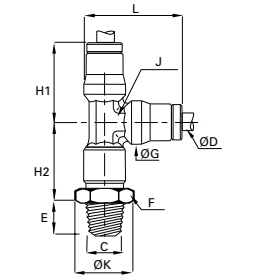


fitting will orientate about the body for positioning purposes

ØD mm	C BSPT		F mm	G mm	H mm	K mm	L mm	kg
4	R1/8	3608 04 10	10	10	24.5	11	18	.020
6	R1/8	3608 06 10	13	12	29.5	14	21.5	.033
6	R1/4	3608 06 13	14	12	30.5	15	21.5	.038
8	R1/8	3608 08 10	14	15	32.5	15	23.5	.049
8	R1/4	3608 08 13	14	15	34	15	23.5	.052
10	R1/4	3608 10 13	18	17.5	39	19.5	29	.082
10	R3/8	3608 10 17	18	17.5	41	19.5	29	.074
12	R3/8	3608 12 17	21	19.5	46.5	23	31	.108
14	R1/2	3608 14 21	22	21.5	50.5	24	34	.142

3603 male run tee — fractional inch tube to tube to NPT

nickel-plated brass

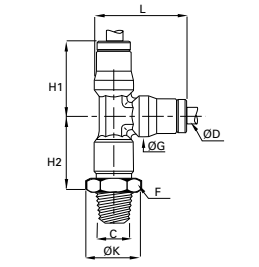


fitting will orientate about the body for positioning purposes

ØD in	C NPT		E in	F mm	G in	H1 in	H2 in	J in	K in	L in	oz
5/32	1/8	3603 04 11	.30	11	.39	.71	.77	.28	.47	.91	.71
5/32	1/4	3603 04 14	.43	14	.39	.71	.85	.28	.59	.91	.93
1/4	1/8	3603 56 11	.30	13	.49	.87	.93	.32	.55	1.12	1.16
1/4	1/4	3603 56 14	.43	14	.49	.87	.97	.32	.59	1.12	1.31
1/4	3/8	3603 56 18	.45	18	.49	.87	.97	.32	.77	1.12	1.54
3/8	1/4	3603 60 14	.43	18	.67	1.14	1.20	.47	.77	1.48	2.89
3/8	3/8	3603 60 18	.45	18	.67	1.14	1.28	.47	.77	1.48	2.82
3/8	1/2	3603 60 22	.59	22	.67	1.14	1.28	.47	.94	1.48	3.10
1/2	3/8	3603 62 18	.45	22	.79	1.22	1.46	.59	.94	1.61	4.02
1/2	1/2	3603 62 22	.59	22	.79	1.22	1.50	.59	.94	1.61	4.16

3603 male run tee — metric tube to tube to BSPT

nickel-plated brass



fitting will orientate about the body for positioning purposes

ØD mm	C BSPT		F mm	G mm	H1 mm	H2 mm	K mm	L mm	kg
4	R1/8	3603 04 10	10	10	18	19.5	11	23	.020
6	R1/8	3603 06 10	13	12	21.5	23.5	14	28	.033
6	R1/4	3603 06 13	14	12	21.5	24.5	15	28	.037
8	R1/8	3603 08 10	14	15	23.5	25	15	31	.048
8	R1/4	3603 08 13	14	15	23.5	26.5	15	31	.053
10	R1/4	3603 10 13	18	17.5	29	30.5	19.5	37.5	.082
10	R3/8	3603 10 17	18	17.5	29	32.5	19.5	37.5	.074
12	R3/8	3603 12 17	21	19.5	31	36.5	23	40.5	.114
14	R1/2	3603 14 21	22	21.5	34	40	24	45	.142

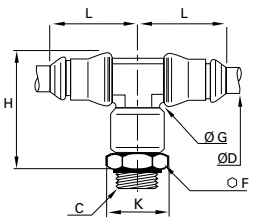
= suitable for food applications

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3698 male branch tee — tube to UNF, BSPP or M5 to tube

nickel-plated brass
with "O" ring seal

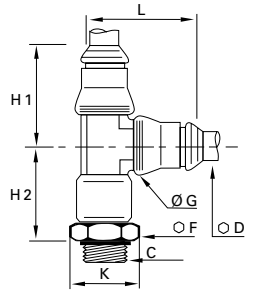


fitting will orientate about the body for positioning purposes

ØD in	C UNF	fractional inch	F mm	G in	H in	K in	L in	oz
5/32	10-32	3698 04 20	10	.39	1.00	.47	.71	.60
mm	**BSPP/M5**	**metric**	**mm**	**mm**	**mm**	**mm**	**mm**	**kg**
4	M5x0.8	3698 04 19	10	10	27.5	11	18	.017
4	G1/8	3698 04 10	13	10	25.5	14	18	.022
6	G1/8	3698 06 10	13	12	31	14	21.5	.032
6	G1/4	3698 06 13	16	12	30.5	17.5	21.5	.038
8	G1/8	3698 08 10	14	15	33.5	15	23.5	.049
8	G1/4	3698 08 13	16	15	34	17.5	23.5	.053
10	G1/4	3698 10 13	18	17.5	42	19.5	29	.081
12	G3/8	3698 12 17	21	19.5	46	23	31	.112
14	G1/2	3698 14 21	24	21.5	49	26	34	.109

3693 male run tee — tube to tube to UNF, BSPP or M5

nickel-plated brass
with "O" ring seal



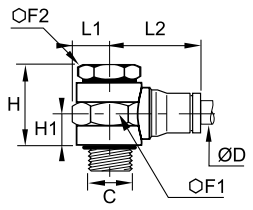
fitting will orientate about the body for positioning purposes

ØD in	C UNF	fractional inch	F mm	G in	H1 in	H2 in	K in	L in	oz
5/32	10-32	3693 04 20	10	.39	.71	.81	.47	.91	.64
mm	**BSPP/M5**	**metric**	**mm**	**mm**	**mm**	**mm**	**mm**	**mm**	**kg**
4	M5x0.8	3693 04 19	10	10	18	22.5	11	23	.018
4	G1/8	3693 04 10	13	10	18	20.5	14	23	.021
6	G1/8	3693 06 10	13	12	21.5	25	14	28	.032
6	G1/4	3693 06 13	16	12	21.5	24.5	17.5	28	.039
8	G1/8	3693 08 10	14	15	23.5	26.5	15	31	.048
8	G1/4	3693 08 13	16	15	23.5	26.5	17.5	31	.053
10	G1/4	3693 10 13	18	17.5	29	33	19.5	37.5	.081
12	G3/8	3693 12 17	21	19.5	31	36.5	23	40.5	.111
14	G1/2	3693 14 21	24	21.5	34	38.5	26	45	.129

= suitable for food applications

3618 single banjo — metric tube to BSPP or M5

nickel-plated brass
with sealing washer



maximum temperature: +175°F

ØD mm	C BSPP/ metric		F1 mm	F2 mm	H mm	H1 mm	L1 mm	L2 mm	kg
4	M5x0.8	3618 04 19	10	8	14.5	6.5	6	18.5	0.011
4	G1/8	3618 04 10	17	14	23	9.5	10	20.5	0.041
6	M5x0.8	3618 06 19	10	8	15	7	6	22.5	0.014
6	G1/8	3618 06 10	17	14	23	9.5	10	23.5	0.045
6	G1/4	3618 06 13	22	17	22	9	13	25.5	0.068
8	G1/8	3618 08 10	17	14	23	9.5	10	26	0.046
8	G1/4	3618 08 13	22	17	22	9	13	27.5	0.066
10	G3/8	3618 10 17	22	22	33	14	13	32	0.105

suitable for industrial applications only

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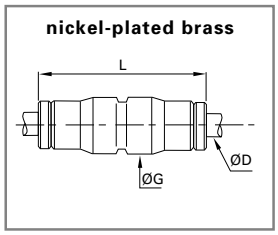
NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

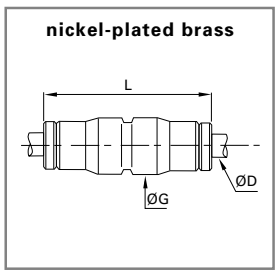
FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3606 straight union — fractional inch tube to tube



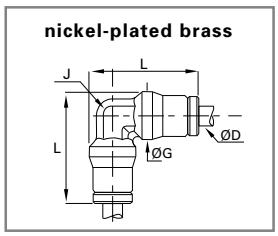
ØD in		G in	L in	oz
5/32	3606 04 00	.39	1.20	.32
1/4	3606 56 00	.49	1.44	.53
5/16	3606 08 00	.59	1.48	.81
3/8	3606 60 00	.67	1.87	1.27
1/2	3606 62 00	.79	1.89	1.69

3606 straight union — metric tube to tube



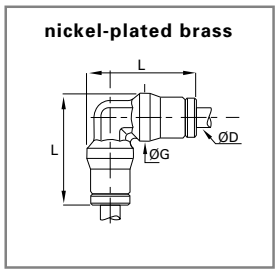
ØD mm		G mm	L mm	kg
4	3606 04 00	10	30.5	.009
6	3606 06 00	12	36.5	.015
8	3606 08 00	15	37.5	.023
10	3606 10 00	17.5	47.5	.036
12	3606 12 00	19.5	50	.048
14	3606 14 00	21.5	52.5	.054

3602 union elbow — fractional inch tube to tube



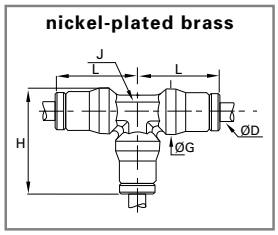
ØD in		G in	J in	L in	oz
5/32	3602 04 00	.39	.28	.91	.32
1/4	3602 56 00	.49	.32	1.12	.60
5/16	3602 08 00	.59	.39	1.22	.88
3/8	3602 60 00	.67	.47	1.48	1.34
1/2	3602 62 00	.79	.59	1.61	1.98

3602 union elbow — metric tube to tube



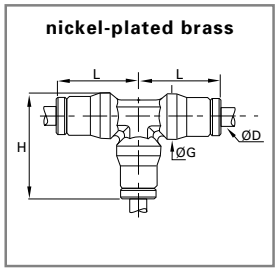
ØD mm		G mm	L mm	kg
4	3602 04 00	10	23	.009
6	3602 06 00	12	28	.017
8	3602 08 00	15	31	.025
10	3602 10 00	17.5	37.5	.038
12	3602 12 00	19.5	40.5	.056
14	3602 14 00	21.5	45	.068

3604 union tee — fractional inch tube to tube to tube



ØD in		G in	H in	J in	L in	oz
5/32	3604 04 00	.39	.91	.28	.71	.46
1/4	3604 56 00	.49	1.12	.32	.87	.81
5/16	3604 08 00	.59	1.22	.39	.93	1.20
3/8	3604 60 00	.67	1.48	.47	1.14	1.90
1/2	3604 62 00	.79	1.61	.59	1.22	2.68

3604 union tee — metric tube to tube to tube



ØD mm		G mm	H mm	L mm	kg
4	3604 04 00	10	23	18	.013
6	3604 06 00	12	28	21.5	.023
8	3604 08 00	15	31	23.5	.034
10	3604 10 00	17.5	37.5	29	.054
12	3604 12 00	19.5	40.5	31	.076
14	3604 14 00	21.5	45	34	.096

= suitable for food applications

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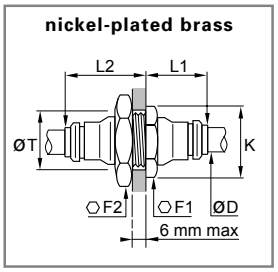
NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

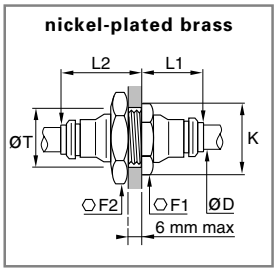
FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3616 bulkhead connector — fractional inch tube to tube



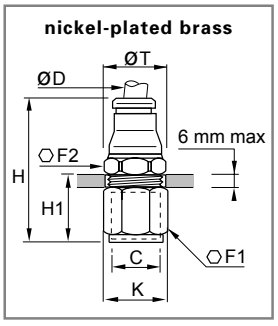
ØD in		F1 mm	F2 mm	K in	L1 in	L2 in	T in	oz
5/32	3616 04 00	13	14	.55	.55	.79	.49	.64
1/4	3616 56 00	16	17	.69	.67	.89	.59	1.06
5/16	3616 08 00	18	19	.77	.73	.93	.67	1.34
3/8	3616 60 00	22	27	.95	.87	1.10	.85	2.29
1/2	3616 62 00	24	24	1.16	.89	1.14	1.04	2.50

3616 bulkhead connector — metric tube to tube



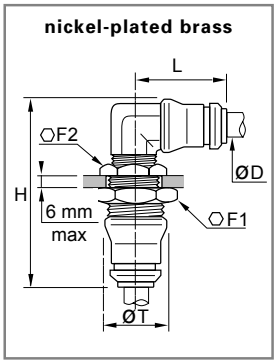
ØD mm		F1 mm	F2 mm	K mm	L1 mm	L2 mm	T mm	kg
4	3616 04 00	13	14	14	14	20	12.5	.018
6	3616 06 00	16	17	17.5	17	22	15	.030
8	3616 08 00	18	19	19.5	18.5	23.5	17	.038
10	3616 10 00	22	27	24	21.5	26.5	21	.065
12	3616 12 00	24	24	26	23	27	23	.071
14	3616 14 00	27	27	29.5	25.5	29.5	25	.098

3636 female bulkhead connector — metric tube to BSPP



ØD mm	C BSPP		F1 mm	F2 mm	H mm	H1 mm	K mm	T mm	kg
4	G1/8	3636 04 10	14	14	30.5	11	15	13	.024
6	G1/8	3636 06 10	17	17	32.5	11	18.5	15	.032
6	G1/4	3636 06 13	17	17	37	15	18.5	15	.036
8	G1/8	3636 08 10	19	19	34	10.5	21	17	.041
8	G1/4	3636 08 13	19	19	38	14.5	21	17	.040
10	G3/8	3636 10 17	22	27	42.5	16	24	21	.075
12	G3/8	3636 12 17	24	24	43	16	26	23	.092
12	G1/2	3636 12 21	27	24	48.5	21.5	29.5	23	.116

3639 bulkhead elbow — metric tube to tube



ØD mm		F1 mm	F2 mm	H mm	K mm	L mm	T mm	kg
4	3639 04 00	13	14	35	14	18	12.5	.024
6	3639 06 00	16	17	40.5	17.5	21.5	15	.038
8	3639 08 00	18	19	44	19.5	23.5	17	.054
10	3639 10 00	22	27	51	24	29	21	.088
12	3639 12 00	24	24	55	26	31	23	.117
14	3639 14 00	27	27	59	29.5	34	25	.144

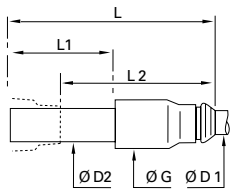
= suitable for food applications

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

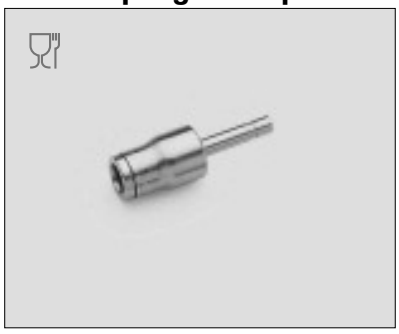
3666 plug-in reducer — metric

nickel-plated brass

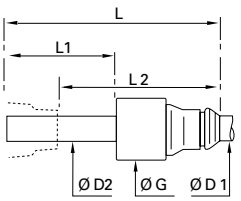


ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	L2 mm	kg
4	6	3666 04 06	10	34.5	19	17.5	.005
4	8	3666 04 08	10	35.5	20	18	.006
6	8	3666 06 08	12	37	20	19.5	.003
6	10	3666 06 10	12	43.5	25	21	.009
8	10	3666 08 10	15	44	25	21.5	.012
8	12	3666 08 12	15	45	26	21.5	.013
10	12	3666 10 12	17.5	50	26	26.5	.018
12	14	3666 12 14	19.5	53	28	28.5	.039

3668 plug-in expander — metric



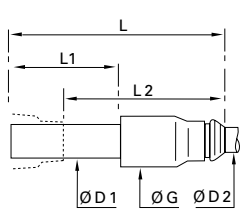
nickel-plated brass



ØD1 mm	ØD2 mm		G mm	L mm	L1 mm	L2 mm	kg
6	4	3668 06 04	17	42	22	28	.013

3667 plug-in — metric/inch adapter

nickel-plated brass



ØD1 mm	ØD2 in		G mm	L mm	L1 mm	L2 mm	kg
6	1/4	3667 06 56	12.5	38	19	20.5	.016
10	3/8	3667 10 60	17	49.5	25	27	.020
12	1/2	3667 12 62	20	51	26	27.5	.040

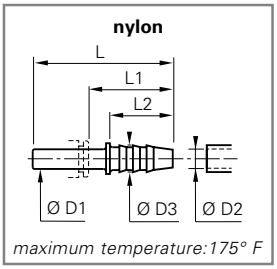
This item allows fractional inch tube to be used with fittings designed for use with mm tubing.

= suitable for food applications

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3122 barbed connector — fractional inch

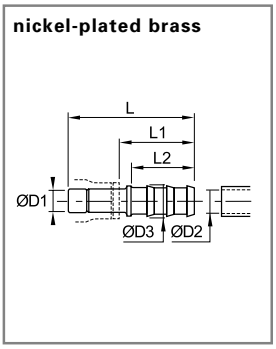


maximum temperature:175° F

ØD1 in	ØD2 in	ØD3 in		L in	L1 in	L2 in	oz
5/32	.12	.20	3122 04 53	1.46	.98	.67	.11
5/32	.20	.28	3122 04 05	1.46	.98	.67	.11
5/16	.25	.34	3122 08 56	1.55	.83	.67	.04
5/16	.32	.39	3122 08 08	1.75	1.02	.87	.04
3/8	.32	.39	3122 60 08	1.97	1.16	.87	.11

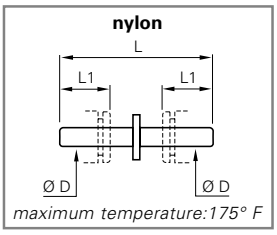
Dimensions for ØD2 are I.D. of the tube.

3622 plug-in barbed connector — metric



ØD1 mm	ØD2 mm	ØD3 mm		L mm	L1 mm	L2 mm	kg
4	3.2	5	3622 04 53	40.5	27	22.5	0.003
4	5	7	3622 04 05	40.5	27	22.5	0.004
6	5	7	3622 06 05	43	27	22.5	0.006
8	6.3	8.3	3622 08 56	42	25	22.5	0.008
8	8	10	3622 08 08	44	27	22.5	0.009
10	6.3	10	3622 10 56	47.5	25.5	22.5	0.011
10	8	8.3	3622 10 08	47.5	25.5	22.5	0.011
12	8	10	3622 12 08	48.5	25.5	22.5	0.013
12	10	12	3622 12 10	48.5	25.5	22.5	0.014
12	12.5	14.5	3622 12 62	57	34	29.5	0.019
14	12.5	14.5	3622 14 62	57.5	33	29.5	0.022
14	14	16	3622 14 14	59.5	35	29.5	0.023

3120 double male union — fractional inch



maximum temperature:175° F

ØD in		L in	L1 in	oz
5/32	3120 04 00	1.36	.47	.04
3/16	3120 55 00 85*	1.24	.57	.12
1/4	3120 56 00	1.52	.57	.03
5/16	3120 08 00	1.61	.73	.07
3/8	3120 60 00	2.03	.81	.07
1/2	3120 62 00 85*	2.13	.86	.46

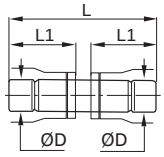
*nickel-plated brass

NICKEL-PLATED BRASS PUSH-TO-CONNECT FITTINGS

FOR LIQUID, GAS & FOOD PROCESSING INDUSTRY – LF3600

3620 double male union — metric

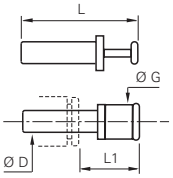
nickel-plated brass



ØD mm		L mm	L1 mm	kg
4	3620 04 00	31	14	.002
6	3620 06 00	36.5	17	.005
8	3620 08 00	37.5	17.5	.007
10	3620 10 00	47.5	22.5	.010
12	3620 12 00	49.5	23.5	.014
14	3620 14 00	53	25	.017

3126 plug — fractional inch

nylon

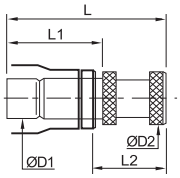


maximum temperature:175° F

ØD in		G in	L in	L1 in	oz
1/8	3126 53 00	.24	1.30	.85	.05
5/32	3126 04 00	.16	1.18	.61	.04
3/16	3126 55 00	.27	1.36	.79	.06
1/4	3126 56 00	.32	1.44	.87	.06
5/16	3126 08 00	.39	1.38	.69	.07
3/8	3126 60 00	.46	1.67	.87	.10
1/2	3126 62 00	.58	1.91	.85	.18

3626 plug — metric

nickel-plated brass



ØD1 mm	ØD2 mm		L mm	L1 mm	L2 mm	kg
4	6	3626 04 00	25.5	17	11.5	.004
6	8	3626 06 00	30.5	19.5	13.5	.009
8	10	3626 08 00	33	20	16	.010
10	12	3626 10 00	40	25	18	.015
12	14	3626 12 00	43	26	20	.025
14	16	3626 14 00	47	28	22.5	.029

TAPERED POLY CAPS AND PLUGS

FEATURES

- Can be used as either caps or plugs
- Non threaded
- Tapered in design and made from highly pliable (or flexible) polyethylene
- Can be applied to fit snugly but are readily removable... whether used for capping or plugging
- Assortment available
  - 18 Sizes
  - 405 pieces

APPLICABLE SPECS

- MIL-C-5501/7 (MIL-C52078)
- NAS-834

APPLICATIONS

- SAE-type tube
- SAE-type hydraulic fittings
- Threaded external NPT fittings
- Threaded internal NPT fittings
- Unthreaded standard weight pipe

DESCRIPTION	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	PKG	P/N
T-00 TAPERED POLY CAP/PLUG	*0.116*	*0.182*	*0.053*	*0.12*	*0.38*	*0.31*	*R*	*39887*
T-00S TAPERED POLY CAP/PLUG	*0.14*	*0.18*	*0.088*	*0.109*	*0.22*	*0.31*	*R*	*39888*
T-00X TAPERED POLY CAP/PLUG	*0.145*	*0.205*	*0.079*	*0.15*	*0.38*	*0.41*	*R*	*39889*
T-0 TAPERED POLY CAP/PLUG	*0.173*	*0.24*	*0.111*	*0.177*	*0.38*	*0.38*	*R*	*39890*
T-0X TAPERED POLY CAP/PLUG	*0.184*	*0.255*	*0.113*	*0.172*	*0.38*	*0.38*	*R*	*39891*
T-1 TAPERED POLY CAP/PLUG	0.236	0.0302	0.174	0.24	0.38	0.44	R	39892
T-2 TAPERED POLY CAP/PLUG	0.299	0.365	0.235	0.302	0.38	0.5	R	39893
T-2S TAPERED POLY CAP/PLUG	*0.325*	*0.367*	*0.263*	*0.305*	*0.19*	*0.5*	*R*	*39894*
T-2X TAPERED POLY CAP/PLUG	0.33	0.396	0.267	0.333	0.38	0.53	R	39895
T-3 TAPERED POLY CAP/PLUG	0.361	0.427	0.298	0.365	0.38	0.56	R	39896
T-3X TAPERED POLY CAP/PLUG	*0.39*	*0.456*	*0.327*	*0.394*	*0.38*	*0.59*	*R*	*39897*
T-4 TAPERED POLY CAP/PLUG	0.419	0.485	0.356	0.422	0.38	0.63	R	39898
T-4X TAPERED POLY CAP/PLUG	*0.447*	*0.513*	*0.385*	*0.451*	*0.38*	*0.66*	*R*	*39899*
T-5 TAPERED POLY CAP/PLUG	0.471	0.547	0.409	0.485	0.44	0.69	R	39900
T-5X TAPERED POLY CAP/PLUG	*0.5*	*0.576*	*0.44*	*0.516*	*0.44*	*0.72*	*R*	*39901*
T-5S TAPERED POLY CAP/PLUG	*0.533*	*0.562*	*0.477*	*0.506*	*0.22*	*0.88*	*R*	*39902*
T-6 TAPERED POLY CAP/PLUG	0.532	0.608	0.468	0.545	0.44	0.75	R	39903
T-6X TAPERED POLY CAP/PLUG	0.55	0.631	0.487	0.568	0.47	0.75	R	39904
T-6S TAPERED POLY CAP/PLUG	*0.554*	*0.612*	*0.49*	*0.551*	*0.31*	*0.75*	*R*	*39905*
T-7 TAPERED POLY CAP/PLUG	0.58	0.667	0.518	0.605	0.5	0.81	R	39906
T-7X TAPERED POLY CAP/PLUG	*0.61*	*0.695*	*0.549*	*0.634*	*0.5*	*0.84*	*R*	*39907*
T-8 TAPERED POLY CAP/PLUG	*0.64*	*0.727*	*0.578*	*0.664*	*0.5*	*0.88*	*R*	*39908*
T-8S TAPERED POLY CAP/PLUG	*0.669*	*0.694*	*0.613*	*0.638*	*0.19*	*0.75*	*R*	*39909*
T-8X TAPERED POLY CAP/PLUG	0.675	0.755	0.613	0.693	0.5	0.88	R	39910
T-9 TAPERED POLY CAP/PLUG	0.69	0.788	0.628	0.726	0.56	0.94	R	39911
T-9X TAPERED POLY CAP/PLUG	0.725	0.823	0.663	0.761	0.56	0.97	R	39912
T-9S TAPERED POLY CAP/PLUG	*0.74*	*0.765*	*0.678*	*0.703*	*0.19*	*0.88*	*R*	*39913*
T-10 TAPERED POLY CAP/PLUG	0.75	0.848	0.687	0.785	0.56	1	R	39914
T-11 TAPERED POLY CAP/PLUG	0.802	0.911	0.74	0.849	0.63	1.06	N	39915
T-11X TAPERED POLY CAP/PLUG	*0.815*	*0.93*	*0.753*	*0.868*	*0.63*	*1.09*	*N*	*39916*
T-15A TAPERED POLY CAP/PLUG	*0.836*	*1.305*	*0.777*	*1.247*	*1.06*	*1.43*	*N*	*39917*
T-11S TAPERED POLY CAP/PLUG	*0.837*	*0.89*	*0.757*	*0.81*	*0.22*	*1.05*	*N*	*39918*
T-12 TAPERED POLY CAP/PLUG	*0.866*	*0.975*	*0.803*	*0.912*	*0.63*	*1.13*	*N*	*39919*
T-12X TAPERED POLY CAP/PLUG	0.915	1.04	0.855	0.98	0.69	1.16	N	39920
T-13A TAPERED POLY CAP/PLUG	*0.96*	*1.047*	*0.9*	*0.987*	*0.5*	*1.19*	*N*	*39921*
T-13 TAPERED POLY CAP/PLUG	0.964	1.09	0.901	1.027	0.75	1.25	L	39922
T-13X TAPERED POLY CAP/PLUG	*0.995*	*1.145*	*0.933*	*1.083*	*0.75*	*1.31*	*N*	*39923*
T-14 TAPERED POLY CAP/PLUG	*1.094*	*1.215*	*1.031*	*1.152*	*0.75*	*1.41*	*N*	*39924*
T-16A TAPERED POLY CAP/PLUG	*1.14*	*1.42*	*1.085*	*1.358*	*0.81*	*1.56*	*I*	*39925*
T-14X TAPERED POLY CAP/PLUG	*1.175*	*1.284*	*1.113*	*1.222*	*0.63*	*1.44*	*N*	*39926*
T-15 TAPERED POLY CAP/PLUG	*1.224*	*1.355*	*1.161*	*1.292*	*0.75*	*1.5*	*N*	*39927*
T-15X TAPERED POLY CAP/PLUG	1.235	1.36	1.173	1.298	0.81	1.5	L	39928
T-17A TAPERED POLY CAP/PLUG	*1.239*	*1.507*	*1.169*	*1.437*	*0.75*	*1.63*	*N*	*39929*
T-15S TAPERED POLY CAP/PLUG	*1.285*	*1.346*	*1.227*	*1.288*	*0.38*	*1.47*	*N*	*39930*
T-16 TAPERED POLY CAP/PLUG	*1.312*	*1.465*	*1.249*	*1.402*	*0.88*	*1.63*	*N*	*39931*
T-16S TAPERED POLY CAP/PLUG	*1.395*	*1.465*	*1.345*	*1.405*	*0.39*	*1.59*	*N*	*39932*
T-20A TAPERED POLY CAP/PLUG	*1.44*	*1.895*	*1.378*	*1.833*	*1.28*	*2.06*	*I*	*39933*
T-17 TAPERED POLY CAP/PLUG	*1.447*	*1.6*	*1.384*	*1.537*	*0.88*	*1.75*	*I*	*39934*
T-17S TAPERED POLY CAP/PLUG	1.513	1.6	1.451	1.537	0.5	1.75	L	39935
T-18 TAPERED POLY CAP/PLUG	*1.56*	*1.682*	*1.498*	*1.62*	*0.75*	*1.88*	*I*	*39936*
T-18X TAPERED POLY CAP/PLUG	*1.63*	*1.75*	*1.568*	*1.688*	*0.75*	*1.94*	*I*	*39937*
T-21A TAPERED POLY CAP/PLUG	*1.738*	*2.163*	*1.668*	*2.093*	*1.18*	*2.31*	*I*	*39938*
T-19 TAPERED POLY CAP/PLUG	*1.75*	*1.88*	*1.688*	*1.818*	*0.75*	*2*	*I*	*39939*
T-20 TAPERED POLY CAP/PLUG	*1.78*	*1.95*	*1.718*	*1.888*	*1*	*2.13*	*I*	*39940*
T-20S TAPERED POLY CAP/PLUG	*1.781*	*1.805*	*1.722*	*1.746*	*0.38*	*2*	*I*	*39941*
T-210 TAPERED POLY CAP/PLUG	*1.844*	*2*	*1.781*	*1.938*	*1*	*2.13*	*I*	*39942*

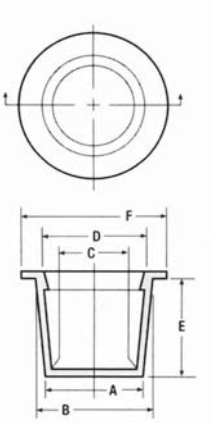
Bold italic text = Non-stock item
Please allow for up to 2 weeks for delivery.

TAPERED POLY CAPS AND PLUGS

DESCRIPTION	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	PKG	P/N
T-21 TAPERED POLY CAP/PLUG	*1.9*	*2.076*	*1.837*	*2.013*	*1*	*2.25*	*I*	*39943*
T-22A TAPERED POLY CAP/PLUG	*1.935*	*2.31*	*1.875*	*2.255*	*0.85*	*2.47*	*I*	*39944*
T-220 TAPERED POLY CAP/PLUG	*1.975*	*2.132*	*1.913*	*2.07*	*1*	*2.25*	*I*	*39945*
T-22S TAPERED POLY CAP/PLUG	*2.015*	*2.147*	*1.953*	*2.085*	*0.75*	*2.31*	*I*	*39946*
T-221 TAPERED POLY CAP/PLUG	*2.067*	*2.243*	*2.005*	*2.181*	*1*	*2.44*	*I*	*39947*
T-25A TAPERED POLY CAP/PLUG	*2.125*	*2.406*	*2.063*	*2.377*	*1*	*2.53*	*I*	*39948*
T-230 TAPERED POLY CAP/PLUG	*2.136*	*2.312*	*2.074*	*2.25*	*1*	*2.56*	*I*	*39949*
T-24S TAPERED POLY CAP/PLUG	*2.23*	*2.26*	*2.168*	*2.198*	*0.5*	*2.5*	*I*	*39950*
T-240 TAPERED POLY CAP/PLUG	*2.298*	*2.464*	*2.235*	*2.401*	*1*	*2.63*	*I*	*39951*
T-33A TAPERED POLY CAP/PLUG	*2.307*	*2.65*	*2.245*	*2.588*	*1.25*	*2.78*	*E*	*39952*
T-250 TAPERED POLY CAP/PLUG	*2.395*	*2.602*	*2.333*	*2.54*	*1.03*	*2.81*	*I*	*39953*
T-43A TAPERED POLY CAP/PLUG	*2.457*	*2.75*	*2.395*	*2.688*	*1*	*2.88*	*E*	*39954*
T-33A1 TAPERED POLY CAP/PLUG	*2.48*	*2.644*	*2.418*	*2.582*	*0.63*	*2.78*	*I*	*39955*
T-43X TAPERED POLY CAP/PLUG	*2.555*	*2.69*	*2.493*	*2.628*	*0.63*	*2.88*	*E*	*39956*
T-44 TAPERED POLY CAP/PLUG	*2.641*	*2.79*	*2.579*	*2.728*	*0.75*	*2.94*	*E*	*39957*
T-45A TAPERED POLY CAP/PLUG	*2.76*	*2.99*	*2.685*	*2.947*	*1*	*3.13*	*E*	*39958*
T-500 TAPERED POLY CAP/PLUG	*2.849*	*2.98*	*2.787*	*2.918*	*0.75*	*3.25*	*E*	*39959*
T-53 TAPERED POLY CAP/PLUG	*2.975*	*3.103*	*2.915*	*3.041*	*0.75*	*3.34*	*E*	*39960*
T-55A TAPERED POLY CAP/PLUG	*2.982*	*3.245*	*2.912*	*3.175*	*1*	*3.38*	*E*	*39961*
T-96A TAPERED POLY CAP/PLUG	*3.27*	*3.562*	*3.2*	*3.492*	*1.13*	*3.69*	*E*	*39962*
T-501 TAPERED POLY CAP/PLUG	*3.325*	*3.457*	*3.245*	*3.377*	*0.75*	*3.63*	*E*	*39963*
T-1050 TAPERED POLY CAP/PLUG	*3.47*	*3.6*	*3.41*	*3.54*	*0.75*	*3.88*	*C*	*39964*
T-1051 TAPERED POLY CAP/PLUG	*3.55*	*3.73*	*3.48*	*3.66*	*1*	*4*	*E*	*39965*
T-1052 TAPERED POLY CAP/PLUG	*3.68*	*3.8*	*3.61*	*3.73*	*0.75*	*4*	*E*	*39966*
T-502 TAPERED POLY CAP/PLUG	*3.79*	*3.92*	*3.71*	*3.84*	*0.75*	*4.12*	*E*	*39967*
T-1063 TAPERED POLY CAP/PLUG	*3.93*	*4.07*	*3.86*	*4*	*0.75*	*4.38*	*E*	*39968*
T-1064 TAPERED POLY CAP/PLUG	*4.02*	*4.14*	*3.94*	*4.07*	*0.75*	*4.53*	*C*	*39969*
T-1067 TAPERED POLY CAP/PLUG	*4.09*	*4.32*	*4.01*	*4.24*	*1.25*	*4.62*	*C*	*39970*
T-1070 TAPERED POLY CAP/PLUG	*4.27*	*4.43*	*4.18*	*4.34*	*0.88*	*4.88*	*C*	*39971*
T-1072 TAPERED POLY CAP/PLUG	*4.37*	*4.62*	*4.29*	*4.54*	*1*	*5*	*C*	*39972*
T-1076 TAPERED POLY CAP/PLUG	*4.64*	*4.85*	*4.57*	*4.78*	*0.88*	*5.25*	*C*	*39973*
T-1078 TAPERED POLY CAP/PLUG	*4.79*	*4.97*	*4.71*	*4.89*	*1*	*5.38*	*C*	*39974*
T-1079 TAPERED POLY CAP/PLUG	*4.91*	*5.09*	*4.83*	*5.01*	*1*	*5.5*	*C*	*39975*
T-1080 TAPERED POLY CAP/PLUG	*4.99*	*5.2*	*4.92*	*5.1*	*1*	*5.63*	*C*	*39976*
T-1084 TAPERED POLY CAP/PLUG	*5.18*	*5.36*	*5.11*	*5.29*	*1*	*5.88*	*C*	*39977*
T-1086 TAPERED POLY CAP/PLUG	*5.33*	*5.49*	*5.21*	*5.37*	*0.88*	*5.88*	*C*	*39978*
T-1088 TAPERED POLY CAP/PLUG	*5.47*	*5.62*	*5.39*	*5.54*	*1*	*6.13*	*C*	*39979*
T-1090 TAPERED POLY CAP/PLUG	*5.57*	*5.75*	*5.49*	*5.67*	*1*	*6.19*	*A*	*39980*
T-1092 TAPERED POLY CAP/PLUG	*5.7*	*5.87*	*5.61*	*5.79*	*0.98*	*6.25*	*A*	*39981*
T-1097 TAPERED POLY CAP/PLUG	*6.01*	*6.18*	*5.92*	*6.1*	*1*	*6.62*	*A*	*39982*
T-1100 TAPERED POLY CAP/PLUG	*6.18*	*6.35*	*6.09*	*6.26*	*1*	*6.75*	*A*	*39983*
T-1103 TAPERED POLY CAP/PLUG	*6.4*	*6.56*	*6.33*	*6.49*	*0.87*	*6.94*	*A*	*39984*
T-1107 TAPERED POLY CAP/PLUG	*6.61*	*6.71*	*6.53*	*6.63*	*1.5*	*7.19*	*A*	*39985*
T-1108S TAPERED POLY CAP/PLUG	*6.88*	*7.03*	*6.8*	*6.95*	*0.5*	*7.67*	*A*	*39986*
T-1109 TAPERED POLY CAP/PLUG	*7.05*	*7.12*	*6.97*	*7.06*	*1.04*	*7.63*	*A*	*39987*
T-1110 TAPERED POLY CAP/PLUG	*7.34*	*7.65*	*7.26*	*7.56*	*1*	*7.94*	*A*	*39988*
T-1120 TAPERED POLY CAP/PLUG	*7.66*	*7.84*	*7.58*	*7.76*	*1*	*8.12*	*A*	*39989*
T-1128 TAPERED POLY CAP/PLUG	*7.97*	*8.14*	*7.88*	*8.05*	*1*	*8.38*	*A*	*39990*
T-1133 TAPERED POLY CAP/PLUG	*8.15*	*8.35*	*8.05*	*8.25*	*1.38*	*8.75*	*A*	*39991*
T-1137 TAPERED POLY CAP/PLUG	*8.4*	*8.6*	*8.3*	*8.5*	*1.38*	*9*	*A*	*39992*
T-1139 TAPERED POLY CAP/PLUG	*8.67*	*8.73*	*8.55*	*8.6*	*1.5*	*9.13*	*A*	*39993*
T-1142 TAPERED POLY CAP/PLUG	*9.06*	*9.364*	*8.89*	*9.24*	*1.75*	*9.86*	*A*	*39994*
T-1143 TAPERED POLY CAP/PLUG	*10.79*	*11.098*	*10.62*	*10.91*	*1.75*	*11.6*	*A*	*39995*
T-1146 TAPERED POLY CAP/PLUG	*11.11*	*11.455*	*10.779*	*11.366*	*2*	*11.96*	*A*	*39996*
T-1314 TAPERED POLY CAP/PLUG	*12.79*	*13.138*	*12.48*	*12.923*	*2*	*13.64*	*A*	*39997*

DIMENSIONS

(All dimensions in inches)



When PLUGGING
"B" Dim. must be at least 1% larger than hole to be plugged. Minimum .020".

When CAPPING
"C" Dim. must be at least 1% smaller than diameter to be capped. Minimum .020".

Bold italic text = Non-stock item
Please allow for up to 2 weeks for delivery.

INCH TUBING

NYLON TUBING

SPECIFICATIONS

RAW MATERIAL: oil
TEMPERATURE: -4ºF to +175ºF
VACUUM RATING: 28" Hg
SHORE HARDNESS: 60 Durometer
NORM CONFORMITY: NFE 49.100
O.D. OF TUBE: 1/8" to 1/2"
TOLERANCES OF
O.D. AND I.D.: +.002 -.004

FOR INDUSTRIAL USE
- **100 foot rolls**
- **Commonly used in connecting pneumatic systems**
- **Large range of working temperatures and pressures**
- **Good chemical and humidity resistance**
- **Small pressure drop**
- **Constant rigidity, good aging with constant tolerance on O.D.**
- **Good absorption of vibration and strong abrasion resistance**

O.D. TUBE INCHES	I.D. TUBE INCHES	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)	PART (BLACK)	PART (BLUE)
5/32	.106	.500	A 44445	A 44446	A 44447
1/4	.180	.875	A 44448	A 44449	A 44450
3/8	.275	1.50	A 44451	A 44452	A 44453
1/2	.375	2.00	A 44454	A 44455	A 44456

POLYURETHANE TUBING

SPECIFICATIONS

TEMPERATURE: -40ºF to +165ºF
VACUUM RATING: 28" Hg
VICAT SOFTENING: -262ºF
MELTING POINT: 324ºF
SHORE HARDNESS: 95A Durometer
TOLERANCES OF O.D. AND I.D.: +.005 -.005

FOR INDUSTRIAL USE
- **100 foot rolls**
- **High flexibility and small bend radius Strong abrasion resistance**
- **Large range of working temperatures and pressures**
- **Good chemical and humidity resistance**
- **Small pressure drop**
- **Constant rigidity, good aging, UV resistant**

O.D. TUBE INCHES	I.D. TUBE INCHES	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)	PART (BLACK)	PART (BLUE)
5/32	.094	3/8	A 44457	A 44458	A 44459
1/4	.160	1/2	A 44460	A 44461	A 44462
3/8	.245	7/8	A 44463	A 44464	A 44465
1/2	.320	1-1/8	A 44466	A 44467	A 44468

POLYETHYLENE TUBING

SPECIFICATIONS

TEMPERATURE: -40ºF to +150ºF
VACUUM RATING: 28" Hg
HARDNESS: 44 shore D
O.D. OF TUBE: 1/8" to 1/2"
TOLERANCES:
O.D. AND I.D.: +.004 -.004

FOR INDUSTRIAL USE
- **100 foot rolls**
- **Good resistance to aggressive and corrosive agents**
- **FDA approved – material can be used for food applications**
- **Tasteless and odorless**
- **Broad resistance to many chemicals and solvents**
- **Impermeable to gases and moisture**

O.D. TUBE INCHES	I.D. TUBE INCHES	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)
1/8	.062	1	A 44469
5/32	.106	1	A 44470
1/4	.170	1-1/4	A 44471
3/8	.250	2	A 44472
1/2	.375	2-1/2	A 44473

TUBING CUTTER

SPECIFICATIONS

- **NYLON BODY**
- **0.98" HEIGHT**
- **3.11" LENGTH**
- **1.09 oz.**

FEATURES

This tool will cut all resilient plastic tube (e.g. nylon, teflon, polyurethane, braided PVC, soft rubber, etc.) from 1/8" to 1/2" diameter inclusive.
It is designed to give a clean cut at right angles to the tube axis.
A spring maintains the cutter in the closed position.

P/N 44599

METRIC TUBING

NYLON TUBING

SPECIFICATIONS

RAW MATERIAL: oil
TEMPERATURE: -4°F to +175°F
VACUUM RATING: 28" Hg
SHORE HARDNESS: 60 Durometer
NORM CONFORMITY: NFE 49.100
TOLERANCES ON O.D. :
3 to 5mm: +0.05 -0.08
6 to 16mm: +0.05 -0.1

FOR INDUSTRIAL USE
- **25 meter rolls**
- **Commonly used in connecting pneumatic systems**
- **Large range of working temperatures and pressures**
- **Good chemical and humidity resistance**
- **Small pressure drop**
- **Constant rigidity, good aging with constant tolerance on O.D.**
- **Good absorption of vibration**
- **Strong abrasion resistance**

O.D. TUBE	I.D. TUBE	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)	PART (BLACK)	PART (BLUE)
4 mm	2 mm	25 mm	A 44474	A 44475	A 44476
6 mm	4 mm	35 mm	A 44477	A 44478	A 44479
8 mm	6 mm	55 mm	A 44480	A 44481	A 44482
10 mm	8 mm	90 mm	A 44483	A 44484	A 44485

POLYURETHANE TUBING

SPECIFICATIONS

TEMPERATURE: -40°F to +165°F
VACUUM RATING: 28" Hg
VICAT SOFTENING: -262°F
MELTING POINT: 324°F
SHORE HARDNESS: 95A Durometer
TOLERANCES ON O.D. :
3 to 8mm: +0.10 -0.10
10 to 14mm: +0.15 -0.15

FOR INDUSTRIAL USE
- **25 meter rolls**
- **High flexibility and small bend radius**
- **Large range of working temperatures and pressures**
- **Good chemical and humidity resistance**
- **Small pressure drop**
- **Constant rigidity, good aging, strong abrasion resistance**
- **UV resistant**

O.D. TUBE	I.D. TUBE	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)	PART (BLACK)	PART (BLUE)
4mm	2.5mm	10 mm	A 44486	A 44487	A 44488
6mm	4mm	15 mm	A 44489	A 44490	A 44491
8mm	5.5mm	20 mm	A 44492	A 44493	A 44494
10mm	7mm	25 mm	A 44495	A 44496	A 44497

POLYETHYLENE TUBING

SPECIFICATIONS

TEMPERATURE: -40°F to +150°F
VACUUM RATING: 28" Hg
HARDNESS: 44 shore D
O.D. OF TUBE: 4mm to 12mm
TOLERANCES ON O.D. and I.D. :
+.1mm -0.1mm

FOR INDUSTRIAL USE
- **25 meter rolls**
- **Good resistance to aggressive and corrosive agents**
- **FDA approved – material can be used for food applications**
- **Tasteless and odorless**
- **Broad resistance to many chemicals and solvents**
- **Impermeable to gases and moisture**

O.D. TUBE	I.D. TUBE	R MINUMUM BEND RADIUS FOR TUBE AT AMBIENT TEMPERATURES IN INCHES	PART (CLEAR)
4 mm	2.7 mm	25.2 mm	A 44498
6 mm	4 mm	31.8 mm	A 44499
8 mm	6 mm	38 mm	A 44524
10 mm	8 mm	51 mm	A 44525

TUBING CUTTER

SPECIFICATIONS

- **NYLON BODY**
- **0.98" HEIGHT**
- **3.11" LENGTH**
- **1.09 oz.**

FEATURES

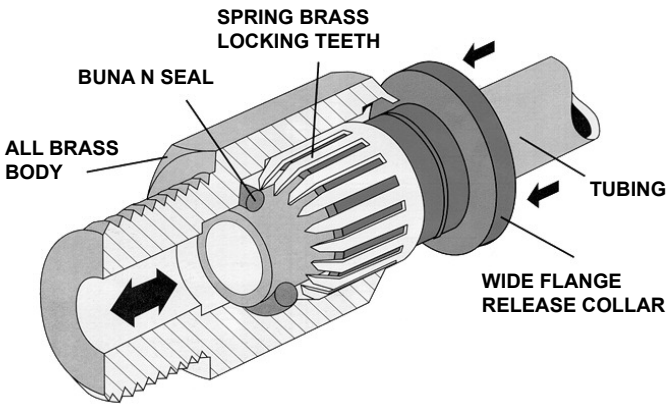
This tool will cut all resilient plastic tube (e.g. nylon, teflon, polyurethane, braided PVC, soft rubber, etc.) from 4mm to 14mm diameter inclusive. It is designed to give a clean cut at right angles to the tube axis. A spring maintains the cutter in the closed position.

P/N 44599

METRIC INSTANT FITTINGS

THE FASTEST CONNECTIONS FOR AIR, FUEL, WATER AND OIL LINES

Instant pneumatic, hydraulic, instrumentation and lubrication connections. Automatic locking and sealing to maximum working pressure. Release collar for instant removal of tubing and line checks.



- **Easy one piece construction**
- **No tools or extra components needed to connect fitting**
- **Reduced assembly time . . . up to 75% savings compared to compression fittings**
- **Automatically locks and seals to maximum working pressure**
- **Wide release collar allows fast and easy removal of tubing for line checks**
- **Male pipe threads are precoated with liquid sealant**
- **Unique positive gripping action of locking teeth allows tubing to withstand vibration with or without pressure**
- **Because there is no nut, fittings can be closely mounted**
- **Unrestricted tube I.D. allows for maximum airflow.**
- **Fully reusable and silicon free**

SPECIFICATIONS

PRESSURE: From 27" Hg to 250 PSI

TEMPERATURE: -40°F to +200°F. See tubing pressure and temperature data for tubing limitations.

VIBRATION: Good resistance.

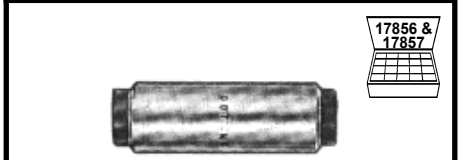
MATERIALS OF CONSTRUCTION: Brass body, spring brass locking teeth, oil resistant Buna N O-ring, tough Delrin® release collar.

USE WITH: Polyethylene, nylon and polyurethane tubing.

ASSEMBLY INSTRUCTIONS:
1. Simply push the tubing into the fitting until it bottoms.

DISASSEMBLY INSTRUCTIONS:
1. Push in release collar. While pressing on collar, pull out tubing.

UNION



TUBE SIZE	PIPE THREAD	PART
4mm	-	E 56042
6mm	-	E 56043
8mm	-	B 56044
10mm	-	B 56045
12mm	-	B 56046

UNION TEE

TUBE SIZE	PIPE THREAD	PART
4mm	-	B 56052
6mm	-	B 56053
8mm	-	B 56054
10mm	-	A 56055
12mm	-	A 56056

UNION ELBOWS

TUBE SIZE	PIPE THREAD	PART
4mm	-	B 56047
6mm	-	B 56048
8mm	-	B 56049
10mm	-	B 56050
12mm	-	B 56051

METRIC INSTANT FITTINGS (Cont'd.)

MALE CONNECTOR

17856 & 17857

TUBE SIZE	BSPT THREAD		PART
4mm	M5	E	***56000***
4mm	1/8	E	56001
4mm	1/4	E	56002
6mm	M5	E	56003
6mm	1/8	E	56004
6mm	1/4	E	56005
8mm	1/8	E	56006
8mm	1/4	E	56007
8mm	3/8	E	56008
10mm	1/4	B	56009
10mm	3/8	B	56010
10mm	1/2	B	***56011***
12mm	1/4	B	56012
12mm	3/8	B	56013
12mm	1/2	B	56014
14mm	3/8	B	***44800***
14mm	1/2	B	44801

FEMALE CONNECTOR

17856 & 17857

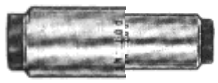
TUBE SIZE	BSPP THREAD		PART
4mm	1/8	B	56057
4mm	1/4	B	56058
4mm	5 x .8	B	***44829***
6mm	1/8	B	56059
6mm	1/4	B	56060
8mm	1/8	B	56061
8mm	1/4	B	56062
10mm	3/8	B	56063
12mm	3/8	B	56064

MALE SWIVEL BRANCH TEE

17856 & 17857

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	56065
6mm	1/8	B	56066
6mm	1/4	B	56067
8mm	1/8	B	56068
8mm	1/4	B	56069
10mm	1/4	A	56070
10mm	3/8	A	56071
12mm	1/4	A	56072
12mm	3/8	A	56073
12mm	1/2	A	56074

UNION REDUCER

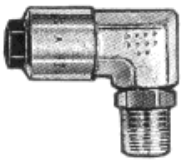


TUBE SIZE	TUBE SIZE		PART
6mm	4mm	B	56036
8mm	4mm	B	56037
8mm	6mm	B	56038
10mm	6mm	B	56039
10mm	8mm	B	56040
12mm	10mm	B	56041

NYLON TUBING

25 METERS

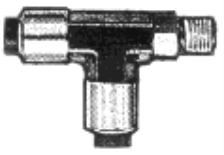
SIZE		PART	SIZE		PART
4mm	A	55686	8mm	A	55689
5mm	A	55687	10mm	A	55690
6mm	A	55688	12mm	A	55691



17856 & 17857

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	56015
4mm	1/4	B	56016
6mm	1/8	B	56017
6mm	1/4	B	56018
8mm	1/8	B	56019
8mm	1/4	B	56020
8mm	3/8	B	56021
10mm	1/4	B	56022
10mm	3/8	B	56023
12mm	1/4	A	56024
12mm	3/8	A	56025
12mm	1/2	A	56026

MALE SWIVEL RUN TEE



17857

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	56027
6mm	1/8	B	56028
6mm	1/4	B	56029
8mm	1/8	B	56030
8mm	1/4	B	56031
10mm	1/4	A	56032
10mm	3/8	A	56033
12mm	3/8	A	56034
12mm	1/2	A	56035

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METRIC INSTANT FITTINGS - COMPOSITE

THE FASTEST CONNECTIONS FOR COMPRESSED AIR

Instant pneumatic connections. Automatic locking and sealing to maximum working pressure. Release collar for instant removal of tubing.

- **Easy one piece construction**
- **No tools or extra components needed to connect fitting**
- **Reduced assembly time . . . up to 75% savings compared to compression fittings**
- **Automatically locks and seals to maximum working pressure**
- **Wide release collar allows fast and easy removal of tubing**
- **TAPERED Male pipe threads are precoated with THREAD sealant**
- **Unique positive gripping action of GRIPPING RING allows tubing to withstand vibration with or without pressure**
- **STRAIGHT MALE CONNECTORS HAVE INTERNAL HEX FOR ASSEMBLY WITH AN ALLEN KEY**
- **Unrestricted tube I.D. allows for maximum airflow.**
- **Fully reusable and silicon free**

SPECIFICATIONS

PRESSURE: From 28" Hg to 290 PSI

TEMPERATURE: -4°F to +175°F. See tubing pressure and temperature data for tubing limitations.

VIBRATION: Good resistance.

MATERIALS OF CONSTRUCTION: Glass-filled nylon body, stainless steel gripping ring, Nitrile "D" seal, polypropylene push-button.

USE WITH: Polyethylene, nylon and polyurethane tubing.

ASSEMBLY INSTRUCTIONS:
Simply push the tubing into the fitting until it bottoms out.

DIS-ASSEMBLY INSTRUCTIONS:
Push in release collar. While pressing on collar, pull out tubing.

UNION

TUBE SIZE	PART	TUBE SIZE	PART
4mm	E 44884	10mm	B 44887
6mm	E 44885	12mm	B ***44888***
8mm	E 44728	14mm	A 44889

UNION TEE

TUBE SIZE	PART	TUBE SIZE	PART
4mm	E 44715	10mm	B 44877
6mm	B 44875	12mm	A ***44878***
8mm	B 44718	14mm	A ***44879***

UNION ELBOWS

TUBE SIZE	PART	TUBE SIZE	PART
4mm	E 44706	10mm	B 44871
6mm	E 44869	12mm	B 44872
8mm	B 44708	14mm	A 44873

UNION REDUCER

TUBE SIZE 1	TUBE SIZE 2	PART
4mm	6mm	B ***44890***
4mm	8mm	B ***44891***
6mm	8mm	B 44892
6mm	10mm	B ***44893***
8mm	10mm	B ***44894***

EQUAL Y UNION

TUBE SIZE	PART
4mm	B 44895
6mm	B 44896
8mm	B 44897
10mm	B 44898

BULKHEAD UNION

TUBE SIZE	PART	TUBE SIZE	PART
4mm	B 44702	10mm	B ***44865***
6mm	B ***44863***	12mm	B ***44866***
8mm	B ***44864***	14mm	A ***44867***

NOTE: *NUMBERS IN BOLD ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.*

METRIC INSTANT FITTINGS - COMPOSITE (Cont'd.)

MALE BRANCH TEE

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	44847
4mm	1/4	B	44848
6mm	1/8	B	44849
6mm	1/4	B	44850
8mm	1/8	B	44851
8mm	1/4	B	44852
8mm	3/8	B	44853
10mm	1/4	A	44854
10mm	3/8	A	44855
10mm	1/2	A	44856
12mm	1/4	A	44857
12mm	3/8	A	44858
12mm	1/2	A	44859
14mm	3/8	A	***44860***
14mm	1/2	A	***44861***

BANJO ELBOWS

TUBE SIZE	BSPP THREAD		PART
4mm	M5	B	***44817***
4mm	1/8	B	***44818***
6mm	1/8	B	***44819***
6mm	1/4	B	***44820***
6mm	M5	B	44821
8mm	1/8	B	***44822***
8mm	1/4	B	***44823***
8mm	3/8	A	***44824***
10mm	1/4	A	***44825***
10mm	3/8	A	***44826***
12mm	3/8	A	***44828***

UNEQUAL TEE

TUBE SIZE 1	TUBE SIZE 2		PART
4mm	6mm	B	***44880***
6mm	4mm	B	***44881***
6mm	8mm	B	***44882***
8mm	6mm	B	***44883***

NOTE: *NUMBERS IN BOLD ITALIC ARE NON-STOCK ITEMS. PLEASE ALLOW 2-3 WEEKS FOR DELIVERY.*

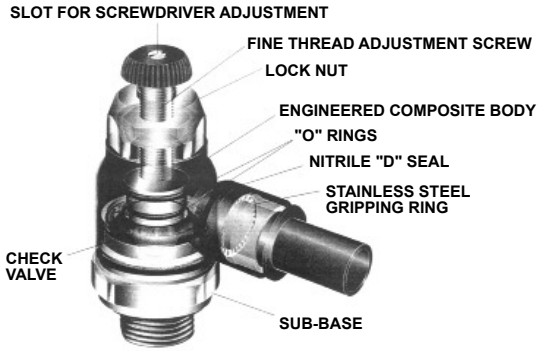
MALE ELBOW

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	44802
4mm	1/4	B	44803
6mm	1/8	B	44804
6mm	1/4	B	44805
8mm	1/8	B	44806
8mm	1/4	B	44807
8mm	3/8	A	44808
10mm	1/4	A	44809
10mm	3/8	A	44810
10mm	1/2	A	44811
12mm	1/4	A	44812
12mm	3/8	A	44813
12mm	1/2	A	44814
14mm	3/8	A	***44815***
14mm	1/2	A	44816

MALE RUN TEE

TUBE SIZE	BSPT THREAD		PART
4mm	1/8	B	***44831***
4mm	1/4	B	***44832***
6mm	1/8	B	***44834***
6mm	1/4	B	***44835***
8mm	1/8	B	***44836***
8mm	1/4	B	***44837***
8mm	3/8	B	***44838***
10mm	1/4	A	***44839***
10mm	3/8	A	***44840***
10mm	1/2	A	***44841***
12mm	1/4	A	***44842***
12mm	3/8	A	***44843***
12mm	1/2	A	***44844***
14mm	3/8	A	***44845***
14mm	1/2	A	***44846***

METRIC FLOW CONTROLS



- **PUSH-TO-CONNECT CONNECTION**
- **COMPACT SIZE COVERS A WIDE RANGE OF FLOW AND CYLINDER SIZE REQUIREMENTS**
- **LOCK NUT SECURES VALVE TO FINAL SETTING, ENSURING REPEATABILITY**
- **FINE THREAD FOR BETTER CONTROL ACROSS THE RANGE**

MINI KNOB / METER OUT

SIZE TUBE X BSPP		PART
4mm x M5	B	45021
4mm x 1/8 BSPP	B	45022
6mm x M5	A	45023
6mm x 1/8 BSPP	A	45024
6mm x 1/4 BSPP	A	45025
8mm x 1/8 BSPP	A	45026
8mm x 1/4 BSPP	A	45027

METRIC OIL PAN DRAIN PLUGS & GASKETS

METRIC OIL PAN DRAIN PLUGS

STANDARD

- MADE OF STEEL
- NYLON GASKET INCLUDED

17951

SIZE		PART	SIZE		PART	SIZE		PART
12mm x 1.25	E	54213	16mm x 1.50	E	54215	20mm x 1.50	E	54217
12mm x 1.75	E	54226	18mm x 1.50	E	54216	22mm x 1.50	E	54218
14mm x 1.50	E	54214						

METRIC GASKETS

FIBER GASKETS

17951

SIZE		PART	SIZE		PART	SIZE		PART
12mm	N	54219	16mm	N	54221	20mm	N	54223
14mm	N	54220	18mm	N	54222	22mm	N	54224

NYLON GASKETS

17951

SIZE		PART	SIZE		PART	SIZE		PART
12mm	N	54227	16mm	N	54229	20mm	N	54231
14mm	N	54228	18mm	N	54230	22mm	N	54232

SPECIALTY GASKETS

- ONE-PIECE METAL GASKET WITH SYNTHETIC RUBBER EQUIVALENT O-RING CENTER

17951

SIZE		PART
12mm	R	54225

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PORTABLE COLL-O-CRIMP®

Starter Hose Assembly System

A complete system for making factory quality hose assemblies in the shop or in the field. Contains all equipment, hose and fittings to make 1/4", 3/8" and 1/2" high pressure hose assemblies. System expands to handle hose and fittings up to 1" in diameter. Saves you time and money and eliminates downtime.

Order P/Ns 54993 and 54985*

UPS Shippable

STARTER SYSTEM CONTAINS:

54985 ..... Portable Coll-O-Crimp Machine with Collets for 1/4", 3/8" and 1/2" Hose and Black Die Ring
WH24504 ..... 25' Roll H-245 Hose 1/4"
WH24506 ..... 25' Roll H-245 Hose 3/8"
WH24508 ..... 25' Roll H-245 Hose 1/2"
7850 ..... 40-Hole Steel Bin, 36 Coll-O-Crimp Hose Ends

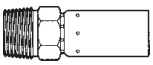
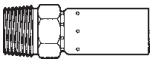
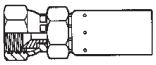
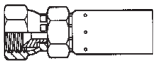
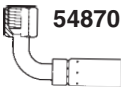
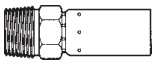
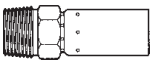
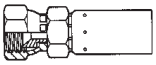
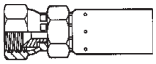
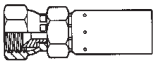
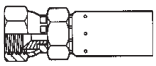
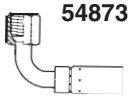
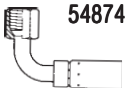
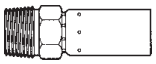
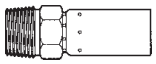
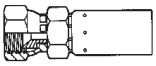
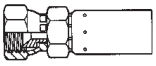
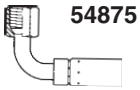
***EQUIPMENT WILL DROP SHIP FROM MANUFACTURER**

***ASK YOUR AGENT FOR DETAILS**

(See Plan-A-Graph for complete details)

PORTABLE COLL-O-CRIMP® STARTER SYSTEM

P/N 7850 — 36 ITEMS / 40 HOLES

Male Pipe Rigid 1/4" x 1/4" **54814** 	Male Pipe Rigid 3/8" x 3/8" **54816** 	SAE 45° / JIC 37° Flare Female Swivel 1/4" x 1/4" **54847** 	JIC 37° Flare Female Swivel 1/4" x 3/8" **54849** 	SAE 45° / JIC 37° Flare Female Swivel 90° Tube Elbow 1/4" x 1/4" **54870** 			
Male Pipe Rigid 3/8" x 1/4" **54815** 	Male Pipe Rigid 3/8" x 1/2" **54817** 	SAE 45° / JIC 37° Flare Female Swivel 3/8" x 1/4" **54850** 	SAE 45° Flare Female Swivel 3/8" x 3/8" **54851** 	JIC 37° Flare Female Swivel 3/8" x 3/8" **54852** 	SAE 45° / JIC 37° Flare Female Swivel 3/8" x 1/2" **54853** 	JIC 37° Flare Female Swivel 90° Tube Elbow 3/8" x 3/8" **54873** 	SAE 45° / JIC 37° Flare Female Swivel 90° Tube Elbow 3/8" x 1/2" **54874** 
Male Pipe Rigid 1/2" x 3/8" **54818** 	Male Pipe Rigid 1/2" x 1/2 **54819** 	SAE 45° / JIC 37° Flare Female Swivel 1/2" x 1/2" **54855** 	SAE 45° / JIC 37° Flare Female Swivel 1/2" x 5/8" **54856** 	SAE 45° / JIC 37° Flare Female Swivel 90° Tube Elbow 1/2" x 1/2" **54875** 			

BIN ASSORTMENTS

BLACK MALLEABLE PIPE FITTINGS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7845

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

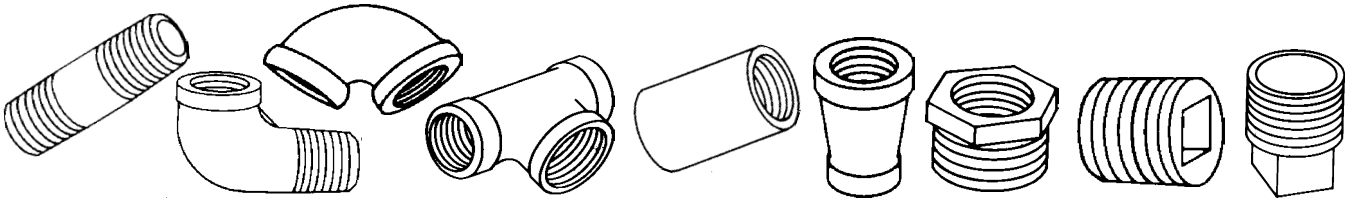
*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details) ***Use Bin Label Set #168114***

ASSORTMENT CONTAINS:

5 Sizes Hex Bushings	1/4 x 1/8 through 3/4 x 1/2
3 Sizes Tees	1/4 thru 1/2
4 Sizes Elbows	1/8 through 1/2
4 Sizes Street Elbows	1/8 through 1/2
4 Sizes Reducers	1/4 x 1/8 through 3/4 x 1/2
4 Sizes Couplings	1/8 through 1/2
5 Sizes Plugs	1/8 through 3/4
4 Sizes Close Nipples	1/8 through 1/2
4 Sizes Nipples	1/8 x 1-1/2 through 1/2 x 3

1 P/N 7903 — 40-Compartment Bin



BLACK MALLEABLE PIPE FITTINGS

P/N 7845 — 40 ITEMS / 40 HOLES

1/4 x 1/8 HEX BUSHING 55170	3/8 x 1/4 HEX BUSHING 55171	1/2 x 1/4 HEX BUSHING 55175	1/2 x 3/8 HEX BUSHING 55173	3/4 x 1/2 HEX BUSHING 55177	1/4 TEE 55127	3/8 TEE 55128	1/2 TEE 55129
1/8 ELBOW 55101	1/4 ELBOW 55102	3/8 ELBOW 55103	1/2 ELBOW 55104	1/8 STREET ELBOW 55118	1/4 STREET ELBOW 55119	3/8 STREET ELBOW 55120	1/2 STREET ELBOW 55121
1/4 x 1/8 REDUCER 55144	3/8 x 1/4 REDUCER 55145	1/2 x 3/8 REDUCER 55146	3/4 x 1/2 REDUCER 55147	1/8 COUPLING 55135	1/4 COUPLING 55136	3/8 COUPLING 55137	1/2 COUPLING 55138
1/8 PLUG 55190	1/4 PLUG 55191	3/8 PLUG 55192	1/2 PLUG 55193	3/4 PLUG 55194	1/8 CLOSE NIPPLE 55220	1/8 x 1-1/2 NIPPLE 55230	1/4 CLOSE NIPPLE 55221
1/4 x 1-1/2 NIPPLE 55241	1/4 x 2 NIPPLE 55242	3/8 CLOSE NIPPLE 55222	3/8 x 1-1/2 NIPPLE 55251	3/8 x 2 NIPPLE 55252	1/2 CLOSE NIPPLE 55223	1/2 x 2 NIPPLE 55258	1/2 x 3 NIPPLE 55259

BIN ASSORTMENTS

GALVANIZED BLACK IRON PIPE FITTINGS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7846

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

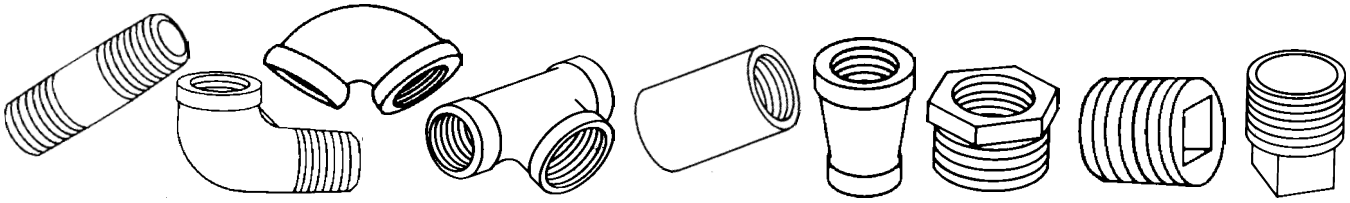
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #168117***

ASSORTMENT CONTAINS:

5 Sizes Hex Bushings	1/4 x 1/8 through 3/4 x 1/2
3 Sizes Tees	1/4 thru 1/2
4 Sizes Elbows	1/8 through 1/2
4 Sizes Street Elbows	1/8 through 1/2
4 Sizes Reducers	1/4 x 1/8 through 3/4 x 1/2
4 Sizes Couplings	1/8 through 1/2
5 Sizes Plugs	1/8 through 3/4
4 Sizes Close Nipples	1/8 through 1/2
4 Sizes Nipples	1/8 x 1-1/2 through 1/2 x 3

1 P/N 7903 — 40-Compartment Bin



GALVANIZED BLACK IRON PIPE FITTINGS

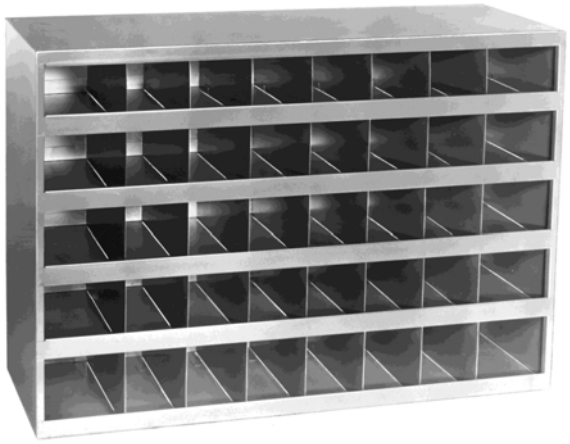
P/N 7846 — 40 ITEMS / 40 HOLES

1/4 x 1/8 HEX BUSHING 56326	3/8 x 1/4 HEX BUSHING 56327	1/2 x 1/4 HEX BUSHING 56330	1/2 x 3/8 HEX BUSHING 56329	3/4 x 1/2 HEX BUSHING 56332	1/4 TEE 56350	3/8 TEE 56351	1/2 TEE 56352
1/8 ELBOW 56200	1/4 ELBOW 56201	3/8 ELBOW 56202	1/2 ELBOW 56203	1/8 STREET ELBOW 56230	1/4 STREET ELBOW 56231	3/8 STREET ELBOW 56232	1/2 STREET ELBOW 56233
1/4 x 1/8 REDUCER 56251	3/8 x 1/4 REDUCER 56252	1/2 x 3/8 REDUCER 56254	3/4 x 1/2 REDUCER 56257	1/8 COUPLING 56302	1/4 COUPLING 56303	3/8 COUPLING 56304	1/2 COUPLING 56305
1/8 PLUG 56364	1/4 PLUG 56365	3/8 PLUG 56366	1/2 PLUG 56367	3/4 PLUG 56368	1/8 CLOSE NIPPLE 56400	1/8 x 1-1/2 NIPPLE 56401	1/4 CLOSE NIPPLE 56417
1/4 x 1-1/2 NIPPLE 56418	1/4 x 2 NIPPLE 56419	3/8 CLOSE NIPPLE 56434	3/8 x 1-1/2 NIPPLE 56435	3/8 x 2 NIPPLE 56436	1/2 CLOSE NIPPLE 56451	1/2 x 2 NIPPLE 56453	1/2 x 3 NIPPLE 56455

BIN ASSORTMENTS

304 STAINLESS STEEL PIPE FITTINGS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7847

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

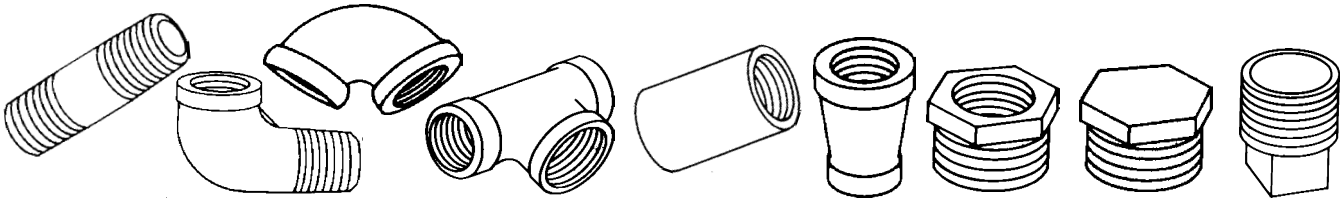
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #168218***

ASSORTMENT CONTAINS:

5 Sizes Hex Bushings	1/4 x 1/8 through 3/4 x 1/2
3 Sizes Tees	1/4 through 1/2
4 Sizes Elbows	1/8 through 1/2
4 Sizes Street Elbows	1/8 through 1/2
4 Sizes Reducers	1/4 x 1/8 through 3/4 x 1/2
4 Sizes Couplings	1/8 through 1/2
5 Sizes Plugs	1/8 through 3/4
4 Sizes Close Nipples	1/8 through 1/2
7 Sizes Nipples	1/8 x 1-1/2 through 1/2 x 3

1 P/N 7903 — 40-Compartment Bin



304 STAINLESS STEEL PIPE FITTINGS

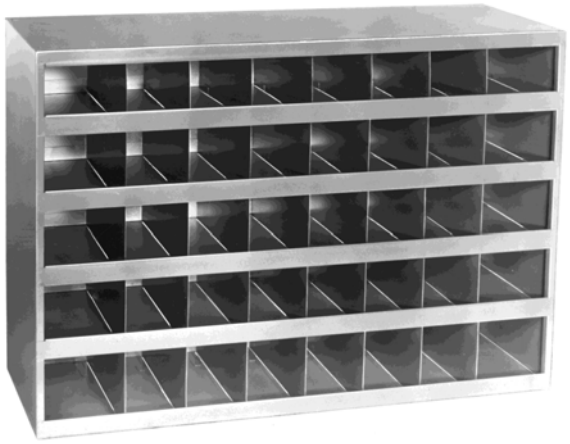
P/N 7847 — 40 ITEMS / 40 HOLES

1/4 x 1/8 HEX BUSHING 56552	3/8 x 1/4 HEX BUSHING 56554	1/2 x 1/4 HEX BUSHING 56555	1/2 x 3/8 HEX BUSHING 56556	3/4 x 1/2 HEX BUSHING 56557	1/4 TEE 56924	3/8 TEE 56562	1/2 TEE 56563
1/8 ELBOW 56535	1/4 ELBOW 56536	3/8 ELBOW 56900	1/2 ELBOW 56901	1/8 STREET ELBOW 57203	1/4 STREET ELBOW 56913	3/8 STREET ELBOW 56914	1/2 STREET ELBOW 56915
1/4 x 1/8 REDUCER 56991	3/8 x 1/4 REDUCER 56544	1/2 x 3/8 REDUCER 56993	3/4 x 1/2 REDUCER 56545	1/8 COUPLING 56963	1/4 COUPLING 56538	3/8 COUPLING 56539	1/2 COUPLING 56540
1/8 HEX HEAD PLUG 56568	1/4 HEX HEAD PLUG 56569	3/8 HEX HEAD PLUG 56570	1/2 HEX HEAD PLUG 56571	3/4 HEX HEAD PLUG 56926	1/8 CLOSE NIPPLE 56929	1/8 x 1-1/2 NIPPLE 56930	1/4 CLOSE NIPPLE 56935
1/4 x 1-1/2 NIPPLE 56936	1/4 x 2 NIPPLE 56937	3/8 CLOSE NIPPLE 56587	3/8 x 1-1/2 NIPPLE 56580	3/8 x 2 NIPPLE 56944	1/2 CLOSE NIPPLE 56950	1/2 x 2 NIPPLE 56582	1/2 x 3 NIPPLE 56584

BIN ASSORTMENTS

316 STAINLESS STEEL PIPE FITTINGS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7848

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

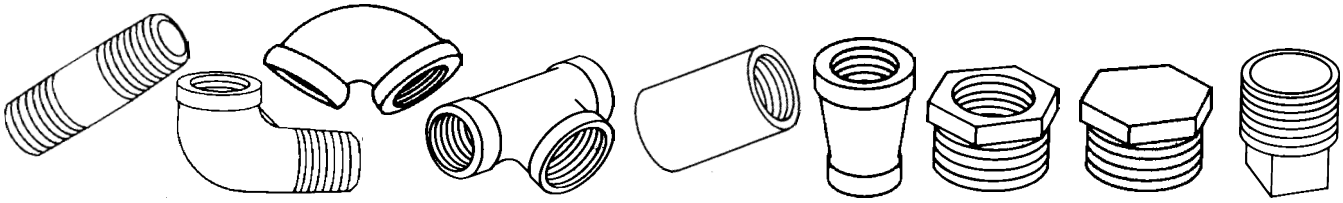
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #168232***

ASSORTMENT CONTAINS:

5 Sizes Hex Bushings	1/4 x 1/8 through 3/4 x 1/2
3 Sizes Tees	1/4 through 1/2
4 Sizes Elbows	1/8 through 1/2
4 Sizes Street Elbows	1/8 through 1/2
4 Sizes Reducers	1/4 x 1/8 through 3/4 x 1/2
4 Sizes Couplings	1/8 through 1/2
5 Sizes Plugs	1/8 through 3/4
4 Sizes Close Nipples	1/8 through 1/2
7 Sizes Nipples	1/8 x 1-1/2 through 1/2 x 3

1 P/N 7903 — 40-Compartment Bin



316 STAINLESS STEEL PIPE FITTINGS

P/N 7848 — 40 ITEMS / 40 HOLES

1/4 x 1/8 HEX BUSHING 57878	3/8 x 1/4 HEX BUSHING 57880	1/2 x 1/4 HEX BUSHING 57881	1/2 x 3/8 HEX BUSHING 57882	3/4 x 1/2 HEX BUSHING 57885	1/4 TEE 57900	3/8 TEE 57901	1/2 TEE 57902
1/8 ELBOW 57800	1/4 ELBOW 57801	3/8 ELBOW 57802	1/2 ELBOW 57803	1/8 STREET ELBOW 57869	1/4 STREET ELBOW 57870	3/8 STREET ELBOW 57871	1/2 STREET ELBOW 57872
1/4 x 1/8 REDUCER 57854	3/8 x 1/4 REDUCER 57856	1/2 x 3/8 REDUCER 57858	3/4 x 1/2 REDUCER 57861	1/8 COUPLING 57809	1/4 COUPLING 57810	3/8 COUPLING 57811	1/2 COUPLING 57812
1/8 HEX HEAD PLUG 57908	1/4 HEX HEAD PLUG 57909	3/8 HEX HEAD PLUG 57910	1/2 HEX HEAD PLUG 57911	3/4 HEX HEAD PLUG 57912	1/8 CLOSE NIPPLE 57927	1/8 x 1-1/2 NIPPLE 57928	1/4 CLOSE NIPPLE 57938
1/4 x 1-1/2 NIPPLE 57939	1/4 x 2 NIPPLE 57940	3/8 CLOSE NIPPLE 57949	3/8 x 1-1/2 NIPPLE 57950	3/8 x 2 NIPPLE 57951	1/2 CLOSE NIPPLE 57960	1/2 x 2 NIPPLE 57962	1/2 x 3 NIPPLE 57964

PORTABLE COLL-O-CRIMP®

Mid-Size Hose Assembly System

A complete system for making quality factory hose assemblies in the shop or in the field. Use Weatherhead "U" or "W" series fittings. Contains all equipment, hose and fittings to make 1/4", 3/8" and 1/2" high pressure hose assemblies (up to 1/2" hose and 1" fittings included). System expands to handle hose and fittings up to 1-1/4" in diameter. Three power source options: air/hydraulic, hand or electric. (Air/hydraulic pump is included with system). Saves you time and money and eliminates downtime.

Order P/Ns 54995 and WET1000-003*

UPS Shippable

MID-SIZE SYSTEM CONTAINS:

WET1000-003 ..... Portable Coll-O-Crimp Machine with Collets for 1/4", 3/8" and 1/2" Hose and Black Die Ring
WH24504 ..... 25' Roll H-245 Hose 1/4"
WH24506 ..... 25' Roll H-245 Hose 3/8"
WH24508 ..... 25' Roll H-245 Hose 1/2"
7851 ..... 40-Hole Steel Bin, 40 Coll-O-Crimp Hose Ends

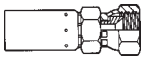
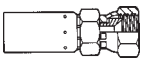
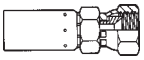
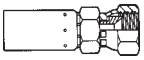
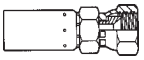
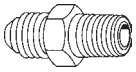
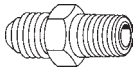
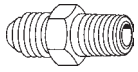
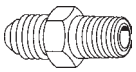
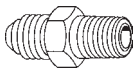
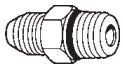
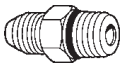
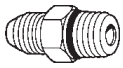
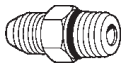
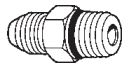
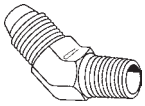
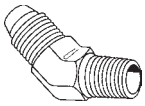
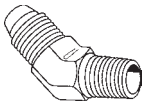
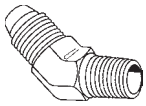
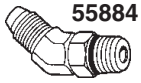
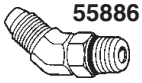
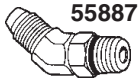
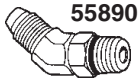
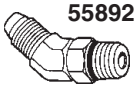
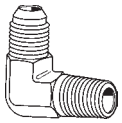
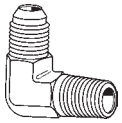
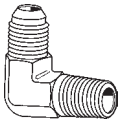
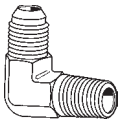
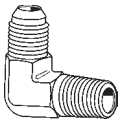
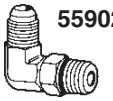
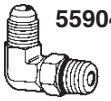
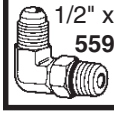
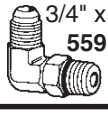
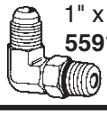
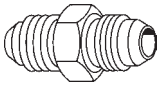
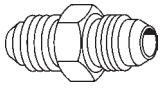
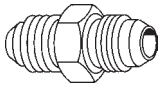
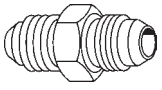
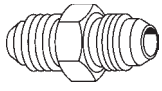
***EQUIPMENT WILL DROP SHIP FROM MANUFACTURER**

***ASK YOUR AGENT FOR DETAILS**

(See Plan-A-Graph for complete details)

PORTABLE COLL-O-CRIMP® MID-SIZE SYSTEM

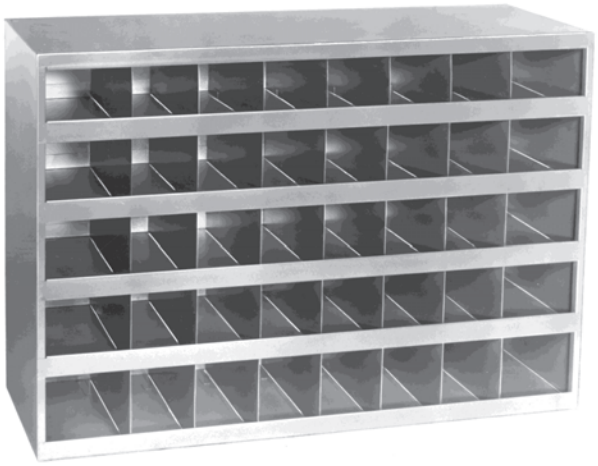
P/N 7851 — 40 ITEMS / 40 HOLES

Female SAE 37 Degree Swivel Hose End 1/4" x 1/4" **54847** 	Female SAE 37 Degree Swivel Hose End 3/8" x 3/8" **54852** 	Female SAE 37 Degree Swivel Hose End 1/2" x 1/2" **54855** 	Female SAE 37 Degree Swivel Hose End 3/4" x 3/4" **54861** 	Female SAE 37 Degree Swivel Hose End 1" x 1" **54864** 	Straight Male Connector -4 Male JIC x -4 Male Pipe 1/4" x 1/4" **WC5205X4X4** 	Straight Male Connector -6 Male JIC x -6 Male Pipe 3/8" x 3/8" **WC5205X6X6** 	Straight Male Connector -8 Male JIC x -8 Male Pipe 1/2" x 1/2" **WC5205X8X8** 
Straight Male Connector -12 Male JIC x -12 Male Pipe 3/4" x 3/4" **WC5205X12** 	Straight Male Connector -16 Male JIC x -16 Male Pipe 1" x 1" **WC5205X16** 	Straight Thread O-Ring Connector -4 Male JIC x -4 Boss O-Ring 1/4" x 1/4" **55852** 	Straight Thread O-Ring Connector -6 Male JIC x -6 Boss O-Ring 3/8" x 3/8" **55856** 	Straight Thread O-Ring Connector -8 Male JIC x -8 Boss O-Ring 1/2" x 1/2" **55858** 	Straight Thread O-Ring Connector -12 Male JIC x -12 Boss O-Ring 3/4" x 3/4" **55865** 	Straight Thread O-Ring Connector -16 Male JIC x -16 Boss O-Ring 1" x 1" **55870** 	45 Degree Male Elbow -4 Male JIC x -4 Male Pipe 1/4" x 1/4" **WC5355X4X4**
45 Degree Male Elbow -6 Male JIC x -6 Male Pipe 3/8" x 3/8" **WC5355X6X6** 	45 Degree Male Elbow -6 Male JIC x -6 Male Pipe 1/2" x 1/2" **WC5355X8X8** 	45 Degree Male Elbow -12 Male JIC x -12 Male Pipe 3/4" x 3/4" **WC5355X12** 	45 Degree Male Elbow -16 Male JIC x -16 Male Pipe 1" x 1" **WC5355X16** 	Straight Thread O-Ring 45 Degree Elbow -4 Male JIC x -4 Boss O-Ring 1/4" x 1/4" **55884** 	Straight Thread O-Ring 45 Degree Elbow -6 Male JIC x -6 Boss O-Ring 3/8" x 3/8" **55886** 	Straight Thread O-Ring 45 Degree Elbow -8 Male JIC x -8 Boss O-Ring 1/2" x 1/2" **55887** 	Straight Thread O-Ring 45 Degree Elbow -12 Male JIC x -12 Boss O-Ring 3/4" x 3/4" **55890** 
Straight Thread O-Ring 45 Degree Elbow -16 Male JIC x -16 Boss O-Ring 1" x 1" **55892** 	90 Degree Male Elbow -4 Male JIC x -4 Male Pipe 1/4" x 1/4" **WC5405X4X4** 	90 Degree Male Elbow -6 Male JIC x -6 Male Pipe 3/8" x 3/8" **WC5405X6X6** 	90 Degree Male Elbow -6 Male JIC x -6 Male Pipe 1/2" x 1/2" **WC5405X8X8** 	90 Degree Male Elbow -12 Male JIC x -12 Male Pipe 3/4" x 3/4" **WC5405X12** 	90 Degree Male Elbow -16 Male JIC x -16 Male Pipe 1" x 1" **WC5405X16** 	Straight Thread O-Ring 90 Degree Elbow -4 Male JIC x -4 Boss O-Ring 1/4" x 1/4" **55902** 	Straight Thread O-Ring 90 Degree Elbow -6 Male JIC x -6 Boss O-Ring 3/8" x 3/8" **55904** 
Straight Thread O-Ring 90 Degree Elbow -8 Male JIC x -8 Boss O-Ring 1/2" x 1/2" **55906** 	Straight Thread O-Ring 90 Degree Elbow -12 Male JIC x -12 Boss O-Ring 3/4" x 3/4" **55911** 	Straight Thread O-Ring 90 Degree Elbow -16 Male JIC x -16 Boss O-Ring 1" x 1" **55914** 	Small Hex Union -4 Male JIC x -4 Male JIC 1/4" x 1/4" **WC5305X4** 	Small Hex Union -6 Male JIC x -6 Male JIC 3/8" x 3/8" **WC5305X6** 	Small Hex Union -8 Male JIC x -8 Male JIC 1/2" x 1/2" **WC5305X8** 	Small Hex Union -12 Male JIC x -12 Male JIC 3/4" x 3/4" **WC5305X12** 	Small Hex Union -16 Male JIC x -16 Male JIC 1" x 1" **WC5305X16** 

BIN ASSORTMENTS

NTA BRAKE FITTINGS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving NTA Brake Fitting Sizes Needed in Maintenance!

PART NO. 7844

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

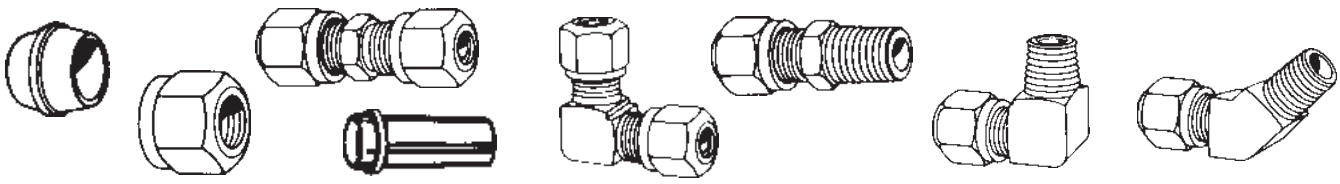
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #16118***

ASSORTMENT CONTAINS:

5 Sizes	Sleeves	1/4 through 3/4
5 Sizes	Nuts	1/4 through 3/4
5 Sizes	Unions	1/4 through 3/4
5 Sizes	Inserts	1/4 through 3/4
4 Sizes	Union Elbows	1/4 through 1/2
5 Sizes	Male Connectors	1/4 x 1/8 through 3/8 x 3/8
6 Sizes	90° Male Elbows	1/4 x 1/8 through 3/4 x 1/2
5 Sizes	45° Male Elbows	1/4 x 1/8 through 5/8 x 1/2

1 P/N 7903 – 40-Compartment Bin



NTA BRAKE FITTINGS

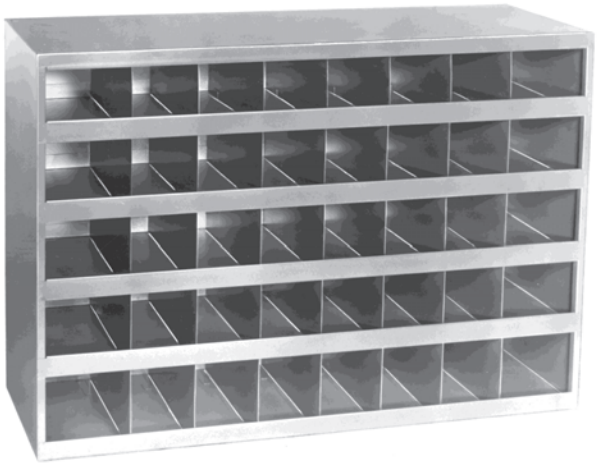
P/N 7844 — 40 ITEMS / 40 HOLES

1/4 SLEEVE 55402	1/4 NUT 55410	1/4 UNION 55418	1/4 INSERT 55425	1/4 x 1/8 MALE CONNECTOR 55463	1/4 UNION ELBOW 55443	1/4 x 1/4 90° MALE ELBOW 55483	1/4 x 1/8 45° MALE ELBOW 55546
3/8 SLEEVE 55403	3/8 NUT 55411	3/8 UNION 55419	3/8 INSERT 55426	1/4 x 1/4 MALE CONNECTOR 55464	3/8 UNION ELBOW 55444	3/8 x 3/8 90° MALE ELBOW 55488	3/8 x 1/4 45° MALE ELBOW 55547
1/2 SLEEVE 55404	1/2 NUT 55412	1/2 UNION 55420	1/2 INSERT 55427	3/8 x 1/8 MALE CONNECTOR 55466	1/2 UNION ELBOW 55445	1/2 x 3/8 90° MALE ELBOW 55491	3/8 x 3/8 45° MALE ELBOW 55548
5/8 SLEEVE 55405	5/8 NUT 55413	5/8 UNION 55421	5/8 INSERT 55428	3/8 x 1/4 MALE CONNECTOR 55467	5/8 UNION ELBOW 55446	5/8 x 1/2 90° MALE ELBOW 55494	1/2 x 3/8 45° MALE ELBOW 55549
3/4 SLEEVE 55406	3/4 NUT 55414	3/4 UNION 55422	3/4 INSERT 55429	3/8 x 3/8 MALE CONNECTOR 55468	1/4 x 1/8 90° MALE ELBOW 55482	3/4 x 1/2 90° MALE ELBOW 55495	5/8 x 1/2 45° MALE ELBOW 55551

BIN ASSORTMENTS

BRASS PIPE FITTINGS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Brass Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7849

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

*Can be shipped via UPS

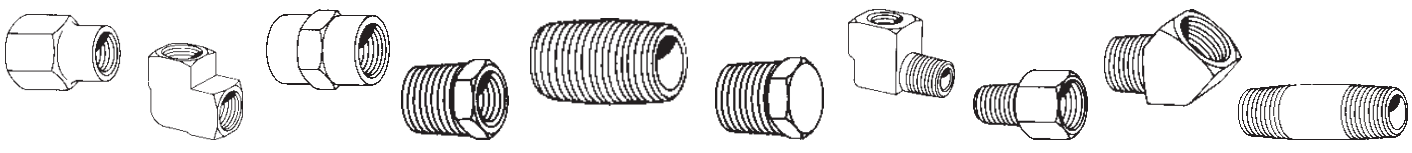
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.

(See Plan-A-Graph for complete details) ***Use Bin Label Set #16117***

ASSORTMENT CONTAINS:

4 Sizes	Reducing Coupling	1/4 x 1/8 through 1/2 x 3/8
3 Sizes	Elbows	1/8 through 3/8
4 Sizes	Couplings	1/8 through 1/2
4 Sizes	Bushings	1/4 x 1/8 through 1/2 x 1/8
4 Sizes	Close Nipples	1/8 through 1/2
4 Sizes	Long Nipples	1/8 x 1-1/2 through 1/2 x 1-1/2
4 Sizes	Street Elbows	1/8 through 1/2
3 Sizes	Hex Head Plugs	1/8 through 1/2
3 Sizes	Adapters	1/8 through 3/8
2 Sizes	Reducing Adapters	1/4 x 1/8 through 3/8 x 1/4
4 Sizes	45° Street Elbows	1/8 through 1/2

1 P/N 7903 – 40-Compartment Bin



BRASS PIPE FITTINGS

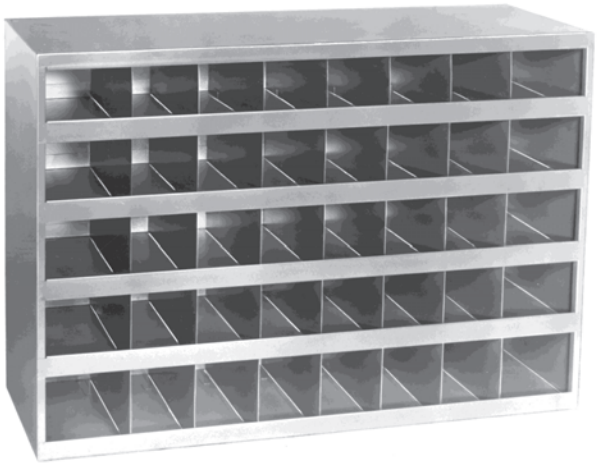
P/N 7849 — 40 ITEMS / 40 HOLES

1/4 x 1/8 REDUCING COUPLING 54233	3/8 x 1/8 REDUCING COUPLING 54234	3/8 x 1/4 REDUCING COUPLING 54235	1/2 x 3/8 REDUCING COUPLING 54236	1/8 COUPLING 54273	1/4 COUPLING 54274	3/8 COUPLING 54275	1/2 COUPLING 54276
1/4 x 1/8 BUSHING 54311	3/8 x 1/8 BUSHING 54312	3/8 x 1/4 BUSHING 54313	1/2 x 1/8 BUSHING 54314	1/8 HEX HEAD PLUG 54422	1/4 HEX HEAD PLUG 54423	3/8 HEX HEAD PLUG 54424	1/2 HEX HEAD PLUG 54425
1/8 STREET ELBOW 54375	1/4 STREET ELBOW 54376	3/8 STREET ELBOW 54378	1/2 STREET ELBOW 54379	1/8 45° STREET CONNECTOR 54453	1/4 45° STREET ELBOW 54454	3/8 45° STREET ELBOW 54455	1/2 45° STREET ELBOW 54456
1/8 CLOSE NIPPLE 54335	1/4 CLOSE NIPPLE 54336	3/8 CLOSE NIPPLE 54337	1/2 CLOSE NIPPLE 54338	1/8 x 1-1/2 LONG NIPPLE 54345	1/4 x 1-1/2 LONG NIPPLE 54346	3/8 x 1-1/2 LONG NIPPLE 54347	1/2 x 1-1/2 LONG NIPPLE 54348
1/8 ELBOW 54244	1/4 ELBOW 54245	3/8 ELBOW 54246	1/8 ADAPTER 54404	1/4 ADAPTER 54405	3/8 ADAPTER 54406	1/4 x 1/8 REDUCING ADAPTER 54413	3/8 x 1/4 REDUCING ADAPTER 54415

BIN ASSORTMENTS

COPPER PIPE FITTINGS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Copper Pipe Fitting Sizes Needed in Maintenance!

PART NO. 7898

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

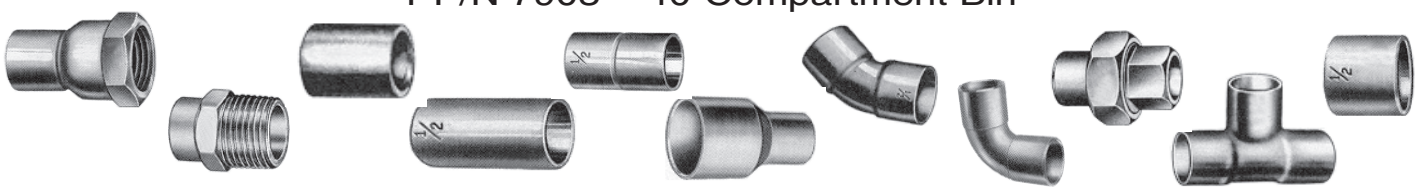
*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

ASSORTMENT CONTAINS:

4 Sizes	Female Adapter – C x F	1/4 x 1/4 through 7/8 x 3/4
2 Sizes	Male Adapter – C x M	5/8 x 1/2 through 7/8 x 3/4
3 Sizes	Bushing – FTG x C	1/2 x 3/8 through 7/8 x 5/8
2 Sizes	Coupling without Stop – C x C	5/8 through7/8
4 Sizes	Coupling with Stop – C x C	1/4 through 7/8
3 Sizes	Red Coupling – C x C	1/2 x 3/8 through 7/8 x 5/8
4 Sizes	45° Elbow – C x C	1/4 through 7/8
4 Sizes	90° Elbow – C x C	1/4 through 7/8
2 Sizes	90° Elbow – FTG x C	5/8 through 7/8
2 Sizes	90° Long Turn Elbow – C x C	5/8 through 7/8
2 Sizes	Union	5/8 through 7/8
4 Sizes	Tee	1/4 through 7/8
4 Sizes	Tube Cap – C	1/4 through 7/8

1 P/N 7903 – 40-Compartment Bin



COPPER PIPE FITTINGS

P/N 7898 — 40 ITEMS / 40 HOLES

1/4 x 1/4 FEMALE ADAPTER 58000	1/2 x 1/4 FEMALE ADAPTER 58004	5/8 x 1/2 FEMALE ADAPTER 58006	7/8 x 3/4 FEMALE ADAPTER 58012	5/8 x 1/2 MALE ADAPTER 58042	7/8 x 3/4 MALE ADAPTER 58048	5/8 COUPLING W/O STOP 58084	7/8 COUPLING W/O STOP 58086
1/2 x 3/8 BUSHING 58073	5/8 x 3/8 BUSHING 58075	7/8 x 5/8 BUSHING 58078	1/2 x 3/8 RED COUPLING 58109	5/8 x 1/2 RED COUPLING 58112	7/8 x 5/8 RED COUPLING 58119	1/4 COUPLING WITH STOP 58093	1/2 COUPLING WITH STOP 58096
1/4 45° ELBOW 58166	1/2 45° ELBOW 58168	5/8 45° ELBOW 58169	7/8 45° ELBOW 58171	5/8 UNION 58367	7/8 UNION 58368	5/8 COUPLING WITH STOP 58097	7/8 COUPLING WITH STOP 58099
1/4 90° ELBOW 58185	1/2 90° ELBOW 58187	5/8 90° ELBOW 58188	7/8 90° ELBOW 58190	5/8 90° ELBOW FTG x C 58197	7/8 90° ELBOW FTG x C 58199	5/8 90° LONG TURN ELBOW 58209	7/8 90° LONG TURN ELBOW 58211
1/4 TEE C x C x C 58229	1/2 TEE C x C x C 58246	53/8 TEE C x C x C 58454	7/8 TEE C x C x C 58269	1/4 TUBE CAP C 58354	1/2 TUBE CAP C 58356	5/8 TUBE CAP C 58357	7/8 TUBE CAP C 58359

BULK CHEMICALS

The Finest Quality Chemicals Available

Red Lion™ Bulk Chemicals are superior products resulting from extensive research and development. They provide unmatched performance without compromising safety.

Available in 1, 5, 30 & 55 gallon bulk containers.

RED LION™ BULK CHEMICAL SIZES					
DESCRIPTION	55 GAL.	30 GAL.	5 GAL.	1 GAL.*	QUART
ALUMINUM BRITE™	74240	74241	74243	—	974240
BIG JOB TRUCK WASH	74235	74236	74238	74239	974235
CITRUS GREASE DIGESTER	74250	74251	74253	74254	974250
CLEAR VIEW™	74350	—	74353	—	974350
COIL & FILTER CLEANER	74340	74341	74343	74344	974340
DIESEL FUEL ADDITIVE	74245	74246	74248	74249	—
EQUIPMENT CLEAN	74305	74306	74308	74309	974305
FLOOR GLO	74345	74346	74348	74349	974345
H.D. CITRUS (CLEANER/DEGREASER)	74215	74216	74218	74219	974215
LIFT-OUT™ LIFT STATION DEGREASER	74280	74281	74283	74284	974280
N-ZYME™ DRAIN MAINTENANCE	74285	74286	74288	74289	974285
ODOR ELIMINATOR	74360	74361	74363	74364	974360
ODOR ELIMINATOR SC	74270	74271	74273	74274	—
PLEASANT SCENT	74230	74231	74233	74234	974230
PLEASANT SCENT GREEN APPLE	74225	74226	74228	74229	974225
SAFETY-SOLV 2000™	74275	74276	74278	74279	974275
STEAM CLEAN	74310	74311	74313	74314	974310
STEAM CLEAN HD	74315	74316	74318	—	974315
SUPER CLEAN™	74300	74301	74303	74304	974300
SUPER GLOSS WASH-N-WAX "PF"	74220PF	74221PF	74223PF	74224PF	974220PF
SUPER STRIPPER	74355	74356	74358	74359	974355
X-TRA CLEAN N.B.	74335	74336	74338	74339	974335

***ONE (1) GALLON CONTAINERS PACKAGED FOUR (4) GALLONS PER CASE. FULL CASE SHIPMENTS ONLY (NO SPLITS). CAN BE SHIPPED VIA U.P.S.**

RED LION® CHEMICALS

- Adhesives and Sealants
- Bulk Chemicals
- Cleaners and Degreasers
- Skin Care
- Insecticides
- Lubricants
- Paints and Coatings
- Paint Removers
- Specialty Products
- Eco-Friendly Chemicals
- Odor Eliminators
- Dispensing Equipment

RED LION® CHEMICAL FORMULATIONS PROVIDE THE ULTIMATE IN PERFORMANCE WHILE MAINTAINING MAXIMUM SAFETY FOR THE USER. **Aerosols, bulk and specialty products that work better, faster and safer.**

CHROMATE INDUSTRIAL CORP.

QUALITY BUILDS CONFIDENCE, SERVICE EARNS TRUST.

RED LION™ CHEMICALS

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Whether you are using a cleaner, an adhesive or a lubricant; the two most important points to remember are to choose the right product for the application and to use that product safely.

Red Lion™ Chemical formulations provide the ultimate in performance while maintaining maximum safety for the user. Aerosols, bulk and specialty products that work better, faster and are safer.

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ADHESIVES AND SEALANTS

CONCRETE CRACK REPAIR

Epoxy Polymer Repair For Concrete
A trowelable polymer composite for repairing cracked and spalled concrete. Outlasts ordinary concrete. Provides four times the compression strength and ten times the tensile strength of standard concrete. It is non-shrinking, non-cracking and may be feather edged or poured up to 5 inches thick. One 5-gallon pail will surface approximately 15 square feet of floor at 1/4" thickness.

Features
- Easy-to-use, permanent concrete repair
- Trowelable polymer composite
- Non-shrinking and crack resistant
- 4 times stronger than original cement
- Can be feathered or poured up to 5" thick

Applications
- Ideal for setting anchors
- Filling cracks, gaps, holes, etc.

DESCRIPTION	PART
Concrete Crack Repair - 5 Gallon Pail (74 g)	74508

DROP-TITE™ EPOXY SYSTEM

"Fast cure" Formula for Projects Requiring "Fast Bolt-Up"
A "fast cure" formula specially developed for projects requiring "fast bolt-up" and extended working time in a variety of applications. The complete system comes with a 22-oz. two-part epoxy cartridge and two 3/8 mixing nozzles. Must be used with dual cartridge caulking gun, p/n 8250 (see Dispensing Equipment).

Features
- Superior Bond Strength – maintains its full bonding integrity under seismic and vibratory loads, even in underwater applications.
- Exhibits no offensive odors which is especially important when work is performed in enclosed areas.
- Bonding Not Affected by Concrete Dust – wets through residual dust and adheres directly to concrete or steel.
- Corrosion Resistant – seals out oxygen and moisture that can cause corrosion.
- Minimal Shrinkage – when compared to other epoxies and formulas containing styrene.
- Non-Combustible – flash point is three times greater than that of formulas containing highly flammable styrenes.
- Non-Carcinogenic – contains no styrene and is safer for users.
- Longer Shelf Life – 2-3 times longer than products containing styrene.

P/N 8251 – Mixing Tube

Applications *(For use with Drop-Tite™ Anchors)*
- Horizontal, vertical and overhead anchoring and doweling
- Seismic repair and upgrade
- Concrete repair (non-structural)
- Bonding applications
- Use in concrete, hollow concrete block (CMU), solid and hollow brick and stone

CURE TIMES*
Gel..... 8-10 Minutes
Loading.....4 Hours
Full-Cure.....48 Hours
Recommended
Temp. Range .....36°F-110°F
*Based on a temperature of 78°F (25°C). Gel times are calculated on a mass of 20 grams. The recommended temperature range refers to the maximum and minimum substrate temperatures in which the product may be used.

DESCRIPTION	PART
Drop-Tite™ Epoxy System (21.2 oz)	74534

ADHESIVES AND SEALANTS

DOUBLE BUBBLE® EPOXY EXTRA FAST

Extra Fast Setting Epoxy Adhesive
Strong and versatile. Does more to repair jobs in less time. Contains no solvents. Will not shrink.

5 packets per box

Features
- Work time: 3 minutes
- Handling strength: 15-30 minutes
- Fills gaps
- Does not induce galvanic corrosion

Applications
- Bonds metal, glass, ceramics, wood, stone, concrete, most hard plastics, leather.
- For repairing tools, auto parts, electronic components, furniture, etc.

DESCRIPTION	PART
Double/Bubble® Epoxy Extra Fast (3.5 g)	74499

DOUBLE/BUBBLE® MACHINEABLE EPOXY

Fast Setting
A machineable tooling and body patch that adheres to metal, wood and hard plastics. Can be machined, sanded, drilled and tapped.

5 packets per box

Features
- Work time: 25 minutes
- Handling strength: 4 hours
- Aluminum color
- Contains no solvents

Applications
- Patching and filling voids and scratches in plastic and metal tooling, patterns and furniture.

DESCRIPTION	PART
Double/Bubble® Machineable Epoxy (3.5 g)	74498

DOUBLE BUBBLE® GENERAL PURPOSE EPOXY

A Long Work-Life Adhesive

5 packets per box

Features
- Work time: 2 hours
- Handling strength: 8 hours
- Does not induce galvanic corrosion

Applications
- For bonding wood, metal, ceramics, concrete, rubber & plastics
- Repair of tools, furniture and sports equipment. An excellent adhesive for use with fiberglass cloth.

DESCRIPTION	PART
Double/Bubble® General Purpose Epoxy (3.5 g)	74497

DOUBLE/BUBBLE® HIGH PEEL STRENGTH EPOXY

Flexible, Tough and Durable

5 packets per box

Features
- Work time: 3 hours
- Handling strength: 18 hours
- Vibration resistant adhesive
- High peel and shear strengths

Applications
- Bonds to polystyrene, ABS nylon, metal, wood, masonry and rubber
- For repair of sports equipment, marine, aircraft, auto, truck and tractor parts.
- Excellent adhesive for grinding wheel hubs, door and window gaskets.

DESCRIPTION	PART
Double/Bubble® High Peel Strength Epoxy (3.5 g)	74496

ADHESIVES AND SEALANTS

DOUBLE BUBBLE® WET SURFACE PATCH EPOXY

A Gap Filling Adhesive
For use in damp or moist environments. Cures and bonds under water. Bonds to stone, concrete, metal, glass, china, wood and fiberglass.

5 packets per box

Features
- Work time: 25 minutes
- Handling strength: 5 hours
- Gray color

Applications
- Wet crack sealant and plumbing patch.
- For repair of gutters, battery cases and boats.
- Excellent adhesive for use with fiberglass tape.

DESCRIPTION	PART
Double/Bubble® Wet Surface Patch Epoxy (3.5 g)	74495

DOUBLE/BUBBLE® WATER CLEAR EPOXY

Use as an Adhesive or Coating
Covers and fills scratches. Impact resistant. Bonds to metal, ceramics, glass, porcelain and wood.

5 packets per box

Features
- Work time: 1 hour
- Handling strength: 8 hours
- No color – clear
- Does not electrically corrode copper

Applications
- Repair of printed circuit boards, optical fibers, lenses and other optical equipment, jewelry, art objects and other applications where a clear bond is desired.

DESCRIPTION	PART
Double/Bubble® Water Clear Epoxy (3.5 g)	74494

DOUBLE BUBBLE® REGULAR SETTING EPOXY

Regular Setting Epoxy Adhesive
Strong and versatile. Does more to repair jobs in less time. Contains no solvents. Will not shrink.

5 packets per box

Features
- Work time: 45 minutes
- Handling strength: 4 hours
- A low-viscosity adhesive
- Fairly long work-life
- Cures to a light color

Applications
- Bonds well to wood, metal, concrete, fabrics and most plastics.
- Excellent for applications requiring a thin glue line. Ideal for fine furniture, hobby use and sports equipment.

DESCRIPTION	PART
Double/Bubble® Regular Setting Epoxy (3.5 g)	74493

DOUBLE/BUBBLE® EXTRA FAST SET (NON-SAG) EPOXY

Extra-Fast Setting
Strong and versatile. Does more to repair jobs in less time. Contains no solvents. Will not shrink.

5 packets per box

Features
- Work time: 3 minutes
- Handling strength: 15-30 minutes
- Non-sag (thixotropic) adhesive
- For quick repairs

Applications
- Bonds to wood, glass, metal, stone, ceramics and leather.
- Ideal for quick, permanent, vertical and overhead repairs. For fixturing, tacking, sealing, gap filling and staking in electrical and industrial applications.

DESCRIPTION	PART
Double/Bubble® Extra Fast Set (Non-Sag) Epoxy (3.5 g)	74492

ADHESIVES AND SEALANTS

DOUBLE BUBBLE® URETHANE – FLEXIBLE

Shore Hardness D-50

Features
- Work time: 3-5 minutes
- Handling strength: 1 hour
- A good combination of high peel and lap shear strengths
- It is semi-flexible and will bond to rubber, leather, china and many plastics

Applications
- For automotive repairs, bonding aftermarket replacement mirrors, etc., repair of shoes, ski boots and other sports equipment, repair of conveyor belts.

DESCRIPTION	PART
Double/Bubble® Urethane – Flexible (3.5 g)	74417

DOUBLE/BUBBLE® URETHANE – SEMI-RIGID

Shore Hardness D-85

Features
- Work time: 3-5 minutes
- Handling strength: 1 hour
- Extra fast setting, semi-rigid
- Combines very high lap shear strength with good peel strength

Applications
- For repair of urethane RIM parts. Recommended for repair of rubber hoses and flexible electrical connections.

DESCRIPTION	PART
Double/Bubble® Urethane – Semi-Rigid (3.5 g)	74418

DOUBLE BUBBLE® URETHANE – VERY FLEXIBLE

Shore Hardness A-85

Features
- Work time: 8 minutes
- Handling strength: 45 minutes
- Fast setting with high peel strength
- Tough and flexible
- Bonds to most metals, plastics, rubber, glass and leather
- Good for low temperature, sub-zero applications
- Patching and filling voids and scratches in plastic and metal tooling, patterns and furniture

Applications
- Repair of construction and off-road tires, flexible conveyor belts, printing press rollers, rubberized fabrics, shoes, ski boots and other sports equipment. For bonding refrigeration and air-conditioning equipment.

DESCRIPTION	PART
Double/Bubble® Urethane – Very Flexible (3.5 g)	74419

ADHESIVES AND SEALANTS

E-Z POXY™ 200

For Steel Hard Repairs in a Stick
A combination of steel reinforced epoxy resin and hardener in a stick. Simply knead putty and apply to damaged area. It can be drilled, filed, tapped, sanded or machined after one hour.

Features
- No measuring, mess or waste
- Fast – sets in 10 minutes
- Adheres to damp surfaces and hardens under water
- Certified to NSF/ANSI Standard 61 for use in contact with potable water and drinking water systems
- Authorized by the USDA for use in federally inspected meat and poultry plants

Applications
- Perfect for repairing tanks, radiators, bathroom fixtures, tile, cars, boats, metal and wood furniture, downspouts, gutters, garbage cans, valves, cast iron, etc.

PHYSICAL PROPERTIES:
Density.....18.5 lb./gal. (2.2 gm/cm^3)
Compression Strength.....12,000 psi
Tensile Strength.....6,000 psi
Modulus of Elasticity.....6 x 10^5 psi
Adhesive Strength .....900 psi
Izod Impact..... 0.3 ft.-lb./in. (notched)
Hardness (Shore D).....80
Maximum Use Temp.....300ºF (149ºC)
ELECTRICAL PROPERTIES:
Volume Resistance..... 1 x 10^{12} ohm-cm
Dielectric Strength ..300 volts/mil @ 0.15 cm
IMPORTANT: *Do not use on polyethylene, polypropylene and polybutylene.*

DESCRIPTION	PART
E-Z Poxy™ 200 (4 oz.)	74502

E-Z POXY™ ALUMINUM

Strong, Fast Setting, Fast Curing, Multi-Purpose Epoxy Putty Stick
A hand-kneadable, non-rusting, aluminum reinforced epoxy putty that mixes in just one minute to provide fast repairs to all types of aluminum. It comes in a handy four-ounce "tootsie roll" form with the curing agent encapsulated in the contrasting color base material. The putty-like consistency eliminates drips and runs, providing "no mess" applications with no tools required for use. Simply cut off amount needed, knead and apply.

Features
- No measuring, mess or waste
- Fast – cures in 60 minutes
- Non-rusting – can even be applied underwater

Applications
- Perfect for repairing storm doors, windows, aluminum boats, recreational vehicles, aluminum siding, aluminum tanks, castings, pipes and engine blocks.

PHYSICAL PROPERTIES:
Work Life (Minimum) 5-7
Shelf Stability.....24 months (min. @ 75ºF)
Shore D Hardness (full cure 24 hrs.)..... 75-85
Lap Shear Tensile Strength ...500-700 on steel (1" x 1" x 1/16").....400-600 on aluminum
Compression Strength lbs./in.^{2} 12,000
Shrinkage ..... <1%
Non-Volatile Content..... 100%
Electrical Resistance .....30,000 megohms
Dielectric Strength .....300 volts/mil
Temperature .....250ºF continuous
300ºF intermittent
Chemical Resistance: Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions and dilute acids and bases.

DESCRIPTION	PART
E-Z Poxy™ Aluminum (4 oz.)	74505

ADHESIVES AND SEALANTS

E-Z POXY™ AQUA REPAIR

Repairs Wet Areas and Underwater Surfaces
A hand-kneadable, specialty epoxy putty that mixes in just one minute for repairs to damp, wet areas and underwater surfaces. It contains a fading dye and becomes "fiberglass white" after mixing. It may be applied underwater, in either fresh or salt water and will bond tenaciously to substances such as fiberglass, metal, wood, concrete, ceramic, glass, etc.

Features
- No measuring, mess or waste
- Excellent as an adhesive
- Can be applied underwater
- Does not yellow when exposed to UV light
- Authorized by the USDA for use in federally inspected meat and poultry plants

Applications
- Perfect for patching dings, scratches, cuts, gouges and holes in fiberglass, metal and wood.
- Repairs fittings, pipes, electrical connections, leaking gaskets, fuel tanks, etc.

PHYSICAL PROPERTIES:

Working Life (min.)	20
Shelf Stability	6 months (min. @ 75ºF)
Shore D Hardness (full cure, 24 hrs.)	75
Lap Shear Tensile Strength on Steel (1" x 1" x 1/16")	700 Lbs.
Temperature Limitations	250ºF continuous 300ºF intermittent
Chemical Resistance: Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions and dilute acids and bases.	
Electrical Resistance	30,000 megohms
Dielectric Strength	300 volts/mil
Shrinkage	Less than 1%
Non-Volatile Content	100%
Compression Strength	12,000 psi

DESCRIPTION	PART
E-Z Poxy™ Aqua Repair (4 oz.)	74500

E-Z POXY™ CONCRETE

Repairs and Rebuilds Anything Made of Concrete
A hand mixable, fast curing epoxy putty stick that mixes in one minute to provide permanent repairs to concrete. Simply knead putty and apply to damaged area. Can be drilled, filed, tapped, sanded, machined, sawed or painted after one hour.

Features
- Use as putty or adhesive
- No measuring, mess or waste
- Fast – sets in 10 minutes
- Adheres to damp surfaces
- Hardens under water
- Authorized by the USDA for use in federally inspected meat and poultry plants

Applications
- Perfect for cracked and spalled concrete, setting anchors, and filling cracks, gaps, holes, etc.

PHYSICAL PROPERTIES:

Work Life	4-7 minutes
Shelf Stability @ 75ºF	24 months (minimum)
Hardness (Shore D) (full cure 1 hour)	75-85 (ASTM D2240)
Lap Shear Tensile Strength	(ASTM D1002)
On Steel (1" x 1" x 1/16")	500-800 lbs
On Concrete	Concrete failure
Compressive Strength	12,000 lbs/in^2 (ASTM D695)
Density	2.005 gm/cm^3 (16.72 lb/gal.)
Prox. 5/16" Bolt Pullout	>2 tons (Dennison Block Test)
Shrinkage	<1% (ASTM D2566)
Non-Volatile Content	100%
Upper Temperature Limit Continuous 250ºF Intermittent 300ºF	
Chemical Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions and dilute acids and bases.	

DESCRIPTION	PART
E-Z Poxy™ Concrete (4 oz.)	74526

ADHESIVES AND SEALANTS

E-Z POXY™ COPPER

Hardens Like Metal to Form a Copper Repair
A hand-kneadable, copper reinforced epoxy putty that hardens to an extremely tough and durable substance with exceptional adhesion. It can be drilled, tapped, filed, machined, etc. High pressure hot water pipes, tanks and radiators can be restored to service after just 60 minutes!

Features
- No measuring, mess or waste
- Fast – cures in less than 60 minutes
- Contains real copper
- Certified to NSF/ANSI Standard 61 for use in contact with potable water
- Authorized by the USDA for use in federally inspected meat and poultry plants

Applications
- Perfect for high pressure hot water pipes, sealing leaks in pipes, elbows, joints, sleeves, sink traps, drains, etc.
- Can also be used as an adhesive.

PHYSICAL PROPERTIES:
Density..... 15.8 lb./gal. (1.9 gm/cm^3)
Compression Strength.....18,000 psi
Tensile Strength.....6,000 psi
Modulus of Elasticity.....6 x 10^5 psi
Adhesive Strength .....700 psi
Izod Impact..... 0.3 ft.-lb./in. (notched)
Hardness (Shore D)..... 85
Maximum Use Temp.....300°F (149°C)

ELECTRICAL PROPERTIES:
Volume Resistance..... 5 x 10^{15} ohm-cm
Dielectric Strength.....400 volts/mil @ 0.125 in.

DESCRIPTION	PART
E-Z Poxy™ Copper (4 oz.)	74501

E-Z POXY™ CUPS

Pre-Measured, Single Use, Fast Setting Epoxy
Unique, pre-measured epoxy cups contain both resin and hardener in one convenient package. Self-package mixing eliminates measuring, squeeze tubes and weighing scales. Components are color-coded to assure complete mixing.

Features
- Fast cure mixer cups
- Convenient self-package mixing
- Superior strength epoxy bonds almost anything
- No mess, no waste
- Bonds virtually any material

Applications
- Bonds wood, ceramic, glass, marble, metal, plastic, concrete, stone, brick and much more.

TECHNICAL DATA:
Parts fixture in 5-15 minutes, full cure in 24 hrs
Creep Strength ..... excellent
Peel Strength..... good
Working Life.....5 minutes @ 70°F
Chemical Resistance..... excellent
Temperature .....180°F

DESCRIPTION	PART
E-Z Poxy™ Cups (1.2 oz.)	74514

ADHESIVES AND SEALANTS

E-Z POXY™ FAST SET

Strong, Permanent Epoxy Adhesive
Provides a durable repair resistant to solvents, moisture and impact. Bonds various materials.

Features
- Easy-to-use dual piston dispenser
- Clear
- Sets in just 5 minutes
- Waterproof and solvent resistant

Applications
- Wood
- Metal
- Plastic
- Ceramic
- Glass
- China
- Tile
- Fiberglass
- Laminates

DESCRIPTION	PART
E-Z Poxy™ Fast Set (1 fl. oz.)	74530

E-Z POXY™ PLASTIC

Restore, Rebuild and Repair ABS, CPVC and PVC Plastic
A patented, hand mixable epoxy putty that forms a durable bond to all major plastic types except polyolefins (polyethylene/polypropylene). When mixed together, the materials combine to form a polymer compound that can be molded into shapes, wrapped around or used to build up and repair just about anything made from rigid or semi-flexible plastics. After 2-3 hours, it can be drilled, sawed, carved, sanded or painted. Contains a fading blue dye and becomes white after mixing.

Features
- No measuring, mess or waste
- Fast – sets in 10 minutes
- Adheres to damp surfaces
- Hardens under water

Applications
- Perfect for rebuilding rigid and semi-flexible plastics
- Repairing automotive trim, appliance parts, outdoor furniture and more
- Sealing leaks in plastic plumbing pipe

PHYSICAL PROPERTIES:
Work Life (Minimum) .....20-25 Minutes
Shelf Stability..... 24 months (min. @ 75ºF)
Shore D Hardness (full cure 24 hrs.)..... 60-70
Lap Shear Tensile Strength
(1" x 1" x 1/16").....500-800 on pvc
Compression Strength lbs./in.^{2} 12,000
Density..... 1.6, 13/4 (gm/cm^3, lb.gal.)
Shrinkage ..... <1%
Non-Volatile Content..... 100%
Electrical Resistance .....30,000 megohms
Dielectric Strength ..... 300 volts/mil
Temperature ..... 250ºF continuous, 300ºF intermittent
Chemical Resistance: Resistant to hydrocarbons, ketones, alcohols, esters, halocarbons, aqueous salt solutions and dilute acids and bases.

DESCRIPTION	PART
E-Z Poxy™ Plastic (4 oz.)	74527

ADHESIVES AND SEALANTS

E-Z POXY™ WOOD

Restore, Rebuild and Repair All Types of Wood
Repairs wood with an epoxy compound many times stronger than the wood itself. Simply knead putty and apply to damaged surface. It can be drilled, nailed, sanded, stained or painted – all within 60 minutes! Also eliminates the need to replace expensive damaged molding, trim, door jambs & furniture.

Features
- No measuring, mess or waste
- Fast – cures in 45 minutes
- Will not dry out like conventional putties
- Simplifies wood repairs

Applications
- Perfect for repairing damaged furniture, rebuilding or fabricating wood parts, repairing stripped screw holes.
- Can also be used as an abrasive.

PHYSICAL PROPERTIES:

Density	6.7 lb./gal. (0.8 gm/cm^3)
Compression Strength	18,000 psi
Tensile Strength	6,000 psi
Modulus of Elasticity	6 x 10^5 psi
Adhesive Strength	700 psi
Izod Impact	0.3 ft.-lb./in. (notched)
Hardness (Shore D)	75 after 90 min.
Maximum Use Temp.	250°F (121°C)

ELECTRICAL PROPERTIES:

Volume Resistance	5 x 10^{15} ohm-cm
Dielectric Strength	400 volts/mil @ 0.125 cm

DESCRIPTION	PART
E-Z Poxy™ Wood (1.94 fl. oz.)	74503

ADHESIVES AND SEALANTS

FAST-FIX™ EPOXY PATCH KIT

Pre-Measured, Single Use, Fast Setting Fiberglass Epoxy Patch

Repairs cracks and holes in pipe and hose. Pre-measured fiberglass patch is ideal for repairing cylindrical surfaces (hose, pipe, etc.) and for flat surfaces such as watertanks. Just blend the components together in the package and apply to any clean surface. It will cure in approximately 20 minutes – even on wet surfaces!

Part #74506

Features

- Unique pre-measured package contains 4" x 12" patch and rubber gloves
- Permanently repairs virtually any surface
- Withstands 600ºF and 150 psi pressure
- Safe for drinking water systems *(Tested for potability using EPA approved standard testing methods.)*
- Paintable

FAST-FIX™ PIPE & HOSE REPAIR KIT

Pre-Mixed, Air Activated, Single Use, Fast Setting Fiberglass Epoxy Wrap

Resin impregnated fiberglass tape sealed in a foil pouch. Once opened, the tape is simply wrapped around any hose or pipe, and will set as hard as steel in just 30 minutes. It is ideal for stopping leaks and keeping on hand as an emergency repair kit.

Part #74507

Features

- Unique pre-measured package contains 2" x 60" impregnated patch and rubber gloves
- Air activated resin
- Permanently repairs virtually any surface
- Withstands 600ºF and 150 psi pressure
- Safe for drinking water systems *(Tested for potability using EPA approved standard testing methods.)*
- Paintable

Applications for #74506 & #74507

- Oil Pipelines
- Gas Pipelines
- Off-Shore and Petroleum Refineries
- Steam Lines
- Plant Piping Systems
- Tanks
- Container Linings
- Industrial Irrigation Systems
- Commercial Irrigation Systems

- Underwater Cable Encapsulation
- Underwater Piling Encapsulation
- Underground Piping Structures
- Waste Water Treatment Plants
- Pneumatic Hoses and Lines
- Piping for Hydronic Heating
- HVAC Systems
- Kitchen and Bath Plumbing
- Underground Sprinklers

- Irrigation Systems
- Pool and Spa Piping
- RV Water Piping Systems
- Marine Water Piping Systems
- Boat Hulls
- Automobile Radiator Hoses
- Automobile Exhaust Systems
- Farm Machinery and Equipment
- Marine Exhaust Systems

TECHNICAL DATA:

Number of Piles	9
Fabrication Method	Wet Lay-up
Cure Time at 75ºF	30 Minutes
Barcol Hardness	53
Dielectric Strength	16,060 Volts
Heat Resistance	1,100ºF

CHEMICAL RESISTANCE:

Immersion Chemical	Total Immersion Time	Effect
Acetone	30 Days	Softened
Diesel Fuel	30 Days	No Effect
Ethyl Alcohol	30 Days	Soft, Rubbery
Gasoline	30 Days	No Effect
30% HCL	30 Days	Softened
Toluene	30 Days	Softened
MEK	30 Days	Soft, Rubbery
Chlorine	30 Days	No Effect

MECHANICAL PROPERTIES:

Structure	Method	PSI
Flexural Strength	ASTM D 709-71	16,100
Tensile Strength	ASTM D 638	24,900
Compression Strength	ASTM D 695-77	26,600
Bond Strength		98

4 Layers to Total Obliteration
Spray Penetration Test (4 layers recycled from 50ºF-90ºF)
Temperature Cycle Test (with no delmination or loss of bond)

DESCRIPTION	PART
Fast-Fix™ Epoxy Patch Kit	74506
Fast-Fix™ Pipe & Hose Repair Kit	74507

ADHESIVES AND SEALANTS

FAST WELD ADHESIVE & WELDING POWDER

Double Bond Performance
The Adhesive bonds most materials instantly. These materials are rubber, glass, copper, aluminum, steel and most plastics. The Welding Powder is used to repair all types of holes, cracks, gaps and can produce a strong weld seam to support the repair, just like solder or welded joints.

Features
- **Beyond Super Glue**
  - A combination of instant adhesive plus a welding powder.
- **An Incredible Tool**
  - Repairs almost anything.
- **Save Time & Money**
  - An advanced polymer adhesive that can bond quickly, sometimes instantly.
- **Double Bond Performance**
  - The welding powder enables even stronger bonds!

Adhesive - 28 g

Benefits
- High strength, bonds in seconds
- Can bond almost any material to itself or to another material
- Will not dry out in the container
- Adhesive dries crystal clear

Applications
- Use on rubber, glass, copper, aluminum, steel and most plastics
- Repair holes, cracks, and gaps
- Can be filed, drilled, sanded, and painted almost immediately

Welding Powder - 40 g

DESCRIPTION	PART
Fast Weld Adhesive (28 g) & Welding Powder (40 g)	74489

ADHESIVES AND SEALANTS

INSTANT ADHESIVE

Instant, High Strength, Cyanoacrylate Adhesive for Non-Porous Surfaces
Ultra-high performance, versatile adhesive bonds metal, rubber, plastic and glass instantly.
Red Lion Instant Adhesive works where others fail, providing the strongest bond on hard-to-bond surfaces.

Features
- Permanent, super strength bond
- Easy to use
- Bonds instantly
- Saves time, money, labor and mess

Applications
- Bonds metal, rubber, plastic and glass

TECHNICAL DATA:

Color	Clear
Gap Fill	.004"
Viscosity cP	40
Tensile Shear Strength PSI	2,500
Temperature Range	-65ºF to 180ºF (-54ºC to 82ºC)
Cure Speed Fixture	20-40 seconds
Full	24 hours

DESCRIPTION	PART
Instant Adhesive (1/3 fl. oz.)	74516

INSTANT ADHESIVE GEL

Instant, High Strength, Cyanoacrylate Adhesive for Porous Surfaces
Ultra-high performance, versatile adhesive bonds wood, paper, leather, fabric, metal, rubber, plastic and glass instantly. Red Lion Instant Adhesive Gel works where others fail, providing the strongest bond on hard-to-bond surfaces. Particularly suited for bonding porous or absorbent materials such as wood, paper, leather or fabric.

Features
- Permanent, super strength adhesive
- Bonds instantly – no waiting for product to cure
- Easy application – no mixing required
- Saves time, money, labor and mess

Applications
- Bonds wood, paper, leather, fabric, metal, rubber, plastic and glass

TECHNICAL DATA:

Color	Clear
Viscosity cP	Gel
Tensile Shear Strength PSI	1,000 to 3,200
Temperature Range	-65ºF to 180ºF (-54ºC to 82ºC)
Cure Speed Fixture/Full	20-40 seconds
Full	24 hours

DESCRIPTION	PART
Instant Adhesive Gel (.10 oz.)	74525

ADHESIVES AND SEALANTS

JUST FOR COPPER

Solderless Copper Bonding
Solderless copper bonding, bonds rigid copper pipes and standard fittings without heat. Changes from a liquid to a polyacrylic solid to provide maximum strength between tube and fitting. Works even when pipes are wet. No mixing, just shake, squeeze and apply. Is an insulator and will not conduct electricity.

Features
- Easy to use, permanent cold weld for installing and repairing rigid copper pipe in potable hot and cold water
- Provides same permanent weld as hot solder
- Temperature range from -40°F to 245°F
- Holds 200psi 7 seconds after bonding; holds 500psi 4 hours after bonding
- Sets in 5 seconds; cures in 7 minutes
- 50g bottle makes up to 200 welds
- Approved for potable water and EPA National Drinking Water Standards

Applications
- For use on pipes up to 2 diameters
- Use on copper pipe and copper and brass fittings

DESCRIPTION	PART
Just for Copper (1.85 oz.)	74553

POW-R-BOND™ ADHESIVE

Spray Adhesive
High strength, fast setting, permanent adhesive for all heavy duty general purpose bonding applications. Lace-like pattern sets up quickly for high contact strength. Dries in minutes.
High temperature resistance to 140°F (60°C).

Features
- Superior strength – handles heavy duty applications
- Permanent bond – assures durability
- Fast assembly – minimizes downtime
- Multi-purpose – provides versatility
- Heat resistant – for high temperature applications

Applications
- Ideal for laminates, trim, signs, kick plates, wood working, maintenance and asbestos removal
- Adheres to most surfaces including wood, metal, glass, plastic, etc.

DESCRIPTION	PART
Pow-R-Bond™ Adhesive (13.25 oz.)	74187

ADHESIVES AND SEALANTS

SPRAY ADHESIVE

Multi-Purpose, Permanent, Fast Setting
A multi-purpose light-duty spray adhesive that works on virtually any surface where an adhesive is needed. Remains tacky for several minutes to allow for respositioning.

Features
- Strong permanent bond – assures effective repairs and secure assembly
- 3-position valve – allows proper dispensing of product
- General purpose – covers virtually any light-duty applications
- Temperature Range: 120ºF continuous, 200ºF intermittent

Applications
- Ideal for gaskets, trim, foam, ceramics, ferrous and no-ferrous metals, cardboard, etc.

DESCRIPTION	PART
Spray Adhesive (13.25 oz.)	74130

3M™ SPRAY ADHESIVE

Multi-Purpose 27 Spray Adhesive, P/N 74605
Extremely versatile adhesive is ideal for bonding paper, cardboard, fabrics, soft foams and many other lightweight materials.
- Fast tack
- Lightweight applications
- Mist spray pattern

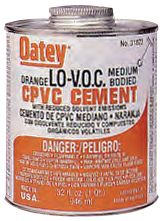
Foam & Fabric 24 Spray Adhesive, P/N 74606
Fast-tack adhesive bonds foam to metal, wood and many other substrates (ideal for upholstery).
- Aggressive tack
- Foam-tearing strength
- Variable width lace spray pattern ensures precise placement.

Woodworking 20 Spray Adhesive, P/N 74607
High strength, fast-grabbing adhesive forms powerful, permanent bonds.
- Fast grab
- Bonds wood, laminates, metals, plastics and more
- Variable width lace spray pattern ensures precise placement

DESCRIPTION	PART
3M™ Multi-Purpose 27 Spray Adhesive (13.8 oz.)	74605
3M™ Foam & Fabric 24 Spray Adhesive (13.8 oz.)	74606
3M™ Woodworking 20 Spray Adhesive (13.8 oz.)	74607

ADHESIVES AND SEALANTS

CPVC CEMENT – ORANGE



Cement for CPVC Pipe and Fittings
Medium-bodied cement for use on CPVC pipe and fittings up to 6” diameter.

Features
- Exceeds new environmental requirements and meets various California district rules
- Low V.O.C.
- Apply at temperatures 40ºF to 90ºF
- Exceeds ASTM D-2846, F-493
- NSF and UPC listed

Applications
- For C.T.S. (copper tube size) and Schedule 80, potable water pressure pipe

DESCRIPTION	PART
CPVC Cement – Orange (16 oz.)	74552

PVC-ABS-CPVC CEMENT

Multi-Purpose Cement
Medium-bodied clear cement for ABS, PVC or CPVC up to 6” diameter.

Features
- Apply at temperatures 40ºF to 100ºF
- Exceeds performance requirements of ASTM D-2564, D-2846, D-2235 and F-493

Applications
- Recommended for pipe Schedule 40 and Schedule 80 potable water, pressure pipe, gas, conduit and DWV

DESCRIPTION	PART
PVC-ABS-CPVC Cement (16 oz.)	74550

PVC AND CPVC PRIMER – PURPLE

All-Purpose Primer/Cleaner
Removes surface dirt, grease and grime as well as softens pipe in preparation for solvent cement.

Features
- Exceeds new environmental requirements and meets various California district rules
- Less aggressive than clear and standard purple primers
- Purple tint for verification for code
- Low V.O.C.
- Apply at temperatures 40ºF to 100ºF

Applications
- For PVC and CPVC pipe and fittings

DESCRIPTION	PART
PVC and CPVC Primer – Purple (16 oz.)	74549

PVC CEMENT – CLEAR

Cement for PVC Pipe and Fittings
Medium-bodied clear cement for use on PVC pipe and fittings up to 6” diameter for Schedule 40 and Schedule 80.

Features
- Exceeds new environmental requirements and meets various California district rules
- Low V.O.C.
- Apply at temperatures 40ºF to 100ºF
- Exceeds ASTM D-2564
- NSF and UPC listed

Applications
- Recommended for gas, conduit, drain, waste and vent pipe

DESCRIPTION	PART
PVC Cement – Clear (16 oz.)	74551

ADHESIVES AND SEALANTS

SUPER ADHESIVE SEALANT

Multi-Purpose, Flexible, High Strength Adhesive
A versatile, high-performance industrial adhesive and sealant which provides exceptional mechanical and chemical bonding in plant, fleet, commercial and contractor applications. Adheres to and seals all woods, metals, concrete, masonry, ceramics, rubber, fiberglass, glass and plastics.

Features
- Superior strength
- Extremely flexible
- Abrasion resistant
- Paintable
- Waterproof
- Self-leveling

Applications
- Plant and Building Maintenance
- Transportation
- Marine
- Electrical
- Rubber Goods and Plastics
- Tools and Fasteners
- Construction and Carpentry

TECHNICAL DATA:
Temperature Range..... -40ºF to 150ºF
Tensile
Strength..... 3500 lb/in.^{2} (ASTM D-412)
Elongation.....900% (ASTM D-412)
Dielectric Strength ..... 400 volts/mil
Dry Time ..... Tack: 5 minutes
Paintable: 24 hours

DESCRIPTION	PART
Super Adhesive Sealant (3.7 fl. oz.)	74510

SUPER ADHESIVE SEALANT UV

Multi-Purpose, Ultra-Violet Light Resistant High Strength Adhesive
This multi-purpose, clear adhesive is formulated for use in applications that may be exposed to ultra-violet light. Adheres to wood, metal, rubber, glass and most plastics. It is not for use on StyrofoamTM. Its flexible bond resists cold temperatures, yellowing, cracking and embrittlement. Can be submerged in fresh and salt water after complete cure. Great for bonding objects subject to wear and to vibration. Safe for applications exposed to dilute acids and dilute caustics. Recommended for all industrial applications where UV resistance is required.

Features
- UV resistant formula
- Industrial strength
- Extremely flexible
- Waterproof
- Paintable
- Self-leveling

Applications
- Plant and Building Maintenance
- Transportation
- Marine
- Electrical
- Rubber Goods & Plastics
- Tools and Fasteners
- Construction & Carpentry

TECHNICAL DATA:
Full Cure Time .....Thin film 24 hours,
.....Thick film 48-72 hours
Tensile Strength.....3500 lb./in.
Elongation.....900% (ASTM D-412)
Service Temperature Range...-40ºF to 150ºF
Paint-Over Time.....24 hours
Dielectric Strength .....400 V/mil

DESCRIPTION	PART
Super Adhesive Sealant UV (10.2 fl. oz.)	74554

LIQUID ELECTRICAL TAPE (BRUSH APPLICATOR CAP)

Forms a protective dielectric coating on electrical connections to seal out moisture and prevent corrosion. Will not peel or unravel. Flame retardant. Service temperature range is -30ºF to +255ºF. Completely waterproofs connections and can be applied to irregular shaped or hard-to-reach conditions.

Features
- Seals and protects electrical connections
- Adheres to all metal, plastic, vinyl, rubber and composite surfaces
- Stops terminal screws from loosening from vibration
- Safe and easy to use
- Fast drying
- Dielectric strength 1000-1500 volts/mil

Applications
- Bilge pumps, outdoor exposed wiring, sprinkler pumps, timers, underground wiring, outdoor lighting fixtures, instruments, computers... anywhere a weatherproof and dependable connection is needed.

DESCRIPTION	PART
Liquid Electrical Tape (Brush Applicator Cap) (4 fl. oz.)	74547

ADHESIVES AND SEALANTS

RTV GASKET MAKER

Tough Silicone Adhesive Sealer/Gasket Maker
The ultimate gasket maker and sealer in an easy to use dispenser. It adheres to and bonds natural and synethic fibers, metal, glass, wood, rubber, ceramic, painted and plastic surfaces. Seals against water, air, chemicals, oils and grease. Fills crevices and irregularities in joints. Waterproofs porous materials. Perfect for weather-stripping. Insulates against shock and vibration and a great electrical insulator. A perfect gasket maker for just about anything. When fully cured and washed, this product meets the following specifications: FDA Regulation No. 21 CFR 177.2600, MIL-A-46106, per current revision and type, and TT-S-001543A. This product is suitable for use in federally inspected meat and poultry plants.

Features
- One-part silicone adhesive sealant
- Temperature range -80ºF to +500ºF (450ºF continuous)
- Insulates and weatherproofs

RTV TUBE EXTENSION TIP
Part #16065
Screws on RTV dispensers for precision application of sealer

Applications
- For use on gasketing pumps, oil pans, valve covers, gear boxes, compressors, etc.
- Seals windows, pipe joints and parts
- Bonds gaskets, appliance parts, sign letters
- Caulks joints, duct work, equipment housings

NOTE: Do not use in direct contact with fuel oil, gasoline, acid or caustic materials. Not for use on head gaskets or carburetor base.

DESCRIPTION	PART
RTV Gasket Maker - White (8 oz.)	74128
RTV Gasket Maker - Black (8 oz.)	74131
RTV Gasket Maker - Blue (8 oz.)	74132
RTV Gasket Maker - Clear (8 oz.)	74133

RTV GASKET MAKER (HI-TEMP RED)

High Temperature Resistant, Tough Silicone Adhesive
The ultimate gasket maker and sealer features the most advanced technology in an easy to use dispenser, giving a uniform bead of any size or shape. It meets O.E.M. low volatile specifications for use with oxygen sensor equipped engines. Meets GM specs.

Features
- Ultimate gasket maker
- Low odor
- Low volatile and non-corrosive
- Temperature range -60ºF to +600ºF (500ºF continuous)
- Insulates and weatherproofs

Applications
- For use on gasketing pumps, oil pans, valve covers, gear boxes, compressors, etc.
- Seals windows, pipe joints and parts
- Bonds gaskets, appliance parts, sign letters
- Caulks joints, duct work, equipment housings

NOTE: Do not use in direct contact with fuel oil, gasoline, acid or caustic materials. Not for use on head gaskets or carburetor base.

DESCRIPTION	PART
RTV Gasket Maker (Hi-Temp Red) (8 oz.)	74153

ADHESIVES AND SEALANTS

RTV GASKET MAKER/SEALER (TUBE)

Tough Silicone Adhesive in a Caulking Gun Cartridge
The ultimate gasket maker and sealer in a caulking gun cartridge. Ideal for use wherever a strong, permanently elastic weatherproof adhesive sealant is needed. This product has excellent adhesion characteristics, high chemical resistance and will not sag or shrink from severe temperature extremes. As an instant gasket maker, this product replaces a wide range of cork, paper, asbestos, felt and metal gaskets. Reduces inventory – eliminates need to stock conventional gaskets. Reduces downtime – gets equipment back in operation fast. (Use with P/N 8253 Caulking Gun).

Features
- 100% silicone rubber
- Permanently flexible
- Withstands temperatures -85ºF to 450ºF (-51ºC to 232ºC)
- Adheres to most surfaces
- Insulates
- For interior and exterior use

Applications
- Use for sealing cracks in machinery, heating and ventilating duct work, plumbing fixtures, electrical connections, low pressure water and drain pipes.
- Bonds nameplates, machinery flanges, glass, signs and electrical insulation.
- Ideal for caulking windows, doors, walls, ceiling cracks and crevices.

10.3 oz. Cartridges

DESCRIPTION	PART
RTV Gasket Maker/Sealer - White (10.3 oz.)	74542
RTV Gasket Maker/Sealer - Black (10.3 oz.)	74548
RTV Gasket Maker/Sealer - Blue (10.3 oz.)	74543
RTV Gasket Maker/Sealer - Clear (10.3 oz.)	74541

RTV GASKET MAKER/SEALER (HI-TEMP RED)

High Temp Resistant, Tough Silicone Adhesive in a Caulking Gun Cartridge
The ultimate gasket maker and sealer in a caulking gun cartridge. Ideal for use wherever a strong, permanently elastic weatherproof adhesive sealant is needed. This product has excellent adhesion characteristics, high chemical resistance and will not sag or shrink from severe temperature extremes. It can be used in a wide temperature range of -85ºF to 600ºF (500ºF continuous). As an instant gasket maker, this product replaces a wide range of cork, paper, asbestos, felt and metal gaskets. Reduces inventory – eliminates need to stock conventional gaskets. Reduces downtime – gets equipment back in operation fast.
(Use with P/N 8253 Caulking Gun).

Features
- 100% silicone rubber
- Permanently flexible
- Withstands temperatures -85ºF to 600ºF (-51ºC to 315ºC)
- Adheres to most surfaces
- Insulates
- For interior and exterior use

Applications
- Use for sealing cracks in machinery, heating and ventilating duct work, plumbing fixtures, electrical connections, low pressure water and drain pipes.
- Bonds nameplates, machinery flanges, glass, signs and electrical insulation.
- Ideal for caulking windows, doors, walls, ceiling cracks and crevices.

DESCRIPTION	PART
RTV Gasket Maker/Sealer (Hi-Temp Red) (10.3 oz.)	74544

ADHESIVES AND SEALANTS

RAPID SEAL

Rubberized Sealant – Petroleum Asphalt Resin
Rapid Seal rubberized sealant seals leaks in gutters, flashings, roofs, and skylights. It is excellent as sealer after pruning trees, and also can be used as a sealant on pails, planters and trash cans.

Features
- Tough
- Flexible Elastic Barrier
- Temporary or Permanent
- Works On a Variety of Surfaces
- Seals Out Moisture
- Fast Dry
- Can Be Top Coated
- Deadens Sound
- Resists Temperature Extremes
- Resists Rust, Road Salts, Alkali and Acids

Applications
- Skylights
- Flashings
- Air Vents
- Gutters
- Antenna Installations
- Small Cracks / Holes in Driveways
- Tree Shrub Pruning

DESCRIPTION	PART
Rapid Seal - Black (18 oz.)	74572

SEAL-IT

Thermoplastic Elastomer Resin
A unique spray product that leaves a firm coating which stays flexible. Will not sag or drip. The coating is impervious to water. The film will not freeze or crack in cold, is abrasion resistant and won't peel. Economical, quick and easy to use. Seals out rust and corrosion.

Features
- Unique Spray Product
- Leaves a Flexible Firm Coating
- Will Not Sag or Drip
- Impervious to Water
- Will Not Freeze or Crack in Cold
- Abrasion Resistant
- Does Not Peel
- Economical
- Quick and Easy
- Seals Out Rust and Corrosion

Applications
- Flashings / Skylights
- Windows / Doors
- Air vents
- Concrete
- PVC
- Gutters
- Shingles / Siding
- Semi Trailers
- Roofs on Campers

DESCRIPTION	PART
Seal-It - Black (15 oz.)	74573
Seal-It - Clear (15 oz.)	74574
Seal-It - White (15 oz.)	74578
Seal-It - Silver (15 oz.)	74579

ADHESIVES AND SEALANTS

INSULATING EXPANDABLE FOAM SEALANT

A Unique One Part Urethane Foam Which Expands as it Dries and Solidifies
Sprays as a liquid then expands and cures to a durable semi-rigid closed cell foam insulation. Each can dispenses over 800 linear feet of product when sprayed in a 3/8'' cured bead. Great for sealing headers, outlets, door frames, outside faucets, and around air vents. Fills cracks and plugs holes that caulk won't. Plug the entrance of insect or rodent holes. Seals out Radon Gas. Deadens sound when applied to sheet metal.

Features
- Forms a water-resistant, weather-resistant and airtight bond on masonry, wood, metal, glass, & most plastics
- Keeps pollutants out as well as noise
- Dries tack free in 10 minutes
- Cures completely in 8 to 24 hours
- Easy to use, conforms to any shape as it expands
- Foam expands 2 to 3 times in size

Applications
- Energy conservation
- Air Conditioning
- Ventilation Ducts
- Heating Ducts
- Plumbing
- Window A/C Units
- Spas
- Hot Tubs
- Boats
- RVs
- Electrical Equipment
- Appliances
- Refrigeration Units
- Carpentry
- Masonry
- Auto/TruckDoors

DESCRIPTION	PART
Insulating Expandable Foam Sealant (12 oz.)	74575

COOLING SYSTEM SEALANT

Seals Leaks Quickly and Conveniently
Cooling System Sealant quickly stops minor radiator leaks, seals hairline cracks in engine blocks and heads and stops seeping around gaskets and hoses. Contains ultra small refined organic fibers, an organic buffer to deter rust and corrosion, and a suspension thickener.

Features
- Stops minor radiator leaks quickly
- Seals hairline cracks in the block or head
- Stops seeping around gaskets and hose connections

Applications
- Automotive dealerships, independent automotive shops, service stations, automotive retailers, farm and construction equipment repair, school auto shops

DESCRIPTION	PART
Cooling System Sealant (11 oz.)	74557

ADHESIVES AND SEALANTS

THREADLOCKER

Strong, Temporary Lock for Threaded Fasteners
This medium-strength, general purpose thread locking compound is ideal for all nut and bolt applications and eliminates self-loosening. It is suitable for temperatures up to 300ºF, prevents threads from rusting and is removable with hand tools.

Features
- Covers all threadlocking applications
- "Capillary action" gap fill – prevents movement of screw threads and eliminates self-loosening
- Anti-corrosion formulas prevent rusting of thread
- Fast cure without cracking or shrinking – enables quick assembly with minimum downtime
- Easy application – no mixing required
- Authorized by USDA for use in federally inspected meat and poultry plants
- Saves time, money, labor and mess

Applications
- Can be used with all metals, glass, ceramics and many thermoset plastics

TECHNICAL DATA:
Gap Fill ..... .005"
Viscosity cP ..... 1200/5000 Thixotropic
Torque in. lbs. (Break/Prevail) 80/50
Temperature
Range ..... -65ºF to 300ºF (-54ºC to 149ºC)
Cure Speed
(Fixture/Full) .....20 min. / 24 hours

Part #74490

Part #74513

DESCRIPTION	PART
Threadlocker (0.338 fl. oz.)	74490
Threadlocker (1.20 fl. oz.)	74513

THREADLOCKER GELS

Formulated to Provide "Liquid Reliability"
The gel twist threadlockers will not drip or run like traditional liquid threadlockers and is easily portable. Threadlocker gels stay on the part which reduces waste and makes it great for use in vertical applications. No more liquid drips or solid stick globs to deal with. No more mess to clean or costly waste to worry about. The extended nozzle allows for easy application in "hard-to-reach" locations.

Features
- Locks and seals while preventing parts from loosening due to vibration
- Protects threads from corrosion
- No drips, runs, spills or leaks
- Patent-pending formulation & pin-point applicator
- Gel stays where you want it on the part
- Applies clean and package stays clean
- Great for "hard-to-reach" and vertical applications
- Easily portable
- No mess and no waste – time and cost savings!

All-Purpose Medium Strength Blue – Ideal for all nut and bolt applications 1/4" to 1" (6mm to 25mm). Great for hard-to-reach and vertical applications. Removable with hand tools for easy disassembly.

High Strength Red – Ideal for heavy-duty applications 3/8" to 1" (10mm to 25mm) and greater. Well suited for permanently locking studs. Requires heat or special tools for removal.

Part #74567

Part #74568

Applications

DESCRIPTION	PART
Threadlocker Gels - Medium Strength Blue (10 gm)	74567
Threadlocker Gels - High Strength Red (10 gm)	74568

ADHESIVES AND SEALANTS

STUD LOCK & BEARING MOUNT

High Temperature Resistant Adhesive for Locking Studs and Bearings
A very high-strength adhesive for locking and sealing all fasteners up to 1" diameter and bearings. Ideal where high viscosity, shear strength and rapid cure speed are necessary. It is also ideal for tamper proofing where a difficult removal is desired. Stud Lock and Bearing Mount is suitable for temperatures up to 300ºF, prevents rusting of threads and is removable with heat and hand tools.

Part #74491

Part #74515

Features
- Covers all threadlocking applications
- Extremely versatile – can be used with all metals, glass, ceramics and many thermoset plastics
- "Capillary action" gap fill – prevents movement of screw threads and eliminates self-loosening
- Anti-corrosion formulas prevent rusting of thread
- Fast cure without cracking or shrinking – enables quick assembly with minimum downtime
- Easy application – no mixing required
- Authorized by USDA for use in federally inspected meat and poultry plants
- Saves time, money, labor and mess

TECHNICAL DATA:

Gap Fill	.007"
Viscosity cP	500
Torque in. lbs. (Break/Prevail)	160/320
Temperature Range	-65ºF to 300ºF (-54ºC to 149ºC)
Cure Speed (Fixture/Full)	20 min. / 24 hours

Applications
- Can be used with all metals, glass, ceramics and many thermoset plastics

DESCRIPTION	PART
Stud Lock & Bearing Mount (0.338 fl. oz.)	74491
Stud Lock & Bearing Mount (1.20 fl. oz.)	74515

THREAD SEALANT HYDRAULIC/PNEUMATIC

Seals and Locks Hydraulic and Pneumatic Fittings
Specially formulated for both hydraulic and pneumatic systems. Designed to seal and lock hydraulic and pneumatic fittings, servomechanisms and fine-filtration systems. It contains no fillers and will not foul valves or fluid filtering systems. It is suitable for temperatures up to 300ºF and rated for sealing pressures to 10,000 psi.

Features
- Medium strength for high pressure fluid power systems
- "Capillary action" gap fill – prevents movement of threads and eliminates self-loosening
- Fast cure without cracking or shrinking – enables quick assembly with minimum downtime
- Easy application – no mixing required
- Saves time, money, labor and mess

TECHNICAL DATA:

Viscosity cP	14,000
Breakaway Torque N.m. (lb./in.)	2 to 3 (8 to 24)
Temperature Range	-65ºF to 300ºF (-54ºC to 149ºC)
Cure Speed (Fixture/Full)	20 min. / 24 hours

Applications
- Hydraulic and pneumatic fittings, servomechanisms and fine-filtration systems

NOTE: Not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

DESCRIPTION	PART
Thread Sealant Hydraulic/Pneumatic (1.69 fl. oz.)	74524

ADHESIVES AND SEALANTS

LOCTITE® THREAD TREATMENT STICKS

Solid Performance in a Semi-Solid Stick Formula

- **248 Medium Strength Threadlocker**
- **268 High Strength Threadlocker**
- **PST® 561 Thread Sealant**
- **C5-A® Copper Anti-Seize**
- **Silver Grade Anti-Seize**

These patented new stick products offer great flexibility for tough applications, especially overhead, under or around machinery and on components that cannot be moved. They prevent rust and corrosion on various fastener sizes, easing disassembly and reducing inventory carrying costs. The semi-solid formula also means they won't spill or leak.

Features

- Convenient – small enough to be "pocket friendly"
- No leaks, drips or spills
- Keeps toolboxes, workbenches and hands clean
- Fast and easy to apply
- Solid formula – great for overhead use
- Functional for a full range of uses
- Color-coded caps for easy application identification

Applications

- For threadlocking – completely fill the root of the threads at the area of engagment
- For thread sealing – 360º coverage is recommended
- Advance stick only as deep as the threads you are applying to

DESCRIPTION	PART
Loctite® Thread Treatment Sticks (5-Piece Box Set)	17931

248 MEDIUM STRENGTH THREADLOCKER STICK – BLUE

Features

- Eliminates loosening from vibration, shock and thermal expansion
- More reliable and cost effective than conventional mechanical fasteners
- Prevents rust and corrosion while sealing and protecting threads
- Removable with hand tools

Applications

- Machine tools and presses • Pumps and compressors • Mounting bolts • Gear boxes

DESCRIPTION	PART
248 Medium Strength Threadlocker Stick – Blue (0.67 oz. / 19 g)	74561

268 HIGH STRENGTH THREADLOCKER STICK – RED

Features

- Eliminates loosening from vibration, shock and thermal expansion
- More reliable and cost effective than conventional mechanical fasteners
- Prevents rust and corrosion while sealing and protecting threads
- Requires localized heat and hand tools for removal

Applications

- Heavy equipment • Suspension bolts • Motor, transmission and pump mounts
- Bearing cap bolts and studs • Formulated for heavy-duty applications

DESCRIPTION	PART
268 High Strength Threadlocker Stick – Red (0.67 oz. / 19 g)	74563

ADHESIVES AND SEALANTS

PST® 561 THREAD SEALANT STICK – WHITE

Features
- Immediate low pressure sealing to 100 psi
- Controlled lubricity prevents galling
- Protects threaded areas from rust and corrosion
- Provides exceptional fluid compatibility and chemical resistance
- Will not contaminate or clog lines
- Eases disassembly

Applications
- Seals all types of metal tapered threads and fittings to NPT specs
- Ideal for use in a broad range of industries including chemical processing, waste water treatment and automotive

DESCRIPTION	PART
PST® 561 Thread Sealant Stick - White (19 g)	74564

LOCTITE® QUICKSTIX™ 548™ GASKET ELIMINATOR® FLANGE SEALANT

Features
- Designed for rigid flange assemblies
- Forms a flexible, solvent resistant seal
- Offers excellent oil resistance on rigid flange sealing
- Seals up to 300ºF (149ºC)
- Fills gaps to 0.010"
- Sealing time: >3 hours with or without primer

Applications
- Formulated with excellent oil resistance for rigid flange sealing, for example on transmissions and cast metal housings
- Ideal for on-the-spot repairs or when a conventional gasket is not available
- For use on a variety of metal surfaces, including aluminum

DESCRIPTION	PART
548™ Gasket Eliminator® Flange Sealant (18 g)	74569

LOCTITE® QUICKSTIX™ 534™ HI-TACK GASKET DRESSING

Features
- Allows a precut gasket to be positioned holding it in place for assembly
- Holds aggressively yet still allows for repositioning of the cut gasket
- Seals up to 300ºF (149ºC)
- Offers added control and ease of use
- Sealing time: 5 minutes to set

Applications
- Seals and bonds rubber, cork, paper, felt and metal gaskets
- Ideal for use in applications requiring oil resistance

DESCRIPTION	PART
534™ Hi-Tack Gasket Dressing (19 g)	74570

LOCTITE® QUICKSTIX™ 668™ RETAINING COMPOUND, HIGH TEMPERATURE

Features
- Bonds non-threaded, cylindrical metal assemblies with gaps up to 0.005" diameter
- Provides typical shear strength of 1,870 psi after 24 hours
- Prevents fretting and corrosion of metal assemblies up to 400ºF (204ºC)
- Set-up time / full strength: 30 minutes / 24 hours

Applications
- Fills the inner voids in close-fitting press fits, keyways and splines
- Mounts bearings and bushings
- Makes press fits even stronger

DESCRIPTION	PART
668™ Retaining Compound, High Temperature (19 g)	74571

ADHESIVES AND SEALANTS

TEFLON® PIPE SEALANT

Superior Performance, Pipe Fitting Sealant with Brush Applicator Cap
Superior grade, non-hardening, easy-to-apply, heavy duty pipe thread sealant. It is formulated to a thick past consistency and contains pure Teflon® powders and other PTFE resins to ensure a positive seal with less effort. Withstands pressure to 10,000 p.s.i. (liquid), 2000 p.s.i (gas) and temperatures from -250ºF to +500ºF (-157ºC to +260ºC) and is non-toxic. It remains flexible to allow easy disassembly of connections.

74546 74545

Features
- Prevents corrosion, seizing and galling
- Seals most threaded connections
- Resists chemicals, caustics and acids
- Non-staining and non-dripping

Applications
- Designed for all pipe fitters, fabricators, plumbers and mechanical contractors.
- Recommended for pipe thread connections servicing chemicals, petroleum products, natural and LP gas, solvents, refrigerants, water, steam, caustics and acids.
- Can be used on all pipe and threaded connections with cast iron, malleable, brass, copper, stainless steel, PVC, CPVC, ABS and polypropylene.

DESCRIPTION	PART
Teflon® Pipe Sealant (1/2 pint)	74545
Teflon® Pipe Sealant (1 pint)	74546

TEFLON® PIPE SEALANT

Superior Performance, Food Grade, Paste Pipe Fitting Sealant
Specially formulated for rapid cure on stainless steel, carbon steel, monel and aluminum threads and fittings. High lubricity allows easier assembly on worn or damaged threads and prevents galling. Will not shred to clog or contaminate systems. Parts are easily disassembled with a pipe wrench. Suitable for use with hydrocarbons (aromatics), halocarbons [Freon®, perchloroethylene, trichloroethylene, organic acids (citric and acetic), alcohols, mild mineral acids and bases (diluted and cold)]*. USDA accepted for use in federally inspected meat and poultry plants.

SPECIFICATIONS:
Color ..... White
Viscosity ..... 550,000 cP
Pressure Resistance ..... 10,000 psi
Seal to Operating Pressure ..... Stainless Steel 3 hours, Carbon Steel 30 minutes
Temperature Range ..... -65ºF to 400ºF (-54ºC to 204ºC)

CAUTION: Not for use on plastic pipe. May attack some thermoplastics. Airspace in tube keeps contents liquid.

Features
- Superior lubrication
- Seals all stainless steel and other metal fittings
- Outperforms all pipe dopes and tapes
- Temperature range -65ºF to 400ºF (-54ºC to 204ºC)
- Pressure resistance to 10,000 psi

Applications
- Designed for all pipe fitters, fabricators, plumbers and mechanical contractors.
- Recommended for pipe thread connections servicing chemicals, petroleum products, natural and LP gas, solvents, refrigerants, water, steam, caustics and acids.
- Can be used on all pipe and threaded connections with cast iron, malleable, brass, copper, stainless steel, PVC, CPVC, ABS and polypropylene.

**Not recommended for oxygen systems. Freon and Teflon are registered trademarks of DuPont.*

DESCRIPTION	PART
Teflon® Pipe Sealant (1.20 fl. oz.)	74511

ADHESIVES AND SEALANTS

SCREW GRAB®

Screw Grab® is a friction gel that helps remove or tighten all types of fasteners - damaged or rusted screws, nuts, and bolts. A single dab creates a positive grip between metal surfaces (new tests have shown as high as 800%), that virtually eliminates tool wear and the stripping, rounding, or deforming of fasteners.

Features
- NOT a Glue
- Works Instantly
- Wipes CLEAN after use
- Non-corrosive
- Unlimited shelf-life
- Screw Grab is approved for use on US Military jets, and by the United Kingdom RAAF

Applications
- Stripped, rounded, deformed bolt heads/nuts
- Seized, rusted, or hard-to-reach spots
- Stops drill bits from turning in chuck
- Sloppy or mismatched sockets
- Removal of headlight frames, car moldings
- Apply to power driver for drywall or deck screws

DESCRIPTION	PART
Screw Grab® (0.5 fl. oz. / 15 ml)	74562

ADHESIVES AND SEALANTS

3M™ FIRE BARRIER SEALANT, CP 25WB+

Premium, Intumescent Latex-Based Sealant

3M CP Sealant 25WB+ offers outstanding fire performance plus a non-halogen formula.

- **Water base** – easy cleanup, no special handling, routine disposal
- **Intumescent** – expands when heated to choke and seal around items consumed by fire
- **Endothermic** – releases chemically bound water to cool exposed surfaces
- **Fast-dry** – tack-free in approximately 10-15 minutes
- **Red color** for easy inspection

*** Stock item (most widely used). Please call for delivery on other 4 items.**

DESCRIPTION	PART
3M™ Fire Barrier Sealant, CP 25WB+ (10.1 fl oz Cartridge*)	74580
3M™ Fire Barrier Sealant, CP 25WB+ (27 fl oz Cartridge)	74581
3M™ Fire Barrier Sealant, CP 25WB+ (20 fl oz Sausage)	74582
3M™ Fire Barrier Sealant, CP 25WB+ (5 Gallon Pail)	74583
3M™ Fire Barrier Sealant, CP 25WB+ (2 Gallon Pail)	74584

3M™ FIRE BARRIER MOLDABLE PUTTY

Restores the Integrity of Fire-rated Building Construction

Designed for use as a one-part, 100% solids intumescent firestop.

- Ideal for construction gaps, cable, insulated pipe, electrical conduit and metal pipe
- Designed to provide up to a 4-hour fire rating
- UL-classified for telecommunications applications (interduct, fiber optic and cables)
- Remains pliable and flexible
- Won't dry out or crumble
- Convenient pad and stick form
- Non-halogen formula
- Reenterable
- Adheres to all common building surfaces including metal and plastic electrical boxes
- Provides draft and cold smoke seal even before temperature increases
- Intumescent and expands to form a hard char – prevents the transmission of hot gases & fire
- Great for building maintenance applications

DESCRIPTION	PART
3M™ Fire Barrier Moldable Putty (Stick – 1.5" x 6")	74585
3M™ Fire Barrier Moldable Putty (Pad – 4"x 8" x 1/8")	74586

3M™ FIRE BARRIER FOAM FIP 1-STEP

Foam-in-place Firestop – Finally, a UL listed alternative to mineral wool, bricks and runny, ineffective foams.

- A smoke and firestopping foam for wall and floor penetrations.
- Used in mechanical, electrical, data and plumbing applications.
- Premium two-part, easy-to-handle formulation.
- Expands during installation and bonds to concrete, metal, wood, plastic and cable jacketing.
- Dries to a flexible solid.

This Foam Won't Roam.
It's like no firestop foam you've used before — it works. It's not runny, so it stays in place and expands at a controlled and consistent pace. Installs in vertical and horizontal applications without running down the opening or sagging. Similar to many two-part epoxy sealants, but with just one step — saving you trips up and down the ladder.

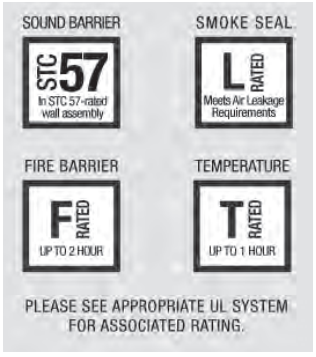
Key Features
- Firestop tested up to 2 hours in accordance with ASTM E 814 (UL 1479) and CAN/ULC S115.
- Meets the International Building Code for Passive Fire Protection.
- Expands up to 5X when dispensed. One cartridge FIP 1-Step equals up to 6 tubes 10.1 oz caulk.
- Intumescent. Expands in a fire.
- Expansive UL systems for blank openings, metal pipe, cables, cable trays, combos, insulated pipe.
- UL systems require no mineral wool.
- Remains pliable after installation for easy installation of new cables/conduit in existing opening.
- Excellent adhesion. Can be installed in wall or floor applications with no backing material.
- STC rating of 57 when tested in STC 57 rated wall assembly.
- Air leakage less than 1 CFM/Sq Ft.
- Shelf life is 12 months in original unopened containers from date of packaging.

Typical Applications
- Conduit banks
- Cables
- Cable trays
- Combos
- Busways
- Metal pipes
- Plastic pipes
- Insulated pipes
- HVAC duct penetrations
- Blank openings in floors and walls

Items are non-stock. Please allow 1 to 2 weeks for delivery (3M factory stock). For urgent requirements, please call.

P/N 9572
HandyMax® HMS-G4C2
Manual Gun

P/N 9573
PowerMax® HPS-4C2
Battery-Powered Gun



IMPORTANT:
Products do not achieve ratings, systems do.
Consult your UL directory for specific information regarding your application.

DESCRIPTION	PART
3M™ Fire Barrier Foam FIP 1-Step, 12.85fl oz.	74588*
Nozzle (2 pack)	74588N
HandyMax® HMS-G4C2 Manual Gun	9572
PowerMax® HPS-4C2 Battery-Powered Gun	9573

*Includes 2 nozzles

See FIP 1-Step in action! Scan the QR Code to go to the video.

BULK CHEMICALS

BULK CHEMICALS

ALUMINUM BRITE™

Concentrated, Deep Cleaning Metal Cleaner
A fast-acting, deep cleaning solution for removing dirt, oxide and carbon stains from aluminum, stainless steel, copper, magnesium and other similar metals. Cleans and brightens.

Features
- Concentrated
- Deep cleaning and fast acting
- Easy to use – requiring no scrubbing, buffing or polishing
- Economical – saving time, money and labor

Applications
• Truck Bodies • Wheels • Buses • Aircraft • Equipment • Machinery

Instructions*
Light Duty Application: Mix (1) part cleaner with up to (10) parts water
Heavy Duty Carbon Stains: Mix (1) part cleaner with (5) parts water

DESCRIPTION	PART
Aluminum Brite™ (55 Gallon Drum)	74240
Aluminum Brite™ (30 Gallon Drum)	74241
Aluminum Brite™ (5 Gallon Pail)	74243
Aluminum Brite™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74244

BIG JOB™ TRUCK WASH

Concentrated, Water-Based, Biodegradable, Manual or Auto Wash
A highly concentrated liquid cleaning compound designed for autos, trucks, buses and planes where minimum surface agitation is required. It's easy to use manually or in automatic equipment and it's economical.

Features
- Super-concentrated
- Dissolves road film
- Biodegradable
- Manual or automatic washing

Applications
• Autos • Trucks • Buses • Planes • Railroad Cars
• Vans • Trailers • Tractors • Box Cars

Instructions*
Light Duty Application: Dilute (2-3) ounces per gallon of water
Heavy Duty Soils: Dilute (4-8) ounces per gallon of water
Automatic / Mechanical Washers: Dispense at a 1 to 50 dilution rate

DESCRIPTION	PART
Big Job™ Truck Wash (55 Gallon Drum)	74235
Big Job™ Truck Wash (30 Gallon Drum)	74236
Big Job™ Truck Wash (5 Gallon Pail)	74238
Big Job™ Truck Wash (1 Gallon Container) *(Buy 4 x 1 Gal)*	74239

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

BULK CHEMICALS

CITRUS GREASE DIGESTER™

Unclogs, Degreases, Deodorizes
Revitalizes sluggish disposal systems and quickly reduces buildup of grease and slime in sewage treatment equipment without affecting bacterial activity. Effectively controls odor. Will not harm metal pipes. Eliminates heat generation. Non-acid, non-caustic and non-corrosive.

Features
- Unclogs, deodorizes and degreases
- Extremely effective in drains, grease traps, septic systems, dry wells and cesspools
- Environmentally safe
- Natural citrus base

Applications
- Waste Disposal Facilities
- Maintenance of Drains
- Garbage Areas
- Refuse Trucks and Cans

Instructions*

Drain Cleaner: To open drains clogged by grease and slime, pour in 8 oz. (1/2 pint). Allow to stand for 1 hour. Flush with hot tap water. In garbage disposals, allow to stand 5-10 minutes. Flush with hot tap water. *CAUTION: Do not use in plastic pipes.*

Drain Grease Trap Maintenance: Pour in a solution of 8 oz. per gallon of water. Allow to stand 1 hour. Flush with hot tap water. *CAUTION: Do not use in plastic pipes.*

General Cleaning, Degreasing and Odor Control: Dilute (4) oz. to (1) gallon of warm water. *Not for use on synthetic or resilient tile floors.*

Sewage Plants, Septic Tanks and Drainfields: Add (1) quart to (1,000) gallons of capacity or dispense through a drip device as required for maximum odor control.
CAUTION: Contains powerful organic compounds and may damage some plastic or painted surfaces.

DESCRIPTION	PART
Citrus Grease Digester™ (55 Gallon Drum)	74250
Citrus Grease Digester™ (30 Gallon Drum)	74251
Citrus Grease Digester™ (5 Gallon Pail)	74253
Citrus Grease Digester™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74254

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

BULK CHEMICALS

CLEAR VIEW™**

Concentrated, Biodegradable, Glass and Hard Surface Cleaner
Provides deep cleaning power for all glass and hard surface applications. A special blend of detergents, drying accelerators and ammonia dissolve dirt, dust and fingerprints. Leaves a gleaming, streak-free shine. Safe for most surfaces. Will not leave oily or soapy film. Repels dirt, dust and fingerprints.

Features
- Removes dirt, grease and fingerprints
- Fast-drying
- Non-streaking
- Non-abrasive

Applications
- Glass • Mirror • Porcelain • Formica
- Stainless Steel • Aluminum • Chrome
- Tile • Painted Surfaces • Plastic

Instructions*
Light Duty Application: Dilute with up to (2) parts water
Heavy Duty Soils: Use full strength

Also available in "Ready-to-Use" pre-diluted formula (Part #74601).
(Packaged in 32 oz. bottle with trigger sprayer).

DESCRIPTION	PART
Clear View™** (55 Gallon Drum)	74350
Clear View™** (5 Gallon Pail)	74353

COIL AND FILTER CLEANER

HVAC Multi-Purpose, Coil and Filter Cleaner
A non-caustic, non-acid cleaner designed to remove the build-up of dirt and grime on all HVAC and refrigeration coils and filters. Also works well as a filter adhesive, providing a viscous, tacky film to catch dirt, dust and pollen too small for retention by the filter.

Features
- Cleans HVAC/refrigeration coils and filters
- No rinsing necessary
- Easy-to-use
- Non-flammable

Applications
- Coils • Filters • Condensers
- Air Conditioning Systems
- Heating Units • Refrigeration Systems

Instructions*
Light Duty Application: Dilute (1) part cleaner to (1-3) parts water
Permanent Type Filters: Dilute (1) part cleaner to (3) parts water and place filter in dip tank solution
As Filter Adhesive: Use full strength by spraying directly on the filter

DESCRIPTION	PART
Coil and Filter Cleaner (55 Gallon Drum)	74340
Coil and Filter Cleaner (30 Gallon Drum)	74341
Coil and Filter Cleaner (5 Gallon Pail)	74343
Coil and Filter Cleaner (1 Gallon Container) *(Buy 4 x 1 Gal)*	74344

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

BULK CHEMICALS

DIESEL FUEL ADDITIVE**

Injector Cleaner, Rust Inhibitor, Smoke Reducer
Cleans injectors, screens, fuel pumps and filters result in more even burning and easier starting. Improves combustion by its catalytic action, resulting in more power and greater mileage. Improves performance in all diesel engines and when used in diesel fuel storage tank, greater fuel stability is achieved.

Features
- Increases mileage
- Reduces "smoking"
- Improves performance
- Extends fuel life
- Reduces downtime

Applications
- Diesel Trucks / Buses
- Bulk Fuel Storage Tanks
- Engines
- Fuel Tanks

Instructions
Combine (1) quart to (100) gallons of diesel fuel. Add directly to fuel. Give special attention to the crankcase oil in engines with heavy deposits of varnish, carbon or sludge. If large volumes of deposits are released quickly, change oil and filters to rid the engine of these deposits.

Also available in "Ready-to-Use" pre-diluted formula (Part #74604).
(Packaged in 32 oz. bottle with trigger sprayer).

DESCRIPTION	PART
Diesel Fuel Additive** (55 Gallon Drum)	74245
Diesel Fuel Additive** (30 Gallon Drum)	74246
Diesel Fuel Additive** (5 Gallon Pail)	74248
Diesel Fuel Additive** (1 Gallon Container) *(Buy 4 x 1 Gal)*	74249

BULK CHEMICALS

EQUIPMENT CLEAN™

Emulsifiable, Solvent-Based, Engine/Equipment Cleaner/Degreaser
Unique, emulsifiable formulation instantly dissolves the toughest caked-on grease, dirt, oil and wax and washes off with water. Exceptionally versatile, cleaning everything from small parts, to engines, to concrete floors – and will not harm most painted surfaces. Easy to use and economical – can be diluted with common petroleum solvents.

Features
- Cleans on contact
- Heavy duty degreasing power
- Dilutes with petroleum solvents
- Emulsifiable
- Leaves no residue

Applications
- Equipment • Machinery • Engines • Small Parts
- Bearings • Wheels • Chassis • Running Gear
- Concrete Floors • Transmissions • Fork Lifts
- Fifth Wheels • Parts Cleaners

Instructions*

Dilute with up to (8) parts kerosene, diesel fuel, mineral spirits or naptha as per chart below.
Caution: If using with a pressure sprayer, Equipment Clean must be diluted with at least (8) parts solvent. Insufficient dilution may cause spray hose to deteriorate and fail, causing possible injury or property damage.

Dilution Rates (1-Part Equipment Clean)

	PARTS SOLVENT		PARTS SOLVENT
Equipment / Machinery	4 - 6	Chassis	6 - 8
Engines – Normal	4 - 6	Running Gears	4
Engines – Heavy Grease	1 - 2	Cold Tank Degreaser	4
Small Parts / Bearings	4 - 6	Concrete Floors	3
Wheels	6 - 8	Wax Coatings	2

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

DESCRIPTION	PART
Equipment Clean™ (55 Gallon Drum)	74305
Equipment Clean™ (30 Gallon Drum)	74306
Equipment Clean™ (5 Gallon Pail)	74308
Equipment Clean™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74309

BULK CHEMICALS

4-WAY PLUS**

Multi-Purpose Lube and Penetrant with High Dielectric Strength
An outstanding effective rust preventive and water displacing compound for ferrous and non-ferrous substrate. The protective film left on the metal after evaporation of the solvent is ultra thin and highly protective against corrosive effects of the elements.

Features
- Long lasting
- Removable coating
- Corrosion prevention
- Protects from elements
- Water displacement
- Phosphate free

Applications
- Rust preventative for metal parts in machine shops
- Tools • Equipment • Tractors • Bicycles
- Cranes • Vehicles • Electrical Systems
- Generators • Alternators • Starters

Instructions:
For Small Parts: Immerse parts into the compound for full strength for a few seconds. Remove and allow to air dry until all the solvent is evaporated.
For Equipment: Brush, spray or simply apply with a cloth dampened with the chemicals. Allow to dry.
Removing: Use mineral spirits or similar solvent or alkaline cleaner (where applicable) to wash down parts.

Also available in "Ready-to-Use" pre-diluted formula (Part #74603).
(Packaged in 32 oz. bottle with trigger sprayer).

DESCRIPTION	PART
4-Way Plus** (55 Gallon Drum)	74200
4-Way Plus** (30 Gallon Drum)	74201
4-Way Plus** (5 Gallon Pail)	74203
4-Way Plus** (1 Gallon Container) *(Buy 4 x 1 Gal)*	74204

BULK CHEMICALS

FLOOR GLO™

Transparent, High Gloss Durable Floor Finish
A durable, long-lasting, high gloss floor finish that withstands the toughest traffic conditions. Its transparent sheen will not darken or yellow and provides waterproof protection against damp mopping and spray buffing. One gallon covers 1,500 to 2,000 square feet.

Features
- Tough thermoplastic coating
- Scuff resistant
- Superb durability
- Withstands high traffic and repeated detergent washings

Applications
- All Types of Resilient Flooring
- Asphalt • Tile • Vinyl • Rubber
- Terrazzo • Linoleum • Masonry
- Varnished, Painted or Sealed Wood

Instructions

Preparation: Strip other polishes from the floor using an abrasive pad and **Red Lion Super Stripper** solution. Pick up with a wet vac, mop or autoscubber. Rinse the floor thoroughly (at least twice) with clean water. Repeat the operation if all polish is not removed. Allow floor to dry.

Application: Using a clean synthetic mop, apply 3 coats of **Floor Glo** allowing a minimum of 30 minutes between coats. Additional coats of finish may be applied, provided adequate dry time (at least one hour) is allowed between coats. Temperature, humidity and air movement affect curing time.

Burnishing: The thermoplastic properties of the floor finish are enhanced by the heat of high speed burnishing equipment (1500-2000 RPM) producing the desirable "ultra wet look." Burnish with any high speed machine using procedure as outline by the machine manufacturer in conjunction with the proper high speed burnishing pad.

Maintenance: The floor may be maintained by damp mopping with a free rinsing neutral detergent followed by high speed burnishing or high speed spray buffing with a suitable spray buffing compound or mop-on restorer. Additional coat may be applied after thoroughly scrubbing floors. If stripping becomes necessary, use **Red Lion Super Stripper**. If floor is exposed to heavy traffic of sand or other abrasive soils, frequent dust mopping is recommended. **Do not pour unused finish back into original container or contaminate with other finishes**.

DESCRIPTION	PART
Floor Glo™ (55 Gallon Drum)	74345
Floor Glo™ (30 Gallon Drum)	74346
Floor Glo™ (5 Gallon Pail)	74348
Floor Glo™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74349

BULK CHEMICALS

H.D. CITRUS CLEANER/DEGREASER™**

Concentrated, Citrus-Based, Biodegradable Cleaner/Degreaser
A highly concentrated cleaner and degreaser. This powerful water soluble cleaner derives its strength from d-limonene, a natural citrus solvent. Instantly dissolves greasy, oil soils from virtually any surface and it deodorizes while it cleans.
Extremely concentrated – can be diluted up to 100 to 1.

Features
- Highly concentrated
- Extremely powerful
- Natural citrus extract
- Instantly dissolves greasy, oil soils
- Biodegradable

Applications
- Porcelain
- Formica
- Tiles
- Enamel Surfaces
- Tools
- Equipment
- Oil and Tar Stains
- Vinyl Tops
- Floor Mats
- Tubs
- Sinks
- Appliances
- Printing Presses
- White Wall Tires

Instructions*
Spray with hand sprayer or low or high pressure equipment, steam, mop, brush or wipe on any water safe surface. Wipe or rinse off with clear water.
Lightly Soiled: 1 to 4 oz. per gallon
Medium Soiled: 4 to 10 oz. per gallon

Also available in "Ready-to-Use" pre-diluted formula (Part #74600).
(Packaged in 32 oz. bottle with trigger sprayer).

DESCRIPTION	PART
H.D. Citrus Cleaner/Degreaser™** (55 Gallon Drum)	74215
H.D. Citrus Cleaner/Degreaser™** (30 Gallon Drum)	74216
H.D. Citrus Cleaner/Degreaser™** (5 Gallon Pail)	74218
H.D. Citrus Cleaner/Degreaser™** (1 Gallon Container) *(Buy 4 x 1 Gal)*	74219

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

BULK CHEMICALS

LIFT-OUT™ LIFT STATION DEGREASER

Water Insoluble, Grease Dissolving, Biodegradable
This powerful and efficient emulsifying agent liquifies animal fats and garbage grease in lift stations, greasetraps and drain lines for maximum performance. It maintains facilities in top operating condition while eliminating odors, overflowing and unsanitary conditions resulting from poor draining caused by slime and grease. Harmless to most plumbing.

Features
- Liquifies
- Deodorizes
- Degreases
- Extremely effective in drains, grease traps, septic systems, dry wells and cesspools

Applications
- Lift Stations
- Sewage Treatment Plants
- Landfills
- Waste Disposal Facilities
- Drain Maintenance
- Refuse Trucks and Cans
- Garbage Areas

Instructions*

Lift Stations: To add a one inch cap on liftstation, pour in four times the diameter (in feet) as the number of gallons. For rectangular lift stations, multiply the length times the width (in feet) by 0.625. Use this as the number of gallons.

Drain Cleaner: To open drains clogged by grease and slime, pour in 8 oz. (1/2 pint). Allow to stand for 1 hour. Flush with hot tap water. In garbage disposals, allow to stand 5-10 minutes. Flush with hot tap water. **Do not use in plastic pipes.**

Drain and Grease Trap Maintenance: Pour in a solution of 8 oz. per gallon of water. Allow to stand 1 hour. Flush with hot tap water.

Sewage Plants, Septic Tanks, Drainfields, etc.: Add (1) quart of product to (1000) gallons of capacity or dispense through a drip device as required for maximum odor control.

DESCRIPTION	PART
Lift-Out™ Lift Station Degreaser (55 Gallon Drum)	74280
Lift-Out™ Lift Station Degreaser (30 Gallon Drum)	74281
Lift-Out™ Lift Station Degreaser (5 Gallon Pail)	74283
Lift-Out™ Lift Station Degreaser (1 Gallon Container) *(Buy 4 x 1 Gal)*	74284

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BULK CHEMICALS

N-ZYME™ DRAIN MAINTENANCE

Liquid Waste Digester
This liquid waste digester prevents blocked drains by biologically degrading organic wastes, grease, fats, oil cellulose, protein and starch residues. Contains no acids or caustics to damage drains or interfere with septic tanks, ponds and lagoons. The bacterial culture establishes colonies which remain in the system and reactivate each time waste is introduced.

Features
- Non-toxic
- Non-corrosive
- No fumes
- Extremely concentrated
- Excellent preventitive maintenance tool

Applications
- Sinks
- Drains
- Grease Traps
- Interceptors
- Drain Fields
- Septic Tanks
- Sewers

Instructions

Stir before initial use. For best results, treat waste systems at night or during the lowest use period. Just before adding, flush sinks, drains or other areas of entry with warm water to remove any residue, disinfectants, bleach or other harsh chemicals that may harm bacterial cultures.
Grease Traps: When possible, clean out grease trap prior to beginning of treatment. Add 1 to 3 oz. per cubic foot of trap capacity. Use drain close to trap. To maintain, add 2 to 3 oz. each night.
Drain Lines: Use 1 to 3 oz. per drain, diluted with warm water. Pour into sinks, floor drains, garbage disposals, toilets and urinals once a week.
Septic Tanks, Dump Stations: For slow systems, use 1 pint (16 oz.) for each 500 gallons of capacity. Mix into 2 gallons of warm water and flush through toilet furthest from tank. To maintain, apply 1 quart per month or as needed.
Sludge Lagoons and Ponds: During first 3 to 7 days, add 1/2 gallon daily for each million gallons of wastewater. To maintain, add 1 quart weekly at inlet ditch.
Setting Tanks: Add 1 quart for each 1,000 cu. ft. (8,000 gals.) capacity. Add weekly for 4 weeks. To maintain, add 1 quart per 1,000 cu. ft. per month.
Recreational Vehicles, Boats, Portable Toilets: Add 8 oz. for each 5 gallons of holding tank capacity.

NOTE: Disinfectants, chlorinated products and extra-hot water (over 160°F) will kill off some of the live bacteria. Always store below 120°F. Avoid storing in car trunk in summer time.

DESCRIPTION	PART
N-Zyme™ Drain Maintenance (55 Gallon Drum)	74285
N-Zyme™ Drain Maintenance (30 Gallon Drum)	74286
N-Zyme™ Drain Maintenance (5 Gallon Pail)	74288
N-Zyme™ Drain Maintenance (1 Gallon Container) *(Buy 4 x 1 Gal)*	74289

ODOR ELIMINATOR™**

Encapsulates & Destroys Toughest Odors, Biodegradable, Lemon-Lime Scent
A concentrated product, scientifically formulated to eliminate any and all odors safely and effectively. Odor Eliminator does not "mask" odors, it neutralizes them by chemically bonding with the odor carrying molecules and encapsulating them, thereby stopping odor formation. It is non-flammable, non-staining and non-corrosive.

Features
- Chemically "neutralizes" and eliminates odors
- Does not mask odors
- Use as an air or surface spray
- Refreshing lemon scent
- Non-flammable

Applications
All Airborne Odors in:
- Rendering Plants
- Slaughter Houses
- Zoos
- Kennels
- Public Rest Rooms
- Transportation Industry
- Locker Rooms
- Garbage Areas
- Sewage Areas
- Smoke Filled Rooms
- Mortuaries
- Hotels
- Air Conditioning Filters

Instructions
Use full strength or dilute with water as an air or surface spray.

***Also available in "Ready-to-Use" pre-diluted formula (Part #74602).**
(Packaged in a 32 oz. bottle with trigger sprayer).

DESCRIPTION	PART
Odor Eliminator™** (55 Gallon Drum)	74360
Odor Eliminator™** (30 Gallon Drum)	74361
Odor Eliminator™** (5 Gallon Pail)	74363
Odor Eliminator™** (1 Gallon Container) *(Buy 4 x 1 Gal)*	74364

ODOR ELIMINATOR SC™

Super Concentrated Odor Eliminator Formula
A super-concentrated product, scientifically formulated to eliminate any and all odors safely and effectively. It does not "mask" odors, it neutralizes them by chemically bonding with the odor carrying molecules and encapsulating them, thereby stopping the odor formation. It's non-flammable, non-staining and non-corrosive.

Features
- Super-concentrated formula
- Chemically "neutralizes" and eliminates odors
- Does not mask odors
- Use as an air or surface spray
- Refreshing lemon scent
- Non-flammable

Applications
All Airborne Odors in:
- Rendering Plants
- Slaughter Houses
- Zoos
- Kennels
- Public Rest Rooms
- Transportation Industry
- Locker Rooms
- Garbage Areas
- Sewage Areas
- Smoke Filled Rooms
- Mortuaries
- Hotels
- Air Conditioning Filters

Instructions
Dilute (1) part Odor Eliminator SC to (3) parts water. This provides concentration equal to standard Odor Eliminator product. May be diluted further for lighter duty applications.

DESCRIPTION	PART
Odor Eliminator SC™ (55 Gallon Drum)	74270
Odor Eliminator SC™ (30 Gallon Drum)	74271
Odor Eliminator SC™ (5 Gallon Pail)	74273
Odor Eliminator SC™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74274

BULK CHEMICALS

PLEASANT SCENT™

Chemically Destroys Toughest Odors
A highly refined blend of chemicals designed to destroy odors of putrefaction, defecation, regurgitation, urination and many other malodors. It is easy to apply with a trigger sprayer or fogging unit and is biodegradable, phosphate free and non-flammable.

Features
- Chemically destroys the toughest malodors
- Does not mask odors
- Easy to use as an air or surface spray
- Biodegradable

Applications
- Hospitals /Laboratories
- Mortuaries
- Motels
- Factories
- Rest Rooms
- Kennels
- Airplanes

Instructions
Use full strength or dilute with water. Dilutes up to 10:1.

DESCRIPTION	PART
Pleasant Scent™	
Lemon-Lime Scent (55 Gallon Drum)	74230
Green Apple Scent (55 Gallon Drum)	74225
Lemon-Lime Scent (30 Gallon Drum)	74231
Green Apple Scent (30 Gallon Drum)	74226
Lemon-Lime Scent (5 Gallon Pail)	74233
Green Apple Scent (5 Gallon Pail)	74228
Lemon-Lime Scent (1 Gallon Container) *(Buy 4 x 1 Gal)*	74234
Green Apple Scent (1 Gallon Container) *(Buy 4 x 1 Gal)*	74229

BULK CHEMICALS

SAFETY SOLV 2000™

Non-Chlorinated, Fast Acting, High Flash Point Cleaner/Degreaser
A fast acting, non-corrosive cleaning and degreasing solvent for removing dirt, grease, oil, lubricants, ink, adhesive, tar, soot, wax and many other contaminants from mechanical and electrical equipment.

Features
- Superior degreasing properties
- Equipment / machinery
- Fast-acting
- Non-corrosive
- High flash point (142°F)
- Mild odor

Applications
- Metal • Plastics • Fiberglass • Motors
- Pressure Tanks • Rubber • Molds
- Paint Masks • Printing Equipment
- Meters • Pre-Welding Applications

Instructions
General Cleaning/Degreasing: Apply directly to material using brush, dip, spray or wiping action. Wipe dry or blow with compressed air.
Motors: Turn power off and remove all loose material, lint and dust by air blowing motor. Replace all worn and arcing brushes. Resurface commutator if arcing continues. Spray into motor with a heavy stream. Blow motor with air until dry. Relubricate before using.
Disassembled Equipment: Immerse parts in solvent for 5-10 minutes. Dipping, ultrasonics or any method of agitation will hasten cleaning action. Wipe dry or blow dry with compressed air upon removal.

DESCRIPTION	PART
Safety Solv 2000™ (55 Gallon Drum)	74275
Safety Solv 2000™ (30 Gallon Drum)	74276
Safety Solv 2000™ (5 Gallon Pail)	74278
Safety Solv 2000™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74279

BRAKE CLEAN

Contains No Chlorinated Solvents, Hexane Free Cleaner/Degreaser
Specially formulated to work quickly and effectively to remove brake fluid, grease, dirt and other contaminants from brake linings, disc brake pads, brake drums, springs, wheel cylinders, etc. Stops disc brake squeal, leaves no residue and is an excellent cleaner for other dirty, greasy parts.

Features
- Cleans and degreases all brake parts and instantly removes dirt, grease and brake fluid
- Improves brake performance

Applications
- For use on brake linings, disc brake pads, brake drums, springs, wheel cylinders and other brake parts

Instructions
Spray brake parts liberally and allow to run off. Allow to air dry or use a soft wipe. Repeat if necessary. Do not spray on hot or warm surfaces. Protect rubber and plastic parts from spray.

DESCRIPTION	PART
Brake Clean (55 Gallon Drum)	74257
Brake Clean (30 Gallon Drum)	74256

BULK CHEMICALS

STEAM CLEAN™

All Purpose, Deep Cleaning, Free-Rinsing
A special formulation of surfactants and cleaners provide the most effective and versatile steam cleaning product available. Use for cleaning and degreasing painted surfaces, metals, concrete, chrome, rubber and glass. Steam solubilizes, emulsifies and penetrates grease, dirt and oil, so it can be easily flushed off the surface being cleaned. This special formula prevents clogging of coils and is very effective on aluminum, steel and other metal surfaces. Leaves no scale or residue.

Features
- Deep cleaning formula
- Free rinsing
- Controlled foam
- Biodegradable
- Non-flammable

Applications
- Engines
- Walls
- Floors
- Drive Line Components
- Chains
- Cables

Instructions

Always follow the manufacturer's instructions for the steam cleaning equipment. For steam cleaners that feed directly into the coils, use (1) quart of Steam Clean per (20) gallons of water. Steam cleaners that premix cleaner with water before going through the coils use (1) gallon of Steam Clean for (20) gallons of water.

Proper flow is determined by the sudsing action at the nozzle. If too much cleaner is added to the solution, adjust the flow to the point where sudsing just begins at the spray nozzle. Although normally used in steam cleaning machines, Steam Clean may also be used as a soak solution. Use 6-10 oz. per gallon of warm or hot water.

NOTE: *Steam Clean may be used on glass and aluminum. However, it should not be allowed to dry directly on these surfaces. Rinse thoroughly with clear water immediately after cleaning.*

DESCRIPTION	PART
Steam Clean™ (55 Gallon Drum)	74310
Steam Clean™ (30 Gallon Drum)	74311
Steam Clean™ (5 Gallon Pail)	74313
Steam Clean™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74314

BULK CHEMICALS

STEAM CLEAN HD™

All Purpose, Deep Cleaning, Free-Rinsing
An extremely powerful steam cleaner, containing special cleaners and surfactants that plate out on the surface to remove dirt and grease. Powerful enough to clean 5th wheels. A concentrated emulsifier dissolves greasy, oily and waxy soils and deodorizes as it cleans. Through emulsification, soils are removed from surfaces and suspended through the cleaning solution. Redeposition of soils is minimized, enabling quick and complete rinsing. For use on all surfaces.

Features
- Extremely powerful formula
- Free rinsing
- Controlled foam
- Biodegradable
- Non-flammable

Applications
- Engines
- Walls
- Floors
- Drive Line Components
- Chains
- Cables

Instructions
This is a concentrate and must be diluted prior to use. Dilution ratios will vary depending upon the degree and nature of the soil and should be adjusted as experience dictates. For trucks, buses or airplanes, use (1) part concentrate (20-40) parts water. The solution may be applied by brushing, wiping or spraying. After cleaning, rinse thoroughly with clear water. Do not allow solution to dry on surface.

NOTE: Steam Clean HD should not be used on aluminum, glass or painted surfaces. All surfaces should be rinsed immediately after use with clear water.

DESCRIPTION	PART
Steam Clean HD™ (55 Gallon Drum)	74315
Steam Clean HD™ (30 Gallon Drum)	74316
Steam Clean HD™ (5 Gallon Pail)	74318
Steam Clean HD™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74319

BULK CHEMICALS

SUPER CLEAN™

Highly Alkaline, Water Soluble Concentrated Solvent
It's unique formulation provides the ultimate versatility in an industrial cleaner. Use on metal, plastic, rubber, concrete, iron, steel and aluminum (except anodized aluminum). Emulsifies dirt, grease, oil, wax, creosote and many other stubborn stains. There's no need for scrubbing because Super Clean's emulsifying action floats dirt away. Just rinse with clear water to leave a bright clean surface with no oily residue.

Features
- Heavy duty degreaser
- Versatile
- Economical
- Free-rinsing
- Non-flammable
- Biodegradable

Applications
- Machinery
- Equipment
- Concrete
- Walls
- Floors
- Filters
- Ventilator Screens
- Any surface where a fireproof cleaner is needed

Instructions*

Dilute with up to (30) parts water as per dilution chart.

Caution: Super Clean contains solvents which may cause etching of glass and discoloration of anodized aluminum. In case of contact, rinse immediately with water.

Dilution Rates (1-Part Super Clean)	**PARTS WATER**
Machinery, Equipment, Metal Parts, Concrete Floors	5
General Cleaning of Floors, Asphalt, Linoleum, Vinyl, Composition, Wood, Terrazzo, etc.	20
General Light Cleaning of Walls, Woodwork, etc.	30
Removing Oil, Grease, Carbon or Common Soil in General Cleaning, Hoods, Flues, Vents, etc	5
Splash Boards: Aluminum, Chrome, Stainless	6
Conveyors, Stoves, Stove Parts, Ovens, Grills, Fat Fryers	2
Walls	12
Floors, Floor Boards	8

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

DESCRIPTION	PART
Super Clean™ (55 Gallon Drum)	74300
Super Clean™ (30 Gallon Drum)	74301
Super Clean™ (5 Gallon Pail)	74303
Super Clean™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74304

BULK CHEMICALS

SUPER GLOSS™ WASH-N-WAX

High-Foaming, Concentrated, Water-Based, Biodegradable, Leaves Glossy Shine
A super-concentrated, high-foaming, biodegradable detergent specially formulated for auto, truck, van, motor home and boat washing. It dissolves dirt and grime, leaving a superior high gloss, spotless appearance. The powerful emulsifiers of Super-Gloss Wash-N-Wax actually lift embedded dirt, grime, bug and tar stains off surfaces. The high-foaming action keeps it in suspension for easy rinsing.

Features
- Highly concentrated
- Leaves a high gloss finish
- Will not streak or spot
- Biodegradable

Applications
- Autos • Trucks • Vans
- Motor Homes • Boats

Instructions
Pour (1 to 3) oz. of Super Gloss in a bucket for each gallon of warm water.

DESCRIPTION	PART
Super Gloss™ Wash-N-Wax (55 Gallon Drum)	74220PF
Super Gloss™ Wash-N-Wax (30 Gallon Drum)	74221PF
Super Gloss™ Wash-N-Wax (5 Gallon Pail)	74223PF
Super Gloss™ Wash-N-Wax (1 Gallon Can)	74224PF

SUPER STRIPPER™

Concentrated, Non-Ammoniated Floor Finish Remover
This concentrated formula safely and easily removes all types of waxes, finishes and soils. Special wetting agents help to emulsify dirt for easy rinsing. Extremely effective on multiple coats of waxes, polymers and acrylic coatings on all types of floors.

Features
- Concentrated
- Fast-acting
- Removes all types of waxes, finishes and soils

Applications
- Tile • Terrazzo • Concrete • Marble • Asphalt • Vinyl • Linoleum • Composition

Instructions*
Mix (1) part Super Stripper to (15) parts water. If wax or finish is especially heavy or old, increase recommended amount to fit the type and amount of soil to be removed.

DESCRIPTION	PART
Super Stripper™ (55 Gallon Drum)	74355
Super Stripper™ (30 Gallon Drum)	74356
Super Stripper™ (5 Gallon Pail)	74358
Super Stripper™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74359

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

BULK CHEMICALS

SYNTHETIC/SOLUBLE CUTTING FLUID

Concentrated Water Soluble Lubricant
A concentrated synthetic coolant for metal working applications. Can be used "as is" or diluted with up to 40 parts water.

Features
- Clear concentrated water soluble lubricant
- Prevents corrosion
- Use for machining, cutting and grinding of ferrous and non-ferrous metals

Applications
Effective and suitable for use in working:
- Carbon Steel • Stainless Steel • Vanadium • Chrome • Molybdenum • Nitralloy • Titanium
- Bronze • Copper • Boron Carbide and many other specialty alloys

Instructions*
May be used with or without dilution depending upon the job requirements. Dilutes clear in all proportions for complete job visibility. It is suggested that more difficult job trials be made with fluid full strength. If the results are satisfactory, further dilution up to 40 parts water to 1 part product can be tested to determine the most economical dilution.

DESCRIPTION	PART
Synthetic/Soluble Cutting Fluid (55 Gallon Drum)	74320
Synthetic/Soluble Cutting Fluid (30 Gallon Drum)	74321
Synthetic/Soluble Cutting Fluid (5 Gallon Pail)	74323
Synthetic/Soluble Cutting Fluid (1 Gallon Container) *(Buy 4 x 1 Gal)*	74324

X-TRA CLEAN NB™

Concentrated, All Purpose Water Soluble Cleaner/Degreaser
This highly concentrated non-butyl formulation of high grade synthetic surfactants yields the ultimate in cleaning performance. It is free rinsing and works equally well in hot, cold, hard or soft waters. It penetrates, loosens and emulsifies all types of oil, grease and soil – leaving an exceptionally clean surface. Safe on most every water washable surface.

Features
- Highly concentrated • Heavy duty
- Water soluble • Non-flammable
- Biodegradable

Dilution Rates (1-Part X-tra Clean NB)

	PARTS WATER
Degreasing	10
Heavy General Cleaning	20
Light General Cleaning	60
Deodorizing	60
Wax and Finish	10

Adjust dilutions according to type and amount of soil.

Applications
- Basins • Bilges • Concrete • Dies
- Equipment • Fans • Floors • Hoods
- Machinery • Metal • Plastic • Porcelain
- Rubber • Sinks • Steel • Sumps • Terrazzo
- Toilets • Tooling • Vinyl Upholstery
- Vitreous Ware • Walls • Wood

Instructions*
Apply manually or with sprayer. Allow to work for a few minutes, then wipe, mop or rinse off. See dilution chart.
Steam Cleaning: Dilute (4-14) oz. cleaner with (1) gallon of water. Adjust solution according to desired results.

DESCRIPTION	PART
X-tra Clean NB™ (55 Gallon Drum)	74335
X-tra Clean NB™ (30 Gallon Drum)	74336
X-tra Clean NB™ (5 Gallon Pail)	74338
X-tra Clean NB™ (1 Gallon Container) *(Buy 4 x 1 Gal)*	74339

**NOTE: Always test product on an inconspicuous area before using. Since conditions of use are outside our control, we can assume no liability for results obtained or damages incurred through the application of this product.*

Handles Cleaning and Maintenance in a Brand New Way!

- Super Concentrated Chemical Cartridges ~ ***Dilutes 100 to 1***
- Strong, Fast-Acting Formulas ~ ***Provide Exceptional Performance***
- Easy-to-Use ~ ***No Complicated Mixing Equipment Necessary***
- Saves Space ~ ***Hundreds of Cartridges Fit on a Small Storage Shelf***
- Less Expensive ~ ***QX1 Cartridges Weight 1/50 of Ready-to-Use Products, Dramatically Reducing Shipping Costs***
- Environmentally Friendly ~ ***Bottles and Sprayers are Reusable and Refillable***
- Safer ~ ***No Contact with Concentrated Chemicals***
- Color Coded Labels ~ ***Bottles and Cartridges are Color-Coded for Instant Recognition***
- Meets All Safety Requirements ~ ***OSHA and EPA Compliant Prelabeled Bottles***

QX1 . . . Easy as 1, 2, 3!

1. FILL ***Bottle With Water***
2. INSERT ***QX1 Cartridge***
3. ATTACH ***Trigger Sprayer***

FILL WITH WATER

INSERT CARTRIDGE

ATTACH TRIGGER SPRAYER TO BOTTLE

NOTE: *Bottle, Cartridge and Sprayer are proprietary designs and cannot be used with other components. They must be used with the QX-1 System to work properly.*

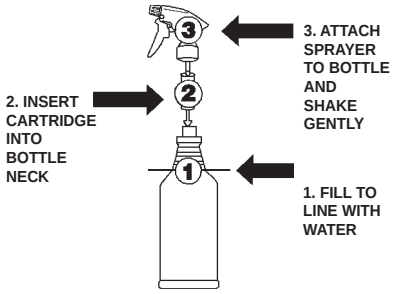
QX1 GLASS CLEANER WITH ANTI-STAT

For Glass, Plastic, Computer Monitors and Television Screens
A specially formulated glass, plastic and computer monitor/TV screen cleaner designed for use on glass, Lexan®, Lucite®, mirrors, menu boards and other surfaces not harmed by water. This fresh blue formula utilizes a special combination of soil-suspending detergents, and wetting agents to quickly remove soil smudges, grease and finger prints without streaking. Quickly cleans and shines surfaces. Anti-static to repel airborne dirt.

***Empty Bottle:**
Part #74710B

***Trigger Sprayer:**
Part #1815

Features
- Safe on all thermoplastics
- Safe on anti-glare window coverings
- Streak-free, anti-static formula



Applications
- Glass
- Mirrors
- Appliances
- Lexan®
- Lucite®
- Plexiglass
- Computer Monitors/TV screens
- Other hard surfaces

Directions
Insert one (1) cartridge with fresh clean water in the 32 oz. plastic bottle. Using a trigger sprayer P/N 1815, apply directly to surface. Hold 6-8 inches from surface and spray lightly. Wipe dry with lint-free towel or cloth. When cleaning computer screens, do not spray directly on equipment, spray on wiping cloth and then clean screen.

**Bottle and Trigger designs are proprietary and must be used for the QX-1 System to work properly.*

DESCRIPTION	PART
QX1 Glass Cleaner with Anti-Stat (.33 fl. oz. cartridge)	74710

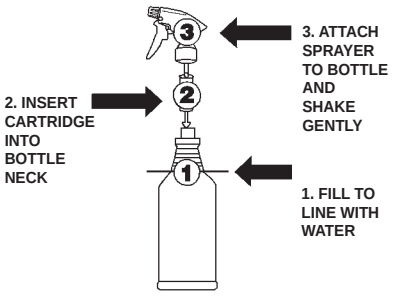
BULK CHEMICALS

QX1 MULTI-PURPOSE CLEANER

Powerful Spray And Wipe Cleaner/Degreaser
Combines powerful grease cutting and cleaning agents to eliminate problem soils and stains. Removes grease, grime, oil and dirt buildup from work stations, table tops, countertops, walls, etc. Leaves surfaces squeaky clean and residue free.

Features
- Concentrated spray and wipe formula
- Removes soil and ink from non-porous surfaces
- Residue-free
- Heavy duty grease cutting
- Non-flammable • Biodegradable
- Pleasant fragrance

Applications
- Schools
- Universities
- Child Care/Day Care
- Hospitals
- Institutions
- Nursing Homes
- Prisons
- Offices
- Gas Stations
- Restaurants
- Manufacturing Facilities
- Motel/Hotels



***Empty Bottle:**
Part #74711B

***Trigger Sprayer:**
Part #1815

Directions
Hold container with trigger sprayer attached 6-8 inches from surface and lightly spray surface. Wipe dry with lint-free towel or cloth.

**Bottle and Trigger designs are proprietary and must be used for the QX-1 System to work properly.*

DESCRIPTION	PART
QX1 Multi-Purpose Cleaner (.33 fl. oz. cartridge)	74711

BULK CHEMICALS

QX1 DISINFECTANT CLEANER

No-Rinse Cleaner and Disinfectant
An extremely effective cleaner, deodorizer and disinfectant specifically designed for use in hospitals, nursing homes, schools, hotels and food service establishments. Provides broad spectrum effectiveness against gram-positive and gram-negative bacteria including Staphylococcus Aureas (Methicilin Resistant), viruses (including HIV-1 the AIDS virus) and pathogenic fungi including T. mentagrophytes (the athlete's foot fungus) in the daily struggle to control cross-contamination and reduce the spread of infection.

Features
- One-step cleaner / disinfectant
- Kills VRE, MRSA and HIV-1 virus
- Concentrated
- Cleans tough soils
- Fresh pleasant fragrance

Applications
- Schools
- Universities
- Child Care/Day Care
- Hospitals
- Institutions
- Nursing Homes
- Prisons
- Offices
- Gas Stations
- Manufacturing Facilities
- Motels and Hotels
- Restaurants

Directions
Insert one (1) cartridge with fresh clean water in the 32 oz. plastic bottle. Using a trigger sprayer P/N 1815, apply directly to surface. Hold container with trigger sprayer attached 6-8 inches from surface and lightly spray surface. Treated surface must remain wet for 10 minutes. Wipe dry with with lint-free towel or cloth.

***Empty Bottle: Part #74712B**

***Trigger Sprayer: Part #1815**

DESCRIPTION	PART
QX1 Disinfectant Cleaner (.33 fl. oz. cartridge)	74712

QX1 ODOR ELIMINATOR

Encapsulates and Destroys Toughest Odors
Our concentrated liquid malodor counteractant eliminates odors, leaving behind a fresh, pleasant scent. This product has no color dies and may be utilized on a variety of surfaces such as fabrics, carpets, upholstery, waste receptacle interiors, toilets and urinals.

Features
- Counteracts the most pungent odors
- Will not harm most fabrics
- Atomize or apply directly to odor source
- Eliminates cigarette and other smoke odors fast

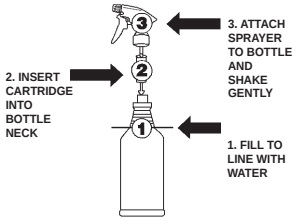
Applications
- Toilets and Urinals
- Carpets
- HVAC Ducts
- Fabrics
- Institutions
- Waste Cans
- Drains

Directions
Insert one (1) cartridge with fresh clean water in the 32 oz. plastic bottle. Using a trigger sprayer P/N 1815, apply directly to surface. Hold container with trigger sprayer attached 6-8 inches from surface and lightly spray surface. Wipe dry with with lint-free towel or cloth.
For Counteracting Airborne Odors: Using a trigger sprayer, discharge into the air an appropriate amount of formula allowing 5 to 20 seconds for the fresh scent to counteract unwanted odors.
For Fabric Treatment: Discharge an appropriate amount of product to fabric, upholstery, curtains, etc. Hold sprayer approx. 10 to 15 inches from surface. Apply product evenly to affected areas. Always test on inconspicuous area first.
Guest Accommodations: Apply proper amount of product approximately 5 inches above carpet level to entire perimeter of room or until odor is eliminated.

** Bottle and Trigger designs are proprietary and must be used for the QX-1 System to work properly.*

***Empty Bottle: Part #74713B**

***Trigger Sprayer: Part #1815**



DESCRIPTION	PART
QX1 Odor Eliminator (.33 fl. oz. cartridge)	74713

CLEANERS AND DEGREASERS

FOAMING COIL CLEANER

HVAC Multi-Purpose Equipment Maintenance
The no rinse formula reaches all areas of coils and the inverted spray allows for easy access to all areas of unit.

Features
- Thick foam lifts out and holds dirt and grime in suspension until it is rinsed or condensation washes away the dirt and soil
- Pleasant scent
- For indoor and outdoor use
- Non-caustic and non-acid formula make for safe use
- Saves time and labor

Applications
- Hotels
- Industrial plants
- Automotive
- Hospitals
- Roof top units
- Window units

DESCRIPTION	PART
Foaming Coil Cleaner (18 oz.)	74268

COIL AND FILTER CLEANER

HVAC Multi-Purpose Equipment Maintenance
A non-caustic, non-acid cleaner designed to remove a build-up of dirt and grime on coils and filters. Also works well as a filter adhesive, providing a viscous tacky maze of lattice work to catch dirt, dust or pollen too small for retention by the filter.

Features
- Removes dirt and grime on coils and filters
- No rinsing
- Non-flammable
- No corrosive residue

Applications
- Can be used to renovate all types of coils, filters and condensers used in heating plants, air conditioning systems, refrigeration plants and other heat exchange equipment.

DESCRIPTION	PART
Coil and Filter Cleaner (17 oz.)	74165

CLEANERS AND DEGREASERS

BRAKE CLEAN N.C.

Non-Chlorinated Cleaner and Degreaser
Specially formulated to work quickly and effectively to remove brake fluid, grease, dirt and other contaminants from brake linings, disc brake pads, brake drums, springs, wheel cylinders and other brake parts. An excellent cleaner for other dirty, greasy parts.

Features
- Cleans and degreases all brake parts
- Instantly removes dirt, grease and brake fluid
- Improves brake performance
- Stops disc brake squeal
- Leaves no reside

Applications
- For use on brake linings, disc brake pads, brake drums, springs, wheel cylinders and other brake parts

DESCRIPTION	PART
Brake Clean N.C. (12.25 oz.)	74147

CHOKE AND CARB CLEANER

Fast-Drying Carburetor Cleaner
Specifically formulated to clean, lubricate and protect chokes, carburetors, PCV systems, manifold heat valves, linkages and butterfly valves.

Features
- Removes carbon, dirt, gum and varnish deposits
- Cleans, frees and renews automatic chokes, carburetors, linkages, PCV valves, manifold heat controls
- Dries fast, leaving no oily film

Applications
- For use on chokes, carburetors, PCV systems, manifold heat valves, linkages and butterfly valves

DESCRIPTION	PART
Choke and Carb Cleaner (14.75 oz.)	74115

CLEANERS AND DEGREASERS

BATTERY ACID CLEANER/NEUTRALIZER WIPES

Heavy Duty Color-Changing Treated Sheet For Lead Acid Batteries
Wipe the surface, removing deposits. The blue wipe will turn pink in the presence of the acidic corrosion. Continue scrubbing the area until the wipe turns back to its original blue color. This will indicate that the acid has been neutralized.

Features
- Formulated to clean, remove corrosion, and neutralize battery acid
- If heavily corroded - after using wipes, a light scrubbing with a plastic bristle brush will remove corrosion with no messy foam
- Contains acid neutralizing agents
- Color changing system lets you know when the acid is neutralized

Applications
- Car & Truck Batteries
- Golf Cart Batteries
- Terminals
- Connectors
- Trays

DESCRIPTION	PART
Battery Acid Cleaner/Neutralizer Wipes (30 Wipes)	74098

BATTERY PROTECTOR & CLEANER

Protective Coating for Batteries and Battery Terminals
Excellent for use on batteries, terminals, cables, brackets, and housings. It is great for vehicle fleets, golf carts, airplanes, boats, tractors, forklifts, construction equipment, floor scrubbers, and more. This advanced formulation serves four applications in a single product! It cleans, detects acid, neutralizes acid, and protects against corrosion.

NOTE: Do not allow this can to come into contact with battery cables or terminals, electrical wiring or other electrical components. This can will conduct electricity and may cause an electrical spark resulting in serious injury from can rupture, flash fire or electrical shock.

Features
- Prevents terminal corrosion
- Assures continued high-voltage output
- Prolongs battery life

Applications
- Battery Terminals
- Cable Connectors
- Casing
- Frames
- Housings

DESCRIPTION	PART
Battery Protector & Cleaner (15 oz.)	74106

CLEANERS AND DEGREASERS

INSTA-SHINE TRUCK/BUS PROTECTANT

Fast Polish and Shine for Painted/Chrome Surfaces
Instantly cleans, polishes and protects painted surfaces, chrome, fiberglass and plastic. It cuts through grease, bugs, tar and road film without water, leaving a durable, water-repellent protective finish.

Features
- Cleans, polishes and protects
- For use on exterior and interior surfaces
- Simple "spray and wipe" application
- Leaves a high gloss water repellent finish

Applications
- Produces a professional shine on
  - Trucks
  - Buses
  - Autos
  - Vans
  - Boats

DESCRIPTION	PART
Insta-Shine Truck/Bus Protectant (16 oz.)	74169

CLUB CLEAN

Foaming Golf Equipment Cleaner
Club Clean is a “technologically advanced” formula that safely and effectively cleans all types of golf equipment.

Features
- For solid, booming drives and accurate iron shots
- Create more ball spin on wedges and short irons
- Studies show that cleaner balls lead to fewer putts

Applications
- Drivers
- Irons
- Shoes
- Balls

DESCRIPTION	PART
Club Clean (3 oz.)	74199

CLEANERS AND DEGREASERS

A/C FLUSH

For Use in Flush Guns
Red Lion™ A/C Flush Solution is an excellent tool for retrofitting R12 systems to R134a as mineral oil will be removed from components being flushed. For best results, use with A/C Flush Gun (P/N 78047).

Features
- Simple to use Premium Solvent-Based Solution
- Compatible with R-12, R-134a & R-22 Systems
- Removes debris and sludge from A/C components
- Evaporates quickly and leaves no residue

DESCRIPTION	PART
A/C Flush (1 Quart / 946 ml)	74382

A/C FLUSH (NON-FLAMMABLE)

For Use in Flush Machines and Flush Guns
Red Lion™ Non-Flammable A/C Flush is a premium solvent-based flushing agent for use in closed loop flushing machines and pressurized flush guns for mobile A/C systems. It is an excellent replacement for R141b refrigerant when used to clean and degrease mobile A/C systems and components. Non-flammable A/C Flush is an excellent product to use during the retrofit process from R12 to R134a and for repair of R134a systems.

Features
- Simple To Use Premium Non-Ozone Depleting Solution
- Compatible with R-12, R-134a & R-22 Systems
- Removes debris and sludge from A/C components

Part #74384

Part #74385

DESCRIPTION	PART
A/C Flush (Non-Flammable) (1 Quart / 946 ml)	74384
A/C Flush (Non-Flammable) (1 Gallon / 3.78 L)	74385

CLEANERS AND DEGREASERS

SURFACE DISINFECTANT

Disinfects on Hard, Nonporous Inanimate Environmental Surfaces
Disinfects on such bacterial and viral-carrying surfaces as toilet seats, telephones, garbage and refuse cans, urinals, athletic equipment, light switches, bed pans, empty hampers and other out of the way places. Disinfects hard, non-porus surface of shoes and slippers. Controls mold and mildew on mattresses, awnings, shower curtains, leather goods. Controls mildew and mold growth on painted or finished walls, ceilings and woodwork in closets, basements, attics, storage areas, summer cottages, damp and musty corners. Deodorizes and reduces annoying odors. Use to control odors in hospitals and nursing homes. Effectively suppresses odors caused by mold and mildew.

Features
Kills the following:
- Influenza A2/Hong Kong Virus
- Influenza A(H1N1)
- Aspergillus niger (ATCC 16404)
- Human Herpes Simplex Virus Type 1 (ATCC VR-733F) and Type 2 (ATCC VR-540)
- Human Immunodeficiency Virus Type 1 [HIV-1 (AIDS virus)]
- Methicillin Resistant Staphylococcus aureus (MRSA) (ATCC 33591)
- Mycobacterium tuberculosis var bovis (BCG)
- Polio Virus Types 1 and 2
- Pseudomonas aeruginosa (ATCC 15442)
- Salmonella choleraesuis (ATCC 10708)
- Staphylococcus aureus (ATCC 6538)
- Trichophytonmentagrophytes (ATCC 9972)
- Vancomycin Resistant Enterococcus faecalis (VRE) (ATCC 51299)

DESCRIPTION	PART
Surface Disinfectant (15.5 oz.)	74261

DIS-N-CLEAN™

Foaming Disinfectant Cleaner
Designed for general cleaning and deodorizing. Cleans and disinfects against micro-organisms. Non-abrasive. Prevents and controls mold and mildew and the odors they cause on hard non-porous surfaces.

Features
- Multi-purpose cleaner – cleans, shines, disinfects and deodorizes
- Industrial strength formula – tough on soap scum
- Easy-to-use – no scrubbing or rinsing necessary
- Non-abrasive "surface safe" – won't scratch fiberglass
- Fresh clean scent – leaves pleasant odor
- Kills HIV on pre-cleaned environmental surfaces
- Contains no CFCs – won't harm ozone

Applications
- Designed for general household cleaning in hospitals, institutions, nursing homes, offices, schools, motels and hotels
- For use on non-porous hard surfaces such as fiberglass, chrome, plastic, baked enamel and glazed porcelain

DESCRIPTION	PART
Dis-N-Clean™ (16 oz.)	74188

CLEANERS AND DEGREASERS

CLEANER/DEGREASER

A Thick, Heavy-Duty Spray & Wipe Cleaner/Degreaser
Destroys grease and grime on contact leaves a pleasant lemon/lime fragrance.

Features
- THIX' -O- TROP'IC: The phenomenon exhibited by certain gels of becoming thick when shaken and returning to a fluid liquid upon standing
- Cuts through tough oils with ease
- Leaves a clean residue free surface
- Stays and works where you spray it

Applications
- For use on all hard surfaces
- Will not affect paint, glass or mirrors
- Works great on grout
- Simply spray and wipe away grease, grime, oil, carbon, soot, smoke film, magic marker, crayon, lipstick and more

DESCRIPTION	PART
Cleaner/Degreaser (32 fl. oz.)	74265

GLASS & SURFACE CLEANER

Non-Ammoniated, Thick, Ready To Use Cleaner With Sprayer
Designed to quickly and effectively remove dirt, grease, grime and other contaminants from a variety of hard surfaces without the possibility of streaking or leaving behind an unsightly film.

Features
- THIX' -O- TROP'IC: The phenomenon exhibited by certain gels of becoming thick when shaken and returning to a fluid liquid upon standing
- Formulated with the revolutionary detergent system LS2
- Lifts away the toughest soils on all glass surfaces
- Wipes off quickly, without streaks or rainbows
- Cleans, restores, shines
- Will not cause build-up on surfaces
- Pleasant citrus crème fragrance helps deodorize while it cleans

Applications
- Mirrors, windows, automotive glass, tile, porcelain, chrome, stainless steel and white boards
- Will easily remove (without streaking) the heavy film left from cigarette, cigar and pipe smoke on the inside of the glass

DESCRIPTION	PART
Glass & Surface Cleaner (32 fl. oz.)	74264

CLEANERS AND DEGREASERS

GLASS CLEANER

Strong, Non-Ammoniated Glass and Surface Cleaner. A modern professional formula that cuts through the toughest kinds of dirt with little effort.

Features
- Removes dirt and grime
- Foam on and wipe dry
- Leaves no film
- Streakproof
- Cleans and restores
- Shines

Applications
- Windows
- Mirrors
- Windshields
- Stainless steel
- Formica
- Sinks
- Tile
- Chrome

DESCRIPTION	PART
Glass Cleaner (19 oz.)	74120

CLEANERS AND DEGREASERS

PVA WIPES

Paint, Varnish and Adhesive Pre-Moistened Cleaning Towels
Convenient, multi-purpose towels eliminate the need for water or other cleaners and are designed to absorb soil and not transfer back on hands. Conditions hands with aloe, vitamin E and emollients. Hands will be clean, dry and non-sticky. Cleans most surfaces quickly and easily.

Features
- Convenient, multi-purpose towels
- Eliminate the need for water or other cleaners
- Fast, effective non-shredding, gentle on skin
- Non-flammable
- 9" x 12" wipes

Removes
- Paint
- Varnish
- Adhesives
- Grease
- Grime
- Tar
- Ink
- Scuff marks
- Permanent marker
- Nail polish
- Counter stains
- Carpet stains
- Many types of soils

Applications
- Hands
- Tools
- Equipment
- Leather tennis/sports shoes
- Recreational items

IMPORTANT: Pre-test plastic surfaces for compatibility. Do not use on polished brass or fine furniture. May not be suited for certain clear plastics such as plexiglass or styrene.

DESCRIPTION	PART
PVA Wipes (80 count)	74528

CLEANERS AND DEGREASERS

AIR TOOL CONDITIONER

Solvent-Based, Air Tool Cleaner and Lubricant
Cleans and lubricates all air operated tools such as grinders, drills, polishers, impact wrenches, sanders, air motors and jackhammers. Instantly removes sludge, varnish and carbon deposits – restoring tool to normal power and RPM's. Improves operation and reduces maintenance. Saves costly repairs and can be used on the job for instant results.

Features
- Removes build-up of calcium, varnish, sludge and water
- Cleans and lubricates
- Increases tool life
- Instant action

Applications
- For use on all pneumatic tools such as grinders, drills, polishers, impact wrenches, sanders, air motors and jackhammers

DESCRIPTION	PART
Air Tool Conditioner (15.25 oz.)	74136

STAINLESS STEEL CLEANER WIPES

Cleans, Shines and Protects Surfaces in One Step
When stainless steel becomes soiled with fingerprints, dirt and residue, these wipes quickly remove heavy soils and restore a brilliant shine. Stainless Steel Cleaner Wipes are pre-moistened with a powerful, VOC-compliant solution that effectively removes grime yet won't harm stainless steel.

Features
- Cleans, polishes and brightens stainless steel surfaces
- Leaves a protective barrier to prevent water marks and corrosion
- Formulated for more even coverage and can be buffed out if desired
- Leaves a pleasant citrus fragrance
- 9.5" x 12" wipes

Applications
- Cooking/refrigeration equipment
- Vending machines
- Beverage dispensers
- Laundry machines
- Elevator doors and walls
- Escalator walls
- Restroom stall partitions

DESCRIPTION	PART
Stainless Steel Cleaner Wipes (40 count)	74610

CLEANERS AND DEGREASERS

QUIK-SHINE™ METAL POLISH

Metal Polisher and Cleaner
Cleans and polishes all metal surfaces. Removes rust and corrosion instantly. Leaves no deposits in the crevices of metal work.

Features
- Cleans and polishes
- For use on all metal surfaces
- Instantly removes rust and corrosion

Applications
- Silver • Gold • Brass • Nickel • Copper
- Pewter • Steel • Aluminum • Chromium
- Zinc • Wheels • Boat Fittings • Tools
- Fishing Gear • Sinks • Showers • Campers

DESCRIPTION	PART
Quik-Shine™ Metal Polish (5 oz.)	74173

METAL CLEANER & TARNISH REMOVER

Polishes and Protects, Leaving a Lustrous Shine
This unique chemical action formula removes tarnish and soil quickly and easily. Use on brass, bronze, copper and nickel. No need to wait for product to dry. Polishes and protects while leaving a lustrous shine. Polished surface also resists tarnishing.

Features
- Unique chemical action formulated to remove tarnish and soil quickly and easily
- Polishes and protects
- Leaves a lustrous shine

Applications
- Hand Rails • Kick Plates • Plaques
- Door and Furniture Hardware
- Statues • Light Fixtures

DESCRIPTION	PART
Metal Cleaner & Tarnish Remover (16 oz.)	74537

CLEANERS AND DEGREASERS

INSTA-CLEAN™

Rubber and Vinyl Cleaner and Protectant
Cleans and shines all rubber, vinyl and other synthetic surfaces without washing or wiping — just spray on and walk away! Its unique self-cleaning foaming action quickly removes caked-on dirt while leaving a long lasting, high gloss shine. Protects surfaces from discoloration and oxidation. Will not harm aluminum or painted surfaces.

Features
- Powerful foaming action
- No washing or wiping necessary
- Leaves a high gloss protective shine

Applications
Ideal for use on rubber and vinyl components of machinery and equipment; vinyl and plastic furniture; and truck/auto tires and plastics – It makes them look showroom new!

DESCRIPTION	PART
Insta-Clean™ (12.75 oz.)	74121

BASEBOARD/STRIPPER CLEANER

Superior Cleaning Due to Stability on Vertical Surfaces
Specially formulated with powerful cleansers which allow soiled areas to be treated while keeping them looking clean and attractive. Removes scuff marks, wax build-up, grease and grime.

Features
- Heavy duty jelled formula clings to vertical surfaces for complete penetration and removal
- No phosphates
- No caustics
- Liquifies finish in minutes
- No harmful residues
- No harmful vapors

Applications
- Baseboard, floors, and ceramic wall tile

DESCRIPTION	PART
Baseboard/Stripper Cleaner (18 oz.)	74174

CLEANERS AND DEGREASERS

CONTACT CLEANER P.S.

Plastic Safe Industrial Strength Cleaning Solvent
This non-flammable, fast drying industrial strength cleaning solvent is specifically formulated for precision cleaning and degreasing of electrical contacts, switches, relays and controls in electromechanical assemblies. It is non-corrosive, non-conductive, safe for sensitive metals and most plastics. Can also be used on energized equipment. Powerful spray stream removes dust, dirt, oil, grease and oxides – leaving no residue after evaporation.

Features
- Instantly removes grease, oils and dirt
- Safe for use on energized equipment
- Safe on most plastics
- Non-corrosive / non-conductive / non-flammable
- Adjustable spray nozzle – low / medium / high

Applications
- For use on electrical contacts, switches, relays and controls in electromechanical assemblies

DESCRIPTION	PART
Contact Cleaner P.S. (13 oz.)	74704

DEGREASER

Kerosene-Based Degreaser
Specially formulated to clean all mechanical engines, machinery, tools and even greasy floors. Removes dirt, grease and varnish deposits by simply spraying on and flushing off with water. Best cleaning results are obtained when engine is at normal operating temperature.

Features
- Non-corrosive
- Low odor
- Penetrates through grease and grime
- Easy to use
- Water soluble

Applications
- For use on all mechanical engines, machinery, tools, floors, equipment, trucks, forklifts, chains and cables

DESCRIPTION	PART
Degreaser (15.75 oz.)	74111

CLEANERS AND DEGREASERS

HIGH PERFORMANCE SAFE-ACID CLEANER

Non-Toxic, Non-Corrosive, Non-Fuming, Biodegradable Cleaner
This liquid multipurpose cleaner generates the heavy duty cleaning power of an acid, yet it is safe and mild like liquid dish soap. Remarkable formula contains a special blend of surfactants, organic salts and proprietary additives to create an acid-replacement cleaner that is environmentally safe and biodegradable. Effective against rust, hard water stains, calcium, scale and lime deposits, beer stone, milk stone, soap scum, scuff marks, stains and soils, grease.

Features
- Biodegradable, multifunctional high-performance cleaner.
- Contains a special blend of surfactants and proprietary organic additives.
- Concentrated formula offers multiple dilution rates.

For Use On
- Stainless Steel • Copper • Brass • Aluminum • Concrete • Terrazzo • Stone • Ceramic
- Porcelain • Fiberglass • Brick • Appliances • Food Surfaces* • Steam Tables
- Coffee makers • Humidifiers • Toilets • Urinals • Tile and Grouting • Showers • Tubs
- Sinks • Floors • Walls • Fish Tanks • Vents

* Potable water rinse required.

* Non-stock item. Please call for delivery.

DESCRIPTION	PART
High Performance Safe-Acid Cleaner (1 Quart)	74615
High Performance Safe-Acid Cleaner (1 Gallon)	74616*
High Performance Safe-Acid Cleaner (5 Gallon)	74617*
High Performance Safe-Acid Cleaner (55 Gallon)	74618*

CITRUS GREASE DIGESTER

Powerful Citrus Base, Biodegradable Cleaner
Revitalizes sluggish disposal systems, quickly reducing buildup of grease and slime in sewage treatment equipment without affecting bacteral activity. Effectively controls odor. Will not harm metal pipes. Eliminates heat generation. Non-acid. Non-caustic. Non-corrosive.

Features
- Unclogs, deodorizes and degreases
- Extremely effected in drains, grease traps, septic systems, dry wells and cesspools
- Environmentally safe
- All natural citrus base

Applications
- Used in sewage treatment plants, landfills, waste disposal facilities and for the maintenance of drains, refuse trucks and cans, and garbage areas.

DESCRIPTION	PART
Citrus Grease Digester (1 Quart)	974250

CLEANERS AND DEGREASERS

PRO-TEX

Anti-Static Cleaner and Protector
An excellent brightener and protector which resists scratches, marks, smudges and water spots. Use on glass, mirrors, chrome, tile and laminated plastics. Formulated to keep automobile interiors and exteriors cleaner and brighter with less maintenance.

Features
- Anti-static cleaner and protector
- Resists scratches and finger smudges
- Excellent CRT screen cleaner
- Long lasting – requires infrequent cleaning

Applications
- Use for protect CRT screens, glass, mirror, chrome, paint finishes, vinyl, tile, leather and laminated plastics

DESCRIPTION	PART
Pro-Tex (17.75 oz.)	74152

ELECTRONIC EQUIPMENT WIPES

Eliminates Static To Avoid Electronic Data Loss
Wiping down electronic equipment with these wipes, protects devices from static electricity and avoids dust. Premoistened with a special formula that neutralizes the effects of static electricity. This avoids the loss of important data stored on computer equipment such as hard drives.

Features
- Special formula eliminates static to protect the loss of data
- Eliminating static keeps dust from collecting on equipment
- Cleans and sanitizes surfaces
- Towels can be used on almost any electronic equipment

Applications
- LCD screens
- Telephone ear & mouth piece
- Copiers
- Office equipment
- Keyboards
- Printers
- Computer terminals
- Fax machines
- Televisions

DESCRIPTION	PART
Electronic Equipment Wipes (30 Count - 7" x 9" Towels)	74456

CLEANERS AND DEGREASERS

DUST BLASTER MAX

Inert, Dry Gas Duster
Instantly removes dust, lint and particulates from equipment and delicate electronic assemblies. Cleans with a dry blast without risk of scratching or damaging surfaces. Ultra-pure, non-flammable formula is safe to use on energized equipment.

Features
- Instantly removes dust / particulates
- Cleans delicate materials
- Safe for most surfaces
- Ultra-pure, filtered to 0.2 Microns

Applications
- For use on hard-to-reach areas, "touch-sensitive" surfaces (internal components of TV sets, cameras, camcorders, VCRs, computers, audio equipment, CD players, etc.) and coated glass or plastic lenses

DESCRIPTION	PART
Dust Blaster Max (10 oz.)	74175

CLEANERS AND DEGREASERS

EASY-OUT STAIN REMOVER

Non-Hazardous, Water-Based, Carpet and Upholstery Stain Remover
Quickly and easily removes the following stains from carpet, upholstery and other fabrics: blood, candle wax (break up first), catsup, chocolate, coffee, cosmetics, crayon, food, fruit juice, grass, grease, grime, iodine, latex paint, liquor, mildew, oil, pet stains, shoe polish, tea, urine, washable ink, wine and many more.

Features
- Quickly and easily removes stains from carpet and upholstery
- Contains no solvents or hazardous ingredients
- Leaves fabrics clean and fresh

Applications
- For carpet, upholstery and other fabrics

NOTE: Dyes, indelible ink or stains set by heat may not be possible to remove.

DESCRIPTION	PART
Easy-Out Stain Remover (32 fl. oz.)	74176

CARPET/UPHOLSTERY SPOT REMOVER

General Purpose Water & Oil-Based Stain Remover
This handy aerosol spray quickly dissolves away tough stains like grease, oil and lipstick from fabric or fibrous material without heavy scrubbing. Its powerful formula removes both water-based and oil-based stains and even removes stubborn, dried-on stains.

Features
- For use on carpets, upholstery, curtains, drapes
- Effectively removes both water and oil-based stains
- Safe for use on most fabrics
- Use as a pre-spotter prior to carpet extraction

Applications
Removes:
- Ink
- Grease
- Tar
- Oil
- Shoe Polish
- Cola
- Coffee
- Lipstick
- Wine
- Pet Stains

DESCRIPTION	PART
Carpet/Upholstery Spot Remover (17 oz.)	74262

CLEANERS AND DEGREASERS

CARPET SPOT DIRECT

Powerful Carpet Stain and Spot Remover
Quickly and easily removes protein based stains due to dirt, ink, grease, oil, mud, ketchup, urine, vomit, coffee, tea, alcoholic beverages, soft drinks and bloods.

Features
- Pinpoint stream sprays upside down onto stains without heavy overspray
- Quickly saturates materials for instant cleaning
- Leaves no residue behind
- Cleans and degreases with water soluble solvents, will not soften carpet backings
- Contains an odor modifier which destroys odor due to urine and vomit through oxidation catalysis
- Leaves a pleasant fragrance

Applications
- Use to remove stains due to dirt, ink, grease, oil, mud, ketchup, urine, vomit, coffee, tea, alcoholic beverages, soft drinks and blood.

DESCRIPTION	PART
Carpet Spot Direct (18 fl. oz.)	74258

QUICK CLEAN

General Purpose Foaming Cleaner
Quickly and easily removes protein based stains due to dirt, ink, grease, oil, mud, ketchup, urine, vomit, coffee, tea, alcoholic beverages, soft drinks and bloods.

Features
- Removes dirt, soil and grime
- Safe on most surfaces
- Quick-acting and easy-to-use
- Spray on and wipe off

Applications
- For use on equipment, walls, plastic, vinyl, rugs, drapes, wood surfaces, fixtures, furniture and painted surfaces

DESCRIPTION	PART
Quick Clean (17.75 fl. oz.)	74105

CLEANERS AND DEGREASERS

QUICK-SOLV™

Non-flammable, Fast-Evaporating Cleaner/Degreaser
A non-flammable, fast-evaporating cleaner that penetrates instantly to remove dirt, oil, grease and wax. Increases the life of electrical components by removing foreign materials that can cause costly downtime. High dielectric strength of 26,000 volts per mil. Degreases more thoroughly and several times faster than alkaline cleaners. Equipped with high-delivery valve for cleaning efficiency and 5" extension tube for hard-to-reach areas.

Features
- Strong solvent formulation quickly removes grease, dirt and oil
- High dielectric strength prevents shorting of electrical and electronic equipment
- No flash or fire point – eliminates fire and explosion hazards
- Fast evaporation speeds clean-up and downtime
- Non-corrosive, non-conductive and non-staining for safer application

Applications
- Cleaning and degreasing of all parts, equipment and machinery
- Excellent for cleaning sheet and strip steel prior to galvanizing
- Ideal for degreasing bearings and engine components

DESCRIPTION	PART
Quick-Solv™ (19 oz.)	74186

CITRUS BLAST - H.D.

Heavy Duty Industrial Foaming Degreaser
Citrus Blast - H.D is a heavy duty industrial degreaser with a foaming jet stream spray pattern. It is a very effective degreaser without the use of harmful caustics or solvents.

Features
- Strong solvent formulation quickly removes grease, dirt and oil
- High dielectric strength prevents shorting of electrical and electronic equipment
- No flash or fire point – eliminates fire and explosion hazards
- Fast evaporation speeds clean-up and downtime
- Non-corrosive, non-conductive and non-staining for safer application

Applications
- Powerful foaming spray dissolves grease, oil, grime and more
- Excellent for accumulations of grease or tar and asphalt on engines or engine parts
- For use on coils, fins and filters

Use On
- Machinery • Tools • Industrial equipment • Walls • Concrete • Protective coatings

DESCRIPTION	PART
Citrus Blast - H.D. (16 oz.)	74142

CLEANERS AND DEGREASERS

FACILITY WIPES (ALL-SURFACE CLEANING WIPES)

Facility Wipes
Designed to clean and deodorize any surface, anywhere. They are excellent for quick and easy cleaning of equipment, furniture and facilities. Wipe down surface with fresh towel and throw towel away when finished. Good for cleaning metal, glass, tiles and ceramic.

P/N 28235

Features and Benefits
- 800 wipes per roll
- Cleans and deodorizes surfaces on contact
- Fast and easy to use towel, one step cleaning
- Wall mounted dispenser allows convenient individual use

Use With Center-Pull Dispenser (P/N 1789)
- Single-sheet release requires only one hand to tear off
- Made of tough impact resistant materials
- One of the most vandal-proof, break resistant, chemical and flame resistant products
- For heavy use applications

P/N 1789

Applications
- Athletic clubs • Schools • Hospitals • Nursing homes • Restaurants • Health clubs • Offices

DESCRIPTION	PART
Facility Wipes (800 Wipes Per Roll - 8" x 10")	28235
Center-Pull Dispenser	1789

SHOP WIPES (HIGH-POWERED VERSATILE CLEANER)

Designed for use in industrial and manufacturing settings, each towel is pre-moistened with a powerful cleaning formula capable of cleaning hard-working hands, as well as non-porous surfaces. Made from an abrasive, yet non-scratching fabric that helps lift away heavy deposits of grime and dirt off hands and surfaces as well as leaving behind a fresh citrus scent. Scrub surfaces with abrasive side of towel until the dirt is loosened, then use the smooth side to wipe surfaces clean and discard.

P/N 28236

Features and Benefits
- 400 wipes per roll
- High powered multipurpose cleaner
- Effective against tar, paint, wax, grease, adhesives and ink
- Abrasive, yet non-scratching fabric aids in cleaning
- Natural oils and emollients, safe for hands & skin

P/N 1789

Use With Center-Pull Dispenser
- Offers single-sheet release
- Requires only one hand to tear off
- Made of tough impact resistant materials
- One of the most vandal-proof, break resistant, chemical and flame resistant products
- For heavy use applications

Applications
- Auto shops • Work benches • Maintenance areas • Offices • Plumbing sites • Marinas
- Break rooms & kitchens • Construction sites • Printing & painting areas • Manufacturing

DESCRIPTION	PART
Shop Wipes (400 Wipes Per Roll - 8" x 12")	28236
Center-Pull Dispenser	1789

SKIN CARE

STOKO® XTREME CARE CREAM

Xtreme Skin Conditioner
Use on hands, face and any other at-risk areas exposed to extreme conditions. Temporarily protects against the drying effects of harsh, cold environments, outdoors or indoors.

Features and Applications
- Contains Allantoin, Panthenol and Glycerin to strengthen the skin's natural defenses
- Helps protects skin from natural elements such as very low temperatures and lack of humidity
- Use on hands, face and any other at-risk areas exposed to extreme conditions
- Promotes healing of very dry, irritated skin
- Can also provide relief for severely dry skin
- Does not freeze
- Will dispense easily even at lower temperatures
- Passed Lineman's Glove Testing
- Silicone-free

DESCRIPTION	PART
Stoko® Xtreme Care Cream (3.38 fl. oz.)	74454

STOKOLAN® SKIN CARE CREAM

Concentrated Skin Conditioner
Frequent hand washing can lead to dry, chapped, cracked skin causing employees to avoid proper hand washing. With Stokolan® Skin Care Cream, employees are able to achieve the proper balance between effective cleansing and skin compatibility and help reduce the incidence of dermatitis in the workplace.

Features and Applications
- Concentrated conditioning cream replaces lost moisture after washing hands (silicone-free)
- Replaces the oils and lipids the skin loses in the course of a hard day's work
- Ideal for chapping, chafing and irritated skin
- Keeps skin feeling healthy and smooth
- Ideal for use in any industrial setting, as well as many other workplace environments
- Particularly necessary when skin is exposed to cold and/or dry climates or harsh working conditions

DESCRIPTION	PART
Stokolan® Skin Care Cream (3.38 fl. oz.)	74453

SKIN CARE

HANDI-SANI

Instant Hand Sanitizer
Red Lion™ Handi-Sani instant hand sanitizer is a light and refreshing hand sanitizing spritz, enhanced with moisturizers.

Features
- Active ingredient: 62% Ethanol
- pH: 7.5
- Helps reduce cross-contamination
- Kills 99.99% of E. coli, Salmonella enterica and Staphylococcus aureus (MRSA) in 15 seconds
- FDA registered
- Provides convenience and portability
- Fast-drying
- Conditions skin
- Requires no water
- FDA Approved

Applications
- Hospitals, nursing homes and physical therapy rooms • Schools (buses, locker rooms)
- Health clubs and spas • Daycare centers • Transportation (airports, buses, subways, trains, etc.)

DESCRIPTION	PART
Handi-Sani (4 oz.)	74487

SANI-SMOOTH

Hand Sanitizing Foam
Red Lion™ Sani-Smooth foaming aerosol hand sanitizer is alcohol based and allows you to sanitize your hands when hand washing is not possible. Contains a unique blend of emollients and conditioners that leaves your hands silky smooth and soft. Using a foaming aerosol hand sanitizer is the preferred method by hospitals over the liquid variety. Sani-Smooth is a more efficient way for employees to frequently clean their hands and thus cut down on the spread of infection.

P/N 74486

P/N 1819 – Dispenser

Features
- Active ingredient: Ethyl Alcohol 62%
- pH: 7.6
- Preferred by hospitals over liquid hand sanitizing products
- Non-Allergenic sanitary foam
- Removes dirt and bacteria without the need of water
- Provides convenience and portability
- Over 600 estimated uses per can
- Mounting hardware included with dispenser
- FDA Approved

Applications
- Hospitals, nursing homes and physical therapy rooms
- Schools (buses, locker rooms)
- Health clubs and spas
- Daycare centers
- Transportation (airports, buses, subways, trains, etc.)

DESCRIPTION	PART
Sani-Smooth (16 oz.)	74486
Dispenser	1819

SKIN CARE

MAGIC HAND SOAP

All Natural Industrial Hand Cleaner
Red Lion™ Magic Hand Soap contains walnut shell scrubbers to clean the toughest soils. It cleans the dirtiest hands like magic! Contains the anti-microbial "PCMX".

Features and Benefits
- Fortified with supreme skin conditioners and biodegradable scrubbers
- Non-solvent formula eliminates drying and cracking
- Contains superior skin emollients and skin conditioners
- Cleans the dirtiest hands like magic
- No phosphates, dyes or perfumes
- Contains natural walnut shell scrubbers
- Thick concentrated formula reduces hand soap use by up to 75%
- Washes away completely with no greasy residue
- Brown color, mild citrus scent
- 120 fl. oz. dispenser sold separately (shown, P/N 1830)

DESCRIPTION	PART
Magic Hand Soap, 120 fl. oz.	74458
Magic Hand Soap, 18 fl. oz.	74459
Soap Dispenser, for 120 fl. oz. Bottles, Color: gray	1830

ANTIMICROBIAL HAND CLEANER AND SANITIZER

A Thick One-step Hand Cleaner and Sanitizer that conforms to the E-2 Designation Requirements of the USDA

Red Lion™ Antimicrobial Hand Cleaner and Sanitizer is powered by Benzalkonium Chloride, which is effective against a broad spectrum of gram positive and gram negative bacteria.

Features and Benefits
- Approved for use in all USDA and federally inspected plants
- Fragrance and dye free advanced skin care formula
- Rich, mild lather that is pH balanced (5.5-7.0)
- 100% biodegradable
- Industrial size
- Industrial grade
- 85 fl. oz. dispenser sold separately (shown, P/N 1832)

Applications
- Suitable for use in all food manufacturing and processing facilities which require the highest levels of personal sanitation as part of their GMP
- Ideal for use in meat and poultry processing industries
- Use in other food handling environments such as restaurants and supermarkets

DESCRIPTION	PART
Antimicrobial Hand Cleaner and Sanitizer, 85 fl. oz.	74629
Soap Dispenser, for 85 fl. oz. Bottles, Color: black	1832

SKIN CARE

HEAVY DUTY SCRUB HAND SOAP

Concentrated Industrial Hand Cleaner

Fortified with leading edge skin conditioners and free floating polymer scrubbers, Red Lion™ Heavy Duty Scrub Hand Soap tackles the toughest dirt, grease and grime. Leaves hands clean and conditioned.

Features and Benefits
- Environmentally friendly formula
- Enriched with multiple emollients
- Promotes healthy skin care
- Contains no harsh petroleum solvents
- New age polymer scrubbers float away
- Green color, mild citrus scent
- 120 fl. oz. dispenser sold separately (shown, P/N 1830)

DESCRIPTION	PART
Heavy Duty Scrub Hand Soap, 120 fl. oz.	74630
Heavy Duty Scrub Hand Soap, 18 fl. oz.	74633
Soap Dispenser, for 120 fl. oz. Bottles, Color: gray	1830

H.D. CITRUS HAND SOAP

A Liquid, Heavy-duty Hand Cleaner

Red Lion™ H.D. Citrus Hand Soap is a formulation based on a synergistic blend of detergents, emulsifiers, solvents, and emollients. It works equally well with or without rinse water. This soap rinses easily, gently replaces the skin's oils, and leaves hands feeling clean and soft. Contains no pumice.

Features and Benefits
- Multiple emollient package
- Leaves skin soft and moisturized
- After cleaning, a small amount may be used as a hand lotion to recondition skin
- Orange color, citrus scent
- 120 fl. oz. dispenser sold separately (shown, P/N 1830)

Applications
- Easily removes dirt, grease, oil, grime, tar, asphalt, ink, paint & adhesive
- Can be used "on-the-job" because it easily wipes away with paper towels or cloths anywhere water is not available
- Also works wonderfully when rinsed with water

DESCRIPTION	PART
H.D. Citrus Hand Soap, 120 fl. oz.	74631
H.D. Citrus Hand Soap, 18 fl. oz.	74632
Soap Dispenser, for 120 fl. oz. Bottles, Color: gray	1830

SKIN CARE

CHERRY IMPACT HAND SOAP

Industrial Hand Cleaner with Cherry Fragrance

Red Lion™ Cherry Impact hand soap was developed specifically for professional technicians. Its super thick concentrate contains scrubbing particles, and stays on your hands during washing. Contains superior emollients to reduce drying and cracking.

Features and Benefits

- Medicated to promote healthy skin care
- Low solvent content formula
- Removes stubborn grease and oil
- Leaves hands feeling conditioned
- Red color, pleasant cherry scent
- 120 fl. oz. dispenser sold separately (shown, P/N 1830)

DESCRIPTION	PART
Cherry Impact Hand Soap, 120 fl. oz.	74471
Cherry Impact Hand Soap, 18 fl. oz.	74472
Soap Dispenser, for 120 fl. oz. Bottles, Color: gray	1830

POW-R-SCRUB HAND CLEANER

Fast Acting Hand Cleaner with Pumice Scrubbers

Professional strength pumice hand cleaner immediately goes into action to power out the worst grease and grime. Instantly attacks grease, grime, soils, resins, epoxies, paint, glue and rubber gasket, plus any other soil you can get your hands into. This convenient squeeze bottle, with its easy-to-use self-dispensing cap, eliminates the need for wall mounted dispensers.

Features

- Professional strength pumice hand cleaner
- Instantly attacks grease, grime, soils, resins, epoxies, paint and glue
- Contains fine pumice scrubbers
- Softens and protects skin with aloe and lanolin

Applications

- Removes grease/grime, inks, paint,rubber gaskets, epoxies/glue, soil and resins

DESCRIPTION	PART
Pow-R-Scrub Hand Cleaner (15 fl. oz.)	74416

SKIN CARE

H.D. CITRUS SCRUB

Strong, Citrus-Based Hand Cleaner with Pumice Scrubbers & Conditioners
This citrus-based hand cleaner scrubs your hands clean quickly and naturally. Pumice scrubbers gently remove the toughest dirt, grease, grime, soils, resins, printer's ink, paint, glue, rubber gasket and tile cements. Contains lanolin, aloe and jojoba to moisturize skin. Regular use helps keep hands clean and conditioned. H.D. Citrus Scrub is pH balanced and biodegradable*.
(Use with P/N 1806 Hand Cleaner Dispenser Pump).
*Biodegradable according to OECD-301E.

Features
- Industrial strength citrus formula
- Fine pumice scrubbers
- Removes the toughest grease, dirt and grime

DESCRIPTION	PART
H.D. Citrus Scrub (128 fl. oz.)	74521

H.D. MULTI-PURPOSE CITRUS TOWELS

Industrial Degreaser for Hands, Tools, and Surfaces
Multi-Purpose Citrus Towels are pre-moistened with a high-powered, grease-cutting formula that lifts away grease, tar, adhesives, wax, ink, paint and lubricants from hands and other non-porous surfaces.

The superior grease-grabbing performance is ideal for use on tools, equipment, and hands. Natural oils and an emollient are safe for hands and skin, and will not cause drying, unlike similar products. Non-scratching towel is abrasive on one side and smooth on the other.

Features
- Won't scratch hands or surfaces
- No rinsing, no residue
- Fresh citrus scent
- Powerful grease removal on a convenient pre-moistened wipe
- Abrasive towel material provides tough scrubbing action
- Fortified with an emollient so they won't dry hands and skin, unlike similar products
- Ideal as a point-of-use waterless cleaner
- 50-state VOC compliant
- P/N 74609: 8" x 12" towels
- P/N 74609MINI: 6" x 8" towels

DESCRIPTION	PART
H.D. Multi-Purpose Citrus Towels (90 count)	74609
H.D. Multi-Purpose Citrus Towels, Mini Pack (15 count)	74609MINI

SKIN CARE

PVA HAND CLEANER

Paint, Varnish and Adhesive Hand Cleaner
Safely and effectively removes paints, urethanes, sealants, adhesives, stains, plastic fillers, putty and more. Fortified with 8 skin care ingredients and micrograin scrubbers for extra cleaning power. Rinses thoroughly with no unpleasant odor or sticky afterfeeling. Complies with VOC Consumer Product Rules. Rub a small amount into the hands, add a little water and rub hands vigorously. Rinse hands and dry thoroughly. Environmentally friendly with no greasy residue. Leaves a fresh, clean scent.

Features
- Unique DBE Solvent Formula
- Protects silicone-sensitive accessories
- Skin-friendly formula – Helps ensure healthy hands
- With vitamin C antioxidant
- Helps protect skin from UV-related damage
- With vitamin E moisturizer
- Helps improve elasticity and smoothness of the skin
- Cuts Through Paint, Varnish, Adhesives and Other Tough Soils Without Damaging Hands
- Softens and Shields Skin with Aloe, Provitamin B5 and Jojoba

Applications
Removes stain/varnish, urethane paints, primers, silicones, resins, enamels, oil paints, lacquers, adhesives/sealants, clear coats, body fillers and grease/grime.

DESCRIPTION	PART
PVA Hand Cleaner (15 oz.)	74512

CITRUS CLEAN GF

Waterless Hand Cleaner
A powerful hand cleaner formulated with d-Limonene to safely dissolve and remove heavy soils from skin.

Features
- This effective grit-free (no pumice) hand cleaner is formulated with natural orange peel extracts
- Extracts dig deep down into the skin's pores to remove even the toughest dirt and grease
- Contains lanolin and other special emollients to prevent hands from becoming red and chapped
- An easy and convenient way to keep hands clean
- Contains no petroleum solvents
- Does not need to be rinsed with water

Applications
Waterless hand cleaner that digs deep down into the skin's pores to remove even the toughest dirt and grease.

DESCRIPTION	PART
Citrus Clean GF (1 Pint)	74427

SKIN CARE

PROTECTIVE SKIN CREAM

USDA Rated E-4 Skin Protectant
Protective Skin cream provides an “all-day” invisible greaseless film of protection on the skin against irritating materials. Its excellent emollient quality is ideal for chapped cracked skin. Clean-up with just soap and water to wash away the protective coating, dirt and irritating materials.

Features
- Easy On...Easy Off!
- USDA rated E-4

Applications
Protects Against Paints, Grease, Inks, Oils, Solvents, Gasoline, and Cement Burns

DESCRIPTION	PART
Protective Skin Cream (18 oz.)	74449

HAND SANITIZING WIPES (WITH ALOE AND VITAMIN E ANTISEPTIC)

Formulated with aloe and antioxidant Vitamin E to moisturize the skin. This effective formula cleans hands while killing bacterial. Towels are made from a non-abrasive fabric that is gentle to the skin. Wipes are easy to use and not messy like sanitizing gels.

Features
- Kills 99.9% of bacteria
- Leaves a fresh wintergreen fragrance
- Leaves hands feeling fresh
- Quick and easy to use, wipe and discard

Applications
- For handwashing to decrease bacteria on the skin, only when water is not available
- Before contact with a person under medical care or treatment

DESCRIPTION	PART
Hand Sanitizing Wipes (With Aloe and Vitamin E Antiseptic - 70 Count)	74539

INSECTICIDES

BUG BE GONE WIPES

Powerful, Fast-Acting Wipe-On Insect Repellent
Repels mosquitoes, chiggers, ticks, deer flies, stable flies, black flies, gnats and fleas on exposed skin surfaces. Contains 25% DEET, one of the most effective insect repellents available. Just wipe onto exposed skin, and throw the wipe away.

Features
- Water-Based
- Non-VOC Formula
- No Strong/Offensive Odor
- Leaves No Sticky Residue
- Provides up to 4 hours of protection
- Convenient, easy to use
- Quick & thorough
- Contains 25% DEET

Repels
- Mosquitoes
- Chiggers
- Ticks
- Deer flies
- Stable flies
- Black flies
- Gnats
- Fleas

Applications
- Construction
- Utility Work
- Road Work
- Sanitation Crews
- Farming
- Gardening
- Camping
- Fishing
- Boating
- Hunting

DESCRIPTION	PART
Bug Be Gone Wipes (40 Wipes - 6" x 8" Towels)	74263

INSECT REPELLENT WRISTBANDS

For Maintenance, Repair and Operations Personnel – Commercial/Military
Vapors from the insect repelling wristband form a protective shield around the immediate area, keeping insects a safe distance away. Natural & Effective, made with naturally derived geranoil. Use just enough repellent to cover exposed skin and/or clothing. Do not use under clothing.

Features
- DEET Free
- Water Resistant – The wristband just keeps working, up to 120 hours
- Packaged in a reusable plastic “pod” to store the wristband, it can be sealed between uses to preserve the active life of the product

Applications
- Repels mosquitoes, flies, gnats, and no-see-ums
- A good choice for recreational and lighter-duty applications
- Can be worn on belt loops, hatbands, fastened in tents, or applied to other areas
- Designed with a patented break-away strap that snaps if it becomes entangled

DESCRIPTION	PART
Insect Repellent Wristbands - Green (3 Pack)	85085
Insect Repellent Wristbands - Glow-in-the-Dark (3 Pack)	85086
Insect Repellent Wristbands - Pink (3 Pack)	85087
Insect Repellent Wristbands - Red (3 Pack)	85088
Insect Repellent Wristbands - Yellow (3 Pack)	85089
Insect Repellent Wristbands - Blue (3 Pack)	85090

INSECTICIDES

WASP AND HORNET KILLER

Powerful, Fast-Acting Insecticide
Triple action formula kills wasps, hornets and yellow jackets. Instant knockdown. Kills with residual action as wasps and hornets return to the nest. Sprays up to 20 feet. Dielectric breakdown voltage of 33,000 volts.

Features
- Instant knockdown
- Triple action formula
- Kills wasps, hornets and yellow jackets
- Dielectric breakdown voltage of 33,000 volts
- Accurate stream penetrates deep into hard-to-reach nests

Applications
For use in the home and non-food areas of:
- Schools • Warehouses • Office Buildings
- Theatres • Garages • Hotels • Motels
- Kennels • Hospitals and Other Listed Areas

NOTE: Do not use in commercial food/feed handling establishments, restaurants or other sites where food/feed is commercially prepared or processed. Do not apply to pets or contaminate feed, foodstuffs, dishes or utensils.

DESCRIPTION	PART
Wasp and Hornet Killer (12 oz.)	74161

FIRE ANT & INSECT DEHYDRATOR

Powerful, Long-Lasting Insecticide
Red Lion™ Fire Ant & Insect Dehydrator contains the quick-killing botanical insecticide, pyrethrum, an extract of the chrysanthemum flower. Kills insects on contact.

Features
- Provides effective control of insects upon direct contact with an added benefit of flushing these insects to aid in a more complete kill
- Silicon dioxide provides long term control through a desiccating (drying) action
- Kills insects up to 6 months from initial application

Kills
- Ants
- Carpenter Ants
- Fire Ants
- Pharaoh Ants
- Bedbugs
- Beetles
- Confused Flour Beetles
- Carpet Beetles
- Red Flour Beetles
- Cockroaches
- Carpenter Bees
- Centipedes
- Crickets
- Earwigs
- Firebrats
- Fleas
- Hornets / Wasps
- Lice
- Dust Mites
- Palmetto Bugs
- Scorpions
- Silverfish
- Spiders
- Ticks
- Termites
- Waterbugs
- Weevils

DESCRIPTION	PART
Fire Ant & Insect Dehydrator (3.5 oz.)	74269

INSECTICIDES

ANT AND ROACH SPRAY

Fast Acting, Long-Lasting Indoor / Outdoor Use
Provides rapid control of houseflies, mosquitos, small flying moths (millers), gnats, wasps and accessible stages of roaches, ants, water bugs, silverfish, flour beetles, weevils, grain mites and spiders. In hospitals, patients should be removed from room prior to treatment. Room should be ventilated two hours after spraying. Do not return patients to room until after ventilation.

Features
- Evercide® insecticide
- For rapid control of common pests and insects
- For indoor and outdoor use
- Can be used on bedding and carpeting
- Lasts up to 42 days

Applications
For use in the home and food and non-food areas of:
- Food Processing Plants • Schools • Warehouses
- Office Buildings • Theatres
- Garages • Hotels • Motels • Kennels
- Hospitals and Other Listed Areas

DESCRIPTION	PART
Ant and Roach Spray (11.75 oz.)	74163

LUBRICANTS

4-WAY PLUS

Multi-Purpose Lube and Penetrant With High Dielectric Strength
Specially formulated to displace moisture on wet ignition systems, electric motors and equipment. (electrical power must be off). Frees frozen parts, protects metal prior to storage and prevents rust and corrosion.

Features
- Displaces moisture
- Dries wet ignitions
- Frees rusted parts
- Prevents rust
- Stops squeaks
- Provides moisture barrier
- Meets government specifications MIL-C-16173D and W-L-800C

Applications
- Rust preventative for metal parts in machine shops: tools, equipment and similar surfaces
- Tractors, bicycles, cranes and vehicles
- Electrical systems, generators, alternators and starters

DESCRIPTION	PART
4-Way Plus (18 oz.)	74107

BLUE GREASE

Calcium Sulfonate Complex Industrial Grease
Premium grade, calcium sulfonate complex industrial grease is designed for extended service life and is recommended for multi-application usage in even the most severe applications across all industries. Due to Blue Grease's completely shear stable thickener it has superior rust, corrosion and oxidation resistance while offering the highest level of EP and load carrying performance obtainable. Blue Grease meets and exceeds the highest automotive service classification (GC-LB) and makes an excellent grease for extended service life in all types of high temperature, extreme pressure agricultural, construction, hauling, mining, logging, and steel mill applications.

Features
- Superior quality Calcium Sulfonate Complex grease
- Unmatched EP Protection 65 Timken, 620 Weld Point
- Longest re-lubrication intervals will not harden, thin or washout
- Considered waterproof by industry standards
- Maximum operating temps -30°F to 425°F
- Completely heavy metal free and harmful additive free, contains no antimony, barium, chlorine, lead, or zinc

Applications
- Electric Motor Bearings
- Ball and Roller Bearings
- Gear Motors
- Anti-Friction Bearings
- King Pins
- Pillow Blocks
- Wheel Bearings
- Kiln Cars
- Fifth Wheel
- Universal Joints
- Bucket Pins
- Slides & Ways
- Shakers
- Marine Applications
- Power Plants
- Soot Blowers
- Exhaust Fan Bearings
- Truck Chassis

DESCRIPTION	PART
Blue Grease (5 Gallon Pail)	74436
Blue Grease (15 Gallon Pail)	74437
Blue Grease (50 Gallon Drum)	74438

LUBRICANTS

CABLE & CHAIN LUBE

Full-Service, Multiple-Application, Chain and Cable Lubricant
This product is an outstanding, full-service, multiple-application, chain and cable lubricant. Fortified with both molybdenum disulfide and PTFE, the formula will provide superior lubricity, protection, and longevity. Very water and acid resistant. In addition, the special aerosol valving system allows for precise control of material delivery with minimal splashing and/or overspray. This next generation product is formulated without chlorinated solvents or ozone depleters.

Features
- Fortified with Moly and PTFE
- Penetrates for fast set up and resist throw off
- Ideal for chains, cables and moving assemblies
- Lubricates and reduces friction
- Non-chlorinated

Applications
- Use this product on chains, cables, wire ropes, sprockets, drive chains, hoist chains, drag chains and conveyor chains to prevent metal to metal contact and reduce friction, heat, stress, and wear during operation.

DESCRIPTION	PART
Cable & Chain Lube (12 oz.)	74151

CHAIN LUBE

Penetrating Lubricant
Unique foaming formula allows for super penetration without "sling off", even at high speeds. Affords full protection for metal-to-metal moving parts. Material will not fly off or break down and is recommended for any climatic conditions.

Features
- Lubricates and penetrates
- Withstands high and low temperature changes
- Repels dirt and sand
- Extends chain life by reducing friction
- Resists "sling off"

Applications
- Excellent for use on chain saws, sprockets, cutter bars, clippers, link and roller chains, etc.
- Increases chain and sprocket life by reducing friction.

DESCRIPTION	PART
Chain Lube (17.75 oz.)	74119

LUBRICANTS

DIELECTRIC GREASE

Silicone Compound Improves Connections
Silicone compound designed to provide excellent dielectric and lubricating properties for electrical connections. Also ideal for use as an o-ring lubricant. Wide temperature range of -40°F to 500°F.

Features
- High dielectric strength of 400 volts/mil prevents voltage leaks, insuring superior performance in ignition systems and electrical applications
- Excellent lubricant for rubber, plastic and ceramics making installations faster, easier and more efficient
- High water and oxidation resistance prevents corrosion in even the most extreme environments
- Radiation resistant for use around radiation equipment and microwaves

Applications
- Use in electrical terminals, lubrication and sealing of rubber, o-rings and brass components and can also be used for lubrication of plastic threads and gears.

SPECIFICATIONS:

Color	Translucent White
Temperature Range	-40°F to 500°F
Penetration, unworked	190-220
Worked 60 maximum Bleed, 24 hrs/200°C (392°F)	260
Percent maximum	2%
Melting point	no melt
Specific gravity @ 25°C (77°F)	1.05
FDA Recognition, 21 CFR 175.3000	yes
Electrical Dielectric Constant @ 100 Hz	2.80
@ 100 kHz	2.80
Dissipation factor @ 100 Hz	.0006
@ 100 kHz	.0005
Dielectric strength, volts/mil, 50 mil gap	400
Volume resistivity, ohm-cm @23°C (73°F)	1 x 10^{15}
Arc resistance, seconds	118

DESCRIPTION	PART
Dielectric Grease (3 oz.)	74439

CLEAR LUBE

Transparent, High Pressure Lubricant
Unique, transparent grease resists high temperatures and pressures while providing superior lubrication and corrosion protection. Operating temperature range of -35°F to 530°F.

Features
- Transparent formula – Superior lubrication
- High adhesive strength
- Resists "wash-out"
- Prevents corrosion
- 360° valve sprays at any angle

Applications
- Ideal for use on door hinges, open gears, wire ropes and cables, chains, sprockets and anywhere conventional greases or lubricants are used.

DESCRIPTION	PART
Clear Lube (13 oz.)	74137

LUBRICANTS

ZOOM SPOUT® OILER

Premium Grade, All Purpose, Turbine Grade, Lubricating Oil
The finest all purpose oil. Telescoping spout reaches everywhere.

Features
- Flexible telescoping spout with 7" extension for difficult to reach areas

Applications
- Rotating equipment
- Reciprocating equipment
- Bearings
- Motors
- Slides

DESCRIPTION	PART
Zoom Spout® Oiler (4 fl. oz.)	74255

LITHIUM GREASE WHITE – CARTRIDGE

Premium Grade Industrial Grease
Specially designed to meet the ever-increasing requirements for high film strength, higher operating temperatures, greater stability and longer lubricant life. The tough protective film ensures superior lubrication and extended lubrication intervals. This shear stable, non-corrosive, extreme pressure, water resistant lubricant is used for both plain and anti-friction bearings, gears, cams and slides.
It is also highly recommended as a bearing lubricant for electrical motors, spindles and other mechanical devices when low torque, moderate speeds and long life are essential.

Features
- Anti-Corrosive • Non-Staining • Water Resistant
- Superior Performance at Temperatures of 0°F to 325°F
- Extreme Pressure 65 Lb. Timken Load • EP Additives

Applications
Ideal for use on:
- Wheel Bearings • Chassis Points • Ball Joints
- Slides • Rollers • Hinges • Small Gears
- Overhead Tracks • Construction Equipment • Mining
- Logging • Marine Applications • Industrial Applications

SPECIFICATIONS:
Drop Point (ASTM D-2265) ... 390°F (199°C)
Specific Gravity.....0.95
Density (lb./gal.).....8.1
Temp. Range .0°F to 325°F (-18°C to 163°C)
Timken EP Test
(ASTM D-2509) .....65 lbs., Typical
Base Oil Viscosity..... ISO 220, Typical
NLGI Rating.....2
Meets or exceeds requirements of U.S. Military Specification MIL-G-18458B (SH).

DESCRIPTION	PART
Lithium Grease White – Cartridge (14 oz.)	74428

LUBRICANTS

HIGH-TEMP GREASE – CARTRIDGE

High Temperature, High Purity, Synthetic Lubricant
A superior quality, high-performance synthetic grease specially formulated for extremely high temperature applications. Assures minimal friction and maximum corrosion protection. Ideal for all high temperature applications requiring superior lubricity and long service life. USDA accepted for use in federally inspected meat and poultry plants. USDA accepted Classification H1.

Features
- High-purity synthetic grease
- Extremely effective in high temperatures
- Resists water, acids, alkalis and salts
- USDA accepted
- Waterproof

Applications
- Ideal for all high temperature applications requiring superior lubricity and long service life

SPECIFICATIONS:

Temp. Range	-65°F to 500°F (-54°C to 260°C) Continuous -65°F to 550°F (-54°C to 288°C) Intermittent
NLGI Grade (ASTM D1092)	2
Timken OK Load (ASTM 2509)	40 lbs.
Dropping Point (ASTM D566)	Non-melt
Shelf Life	>10 years
Color	Translucent White
Odor	None
Penetration, Unworked (ASTM D217)	280mm/10
Four Ball EP Test (ASTM D2596)	
Load Wear Index	42.53 kg
Weld Point	200 kg
Four Ball Wear Test (ASTM D2266) Scar Dia.	0.50mm
Salt Spray Test (ASTM B117)	Pass
Dielectric Loss (ASTM D924)	1.2×10^{12}
Dielectric Resistivity (ASTM D1169)	1.7×10^{14}
Dielectric Constant (ASTM D924)	2.5
Oil Separation (ASTM D1402)	None
Evaporation Loss (ASTM D972) 22 hrs @ 212°F (100°C)	<1%
Oxidation, Stability 100 hours (ASTM D942)	Pass

DESCRIPTION	PART
High-Temp Grease – Cartridge (14.5 oz.)	74422

LOW-TEMP GREASE – CARTRIDGE

Low Temperature, High Purity, Synthetic Lubricant
A superior quality, high-performance synthetic grease specially formulated for extremely low temperature applications. Assures minimal friction and maximum corrosion protection. Ideal for all bearing, chassis and equipment applications in low to medium temperatures. Also excellent for use in and on refrigeration / freezer units. USDA accepted Classification H1.

Features
- High-purity synthetic grease
- Effective in extremely low temperatures
- Resists water, acids, alkalis and salts
- USDA accepted
- Waterproof

Applications
- Ideal for all bearing, chassis and equipment applications in low to medium temperatures
- Also excellent for use in and on refrigeration / freezer units

SPECIFICATIONS:

Temp. Range	-65°F to 300°F (-54°C to 149°C) Continuous -65°F to 400°F (-54°C to 204°C) Intermittent
NLGI Grade (ASTM D1092)	2
Timken OK Load (ASTM 2509)	40 lbs.
Dropping Point (ASTM D566)	Non-melt
Shelf Life	>10 years
Color	Translucent White
Odor	None
Penetration, Unworked (ASTM D217)	280mm/10
Four Ball EP Test (ASTM D2596)	
Load Wear Index	42.53 kg
Weld Point	200 kg
Four Ball Wear Test (ASTM D2266) Scar Dia.	0.50mm
Salt Spray Test (ASTM B117)	Pass
Dielectric Loss (ASTM D924)	1.2×10^{12}
Dielectric Resistivity (ASTM D1169)	1.7×10^{14}
Dielectric Constant (ASTM D924)	2.5
Oil Separation (ASTM D1402)	None
Evaporation Loss (ASTM D972) 22 hrs @ 212°F (100°C)	<1%
Oxidation, Stability 100 hours (ASTM D942)	Pass

DESCRIPTION	PART
Low-Temp Grease – Cartridge (14.5 oz.)	74420

LUBRICANTS

DRY LUBE PLUS

A Greaseless, High Performance Lubricant That Dries to a Non-Oily Film
Ideal for use on delicate mechanisms; will not build up and resists attracting dust and dirt.

Features
- 4-in-1 action makes it highly versatile - Penetrates, lubricates, displaces moisture and prevents light corrosion
- The next generation chemistry contains no chlorinated solvents or ozone depleters
- Flash point 175°F with CO2 propellant and a 360° spray valve for easy use in any position
- Non-aggressive formula is safe for use on most plastics and painted surfaces
- Non-conductive to 38,000 volts for use around live equipment
- Meets or exceeds MIL-C-23411A - Paragraph 3.1.1, and 3.2-3.11

Applications
- Excellent choice for virtually any general-purpose need
- Additional uses include high heat environments (up to 500°F) including use as a release agent in molding processes

DESCRIPTION	PART
Dry Lube Plus (12 oz.)	74099

MOLY DRY LUBE

High Temperature, High Pressure, Dry Film Lube
A thin, quick drying film gives long lasting protection to all moving and sliding parts. Reduces friction at all contact points preventing galling, seizing and metal-to-metal wear. Protects surfaces from moisture, rust, corrosion and also resists attack by oil, grease, water, most chemicals and acids.

Features
- Lubricate and protects
- High pressure lube 200,000 psi
- Wide temperature range -100ºF to +700ºF
- Waterproof and dustproof
- Super slick
- Non-corrosive

Applications
- Used to protect all moving and sliding parts
- Use when lubrication is essential in tight fitting, high temperature and high pressure applications

DESCRIPTION	PART
Moly Dry Lube (14 oz.)	74123

LUBRICANTS

PENETRATING OIL WITH GRAPHITE

Frees rusted parts
Penetrates deeply to free countersunk threads and prevent breakage of frozen parts. Cuts rust, red or white lead, tar, dirt, grease, deposits of carbon, graphite, etc. Will not harm basic metals, rubber or paint.

Features
- Frees rusted nuts and bolts in seconds
- Prevents oxidation
- Resists salt water corrosion
- No water wash-out
- All position valve

Applications
- Used for freezing frozen metal parts, lubricating air driven tools, dismantling equipment and removing broken taps and dies.

DESCRIPTION	PART
Penetrating Oil with Graphite (14.75 oz.)	74101

PNEUMATIC TOOL ANTI-SEIZE LUBRICANT

Superior Lubricant for Oilers in Pneumatic Lines
Formulated to meet the special requirements of industrial, household and agricultural tools. It absorbs water and eliminates ice buildup and frost in air tools. A blend of rust and corrosion inhibitors and a special base fluid oil minimizes tool wear and allows operation of air tools at temperatures as low as -40ºF. Works on all types of pneumatic equipment and gives worn tools new life.

Features
- Wide temperature range -40ºF to 350ºF
- Prevents rust and corrosion
- Less friction, wear, heat and noise
- Protects against corrosion
- Absorbs moisture, eliminates ice buildup and frost in air tools

Applications
Ideal for use on:
- Air Impact Tools • Drills • Grinders • Screwdrivers
- Sanders • Percussion Tools • Household Shop Tools
- Air Line Lubricators • All Air Tools Using Oil Lubrication

DESCRIPTION	PART
Pneumatic Tool Anti-Seize Lubricant (32 fl. oz.)	974375

LUBRICANTS

PRO PULL™ WIRE PULLING LUBE

Superior Lubrication for Wire and Cable Pulling, Dries Clean, Food Grade

An exclusive formulation that provides a clean, super-slick surface allowing cable to be pulled with minimum friction. Compatible with polyethylene, polypropylene, PVC, neoprene and polyurethane cable jacketing materials used in the manufacture of power, telephone and fiber optic cable. This non-staining formula evaporates completed, leaving no messy residue. Can be used in temperatures as low as -13ºF (-25ºC). USDA accepted for use in federally inspected meat and poultry plants. Classification H1.

SPECIFICATIONS:

Characteristic	Temp Stability 80ºC/24 hours	Room Temp. (21ºC)
A) Expansion	Transient 4.5%	None
B) Viscosity	Estimated 10% dec.	
C) Color/Appearance	Orange/Clear	Orange/Clear
D) Separate	None	None
E) Coating Factor (Cling Factor)		
a) Vertical	50-57%	61-65%
b) Horizontal	52-60%	64-69%
F) Rate of Evaporation % / Minute	0.0874	0.0521
G) Coefficient of Friction		
a) Static	0.0140	0.075
b) Dynamic	0.096	0.070
H) Residue (% Solids)	6.80 +/-0.1	6.80 +/-0.1
I) pH	6.80 +/-0.1	6.80 +/-0.1
J) Flammability	Nonflammable	Nonflammable
K) Compatibility with Cable and Conduit Materials	No Incompatibility Demonstrated	No Incompatibility Demonstrated

Features

- Superior lubrication for all wire pulling applications
- Performs in extreme temperatures
- Coats evenly
- Dries clean and tack free
- Compatible with most materials

Applications

- Used in the installation of power, telephone and fiber optic cable

DESCRIPTION	PART
Pro Pull™ Wire Pulling Lube (32 fl. oz.)	74421

PTFE DRY LUBE

Multi-Purpose Dry Lube and Release Agent

Cryogenically processed PTFE coats surfaces quickly and easily. Resistant to virtually all chemicals and solvents. Ideal for use on all machine parts and textile equipment as a universal, dry non-staining lubricant. Excellent as a release agent for rubber, nylon, foams, acrylics, plastic, polyurethane, plaster, filament windings, epoxies, metal molds, phenolics, prepreg fabrication, polystyrene, encapsulating, epoxy potting and rubber molding. Safe for use on most metal, plastic, wood, glass, rubber and paper. Classification H1.

Features

- Dry, non-staining lubricant
- Excellent release agent
- Ideal for use on machine parts
- Effective from -40ºF to +500ºF
- Does not attract dust

Applications

- Ideal for use on all machine parts and textile equipment as a universal, dry non-staining lubricant.
- Excellent as a release agent for rubber, nylon, foams, acrylics, plastic, polyurethane, plaster, filament windings, epoxies, metal molds, phenolics, prepreg fabrication, polystyrene, encapsulating, epoxy potting and rubber molding.

DESCRIPTION	PART
PTFE Dry Lube (11 oz.)	74116

LUBRICANTS

RED GREASE HI-TEMP

All-Purpose, Water Washout Resistant Lube
A multi-purpose lubricant that provides extra protection under extreme pressures. Resists thinning under high pressure and returns to a thick, gel-like consistency after exposure to high temperatures. This product is waterproof, making it ideal for exposed bearing hinges, cables, pulleys, gears, linkages and springs. Working temperature range -40ºF to +575ºF.

Features
- Multi-purpose heavy duty lubricant
- Resists water, acids, salts and alkaline chemicals
- Effective at high temperatures
- Penetrates as a liquid
- Congeals to a thick grease

Applications
- Used on all bearings, motors shafts, roller chains, hitches, bearing surfaces, cables, pulleys, hinges, rollers, cams,couplings and bushings.

DESCRIPTION	PART
Red Grease Hi-Temp (11 oz.)	74415

RED GREASE II – CARTRIDGE

All-Purpose, High Temperature, Extreme Pressure Grease
An all purpose non-melt grease especially formulated with extreme pressure and anti-wear additives to provide heavy duty service. It is one of very few greases able to withstand heavy shock load and impact pressures of 65 Timken load capabilities. Red Grease II has excellent adhesive and cohesive properties. It resists most acids, weather, dirt, salts, spray, steam and oxidation. Our product protects equipment indoors or outdoors even under high temperatures and heavy loads. Penetration is 250-270 (ASTM D-217).

Features
- All purpose heavy duty lubricant
- Resists water, acids, salts, rust and alkaline chemicals
- Non-melt – effective at temperatures of up to 550ºF
- Load carrying capabilities: 65 Timken Load
- NLGI 2 to 2.5

Applications
Ideal for indoor and outdoor equipment used in:
- Automotive • Farms • Bottling Plants • Cotton Gins
- Sugar Cane Mills • Dairies • Paper Mills • Industrial
- Marine • Oil Fields • Steel Mills • Air Conditioning
- Elevators • Textile Plants • Construction • Mining
- Aircraft • Lumber Mills • Cement Plants
- Food Plants • Sewage Plants

DESCRIPTION	PART
Red Grease II – Cartridge (14 oz.)	74402

LUBRICANTS

RED GREASE III

All-Purpose, High Temperature, Extreme Pressure Grease
An all purpose heavy-duty non-melt lubricant specially formulated with extreme pressure and anti-wear additives. Red Grease III has excellent adhesive and cohesive properties. It resists and protects indoor and outdoor equipment from most acids, weather, dirt, salts, steam, oxidation, high temperatures of up to 550ºF, heavy loads and impact pressures of 65 Timken load capabilities. Penetration is 250-270 (ASTM D-217).

Features
- All purpose heavy-duty lubricant
- Resists water, acids, salts, rust and alkaline chemicals
- Non-melt – effective at temperatures of up to 550ºF
- Load carrying capabilities: 65 Timken Load
- NLGI 2 to 2.5

Applications
Ideal for indoor and outdoor equipment used in:
- Air Conditioning • Aircraft • Automotive
- Bottling • Cement • Construction
- Elevators • Farms • Food • Industrial
- Lumber • Marine • Paper • Sewage • Steel

DESCRIPTION	PART
Red Grease III (7 lbs.)	74404
Red Grease III (45 lbs.)	74408
Red Grease III (120 lbs.)	74410

SILICONE FG – CLASSIFICATION H1

Food Grade and All-Purpose Lubricant
Silicone FG prevents freezing and eliminates sticking on doors, windows, locks and latches. Authorized by the USDA for use in federally inspected meat and poultry plants. Classification H1. Lubricates and prevents sticking on conveyors. Lubricates without gumming and will not stain or bind. Protects and waterproofs wiring. Helps prevent electrical losses. Aids in preventing rust on chrome, electrical systems, switches, and helps prevent corrosion on batteries.

Features
- Eliminates squeaks and sticking
- Lubricates, preserves and insulates
- Rustproofs and waterproofs
- Prevents freezing
- Classification H1
- Stays within FDA guidelines allowing no more than 1 ppm to be imparted to food
- Can be safely used on food handling equipment

Applications
- Can be used on doors, windows, locks and latches
- Excellent for use on rubber
- Protects and waterproofs wiring
- Keeps materials from sticking to conveyor belts
- Helps fight rust on all types of molds and dies
- Prevents papers and plastics from sticking to heat sealing equipment

DESCRIPTION	PART
Silicone FG (9.25 oz.)	74108

LUBRICANTS

SUPER IMPACT GREASE – CARTRIDGE

Multi-Purpose, Extreme Pressure and Impact Resistant Grease
This multi-purpose grease is fortified with special additives enabling it to withstand the heavy impact and pounding common with heavy equipment. Our special additive package allows the grease to stay in place and not spatter or pound out of the bearing or fitting.

Features
- All-purpose heavy-duty lubricant
- Resists water, acids, salts and alkaline chemicals
- Non-melt – effective at temperatures up to 550°F
- Load carrying capabilities 65 Timken load
- NLGI 2
- Temperature range 0-425°F

Applications
- Chassis • Wheel Bearings • Bearings • Motors • Shafts
- Automotive and Industrial Equipment

DESCRIPTION	PART
Super Impact Grease – Cartridge (14 oz.)	74400

TFG GREASE – CARTRIDGE

Multi-Purpose, Teflon® Fortified, Extreme Pressure & Impact Resistant Grease
A multi-purpose grease specially formulated to operate in extreme conditions of heat, moisture, acid and alkali. Fortified with PTFE, provides added protection against shock loads and impact pressures. By preventing metal-to-metal contact and supplying added lubricity and slipperiness, this product will substantially reduce friction and wear.

Features
- Multi-purpose fortified with PTFE
- Operating temperature 0°F to 400°F (intermittent to 450°F)
- Resistant to moisture, heat, acid and alkali
- Will not melt or run out regardless of temperature
- Excellent water resistance and metal adhesion

Applications
- Added lubricant protection from very low to high temperatures makes this non-melt, water-resistant grease perfect for ball and roller bearings, wheel bearings, king pins, cranes and sleeve bearings.

DESCRIPTION	PART
TFG Grease – Cartridge (14 oz.)	74406

LUBRICANTS

WHITE GREASE – H1 CLASSIFICATION

Multi-Purpose, H1 Lithium Lubricant
Clings to bearing and gear surfaces and is highly resistant to "sling-off". Provides anti-rust and moisture barrier. Covers a wide temperature range from 35ºF to 250ºF. Authorized by the USDA for use in federally inspected meat and poultry plants. Classification H1.

Features
- Superior anti-rust and moisture barrier, and is effective over a wide temperature range
- Non-staining – will not stain or discolor
- Won't wash or sling off
- Classification H1

Applications
- Ideal for bottling, canning, packaging, conveyor, automotive and construction equipment
- Extremely effective on latches, hinges, striker plates, pulleys, chains, etc.

DESCRIPTION	PART
White Grease Lubricant (16 oz.)	74104

WHITE GREASE

Multi-Purpose Lithium Lubricant
This product is white lithium grease in a convenient, easy-to-use aerosol can. It is an exceptional coating for the prevention of rust and corrosion. In addition, this PTFE fortified, durable, nonstaining lubricant provides superior friction reduction between similar or different materials than other competing brands. Will not run, wash off, or freeze and does not gum or cake. Use this product on battery terminals, brake cables, distributor caps, latches, hinges, bolts, locks, antennas, equipment, tools, tracks, glides, bearings, rollers, buckles, shackles, winch gears, and other external moving parts or exposed surfaces. This next generation product is formulated without chlorinated solvents or ozone depleters.

Features
- Superior anti-rust and moisture barrier
- PTFE fortified
- Non-staining
- Will not run, wash off, or freeze and does not gum or cake

Applications
- Packaging industry, automotive field, marine and aircraft maintenance
- Ideal for battery terminals, brake cables, distributor caps, latches, hinges, bolts, locks, antennas, equipment, tools, tracks, glides, bearings, rollers, buckles, shackles, winch gears, and other external moving parts or exposed surfaces

DESCRIPTION	PART
White Grease (11 oz.)	74100

LUBRICANTS

CUTTING OIL III

Lube for Drilling, Tapping and Threading Operations
Special formula provides lubrication for faster, more convenient cutting operations and longer tool life. Authorized by the USDA for use in federally inspected meat and poultry plants.

Features
- Specially formulated lubricant provides a cleaner, smoother cut
- Effective on most metals
- Extends tool life

Applications
- Specially formulated for all drilling, cutting, tapping and threading operations.
- Excellent on high strength and exotic metals. (Not for use on aluminum).

DESCRIPTION	PART
Cutting Oil III (16.75 oz.)	74172

TOOLUBE™

Cutting Tool Lubricant
A specialized lubricant designed for tough metal-working operations on hard metals such as stainless, high carbon, high chrome, nickel-chrome, heat-treated steels, cast iron, monel and even non-ferrous metals like brass and aluminum. This compound contains no oil and eliminates the difficult cleaning problems associated with white lead, molybdenum and similar materials. It does not contain chlorine, fluorine, lead, sulfur, phosphorous, silicone, nitrates, chromates, mercury or formaldehyde base compounds.

Features
- For tough metalworking jobs
- Contains no oils
- Easy cleanup
- Environmentally safe

Applications
- Ideal for use in drilling, tapping, sawing, spot facing, counterboring, milling, fly-cutting, seat forming, engraving, broaching, drawing, piercing, punching, hole extruding and many other applications

DESCRIPTION	PART
Toolube™ (8 fl. oz.)	74523

LUBRICANTS

TOOL COOL II

Cutting Fluid
Special formula provides a combination of lubrication and chemical cooling action for faster, smoother cutting operations and longer tool life. Use for all drilling, cutting and tapping applications. A must with high strength and exotic metals. Not for use on aluminum.

Features
- Instantly lowers temperature – for faster cutting and longer tool life
- Unique lubricating properties – assures cleaner, smoother cutting
- Multi-purpose – for use in all drilling, tapping and threading applications
- Non-flammable – for increased safety
- Fast evaporation – minimizes clean-up
- Contains no 1,1,1-trichloroethane or ozone depleting chemicals – won't damage ozone

Applications
- For use in all drilling, cutting and tapping operations

DESCRIPTION	PART
Tool Cool II (17 oz.)	74185

CUTTING WAX

Cutting Tool Lubricant
Specially formulated multi-purpose cutting wax. For faster, smoother cutting operations and longer tool life. Use for all drilling, cutting and tapping applications.

74559 – 2 oz.

74560 – 16 oz.

Features
- Continuous shield against friction and heat
- Especially effective on stainless steel, aluminum and many exotic alloys
- Extends tool life and reduces chip welding
- Reduces tool costs and work piece scrap
- Provides a precision finish with closer tolerances on your finished work
- Non-flammable – for increased safety

Applications
- For use in all drilling, cutting and tapping operations

DESCRIPTION	PART
Cutting Wax (2 oz.)	74559
Cutting Wax (16 oz.)	74560

LUBRICANTS

ANTI-SEIZE (W/COLLOIDAL COPPER COMPOUND)

Multi-Purpose, Threaded Fastener Lubricant, High Temperature Resistance
The colloidal copper compound prevents seizing, galling and pitting under adverse conditions of extreme temperatures and pressures. Provides excellent lubricity, assuring more accurate torquing and easy disassembly of bolts, nuts, studs, etc. Protects parts from rust and corrosion. Useful temperature range from -300° to 1,800°F.

Features
- Prevents galling and seizing up to 1,800°F
- Seals and waterproofs threaded parts
- Prevents rust and corrosion
- Meets mil spec A-907(D)

Applications
For use in the home and food and non-food areas of:
- Food Processing Plants • Schools • Warehouses • Office Buildings • Theatres
- Garages • Hotels • Motels • Kennels • Hospitals and Other Listed Areas

DESCRIPTION	PART
Anti-Seize (w/Colloidal Copper Compound) (12.5 oz.)	74118

ANTI-SEIZE ALUMINUM

Multi-Purpose, Threaded Fastener Lubricant, High Temperature Resistance
This high quality lubricant depolymerizes and dissipates at temperatures above 400°F without a carbon residue, having a dry film of aluminum and graphite to plate and protect metal surfaces to temperatures of 1,800°F (980°C). It contains no lead or copper and has a synthetic, non-melting carrier.

74425 **74423**

Features
- Water resistant
- Prevents seizing and galling
- Reduces friction
- Protects against rust and corrosion
- Easy applicator top pressure can (P/N 74423) eliminates contamination of contents – simply press to dispense

Applications
- All threaded metal assemblies where anti-seize protection is desired. Use on bolts, fittings, flanges, gaskets, keyways, nuts, plugs, studs, unions, valves, etc.
- Ideal for ovens, heat trolleys, kilns, stokers or any threaded parts exposed to high temperatures.

DESCRIPTION	PART
Anti-Seize Aluminum (6 oz. Pressurized Can with Easy Applicator Top)	74423
Anti-Seize Aluminum (16 oz. Brush Applicator Cap)	74425

LUBRICANTS

ANTI-SEIZE PRO-LUBE ALUMINUM/COPPER COMPOUND

Brush Applicator Cap
Aluminum/Copper Compound in a special semi-synthetic carrier. It leaves a protective film that seals and protects metal parts even under extreme conditions, such as heat, pressure, steam and saltwater exposure.

Features
- Heavy Duty Industrial-Strength
- Anti-Seize & Lubricating Paste
- Protects to +2000°F
- Reduces Torque
- Prevents Rust & Corrosion
- Excellent Lubricity
- Prevents Galling & Seizing
- Steam & Water Proof
- Chemical Resistant
- Extreme Pressure Lubricant
- Non-Melting
- Meets MIL SPEC MIL-A-907E

Applications
For Marine, Metal Working, Oil Field, Automotive, Construction and Farm Work Applications, such as:
- Threaded Fittings
- Rig Drives
- Sprockets and Chains
- Casting Equipment
- Valve Shafts

DESCRIPTION	PART
Anti-Seize Pro-Lube Aluminum/Copper Compound (3.75 oz.)	74424

ANTI-SEIZE II – COPPER COMPOUND

Brush Applicator Cap
This blend of lubricating solids prevents seizing and galling of metal parts and threaded connections exposed to harsh environments, high and low temperatures and other severe conditions. The active ingredients are copper, graphite and a petroleum lubricant. Red Lion Anti-Seize II withstands pressure conditions over 3,000 p.s.i. and is compatible with all metals and most plastics. It improves assembly and disassembly. Allows reuse of damaged threaded parts and wil not harden, drop or separate.

Features
- Protects against rust and corrosion
- Prevents thread damage, seizure, galling and heat-freeze up to 1,800°F (982°C)
- Enhances and protects most electrical connections
- Lowers friction
- Reduces torque
- Meets military specifications MIL-A-907

Applications
- All nuts, bolts, bushings, centers, cam rollers, chains, slow moving bearings, compressors, conveyors, couplings, dies, drills, drives, liftings, gaskets, gears, generators, joints, keyways, motors, packings, plugs, press fits, pumps, shafts, sleeves, slides, spark plugs, studs, taps, unions, valve stems, wristpins and more.

DESCRIPTION	PART
Anti-Seize II – Copper Compound (8 oz.)	74426
Anti-Seize II – Copper Compound (16 oz.)	74407

LUBRICANTS

C5-A® COPPER ANTI-SEIZE STICK – COPPER

Features
- Protect metal parts in high heat environments up to 1800ºF
- Prevent rust, corrosion, seizing and galling
- Eases disassembly
- Reduce friction and wear to critical parts
- Buttery texture ideal for both coarse and fine threads
- Exceptional lubrication properties

Applications
- Copper, brass, cast iron and all alloys, all plastics and all non-metallic gasket materials
- Bolts, bushings, pipes, fittings, flanges, gaskets, headers, manifolds, nuts, studs, etc.
- High heat ovens, crane assemblies, turbine studs, coal crushers, casting and molding equipment and heat exchangers

DESCRIPTION	PART
C5-A® Copper Anti-Seize Stick – Copper (0.70 oz. / 20 gm)	74565

SILVER GRADE ANTI-SEIZE STICK – SILVER

Features
- Protects metal parts in high heat environments up to 1600ºF
- Prevents rust, corrosion, seizing and galling
- Eases disassembly
- Reduces friction and wear to critical parts
- Buttery texture ideal for both coarse and fine threads
- Exceptional lubrication properties

Applications
- Stainless steel and aluminum. Can also be used on copper, brass, cast iron and all alloys, all plastics and all non-metallic gasket materials
- Bolts, bushings, pipes, fittings, flanges, gaskets, headers, manifolds, nuts, studs, etc.
- High heat ovens, crane assemblies, turbine studs, coal crushers, casting and molding equipment and heat exchangers

DESCRIPTION	PART
Silver Grade Anti-Seize Stick – Silver (0.70 oz. / 20 gm)	74566

LUBRICANTS

FREEZING ACTION PENETRANT

Frees Rusted and Frozen Parts

This product represents the latest breakthrough in penetrating lubricant technology. By combining rapid freezing action with an advanced, rust eating formula, seized or rusted parts are easily released. Shrinkage of sprayed parts quickly breaks open micro fine fissures allowing the lubricant to easily penetrate even the toughest rust. Red Lion Freezing Action Penetrant then dissolves rust making the job a snap and future maintenance easier as well. This formula contains NO chlorinated solvents or ozone depleters and is nonconductive to 33,000 volts for use around live equipment. The 360° spray valve allows for use in any position and for access to hard-to-reach areas while the large pad actuator prevents freezing of fingertips. This is an ultra-low VOC content product.

NOTE: Sudden temperature drop can result in "thermal shock" which may cause crazing of some plastics and paint. While appropriate for use on many plastics and painted surfaces, always test in an inconspicuous area before general use. Accumulated vapors from this product may reach ignition conditions in confined spaces. Always use with adequate ventilation.

Features

- Advanced formula penetrating lubricant
- Freezing action breaks open rust barrier
- Innovative rust eating technology dissolves rust
- Nonconductive to 33,000 volts
- Ultra low VOC content – no chlorinated solvents – no ozone depleters

Applications

- Ideal for use in the most demanding penetrating lubricant applications including rusted manifold bolts, exhaust flanges, industrial, marine, farm, or other outdoor exposed equipment.
- Ideal for use in: factories, fleet maintenance centers, muffler shops, marine repair, and virtually anywhere assembly/disassembly is performed.

DESCRIPTION	PART
Freezing Action Penetrant (9 oz.)	74556

LUBRICANTS

PAG 46

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant. Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 46
- For R134a A/C Systems
- Premium Double End Cap

DESCRIPTION	PART
PAG 46 (8 oz. / 236 ml)	74391

PAG 100

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant. Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 100
- For R134a A/C Systems
- Premium Double End Cap

DESCRIPTION	PART
PAG 100 (8 oz. / 236 ml)	74392

PAG 150

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant. Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 150
- For R134a A/C Systems
- Premium Double End Cap

DESCRIPTION	PART
PAG 150 (8 oz. / 236 ml)	74393

LUBRICANTS

PAG 46 WITH UV DYE

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant.
Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 46
- For R134a A/C Systems
- UV Dye For Leak Detection
- Premium Double End Cap

DESCRIPTION	PART
PAG 46 With UV Dye (8 oz. / 236 ml)	74386

PAG 100 WITH UV DYE

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant.
Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 100
- For R134a A/C Systems
- UV Dye For Leak Detection
- Premium Double End Cap

DESCRIPTION	PART
PAG 100 With UV Dye (8 oz. / 236 ml)	74387

PAG 150 WITH UV DYE

A/C Lubricant
For mobile air conditioning systems using R134a refrigerant.
Do not use this product in any other A/C systems. Use only in applicable compressors.

Features
- Synthetic Refrigerant Oil (Polyalkylene Glycol) Plus Additives
- ISO Viscosity 150
- For R134a A/C Systems
- UV Dye For Leak Detection
- Premium Double End Cap

DESCRIPTION	PART
PAG 150 With UV Dye (8 oz. / 236 ml)	74388

LUBRICANTS

POE 100

A/C Lubricant
For mobile air conditioning systems using R12 or R134a refrigerant. Do not use this product in other A/C systems. Use only in applicable compressors

Features
- Polyol Ester Refrigerant Oil
- ISO Viscosity 100
- For R12 and R134a A/C Systems
- Premium Double End Cap

Part #74395

Part #74394

DESCRIPTION	PART
POE 100 (8 oz. / 236 ml)	74394
POE 100 (1 Quart / 32 oz. / 946 ml)	74395

POE 100 WITH UV DYE

A/C Lubricant
For mobile air conditioning systems using R12 or R134a refrigerant. Do not use this product in other A/C systems. Use only in applicable compressors.

Features
- Polyol Ester Refrigerant Oil
- ISO Viscosity 100
- For R12 and R134a A/C Systems
- UV Dye For Leak Detection
- Premium Double End Cap

Part #74390

Part #74389

DESCRIPTION	PART
POE 100 With UV Dye (8 oz. / 236 ml)	74389
POE 100 With UV Dye (1 Quart / 32 oz. / 946 ml)	74390

PAINTS AND COATINGS

CATERPILLAR® YELLOW

Industrial Protective Coating

Caterpillar® Yellow (Original) – Used to restore original factory color on farm tractors, implements and industrial or construction equipment. Heat resistant to 300ºF. Resists fading, chipping, cracking, and many chemicals industrial gas, oil and grease.

Caterpillar® Yellow (New) – High solids for increased coverage and low solvent level. Contains no lead, chromates or methylene chloride. Protects against rust, weather and most chemicals.

Features
- Environmentally formulated
- Lead free
- VOC compliant

Applications
- Color Coding
- Construction Equipment
- Motors
- Sheet Metal
- Tools
- Trucks

**Caterpillar® Trucks & Equipment produced prior to 1979*
***Caterpillar® Trucks & Equipment produced after 1979*

DESCRIPTION	PART
Caterpillar® Yellow (Original)* (15 oz.)	500644
Caterpillar® Yellow (New)** (12 oz.)	502311

SCHOOL BUS YELLOW

Industrial Protective Coating
A superior, lead-free industrial coating formulated for fleet maintenance applications where maximum performance is required. For maximum protection, prime bare or rusted metal surfaces with Pro-Coat™ Gray Primer, P/N 74003.

Features
- Protects against rust, weather, oil, gasoline and most corrosive chemicals
- Resists abrasion and heat
- Withstands high humidity
- Capable of single coat hiding

Applications
- For wood, metal, blowers, frames, machinery, racks, doors, and motors

DESCRIPTION	PART
School Bus Yellow (16 oz. / 454 g)	74146

PAINTS AND COATINGS

SATIN BLACK PAINT

Matches Factory Finish on Many Automotive Exterior Trim Components
Satin Black is formulated to match the OEM finish on many automotive exterior trim components, and is designed for maximum adhesion on properly prepared surfaces without the use of a primer. To achieve amazing results, clean surface with Red Lion™ Prep Solve (P/N 74700), and remove loose paint and sand with 400 grit sandpaper.

Features
- Protects against weather
- Contains No CFCs or Other Ozone Depleting Substances

Applications
- Matches Factory Finish on Many Automotive Exterior Trim Components

DESCRIPTION	PART
Satin Black Paint (15 oz. / 426 g)	74011

RED IRON OXIDE PRIMER

Industrial Protective Coating
A superior grade primer formulated specifically for use with MRO Industrial Protective Coatings to provide maximum performance under severe weather conditions or chemical exposure. The high solids content ensures excellent adhesion, providing a smooth, even finish.

Features
- VOC Compliant
- High Solids Content
- Environmentally Formulated
- Outstanding Corrosion Protection
- Protects Against Rust

Applications
- For bare or rusted metal

DESCRIPTION	PART
Red Iron Oxide Primer (17 oz. / 482 g)	74002

NO-STICK WELDER'S ANTI-SPATTER

Protective Spray Coating for Welding Operations
A non-flammable powder formulation that dries to a white film. Prevents welding spatter from sticking to metal surfaces during welding. Just brush or wipe off residue after welding. Does not contain silicone. Surface may be painted after use.

Features
- Prevents spatter from sticking to metal surfaces
- Dries to powder film
- Brushes off after welding

Applications
- For use in maintenance, production, construction and body shops

DESCRIPTION	PART
No-Stick Welder's Anti-Spatter (18 oz.)	74018

PRO-COAT™ OSHA COLOR INDUSTRIAL ENAMELS

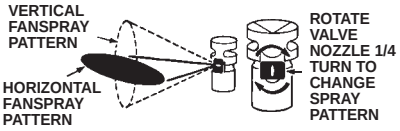
Extremely Tough, Corrosion Resistant, Fast Drying, Acrylic Enamel Paints
Provide maximum coverage for marking and color coding pipe lines, electrical equipment, safety equipment, emergency equipment, conduit, tools, motors, ducting and sheet metal. The tough protective coating resists corrosion, chipping and peeling and our unique SprayPro™ nozzle makes application easy in both horizontal and vertical positions.

Features
- One coat coverage
- Protects against rust and corrosion
- Use on metal and wood
- Leaves a durable, protective finish
- Dries fast
- SprayPro™ nozzle

Color Coding Applications
Even though the Occupational Safety and Health Administration (OSHA) has eliminated the specific color definitions and detailed requirements for Safety Color Coding, the following suggested color scheme has been utilized and accepted throughout the industry. The marking of physical hazards should never take the place of eliminating those hazards when possible, and proper employee training in the recognition of these colors and their respective warnings is imperative.

- **RED** is used to mark fire protection equipment such as alarm boxes, extinguishers, fire blankets and doors, hose connections, hydrants and sprinkler piping. It can also be used on emergency stop bars on hazardous machinery or stop buttons and electrical switches.
- **YELLOW** is used to color code dangerous materials such as flammable liquids, poisonous gases, corrosive liquids (acids and alkalis) and steam, water or air at high temperatures and/or pressures. It can also be used to highlight handrails.
- **GREEN** is used to color code relatively safe materials such as drinking water, service water, brine, syrups or glycols. It can also be used to mark the location of First Aid equipment such as kits, dispensary, stretchers and safety showers.

SprayPro™ Nozzle



DESCRIPTION	PART
PRO-COAT™ OSHA Color Industrial Enamel Paint - Red (15.5 oz.)	74190
PRO-COAT™ OSHA Color Industrial Enamel Paint - Yellow (15.5 oz.)	74194
PRO-COAT™ OSHA Color Industrial Enamel Paint - Green (15.5 oz.)	74196

PRO-COAT™ ACRYLIC ENAMEL PAINTS

Extremely Tough, Corrosion Resistant, Fast Drying, Acrylic Enamel Paints
Pro-Coat premium grade acrylic enamels provide the ultimate protection for all industrial applications. Our fast-drying, high solids formula ensures maximum coverage and durability on all metal and wood surfaces. The tough protective coating resists corrosion, chipping and peeling.

Features
- Fast-Drying
- Maximum Coverage
- Ultimate Protection
- Interior / Exterior

Applications
- Conduit
- Conveyors
- Doors
- Ducts
- Fencing
- Electrical Equipment
- Ladders
- Machinery
- Motors
- Pipelines
- Railings
- Shelving
- Tools
- Safety Markings

DESCRIPTION	PART
PRO-COAT™ Acrylic Enamel Paint - Gloss Black (15.25 oz.)	74014
PRO-COAT™ Acrylic Enamel Paint - Gloss White (16 oz.)	74010
PRO-COAT™ Enamel Paint - Gray Primer* (15.25 oz.)	74003
PRO-COAT™ Protective Coating - Hi-Temp Black (15 oz.)	74016
PRO-COAT™ Acrylic Enamel Paint - Industrial Gray (16 oz.)	74012

**Use Gray Primer on bare or rusted metal*

PAINTS AND COATINGS

PRO-COAT™ S/S PROTECTIVE COATING

Extremely Tough, Corrosion Resistant, Fast Drying, Acrylic Enamel Paints
Formulated with 100% type 316L stainless steel pigment. This unique formulation provides maximum corrosion resistance on stainless steel, copper and other metals. It dries quickly to a satin sheen, hardens overnight and cures to optimum strength in several days. It has excellent high temperature resistance (400ºF continuous, 450ºF intermittent) and our unique SprayPro valve makes application easy in both horizontal and vertical positions. Authorized by the USDA for use in federally inspected meat and poultry plants.

Features
- Looks like stainless
- Contains real 316L stainless steel pigment
- Covers welding discoloration
- High temperature resistance
- Fast drying

Applications
- Exhaust Systems • Steam Pipes • Mufflers • Radiators
- Furnaces • Production Equipment • Engines • Plumbing Fixtures

DESCRIPTION	PART
PRO-COAT™ S/S Protective Coating (15 oz.)	74040

NON-CONDUCTIVE PAINT - GLOSSY WHITE

Maintains Non-Conductivity Coating Integrity
Ideal for industrial applications.

Features
- Single coat hiding power
- Resists fading, chipping, peeling, cracking, corrosion
- High opacity
- Great durability
- Lead-free formulation

Applications
- Bucket Trucks, buckets, utility bodies, utility contractors, power companies, fire departments, scaffolding coating, tops of ladders & hooks, power boxes

DESCRIPTION	PART
Non-Conductive Paint - Glossy White (16 oz.)	74029

PAINTS AND COATINGS

CEILING TILE SPRAY – WHITE

Restores damaged ceiling tiles
Restores ceiling tiles damaged or discolored by smoke, water or aging. Easily applied and dries in minutes. Makes tiles look like new.

SPRAYS VERTICALLY!

Features
- Restores discolored, smoke or water damaged tiles
- Eliminates costly tile replacements
- Easily applied – unique valve allows spraying tiles in place
- Dries quickly

Applications
- Restores damaged ceiling tiles

DESCRIPTION	PART
Ceiling Tile Spray – White (15 oz.)	74134

RED INSULATING VARNISH

Protects and Insulates Motor Windings and Coils
A superior high arc resistant coating assuring long lasting protection. Provides excellent adhesion to windings, coils and metals. Has high dielectric strength of 50,800 volts/in. (2 mil+ thickness).

Features
- Impregnates and insulates motor windings, coils, electrical components, etc.
- Protects against oils, moisture, acids and alkalies
- High dielectric strength
- Dries quickly leaving a tough, flexible coating
- Seals out moisture on all electrical connection switches and panels

Applications
- Bus Bars
- Electrical Components
- Field Coils
- Motor Windings
- Rings and Frames
- Stator Windings
- Switchboard Parts
- Transformers

DESCRIPTION	PART
Red Insulating Varnish (16.25 oz.)	74139

PAINTS AND COATINGS

RUST-AWAY™ RUST CONVERSION COATING

Flexible Latex Coating Chemically Converts Rust to Long Lasting Finish
A flexible latex acrylic coating specially formulated for rusted metal surfaces. This water-based formulation is easily applied like paint and stops rust dead in its tracks. It forms an airtight protective seal, preventing air or moisture from coming in contact with metal, and it's weather and chemical resistant.

Features
- Chemically converts rust to a long lasting, weather-resistant coating
- No priming or sanding
- Won't crack, chip or peel
- Forms an airtight seal
- Flexible latex coating lasts for years

Applications
- Protects transformers, coils, tools, fixtures, brackets, equipment, heavy machinery, chain link fences and hundreds of other applications.
- Bonds to metal, wood, concrete and plastics without primers.

DESCRIPTION	PART
Rust-Away™ Rust Conversion Coating (32 oz.)	74157
Rust-Away™ Rust Conversion Coating (1 gal.)	74555

RUST-AWAY II RUST CONVERTER

Converts Rust to a Tough Protective Coating
Specially formulated to convert rusted metal surfaces to a tough, black protective coating. Forms an airtight protective seal, preventing air or moisture from coming in contact with metal. Stops rust dead in its tracks. Weather and chemical resistant.

Features
- Chemically converts rust to a long lasting, weather-resistant coating
- No priming or sanding necessary
- Won't crack, chip or peel
- Forms an airtight seal
- Paintable

Applications
- Protects transformers, coils, tools, fixtures, brackets, equipment, heavy machinery, chain link fences and hundreds of other applications.

DESCRIPTION	PART
Rust-Away II Rust Converter (15 oz.)	74701

PAINTS AND COATINGS

UNDERCOAT

Rubberized Coating that Prevents Rust and Reduces Road Noise
A black, rubberized undercoating for all automobile under surfaces. Sprays evenly and dries completely to a smooth consistency. Can be top coated with automotive finishes.

Features
- Prevents rust
- Reduces road noise
- Seals out water, fumes, road chemicals & dust
- Reduces lingering odor associated with under-coatings
- No "bleed through" when top coated
- No sagging

Applications
- Panel & fender undersides
- Hoods & decks
- Trunk interiors
- Section repairs
- Weld joints
- Rust holes

DESCRIPTION	PART
Undercoat (18 oz.)	74129

COLD ZINC GALVANIZING

Pure Zinc Spray for Rust and Corrosion Protection
Contains 93% pure zinc dust in organic resin for long lasting protection against rust and corrosion. Manufactured to Mil Spec Mil-P-26915C. Use to rustproof and protect welds, automotive and truck bodies, wrought iron, pipes, utility towers and vaults, gutters, structural steel work and anywhere metal is subjected to corrosion.

Features
- Prevents rust and corrosion
- 93% pure zinc dust
- Resistant to salt, corrosion and water
- Meets mil specifications
- Excellent primer
- Rustproofs welds
- Temperature to 400°F (600°F intermittent)
- Meets MIL specifications:
  - MIL-P-46105 Weld thru Primer
  - US Navy: Galvanizing Repair Specifications MIL-P-21035
  - US Air Force: MIL-P-26915A for Steel
  - US Air Force: MIL-P-26433 for Towers (Temperate and Arctic Zones)

Applications
- Use to rustproof and protect welds, automotive and truck bodies, wrought iron, pipes, utility towers and vaults, gutters, structural steel work and anywhere metal is subjected to corrosion.

DESCRIPTION	PART
Cold Zinc Galvanizing (14 oz.)	74112

PAINTS AND COATINGS

STRIPING AND MARKING PAINTS

Dependable Performance in a Wide Range of Marking Applications
These Striping and Marking Paints are formulated to address today's environmental concerns while providing efficient and dependable performance in a wide range of marking applications. From utilities and construction to recreational and maintenance applications, we offer a striping product suited to your needs.

- **GOLF COURSE MARKER** – a **16 oz.** water-base marker for use on golf courses and other porous applications. Formulated not to harm grass, this marker is not water-soluble and will not wash away during rain or irrigation. This marker comes with the "Converta-Cap", a specially designed protective cover that does not need to be removed before using.
- **ATHLETIC FIELD MARKER** – A specially formulated **20 oz.** water-base paint that will not harm grass and is not water soluble for maximum durability.
- **INVERTED TIP MARKER** – A heavy-duty, **20-oz.** water-base industrial marker. The no-clog, fast drying formula is available in a full range of construction and APWA colors. This marker also comes with the "Converta-Cap". This provides the user with a convenient marking tool without the worry of accidentally spraying. The new spray tip provides crisp lines up to 4" wide and approximately 250 feet in length.

- **TRAFFIC MARKER** – A **20-oz.** water-base paint formulated with high pigment solids ideally suited for a wide range of applications including concrete, blacktop, gravel or dirt. Not affected by water.

ATHLETIC MARKER PRODUCTS
For grass and turf applications
• Recreational School Fields • Rental Yards • Golf Courses • Nurseries • Paving Contractors
• Landscaping • Home Landscaping Layouts

TRAFFIC MARKER PRODUCTS
For asphalt and concrete applications
• School Parking Lots and Playgrounds • Apartment Complexes • Churches • Rental Yards • Golf Courses
• Paving Contractors • Water/Sewer Lines • Hotels • Public Works Municipal Projects

For applicator tools, see Dispensing Equipment section

DESCRIPTION	PART
Golf Course Marker (Inverted-Straight Nozzle, 16 oz.)	
White	74050
Red	74051
Athletic Field Marker (T-Type Nozzle, 20 oz.)	
White	74052
Orange	74053
Inverted Tip Marker (Inverted-Straight Nozzle, 20 oz.)	
Purple	74004
White	74054
Flourescent Red	74055
Flourescent Orange	74056
Precaution Blue	74057
Alert Orange	74058
Safety Red	74059
Flourescent Green	74060
Flourescent Hot Pink	74061
Utility Yellow	74062
Inverted Tip Marker (T-Type Nozzle, 20 oz.)	
White	74063
Yellow	74064
Red	74065
Handicap Blue	74066

PAINTS AND COATINGS

SNOW PLOW COATING

Can be Used on Plow Blades & All Other Snow Removing Equipment
This coating deposits a thin, slippery layer of silicone that reduces friction on plow blades, shovels and truck beds to provide more efficient plowing. It also protects metal surfaces from rust and corrosion and will not wash off when cleaned after use.

CAUTION: Avoid application of coating material closer than 12" to 14" to the exhaust system or catalytic converter.

Features
- Protects against rust and corrosion
- Reduces friction for more efficient plowing
- Leaves a hard, slippery layer of silicone on plow blades
- Will not wash off
- Use less fuel

Applications
- Just spray, brush, swab or roll onto plow blades & other exposed metal and painted surfaces
- Protect equipment from rusting by applying several applications after using equipment
- Protect equipment from rusting by applying during summer storage

DESCRIPTION	PART
Snow Plow Coating (1 Gal.)	509280

PAINT REMOVERS

PREP-SOLVE

Pre-Paint Surface Cleaner
Ideal for preparing surfaces prior to painting or bonding. This special formulation of virgin solvents is extremely effective in removing adhesives, tar, undercoating, rustproofing, waxes, teflon coatings, polishes, silicones, paint overspray, grease and sealants. The deep cleaning action maximizes the adhesion of all paints, finishes and adhesives on all surfaces. Also ideal for spraying on "tack cloths" for dust removal just prior to painting.

Features
- Unique formulation – special blend of hydrocarbon solvents swiftly cut through a wide range of dirt, grime and grease
- Leaves no film or residue – no additional cleaning required, does not inhibit the application of primers, paints and other protective coatings
- Assures maximum adhesion – deep cleaning action significantly improves the adhesive quality of glues and cements on surfaces to be joined.

Applications
- Effective in removing adhesives, tar, undercoating, rustproofing, waxes, teflon coatings, polishes, silicones, paint overspray, grease and sealants
- Excellent for preparing surfaces prior to painting or bonding
- Cleans fragile automotive surfaces such as carpeting, vinyls, plastics and fabrics

DESCRIPTION	PART
Prep-Solve (14.50 oz.)	74700

GASKET AND PAINT REMOVER

Gasket, Paint and Decal Stripper
Fast acting spray that removes gaskets, paint, decals, dried oils, varnish, shellac and similar coatings from any metal, wood, tile, brick, or concrete surfaces.

Features
- Strong, fast acting formula
- Removes gaskets, paint, tar, adhesives
- Adheres to vertical surfaces

Applications
- Can be used on metal, wood, glass, tile, brick, stone and concrete. Do not use on plastic tile, lineoleum, or synthetic files.

DESCRIPTION	PART
Gasket and Paint Remover (17.75 oz.)	74113

PAINT REMOVERS

GRAFFITI WIPES

Removes Paint and Graffiti in One Easy Step
Used for fast, easy clean-up of paint from non-porous surfaces. These amazing wipes are pre-moistened with an incredible cleaning formula that removes paints (including enamel), ink and even permanent marker. A few swipes with a single wipe quickly dissolves away unwanted paint and graffiti.

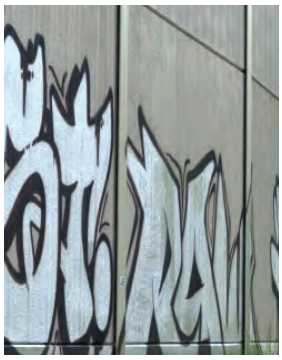
Product does not contain amyl acetate or methylene chloride, unlike other graffiti removers, making these towels less hazardous for users as well as surfaces.

Features
- Non-toxic when compared with other paint and graffiti removers
- Environmentally safe and biodegradable formula
- Abrasive yet non-scratching fabric aids in cleaning
- Towels stay moist for greater usage and longer shelf life
- 9.5" x 12" wipes

Use on Various Surfaces
- Bathroom partitions
- Phone booths
- Lamp posts
- Bus stops and seats
- Trains
- Road signs
- Aluminum siding
- Stainless steel
- Wall tile
- Billboards
- Desks
- Lockers

Effective Against
- Paint
- Ink
- Enamel
- Permanent marker

Note: Product is NOT a hand cleaner. Protective gloves are recommended while using this product.



DESCRIPTION	PART
Graffiti Wipes (40 count)	74611

PAINT REMOVERS

GRAFFITI BARRIER

High Performance Sacrificial Graffiti-Protection Barrier
Graffiti Barrier is a clear, odorless liquid that can be applied to nearly any non-porous surface to provide a protective barrier against graffiti. After it's applied, it dries to a clear film, which protects against spray paint, marker, pen and other substances. Once defaced, the barrier is easily removed with no damage to the surface. The thickened formula adheres to vertical surfaces, and is water-resistant, allowing for some outdoor applications. It will not affect signs' reflective properties, and will not yellow.

Features
- Creates a crystal-clear barrier to protect surfaces from graffiti.
- Liquid formula can be applied to most any non-porous surface.
- Water-resistant formula.
- Rinsable for easy removal and reapplication.

Protects Against
- Spray paint
- Marker
- Pen

Applications
- Signs
- Lockers
- Restroom partitions
- Windows and mirrors
- Soda machines
- Doors
- Walls
- Surfaces that cannot be repainted
- Enamel
- Powder coated surfaces
- Electroplate
- Plastic

DESCRIPTION	PART
Graffiti Barrier (1 qt.)	74625
Graffiti Barrier (1 gal.)	74626*
Graffiti Barrier (5 gal.)	74627*
Graffiti Barrier (55 gal.)	74628*

* Non-stock item. Please call for delivery.

SPECIALTY PRODUCTS

A&R TABS

A/C and Refrigeration Drain Pan Treatment Tablets
New technology breakthrough for treating A/C and refrigeration drain lines and pans. Easy to use – just place a tablet in the pan. As moisture drips on or flows over the tablet, it activates the chemicals and locks it in place. A&R Tabs will never move and block the drain line. They form a gel that slowly releases the active ingredients, producing up to 6 months of safe, positive, prolonged cleaning action. Unlike liquid additives or cleaners that are difficult to know when more additive is required, the A&R Tab provides a quick and easy visual indicator. When the tablet is gone, it's time to replace it.

RED

YELLOW

Features
- Locks into Place
- Slow and Continuous Release Gel
- Works Until Completely Dissolved
- Eliminates Odors from A/C and Refrigeration

Applications
- Treating A/C and Refrigeration Drain Lines and Pans

DESCRIPTION	PART
A&R Tabs (6 Geltabs – for up to 5 tons)	74720
A&R Tabs (3 Geltabs – for up to 15 tons)	74721

BELT DRESSING

Revitalizes Belts for Longer Life
Ideal for rubber, canvas, industrial, automotive and other V-belts. Regular use adds life and increases efficiency. A small amount applied to rubber and V-belts imparts maximum power.
On canvas belts, a slightly more liberal application is required.

Features
- Stops slippage for maximum power
- Prevents "dry rot"
- Eliminates squeaking
- Revitalizes belts for longer life

Applications
- Ideal for rubber, canvas, industrial, automotive and other v-belts

DESCRIPTION	PART
Belt Dressing (14 oz.)	74117

DRAIN OPENER – PROFESSIONAL STRENGTH

Professional Strength, Clog Busting Power
Provides extra clog busting power to open most stubborn clogs fast and easy, even through standing water. Safe for plumbing fixtures, plastic pipes, grease traps, septic tanks and cesspools.

Features
- Dissolves hair, grease, lint, food and soap scum
- Clears tough clogs fast, even through standing water

Applications
Ideal for use on:
- Sinks
- Tubs
- Showers
- Grease Traps
- Septic Tanks
- Cesspools

Safe for use on:
- Plumbing Fixtures
- Plastic Pipes
- Grease Traps
- Septic Tanks
- Cesspools

DESCRIPTION	PART
Drain Opener – Professional Strength (32 fl oz.)	74380

SPECIALTY PRODUCTS

CHROMAGIC

Spill Absorbent

Chromagic is a non-selective product, it is one absorbent for multiple types of spills. Chromagic is environmentally safe and friendly, non-toxic and non-flammable. It is highly absorbent. In fact, it is 15 times more absorbent than clay based products. Easy to handle and lightweight, it is 20 times lighter than clay based products. Chromagic is sold as a twin pack.

Caution: Cannot be used to absorb Hydrofluoric Acid (HF)

Features

- Odor Free
- Will save money on shipping, storing and disposal
- Instant clean up saves time
- Meets or exceeds all OSHA and EPA requirements
- Prevents accidents – Picks up oily sheen, and reduces Workers' Compensation
- Lightweight and powerful
- Absorbs and holds most liquids
- One pound of Chromagic can completely absorb one quart of motor oil; clay, earth, and sand products require 15 pounds
- Requires far less absorbent to capture a spill
- Greatly reduced disposal costs
- Works on all animal, vegetable, mineral, petroleum based or semi-liquid spills
- Unlike kitty litter products that contain “Crystalline” Silica, Chromagic does not, under OSHA standards, qualify as a carcinogen, or as a substance causing silicosis, a lung disease
- Non-injurious to most surfaces including cement, asphalt, tile, and carpet

Applications

- Industrial Plants • Processsing Plants • Plumbing Contractors • Hospitals • Nursing Homes
- Day Care Centers • Athletic Clubs • Schools / Offices • School Buses • Laboratories • Restaurants
- Shopping Centers • Taverns • Airlines • Cruise Liners • Public Transportation • Ambulance Services
- Taxi Cabs • Watercraft • Pet Stores • Kennels • Veterinarians • Jail Cells • Waste Haulers

DESCRIPTION	PART
Chromagic (0.15 cu. ft.)	28234

SPECIALTY PRODUCTS

QUIK-ZORB™

Spill Absorbent
Absorbs over 100 times its weight of water-based spills with just a small sprinkle of powder. Instantly "gels" all water-based chemical spills and human and animal bodily fluids including blood, urine and vomit. Turns liquid biohazards into sweepable, flushable gel. Works on hard surfaces and carpet. Deodorizes with a fresh mint odor counteractant fragrance. USDA approved.

Features
- Instantly gels and absorbs over 100 times its weight, allowing quick and easy cleanup of spills
- Fresh, deodorizing scent eliminates odors
- Biodegradable – can be flushed and disposed of easily
- V.O.C. compliant – contains no VOC's or ozone depleting chemicals

Applications
- Industrial Plants • Processsing Plants • Plumbing Contractors • Hospitals
- Nursing Homes • Day Care Centers • Athletic Clubs • Schools / Offices
- School Buses • Laboratories • Restaurants • Shopping Centers • Taverns
- Airlines • Cruise Liners • Public Transportation • Ambulance Services • Taxi Cabs
- Watercraft • Pet Stores • Kennels • Veterinarians • Jail Cells • Waste Haulers

DESCRIPTION	PART
Quik-Zorb™ (16 oz.)	74189

GUM OFF

Chewing Gum and Wax Remover
For use on carpets, wood, tile, marble, Formica, terrazzo and cement surfaces.
May also be used on fabric, leather and vinyl furniture.

Features
- Quick Freezing Action
- Hardens Gum and Wax
- No Chlorofluorocarbons
- Environmentally Compatible

Applications
- Carpets • Wood • Tile • Marble • Formica • Terrazzo • Cement Surfaces • Fabric
- Leather • Vinyl

DESCRIPTION	PART
Gum Off (5 oz.)	74110

SPECIALTY PRODUCTS

SNOW & ICE MELTER

Red Lion™ Snow & Ice Melter granulars is a blend of 100% active ingredients (calcium chloride blend). This unique formula has the added benefit of all materials working together in a synergistic fashion to effectively melt snow and ice. Red Lion™ Snow & Ice Melter can be used on asphalt, concrete, granite, tile, brick, bluestone, natural flagging, pavers and pave stone.

Features

- **Pink color** to improve smooth and consistent coverage, especially during low visibility conditions
- Will not harm lawns, trees, or shrubs when used as directed
- Contains dust control and anti-caking agents
- Melts to -25°F
- Does not contain any rock salt
- Easy to apply by hand or spreader
- Safe for use in the State of California

Used by professionals for

- Commercial buildings • Residential buildings • Campuses
- Hospitals • Municipal buildings • Businesses

Applications

- Parking lots • Driveways • Sidewalks • Steps • Porches • Patios

DESCRIPTION	PART
Snow & Ice Melter, 50 lb. box	74608
Snow & Ice Melter, Pallet (48 boxes)	74608P

ICE & FROST REMOVER

Red Lion™ Ice & Frost Remover is specifically formulated to quickly dissolve ice, frost and snow deposits. Melts ice, frost and snow instantly. Use on automobiles, trucks, buses, and maintenance equipment.

Features

- Fast acting, water rinseable
- Helps prevent freezing when applied in advance
- Eliminates scraping and potential damage to glass
- Thaws frozen locks
- Works in any temperature

Applications

- Windows • Headlights • Windshields • Locks • Tires •Tail lights • Hinges • Sidewalks • Steps

DESCRIPTION	PART
Ice & Frost Remover (13 oz.)	74488

SPECIALTY PRODUCTS

LEAK STOP

Seals Leaks in Auto A/C Systems
Seals leaks in auto air conditioners involving hoses, o-rings, and gaskets. For mechanical leaks, a UV dye in the R-134a Leak Stop pinpoints the leak, so it can be repaired. This product conserves refrigerant by allowing the A/C system to be treated without having to open the system. R-134a Leak Stop may be used in all R-134a A/C systems.

Each can contains
- Two ounces of a mixture of PAG lubricant
- Seal additive and UV dye
- Two ounces of R-134a refrigerant (1,1,1,2-Tetrafluoroethane)

Features
- With UV Dye For R-134a Systems
- Seals Leaks In Auto A/C Systems Involving Hoses, O-rings and Gaskets

DESCRIPTION	PART
Leak Stop (4 oz. / 114 g)	74381

ECO-FRIENDLY CHEMICALS

BIO-LUBE "LUBRICANT/PENETRANT"

A high performance penetrant and lubricating oil for general purpose use. Formulated with the best optimized USA-grown natural seed oils and select additives, it surpasses the lubricity and performance of conventional lubricants. Loosens rusty bolts, quiets squeaky hinges and moving parts. For general purpose cutting, grinding and drilling metals, milling, tapping, and reaming.

Features
- Multipurpose lubricant and penetrant
- Loosens rusty bolts
- Quiets squeaky hinges and moving parts
- Deters water and protects from rust and corrosion
- General purpose cutting, grinding and drilling metals, milling, tapping, and reaming

Benefits
- Made from renewable USA-grown crop-based vegetable oils, better for your health
- Biobased
- Biodegradable
- Reduces foreign oil dependence
- Multiple applications – Reduces product inventory
- Superior lubricity improves productivity
- Cooler operating and less smoke – Higher operating speeds
- Safe for all metals
- Will help your business comply with ISO-14000
- Does not contain chlorine
- High flash and fire points

DESCRIPTION	PART
Bio-Lube Spray Bottle (2 oz.)	74266
Bio-Lube Spray Bottle (8 oz.)	74267

RED LION™ CHEMICALS

CHROMATE INDUSTRIAL CORP.

ECO-FRIENDLY CHEMICALS

These Red Lion™ Eco-Friendly "Green" Chemicals meet Green Seal™ Environmental Standards for industrial and institutional cleaners and floor-care products.

In our continuing effort to offer the most environmentally preferable and effective products, we would like to introduce the Red Lion™ Eco-Friendly “Green” line of cleaners.

The products are designed to meet “Green Product” industry criteria. The standards encompass environmental impact, health effects as well as product performance. They are Environmentally Preferable Products that are formulated to perform well yet have no harmful effects on our environment or to the person using the product. We are proud to announce that Eco-Friendly Multi-Purpose Cleaner, Eco-Friendly Glass Cleaner, Eco-Friendly Tub & Tile Cleaner, Eco-Friendly Peroxide Cleaner, Eco-Friendly Zinc-Free Seal & Finish and Eco-Friendly Floor Stripper all meet specific Green Seal™ Environmental Standards.

There are laws already in place or are pending that will require the use of environmentally sensitive products in N.Y. State Buildings, N.Y.C. Municipal Buildings and all schools in N.Y. State. Although New York has taken the lead in this area, other states are sure to follow.

Perfect for use in schools, office buildings, apartment buildings, hospitals, nursing homes and other institutions where environmentally preferred products are desired.

ECO-FRIENDLY MULTI-PURPOSE CLEANER

A highly concentrated, multi-purpose cleaner formulated to be a H.D. Cleaner, Spray and Wipe Cleaner and a Neutral Floor Cleaner depending upon dilution. This product meets the requirements of the GS-37 Green Seal™ Standard. Provides top-tier performance for cleaning floors, walls, chrome, stainless steel, table tops, vinyl, sealed wood and many other surfaces not harmed by water.

- **Spray/wipe Cleaner:** 1:128 dilution
  1 gallon dilutes with water to make up to 512 quart bottles
- **Heavy-duty Cleaner/Degreaser:** 1:32 dilution
  1 gallon dilutes with water to make up to 128 quart bottles
- **Neutral Floor Cleaner:** 1:256 dilution
  Low suds, so it’s great for auto-scrubbers as well as mop buckets.

DESCRIPTION	PART
Eco-Friendly Multi-Purpose Cleaner (1 gal. Container)	74067
Eco-Friendly Multi-Purpose Cleaner (5 gal. Pail)	74068
Eco-Friendly Multi-Purpose Cleaner (55 gal. Drum)	74069

ECO-FRIENDLY GLASS & WINDOW CLEANER

A highly concentrated, glass, window and multi-purpose cleaner. It is designed to meet the requirements of GS-37, the Green Seal™ Standard for Glass Cleaner. Eco-Friendly Glass & Window Cleaner has been formulated with completely biodegradable surfactants and other naturally derived ingredients. This non-toxic glass, window and multi-purpose cleaner provides top-tier performance. It is alcohol-free, ammonia-free, non-streaking and fast drying.

- **Glass & Window Cleaner:** 1:64 dilution
  1 gallon dilutes with water to make 256 quart bottles

DESCRIPTION	PART
Eco-Friendly Glass & Window Cleaner (1 gal. Container)	74070
Eco-Friendly Glass & Window Cleaner (5 gal. Pail)	74071
Eco-Friendly Glass & Window Cleaner (55 gal. Drum)	74072

ECO-FRIENDLY CHEMICALS

These Red Lion™ Eco-Friendly "Green" Chemicals meet Green Seal™ Environmental Standards for industrial and institutional cleaners and floor-care products.

In our continuing effort to offer the most environmentally preferable and effective products, we would like to introduce the Red Lion™ Eco-Friendly “Green” line of cleaners.

The products are designed to meet “Green Product” industry criteria. The standards encompass environmental impact, health effects as well as product performance. They are Environmentally Preferable Products that are formulated to perform well yet have no harmful effects on our environment or to the person using the product. We are proud to announce that Eco-Friendly Multi-Purpose Cleaner, Eco-Friendly Glass Cleaner, Eco-Friendly Tub & Tile Cleaner, Eco-Friendly Peroxide Cleaner, Eco-Friendly Zinc-Free Seal & Finish and Eco-Friendly Floor Stripper all meet specific Green Seal™ Environmental Standards.

There are laws already in place or are pending that will require the use of environmentally sensitive products in N.Y. State Buildings, N.Y.C. Municipal Buildings and all schools in N.Y. State. Although New York has taken the lead in this area, other states are sure to follow.

Perfect for use in schools, office buildings, apartment buildings, hospitals, nursing homes and other institutions where environmentally preferred products are desired.

ECO-FRIENDLY TUB & TILE CLEANER

A highly concentrated, non-corrosive, non-fuming, tub & tile cleaner. This product meets the requirements of the GS-37 Green Seal™ Standard. It is formulated with a low pH organic salt capable of replacing a wide range of traditional acids. Provides top-tier performance for cleaning tubs, tile, grout, walls, toilet bowls, urinals, shower stalls and other bathroom surfaces.

DESCRIPTION	PART
Eco-Friendly Tub & Tile Cleaner (1 gal. Container)	74073
Eco-Friendly Tub & Tile Cleaner (5 gal. Pail)	74074
Eco-Friendly Tub & Tile Cleaner (55 gal. Drum)	74075

ECO-FRIENDLY PEROXIDE CLEANER

A highly concentrated, multi-purpose cleaner providing top-tier performance as a Glass Cleaner, Multi-Purpose Cleaner and a Restroom Cleaner depending upon dilution. Eco-Friendly Peroxide Cleaner meets the requirements of the GS-37 Green Seal™ Standard. It has a pleasant orange scent.

- **Spray/Wipe Cleaner:** 1:128 dilution • 1 gallon dilutes with water to make up to 512 quart bottles
- **Multi-purpose Cleaner:** 1:64 dilution • 1 gallon dilutes with water to make up to 256 quart bottles
- **Restroom Cleaner:** 1:16 dilution • 1 gallon dilutes with water to make 64 quart bottles

DESCRIPTION	PART
Eco-Friendly Peroxide Cleaner (1 gal. Container)	74076

ECO-FRIENDLY CHEMICALS

These Red Lion™ Eco-Friendly "Green" Chemicals meet Green Seal™ Environmental Standards for industrial and institutional cleaners and floor-care products.

In our continuing effort to offer the most environmentally preferable and effective products, we would like to introduce the Red Lion™ Eco-Friendly “Green” line of cleaners.

The products are designed to meet “Green Product” industry criteria. The standards encompass environmental impact, health effects as well as product performance. They are Environmentally Preferable Products that are formulated to perform well yet have no harmful effects on our environment or to the person using the product. We are proud to announce that Eco-Friendly Multi-Purpose Cleaner, Eco-Friendly Glass Cleaner, Eco-Friendly Tub & Tile Cleaner, Eco-Friendly Peroxide Cleaner, Eco-Friendly Zinc-Free Seal & Finish and Eco-Friendly Floor Stripper all meet specific Green Seal™ Environmental Standards.

There are laws already in place or are pending that will require the use of environmentally sensitive products in N.Y. State Buildings, N.Y.C. Municipal Buildings and all schools in N.Y. State. Although New York has taken the lead in this area, other states are sure to follow.

Perfect for use in schools, office buildings, apartment buildings, hospitals, nursing homes and other institutions where environmentally preferred products are desired.

ECO-FRIENDLY FLOOR STRIPPER

A concentrated, highly effective, fast acting, low odor, floor finish and wax remover – environmentally benign but still strong enough to remove floor finishes and wax seals without the use of a floor machine. Eco-Friendly Floor Stripper meets the GS-40 Green Seal™ Standard for Floor Stripper, based on its reduced human and aquatic toxicity and reduced smog production potential. Using state-of-the-art chemistry, it provides top-tier performance without the potentially harmful effects of 2-butoxyethanol, ammonia, nonylphenol surfactants, dye or fragrance. A highly effective fast acting product with low odor.

DESCRIPTION	PART
Eco-Friendly Floor Stripper (1 gal. Container)	74080
Eco-Friendly Floor Stripper (5 gal. Pail)	74081
Eco-Friendly Floor Stripper (55 gal. Drum)	74082

ECO-FRIENDLY ZINC-FREE SEAL & FINISH

A highly effective, low V.O.C., zinc free floor seal and finish. Eco-Friendly Zinc-Free Seal & Finish represents a new generation of floor care products. It exhibits a deep, wet-look gloss and it can be incorporated into any floor maintenance program. It meets the GS-40 Green Seal™ Standard for Floor Finish. Eco-Friendly Zinc-Free Seal & Finish contains no heavy metals, formaldehyde, ammonia or nonylphenol surfactants. High levels of zinc have been found to be toxic to aquatic life.

DESCRIPTION	PART
Eco-Friendly Zinc-Free Seal & Finish (1 gal. Container)	74077
Eco-Friendly Zinc-Free Seal & Finish (5 gal. Pail)	74078
Eco-Friendly Zinc-Free Seal & Finish (55 gal. Drum)	74079

ECO-FRIENDLY CHEMICALS

Red Lion™ Eco-Friendly Green Aerosols are toxin-free, petroleum distillate-free, VOC compliant, and contain no ozone depleters. These products are also manufactured from environmentally safe, naturally derived materials and packaged in recyclable containers that are made from partially recycled steel.

What are bio-enzymatic products?
Many cleaners and industrial products contain toxins and chemicals which can cause harmful effects on the environment and human health. Bio-enzymatic products contain strains of safe, naturally occurring bacteria and enzymes that are very efficient at breaking down and digesting organic materials and eliminating soil and odor, and do not create pollution. Instead of using man-made chemicals that use energy to produce and deplete natural resources, to clean and deodorize, Chromate uses nature's approach.

What are renewable resources products?
These products are formulated from ingredients derived from renewable agricultural sources, including citrus and soy, and are excellent alternatives to products made from traditional petroleum-based or synthetic components. Renewable resource ingredients are constantly replenished by nature and help promote sound environmental stewardship since they don't harm the environment or expose the user to dangerous chemicals.

What are the benefits of using aerosols?
Aerosols can produce results unavailable from any other application method by controlling the particle's size, spray pattern, volume and concentration. This combination ensures that the proper amount and concentration of the product is delivered exactly where it's needed. Additionally, aerosols are packed in sealed containers, making them spill-proof, unlike liquid products. They reduce waste because precise amounts of the product are delivered to an exact area. You can aim and spray exactly where you want to, with maximum effectiveness. Products stay fresh because no air can get in the can, giving them a long shelf-life.

ECO-FRIENDLY CUTTING OIL

A multi-purpose, low-odor cutting oil formulated from all natural ingredients for light-to-medium duty applications. Keeps work pieces cooler and generates less smoke than petroleum-based cutting oils.

Features
- Reduces heat distortion and tool burning, resulting in increased productivity
- Readily biodegrades
- Non-staining on all metals
- Specially designed for field and portable operations

NO CFCs

Applications
- Cutting, Tapping, Threading, Sawing, Grinding

DESCRIPTION	PART
Eco-Friendly Cutting Oil (11 oz.)	74084

ECO-FRIENDLY PENETRATING OIL

Forceful spray and powerful capillary action provides rapid penetration through rust and corrosion to free frozen parts.

Features
- Contains no silicones or harsh solvents that can harm plastics, lacquers, insulation or paint.
- Forceful spray helps blast through rust and corrosion.
- Powerful capillary action rapidly climbs threads and penetrates into tiny voids to carry lubricant to where its needed.
- Long-lasting, never-dry oil film provides excellent lubricity over a broad temperature range.

Applications
- Frozen Nuts and Bolts, Hinges, Screws, Clamps, Linkages, Fasteners, Molds, Lug Nuts, Tools, Threaded Parts, Engine Parts, Motors, Bearings, Gears

NO CFCs

DESCRIPTION	PART
Eco-Friendly Penetrating Oil (11 oz.)	74083

SAFE-T-LINE™

Why Safe-T-Line™?

Simple . . . A growing concern for user-friendly, environmentally sound products.

RED LION RESEARCH *has addressed this issue by offering a line of aerosol products for the industrial maintenance user. Appropriately named* ***Safe-T-Line****, they are less hazardous to the user and less damaging to the environment, while still providing all the quality and performance essential for those tough, demanding industrial applications.*

Safe-T-Line™ products are safer for the user and the environment because it does not contain harmful CFC's, chlorinated solvents, toluene or butyl. It is extremely low in VOC's and carries a NFPA 30B level 1 fire code rating, (the safest storage rating for aerosol products).

- ***NO CFCs (Chlorofluorocarbons)***
  Chemicals linked to ozone depletion
- ***NO Chlorinated Solvents***
  Also linked to ozone depletion. Certain chlorinated solvents are suspected carcinogens.
- ***NO Perchloroethylene, Toluene or Butyl***
  Suspected carcinogens.
- ***OZONE-SAFE Propellant***
  Propellant has no harmful effect on ozone.
- ***LOW VOC's (Volatile Organic Compounds)***
  Carbon-containing (organic) compounds created from sources such as automobile exhaust, power plants, paints, etc. VOC's can form ground level ozone, a major component of smog.
- ***NFPA 30B Level 1 Fire Code Rating***
  The National Fire Protection Association's best rating for the safe storage of aerosols.

KLEEN & SHINE

All Purpose, Stainless Steel, Food Grade Cleaner
Kleen & Shine is an excellent fast-acting cleaner and polisher for stainless steel surfaces. Works on contact at removing dust, dirt and grease. Authorized by the USDA for use in federally inspected meat and poultry plants. Classification C1.

Features
- Cuts through stubborn greasel
- Cleans and polishes
- Fast acting
- No residue
- Will not scratch

Applications
- For use on stainless steel, enamel, porcelain, ceramic tiles, refrigeration units, range hoods, door handles and counter tops

NO CFCS

DESCRIPTION	PART
Kleen & Shine (16 oz.)	74127

SAFE-T-LINE™

ENGINE DEGREASER

High Pressure Spray, Water Rinsing
This natural citrus cleaner/degreaser is a powerful engine degreasing formula. It cleans and degreases oil, dirt, grease, tar and adhesives.

Features
- Superior formulation cuts through stubborn grease and oil
- High pressure spray
- Water rinsing
- Non-chlorinated
- Easy to use

Applications
- For use on automotive engines, aluminum, stainless steel, whitewall tires, and garage floors

DESCRIPTION	PART
Engine Degreaser (15 oz.)	74183

H.D. CITRUS CLEANER/DEGREASER

Powerful Citrus Base, Biodegradable Cleaner
H.D. Citrus Cleaner is a highly concentrated cleaner and degreaser with its powerful foaming action actually lifts dirt and grease off surfaces so it can be easily wiped clean with a cloth.

Features
- Natural citrus solvent
- Powerful foaming action
- Removes grease, oil and dirt from most surfaces
- Deodorizes with fresh citrus scent
- Biodegradable

Applications
- For use on porcelain, formica, tiles, enamel surfaces, vinyl tops, floor mats, sinks, tubs, appliances, tools and equipment, oil and tar stains, printing presses and white wall tires

DESCRIPTION	PART
H.D. Citrus Cleaner/Degreaser (18 oz.)	74145

SAFE-T-LINE™

SMOKE & ODOR ELIMINATOR

Encapsulates and Destroys Smoke and Other Tough Odors
Smoke & Odor Eliminator is scientifically formulated to destroy any and all odors safely and effectively. It does not “mask” odors, it chemically bonds with the odor carrying molecules and encapsulates them. Extremely effective on all airborne odors and as a surface spray.

Features
- Chemically encapsulates and neutralizes odors
- Extremely effective for smoke and other tough odors
- Leaves a clean, fresh fragrance

Applications
- Slaughter Houses
- Zoos
- Kennels
- Public Rest Rooms
- Transportation Industry
- Locker Rooms
- Garbage Areas
- Sewerage Areas
- Smoke Filled Rooms
- Mortuaries
- Hotels
- Air Conditioning Filters
- Any area where objectionable odors need to be eliminated

DESCRIPTION	PART
Smoke & Odor Eliminator (12 oz.)	74158

ODOR ELIMINATORS

AIR SANITIZER AND DEODORIZER

Metered Mist Sanitizer – Eliminates Odors and Odor Causing Bacteria
For automatic dispensers. The next generation odor counteractant system chemically bonds with the malodor molecule destroying the odor source instead of just covering up or masking. Excellent for control of even the toughest odors, including post-fire odors (cigar/cigarette smoke treatment), protein decomposition odors from garbage, and fisheries.

Features
- Low VOC chemistry is hydro-alcoholic
- No petroleum distillates or hydrocarbon propellants
- Ultra-dry spray has little fall out – Nonflammable
- 3000 sprays / lasts for 30 days – 24 hour basis / every 15 minutes

Applications
- Public Rooms • Restrooms • Bathrooms/Showers • Pools/Spa Areas • Basements
- Storage Rooms • Kitchens/Cafeterias • Schools • Offices • Hotels • Casinos
- Hospitals • Nursing Homes • Prisons • Laundromats • Theaters • Auditoriums
- Railroad Cars • Heavy Truck Cabs • Airplanes • RVs/Campers • Boats • Cabins
- Beach Houses • Buses • Taxicabs • Game Rooms • Health Clubs • Fitness Centers
- Yoga Studios • Factories/Mills • Department Stores • Grocery Stores

DESCRIPTION	PART
Air Sanitizer and Deodorizer (8.2 oz.)	74467

LEMON ITALIAN ICE AIR DEODORIZER

Deliciously Scented, Finely Atomized, Micro-Mist Air Freshener
Provides complete deodorization of malodors in the air, on surfaces and on fabrics.

Features
- Does not allow wetting, staining or messy fall-out
- Eliminates tobacco smoke, cooking odors, mold, and mildew odors
- Non-chlorinated
- V.O.C. compliant
- Chemically neutralizes malodors
- Dry spray particles

Applications
- Locker rooms
- Hospitals
- Nursing homes
- Smoking areas
- Cars
- Boats / RVs
- Motels
- Restaurants
- Bathrooms
- Carpets
- Upholstery / Fabrics
- Draperies

DESCRIPTION	PART
Lemon Italian Ice Air Deodorizer (14 oz.)	74470

ODOR ELIMINATORS

BABY POWDER ODOR ELIMINATOR

Odor Destroyer with Baby Powder Fragrance
A unique product that chemically neutralizes malodors and leaves a fresh baby powder scent. Use in locker rooms, hospitals, nursing homes, smoking areas, cars, boats, RV's, motels, restaurants, bathrooms, on carpets, upholstery, draperies, fabrics or anywhere odor is a problem.

Features
- Eliminates all odors
- Chemically encapsulates and neutralized odors
- Leaves a fresh baby powder scent

Applications
- Locker Rooms • Hospitals • Nursing Homes
- Smoking Areas • Cars • Boats • RV's
- Motels • Restaurants • Bathrooms • Carpets • Upholstery
- Draperies • Fabrics • Anywhere odor is a problem

DESCRIPTION	PART
Baby Powder Odor Eliminator (14.75 oz.)	74166

SMOKE & ODOR ELIMINATOR

Encapsulates and Destroys Smoke and Other Tough Odors
Smoke & Odor Eliminator is scientifically formulated to destroy any and all odors safely and effectively. It does not “mask” odors, it chemically bonds with the odor carrying molecules and encapsulates them. Extremely effective on all airborne odors and as a surface spray.

Features
- Chemically encapsulates and neutralizes odors
- Extremely effective for smoke and other tough odors
- Leaves a clean, fresh fragrance

Applications
- Slaughter Houses
- Zoos
- Kennels
- Public Rest Rooms
- Transportation Industry
- Locker Rooms
- Garbage Areas
- Sewerage Areas
- Smoke Filled Rooms
- Mortuaries
- Hotels
- Air Conditioning Filters
- Any area where objectionable odors need to be eliminated

DESCRIPTION	PART
Smoke & Odor Eliminator (12 oz.)	74158

ODOR ELIMINATORS

ODOR NEUTRALIZING FOGGER

Removes Offensive Odors
Finely atomized, micro-mist total release air freshener provides complete

Features
- Does not allow wetting, staining or messy fall-out
- Dry spray particles with unique scent
- Eliminates tobacco smoke, mold & mildew odors
- Non-chlorinated
- V.O.C. compliant
- Safe on fabrics (carpets, upholstery, draperies)
- Treats 6,000 cu. ft.

Applications
- Locker rooms
- Hospitals
- Nursing homes
- Hotels and motels
- Restaurants
- Smoking areas
- Cars, boats, RVs
- Public buildings
- Bathrooms
- Garbage containers
- Closets
- Laundry hampers

DESCRIPTION	PART
Odor Neutralizing Fogger (6.75 oz.)	74468

FRESH LINEN AIR FRESHENER

For A Clothesline Fresh Fragrance
Deliciously scented, finely atomized, micro-mist air freshener. Provides complete deodorization of malodors in the air, on surfaces and on fabrics. Eliminates tobacco smoke, cooking odors, mold, and mildew odors. Does not allow wetting, staining or messy fall-out.

Features
- Non-chlorinated
- V.O.C. compliant
- Chemically neutralizes malodors
- Dry spray particles

Applications
- Locker rooms
- Hospitals
- Nursing homes
- Smoking areas
- Cars
- Boats
- RVs
- Motels
- Restaurants
- Bathrooms
- Carpets
- Upholstery
- Draperies
- Fabrics

DESCRIPTION	PART
Fresh Linen Air Freshener (14 oz.)	74469

ODOR ELIMINATORS

GREEN*WĀV* NATURAL ODOR ELIMINATORS

Commercial Gel and Spray – Destroys Odor on a Molecular Level
Non-toxic Green*Wāv* natural odor eliminators effectively remove both organic and inorganic malodors from the air, laundry, carpet, upholstery and other surfaces. Notice we did not say mask odors! Green*Wāv* products chemically bond with odor causing molecules and eliminate them completely without leaving a lingering fragrance. Made with natural, non-toxic and biodegradable active ingredients. They are safe for use around people and animals in a variety of settings/facilities.

Commercial Gel
- Eliminates odor in the air.
- The continuous release formulation works around the clock, providing 24/7 odor control.
- For combating persistent odor problems that may not be avoidable or correctable.
- Use Dispenser P/N 1820

Air & Surface Spray
- For rapid targeted odor control.
- Instantly bonds to and eliminates odor molecules in the air & those that have penetrated and/or are resting on surfaces.
- Can also be added to mop buckets, humidifiers or fogging equipment for large areas.

Applications
- Hospitals
- Nursing Homes
- Schools/Universities
- Hotels/Motels
- Offices/Warehouses
- Cafeterias
- Shopping Malls
- Theaters
- Restaurants
- Health Clubs
- Sports Arenas
- Indoor Play Areas
- Fleet
- Maintenance Shops
- Garages

DESCRIPTION	PART
Green*Wāv* Natural Odor Eliminators - Commercial Gel (8 oz.)	74577
Green*Wāv* Natural Odor Eliminators - Air & Surface Spray (32 oz.)	74576

PLEASANT SCENT™ – BULK

Chemically Destroys Toughest Odors
A highly refined blend of chemicals designed to destroy odors of putrefaction, defecation, regurgitation, urination and many other malodors. It is easy to apply with a trigger sprayer or fogging unit and is biodegradable, phosphate free and non-flammable. Use full strength or dilute with water. Dilutes up to 10:1.

Features
- Chemically destroys the toughest malodors
- Does not mask odors
- Easy to use as an air or surface spray
- Biodegradable

Applications
• Hospitals/Laboratories • Mortuaries • Motels • Factories • Rest Rooms • Kennels • Airplanes

DESCRIPTION	PART
Lemon-Lime Scent (55 Gallon Drum)	74230
Green Apple Scent (55 Gallon Drum)	74225
Lemon-Lime Scent (30 Gallon Drum)	74231
Green Apple Scent (30 Gallon Drum)	74226
Lemon-Lime Scent (5 Gallon Pail)	74233
Green Apple Scent (5 Gallon Pail)	74228
Lemon-Lime Scent (1 Gallon Container)	74234
Green Apple Scent (1 Gallon Container)	74229

ODOR ELIMINATORS

URINAL DEODORANT SCREENS

Freshens Urinal for 30 Days – 15x more fragrance which is gradually released over 30 days versus a vinyl urinal screen
Releases billions of optimized bacteria that clean the urinal and eliminate odors.
Recommended by the #1 Manufacturer of waterless urinals – Falcon Waterfree Technologies.

U.S. Patent
#8,007,707
Additional patent pending

Features
- Complies with VOC requirements – available for sale in all 50 states, North America & Europe.
- Saves Time & Money – Revolutionary design reduces splash back while optimizing fragrance release - cutting cleaning time by up to 50%.
- Translucent Flexible Design – Allows full view of urinal drain to ensure optimal drain flow while trapping debris.
- Meets the “Purchase of Sustainable Cleaning Products and Materials” criteria under the LEED point management system.

Fragrance Intensity

Fragrance	P/N	Color
Herbal Mint	74473	
Honeysuckle	74474	
Kiwi Grapefruit	74475	
Fabulous	74442	
Wintergreen	74476	
Ocean Mist	74483	
Mango	74477	
Citrus	74478	
Spiced Apple	74479	
Cotton Blossom	74480	
Guava Pineapple	74481	
Cucumber Melon	74482	

DESCRIPTION	PART
Urinal Deodorant Screen - Herbal Mint	74473
Urinal Deodorant Screen - Honeysuckle	74474
Urinal Deodorant Screen - Kiwi Grapefruit	74475
Urinal Deodorant Screen - Fabulous	74442
Urinal Deodorant Screen - Wintergreen	74476
Urinal Deodorant Screen - Ocean Mist	74483
Urinal Deodorant Screen - Mango	74477
Urinal Deodorant Screen - Citrus	74478
Urinal Deodorant Screen - Spiced Apple	74479
Urinal Deodorant Screen - Cotton Blossom	74480
Urinal Deodorant Screen - Guava Pineapple	74481
Urinal Deodorant Screen - Cucumber Melon	74482

ODOR ELIMINATORS

METERED MIST

Long Lasting Concentrated Dry Spray Neutralizer for Dispensers
For use in automatic dispensers. Delivers maximum fragrance and odor control with measured releases. Finely atomized spray carries farther and lasts longer than other leading brands.

Features
- Neutralizes malodors
- Long lasting control
- Dry spray, no fallout
- Leaves a pleasant scent
- Non-Staining
- Non-Chlorinated
- No CFC's

Applications
- Bathrooms
- Locker rooms
- Hospitals and nursing homes
- Smoking areas
- Motels
- Restaurants
- Anywhere odor is a problem

NO CFCs

Use metered mist dry spray neuralizer with the metered mist dispenser, P/N 1817.

DESCRIPTION	PART
Metered Mist - Red Clover Tea (7.25 oz.)	74433
Metered Mist - Cucumber Melon (7.25 oz.)	74434
Metered Mist - Citrus Creme (7.25 oz.)	74460
Metered Mist - Fruit Basket (7.25 oz.)	74461
Metered Mist - Powder Fresh (7.25 oz.)	74462
Metered Mist - Vanilla Delight (7.25 oz.)	74463
Metered Mist - Pine Forest (7.25 oz.)	74464
Metered Mist - Fresh Linen (7.25 oz.)	74465
Metered Mist - Piña Colada (7.25 oz.)	74466

METERED MIST VARIETY PACKS

Multiple Scents Bundled Together in Two Easy-to-Order "Variety Packs".

DESCRIPTION	PART
Metered Mist Variety Pack	**200145**
Citrus Creme	74460
Fruit Basket	74461
Powder Fresh	74462
Vanilla Delight	74463
Pine Forest	74464
Fresh Linen	74465

DESCRIPTION	PART
Metered Mist Variety Pack II	**200177**
Red Clover Tea	74433
Cucumber Melon	74434
Citrus Creme	74460
Fruit Basket	74461
Powder Fresh	74462
Fresh Linen	74465

DISPENSING EQUIPMENT

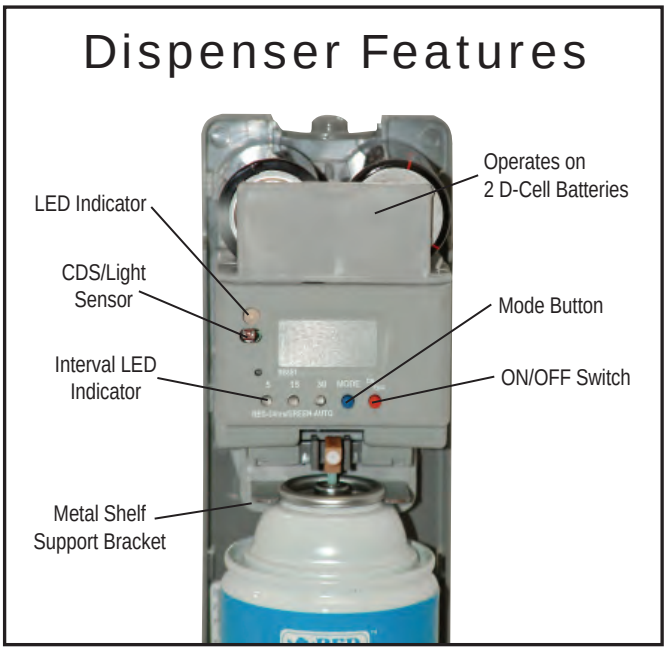
METERED MIST DISPENSER

Automatic wall mounted dispenser delivers maximum fragrance and odor control with measured releases. Finely atomized spray carries farther and lasts longer than other leading brands.

Red Lion™ Metered Mist
- Neutralizes Malodors
- Long Lasting Control
- Dry Spray, No Fall out
- Leaves a pleasant scent
- Non-Staining
- Non-Chlorinated, No CFC's

Use Anywhere Odor is a Problem
- Bathrooms
- Locker rooms
- Hospitals
- Nursing homes
- Smoking areas
- Motels
- Restaurants

Note: D-Cell batteries are required, not included. Order with P/N 29201.



DESCRIPTION	PART
Metered Mist Dispenser	1817
Duracell® Procell® Batteries, D-Cell (pkg. 12)	29201

DISPENSING EQUIPMENT

RED LION™ 32 OZ. SPRAY BOTTLE FOR ECO-FRIENDLY MULTI-PURPOSE CLEANER

Meets the requirements of the GS-37 Green Seal™ Standard. Provides top-tier performance for cleaning floors, walls, chrome, stainless steel, table tops, vinyl, sealed wood and many other surfaces not harmed by water.

DESCRIPTION	PART
Multi-Purpose Cleaner (32 oz. Bottle)	74067B

RED LION™ 32 OZ. SPRAY BOTTLE FOR ECO-FRIENDLY GLASS & WINDOW CLEANER

Designed to meet the requirements of GS-37, the Green Seal™ Standard for Glass Cleaner. Eco-Friendly Glass & Window Cleaner has been formulated with completely biodegradable surfactants and other naturally derived ingredients. This non-toxic glass, window and multi-purpose cleaner provides top-tier performance. It is alcohol-free, ammonia-free, non-streaking and fast drying.

DESCRIPTION	PART
Glass & Window Cleaner (32 oz. Bottle)	74070B

RED LION™ 32 OZ. SPRAY BOTTLE FOR ECO-FRIENDLY TUB & TILE CLEANER

A highly concentrated, non-corrosive, non-fuming, tub & tile cleaner. This product meets the requirements of the GS-37 Green Seal™ Standard. It is formulated with a low pH organic salt capable of replacing a wide range of traditional acids. Provides top-tier performance for cleaning tubs, tile, grout, walls, toilet bowls, urinals, shower stalls and other bathroom surfaces.

DESCRIPTION	PART
Tub & Tile Cleaner (32 oz. Bottle)	74073B

RED LION™ 32 OZ. SPRAY BOTTLE FOR ECO-FRIENDLY PEROXIDE CLEANER

A highly concentrated, multi-purpose cleaner providing top-tier performance as a Glass Cleaner, Multi-Purpose Cleaner and a Restroom Cleaner depending upon dilution. Eco-Friendly Peroxide Cleaner meets the requirements of the GS-37 Green Seal™ Standard. It has a pleasant orange scent.

DESCRIPTION	PART
Peroxide Cleaner (32 oz. Bottle)	74076B

DISPENSING EQUIPMENT

Blend Mate Wall Dispensers

A mounted dispenser for automatic dilution/metering of Eco-Friendly cleaners into secondary containers (32 oz. bottle or bucket fill) in ready to use form. Convenient wall mount in janitors closets, housekeeping/maintenance rooms, etc. Installation materials included.

Features

- Gray high density plastic cabinet
- Mounting hardware, water inlet hose, 2 locking keys, appropriate metering tips installed by the factory according to product used.
- Cabinet Size: 22" high x 6-1/2" width x 7-3/4" depth. Up to 4 cabinets can be linked together with a single cold water source.

RED LION™ BLEND MATE WALL DISPENSERS ECO-FRIENDLY PEROXIDE CLEANER

Eco-Friendly Peroxide Cleaner:

- 2 button
- 32 oz. bottle & bucket fill
- 2 dilution selector

Directions For Use

1. Hang cabinet on wall using mounting screws provided, making sure water hose will reach water source.
2. Connect black 6' water hose to upper right side of dispenser cabinet and water source.
3. Using key(s) provided, unlock cabinet.
4. Remove cap from gallon bottle of concentrate and place inside dispenser cabinet, inserting draw tube into bottle.
5. Close and lock cabinet.
6. Following direction label on front of dispenser, turn toggle switch to desired dilution strength. Insert clear plastic fill tube into spray bottle or mop bucket and push appropriate button to activate flow.

DESCRIPTION	PART
Peroxide Cleaner WallDispenser	1822

RED LION™ BLEND MATE WALL DISPENSERS ECO-FRIENDLY MULTI PURPOSE CLEANER

Eco-Friendly Multi Purpose Cleaner:

- 2 button
- 32 oz. bottle & bucket fill
- 3 dilution selector

Directions For Use

1. Hang cabinet on wall using mounting screws provided, making sure water hose will reach water source.
2. Connect black 6' water hose to upper right side of dispenser cabinet and water source.
3. Using key(s) provided, unlock cabinet.
4. Remove cap from gallon bottle of concentrate and place inside dispenser cabinet, inserting draw tube into bottle.
5. Close and lock cabinet.
6. Following direction label on front of dispenser, turn toggle switch to desired dilution strength. Insert clear plastic fill tube into spray bottle or mop bucket and push appropriate button to activate flow.

DESCRIPTION	PART
Multi-Purpose Cleaner Wall Dispenser	1824

RED LION™ BLEND MATE WALL DISPENSERS ECO-FRIENDLY GLASS & WINDOW CLEANER

Eco-Friendly Glass & Window Cleaner:

- 1 button
- 32 oz. bottle
- pre-set dilution

Directions For Use

1. Hang cabinet on wall using mounting screws provided, making sure water hose will reach water source.
2. Connect black 6' water hose to upper right side of dispenser cabinet and water source.
3. Using key(s) provided, unlock cabinet.
4. Remove cap from gallon bottle of concentrate and place inside dispenser cabinet, inserting draw tube into bottle.
5. Close and lock cabinet.
6. Following direction label on front of dispenser, turn toggle switch to desired dilution strength. Insert clear plastic fill tube into spray bottle or mop bucket and push appropriate button to activate flow.

DESCRIPTION	PART
Glass & Window Cleaner Wall Dispenser	1826

RED LION™ BLEND MATE WALL DISPENSERS ECO-FRIENDLY TUB & TILE CLEANER

Eco-Friendly Tub & Tile Cleaner:

- 2 button
- 32 oz. bottle & bucket fill
- 3 dilution selector

Directions For Use

1. Hang cabinet on wall using mounting screws provided, making sure water hose will reach water source.
2. Connect black 6' water hose to upper right side of dispenser cabinet and water source.
3. Using key(s) provided, unlock cabinet.
4. Remove cap from gallon bottle of concentrate and place inside dispenser cabinet, inserting draw tube into bottle.
5. Close and lock cabinet.
6. Following direction label on front of dispenser, turn toggle switch to desired dilution strength. Insert clear plastic fill tube into spray bottle or mop bucket and push appropriate button to activate flow.

DESCRIPTION	PART
Tub & Tile Cleaner Wall Dispenser	1828

DISPENSING EQUIPMENT

Use Blend Mate Wall Dispensers and 32 oz. Spray Bottles With The Following:

ECO-FRIENDLY MULTI-PURPOSE CLEANER

Meets the requirements of the GS-37 Green Seal™ Standard. Provides top-tier performance for cleaning floors, walls, chrome, stainless steel, table tops, vinyl, sealed wood and many other surfaces not harmed by water.

DESCRIPTION	PART
Multi-Purpose Cleaner (1 gal. Container)	74067

ECO-FRIENDLY GLASS & WINDOW CLEANER

Designed to meet the requirements of GS-37, the Green Seal™ Standard for Glass Cleaner. Eco-Friendly Glass & Window Cleaner has been formulated with completely biodegradable surfactants and other naturally derived ingredients. This non-toxic glass, window and multi-purpose cleaner provides top-tier performance. It is alcohol-free, ammonia-free, non-streaking and fast drying.

DESCRIPTION	PART
Glass & Window Cleaner (1 gal. Container)	74070

ECO-FRIENDLY TUB & TILE CLEANER

A highly concentrated, non-corrosive, non-fuming, tub & tile cleaner. This product meets the requirements of the GS-37 Green Seal™ Standard. It is formulated with a low pH organic salt capable of replacing a wide range of traditional acids. Provides top-tier performance for cleaning tubs, tile, grout, walls, toilet bowls, urinals, shower stalls and other bathroom surfaces.

DESCRIPTION	PART
Tub & Tile Cleaner (1 gal. Container)	74073

ECO-FRIENDLY PEROXIDE CLEANER

A highly concentrated, multi-purpose cleaner providing top-tier performance as a Glass Cleaner, Multi-Purpose Cleaner and a Restroom Cleaner depending upon dilution. Eco-Friendly Peroxide Cleaner meets the requirements of the GS-37 Green Seal™ Standard. It has a pleasant orange scent.

DESCRIPTION	PART
Peroxide Cleaner (1 gal. Container)	74076

DISPENSER FOR GREEN*WĀV* COMMERCIAL GEL

GreenWāv Commercial Gel eliminates odor in the air. The continuous release formulation works around the clock, providing 24/7 odor control. Especially effective for combating persistent odor problems that may not be avoidable or correctable.

Features

- The dispennser holds one jar of 8 oz. gel.
- Can be easily mounted to most surfaces.
- Functional and subtle; hides the product out of sight allowing it to work discreetly.
- ADA Compliant.

DESCRIPTION	PART
Dispenser for Green*Wāv* Commercial Gel	1820

DISPENSING EQUIPMENT

SURE SHOT SPRAYER

Refillable, rechargeable and completely portable, the Sure Shot Sprayer features metal construction, brass nozzles, and corrosion resistant internal working parts.

Features
- 32 oz. liquid capacity
- Red epoxy powder coated finish
- Can be used with oil and solvent based materials
- Works great for cleaners, degreasers, penetrating oils, brake cleaners, and solvents
- Just fill the sprayer two-thirds with product, pressurize to 80 - 150 psi and spray.

Accessory Kits
Nozzle Kit, P/N 50016
- Coarse Spray Nozzle
- Extra Fine Spray Nozzle
- Fine Spray Nozzle
- Flat Spray Nozzle
- Plastic Adjustable Nozzle With Adapter

Nozzle Extension, P/N 50017
Use 12" Nozzle Extension With:
- Pin Stream Nozzle
- Regular Spray Nozzle
- Coarse Spray Nozzle
- Extra Fine Spray Nozzle
- Flat Spray Nozzle

Repair Kit, P/N 50018
- Inner Adapter Washer
- Valve and Valve Spring
- Valve Spring
- Stuffing Box Packing
- Stuffing Box Nut
- Cotter Pin
- Valve Trigger
- Filler Cap Assembly
- Regular Spray Nozzle
- Valve Seat Adapter (Male)
- Outer Adapter Washer

DESCRIPTION	PART
Sure Shot Sprayer	1700
Nozzle Kit	50016
Nozzle Extension	50017
Repair Kit	50018

PLASTIC TANK SPRAYER

Pressurized plastic tank sprayer with relief valve and adjustable nozzle. Shut-off valve in handle.
Capacity: 2 gallons.
Weight: 6 lbs.

DESCRIPTION	PART
Plastic Tank Sprayer	1687

COMPRESSED AIR SPRAYER

High pressure polyethylene compressed air sprayer sprays fine mist. Adjustable nozzle.
Hand held.
Capacity: 2 quarts.
Weight: 2 lbs.

DESCRIPTION	PART
Compressed Air Sprayer	1688

DISPENSING EQUIPMENT

SPRAY CAN TOOL

FullGrip trigger with double leverage action provides effortless spray control. FutureLock attachment ring makes attaching and removing cans easy.

Features

- Fits 100% of all standard spray cans.
- Optimized design uniquely positions the relationship between the handle, trigger and spray can, providing greater balance while eliminating finger, wrist and forearm strain.
- Patent pending design reduces SqueezeForce (the amount of pressure required to actuate a spray can's nozzle) by up to 80% compared to our competition.
- ComfortTouch patent pending handle and trigger design
- Contoured, ergonomic gripping surfaces correspond to the natural angles and positions of the fingers, hand, palm, wrist and forearm.
- Arthritis-friendly design.
- Made in the USA.

DESCRIPTION	PART
Spray Can Tool	1818

TRIGGER SPRAYER PLASTIC BOTTLES

Part #1690
16 oz. plastic bottle with adjustable nozzle to give a spray from mist to jet.

Part #1698
32 oz. plastic bottle with adjustable nozzle to give a spray from mist to jet.

DESCRIPTION	PART
Trigger Sprayer Plastic Bottles (16 oz.)	1690
Trigger Sprayer Plastic Bottles (32 oz.)	1698

TRIGGER SPRAYER

Heavy duty quality trigger sprayer is engineered for a variety of liquids. A comfortable trigger type operation and large fine spray pattern makes any job easier.

- Nozzle adjusts from fine mist to a jet stream.
- Resists organic and acidic chemicals.

Part #1697
All-purpose trigger sprayer for 32 oz. plastic bottle.

DESCRIPTION	PART
Trigger Sprayer	1801
All-Purpose Trigger Sprayer (32 oz.)	1697

FOAMER TRIGGER SPRAYER

Foamer trigger sprayer creates a thick sudsy blanket for heavy soil removal. Adapts to 16 oz. and 32 oz. bottles.

DESCRIPTION	PART
Foamer Trigger Sprayer	1699

36 OZ. MEASURABLE BOTTLE

36 oz. PVC clear bottle multi-measured with printed oz./ml. dilution scale.

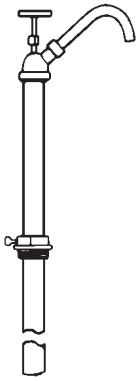
DESCRIPTION	PART
36 oz. Measurable Bottle	1800

DISPENSING EQUIPMENT

PLASTIC & METAL DRUM PUMPS

Plastic Drum Pump
Lift style 22 ounches per full stroke. Fits any 15, 20, 30, 35 and 55 gallon drum. Head threaded to fit 3/4" hose coupling.

Metal Drum Pump
Lift style 22 ounces per full stroke. Unplated. Bung bushing will fit any 15, 20, 30, 35 and 55 gallon drum. Head threaded to fit 3/4" hose coupling.



DESCRIPTION	PART
Plastic Drum Pump	1692
Metal Drum Pump	1694

ROTARY BARREL PUMP

A precision built pump for transferring non-corrosive petroleum based fluids, of light to medium viscosity, at a rate of approximately one gallon per 18 revolutions with SAE 10 oil. For industrial, commercial, automotive and agricultural applications.

- Rugged cast iron pump housing
- Heavy duty vanes with steel springs adjust automatically
- All steel discharge spout
- Steel suction pipe

DESCRIPTION	PART
Rotary Barrel Pump	1808

PLASTIC SYPHON PUMP

Plastic syphon pump with universal adapter. Fits openings 3/4" to 1-3/8" inside diameter. Use with 5, 6 and 10 gallon pails.

DESCRIPTION	PART
Plastic Syphon Pump	1693

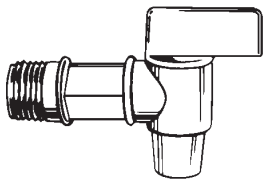
2" DRUM FAUCET

HIGH FLOW – Durable polyethylene drum faucet in 2" diameter for general purpose use.

DESCRIPTION	PART
2" Drum Faucet	1803

DRUM FAUCET

3/4" polyethylene drum faucet for easy flow and instant control.



DESCRIPTION	PART
Drum Faucet	1695

DRUM WRENCH

12" aluminum / magnesium alloy for plastic or metal. Opens all standard 3/4" and 2" bungs.

DESCRIPTION	PART
Drum Wrench	1802

DRUM DOLLY

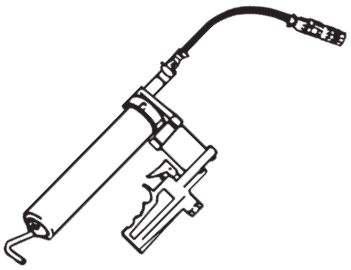
- Welded steel
- Supports 400 lbs.
- For 55 gallon size drums
- 24"diameter
- Durable 3" steel swivel wheels

DESCRIPTION	PART
Drum Dolly	1804

DISPENSING EQUIPMENT

AIR OPERATED GREASE GUN

Designed for the automotive, truck, agricultural and industrial professional. Three way loading feature uses standard 14.5 oz. grease cartridge, bulk grease and grease filler pump. Easy to disassemble and clean. Complete with flexible grease hose and heavy-duty 4-claw coupler. Handy storage locating ring. Pressure ratio – 50:1. Air pressure required – 30-120 psi. Suggested working air pressure – 90 psi.



DESCRIPTION	PART
Air Operated Grease Gun	8200

12-VOLT CORDLESS GREASE GUN

Ideal maintenance tool for farms, fleets, factories and shops. Includes two 12-volt NiCad rechargeable batteries, a 1-hour charger, 30 in. flexible hose and a durable carrying case for long-lasting protection and storage. Delivers up to 7000 psi. Holds 14 oz. grease cartridge. No pumping required. Cartridge and bulk loading. Planetary gear drive. Machined and hardened piston. Plated steel barrel.

DESCRIPTION	PART
12-Volt Cordless Grease Gun	9571
Rechargeable Battery	9571B

PROFESSIONAL GREASE GUN

All steel construction with heavy-duty epoxy finish provides resistance to rust, acids and salts. Easy three-way loading with 14.5 oz. cartridge, suction filled up to 16 oz. and from grease gun filler. Complete with bulk loader fitting to quickly adapt to bulk fillers, 6" angle pipe and heavy-duty coupler, with a spring loaded ball check valve. Weight: 4 lbs. 11 oz.

DESCRIPTION	PART
Professional Grease Gun	8218

DISPENSING EQUIPMENT

FLEXI GREASE GUN

Hi-pressure, professional grease gun produces up to 7,500 psi. Easy grip handle allows for single hand operation. Flexible extension is also included.

DESCRIPTION	PART
Flexi Grease Gun	8217

MINI LUBE UNIT

Professional hand powered lubricator for fast, clean greasing. Develops pressure of up to 10,000 psi, while providing 30 grease shots per pump. This push button 2 speed lubricator will fit all standard 7 lb. grease tins.

DESCRIPTION	PART
Mini Lube Unit	8216

DISPENSING EQUIPMENT

AIR OPERATED GREASE GUN KIT

Continuously pumps grease while trigger is depressed. "Butterfly-Lock" screw enables grip handle to rotate 360°. 3-way loading – 14 oz. cartridge, bulk or suction. Delivers up to 6,000 psi. 90 psi recommended inlet pressure. Manual operated grease gun head cap converts gun to standard manually operated lever gun.

CONTAINS 28 PIECES IN A HANDY CARRYING CASE!

- Air Operated Grease Gun
- 5-3/8" Extension Pipe
- 12" High Pressure Whip Hose
- Manual Operated Gun Head
- 1/4" Quick Release Coupler
- 1/4" Hose Fitting
- Grease Coupler
- Grease Fittings (10)
- Combination Wrenches (6)
- 6" Long Nose Plier
- 8" Slip Joint Plier
- 4" x 6mm Screwdriver
- 4" x 6mm Phillips Head Screwdriver
- 5mm Hex Key Wrench

DESCRIPTION	PART
Air Operated Grease Gun Kit	38200

3M FIRE BARRIER FOAM FIP 1-STEP, GUNS

Foam-in-place Firestop – Finally, a UL Listed alternative to mineral wool, bricks and runny, ineffective foams.

- A smoke and firestopping foam for wall and floor penetrations.
- Used in mechanical, electrical, data and plumbing applications.
- Premium two-part, easy-to-handle formulation.
- Expands during installation and bonds to concrete, metal, wood, plastic and cable jacketing. Dries to a flexible solid.

This Foam Won't Roam.
It's like no firestop foam you've used before — it works. It's not runny, so it stays in place and expands at a controlled and consistent pace. Installs in vertical and horizontal applications without running down the opening or sagging. Similar to many two-part epoxy sealants, but with just one step — saving you trips up and down the ladder.

HandyMax® HMS-G4C2 Manual Gun

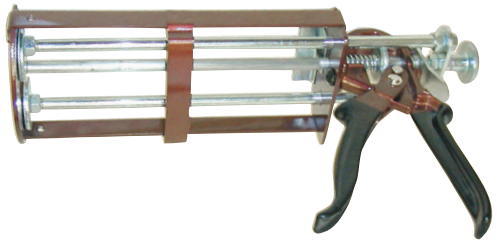
PowerMax® HPS-4C2 Battery-Powered Gun

DESCRIPTION	PART
HandyMax® HMS-G4C2 Manual Gun	9572
PowerMax® HPS-4C2 Battery-Powered Gun	9573

DISPENSING EQUIPMENT

DROP-TITE™ EPOXY SYSTEM DUAL CARTRIDGE CAULKING GUN

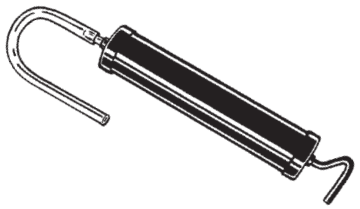
Designed with an in-line rod system and special friction plate to provide exceptional force. Dispenses faster and reduces worker exertion and fatigue.



DESCRIPTION	PART
Drop-Tite™ Epoxy System Dual Cartridge Caulking Gun	8250

GREASE OIL PUMP

Dual cup Buna-N rubber plunger. All steel construction. Needs no priming. Capacity over one pint. Twelve inch vinyl hose. One piece handle. Will handle all non-corrosive fluids.



DESCRIPTION	PART
Grease Oil Pump	16509

CAULKING GUN – SMOOTH ROD

Hex smooth-rod design with thumb release and poker. Uses standard 10 oz. 8-1/2" drop-in cartridges. High carbon, heat treated steel and riveted construction. Easy to use with a solid grip and trigger to reduce hand fatigue.

Zinc electro-plated working parts provide corrosion resistance to the elements and a wide variety of caulking materials. Heavy-duty (.060) steel for durability and long working life.

DESCRIPTION	PART
Caulking Gun – Smooth Rod	8253

DISPENSING EQUIPMENT

AUTODOSE™ DRAIN MANAGER

Utilizing the flexible programming capabilities of the AutoDose line of dispensers allows the user to dose drains, cooling towers, boilers, pools, lubrication systems or other areas at the appropriate times. An easily programmed timer turns the pump on and off to ensure the regular dosing of chemicals.

- Corrosion resistant cabinet fitted to pail or wall for demanding environments
- Easy to program timer with pin lockout for security
- During normal operation, the timer runs on the same power source as the pump, simplifying system maintenance (only one set of batteries to replace)
- Internal backup battery in timer maintains program even when main power source is disconnected or inoperative
- Automatic battery-life monitoring technology ensures dosing accuracy throughout life of battery
- No tools required for maintenance of pump assembly
- Low battery indicator
- Maximum flexibility for customized dosing
- Choice of days, time (AM or PM) and dosings (in one ounce or 30 ml increments)
- Up to 24 dosing periods per 24 hours
- Capability to dose every day, or just on specific days

DESCRIPTION	PART
AutoDose™ Drain Manager	1816

CENTERFEED DISPENSER

These dispensers simplify and complement any environment, providing a clean, hygienic appearance. The design ensures easy and intuitive maintenance, refilling and use. Ideal for high traffic environments. No cross contamination from levers or cranks.The portion control feature dispenses one towel every time. Simple and reliable.

- For Hand Towels, P/N 28237

DESCRIPTION	PART
Centerfeed Dispenser	1788

CENTER-PULL DISPENSER

This dispenser offers single-sheet release requiring only one hand to tear off. Made of tough impact resistant materials. One of the most vandal-proof, break resistant, chemical and flame resistant products for heavy use applications.

- For Wipes, P/Ns 28235 & 28236

DESCRIPTION	PART
Center-Pull Dispenser	1789

DISPENSING EQUIPMENT

SANI-SMOOTH DISPENSER

For hanging and dispensing Red Lion™ Sani-Smooth foaming aerosol hand sanitizer (P/N 74486). Provides convenience and portability. Mounting hardware included.

DESCRIPTION	PART
Sani-Smooth Dispenser	1819

WALL MOUNT HAND CLEANER PUMP DISPENSER

This universal dispenser allows metered use of Red Lion H.D. Citrus Scrub Hand Cleaner. Consistently controls the amount of hand cleaner dispensed, eliminating waste. Designed to offer years of trouble-free service.

DESCRIPTION	PART
Wall Mount Hand Cleaner Pump Dispenser	1806

SOAP DISPENSER / 85 FL. OZ. BOTTLES

Black Dispenser, P/N 1832

For use with:

- **P/N 74629**
  Antimicrobial Hand Cleaner and Sanitizer

DESCRIPTION	PART
Soap Dispenser, for 85 fl. oz. Bottles	1832

SOAP DISPENSER / 120 FL. OZ. BOTTLES

Gray Dispenser, P/N 1830
For use with 120 fl. oz. Bottles

For use with:

- **P/N 74630**
  Heavy Duty Scrub Hand Soap
- **P/N 74631**
  H.D. Citrus Hand Soap
- **P/N 74471**
  Cherry Impact Hand Soap
- **P/N 74458**
  Magic Hand Soap

DESCRIPTION	PART
Soap Dispenser, for 120 fl. oz. Bottles	1830

DISPENSING EQUIPMENT

TRAFFIC MARKING MACHINE

Designed exclusively for Traffic Striping Marker Paints.
Applies clean, crisp even stripes or marks from 2” to 4”.
Use on porous surfaces ranging from asphalt to concrete.

DESCRIPTION	PART
Traffic Marking Machine	1810

ATHLETIC MARKING MACHINE

Designed with larger wheels and to be used exclusively with Athletic Field Striping Paints only. Ready to use and requires no accessories. Allows applications of lines up to 2" to 4" on athletic fields or other turf surfaces.

DESCRIPTION	PART
Athletic Marking Machine	1811

MARKING WAND

Easy loading. Machine is ready to use and requires no accessories. 33” overall extension and light touch makes marking simple and accurate. Nickel zinc plating makes it durable and corrosion resistant. Great for golf courses, utilities, surveyors, contractors and more.

DESCRIPTION	PART
Traffic Marking Machine	1812

TRAFFIC MARKING APPLICATOR

Designed for heavy-duty paint application where a wider stripe is required. For use on concrete, asphalt and athletic fields. Easy loading, with light touch control that makes marking simple and accurate.

Use with all 20 oz. Traffic or Athletic Marker Paints only.

DESCRIPTION	PART
Traffic Marking Applicator	1809

RED LION™ CHEMICALS

CHROMATE® INDUSTRIAL CORP.

BULK CHEMICAL DILUTION CHART

GAL. COST	PRICE PER GALLON AT STANDARD DILUTIONS									
	1:8	1:10	1:12	1:16	1:20	1:25	1:32	1:40	1:64	1:128
$5.00	0.56	0.45	0.38	0.29	0.24	0.19	0.15	0.12	0.08	0.04
6.00	0.67	0.55	0.46	0.35	0.29	0.23	0.18	0.15	0.09	0.05
7.00	0.78	0.64	0.54	0.41	0.33	0.27	0.21	0.17	0.11	0.05
8.00	0.89	0.73	0.62	0.47	0.38	0.31	0.24	0.20	0.12	0.06
9.00	1.00	0.82	0.69	0.53	0.43	0.35	0.27	0.22	0.14	0.07
10.00	1.11	0.91	0.77	0.59	0.48	0.38	0.30	0.24	0.15	0.08
11.00	1.22	1.00	0.85	0.65	0.52	0.42	0.33	0.27	0.17	0.09
12.00	1.33	1.09	0.92	0.71	0.57	0.46	0.36	0.29	0.18	0.09
13.00	1.44	1.18	1.00	0.76	0.62	0.50	0.39	0.32	0.20	0.10
14.00	1.56	1.27	1.08	0.82	0.67	0.54	0.42	0.34	0.22	0.11
15.00	1.67	1.36	1.15	0.88	0.71	0.58	0.45	0.37	0.23	0.12
16.00	1.78	1.45	1.23	0.94	0.76	0.62	0.48	0.39	0.25	0.12
17.00	1.89	1.55	1.31	1.00	0.81	0.65	0.52	0.41	0.26	0.13
18.00	2.00	1.64	1.38	1.06	0.86	0.69	0.55	0.44	0.28	0.14
19.00	2.11	1.73	1.46	1.12	0.90	0.73	0.58	0.46	0.29	0.15
20.00	2.22	1.82	1.54	1.18	0.95	0.77	0.61	0.49	0.31	0.16
21.00	2.33	1.91	1.62	1.24	1.00	0.81	0.64	0.51	0.32	0.16
22.00	2.44	2.00	1.69	1.29	1.05	0.85	0.67	0.54	0.34	0.17
23.00	2.56	2.09	1.77	1.35	1.10	0.88	0.70	0.56	0.35	0.18
24.00	2.67	2.18	1.85	1.41	1.14	0.92	0.73	0.59	0.37	0.19
25.00	2.78	2.27	1.92	1.47	1.19	0.96	0.76	0.61	0.38	0.19
26.00	2.89	2.36	2.00	1.53	1.24	1.00	0.79	0.63	0.40	0.20
27.00	3.00	2.45	2.08	1.59	1.29	1.04	0.82	0.66	0.42	0.21
28.00	3.11	2.55	2.15	1.65	1.33	1.08	0.85	0.68	0.43	0.22
29.00	3.22	2.64	2.23	1.71	1.38	1.12	0.88	0.71	0.45	0.22
30.00	3.33	2.73	2.31	1.76	1.43	1.15	0.91	0.73	0.46	0.23
31.00	3.44	2.82	2.38	1.82	1.48	1.19	0.94	0.76	0.48	0.24
32.00	3.56	2.91	2.46	1.88	1.52	1.23	0.97	0.78	0.49	0.25
33.00	3.67	3.00	2.54	1.94	1.57	1.27	1.00	0.80	0.51	0.26
34.00	3.78	3.09	2.62	2.00	1.62	1.31	1.03	0.83	0.52	0.26
35.00	3.89	3.18	2.69	2.06	1.67	1.35	1.06	0.85	0.54	0.27
36.00	4.00	3.27	2.77	2.12	1.71	1.38	1.09	0.88	0.55	0.28
37.00	4.11	3.36	2.85	2.18	1.76	1.42	1.12	0.90	0.57	0.29
38.00	4.22	3.45	2.92	2.24	1.81	1.46	1.15	0.93	0.58	0.29
39.00	4.33	3.55	3.00	2.29	1.86	1.50	1.18	0.95	0.60	0.30
40.00	4.44	3.64	3.08	2.35	1.90	1.54	1.21	0.98	0.62	0.31
45.00	5.00	4.09	3.46	2.65	2.14	1.73	1.36	1.10	0.69	0.35
50.00	5.56	4.55	3.85	2.94	2.38	1.92	1.52	1.22	0.77	0.39
55.00	6.11	5.00	4.23	3.24	2.62	2.12	1.67	1.34	0.85	0.43
60.00	6.67	5.45	4.62	3.53	2.86	2.31	1.82	1.46	0.92	0.47
65.00	7.22	5.91	5.00	3.82	3.10	2.50	1.97	1.59	1.00	0.50

R-134a LUBRICANT REFERENCE CHART

The Following Compressors Utilize Factory Filled PAG Lubricants.

VEHICLE MANUFACTURER	COMPRESSOR MANUFACTURER	COMPRESSOR MODEL	OEM LUBRICANT NUMBER	CoolPro LUBRICANT VISCOSITY	SYSTEM LUBRICANT CAPACITY	
					OUNCES	MILLILITERS
Acura	Nippondenso	10P	ND8	PAG 46	6-7	177-207
Alfa Romeo	Sanden	SDV	SP10	PAG 46	4	118
Audi	Diesel Kiki/Zexel	DCW	ZXL100	PAG 46	5-6	148-177
Audi	Nippondenso	10P	ND8	PAG 46	6-7	177-207
BMW	Seiko Seiki	SS	SX10	PAG 46	6	177
BMW	Nippondenso	10P	ND8	PAG 46	6-7	177-207
BMW	Bosch / Behr	Wing	-	PAG 46	6-7	177-207
BMW	Bosch / Behr	Axial	-	PAG 100	5-6	148-177
Chrysler	Nippondenso	10PA	ND8	PAG 46	6-7	177-207
Chrysler	Nippondenso	6C / 6CA	ND8	PAG 46	8-9	237-266
Chrysler	Sanden	TR / TRS	SP10	PAG 46	6	177
Chrysler	Sanden	SD	SP20	PAG 100	5	148
Chrysler	Mitsubishi	FX	P56	PAG 46	9-10	266-296
Jeep / Eagle	Sanden	SD	SP20	PAG 100	5	148
Jeep / Eagle	Sanden	TR	SP10	PAG 46	4-5	118-148
Jeep / Eagle	Nippondenso	10P / 10PA	ND8	PAG 46	6-7	177-207
Citroen	Sanden	SD7	SP20	PAG100	5	148
Ferrari	Sanden	SDV	SP10	PAG 46	4	118
Fiat	Sanden	SD7	SP20	PAG 100	5-6	148-177
Ford	Ford	FS10 / FX15	YN12 / 12A	PAG46	7	207
Ford	Nippondenso	10P / 10PA	ND8	PAG 46	6-7	177-207
Ford	Sanden	SD	SP20	PAG 100	5	148
Ford	Panasonic	Rotary	YN12 / 12A	PAG 46	4-5	118-148
G.M.	Delphi / Harrison	V5 Retro	12346305	PAG 150	8	237
G.M.	Delphi / Harrison	V5 R-134a	12345923	PAG 150	8	237
G.M.	Delphi / Harrison	HR6 / HD6 / HT6	12345923	PAG 150	8	237
G.M.	Delphi / Harrison	R4	12345923	PAG 150	4-5	118-148
G.M.	Nippondenso	10PA	ND8	PAG 46	6-7	177-207
G.M.	Sanden	SD7	SP20	PAG 100	5	148
G.M.	Sanden	SD5	SP20	PAG 100	6	177
Geo	Nippondenso	10PO	ND8	PAG 46	5-6	148-177
G.M. Saturn	Diesel Kiki/Zexel	DKV	ZXL200	PAG 150	6-7	177-207

R-134a LUBRICANT REFERENCE CHART

The Following Compressors Utilize Factory Filled PAG Lubricants.

VEHICLE MANUFACTURER	COMPRESSOR MANUFACTURER	COMPRESSOR MODEL	OEM LUBRICANT NUMBER	CoolPro LUBRICANT VISCOSITY	SYSTEM LUBRICANT CAPACITY	
					OUNCES	MILLILITERS
G.M. Saturn	Diesel Kiki/Zexel	DCV	ZXL200	PAG 150	5-6	148-177
Honda	Sanden	TR	SP10	PAG 46	6	177
Honda	Sanden	SD	SP20	PAG 100	5-6	148-177
Honda	Nippondenso	10P	ND8	PAG46	6-7	177-207
Honda	Nippondenso	HADSYS. 7 Cyl.	SP10	PAG 46	5-6	148-177
Hyundai	Ford	FS10	YN12 / 12A	PAG 46	7	207
Hyundai	Halla	FX15 / HS10	FD46X6	PAG 46	6-7	177-207
Infiniti	Zexel	-	Type R	PAG 150	4-5	118-148
Infiniti	Calsonic	CVW	Type S	PAG 46	7-8	207-237
Infiniti	Zexel	-	Type S	PAG 46	6-7	177-207
Isuzu	Zexel	-	ZXL100	PAG 46	4-5	118-148
Isuzu	G.M.	V5	12345923	PAG 150	8	237
Isuzu	Diesel Kiki/Zexel	KC50	ZXL200	PAG 150	5-6	148-177
Isuzu	Diesel Kiki/Zexel	Rotary	ZXL100	PAG 46	4-5	118-148
Jaguar	Sanden	SD7H	SP20	PAG 100	5	148
Jaguar	Sanden	SD	SP20	PAG 100	6	177
Lamborghini	Sanden	SD7	SP20	PAG 100	5	148
Lancia	Sanden	SD7	SP20	PAG 100	5	148
Land Rover	Sanden	TRS	SP10	PAG 46	4	118
Land Rover	Sanden	SD7	SP20	PAG 100	5	148
Lexus	Nippondenso	10PA	ND8	PAG 46	6-7	177-207
Lotus	Sanden	SD	SP20	PAG 46	6	177
Mazda	Panasonic	Rotary	ATM0S10	PAG 46	3-4	89-118
Mazda	Nippondenso	TV	ND9	PAG 100	6	177
Mazda	Ford	FS10	YN12 / 12A	PAG 46	7	207
Mazda	Sanden	SD	SP20	PAG 100	5	148
Mercedes	Nippondenso	6CA	ND8	PAG 46	8-9	237-266
Mercedes	Nippondenso	10P / 10PA	ND8	PAG 46	6-7	177-207
Mitsubishi	Mitsubishi	FX / MSC	P56	PAG 46	4-5	118-148
Mitsubishi	Nippondenso	10P / 10PA	P56	PAG 46	6-7	177-207

R-134a LUBRICANT REFERENCE CHART

The Following Compressors Utilize Factory Filled PAG Lubricants.

VEHICLE MANUFACTURER	COMPRESSOR MANUFACTURER	COMPRESSOR MODEL	OEM LUBRICANT NUMBER	CoolPro LUBRICANT VISCOSITY	SYSTEM LUBRICANT CAPACITY	
					OUNCES	MILLILITERS
Nissan	Diesel Kiki/Zexel	DKV / DCV	Type R	PAG 150	6-7	177-207
Nissan	Calsonic	Rotary	Type S	PAG 46	6-7	177-207
Nissan	Diesel Kiki/Nihon	DKS / Rotary	Type S	PAG 46	7-8	207-237
Nissan	Diesel Kiki/Zexel	DKV / Rotary	ZXL200	PAG 150	6-7	177-207
Opel	Delphi / Harrison	V5	12345923	PAG 150	8	237
Porsche	Nippondenso	10P	ND8	PAG 46	6-7	177-207
Peugeot	Sanden	SD7	SP20	PAG 100	5	148
Renault	Sanden	SDV	SP10	PAG 46	4	118
Renault	Sanden	SD7	SP20	PAG 100	5	148
Renault	Sanden	TRS	SP10	PAG 46	4	118
Rolls Royce	Sanden	SDV	SP10	PAG 46	4	118
Rover	Sanden	SD7	SP20	PAG 100	5	148
Rover	Sanden	SDV	SP10	PAG 46	4	118
Rover	Nippondenso	10P	ND8	PAG 46	6-7	177-207
Saab	Seiko Seiki	SS	S10X	PAG 46	5-6	148-177
Seat	Sanden	SDV	SP10	PAG 46	4	118
Skoda	Sanden	SD7	SP20	PAG 100	5	148
Subaru	Zexel	Rotary	Type R	PAG 150	6-7	177-207
Subaru	Diesel Kiki	15CH	ZXL100	PAG 46	6	177
Suzuki	Sanden	SD	SP20	PAG 100	6	177
Suzuki	Nippondenso	10P	ND8	PAG 46	6-7	177-207
Toyota	Nippondenso	10P / 10PA	ND8	PAG 46	6-7	177-207
Toyota	Nippondenso	TV	ND9	PAG 100	6	177
Vauxhaul (GM)	Delphi / Harrison	V5	12345923	PAG 150	8	237
Volkswagen	Sanden	SD / SD7	SP20	PAG 100	5-6	148-177
Volkswagen	Sanden	SDV	SP10	PAG 46	4	118
Volvo	Seiko Seiki	SS	S10X	PAG 46	5-6	148-177
Volvo	Sanden	SD / SD7	SP20	PAG 100	5-6	148-177

R-134a LUBRICANT REFERENCE CHART

The Following Compressors Utilize Factory Filled POE Lubricants.
POE 100 Lubricant Can Be Used For Retrofitting All R-12 Compressor Models.

VEHICLE MANUFACTURER	COMPRESSOR MANUFACTURER	COMPRESSOR MODEL	OEM LUBRICANT #	SYSTEM LUBRICANT CAPACITY (OUNCES)
Jaguar	Sanden	SD7H15	POE 100	5
Jaguar	Sanden	SD5H15	POE 100	6
Jaguar	Delphi / Harrison	R4	POE 100	5.5-6.5
Jaguar	Diesel Kiki	DKS	POE 100	5-6
SAAB	Seiko Seiki	SS170PSS	POE 100	6-7
SAAB	Seiko Seiki	SS808	POE 100	6
SAAB	Sanden	SD5H15	POE 100	6
Volvo	Diesel Kiki	DKS	POE 100	6-6.5
Volvo	Sanden	SD510	POE 100	5

R-134a LUBRICANT REFERENCE CHART

CAUTION: **While great care was taken to construct these charts with OEM information, it is always best to consult with the compressor or vehicle manufacturer on the exact lubricant type and capacity. This information can also be found on each compressor model tag.**

COMPRESSOR OIL CHECK (ALL COMPRESSORS)

When servicing refrigerant oil, ensure correct oil is used. Current mineral oil lubricants used with R-12 systems do not provide adequate lubrication for R-134a systems. New synthetic oils, made from polyalkylene glycol (PAG), have been developed to use in R-134a systems.

For R-134a systems, it is very important that A/C system labels and compressor labels are referenced when it's necessary to add oil to a system. Not all PAG oils are the same. Vehicle and compressor manufacturers will specify the oil used. As an example, Lexus vehicles with a 10P / 10PA swashplate (piston) compressor use PAG (ND-OIL 8), and the rotary vane compressor uses PAG (ND-OIL 9).

The oil level on some compressors may be checked with the compressor mounted in the vehicle. Other compressors may have to be removed for oil measurement and adding. The system must be discharged of refrigerant first (or compressor may be isolated as previously described, if equipped with stem type service valves).

Only new, pure, moisture free refrigerant oil should be used in the A/C system. Refrigeration oil is highly refined and dehydrated. Therefore, the oil container must always be kept tightly closed when not in use. If the container is left uncapped, even for a short time, moisture will be absorbed from the atmosphere by the oil and be introduced into the air conditioning system.

If possible, run the engine and system for about 10 minutes to allow proper oil distribution through the system.

If the compressor oil level is checked with a dipstick, each ounce of new refrigerant oil added to the compressor will raise the dipstick reading approximately 1/4". Replace the oil plug sealing gasket or O-ring.

On R-12 and R-134a systems, refrigerant oil is also available in "charging cans", which are added to the system in the same manner as adding refrigerant. These cans also contain refrigerant and are added to the system during charging procedures. The cans are usually 4 oz. cans; two ounces of oil and two ounces of refrigerant.

TYPICAL OIL REPLACEMENT FOR INDIVIDUAL COMPONENTS

NOTE: *The following is a general rule of thumb. Refer to an appropriate service manual for oil capacities on a specific vehicle.*

If no major oil loss has occurred in the system, and only a single component has to be replaced, oil can be added to the specific component. Use amounts shown below:

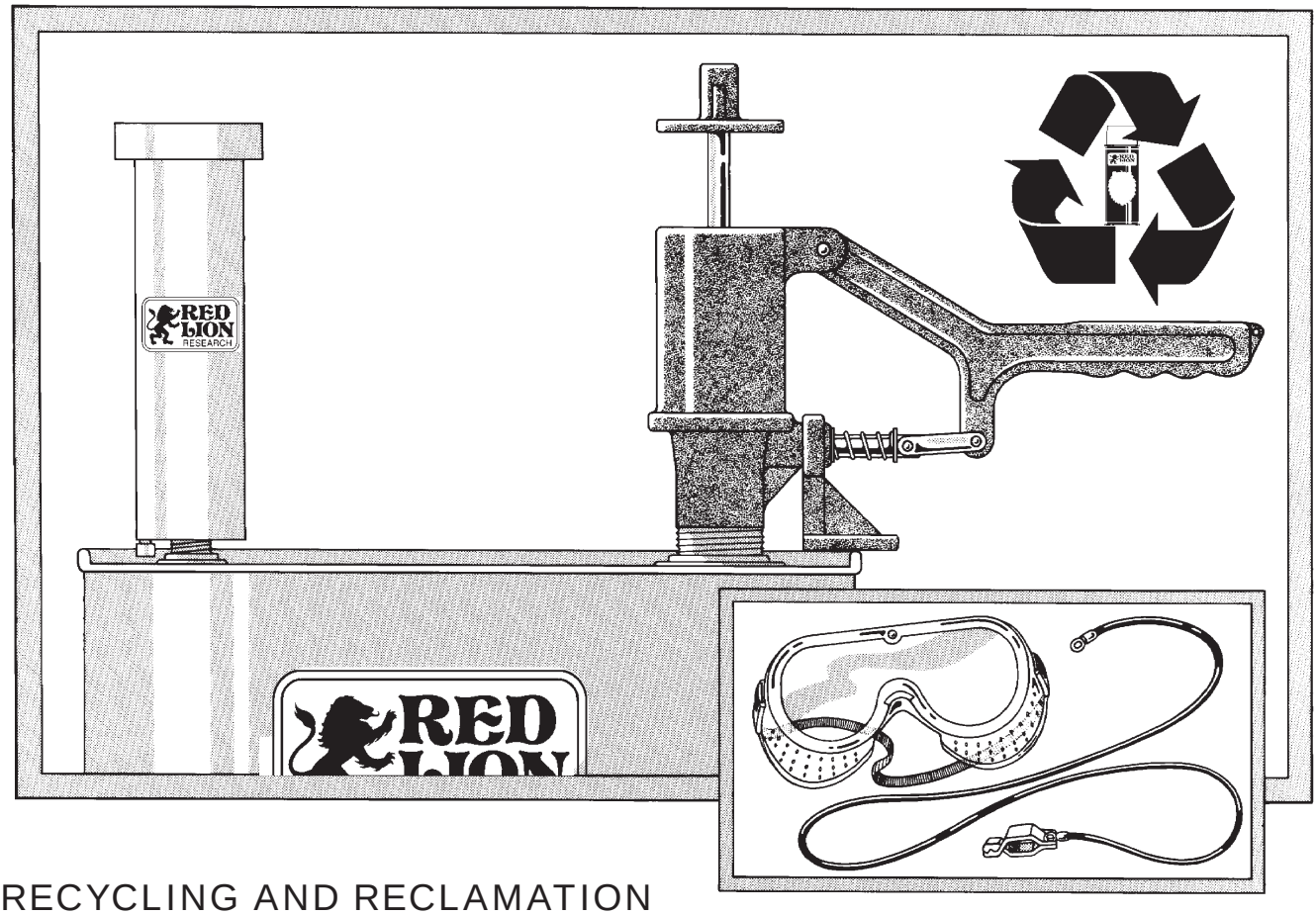
- Condenser, one ounce
- Receiver-drier, one ounce
- Desiccant bag in VIR, one ounce plus amount drained from receiver-drier
- Evaporator, 3 ounces
- Accumulator, 3 ounces

NOTE: *Oil distributes itself through the system during operation. It is not always necessary to place the oil in the component being replaced. It is however, important that the oil does get introduced in to the system. If the compressor is being replaced, the oil should be put in it, instead of elsewhere.*

RED LION™ CAN PUNCTURING SYSTEM

ORGANIZE YOUR WASTE HANDLING ... RECYCLE AEROSOL CANS

AVOID COSTLY DISPOSAL FEES AND HAZARDOUS WASTE FINES



RECYCLING AND RECLAMATION

- Once relieved of contents, punctured aerosol cans are not regulated and may be recycled as scrap metal or disposed of as solid waste.
- Residual liquids, released by RED LION Can Puncturing System and collected in drum, may be eligible for reclamation through a hazardous waste handler, resulting in "waste minimization" credits.

SAFETY

- Allows puncturing of aerosol cans without worker contact. The can is secured in the puncturing housing and with a press of the handle, the puncture pin moves through a fluid-tight chamber and pierces the can.
- RED LION Can Puncturing System leaves no sharp edges or crushed metal, the only effect on the can is a small, smooth-edged hole.
- Residual contents are safely collected in the drum.
- The Combination Carbon/Coalescing Filter collects V.O.C.'s in filter reservoir.
- An anti-static wire enhances operational safety, required under Federal and Local codes.
- RED LION Can Puncturing System will not allow unsafe usage. Propane bottles or aerosol cans inserted improperly cannot be punctured.

RED LION™ CAN PUNCTURING SYSTEM

CONVENIENCE

- The unit and filter thread directly into the bungs of any standard 55, 35 or 20 gallon drum.
- It's portable, weighing only 5 pounds.
- Does not require a power source and is easily operated by hand.
- Collects residual contents directly into the drum. (Most industrial solvents, lubricants, paints and cleaners can be collected in the same drum. Caustics and pesticides should be collected in 2 separate drums).
- Increases opportunities for recycling and waste minimization.
- Accommodates most standard sizes of aerosol cans.

CONSTRUCTION

- Made of aircraft aluminum, requiring no maintenance.
- All moving parts are 308 stainless steel for durability.
- Puncturing pin is O-ring sealed to prevent leakage. Grease packing lubricates puncturing pin chamber with each use.
- Carbide-tipped puncturing pin withstands repeated, long-term use, showing no visible wear after puncturing over 10,000 cans.

COMBINATION FILTER

- Threads directly into the 3/4" bung of any standard drum, effectively filtering and collecting V.O.C.'s.
- Comprises a coalescing lower portion, which removes airborne organic compounds, and an activated carbon upper portion, which absorbs odor. The coalescing portion combines submicrometer aerosol particulate into droplets which are gravitationally drained into the filter reservoir.
- Rain Hood on filter provides protection from elements for outdoor use.

COST SAVINGS

- Approximate cost of disposal of a 55 gallon drum of aerosol cans (approx. 96 cans) ..... $450 or $4.690/can
- Approximate cost of disposal of liquid hazardous waste from 4,000 "essentially empty" aerosol cans (one 55 gallon drum) ..... $300 or $.075/can

  Savings per can $4.615/can

The cost of the RED LION Can Puncturing System can be recouped in the first 100 cans!

P/N	DESCRIPTION	SHIPPING WEIGHT
1701	RED LION Can Puncturing System (1 Puncturing Unit, 1 Filter, 1 Anti-Static Wire, 1 Pair Safety Goggles)	8 lbs.
1702	Coalescing Carbon Filter for Puncturing Unit Puncturing Unit	1 lb.

RED LION™ CAN PUNCTURING SYSTEM
QUESTIONS AND ANSWERS

INTRODUCTION

RED LION Can Puncturing System is a solution to the expense of solid waste disposal of aerosol cans. RCRA regulations require that, unless relieved of pressure, aerosol cans be packed in a drum and manifested for solid hazardous waste disposal. A drum holds 96 cans and costs as much as $1,500 for proper transportation and disposal. With RED LION Can Puncturing System, the cans are not solid hazardous waste, but are fully recyclable.

PUNCTURING UNIT

Q. ***How is it operated?***

A. The RED LION Can Puncturing System threads directly to the 2" bung of a 55-gallon drum. The filter is installed on the 3/4" bung. The aerosol can is inserted (inverted) into the housing. The sliding cap is lowered and locked into place. The handle is pressed and immediately released. You will hear the contents being released into the drum.

Q. ***Must RED LION Can Puncturing System be installed only on 55-gallon drums?***

A. No, all industry standard drums have 2" and 3/4" bung openings. However, this system should not be installed on drums smaller than 20-gallon capacity to allow proper displacement of compressed gas released during puncturing.

Q. ***How long does it take to puncture cans with RED LION Can Puncturing System?***

A. It only takes 15-20 seconds for the can to be depleted after puncturing. One customer has punctured as many as 1,200 cans on a one-man seven-hour shift.

Q. ***Will the Puncturing Unit accept any size aerosol can?***

A. The system is designed to puncture any industry standard aerosol can, regardless of the length. The standard unit will not puncture "jumbo" aerosol cans or 1" mini-diameter cans. A special-order unit is available for that purpose.

Q. ***How much can scrap steel recycling be increased with the Can Puncturing System?***

A. Generally, four aerosol cans equal a pound of steel. American industry consumes 3-billion aerosol cans per year, amounting to 375,000 tons of steel.

Q. ***How many spent aerosols can be punctured into a drum?***

A. Approximately 4,200 cans can be punctured before the drum is at maximum recommended capacity. The drum should not be filled more than 75% full, to provide proper displacement for the released contents.

Q. ***What do you do with the drum of liquids once it is at the recommended "full" capacity?***

A. Simply call the waste handler who is handling your other hazardous waste.

Q. ***Can the liquids collected into the drums be reclaimed or recycled?***

A. Yes, if chlorinated and non-chlorinated liquids are collected into separate drums. Chlorinated liquids (primarily solvents) can be recycled in-house as "parts cleaning solvent"; non-chlorinated liquids (primarily paints) can be reclaimed. Either method may qualify for "waste minimization credit".

Q. ***Are there any aerosols that should not be co-mingled when collected into the drum?***

A. Yes, caustics (such as oven cleaners) and pesticides should not be collected into a drum with other liquid residuals. They can, however, be collected into segregated single-content drums designed either "pesticides only" or "caustics only".

Q. ***Are all aerosols considered hazardous waste?***

A. Yes, but not because of the primary product they contained. Spent aerosol cans would be considered empty, and exempt from regulation, were it not for the fact that the compressed gas propellant is reactive to heat and is still present in an empty can (40 CFR 261.23 (a) (6)).

Q. ***Is the puncturing of aerosol cans with RED LION Can Puncturing System considered treatment?***
A. No, according to the Office of Solid Waste and Emergency Response (OSWER), which stated that "the puncturing, crushing, or shredding of non-empty aerosol cans which contain hazardous waste does not constitute treatment pursuant to 260.10, and a RCRA permit or compliance with other hazardous waste management regulations is not required. (Source Document: OSWER Directive #9432.012 (80)).

Q. ***What does it cost to dispose of the collected liquids into the drum?***
A. A Hazardous Waste handler will charge from $275 to $350 per 55-gallon drum for proper transportation and recycling, reclamation and/or disposal. This represents the total disposal cost for the residual liquids of 4,200 spent aerosol cans. This compares to solid waste disposal cost of unpunctured aerosol cans of $650 to $1,200 per 96 cans! On a direct comparison of 4,200 spent cans, the cost saving with RED LION Can Puncturing System ranges from $28,000 to $52,000.

FILTER

Q. ***How does the filter work?***
A. It is composed of two parts: a coalescing lower portion and an activated carbon upper portion. The coalescing portion collects microscopic airborne liquids from the gas and combines them into droplets which collect within the filter chamber. The activated carbon absorbs oxygen and odor from the "dry" gas which has passed through the coalescing portion. It effectively reduces VOC's from the escaping gas.

Q. ***Does any compressed gas remain in the drum?***
A. The compressed gas seeks escape through the point of least resistance, which is the filter. However, a minimal amount of gas may remain in the drum. By leaving the "last" can punctured within the housing until puncturing is resumed, an effective prolonged seal can be maintained.

Q. ***Can pressure build in the drum?***
A. The filter relieves at 3 psi, eliminating the possibility of unsafe pressure within the drum. Additionally, the activated carbon portion of the filter has been designed to serve as a highly efficient flame arrestor.

Q. ***When does the filter need to be changed?***
A. After 45-60 days, or after puncturing 1,200 spent aerosols, whichever comes first, because the activated-carbon will reach its maximum absorption level.

Q. ***Once used, is the filter considered hazardous waste?***
A. The filter is designed to allow draining prior to disposal. If drained, the filter would stay below the 3% by weight EPA allowance for non-regulated disposal. To drain filter, locate drain cock at bottom edge. Remove drain cock cover while holding filter over RED LION Can Puncturing System housing. Drain filter through housing directly into drum.

Q. ***Does the procedure require any permitting from the Air Quality Control Board?***
A. No, permitting is only required when processing 50 pounds or more per hour, which is not the case with aerosol cans. Permitting generally applies to gas-filling facilities: welding gases, large gas cylinders, etc.

ANTI-STATIC WIRE

Q. ***Why is the anti-static wire necessary?***
A. In many cases, there is an OSHA requirement for grounding of "vessels" to prevent any build-up of static electricity being transferred to a drum. The Anti-Static Wire grounds the drum and the RED LION Can Puncturing System unit simultaneously. The RED LION Can Puncturing System itself is not capable of generating a static charge. It is non-powered and utilizes a non-sparking carbide puncture pin.

RED LION™ CHEMICAL SELECTOR

APPLICATION:	AEROSOL & MISCELLANEOUS PROBLEM SOLVERS:		BULK PROBLEM SOLVERS:
1. Adhesives	E-Z Poxy™: 200, Aluminum, Aqua Repair, Concrete, Copper, Cups, Plastic and Wood E-Z Poxy™ Fast Set E-Z Poxy™ Metal and Concrete Drop-Tite™ Epoxy System Fast-Fix™ Epoxy Patch Kit	Fast-Fix™ Pipe & Hose Repair Kit Instant Adhesive Instant Adhesive Gel Liquid Electrical Tape Loctite® Thread Treatment Sticks RTV Black, Clear, Red and White Spray Adhesive PVC & CPVC Cements Pow-R-Bond Stud Lock and Bearing Mount Super Adhesive Sealant	
2. Automotive	Anti-Seize Anti-Seize II Battery Cleaner Battery Protector Belt Dressing Brake Cleaner N.C. Choke & Carb Cleaner 4-Way Plus Fast-Fix™ Pipe & Hose Repair Kit Gasket & Paint Remover	Gear Oil Insta-Clean™ Insta-Clean Wipes Insta-Shine™ Truck/Bus Protectant Penetrating Oil Prep-Solve RTV Black Gasket Maker RTV Red Hi-Temp Gasket Maker Safe-T-Line™ Engine Cleaner Super Impact Grease White Grease	Big Job™ Truck Wash Diesel Fuel Additive Super Gloss Wash-N-Wax™
3. Cleaning and Degreasing	A&R Tabs Citrus Grease Digester Degreaser Dis-N-Clean Easy-Out™ Stain Remover Glass Cleaner Glass Cleaner Wipes Insta-Clean™ Insta-Clean Wipes Prep-Solve Quick Clean	Quick Shine™ Metal Polish Quick-Solv Quick-Zorb™ QX1 Bath & Tile Cleaner QX1 Disinfectant Cleaner QX1 Glass Cleaner w/Anti-Stat QX1 Multi-Purpose Cleaner Safe-T-Line™ Glass Cleaner Safe-T-Line™ H.D. Citrus Cleaner/Degreaser Safe-T-Line™ Kleen & Shine™ Safe-T-Line™ No-Scrub™ Cleaner	Aluminum Brite™ Citrus Grease Digester Clear View™ H.D. Citrus Cleaner/Digester
4. Drain & Sewer	Drain Opener		Citrus Grease Digester Lift-Out™ Lift Station Degreaser N-Zyme™ Drain Maintenance
5. Equipment	Coil and Filter Cleaner Degreaser		Aluminum Brite Coil and FIlter Cleaner Equipment Clean Stem Clean Steam Clean HD Super Clean X-tra Clean™
6. Floor Care	Easy-Out™ Stain Remover		Floor Glo™ and Super Stripper™
7. Grounds Care	Concrete Crack Repair Quick Clean	Safe-T-Line™ No-Scrub Cleaner Vanish	Vanish
8. Hand Cleaning (Skin Care)	Hand Sanitizing Gel H.D. Citrus Scrub H.D. Citrus Wipes PVA Hand Cleaner	Hand Soaps Pow-R-Scrub Hand Cleaner	

RED LION™ CHEMICAL SELECTOR

APPLICATION:	AEROSOL & MISCELLANEOUS PROBLEM SOLVERS:		BULK PROBLEM SOLVERS:
9. Maintenance and Workbench	Air Tool Conditioner Anti-Seize Anti-Seize II Contact Cleaner Contact Cleaner P.S. Cutting Fluid III 4-Way Plus Penetrating Oil	Safe-T-Line™ Hydro-Cool Tool Coolant Stor-Safe™ Rust Inhibitor Stud Lock & Bearing Mount Threadlocker Tool Cool II Toolube Loctite® Thread Treatment Sticks	4-Way Plus Synthetic Cutting Fluid
10. Pests	Ant & Roach Spray	Insect Repellent Wasp & Hornet Killer	
11. Odor Control	A&R Tabs Baby Powder Odor Eliminator Safe-T-Line™ Smoke & Odor Eliminator	Quick-Zorb QX1 Odor Eliminator	Odor Eliminator Odor Eliminator SC Pleasant Scent Pleasant Scent Green Apple
12. Paints and Coatings	Ceiling Tile Spray White Caterpillar – Old Caterpillar – New Clear Epoxy Grit Cold Zinc Galvanizing Gasket & Paint Remover Pro-Coat™ Stainless Steel Protective Coating Red Insulating Varnish Rust-Away™ Rust Conversion Coating Rust-Away II Stor-Safe Rust Inhibitor Striping & Marking Paints	Pro-Coat™ Paints: Gloss Black Gloss White Gray Primer Hi-Temp Flat Black Industrial Gray OSHA Blue OSHA Green OSHA Red Phosphorescent Red Oxide Primer Undercoat	
13. Sealers and Protectors	Insta-Shine™ Truck/Bus Protectant Pro-Tex RTV Black Gasket Maker RTV Blue Gasket Maker RTV Clear Gasket Maker	RTV Red Hi-Temp Gasket Maker RTV White Gasket Maker Stor-Safe™ Rust Inhibitor Super Adhesive/Sealant Teflon Pipe Sealant Thread Sealant Hydraulic/ Pneumatic	
14. Solvents and Degreasers	Battery Cleaner Battery Cleaner N.C. Contact Cleaner E.S.	Degreaser Safety Solvent E.S. Safety Solvent III	Equipment Clean Safety Solv 2000™
15. Specialty Lubricants	Anti-Seize Anti-Seize II Anti-Seize Aluminum Anti-Seize Copper Blue Grease Cable & Chain Core Lube Chain Lube and Clear Lube Dielectric Grease 4-Way Plus Hi-Temp Grease Lithium Grease White Low-Temp Grease	Moly Dry Lube Penetrating Oil Pro-Pull™ Wire Pulling Lube Red Grease Safe-T-Line™ Red Grease Safe-T-Line™ Silicone Silicone, Silicone FG Super Impact Grease PTFE Dry Lube TFG Grease White Grease	
16. Miscellenaous	Dust Blaster Max No-Stick™ Welder's Anti-Spatter		

REPRINT OF TEST RESULTS OF RED LION CAN PUNCTURING SYSTEM. MANUFACTURED BY KATEC, INC.

TEST REPORT NO: 20520.01

StarScan™ Test Services

prepared for

Katec, Incorporated

May 21, 1992
STAR Laboratories
St. Paul, MN

ABSTRACT

Capsule exhaust filters for use with Katec's pressurized paint can disposal system were tested for VOC removal and total hydrocarbon emissions during the puncturing process. The results were compared with STEL values for each of the VOC's tested and the desired 300 ppm hydrocarbon emission concentration. In addition, calculations were performed to determine the maximum number of cans which could be processed per drum per day given a maximum discharge of 15 pounds per drum per day limitation.

DAILY PROCESSING LIMITATION

Given the limitation of 15 pounds of propellent per day per drum, we have quantified the number of cans which may be processed per day based upon the information supplied:

1. 97% of all cans are basically empty.
2. 3% of the cans range from nearly empty to full.
3. The propellent accounts for 1/3 of the amount of fluid in a full can.

By weighing cans before and after puncturing, it was determined that full cans had 15 oz. of fluid and empty cans contained 1% of the original fluid weight. For purposes of calculation, we have assumed the 3% fraction of cans which range from empty to full to be half full.

Consequently, the number of cans, *X*, which may be punctured per day per drum given the above conditions is:

[(97% of cans) x (1% full) x (15 oz./full can) x (33% propellent)] x (*X*)
+ [(3% of cans) x (50% full) x (15 oz./full can) x (33% propellent)] x (*X*)
= (15 pounds propellent/day/drum) x (16 oz./pound)

or,

$$(0.97)(0.01)(15)(0.333)X + (0.03)(0.50)(15)(0.33)X = (15)(16)$$

$$0.124X = 240$$

$$X = 1{,}935 \text{ cans/day/drum}$$

Therefore, 1,935 cans per day per drum may be punctured given the limitation of 15 pounds of propellent per day per drum.

VOC REMOVAL TESTING

METHOD

The test filter was tested by puncturing a paint can into a full drum (a 55 gallon drum filled approximately 10" from top). For each paint can tested, all of the effluent from the filter was collected in Kevlar bags and a known volume sample was drawn through one or two carbon media tubes. The tubes were then analyzed using a gas chromatagraph to determine the concentration of Acetone, Methyl Ethyl Ketone (MEK), Toluene and Xylene in the effluent.

RESULTS — RUSTOLEUM PAINT, GLOSS WHITE, 15 oz. CAN

	CONCENTRATION (ppm)			
	ACETONE	**MEK**	**TOLUENE**	**XYLENE**
OHSA LIMITS (STEL[1])	1,000	300	150	150
NO FILTER	39	1	3,870	3,131
W/FILTER, full can (15 oz.)	>54[2]	2	48	4
W/FILTER[3], full can (15 oz.)	55	2	48	8
W/FILTER, empty can (<1 oz.)	<9	<7	<5	<4

[1]STEL = Short Term Exposure Limit, — Exposure allowed in 15 minute period.
[2]Slightly greater than 54 ppm limit of single tube sampling tube.
[3]Sampled with two sampling tubes for Acetone determination

continued ➤

TOTAL HYDROCARBON EMISSIONS

METHOD

A Flame Ionizing Detector (FID), calibrated to Methane, was used to measure the amount of hydrocarbon emissions at two points six inches away from the filter. The first point was directly above the center of the filter, and the second was to the side, toward the operator at a height even with the top of the filter. At each point, two cans of nearly empty Rustoleum dark gray auto primer (12 oz. cans) were punctured and the maximum readings were recorded on the FID.

CONDITIONS

1. 55 gallon drum: filled to approximately 10 inches from the top with water and paint.
2. Test filter through which one empty 15 oz. can (fumes only) had been discharged through filter prior to these tests.
3. Outlet concentration readings with FID with no filter exceeded FID limitation of 1,000 ppm.

RESULTS

CAN % FULL	TOP OF FILTER (ppm)	SIDE OF FILTER (ppm)
11	100	—
1	80	—
1	—	100
1	—	80

SUMMARY

It was calculated that 1,935 used paint cans/day/drum may be punctured for disposal and discharge less than the 15 pounds/drum/day limitation given a standard mix of 97% nearly empty cans (1% full) and 3% empty to full cans (averaging 50% full).

With the use of the filter, the effluent concentration of VOC's was significantly less than the STEL for each of the hydrocarbons tested (Acetone, MEK, Toluene and Xylene).

With the use of the filter, the total hydrocarbon concentration measured at points 6" from the filter during the puncturing process was 80-100 ppm, significantly less than the 300 ppm desired limitation.

Date: May 21, 1993

Name: Eric C. Stanton

Title: Mechanical Engineer, R&D Dept.

STAINLESS AND BRASS FASTENERS

- **316 and 18-8 Stainless Steel Alloy Fasteners for Superior Resistance to Rust, Corrosion, Acids and Chemicals**
- **Hex Head and Socket Cap Screws, Set Screws, Machine Screws, Metal Screws and Threaded Rod**
- **Quality Brass Machine Screws, Nuts and Washers**

CHROMATE STAINLESS AND BRASS FASTENERS ASSURE FAST, EASY INSTALLATION FOR THOUSANDS OF APPLICATIONS. Manufactured from the finest materials, they prove to be stronger and more durable. Always use Chromate Stainless and Brass Fasteners when quality and reliability are of utmost importance.

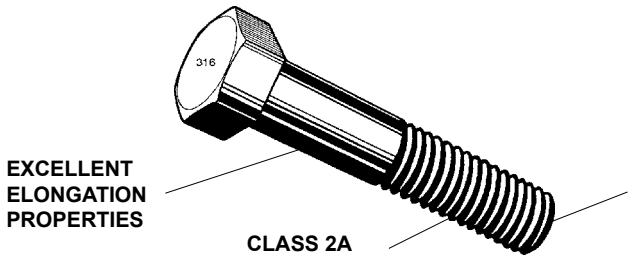
CHROMATE INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

316 STAINLESS STEEL CAP SCREWS

HEX HEAD

Superior corrosion resistance to chemicals and sea water. High molybdenum content, high temperature strength and non-magnetic.

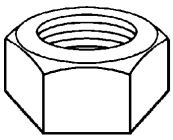


LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		1/2 DIA.		5/8 DIA.	3/4 DIA.
	USS 20	SAE 28	USS 18	SAE 24	USS 16	SAE 24	USS 13	SAE 20	USS 11	USS 10
1/2	T 13100		R 13143		R 13605		-		-	
3/4	T 13106		R 13149		R 13186		-		-	
1	T 13109		R 13152		R 13189		L 13246	E 13609	I 13613	
1-1/4	R 13112	N 13601	R 13155	K 13603	R 13192		I 13608	E 13610	E 13281	
1-1/2	R 13115		R 13158		N 13195		L 13252		E 13282	
1-3/4	R 13118	N 13602	-	I 13604	N 13198	I 13607	L 13253	B 13611	E 13283	
2	R 13121		R 13164		N 13201		I 13258	C 13612	E 13286	C 13614
2-1/4	R 13600		-		L 13606		I 13259		E 13287	
2-1/2	R 13124		N 13167		L 13204		I 13261		E 13288	C 13615
2-3/4	-		-		-		-		E 13289	
3	R 13127		N 13170		L 13207		E 13264		E 13290	C 13616
3-1/2	-		N 13171		-		E 13267		E 13292	B 13617
4	-		N 13172		L 13209		-		E 13294	
5	-		-		-		-		E 13296	

316 STAINLESS STEEL NUTS AND WASHERS

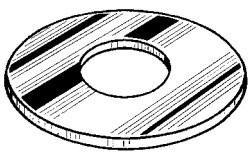
USE WITH 316 STAINLESS STEEL CAP SCREWS

HEX NUTS



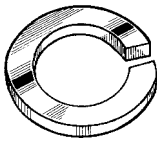
SIZE	TPI		WAF	HGT	PART	
	USS	SAE			USS	SAE
1/4"	20	28	7/16	7/32	T 13300	T 13301
5/16"	18	24	1/2	17/64	T 13302	T 13303
3/8"	16	24	9/16	21/64	T 13304	R 13305
1/2"	13	20	3/4	7/16	R 13308	N 13309
5/8"	11	18	15/16	35/64	N 13312	-
3/4"	10	16	1-1/8	41/64	N 13314	-

FLATWASHERS



SIZE	I.D.	O.D.	PART
1/4"	9/32	5/8	T 13510
5/16"	11/32	11/16	T 13512
3/8"	13/32	13/16	T 13514
1/2"	17/32	1-1/16	R 13518
5/8"	21/32	1-5/16	R 13522
3/4"	13/16	1-7/8	I 13524

LOCKWASHERS

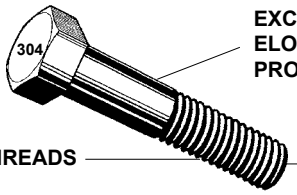


SIZE	PART
1/4	U 13410
5/16	T 13412
3/8	T 13414
1/2	R 13418
5/8	N 13422
3/4	N 13424

18-8 STAINLESS STEEL CAP SCREWS

HEX HEAD

Resists rust, corrosion, acids and chemicals.



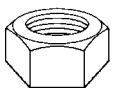
7817 & 17917

LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		7/16 DIA.	1/2 DIA.	5/8 DIA.	3/4 DIA.
	USS 20	SAE 28	USS 18	SAE 24	USS 16	SAE 24	USS 14	USS 13	USS 11	USS 10
1/2	T 14100	-	T 14143		R 14180		-	-	-	-
5/8	T 14103	-	T 14146		R 14183		-	-	-	-
3/4	T 14106	T 14105	T 14149	R 14148	R 14186	R 14185	-	N 14243	-	-
1	T 14109	T 14108	T 14152	R 14151	R 14189	R 14188	N 14220	N 14246	-	-
1-1/4	T 14112	-	R 14155		R 14192		N 14223	N 14249	I 14280	I 14381
1-1/2	T 14115	T 14114	R 14158	R 14157	N 14195	N 14194	N 14226	L 14252	I 14282	I 14382
1-3/4	T 14118	-	R 14161		N 14198		N 14228	L 14255	I 14284	I 14383
2	R 14121	R 14120	N 14164	N 14163	N 14201	N 14200	N 14230	L 14258	I 14286	I 14384
2-1/4	-	-	-	-	-	-	-	L 14259	-	-
2-1/2	R 14124	-	N 14167		N 14204		L 14233	L 14261	I 14288	E 14386
2-3/4	-	-	-	-	-	-	-	-	I 14289	
3	N 14127	-	L 14170		L 14207		L 14236	L 14264	I 14290	E 14388
3-1/2	N 14130	-	L 14173		L 14210		-	I 14267	E 14292	E 14390
4	L 14133	-	L 14176		L 14213		-	I 14270	E 14294	E 14392
5	L 14136	-	I 14177		I 14216		-	E 14273	E 14296	E 14394
5-1/2	-	-	-	-	-	-	-	E 14274	C 14297	B 14395
6	-	-	I 14179		-		-	E 14275	E 14298	E 14396

18-8 STAINLESS STEEL NUTS AND WASHERS

FOR 18-8 STAINLESS STEEL CAP SCREWS

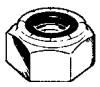
HEX NUTS



7817 & 17917

SIZE	TPI USS	TPI SAE	WAF	HGT	PART USS	PART SAE
1/4"	20	28	7/16	7/32	T 14300	T 14301
5/16"	18	24	1/2	17/64	T 14302	T 14303
3/8"	16	24	9/16	21/64	T 14304	T 14305
7/16"	14	20	11/16	3/8	R 14306	T 14307
1/2"	13	20	3/4	7/16	N 14308	R 14309
9/16"	12	18	7/8	31/64	N 14310	-
5/8"	11	18	15/16	35/64	L 14312	N 14313
3/4"	10	16	1-1/8	41/64	L 14314	N 14315
7/8"	9	14	1-5/16	3/4	I 14316	-
1"	8	14	1-1/2	55/64	E 14318	C 14319
1-1/8"	7	14	-	-	C 14320	-

NYLON LOCK NUTS



- SPECIAL PRIME STAINLESS STEEL
- ONE-PIECE NYLON INSERT FOR POSITIVE 360° LOCKING
- REUSABLE
- CHROMATE PROTECTIVE PLATING

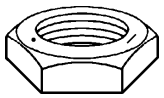
17840 & 17937

SIZE	TPI USS	TPI SAE	WAF	PART USS	PART SAE
1/4"	20	28	7/16	T 14350	T 24350
5/16"	18	24	1/2	T 14351	T 24351
3/8"	16	24	9/16	T 14352	T 24352
7/16"	14	20	5/8	N 14353	N 24353
1/2"	13	20	3/4	N 14354	N 24354
9/16"	12	18	7/8	B 14358	B 24358
5/8"	11	18	15/16	I 14355	I 24355
3/4"	10	16	1-1/8	E 14356	E 24356
7/8"	9	14	1-5/16	E 14359	E 24359
1"	8	14	1-1/2	B 14357	B 24357

HEX JAM NUTS

- IDEAL FOR CHEMICAL MACHINE AND OTHER CORROSIVE ENVIRONMENTS
- COARSE AND FINE THREADS

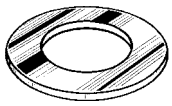
17823



SIZE	TPI USS	TPI SAE	WAF	PART USS	PART SAE
1/4"	20	28	7/16	T 15850	T 15870
5/16"	18	24	1/2	T 15851	T 15871
3/8"	16	24	9/16	T 15852	T 15872
7/16"	14	20	11/16	T 15853	R 15873
1/2"	13	20	3/4	R 15854	R 15874
5/8"	11	18	15/16	R 15856	N 15875
3/4"	10	16	1-1/8	N 15857	N 15876
7/8"	9	14	1-5/16	I 15858	E 15877
1"	8	14	1-1/2	E 15859	B 15878

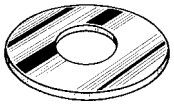
18-8 STAINLESS STEEL NUTS AND WASHERS (Cont'd.)

SAE MS FLATWASHERS



SIZE	I.D.	O.D.	PART
1/4	9/32	5/8	U 14460
5/16	11/32	11/16	T 14462
3/8	13/32	13/16	T 14464
7/16	15/32	59/64	T 14466
1/2	17/32	1-1/16	T 14468
9/16	19/32	1-3/16	R 14470
5/8	21/32	1-5/16	R 14472
3/4	13/16	1-1/2	R 14474
7/8	15/16	1-3/4	L 14476
1	1-1/16	2	L 14478

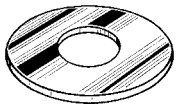
USS COMM. FLATWASHERS



SIZE	I.D.	O.D.	THICK	PART
1/4	9/32	5/8	.045	U 14510
5/16	11/32	3/4	.045	T 14512
3/8	13/32	1	.045	T 14514
7/16	1/2	1-1/8	.062	T 14516
1/2	17/32	1-1/4	.062	T 14518
9/16	5/8	1-3/8	.078	R 14520
5/8	11/16	1-1/2	.078	R 14522
3/4	13/16	1-7/8	.109	N 14524
7/8	15/16	2	.109	L 14526
1	1-1/16	2	.125	L 14528

USS MS FLATWASHERS

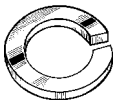
- MS 15795



SIZE	I.D.	O.D.	THICK	PART
1/4	5/16	3/4	.051-.080	T 15602
5/16	3/8	7/8	.064-.104	T 15606
3/8	7/16	1	.064-.104	T 15610
7/16	1/2	1-1/4	.064-.104	T 15614
1/2	9/16	1-3/8	.086-.132	R 15618
5/8	11/16	1-3/4	.108-.160	N 15622
3/4	13/16	2	.122-.177	N 15626
7/8	15/16	2-1/4	.136-.192	I 15630
1	1-1/16	2-1/2	.136-.192	I 15634

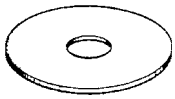
LOCKWASHERS

- HARDNESS 35Rc MIN.



SIZE	PART	SIZE	PART
1/4	U 14410	9/16	R 14420
5/16	T 14412	5/8	R 14422
3/8	T 14414	3/4	N 14424
7/16	T 14416	7/8	N 14426
1/2	T 14418	1	N 14428

FENDER WASHERS

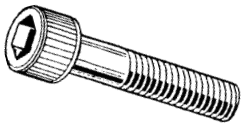


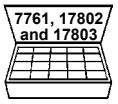
SIZE	O.D	I.D	PART	SIZE	O.D.	I.D.	PART
3/16	1	7/32	T 14430	5/16	1-1/2	11/32	T 14435
1/4	1	9/32	T 14431	3/8	1-1/4	13/32	T 14436
1/4	1-1/4	9/32	T 14432	3/8	1-1/2	13/32	T 14437
1/4	1-1/2	9/32	T 14433	1/2	2	17/32	N 14438
5/16	1-1/4	11/32	T 14434	–	–	–	–

18-8 STAINLESS STEEL CAP SCREWS

HEX SOCKET HEAD

- THREAD - CLASS 3A FIT. ANSI B1.1
- DIMENSIONS TO ANSI B18.3



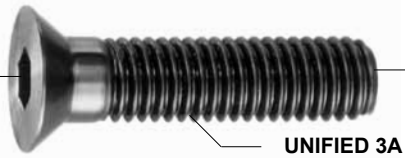


LENGTH	4-40	6-32	8-32	10-24	10-32	1/4-20	5/16-18	3/8-16	1/2-13
1/4	T 15102	T 15117	-	-	-	-	-	-	-
3/8	T 15105	T 15120	T 15138	T 15163	T 15188	T 15216	-	-	-
1/2	T 15108	T 15123	T 15141	T 15166	T 15191	T 15219	R 15247	R 15272	-
5/8	T 15111	T 15126	T 15144	T 15169	T 15194	R 15222	R 15250	N 15275	-
3/4	T 15114	T 15129	T 15147	T 15172	T 15197	R 15225	R 15253	N 15278	-
7/8	-	-	-	T 15175	T 15200	R 15228	N 15254	N 15279	-
1	T 15115	T 15130	T 15153	T 15176	T 15203	R 15231	R 15256	N 15281	I 15300
1-1/4	-	T 15131	R 15154	R 15178	R 15206	R 15234	R 15259	N 15284	I 15303
1-1/2	-	R 15132	R 15155	R 15181	R 15209	R 15237	N 15262	N 15287	I 15306
1-3/4	-	-	-	-	-	R 15240	N 15265	N 15290	I 15309
2	-	-	-	R 15183	R 15211	N 15243	N 15268	N 15293	I 15312
2-1/2	-	-	-	-	-	N 15244	N 15269	I 15294	I 15315
3	-	-	-	-	-	N 15245	I 15270	I 15295	E 15317
3-1/2	-	-	-	-	-	I 15246	E 15271	I 15296	E 15318
4	-	-	-	-	-	I 15248	E 15273	E 15297	B 15319

18-8 S/S HEX SOCKET CAP SCREWS

FLAT HEAD

DEEP SOCKET PROVIDES STRONGER HEX KEY ENGAGEMENT



SMOOTH, CHAMFERED END ASSURES EASY THREADING

17804 & 17805

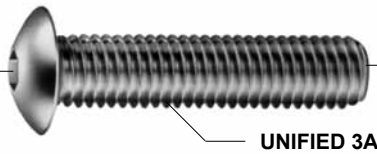
- DIMENSIONS TO ANSI B18.3

UNIFIED 3A THREAD FIT

LENGTH	NO. 4	NO. 6	NO. 8	NO. 10		1/4 DIA.	5/16 DIA.	3/8 DIA.	1/2 DIA.
	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	USS 18	USS 16	USS 13
1/4	T 47800	T 47805	T 47810	-	-	-	-		
3/8	T 47801	T 47806	T 47811	T 47815	47819	-	-		
1/2	T 47802	T 47807	T 47812	T 47816	47820	T 47823	R 47829		
3/4	T 47803	T 47808	T 47813	T 47817	47821	T 47824	R 47830	N 47835	I 47840
1	T 47804	T 47809	T 47814	T 47818	47822	T 47825	R 47831	N 47836	I 47841
1-1/4	-	-	-	-	-	R 47826	R 47832	N 47837	I 47842
1-1/2	-	-	-	-	-	R 47827	N 47833	N 47838	I 47843
2	-	-	-	-	-	R 47828	N 47834	I 47839	E 47844

BUTTON HEAD

DEEP SOCKET PROVIDES STRONGER HEX KEY ENGAGEMENT



SMOOTH, CHAMFERED END ASSURES EASY THREADING

17806 & 17807

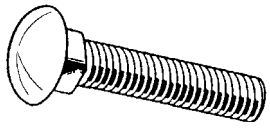
- DIMENSIONS TO ASME/ANSI B18.3

UNIFIED 3A THREAD FIT

LENGTH	NO. 4	NO. 6	NO. 8	NO. 10		1/4 DIA.	5/16 DIA.	3/8 DIA.	1/2 DIA.
	USS 40	USS 32	USS 32	USS 24	SAE 32	USS 20	USS 18	USS 16	USS 13
1/4	T 47850	T 47855	T 47860	-	-	-	-		
3/8	T 47851	T 47856	T 47861	T 47865	47869	-	-		
1/2	T 47852	T 47857	T 47862	T 47866	47870	T 47873	R 47879		
3/4	T 47853	T 47858	T 47863	T 47867	47871	T 47874	R 47880	N 47885	I 47890
1	T 47854	T 47859	T 47864	T 47868	47872	T 47875	R 47881	N 47886	I 47891
1-1/4	-	-	-	-	-	R 47876	R 47882	N 47887	I 47892
1-1/2	-	-	-	-	-	R 47877	N 47883	N 47888	I 47893
2	-	-	-	-	-	R 47878	N 47884	I 47889	E 47894

18-8 S/S CARRIAGE BOLTS

- MIN. TENSILE 100,000 - 125,000 PSI
- HEAD AND BODY TO ANSI B18.5
- THREAD: CLASS 2A FIT ANSI B1.1
- FULLY THREADED TO 4" LENGTH



LENGTH	1/4-20	5/16-18	3/8-16	LENGTH	1/4-20	5/16-18	3/8-16
3/4	T 8669	-	R 8689	2-1/2	R 8675	R 8685	R 8696
1	T 8670	T 8680	T 8690	3	R 8677	N 8686	I 8697
1-1/4	T 8671	-	T 8691	3-1/2	-	-	I 8698
1-1/2	T 8672	T 8682	N 8692	4	R 8679	N 8688	-
2	T 8674	R 8684	N 8693				

18-8 STAINLESS STEEL SOCKET SET SCREWS

- MEETS ANSI B18.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B
- THREAD DIAMETER TO CLASS 3A FIT ANSI B1.1

7760

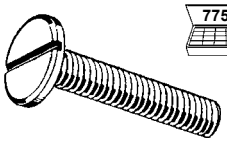
LENGTH	4-40	6-32	8-32	10-24	10-32	1/4-20	5/16-18	3/8-16	1/2-13
1/8	T 15326	T 15342	T 15361	-	-	-	-	-	-
3/16	T 15329	T 15345	T 15364	T 15380	T 15400	T 15420	-	-	-
1/4	T 15332	T 15348	T 15367	T 15383	T 15403	T 15423	T 15440	-	-
3/8	T 15335	T 15351	T 15370	T 15386	T 15406	T 15426	T 15443	R 15457	-
1/2	T 15338	T 15354	T 15373	T 15389	T 15409	T 15429	R 15446	R 15460	N 15474
5/8	-	-	-	T 15392	T 15412	R 15432	-	R 15463	N 15477
3/4	-	T 15357	-	R 15395	R 15415	R 15435	R 15453	R 15466	N 15480
1	-	-	-	-	-	-	-	N 15469	N 15483

18-8 STAINLESS STEEL MACHINE SCREWS

SLOTTED PAN, FLAT AND ROUND HEADS

PAN HEAD

- PRECISION BURR-FREE THREADS FOR EXACT FIT
- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B

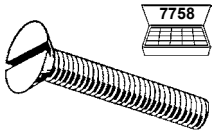


7757

LENGTH	4-40	5-40	6-32	8-32	10-24	10-32	1/4-20
1/4	T 14700	T 14711	T 14720	T 14742	T 14800	T 14765	-
3/8	T 14702	T 14713	T 14722	T 14744	T 14802	T 14768	T 14826
1/2	T 14704	T 14715	T 14724	T 14746	T 14804	T 14770	T 14828
5/8	T 14706	T 14716	T 14726	T 14748	-	T 14772	T 14830
3/4	T 14708	T 14717	T 14728	T 14750	T 14808	T 14774	T 14832
1	T 14710	T 14718	T 14730	T 14752	T 14810	T 14776	T 14834
1-1/4	T 14712	-	T 14732	T 14754	T 14812	T 14778	T 14836
1-1/2	T 14714	T 14719	T 14734	T 14756	T 14814	T 14780	T 14838
1-3/4	-	-	-	T 14758	T 14816	T 14782	R 14840
2	-	-	U 14738	T 14760	T 14818	T 14784	R 14842
2-1/2	-	-	-	-	-	-	R 14844
3	-	-	-	-	-	-	R 14846

FLAT HEAD

- PRECISION BURR-FREE THREADS FOR EXACT FIT
- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B



7758

LENGTH	4-40	6-32	8-32	10-24	10-32	1/4-20
1/4	T 14900	T 14920	T 14942	T 15000	T 14965	-
3/8	T 14902	T 14922	T 14944	T 15002	T 14968	T 15026
1/2	T 14904	T 14924	T 14946	T 15004	T 14970	T 15028
5/8	T 14906	T 14926	T 14948	T 15006	T 14972	T 15030
3/4	T 14908	T 14928	T 14950	T 15008	T 14974	T 15032
1	T 14910	T 14930	T 14952	T 15010	T 14976	T 15034
1-1/4	T 14912	T 14932	T 14954	T 15012	T 14978	T 15036
1-1/2	T 14914	T 14934	T 14956	T 15014	T 14980	T 15038
1-3/4	-	T 14936	T 14958	T 15016	T 14984	R 15040
2	-	T 14938	T 14960	T 15018	T 14986	R 15042
2-1/2	-	-	-	-	-	R 15044
3	-	-	-	-	-	R 15046

ROUND HEAD

- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD — 55,000 - 75,000 PSI
- HARDNESS — 100 ROCKWELL B

MICRO SIZES 0-80 TO 3-48

17832

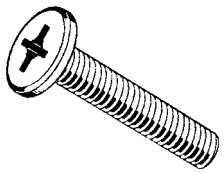
LENGTH	0-80	1-72	2-56	3-48	LENGTH	0-80	1-72	2-56	3-48
1/8	T 25235	T 25243	T 25251	25262	5/8	T 25241	T 25249	T 25257	T 25268
3/16	T 25236	T 25244	T 25252	T 25263	3/4	T 25242	T 25250	T 25258	T 25269
1/4	T 25237	T 25245	T 25253	T 25264	7/8	-	-	T 25259	-
5/16	T 25238	T 25246	T 25254	T 25265	1	-	-	T 25260	T 25270
3/8	T 25239	T 25247	T 25255	T 25266	1-1/2			T 25261	
1/2	T 25240	T 25248	T 25256	T 25267					

18-8 STAINLESS STEEL MACHINE SCREWS (Cont'd.)

PHILLIPS PAN, FLAT AND OVAL HEADS

PAN HEAD

- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B

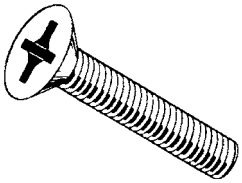


7789

LENGTH	2-56	4-40	6-32	8-32	10-24	10-32	12-24	1/4-20	5/16-18
1/8	T 25000	T 25065	-	-	-	-	-	-	-
3/16	T 25001	T 25066	-	-	-	-	-	-	-
1/4	T 25002	T 25067	T 25073	-	-	-	-	R 25090	-
3/8	T 25003	T 25008	T 25012	T 25019	T 25038	T 25028	T 25084	R 25091	-
1/2	T 25004	T 25009	T 25013	T 25020	T 25039	T 25029	T 25085	T 25048	-
5/8	T 25005	T 25068	T 25074	T 25079	T 25082	T 25083	T 25086	T 25092	-
3/4	T 25006	T 25010	T 25014	T 25021	T 25040	T 25030	T 25087	T 25049	N 25059
1	-	T 25011	T 25015	T 25022	T 25041	R 25031	T 25088	R 25050	N 25060
1-1/4	-	T 25069	T 25016	R 25023	R 25042	R 25032	-	R 25051	-
1-1/2	-	T 25070	R 25017	R 25024	R 25043	R 25033	R 25089	R 25052	N 25061
1-3/4	-	T 25071	T 25075	R 25025	R 25044	R 25034	-	R 25053	-
2	-	T 25072	T 25076	R 25026	R 25045	R 25035	-	R 25054	N 25062
2-1/2	-	-	T 25077	R 25080	R 25046	R 25036	-	R 25055	-
3	-	-	T 25078	R 25081	R 25047	R 25037	-	N 25056	I 25063
3-1/2	-	-	-	-	-	-	-	N 25057	-
4	-	-	-	-	-	-	-	N 25058	E 25064

FLAT HEAD

- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B



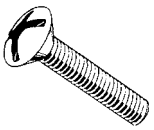
17767

LENGTH	2-56	4-40	6-32	8-32	10-24	10-32	12-24	1/4-20
1/4	T 14890	T 25421	T 25431	T 25444	-	-	-	-
5/16	-	T 25422	T 25432	T 25445	-	-	-	-
3/8	T 14892	T 25423	T 25433	T 25446	T 25457	T 25468	T 25478	T 25485
1/2	T 14894	T 25424	T 25434	T 25447	T 25458	T 25469	T 25479	T 25486
5/8	-	T 25425	T 25435	T 25448	T 25459	T 25470	R 25480	T 25487
3/4	T 14896	T 25426	T 25436	T 25449	T 25460	T 25471	R 25481	T 25488
1	-	T 25427	T 25437	T 25450	T 25461	T 25472	R 25482	R 25489
1-1/4	-	T 25428	T 25438	R 25451	R 25462	R 25473	R 25483	R 25490
1-1/2	-	T 25429	T 25439	R 25452	R 25463	R 25474	R 25484	R 25491
1-3/4	-	-	R 25440	R 25453	-	-	-	R 25492
2	-	-	R 25441	R 25454	R 25464	R 25475	-	R 25493
2-1/2	-	-	R 25442	R 25455	R 25465	R 25476	-	R 25494
3	-	-	R 25443	R 25456	R 25466	R 25477	-	N 25495

18-8 STAINLESS STEEL MACHINE SCREWS (Cont'd.)

OVAL HEAD

- MEETS ANSI B18.6.3
- MIN. TENSILE 100,000 - 125,000 PSI
- YIELD – 55,000 - 75,000 PSI
- HARDNESS – 100 ROCKWELL B



7795

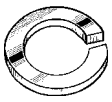
LENGTH	4-40	6-32	8-32	10-24	10-32	1/4-20
3/8	T 25100	T 25104	-	-	-	-
1/2	T 25101	T 25105	T 25112	T 25126	T 25119	T 25134
3/4	T 25102	T 25106	T 25113	T 25127	T 25120	T 25135
1	T 25103	T 25107	T 25114	T 25128	T 25121	R 25136
1-1/4	-	T 25108	R 25115	R 25129	R 25122	R 25137
1-1/2	-	R 25109	R 25116	R 25130	R 25123	R 25138
1-3/4	-	-	-	-	-	R 25139
2	-	R 25110	R 25117	R 25131	R 25124	R 25140

18-8 STAINLESS STEEL NUTS AND WASHERS

FOR 18-8 STAINLESS STEEL MACHINE SCREWS

LOCK WASHERS

- MEETS ANSI B18.21.1
- HARDNESS – 35 ROCKWELL C MIN.



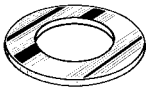
17833

SIZE	PART
#2	U 14398
#3	U 14399
#4	U 14400
#5	U 14401
#6	U 14402
#8	U 14404
#10	U 14406
#12	U 14408
1/4	U 14410

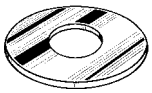
COUNTERSINK FINISHING WASHERS

SIZE	PART
#4	U 14480
#6	U 14481
#8	U 14482
#10	U 14483
#12	U 14484
1/4	U 14485
5/16	T 14486

FLAT WASHERS



SAE MS



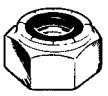
17833

USS COMMERCIAL

SIZE	PART	SIZE	PART
#4	U 14450	#2	U 14498
#6	U 14452	#3	U 14497
#8	U 14454	#4	U 14500
#10	U 14456	#5	U 14501
1/4	U 14460	#6	U 14502
–	–	#8	U 14504
–	–	#10	U 14506
–	–	#12	U 14508
–	–	1/4	U 14510

NYLON LOCK NUTS

- MIN. TENSILE 100,000 - 125,000 PSI
- HARDNESS — 100 ROCKWELL B



17833

SIZE	PART
2-56	T 14335
3-48	R 14337
4-40	T 14340
5-40	T 14341
6-32	T 14342
8-32	T 14344
10-24	T 14348
10-32	T 14346
12-24	T 14349
1/4-20	T 14350

HEX NUTS

- MIN. TENSILE 100,000 - 125,000 PSI
- HARDNESS — 100 ROCKWELL B

7795 & 17833

SIZE	PART
0-80	T 14326
1-72	T 14327
2-56	T 14328
3-48	T 14329
4-40	T 14330
5-40	T 14331
6-32	T 14332
8-32	T 14334
10-32 (SAE)	T 14336
10-24	T 14338
12-24	T 14339
1/4-20	T 14300

WING NUTS

- MIN. TENSILE 100,000 - 125,000 PSI
- HARDNESS 100 ROCKWELL B

SIZE	PART
6-32	T 14362
8-32	T 14364
10-24	R 14366
10-32	R 14368
1/4-20	R 14370
5/16	N 14372
3/8	N 14374
1/2	N 14376

32

18-8 STAINLESS STEEL ACORN NUTS

18-8 STAINLESS STEEL ACORN NUTS

- HEX SHAPE WRENCHING SURFACE
- CAP SHAPED TOP
- PROVIDES PROTECTION FOR PROJECTING THREADED PARTS
- EXCELLENT IN CORROSIVE ENVIRONMENTS
- COARSE AND FINE THREADS

SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART
6-32	R 15880	10-32	R 15883	5/16-18	R 15885	1/2-13	I 15887
8-32	R 15881	1/4-20	R 15884	3/8-16	N 15886	5/8-11	E 15888
10-24	R 15882	–	–	–	–	–	–

18-8 STAINLESS STEEL METAL SCREWS

SLOTTED PAN HEAD

7762

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
1/4	T 14600	-	-	-	-
3/8	T 14603	-	-	-	-
1/2	T 14606	T 14620	T 14640	T 14660	T 14680
5/8	T 14609	T 14623	T 14643	T 14663	T 14683
3/4	T 14612	T 14626	T 14646	T 14666	T 14686
1	T 14615	T 14629	T 14649	T 14669	T 14689
1-1/4	-	T 14632	T 14652	T 14672	T 14692
1-1/2	-	-	T 14655	T 14675	T 14695
1-3/4					
2					
2-1/2					

PHILLIPS PAN HEAD

7785

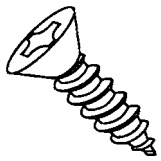
LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
1/4	T	T	T	T	T	
3/8	T 25300	T 25303	T 25310	T -	T -	T -
1/2	T 25301	T 25304	T 25311	T 25320	T 25330	T 25340
5/8	T -	T 25305	T 25312	T 25321	T 25331	T 25341
3/4	T -	T 25306	T 25313	T 25322	T 25332	T 25342
1	T -	T 25307	T 25314	T 25323	T 25333	T 25343
1-1/4	T -	T -	T 25315	T 25324	T 25334	T 25344
1-1/2	T -	T -	T 25316	T 25325	T 25335	T 25345
1-3/4	-	T -	T -	T -	T 25336	R 25346
2	-	T -	T 25317	T 25326	T 25337	R 25347
2-1/2	-	-	T 25318	T 25327	-	-

PHILLIPS OVAL HEAD

7784

LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	-	-	-	-	-	-
1/2	T 25200	T 25204	T 25209	T 25215	-	-
5/8	T 25201	T 25205	T 25210	T 25216	-	-
3/4	T 25202	T 25206	T 25211	T 25217	R 25224	R 25230
1	-	T 25207	T 25212	T 25218	R 25225	R 25231
1-1/4	-	T 25208	R 25213	R 25219	R 25226	R 25232
1-1/2	-	-	R 25214	R 25220	R 25227	R 25233
2	-	-	T 25223	R 25221	R 25228	R 25234

PHILLIPS FLAT HEAD



LENGTH	NO. 4	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14
3/8	-	T 25603	T 25611	-	-	-
1/2	T 25600	T 25604	T 25612	T 25619	T 25626	-
5/8	-	T 25605	T 25613	T 25620	-	-
3/4	T 25601	T 25606	T 25614	T 25621	T 25627	T 25632
1	T 25602	T 25607	T 25615	T 25622	T 25628	T 25633
1-1/4	-	T 25608	T 25616	T 25623	T 25629	T 25634
1-1/2	-	T 25609	T 25617	T 25624	T 25630	R 25635
2	-	T 25610	T 25618	T 25625	T 25631	R 25636

STAINLESS STEEL DRILL AND TAP SCREWS

HEX WASHER HEAD

- REDUCES LABOR AND TOOLING COSTS
- ELIMINATES NEED FOR DRILL BITS AND TAPS
- MANUFACTURED OF 410 GRADE S/S FOR MAXIMUM STRENGTH*

**NOTE: 410 stainless possesses magnetic properties*

17763

APPLICATIONS:
MAY BE USED IN MANY MATERIALS SUCH AS STRUCTURED STEEL, HARDWOOD AND MASONITE

PHILLIPS PAN HEAD

- REDUCES LABOR AND TOOLING COSTS
- ELIMINATES NEED FOR DRILL BITS AND TAPS
- MANUFACTURED OF 410 GRADE S/S FOR MAXIMUM STRENGTH*

**NOTE: 410 stainless possesses magnetic properties*

- MAY BE USED IN MANY MATERIALS SUCH AS STRUCTURED STEEL, HARDWOOD AND MASONITE

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12	NO. 14	NO. 6	NO. 8	NO. 10
3/8	T 25350	—	—	—	—	T 25700	—	—
1/2	T 25351	T 25354	T 25361	—	—	T 25701	T 25708	T 25714
5/8	—	T 25355	T 25362	—	—	—	—	—
3/4	T 25352	T 25356	T 25363	R 25368	R 25374	T 25703	T 25710	T 25716
1	T 25353	T 25357	T 25364	R 25369	R 25375	T 25704	T 25711	T 25717
1-1/4	—	R 25358	R 25365	R 25370	R 25376	T 25705	T 25712	T 25718
1-1/2	—	R 25359	R 25366	R 25371	R 2537	T 25706	T 25713	T 25719
2	—	R 25360	R 25367	R 25372	N 25378	—	—	—
2-1/2	—	—	—	N 25373	N 25379	—	—	—
3	—	—	—	—	N 25380	—	—	—
4	—	—	—	—	I 25381	—	—	—

STAINLESS STEEL THREADED ROD

USS THREADED ROD TYPE 18-8 (300 SERIES)

6 FOOT LENGTHS - 72"

RESISTS RUST, CORROSION, ACIDS AND CHEMICALS.

SIZE	PART	SIZE	PART
4-40	A 15050	3/8-16	A 15065
6-32	A 15052	7/16-14	A 15068
8-32	A 15054	1/2-13	A 15070
10-24	A 15058	5/8-11	A 15075
10-32	A 15056	3/4-10	A 15080
1/4-20	A 15060	7/8-9	A 15085
5/16-18	A 15062	1-8	A 15090

3 FOOT LENGTHS - 36"

RESISTS RUST, CORROSION, ACIDS AND CHEMICALS.

SIZE	PART	SIZE	PART
4-40	A 14040	3/8-16	A 14055
6-32	A 14042	7/16-14	A 14058
8-32	A 14044	1/2-13	A 14060
10-24	A 14048	5/8-11	A 14065
10-32	A 14046	3/4-10	A 14070
1/4-20	A 14050	7/8-9	A 14075
5/16-18	A 14052	1-8	A 14080

STAINLESS STEEL KEY STOCK

S/S SQUARE KEY STOCK

- USE IN CORROSIVE, CAUSTIC AND SANITARY ENVIRONMENTS
- MACHINE CUT ENDS
- TOLERANCES: –.002 TO +.000 IN BOTH DIMENSIONS
- MATERIAL 303 STAINLESS

17799

SIZE	PART	SIZE	PART
1/8	C 63460	1/2	A 63465
3/16	C 63461	5/8	A 63466
1/4	B 63462	3/4	A 63467
5/16	A 63463	7/8	A 63468
3/8	A 63464	1"	A 63469

STAINLESS STEEL WOODRUFF KEYS

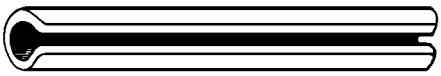
17796

WIDTH X DIA.	PART	WIDTH X DIA.	PART
1/16 x 1/2	E 63430	3/16 x 5/8	E 63437
3/32 x 1/2	E 63431	3/16 x 3/4	E 63438
1/8 x 1/2	E 63432	3/16 x 7/8	E 63439
1/8 x 5/8	E 63433	1/4 x 3/4	E 63440
1/8 x 3/4	E 63434	1/4 x 7/8	B 63441
5/32 x 5/8	E 63435	1/4 x 1	B 63442
5/32 x 3/4	E 63436	–	–

S/S SPRING PINS AND COTTER PINS

S/S SPRING PINS

- 420 STAINLESS STEEL FOR MAXIMUM STRENGTH AND CORROSION RESISTANCE



17815

LENGTH	1/16 DIA.	5/64 DIA.	3/32 DIA.	1/8 DIA.	5/32 DIA.	3/16 DIA.
	PART	PART	PART	PART	PART	PART
1/4	T 47200	T 47206	T 47212	-	-	-
3/8	T 47201	T 47207	T 47213	T 47222		
7/16	-	-	T 47214			
1/2	T 47202	T 47208	T 47215	T 47223	T 47230	T 47237
9/16	-	-	T 47216	-	-	-
5/8	T 47203	T 47209	T 47217	T 47224	T 47231	T 47238
3/4	T 47204	T 47210	T 47218	T 47225	T 47232	T 47239
7/8	-	-	T 47219	T 47226	T 47233	T 47240
1	T 47205	T 47211	T 47220	T 47227	T 47234	T 47241
1-1/4	-	-	T 47221	T 47228	T 47235	T 47242
1-1/2	-	-	-	T 47229	T 47236	R 47243
1-3/4						R 47244
2	–	–	–	–	–	R 47245

LENGTH	7/32 DIA.	1/4 DIA.	5/16 DIA.	3/8 DIA.	7/16 DIA.	1/2 DIA.
	PART	PART	PART	PART	PART	PART
5/8	T 47246	R 47253	–	–	–	–
3/4	T 47247	R 47254	R 47264	N 47276	–	–
7/8	–	–	N 47265	–	–	–
1	R 47248	R 47255	R 47266	N 47277	I 47284	–
1-1/4	R 47249	R 47256	N 47267	N 47278	I 47285	–
1-3/8	–	–	N 47268	–	–	–
1-1/2	R 47250	R 47257	N 47269	I 47279	I 47286	E 47291
1-3/4	R 47251	R 47258	N 47270	I 47280	I 47287	E 47292
2	R 47252	R 47259	N 47271	I 47281	I 47288	E 47293
2-1/4	–	N 47260	I 47272	-	-	-
2-1/2	–	N 47261	I 47273	I 47282	E 47289	E 47294
2-3/4	–	N 47262	I 47274	–	–	–
3	–	N 47263	I 47275	I 47283	E 47290	E 47295
3-1/2	–	–	–	–	–	E 47296

18-8 S/S COTTER PINS

EASY TO INSERT, LOCK AND REMOVE

17938

LENGTH	1/16	3/32	7/64	1/8	5/32	3/16	1/4
1/2	U 14538	U 14543	–	–	–	–	–
3/4	U 14539	–	–	–	–	–	–
1	U 14540	U 14545	T 14570	U 14549	T 14553	–	–
1-1/2	U 14541	U 14547	R 14571	T 14550	T 14555	R 14559	N 14564
2	–	T 14546	–	T 14552	R 14554	R 14560	R 14565
2-1/2	–	–	–	T 14551	R 14556	–	N 14566
3	–	–	–	–	N 14557	R 14561	–

STAINLESS STEEL THUMB SCREWS

- PRECISION BURR-FREE THREADS FOR EXACT FIT
- MINIMUM TENSILE STRENGTH – 100,000 PSI
- YIELD – 55,000 PSI
- HARDNESS – 100 ROCKWELL B MINIMUM

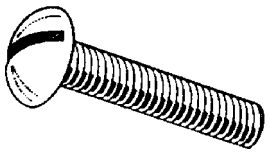
17918

LENGTH	8-32	10-24	10-32	1/4-20	5/16-18	3/8-16
1/2	L 44500	L 44504	L 44507	L 44510	I 44516	–
3/4	I 44501	I 44505	I 44508	I 44511	I 44517	I 44520
1	I 44502	I 44506	I 44509	I 44512	E 44518	C 44521
1-1/4	–	–	–	I 44513	–	–
1-1/2	E 44503	–	–	I 44514	–	C 44522
2	–	–	–	I 44515	E 44519	C 44523

BRASS MACHINE SCREWS

SLOTTED ROUND HEAD

- NON-MAGNETIC PROPERTIES AND GOOD CORROSION RESISTANCE
- TENSILE STRENGTH 55,000 TO 65,000 PSI MIN.

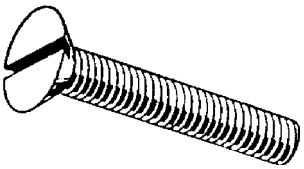


7756

LENGTH	4-40	6-32	8-32	10-24	10-32	12-24	1/4-20	5/16-18
1/4	R 37701	R 37712	R 37724	R 37738	R 37757	-	-	-
3/8	R 37702	R 37714	R 37726	R 37740	R 37759	-	R 37783	-
1/2	R 37704	R 37715	R 37727	R 37741	R 37760	R 37773	R 37784	N 37802
5/8	R 37705	R 37716	R 37728	R 37742	R 37761	-	-	-
3/4	R 37706	R 37717	R 37729	R 37743	R 37762	R 37775	N 37786	-
7/8	-	-	-	-	-	-	R 37787	-
1	R 37707	R 37719	R 37731	R 37745	R 37764	-	N 37788	-
1-1/4	R 37708	R 37720	R 37732	R 37746	R 37765	-	N 37789	-
1-1/2	R 37709	R 37721	R 37733	R 37747	R 37766	-	N 37790	N 37806
2	-	R 37722	R 37735	N 37749	N 37768	-	N 37792	-
2-1/2	-	-	-	N 37751	N 37769	-	N 37794	-
3	-	-	-	-	N 37770	-	N 37796	-

FLAT HEAD

- NON-MAGNETIC PROPERTIES AND GOOD CORROSION RESISTANCE
- TENSILE STRENGTH 55,000 TO 65,000 PSI MIN.



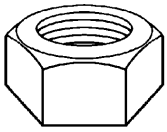
7755

LENGTH	4-40	6-32	8-32	10-24	10-32	1/4-20
1/4	T 47701	T 47712	T 47724	T 47738	T 47757	-
3/8	T 47702	T 47714	T 47726	T 47740	T 47759	-
1/2	T 47704	T 47715	T 47727	T 47741	T 47760	R 47784
5/8	T 47705	T 47716	T 47728	T 47742	T 47761	-
3/4	T 47706	T 47717	T 47729	T 47743	T 47762	R 47786
1	T 47707	T 47719	T 47731	T 47745	T 47764	R 47788
1-1/4	R 47708	R 47720	R 47732	R 47746	R 47765	R 47789
1-1/2	R 47709	R 47721	R 47733	R 47747	R 47766	R 47790
2	-	-	R 47735	R 47749	R 47768	N 47792
2-1/2	-	-	-	R 47751	R 47769	N 47794
3	-	-	-	R 47754	R 47770	N 47796

BRASS NUTS AND WASHERS

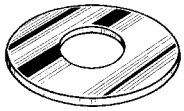
FOR BRASS MACHINE SCREWS

HEX NUTS



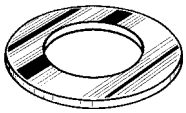
SIZE	PART	SIZE	PART
4-40	T 21100	5/16-18	T 21108
6-32	T 21102	3/8-16	R 21109
8-32	T 21103	1/2-13	N 21111
10-24	T 21104	5/8-11	L 21112
10-32 SAE	T 21105	3/4-10	I 21113
1/4-20	T 21107	1-8	B 21114

USS FLATWASHERS



SIZE	PART
3/16	T 46715
1/4	T 46717
5/16	T 46719
3/8	T 46721
1/2	R 46725
5/8	N 46727
3/4	N 46729

SAE FLATWASHERS



SIZE	PART	SIZE	PART
#6	U 46700	3/8	T 46706
#8	U 46701	1/2	R 46710
#10	T 46702	5/8	N 46711
1/4	T 46704	3/4	N 46712
5/16	T 46705	-	-

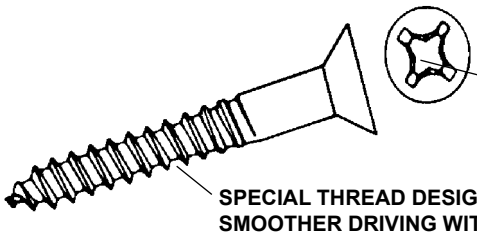
BRASS WOOD SCREWS

PHILLIPS

Solid brass alloy wood screws provides the ultimate in factory fit and finish in all wood applications.

FLAT HEAD

- **SOLID BRASS CONSTRUCTION ELIMINATES CORROSION AND GIVES FACTORY FINISH AND APPEARANCE IN ALL WOODS.**
- **EXTRA SHARP LEADER POINT FOR FASTER, EASIER STARTING.**



PRECISION PHILLIPS DRIVE ASSURES SOLID GRIP WITH SCREWDRIVER.

SPECIAL THREAD DESIGN ALLOWS FASTER, SMOOTHER DRIVING WITHOUT SPLINTERING OR SEPARATION OF WOOD BOARDS.

LENGTH	NO. 6	NO. 8	NO. 10	NO. 12
1/2	—	T 7272	—	—
3/4	—	T 7274	T 7783	T 7289
1	R 7269	T 7276	T 7284	T 7290
1-1/2	T 7271	R 7278	R 7286	R 7292
2	—	N 7280	N 7288	N 7294

S/S METRIC SOCKET HEAD CAP SCREWS

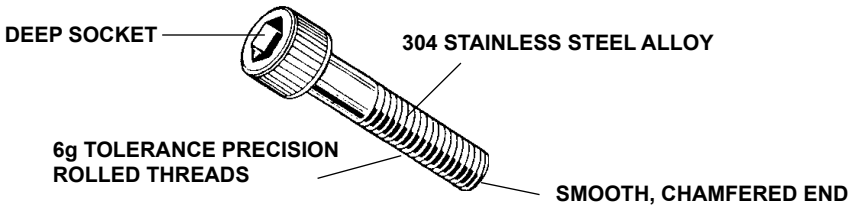
STANDARD THREAD

Superior corrosion resistance to chemicals and sea water. High molybdenum content, high temperature strength and non-magnetic.

HEX SOCKET HEAD

- **100,000 PSI TENSILE STRENGTH**

17818



LENGTH	2.5mm DIA. 0.45 Thr. Pch. 2mm Hex Key		3mm DIA. 0.50 Thr. Pch. 2.5mm Hex Key		4mm DIA. 0.70 Thr. Pch. 3mm Hex Key		5mm DIA. 0.80 Thr. Pch. 4mm Hex Key		6mm DIA. 1.00 Thr. Pch. 5mm HEX KEY	
6	T	15659	T	15665	T	15678		-		-
8	T	15660	T	15666	T	15679	T	15690		-
10	T	15661	T	15667	T	15680	T	15691	T	15706
12	T	15662	T	15668	T	15681	T	15692	T	15707
16	T	15663	T	15669	T	15682	T	15693	T	15708
20	T	15664	T	15670	T	15683	T	15694	T	15709
25		-	T	15671	T	15684	T	15695	T	15710
30		-	T	15672	T	15685	T	15696	T	15711
35		-	T	-	T	15686	T	15697	R	15712
40		-	T	-	T	15687	R	15698	R	15713
45		-		-		-	R	15699	R	15714
50		-		-		-	R	15700	R	15715
55		-		-		-		-	N	15716
60		-		-		-		-	N	15717

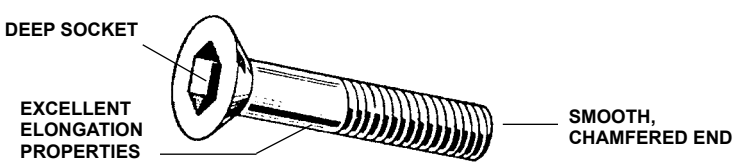
LENGTH	8mm DIA. 1.25 Thr. Pch. 6mm Hex Key		10mm DIA. 1.50 Thr. Pch. 8mm Hex Key		12mm DIA. 1.75 Thr. Pch. 10mm Hex Key		16mm DIA. 2.00 Thr. Pch. 14mm Hex Key	
10	N	15727		-		-		-
12	R	15728		-		-		-
16	R	15729		-		-		-
20	R	15730	N	15749	L	15768		-
25	R	15731	N	15750	L	15769		-
30	R	15732	N	15751	L	15770	E	15783
35	R	15733	N	15752	L	15771		-
40	R	15734	L	15753	L	15772	E	15784
45	R	15735	L	15754	L	15773		-
50	N	15736	L	15755	L	15774	E	15785
55	N	15737	L	15756	I	15775		-
60	N	15738	I	15757	I	15776	E	15786
70	L	15739	I	15758	I	15777	B	15787
80	I	15740	I	15759	I	15778	B	15788
90		-	E	15760	E	15779		-
100		-	E	15761	E	15780	B	15789
110		-		-	E	15781		-
120		-		-	E	15782		-

S/S METRIC FLAT SOCKET HEAD CAP SCREWS

STANDARD THREAD

304 stainless steel. Deep socket assures full wrench engagement.

- **304 STAINLESS STEEL**
- **MEETS DIN 7991-A2**
- **TENSILE STRENGTH 70,000 TO 100,000 PSI**



17819

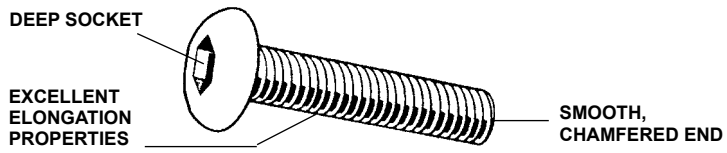
LENGTH	2.5mm DIA. 0.50 Thr. Pch.	3mm DIA. 0.50 Thr. Pch.	4mm DIA. 0.70 Thr. Pch.	5mm DIA. 0.80 Thr. Pch.	6mm DIA. 1.00 Thr. Pch.	8mm DIA. 1.25 Thr. Pch.	10mm DIA. 1.50 Thr. Pch.
4	R 69700	–	–	–	–	–	–
6	T 69701	T 69704	–	–	–	–	–
8	T 69702	T 69705	T 69710	–	–	–	–
10	T 69703	T 69706	T 69711	T 69716	T 69722	–	–
12	–	T 69707	T 69712	T 69717	T 69723	–	–
16	–	T 69708	T 69713	T 69718	T 69724	R 69731	–
20	–	–	T 69714	T 69719	T 69725	R 69732	I 69735
25	–	–	–	T 69720	T 69726	R 69733	I 69736
30	–	–	–	–	T 69727	R 69734	I 69737
35	–	–	–	–	–	–	I 69738
40	–	–	–	–	–	–	I 69739

S/S METRIC BUTTON SOCKET HEAD CAP SCREWS

STANDARD THREAD

304 stainless steel. Deep socket assures full wrench engagement.

- **304 STAINLESS STEEL**
- **MEETS DIN 7380-A2**
- **TENSILE STRENGTH 70,000 TO 100,000 PSI**



17814

LENGTH	2.5mm DIA. 0.50 Thr. Pch.	3mm DIA. 0.50 Thr. Pch.	4mm DIA. 0.70 Thr. Pch.	5mm DIA. 0.80 Thr. Pch.	6mm DIA. 1.00 Thr. Pch.	8mm DIA. 1.25 Thr. Pch.	10mm DIA. 1.50 Thr. Pch.
4	T 69750	–	–	–	–	–	–
6	T 69751	T 69754	T 69759	–	–	–	–
8	T 69752	T 69755	T 69760	R 69765	R 69771	–	–
10	T 69753	T 69756	T 69761	T 69766	T 69772	–	–
12	–	T 69757	R 69762	T 69767	T 69773	–	–
16	–	T 69758	R 69763	T 69768	T 69774	N 69781	–
20	–	–	R 69764	T 69769	R 69775	N 69782	I 69785
25	–	–	–	T 69770	R 69776	N 69783	I 69786
30	–	–	–	–	N 69777	N 69784	I 69787
35	–	–	–	–	–	–	I 69788
40	–	–	–	–	–	–	I 69789

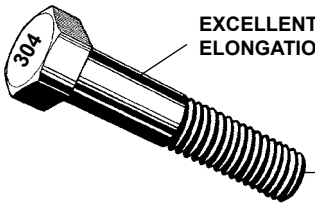
S/S METRIC SOCKET SET SCREWS

- 304 STAINLESS STEEL
- MEETS DIN 916-A2
- TENSILE STRENGTH 70,000 TO 100,000 PSI

LENGTH	2.5mm DIA. 0.25 Thr. Pch. 1.5mm Hex Key		3mm DIA. 0.50 Thr. Pch. 1.5mm Hex Key		4mm DIA. 0.70 Thr. Pch. 2mm Hex Key		5mm DIA. 0.80 Thr. Pch. 2.5mm Hex Key		6mm DIA. 1.00 Thr. Pch. 3mm Hex Key		8mm DIA. 1.25 Thr. Pch. 4mm Hex Key		10mm DIA. 1.50 Thr. Pch. 5mm Hex Key		12mm DIA. 1.75 Thr. Pch. 6mm Hex Key	
4	N	69790	T	69793	T	69796		–		–		–		–		–
5		–		–		–	T	69800		–		–		–		–
6	N	69791	T	69794	T	69797	T	69801		–		–		–		–
8		–	T	69795	T	69798	T	69802	T	69804		–		–		–
10		–		–	T	69799	T	69803	T	69805	R	69809	N	69814		–
12		–		–		–		–	R	69806	R	69810	N	69815	I	69820
16		–		–		–		–	R	69807	R	69811	N	69816	I	69821
20		–		–		–		–	R	69808	N	69812	I	69817	I	69822
25		–		–		–		–		–	N	69813	I	69818	I	69823
30		–		–		–		–		–		–	I	69819	I	69824

METRIC STAINLESS STEEL CAP SCREWS

- STANDARD THREAD
- SUPERIOR CORROSION RESISTANCE TO CHEMICALS AND SEA WATER
- HIGH MOLYBDENUM CONTENT, HIGH TEMPERATURE RESISTANCE AND NON-MAGNETIC
- 100,000 PSI TENSILE STRENGTH
- DIN 933/931
- A2 (304) STAINLESS



LENGTH	3mm DIA. 0.50 THRD. PCH.		4mm DIA. 0.70 THRD. PCH.		5mm DIA. 0.80 THRD. PCH.		6mm DIA. 1.00 THRD. PCH.		8mm DIA. 1.25 THRD. PCH.	
6	T	15900		-		-				
8	T	15901	T	15904		-				
10		-	T	15948	T	15909	T	15953		
12		-	T	15905	T	15950	T	15914	R	15955
16	I	15902	T	15906	T	15910	T	15915	R	15920
20	I	15903	T	15907	T	15911	T	15916	R	15921
25		-	T	15949	T	15951	T	15954	R	15956
30		-	T	15908	T	15912	T	15917	R	15922
35		-		-	R	15952		-	R	15957
40		-		-	R	15913	R	15918	N	15923
45		-		-		-		-	N	15958
50		-		-		-	R	15919	N	15924
60		-		-		-		-	N	15925

LENGTH	10mm DIA. 1.50 THREAD PITCH		12mm DIA. 1.75 THREAD PITCH		16mm DIA. 2.00 THREAD PITCH		20mm DIA. 2.50 THREAD PITCH	
20	N	15926	I	15932		-		-
25	N	15927	I	15933	E	15938		-
30	N	15928	I	15934	E	15939		-
35	N	15959		-		-	B	15943
40	L	15929	I	15935	E	15940	B	15962
45		-		-		-	B	15944
50	L	15930	I	15936	E	15941	B	15945
60	I	15931	I	15937	B	15942	B	15946
70	I	15960	I	15961		-	B	15947

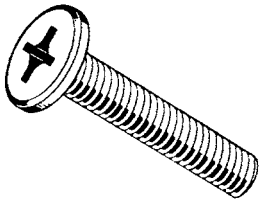
METRIC S/S PHILLIPS MACHINE SCREWS

USE WITH STAINLESS STEEL METRIC NUTS AND WASHERS

Superior corrosion resistance to chemicals and sea water. High molybdenum content, high temperature strength and non-magnetic.

PAN HEAD

- **DIN 7985**
- **A2 (304) STAINLESS**
- **EXCELLENT RESISTANCE TO RUST AND CORROSION FROM ACIDS, ORGANIC SUBSTANCES, SALT SOLUTIONS AND ATMOSPHERE**



17986

LENGTH	3mm DIA. 0.50 PITCH		4mm DIA. 0.70 PITCH		5mm DIA. 0.80 PITCH		6mm DIA. 1.0 PITCH	
4	T	67998		-		-		-
5	T	67999		68008		-		-
6	T	68000	T	68009		-		-
8	T	68001	T	68010	R	68019	R	68028
10	T	68002	T	68011	R	68020	R	68029
12	T	68003	T	68012	R	68021	R	68030
16	T	68004	T	68013	R	68022	R	68031
20	T	68005	T	68014	R	68023	R	68032
25	T	68006	R	68015	R	68024	R	68033
30	R	68007	R	68016	R	68025	N	68034
35		-	R	68017	N	68026	N	68035
40		-	R	68018	N	68027	N	68036

METRIC S/S THREADED ROD

RESISTS RUST, CORROSION, ACIDS AND CHEMICALS

- **DIN 975**
- **A2 (304) STAINLESS**
- **ONE METER LENGTHS**

SIZE		PART	SIZE		PART	SIZE		PART	SIZE		PART
3mm	A	68660	5mm	A	68662	8mm	A	68664	12mm	A	68666
4mm	A	68661	6mm	A	68663	10mm	A	68665	-	A	-

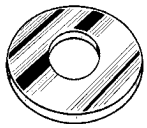
METRIC S/S NUTS AND WASHERS

USE WITH STAINLESS STEEL METRIC CAP SCREWS

Superior corrosion resistance to chemicals and sea water. High molybdenum content, high temperature strength and non-magnetic.

METRIC STAINLESS STEEL FLAT WASHERS

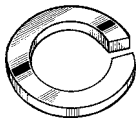
- **DIN 125**
- **A2 (304) STAINLESS**



SIZE	I.D.	O.D.	THICKNESS	PART	
2mm	2.2mm	5mm	0.3mm	T	15824
2.5mm	2.7mm	6mm	0.5mm	T	15825
3mm	3.2mm	7mm	0.5mm	T	15826
4mm	4.3mm	9mm	0.8mm	T	15827
5mm	5.3mm	10mm	1mm	T	15828
6mm	6.4mm	12mm	1.6mm	T	15829
8mm	8.4mm	16mm	1.6mm	T	15830
10mm	10.5mm	20mm	2mm	T	15831
12mm	13mm	24mm	2.5mm	R	15832
14mm	15mm	28mm	2.5mm	N	15833
16mm	17mm	30mm	3mm	N	15834
20mm	21mm	37mm	3mm	N	15836

METRIC STAINLESS STEEL LOCK WASHERS

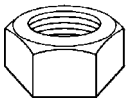
- **DIN 127**
- **A2 (304) STAINLESS**



SIZE	I.D.	O.D.	THICKNESS	PART	
2mm	2.1mm	4.4mm	0.5mm	T	15837
2.5mm	2.6mm	5.1mm	0.6mm	T	15838
3mm	3.1mm	6.2mm	0.8mm	T	15839
4mm	4.1mm	7.6mm	0.9mm	T	15840
5mm	5.1mm	9.2mm	1.2mm	T	15841
6mm	6.1mm	11.8mm	1.6mm	T	15842
8mm	8.1mm	14.8mm	2mm	T	15843
10mm	10.2mm	18.1mm	2.2mm	T	15844
12mm	12.2mm	21.1mm	2.5mm	R	15845
14mm	14.2mm	24.1mm	3mm	R	15846
16mm	16.2mm	27.4mm	3.5mm	R	15847
20mm	20.2mm	33.6mm	4mm	N	15849

METRIC STAINLESS STEEL HEX NUTS

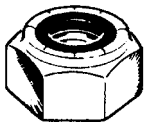
- **DIN 934**
- **A2 (304) STAINLESS**



SIZE	WAF	HEIGHT	PART	
2mm x 0.40	4mm	1.6mm	T	15798
2.5mm x 0.45	5mm	2mm	T	15799
3mm x 0.50	5.5mm	2.4mm	T	15800
4mm x 0.70	7mm	3.2mm	T	15801
5mm x 0.80	8mm	4mm	T	15802
6mm x 1.00	10mm	5mm	T	15803
8mm x 1.25	13mm	6.5mm	T	15804
10mm x 1.50	17mm	8mm	R	15805
12mm x 1.75	19mm	10mm	N	15806
14mm x 2.00	22mm	11mm	I	15807
16mm x 2.00	24mm	13mm	I	15808
20mm x 2.50	30mm	16mm	I	15810

METRIC S/S NYLON INSERT LOCK NUTS

- **DIN 985**
- **FOR TEMPERATURES –100 TO 250°F**
- **A2 (304) STAINLESS**



SIZE	WAF	HEIGHT	PART	
3mm x 0.50	5.5mm	4mm	T	15813
4mm x 0.70	7mm	5mm	T	15814
5mm x 0.80	8mm	5mm	T	15815
6mm x 1.00	10mm	6mm	T	15816
8mm x 1.25	13mm	8mm	T	15817
10mm x 1.50	17mm	10mm	R	15818
12mm x 1.75	19mm	12mm	N	15819
14mm x 2.00	22mm	14mm	I	15820
16mm x 2.00	24mm	16mm	I	15821
20mm x 2.50	30mm	20mm	E	15823

BIN ASSORTMENTS

USS 18-8 STAINLESS STEEL FASTENERS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7817

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

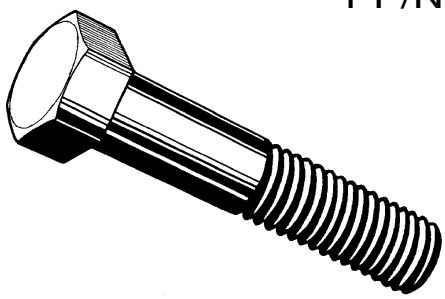
*Can be shipped via UPS

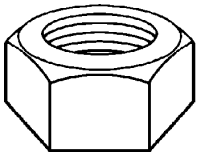
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

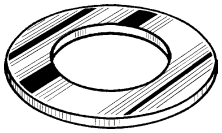
ASSORTMENT CONTAINS:

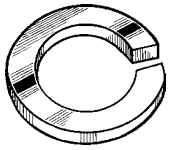
25 Sizes Stainless Steel Cap Screws ..... 1/4" thru 1/2" Diameter
5 Sizes Stainless Steel Hex Nuts ..... 1/4" thru 1/2" Diameter
5 Sizes Stainless Steel Flat Washers ..... 1/4" thru 1/2" Diameter
5 Sizes Stainless Steel Lock Washers ..... 1/4" thru 1/2" Diameter

1 P/N 7903 — 40 Compartment Bin









USS 18-8 STAINLESS STEEL FASTENER ASSORTMENT

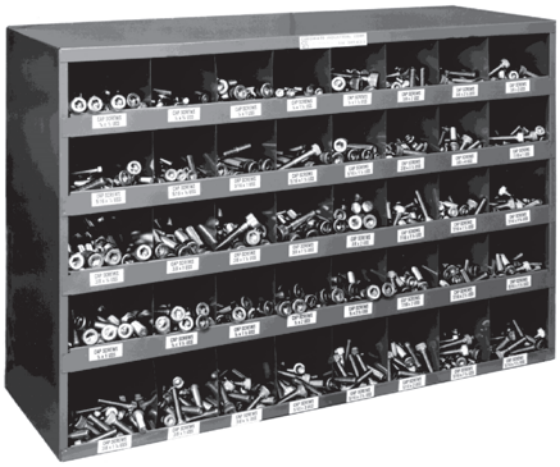
P/N 7817 — USS SIZES — 40 ITEMS / 40 HOLES

1/4-20 HEX NUT 14300	1/4 FLAT WASHER 14510	1/4 LOCK WASHER 14410	1/4-20 x 1/2 CAP SCREW 14100	1/4-20 x 3/4 CAP SCREW 14106	1/4-20 x 1 CAP SCREW 14109	1/4-20 x 1-1/2 CAP SCREW 14115	1/4-20 x 2 CAP SCREW 14121
5/16-18 HEX NUT 14302	5/16 FLAT WASHER 14512	5/16 LOCK WASHER 14412	5/16-18 x 1/2 CAP SCREW 14143	5/16-18 x 3/4 CAP SCREW 14149	5/16-18 x 1 CAP SCREW 14152	5/16-18 x 1-1/2 CAP SCREW 14158	5/16-18 x 2 CAP SCREW 14164
3/8-16 HEX NUT 14304	3/8 FLAT WASHER 14514	3/8 LOCK WASHER 14414	3/8-16 x 3/4 CAP SCREW 14186	3/8-16 x 1 CAP SCREW 14189	3/8-16 x 1-1/4 CAP SCREW 14192	3/8-16 x 1-1/2 CAP SCREW 14195	3/8-16 x 2 CAP SCREW 14201
7/16-14 HEX NUT 14306	7/16 FLAT WASHER 14516	7/16 LOCK WASHER 14416	7/16-14 x 1 CAP SCREW 14220	7/16-14 x 1-1/4 CAP SCREW 14223	7/16-14 x 1-1/2 CAP SCREW 14226	7/16-14 x 2 CAP SCREW 14230	7/16-14 x 2-1/2 CAP SCREW 14233
1//2-13 HEX NUT 14308	1/2 FLAT WASHER 14518	1/2 LOCK WASHER 14418	1/2-13 x 1 CAP SCREW 14246	1/2-13 x 1-1/2 CAP SCREW 14252	1/2-13 x 2 CAP SCREW 14258	1/2-13 x 2-1/2 CAP SCREW 14261	1/2-13 x 3 CAP SCREW 14264

BIN ASSORTMENTS

USS 316 STAINLESS STEEL FASTENERS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7869

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

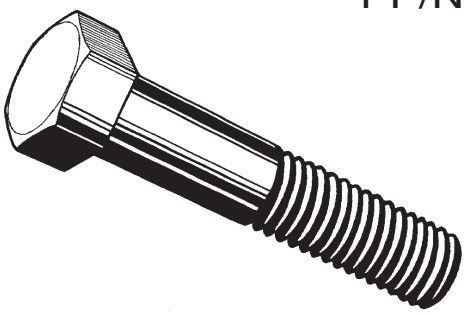
*Can be shipped via UPS

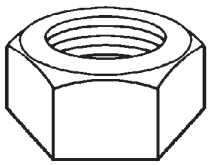
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 32 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

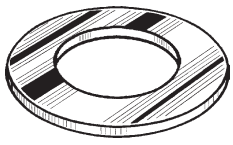
ASSORTMENT CONTAINS:

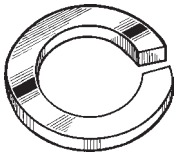
20 Sizes Stainless Steel Cap Screws	1/4" thru 1/2" Diameter
4 Sizes Stainless Steel Hex Nuts	1/4" thru 1/2" Diameter
4 Sizes Stainless Steel Flat Washers	1/4" thru 1/2" Diameter
4 Sizes Stainless Steel Lock Washers	1/4" thru 1/2" Diameter

1 P/N 7903 — 40 Compartment Bin









USS 316 STAINLESS STEEL FASTENER ASSORTMENT

P/N 7869 — USS SIZES — 32 ITEMS / 40 HOLES

1/4-20 HEX NUT 13300	1/4 FLAT WASHER 13510	1/4 LOCK WASHER 13410	1/4-20 x 1/2 CAP SCREW 13100	1/4-20 x 3/4 CAP SCREW 13106	1/4-20 x 1 CAP SCREW 13109	1/4-20 x 1-1/2 CAP SCREW 13115	1/4-20 x 2 CAP SCREW 13121
5/16-18 HEX NUT 13302	5/16 FLAT WASHER 13512	5/16 LOCK WASHER 13412	5/16-18 x 1/2 CAP SCREW 13143	5/16-18 x 3/4 CAP SCREW 13149	5/16-18 x 1 CAP SCREW 13152	5/16-18 x 1-1/2 CAP SCREW 13158	5/16-18 x 2 CAP SCREW 13164
3/8-16 HEX NUT 13304	3/8 FLAT WASHER 13514	3/8 LOCK WASHER 13414	3/8-16 x 3/4 CAP SCREW 13186	3/8-16 x 1 CAP SCREW 13189	3/8-16 x 1-1/4 CAP SCREW 13192	3/8-16 x 1-1/2 CAP SCREW 13195	3/8-16 x 2 CAP SCREW 13201
EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION	EXPANSION
1//2-13 HEX NUT 13308	1/2 FLAT WASHER 13518	1/2 LOCK WASHER 13418	1/2-13 x 1 CAP SCREW 13246	1/2-13 x 1-1/2 CAP SCREW 13252	1/2-13 x 2 CAP SCREW 13258	1/2-13 x 2-1/2 CAP SCREW 13261	1/2-13 x 3 CAP SCREW 13264

METRIC FASTENERS

- **ISO Grade 8.8, 10.9 and 12.9 Cap Screws**
- **ISO Grade 8.8, 10.9 and 12.9 Set Screws**
- **Hex Nuts**
- **Washers**
- **Machine Screws**
- **Hex Socket Wrenches**

CHROMATE METRIC FASTENERS ASSURE FAST, EASY INSTALLATION FOR ALL YOUR IMPORTED EQUIPMENT MAINTENANCE AND REPAIRS. Manufactured from the finest materials and tested and proven to be tough and reliable.

CHROMATE INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

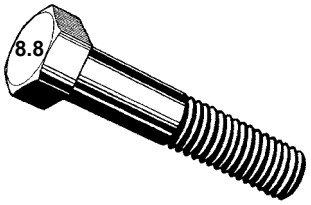
METRIC CAP SCREWS

STANDARD THREAD

Medium carbon steel. Multiple heat-treated. Meets ISO property class specifications.

ISO GRADE 8.8

- DIN 931/933
- ZINC PLATED



7860

LENGTH	3mm DIA. 0.50 THREAD PITCH 5.5mm WRENCH SIZE		4mm DIA. 0.70 THREAD PITCH 7mm WRENCH SIZE		5mm DIA 0.80 THREAD PITCH 8mm WRENCH SIZE	
6	U	66998		-		-
8	U	67000	U	67030	U	67060
10	U	67002	U	67032	U	67062
12	U	67004	U	67034	U	67064
14	U	67006	U	67036	U	67066
16	U	67008	U	67038	U	67068
20	U	67010	U	67040	U	67070
25	U	67012	U	67042	U	67072
30	T	67014	T	67044	T	67074
35		-	T	67046	T	67076
40		-	T	67048	T	67078
45		-		-	T	67080
50		-		-	T	67082

ISO GRADE 10.9

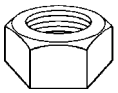
LENGTH	6mm DIA. 1.00 THR. PCH. 10mm WRENCH		8mm DIA. 1.25 THR. PCH. 13mm WRENCH		10mm DIA. 1.50 THR. PCH. 17mm WRENCH		12mm DIA. 1.75 THR. PCH. 19mm WRENCH		14mm DIA. 2.00 THR. PCH. 22mm WRENCH		16mm DIA. 2.00 THR. PCH. 24mm WRENCH		20mm DIA. 2.50 THR. PCH. 30mm WRENCH		24mm DIA. 3.00 THR. PCH. 36mm WRENCH	
10	U	67086		-		-		-		-		-		-		-
12	U	67088		-		-		-		-		-		-		-
16	U	67090	T	67120	T	67150		-		-		-		-		-
18	U	67092		-		-		-		-		-		-		-
20	U	67094	T	67122	T	67152	R	67180		-		-		-		-
25	U	67096	T	67124	R	67154	R	67182		-		-		-		-
30	T	67098	T	67126	R	67156	R	67184	L	*67260*	L	67210		-		-
35	T	67100	T	67128	R	67158	R	67186	L	*67261*		-		-		-
40	T	67102	T	67130	R	67160	R	67188	L	*67262*	L	67212	I	67240	E	*67280*
45	T	67104	T	67132	R	67162	O	67190	L	*67263*	L	67213		-		-
50	T	67106	R	67134	R	67164	O	67192	L	*67264*	L	67214	I	67242	E	*67282*
55		-	R	67135	R	67166		-		-		-		-		-
60	T	67108	R	67136	R	67168	O	67194	L	*67266*	L	67216	I	67244	E	*67284*
70	T	67109	R	67138	R	67170	O	67196	L	*67268*	I	67218	I	67246	E	*67286*
80	T	67110	R	67139	O	67172	L	67198	L	*67270*	I	67220	I	67248	E	*67288*
90		-	R	67140	O	67173	L	67199	L	*67271*	I	67221	I	67249	E	*67290*
100		-	O	67141	O	67174	L	67200	L	*67272*	I	67222	I	67250	E	*67292*
110		-	O	67142	O	67175		-	L	*67273*	I	67223	E	67251	A	*67294*
120		-	O	67143	L	67176	I	67202		-	I	67224	E	67252	A	*67296*
130		-		-		-	I	67203		-	I	67225	E	67253	A	*67298*
140		-		-		-	I	67204		-	I	67226	E	67254	A	*67300*

Numbers in italic are non-stock items. Please allow 2-3 weeks for delivery.

METRIC HEX NUTS AND WASHERS

METRIC HEX NUTS – DIN 934

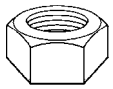
- ZINC PLATED
- SIZES 2mm & 2.5mm = PROPERTY CLASS 5
- SIZES 3mm, 4mm & 5mm = PROPERTY CLASS 8
- SIZES 6mm & OVER = PROPERTY CLASS 10



SIZE mm	PITCH	WAF	HEIGHT	PART
2	0.40	4	1.6	T 67302
2.5	0.45	5	2	T 67303
3	0.50	5.5	2.4	T 67304
4	0.70	7	3.2	T 67308
5	0.80	8	4	T 67310
6	1.00	10	5	T 67312
8	1.25	13	6.5	T 67314
10	1.50	17	8	R 67316
12	1.75	19	10	R 67318
14	2.00	22	11	N 67319
16	2.00	24	13	N 67320
20	2.50	30	16	L 67322
24	3.00	36	19	I 67324

METRIC HEX NUTS – DIN 934

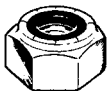
- ZINC PLATED
- PROPERTY CLASS 8



SIZE mm	PITCH	WAF	HEIGHT	PART
6	1.00	10	5	T 66888
8	1.25	13	6.5	T 66889
8	1.00	13	6.5	T 66893
10	1.50	17	8	T 66890
10	1.25	17	8	R 66894
10	1.00	17	8	R 66882
12	1.75	19	10	T 66891
12	1.25	19	10	N 66883
12	1.50	19	10	N 66895
14	2.00	22	11	N 66892
14	1.50	22	11	N 66896
16	2.00	24	13	N 66897
16	1.50	24	13	N 66898
20	2.50	30	16	N 66899
20	1.50	30	16	I 66900

NYLON INSERT LOCK NUTS

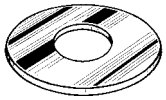
- ZINC PLATED
- ONE-PIECE NYLON INSERT FOR POSITIVE 360° LOCKING
- REUSABLE
- CHROMATE PROTECTIVE PLATING
- PROPERTY CLASS 8 – DIN 985



SIZE mm	PITCH	WAF	HEIGHT	PART
2.5	0.45	5	4	N 67389
3	0.50	5.5	4	T 67390
4	0.70	7	5	T 67392
5	0.80	8	5	T 67394
6	1.00	10	6	T 67396
8	1.25	13	8	T 67398
10	1.50	17	10	R 67400
12	1.75	19	14	R 67402
14	2.00	22	14	N 67404
16	2.00	24	16	L 67406
20	2.50	30	20	I 67410
24	3.00	36	24	E 67412

FLAT WASHERS – DIN 125

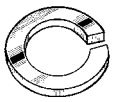
- ZINC PLATED



SIZE mm	ID	OD	THICKNESS	PART
2	2.2	5	0.3	T 67332
2.5	2.7	6	0.5	T 67333
3	3.2	7	0.5	T 67334
4	4.3	9	0.8	T 67336
5	5.3	10	1	T 67338
6	6.4	12	1.6	T 67340
8	8.4	16	1.6	T 67344
10	10.5	20	2	T 67346
12	13	24	2.5	T 67348
14	15	28	2.5	T 67349
16	17	30	3	T 67350
20	21	37	3	R 67352
24	25	44	4	R 67354

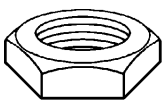
LOCK WASHERS – DIN 127B

- ZINC PLATED



SIZE mm	ID	OD	THICKNESS	PART
2	2.1	4.4	0.5	T 67362
2.5	2.6	5.1	0.6	T 67363
3	3.1	6.2	0.8	T 67364
4	4.1	7.6	0.9	T 67368
5	5.1	9.2	1.2	T 67370
6	6.1	11.8	1.6	T 67372
8	8.1	14.8	2	T 67376
10	10.2	18.1	2.2	T 67378
12	12.2	21.1	2.5	T 67380
14	14.2	24.1	3	T 67381
16	16.2	27.4	3.5	T 67382
20	20.2	33.6	4	R 67384
24	24.5	40	5	R 67386

METRIC HEX JAM NUTS – DIN 439B



- PROPERTY CLASS 04
- TOLERANCE 6H
- BLACK FINISH
- ISO 4035-1979 AND DIN 439B

SIZE mm	PITCH	WAF	HEIGHT	PART	SIZE mm	PITCH	WAF	HEIGHT	PART
2	0.40	4	1.2	T 15980	12	1.75	18, 19	6	N 15988
2.5	0.45	5	1.6	T 15981	14	2.00	21, 22	7	N 15989
3	0.50	5.5	1.8	T 15982	16	2.00	24	8	N 15990
4	0.70	7	2.2	T 15983	18	2.50	27	9	I 15991
5	0.80	8	2.7	T 15984	20	2.50	30	10	I 15992
6	1.00	10	3.2	T 15985	22	2.50	32, 34	11	E 15993
8	1.25	13	4	T 15986	24	3.00	36	12	E 15994
10	1.50	16, 17	5	R 15987					

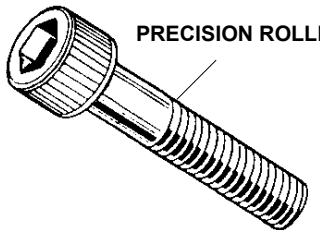
CIC 200™ METRIC SOCKET HEAD CAP SCREWS

BLACK FINISH

Alloy steel. Multiple heat-treated. Meets ISO grade 12.9 property class specifications.

ISO GRADE 12.9 – DIN 912-12

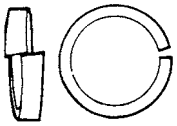
- ASTM A574M
- THERMO-FORGED® TO INSURE PROPER GRAIN FLOW AND REDUCED INTERNAL STRESSES
- BLACK FINISH
- PROPERTY CLASS 12.9
- DIN 912-12



LENGTH	4mm DIA. 0.70 THR. PCH. 3mm HEX KEY	5mm DIA. 0.80 THR. PCH. 4mm HEX KEY	6mm DIA. 1.00 THR. PCH. 5mm HEX KEY	8mm DIA. 1.25 THR. PCH. 6mm HEX KEY	10mm DIA. 1.50 THR. PCH. 8mm HEX KEY	12mm DIA. 1.75 THR. PCH. 10mm HEX KEY	16mm DIA. 2.00 THR. PCH. 14mm HEX KEY
6	R 367450	-	-	-	-	-	-
8	R 367452	R 367480	R 367510	-	-	-	-
10	R 367454	R 367482	R 367512	R 367540	-	-	-
12	R 367456	R 367484	R 367514	R 367542	R 367580	-	-
16	R 367458	R 367486	R 367516	R 367544	R 367582	-	-
20	R 367460	R 367488	R 367518	R 367546	R 367584	N 367620	-
25	R 367462	R 367490	R 367520	R 367548	R 367586	N 367622	-
30	R 367464	R 367492	R 367522	R 367550	R 367588	N 367624	I 367660
35	R 367466	R 367494	R 367524	R 367552	R 367590	L 367626	I 367662
40	R 367468	R 367496	R 367526	R 367554	R 367592	L 367628	I 367664
45	-	R 367498	R 367528	R 367556	R 367594	L 367630	E 367666
50	-	R 367500	R 367530	N 367558	N 367596	L 367632	E 367668
55	-	-	N 367532	N 367560	N 367598	L 367634	E 367670
60	-	-	N 367534	N 367562	N 367600	L 367636	E 367672
65	-	-	-	N 367564	N 367602	I 367638	E 367674
70	-	-	-	N 367566	L 367604	I 367640	E 367676
75	-	-	-	-	L 367606	I 367642	E 367678
80	-	-	-	-	L 367608	E 367644	E 367680
90	-	-	-	-	-	E 367646	E 367682
100	-	-	-	-	-	E 367648	E 367684
110	-	-	-	-	-	E 367650	E 367686
120	-	-	-	-	-	E 367652	E 367688

HIGH COLLAR LOCK WASHERS

CLOSE TOLERANCE FOR RECESSED FIT



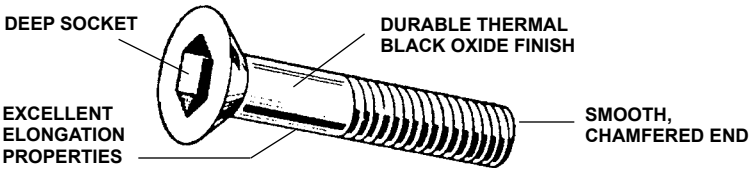
SIZE mm	PART	SIZE mm	PART
4	T 68440	10	T 68444
5	T 68441	12	T 68445
6	T 68442	16	R 68446
8	T 68443	20	L 68447

CIC 200™ METRIC FLAT SOCKET HEAD CAP SCREWS

THERMAL BLACK OXIDE FINISH

Deep socket assures full wrench engagement. Triple heat-treated alloy steel.

- MEETS IFI STANDARD 535
- TENSILE STRENGTH 1220 MPa
- HARDNESS 38 RC MINIMUM



LENGTH	2.5mm DIA. 0.50 Thr. Pch.	3mm DIA. 0.50 Thr. Pch.	4mm DIA. 0.70 Thr. Pch.	5mm DIA. 0.80 Thr. Pch.	6mm DIA. 1.00 Thr. Pch.	8mm DIA. 1.25 Thr. Pch.	10mm DIA. 1.50 Thr. Pch.	12mm DIA. 1.75 Thr. Pch.
5	T 68695							
6	T 68696	R 68700	-	-	-	-	-	
8	T 68697	R 68701	R 68707	R 68716	-	-	-	
10	T 68698	R 68702	R 68708	R 68717	R 68726	-	-	
12	T 68699	R 68703	R 68709	R 68718	R 68727	R 68736	-	
16		R 68704	R 68710	R 68719	R 68728	R 68737	R 68747	
20		R 68705	R 68711	R 68720	R 68729	R 68738	R 68748	L 68757
25		-	R 68712	R 68721	R 68730	R 68739	R 68749	L 68758
30		-	-	R 68722	R 68731	R 68740	N 68750	L 68759
35		-	-	-	R 68732	R 68741	N 68751	L 68760
40		-	-	-	R 68733	R 68742	N 68752	L 68761
45		-	-	-	-	-	-	I 68762
50		-	-	-	-	L 68744	L 68754	I 68763

CIC 200™ METRIC SOCKET SET SCREWS

CUP POINT – STANDARD THREAD

- ALLOY STEEL
- THERMAL BLACK OXIDE FINISH
- MULTIPLE HEAT-TREATED
- MEETS ISO GRADE 12.9 PROPERTY CLASS SPECIFICATIONS

LENGTH	3mm DIA. 0.50 THR. PCH. 1.5mm HEX KEY	4mm DIA. 0.70 THR. PCH. 2mm HEX KEY	5mm DIA. 0.80 THR. PCH. 2.5mm HEX KEY	6mm DIA. 1.00 THR. PCH. 3mm HEX KEY	8mm DIA. 1.25 THR. PCH. 4mm HEX KEY	10mmDIA. 1.50 THR. PCH. 5mm HEX KEY
3	T 67700	-	-	-	-	-
4	T 67702	T 67730	-	-	-	-
5	T 67704	T 67732	T 67760	-	-	-
6	T 67706	T 67734	T 67762	T 67790	-	-
8	T 67708	T 67736	T 67764	T 67792	T 67820	-
10	T 67710	T 67738	T 67766	T 67794	T 67822	R 67850
12	T 67712	T 67740	T 67768	T 67796	T 67824	R 67852
16	T 67714	R 67742	R 67770	R 67798	R 67826	R 67854
20	-	R 67744	R 67772	R 67800	R 67828	R 67856
25	-	-	R 67774	R 67802	R 67830	R 67858
30	-	-	R 67776	R 67804	R 67832	R 67860
35	-	-	-	R 67806	R 67834	R 67862
40	-	-	-	R 67808	R 67836	N 67864
45	-	-	-	N 67810	N 67838	N 67866
50	-	-	-	N 67812	N 67840	N 67868

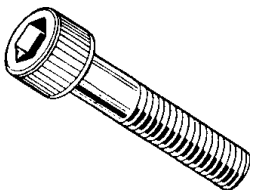
CIC 150 METRIC SOCKET HEAD CAP SCREWS

STANDARD THREAD

Medium carbon steel. Multiple heat-treated. Meets ISO grade 12.9 property class specifications.

ISO GRADE 12.9 – DIN 912-12

- PROPERTY CLASS 12.9
- THERMAL BLACK OXIDE FINISH
- DIN 912-12
- THREAD CLASS 4G 6G
- RC 38-43



17817

LENGTH	2mm DIA. 0.40 THR. PCH. 1.5mm HEX KEY	2.5mm DIA. 0.45 THR. PCH. 2mm HEX KEY	3mm DIA. 0.50 THR. PCH. 2.5mm HEX KEY	4mm DIA. 0.70 THR. PCH. 3mm HEX KEY	5mm DIA. 0.80 THR. PCH. 4mm HEX KEY	6mm DIA. 1.00 THR. PCH. 5mm HEX KEY
4	T 66705	T 66710	–	–	–	–
6	T 66706	T 66711	T 66715	T 66723	–	–
8	T 66707	T 66712	T 66716	T 66724	T 66733	T 66744
10	T 66708	T 66713	T 66717	T 66725	T 66734	T 66745
12	T 66709	T 66714	T 66718	T 66726	T 66735	T 66746
16	–	–	T 66719	T 66727	T 66736	T 66747
20	–	–	T 66720	T 66728	T 66737	T 66748
25	–	–	T 66721	T 66729	T 66738	T 66749
30	–	–	T 66722	T 66730	T 66739	T 66750
35	–	–	–	T 66731	T 66740	T 66751
40	–	–	–	R 66732	R 66741	R 66752
45	–	–	–	–	R 66742	R 66753
50	–	–	–	–	R 66743	R 66754
55	–	–	–	–	–	R 66755
60	–	–	–	–	–	R 66756

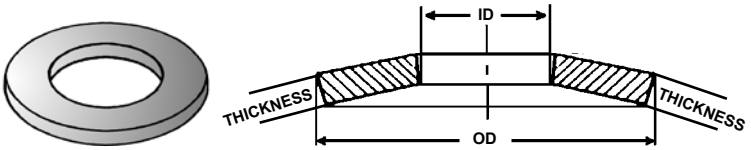
LENGTH	8mm DIA. 1.25 THR. PCH. 6mm HEX KEY	10mm DIA. 1.50 THR. PCH. 8mm HEX KEY	12mm DIA. 1.75 THR. PCH. 10mm HEX KEY	16mm DIA. 2.00 THR. PCH. 14mm HEX KEY	20mm DIA. 2.50 THR. PCH. 17mm HEX KEY	24mm DIA. 3.00 THR. PCH. 19mm HEX KEY
10	R 66757	–	–	–		
12	R 66758	R 66771	–	–		
16	R 66759	R 66772	–	–		
20	R 66760	N 66773	N 66786	–		
25	R 66761	N 66774	N 66787	–		
30	R 66762	N 66775	I 66788	I 66803		
35	R 66763	N 66776	I 66789	I 66804		
40	R 66764	N 66777	I 66790	I 66805	E 67689	
45	N 66765	N 66778	I 66791	I 66806	–	–
50	N 66766	N 66779	I 66792	E 66807	E 67690	–
55	N 66767	N 66780	I 66793	E 66808	–	–
60	N 66768	N 66781	I 66794	E 66809	E 67692	–
65	N 66769	I 66782	I 66795	E 66810	–	–
70	N 66770	I 66783	I 66796	E 66811	–	A 67443
75	–	I 66784	I 66797	E 66812	–	–
80	–	I 66785	I 66798	E 66813	E 67694	A 67444
90	–	R 67609	I 66799	E 66814	E 67695	A 67445
100	–	I 67610	I 66800	E 66815	A 67697	A 67446
110	–	I 67611	E 66801	B 66816	A 67698	–
120	–	–	E 66802	B 66817	–	–
140	–	–	–	–	A 67699	A 67449

METRIC SAFETY SPRING WASHERS

STANDARD THREAD

Spring steel – Hardness HRC 43-48. Genuine Schnorr®.

FOR USE WITH SOCKET HEAD CAP SCREWS OR HEX HEAD CAP SCREWS



- MAXIMUM VIBRATION PROOF
- UNIFORMLY DISTRIBUTED AXIAL PRESSURE
- NO BOLT OR NUT DISTORTION
- SMOOTH SLIDING SURFACES
- REUSABILITY
- DESIRED INSTALLATION IS NEAR FLAT AS POSSIBLE

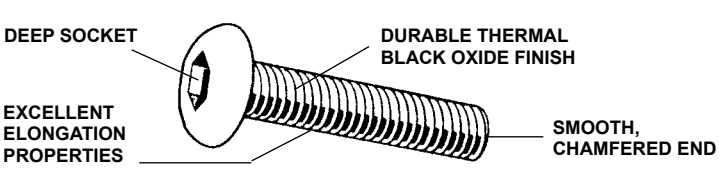
SIZE mm	O.D. mm	I.D. mm	THICKNESS mm	PART
2	5	2.2	0.4	T 68430
2.5	6	2.7	0.5	T 68431
3	7	3.2	0.6	T 68432
4	9	4.3	1	T 68433
5	11	5.3	1.2	T 68434
6	14	6.4	1.5	T 68435
8	18	8.4	2	R 68436
10	23	10.5	2.5	N 68437
12	29	13	3	I 68438
16	39	17	4	E 68439

CIC 150 METRIC BUTTON SOCKET HEAD CAP SCREWS

THERMAL BLACK OXIDE FINISH

Deep socket assures full wrench engagement. Triple heat-treated alloy steel.

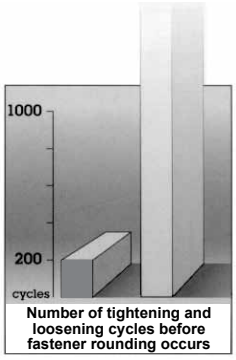
- DIN 7380 / ISO 898/1
- TENSILE STRENGTH Rm, N/mm² 1040 MIN.
- HARDNESS 38-44 RC
- PROPERTY CLASS 10.9
- BLACK FINISH



LENGTH	2.5mm DIA. 0.50 Thr. Pch. 1.5mm Hex Key	3mm DIA. 0.50 Thr. Pch. 2mm Hex Key	4mm DIA. 0.70 Thr. Pch. 2.5mm Hex Key	5mm DIA. 0.80 Thr. Pch. 3mm Hex Key	6mm DIA. 1.00 Thr. Pch. 4mm Hex Key	8mm DIA. 1.25 Thr. Pch. 5mm Hex Key	10mm DIA. 1.50 Thr. Pch. 6mm Hex Key	12mm DIA. 1.75 Thr. Pch. 8mm Hex Key
4	T 69595	–	–	–	–	–	–	–
6	T 69596	T 69600	–	–	–	–	–	–
8	T 69597	T 69601	T 69605	–	–	–	–	–
10	T 69598	T 69602	T 69606	T 69609	T 69615	R 69621	–	–
12	T 69599	T 69603	T 69607	T 69610	T 69616	R 69622	–	–
16	–	T 69604	T 69608	T 69611	T 69617	R 69623	R 69629	N 69635
20	–	–	–	T 69612	T 69618	R 69624	R 69630	N 69636
25	–	–	–	T 69613	T 69619	R 69625	R 69631	N 69637
30	–	–	–	T 69614	T 69620	R 69626	N 69632	N 69638
35	–	–	–	–	–	R 69627	N 69633	N 69639
40	–	–	–	–	–	R 69628	N 69634	N 69640
50	–	–	–	–	–	–	–	I 69641

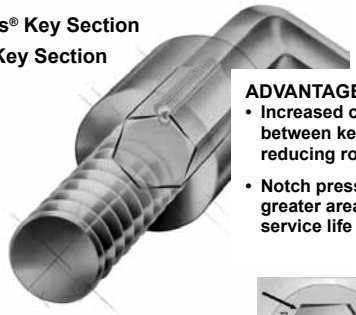
METRIC HEX KEYS

METRIC HEX-PLUS® HEX KEYS



Number of tightening and loosening cycles before fastener rounding occurs

Metric Hex-Plus® Key Section
Conventional Key Section



ADVANTAGES
- Increased contact surface between key and fastener – reducing rounding and slippage.
- Notch pressure spread over a greater area – extends the service life of both key and fastener.

NOTCHING ACTION WITH A CONVENTIONAL KEY

REDUCE NOTCH PRESSURE WITH A HEX-PLUS® KEY

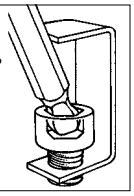
- PROPRIETARY DESIGN REDUCES FASTENER ROUNDING
- MANUFACTURED WITH HEAT-TREATED ALLOY STEEL TO PRECISION TOLERANCES
- OUTPERFORMS CONVENTIONAL KEYS BY DISTRIBUTING PRESSURE ON THE FLAT SIDES OF FASTENERS, EXTENDINGSERVICE LIFE OF BOTH KEYAND FASTENER

DESCRIPTION		PART
LONG SERIES - 9 keys - 1.5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm and 10mm	A	70332

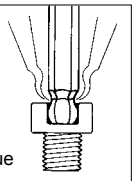
METRIC BALL END HEX KEY SETS

- HEAT-TREATED ALLOY STEEL PROVIDES OPTIMUM HARDNESS AND ELIMINATES SHATTERING
- PATENTED BALL DESIGN ALLOWS FOR A THICKER NECK DIAMETER, INCREASING TORQUE CAPACITY UP TO 100% WHILE MAINTAINING OPERATIONAL ANGLES TO 25°
- SET CONTAINS MOST POPULAR SIZES – IDEAL WHERE A VARIETY OF TOOL SIZES ARE REQUIRED
- PATENTED CARRYING CASE – WRENCHES SLIP EASILY INTO INDIVIDUALLY MARKED SLOTS AND TWIST TO LOCK SECURELY IN PLACE. PREVENTS LOOSE OR LOST KEYS
- ALL HEX KEYS HAVE AN EXCLUSIVE CORROSION RESISTANT DRY FINISH

➤ **Angle entry to 25°**
- Works in hard to reach areas
- Faster insertion and removal



➤ **Ergonomic design**
- Allows natural hand and wrist rotation
- Turns full 360° in location
- Reduces user fatigue



➤ **Fast funnel entry**
- Eliminates wasted time even in blind applications
- Full depth engagement
- Reduces "stripping" problems

SIZE		PART	SIZE		PART	SIZE		PART
1.5mm	E	70370	3mm	E	70373	6mm	E	70376
2mm	E	70371	4mm	E	70374	8mm	E	70377
2.5mm	E	70372	5mm	E	70375	10mm	E	70378
9 Key Metric Set – 1.5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm and 10mm							A	70334

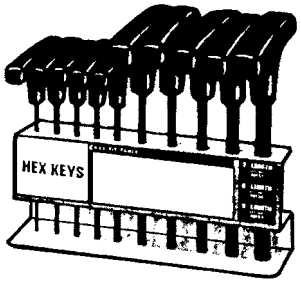
METRIC HEX-PRO™ HEX KEYS

- A VERSATILE HEX KEY WRENCH WITH A UNIQUE PATENTED PIVOTAL JOINT THAT SAVES YOU TIME AND ALLOWS YOU TO WORK EFFICIENTLY IN THOSE LIMITED SPACE LOCATIONS
- HIGH QUALITY INDUSTRIAL STEEL
- LONG HANDLES FOR EXTRA REACH AND MORE LEVERAGE
- CANVAS POUCH / HOLDER INCLUDED WITH SET
- LIMITED LIFETIME WARRANTY
- AVAILABLE IN MOST COMMON SIZES ONLY

SIZE		PART	SIZE		PART
3mm	L	70157	6mm	L	70160
4mm	L	70158	8mm	L	70161
5mm	L	70159	10mm	L	70162
6 Key Metric Set – 3mm, 4mm, 5mm, 6mm, 8mm and 10mm					70151

METRIC HEX SOCKET WRENCH SETS

"T" HANDLE SET		
DESCRIPTION		**PART**
8 Piece 6" Blade Set w/Stand	A	70328



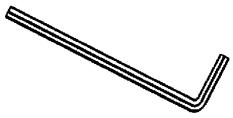
HEX SOCKET WRENCH SETS		
DESCRIPTION		**PART**
7 Pc. Standard Set w/Pouch - Includes: 0.7, 0.9, 1.3, 1.5, 2, 2.5, and 3 mm.	A	67882
17 Pc. Standard Set w/Case - Includes: .71, .89, 1.27, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10, 12, 14, 17 and 19 mm.	A	67886
7 Pc. Standard Set w/Case - Includes: 12, 14, 17, 19, 22, 24 and 27 mm.	A	67888
9 Pc. Standard Set w/Case - Includes: 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 mm.	A	70314
9 Pc. Long Arm Set in Box - Includes: 2, 2.5, 3, 4, 5, 6, 8, 10 and 12 mm.	A	67890
11 Pc. Long Arm Set w/Case - Includes: 2.5, 3, 4, 5, 6, 8, 10, 12, 14, 17 & 19 mm	A	67892
15 Pc. Long Arm Set w/Case - Includes: 2. 2.5, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17 and 19 mm.	A	67894

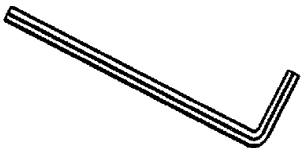
DESCRIPTION		**PART**
FOLDING HEX KEY SET - 7 keys Includes: 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm and 8mm	A	70323

METRIC HEX SOCKET WRENCHES

HEAT-TREATED AND TEMPERED FOR ADDED DURABILITY

Square cut ends for better socket engagement. Manufactured from top grade 8650 alloy steel, treated for rust and corrosion resistance. Extra strength molded T-handle wrenches.





SIZE		BLADE 6"		SHORT		LONG
0.7mm		-	E	70200		-
0.9mm		-	E	70201	E	70227
1.3mm		-	E	70202	E	70228
1.5mm		-	E	64303	E	64330
2.0mm	B	70311	E	64304	E	64331
2.5mm	B	70313	E	64305	E	64332
3.0mm	B	70315	E	64306	E	64333
3.5mm		-		-		-
4.0mm	B	70317	E	64307	E	64334
4.5mm		-		-		-
5.0mm	B	70321	E	64308	E	64335
6.0mm	B	70325	E	64309	E	64336
7.0mm		-		-		-
8.0mm	A	70327	E	64310	E	64337
9.0mm		-		-		-
10.0mm	A	70329	A	64311	A	64338
11.0mm		-		-		-
12.0mm		-	A	64312	A	64339
14.0mm		-	A	64313	A	64340

METRIC HEX BIT SOCKETS

PRECISION TOLERANCES, HEAT TREATED ALLOY STEEL, BLACK FINISH

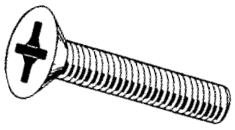
SIZE	PART	SIZE	PART	SIZE	PART	SIZE	PART
2mm	A 70389	3mm	A 70391	5mm	A 70393	8mm	A 70395
2.5mm	A 70390	4mm	A 70392	6mm	A 70394	10mm	A 70396

METRIC PHILLIPS MACHINE SCREWS

PRECISION, BURR-FREE THREADS FOR EXACT FIT

FLAT HEAD

- SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION
- DIN 965

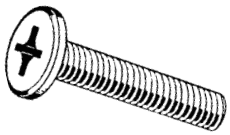


17774

LENGTH	3mm DIA. 0.50 PITCH	4mm DIA. 0.70 PITCH	5mm DIA. 0.80 PITCH	6mm DIA. 1.0 PITCH	LENGTH	3mm DIA. 0.50 PITCH	4mm DIA. 0.70 PITCH	5mm DIA. 0.80 PITCH	6mm DIA. 1.0 PITCH
6	T 68043	-	-	-	25	T 68055	T 68071	T 68099	T 68129
8	T 68045	T 68061	-	-	30	T 68057	T 68073	T 68101	R 68131
10	T 68047	T 68063	T 68091	T 68121	35	-	T 68075	R 68103	R 68133
12	T 68049	T 68065	T 68093	T 68123	40	-	T 68077	R 68105	R 68135
16	T 68051	T 68067	T 68095	T 68125	50	-	T 68079	R 68107	R 68137
20	T 68053	T 68069	T 68097	T 68127	–	-	-	-	-

PAN HEAD

- SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION
- DIN 7985



17773

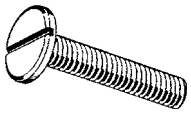
LENGTH	3mm DIA. 0.50 PITCH	4mm DIA. 0.70 PITCH	5mm DIA. 0.80 PITCH	6mm DIA. 1.0 PITCH	8mm DIA. 1.25 PITCH	10mm DIA. 1.5 PITCH
4	T 67899	-	-	-	-	-
6	T 67901	-	-	-	-	-
8	T 67903	T 67921	-	-	-	-
10	T 67905	T 67923	T 67951	T 67981	N 68337	-
12	T 67907	T 67925	T 67953	T 67983	-	-
16	T 67909	T 67927	T 67955	T 67985	R 68339	-
20	T 67911	T 67929	T 67957	T 67987	R 68340	L 68347
25	T 67913	T 67931	T 67959	R 67989	R 68341	L 68348
30	T 67915	T 67933	T 67961	R 67991	R 68342	I 68349
35	-	T 67935	R 67963	R 67993	-	-
40	-	R 67937	R 67965	R 67995	R 68343	I 68351
50	-	R 67939	N 67967	N 67997	-	-

METRIC SLOTTED MACHINE SCREWS

PRECISION, BURR-FREE THREADS FOR EXACT FIT

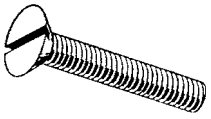
PAN HEAD

SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION



FLAT HEAD

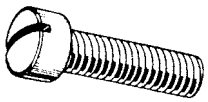
SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION



LENGTH	3mm DIA. 0.50 PCH.	4mm DIA. 0.70 PCH.	5mm DIA. 0.80 PCH.	6mm DIA. 1.0 PCH.	3mm DIA. 0.50 PCH.	4mm DIA. 0.70 PCH.	5mm DIA. 0.80 PCH.	6mm DIA. 1.0 PCH.
6	T 67900	-	-	-	T 68042	-	-	-
8	T 67902	T 67920	-	-	T 68044	T 68060	-	-
10	T 67904	T 67922	T 67950	T 67980	T 68046	T 68062	T 68090	T 68120
12	T 67906	T 67924	T 67952	T 67982	T 68048	T 68064	T 68092	T 68122
16	T 67908	T 67926	T 67954	T 67984	T 68050	T 68066	T 68094	T 68124
20	T 67910	T 67928	T 67956	T 67986	T 68052	T 68068	T 68096	T 68126
25	T 67912	T 67930	T 67958	T 67988	T 68054	T 68070	T 68098	T 68128
30	T 67914	T 67932	T 67960	T 67990	T 68056	T 68072	T 68100	T 68130
35	-	-	T 67962	T 67992	-	T 68074	T 68102	T 68132
40	-	T 67936	T 67964	R 67994	-	T 68076	T 68104	R 68134
50	-	R 67938	R 67966	R 67996	-	T 68078	R 68106	R 68136

FILLISTER HEAD

SPECIAL CHROMATE PLATING ELIMINATES RUST AND CORROSION



LENGTH	3mm DIA. 0.50 PITCH	4mm DIA. 0.70 PITCH	5mm DIA. 0.80 PITCH	6mm DIA. 1.0 PITCH	LENGTH	3mm DIA. 0.50 PITCH	4mm DIA. 0.70 PITCH	5mm DIA. 0.80 PITCH	6mm DIA. 1.0 PITCH
6	T 68242	-	-	-	25	T 68254	T 68270	T 68298	T 68328
8	T 68244	T 68260	-	-	30	T 68256	T 68272	T 68300	T 68330
10	T 68246	T 68262	T 68290	T 68320	35	-	T 68274	T 68302	T 68332
12	T 68248	T 68264	T 68292	T 68322	40	-	T 68276	T 68304	R 68334
16	T 68250	T 68266	T 68294	T 68324	50	-	T 68278	R 68306	R 68336
20	T 68252	T 68268	T 68296	T 68326	–	-	-	-	-

METRIC RETAINING L HEX KEY

SPECIAL SLIDE AND TIP-OUT L-KEY HOLDER FOR FASTEST KEY ACCESS

- HARDENED SPRING STEEL RETAINING RING HOLDS SCREWS TIGHTLY
- SATIN HARD CHROME FINISH IS CORROSION RESISTANT
- PRECISION MACHINED FOR EXACT FIT NO CUT-OFF DISTORTIONS
- MADE FROM EXCLUSIVE CVM HARDENED TOOL STEEL
- SPECIAL SLIDE AND TIP-OUT L-KEY HOLDER FOR FASTEST KEY ACESS
- SAVES VALUABLE TIME . . . IMPROVES PRODUCTIVITY!

3 TOOLS IN ONE!

1. *Standard hex tool*
2. *Ball end for angle entry*
3. *Screw holding for time savings*

SIZE	PART	SIZE	PART	SIZE	PART
1.5mm	A 70183	3mm	A 70186	6mm	A 70189
2mm	A 70184	4mm	A 70187	8mm	A 70190
2.5mm	A 70185	5mm	A 70188	10mm	A 70191
9 Key Metric Set – 1.5mm, 2mm, 2.5mm, 3mm, 4mm, 5mm, 6mm, 8mm and 10mm					A 70340

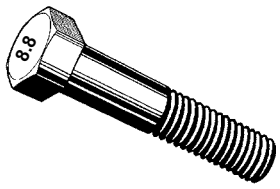
METRIC CAP SCREWS

COARSE AND FINE THREAD

Medium carbon steel. Multiple heat-treated. Meets ISO property class specifications.

METRIC 8.8 ZINC

- ZINC PLATED
- MINIMUM TENSILE 120,000 PSI
- MEETS DIN 931 AND DIN 933



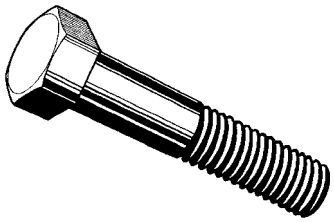
LENGTH	6mm DIA.	8mm DIA.		10mm DIA.			12mm DIA.
	COARSE 1.00 THRD PITCH	COARSE 1.25 THRD PITCH	FINE 1.00 THRD PITCH	COARSE 1.50 THRD PITCH	FINE 1.25 THRD PITCH	X-FINE 1.00 THRD PITCH	COARSE 1.75 THRD PITCH
10	T 69151	–	–	–	–	–	–
12	T 69153	T 69183	–	–	–	–	–
16	T 69155	T 69185	T 69201	–	–	–	–
20	T 69157	T 69187	T 69202	T 69216	R 69886	R 69899	R 69244
25	T 69388	T 69188	T 69203	R 69217	R 69887	R 69900	R 69245
30	T 69159	T 69189	T 69204	R 69218	R 69888	R 69901	R 69246
35	T 69160	T 69190	T 69205	R 69449	R 69889	R 69902	R 69247
40	T 69161	T 69191	T 69206	R 69220	R 69890	R 69903	N 69248
45	T 69162	T 69192	–	R 69221	–	–	N 69249
50	T 69163	T 69193	R 69207	R 69222	N 69892	N 69904	N 69250
55	–	R 69194	R 69208	R 69223	N 69893	–	N 69251
60	T 69164	R 69195	R 69209	N 69224	N 69894	N 69905	N 69252
70	R 69165	R 69197	R 69210	N 69226	N 69895	–	N 69254
80	R 69166	R 69198	N 69211	N 69228	N 69896	–	N 69256
90	R 69167	R 69199	N 69212	N 69232	N 69897	–	I 69257
100	R 69168	N 69200	–	N 69233	N 69898	–	I 69258
110	–	–	–	I 69234	–	–	I 69259
120	–	–	–	I 69235	–	–	I 69260

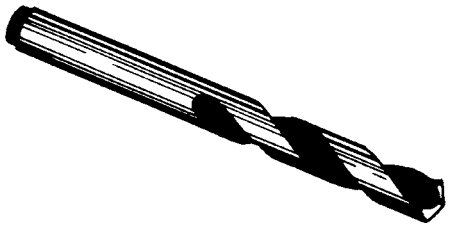
LENGTH	12mm DIA.		14mm DIA.		16mm DIA.		20mm DIA.	
	X-FINE 1.25 THRD PTCH	FINE 1.50 THRD PTCH	COARSE 2.00 THRD PTCH	FINE 1.50 THRD PTCH	COARSE 2.00 THRD PTCH	FINE 1.50 THRD PTCH	COARSE 2.50 THRD PTCH	FINE 1.50 THRD PTCH
20	R 69914	R 69955	–	–	–	–	–	–
25	N 69915	N 69956	–	–	N 69297	–	–	–
30	N 69916	N 69957	–	N 69943	N 69298	I 69327	–	–
35	N 69917	N 69958	N 69274	N 69944	N 69299	I 69328	–	–
40	N 69918	N 69959	N 69275	I 69945	I 69300	I 69329	I 69337	I 69978
45	–	N 69960	N 69276	I 69946	I 69301	I 69330	I 69338	–
50	N 69920	N 69961	N 69277	I 69947	I 69302	I 69331	I 69339	E 69979
55	N 69921	N 69962	I 69278	–	I 69303	–	–	–
60	N 69922	N 69963	I 69279	I 69948	I 69304	I 69332	I 69968	E 69980
70	I 69923	N 69964	I 69281	I 69950	I 69306	I 69333	E 69969	E 69981
80	I 69924	N 69965	I 69283	I 69951	I 69307	I 69334	E 69970	E 69982
90	I 69925	N 69966	I 69284	I 69953	I 69309	E 69335	E 69971	E 69983
100	I 69926	N 69967	I 69285	I 69954	I 69310	E 69336	E 69972	E 69984
110	I 69927	–	I 69286	–	I 69311	–	E 69973	
120	I 69928	–	I 69287	–	E 69312	–	E 69974	E 69985
130	–	–	–	–	E 69313	–	E 69975	
140	–	–	–	–	E 69296	–	E 69976	
150	–	–	–	–	E 69295	–	B 69977	

EQUIVALENCY TABLE

METRIC CAP SCREW TO AMERICAN DRILL

To drill for metric cap screw with american drill sizes, allow for proper bolt clearance by using the following table. The below drill or hole sizes are what we consider to be appropriate in order to allow for proper fitting and clearance, still allowing for maximum protection against shear pressures. For best cap screw holding power, always torque to proper specifications.





METRIC SIZE CAP SCREWS		AMERICAN SIZE DRILLS		
SIZE (mm)	DECIMAL EQUIVALENT	FRACTIONAL SIZE	DECIMAL EQUIVALENT	PART
1	.0394	3/64	.0469	91003
2	.0787	3/32	.0938	91006
3	.1181	1/8	.1250	91008
4	.1575	11/64	.1719	91011
5	.1969	13/64	.2031	91013
6	.2362	1/4	.2500	91016
7	.2756	9/32	.2812	91018
8	.3150	21/64	.3281	91021
9	.3543	23/64	.3594	91023
10	.3937	13/32	.4062	91026
11	.4331	7/16	.4375	91028
12	.4724	31/64	.4844	91031
1/2" REDUCED SHANK DRILLS				
13	.5118	33/64	.5156	91235
14	.5512	9/16	.5625	91238
15	.5906	19/32	.5938	91240
16	.6299	41/64	.6406	91243
17	.6693	43/64	.6719	91245
18	.7087	23/32	.7188	91248
19	.7480	3/4	.7500	91250
20	.7874	51/64	.7969	91253
21	.8268	53/64	.8281	91255
22	.8661	7/8	.8750	91258
23	.9055	29/32	.9062	91260
24	.9449	61/64	.9531	91263

NOTE:
- **For Metric Drills - See Section 23**
- **For Metric Taps - See Section 24**
- **For Metric Thread Repair Inserts - See Section 22**

TORQUE SPECS — METRIC CAP SCREWS

HEX HEAD (FT. LBS.)				HEX SOCKET (FT. LBS.)						
SIZE	10.9	8.8	WRENCH SIZE	SOCKET	HEX KEY SIZE	BUTTON	HEX KEY SIZE	FLAT	HEX KEY SIZE	SIZE
3mm x 0.5	1.3	0.9	5.5	1.7	2.5	0.9	2	1.4	2	**3mm x 0.5**
4mm x 0.7	3.0	2.1	7	4.0	3	2.1	2.5	2.5	2.5	**4mm x 0.7**
5mm x 0.8	6.0	4.2	8	8.2	4	4.4	3	5.1	3	**5mm x 0.8**
6mm x 1	10.3	7.3	10	14	5	7.4	4	8.9	4	**6mm x 1**
7mm x 1	17	12	11	—	—	—	—	—	—	**7mm x 1**
8mm x 1.25	25	18	13	33	6	18	5	21	5	**8mm x 1.25**
8mm x 1.00	25	18	13	—	—	—	—	—	—	**8mm x 1.00**
10mm x 1.5	49	35	16	66	8	35	6	41	6	**10mm x 1.5**
10mm x 1.25	50	36	16	—	—	—	—	—	—	**10mm x 1.25**
12mm x 1.75	86	61	18	112	10	62	8	73	8	**12mm x 1.75**
12mm x 1.25	92	64	18	—	—	—	—	—	—	**12mm x 1.25**
14mm x 2	136	97	21	180	12	98	10	115	10	**14mm x 2**
14mm x 1.5	143	103	21	—	—	—	—	—	—	**14mm x 1.5**
16mm x 2	210	147	24	280	14	153	10	181	10	**16mm x 2**
16mm x 1.5	217	154	24	—	—	—	—	—	—	**16mm x 1.5**
18mm x 2.5	287	202	27	398	14	—	—	254	12	**18mm x 2.5**
18mm x 1.5	313	224	27	—	—	—	—	—	—	**18mm x 1.5**
20mm x 2.5	405	287	30	559	17	—	—	295	12	**20mm x 2.5**
20mm x 1.5	442	313	30	—	—	—	—	—	—	**20mm x 1.5**
22mm x 2.5	549	390	32	754	17	—	—	481	14	**22mm x 2.5**
22mm x 1.5	590	420	32	—	—	—	—	—	—	**22mm x 1.5**
24mm x 3	708	497	36	967	19	—	—	609	14	**24mm x 3**
24mm x 2	737	531	36	—	—	—	—	—	—	**24mm x 2**
30mm x 3.5	1401	995	46	1883	22	—	—	—	—	**30mm x 3.5**

NOTES: *The above torque values are recommended assembly specifications for the various grades of Chromate fasteners with the following guidelines:*

1. *Torque values for hex head cap screws are for turning the nut while holding the head of the cap screw with a wrench. In applications where access to the nut is limited, increase the torque value by 20% for tightening by the cap screw head.*
2. *Torque values are for standard, non-lubricated Chromate products as delivered (plated, black oxide or plain finish).*

CAUTION: *The above data should only be used as a reference guide. The proper torque can only be determined by analyzing the design parameters which include temperature, plating, lubrication, etc. Short time tensile, creep and stress relaxation should be considered for applications where the temperature exceeds 400°F (204°C). Lower ductility, impact strength and fatigue life must be considered for screws subject to temperatures below -20°F (-29°C). All socket screw products are class 3A fit except size 1-1/4" and larger which are class 2A fit.*

BIN ASSORTMENTS
CIC METRIC FASTENERS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Metric Sizes Needed in Maintenance!

PART NO. 7860

ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

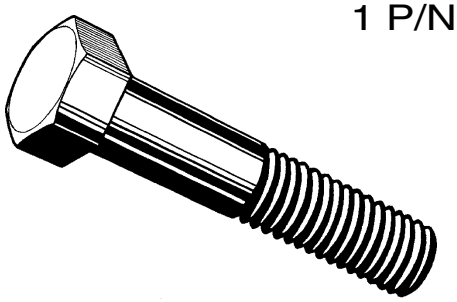
*Can be shipped via UPS

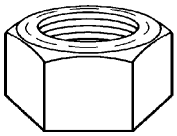
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

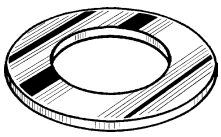
ASSORTMENT CONTAINS:

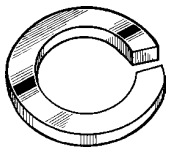
22 Sizes Metric Cap Screws	.....	4MM thru 12MM
6 Sizes Metric Hex Nuts	.....	4MM thru 12MM
6 Sizes Metric Flat Washers	.....	4MM thru 12MM
6 Sizes Metric Lock Washers	.....	4MM thru 12MM

1 P/N 7903 – 40-Compartment Bin









CHROMATE METRIC FASTENER ASSORTMENT

P/N 7860 — COARSE THREADS — 40 ITEMS / 40 HOLES

4MM HEX NUT 67308	4MM LOCK WASHER 67368	4MM FLAT WASHER 67336	4 x 12MM CAP SCREW 67034	4 x 20MM CAP SCREW 67040	4 x 30MM CAP SCREW 67044	5MM HEX NUT 67310	5MM LOCK WASHER 67370
5MM FLAT WASHER 67338	5 x 10MM CAP SCREW 67062	5 x 16MM CAP SCREW 67068	5 x 25MM CAP SCREW 67072	6MM HEX NUT 67312	6MM LOCK WASHER 67372	6MM FLAT WASHER 67340	6 x 16MM CAP SCREW 67090
6 x 20MM CAP SCREW 67094	6 x 30MM CAP SCREW 67098	6 x 40MM CAP SCREW 67102	8MM HEX NUT 67314	8MM LOCK WASHER 67376	8MM FLAT WASHER 67344	8 x 16MM CAP SCREW 67120	8 x 25MM CAP SCREW 67124
8 x 35MM CAP SCREW 67128	8 x 40MM CAP SCREW 67130	10MM HEX NUT 67316	10MM LOCK WASHER 67378	10MM FLAT WASHER 67346	10 x 16MM CAP SCREW 67150	10 x 25MM CAP SCREW 67154	10 x 30MM CAP SCREW 67156
10 x 40MM CAP SCREW 67160	12MM HEX NUT 67318	12MM LOCK WASHER 67380	12MM FLAT WASHER 67348	12 x 20MM CAP SCREW 67180	12 x 30MM CAP SCREW 67184	12 x 40MM CAP SCREW 67188	12 x 50MM CAP SCREW 67192

BIN ASSORTMENTS
CHROMATE METRIC
HEX SOCKET CAP SCREWS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Metric Sizes Needed in Maintenance!

PART NO. 7861

ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

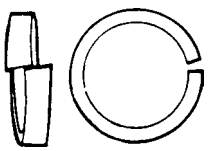
*Can be shipped via UPS

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

ASSORTMENT CONTAINS:

34 Sizes Metric Socket Cap Screws ..... 4MM thru 12MM
6 Sizes Hi-Collar Lock Washers ..... 4MM thru 12MM

1 P/N 7903 — 40-Compartment Bin



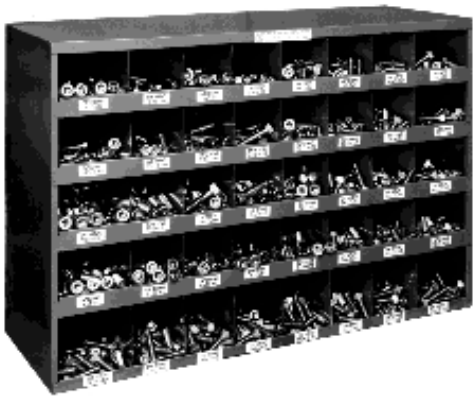
METRIC HEX SOCKET CAP SCREW & WASHER

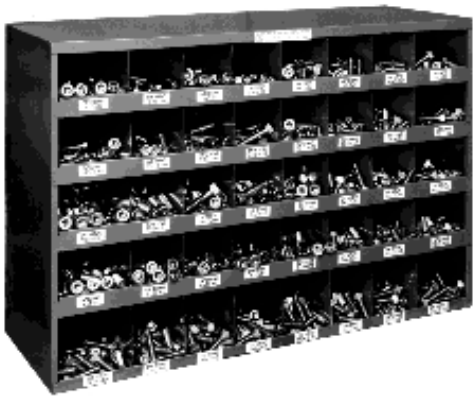
P/N 7861 — COARSE THREADS — 40 ITEMS / 40 HOLES

4MM HI-COLLAR LOCK WASHER 68440	4 x 10MM SOCKET CAP SCREW 67454	4 x 16MM SOCKET CAP SCREW 67458	4 x 20MM SOCKET CAP SCREW 67460	4 x 25MM SOCKET CAP SCREW 67462	4 x 30MM SOCKET CAP SCREW 67464	5MM HI-COLLAR LOCK WASHER 68441	5 x 10MM SOCKET CAP SCREW 67482
5 x 16MM SOCKET CAP SCREW 67486	5 x 20MM SOCKET CAP SCREW 67488	5 x 25MM SOCKET CAP SCREW 67490	5 x 30MM SOCKET CAP SCREW 67492	5 x 35MM SOCKET CAP SCREW 67494	6MM HI-COLLAR LOCK WASHER 68442	6 x 16MM SOCKET CAP SCREW 67516	6 x 20MM SOCKET CAP SCREW 67518
6 x 25MM SOCKET CAP SCREW 67520	6 x 30MM SOCKET CAP SCREW 67522	6 x 35MM SOCKET CAP SCREW 67524	6 x 40MM SOCKET CAP SCREW 67526	8MM HI-COLLAR LOCK WASHER 68443	8 x 16MM SOCKET CAP SCREW 67544	8 x 20MM SOCKET CAP SCREW 67546	8 x 25MM SOCKET CAP SCREW 67548
8 x 30MM SOCKET CAP SCREW 67550	8 x 35MM SOCKET CAP SCREW 67552	8 x 40MM SOCKET CAP SCREW 67554	10MM HI-COLLAR LOCK WASHER 68444	10 x 20MM SOCKET CAP SCREW 67584	10 x 25MM SOCKET CAP SCREW 67586	10 x 30MM SOCKET CAP SCREW 67588	10 x 35MM SOCKET CAP SCREW 67590
10 x 40MM SOCKET CAP SCREW 67592	10 x 45MM SOCKET CAP SCREW 67594	12MM HI-COLLAR LOCK WASHER 68445	12 x 20MM SOCKET CAP SCREW 67620	12 x 25MM SOCKET CAP SCREW 67622	12 x 30MM SOCKET CAP SCREW 67624	12 x 40MM SOCKET CAP SCREW 67628	12 x 50MM SOCKET CAP SCREW 67632

BIN ASSORTMENTS
METRIC 8.8 ZINC CAP SCREWS

80-Compartment Steel Bin





You Receive Two All-Steel 40-Hole Bins Labeled for 70 of the Fastest Moving Sizes Needed Today in Maintenance!

PART NO. 7875

TWO 40-HOLE BINS

33-3/4" wide, 22-1/2" high, 12" deep*

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 70 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. BINS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

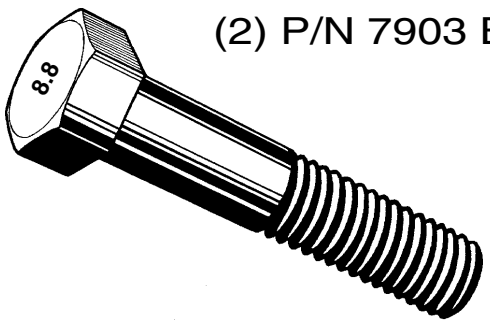
*Can be shipped via UPS

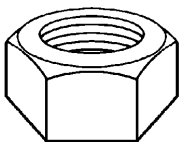
Use Bin Label Set #168188

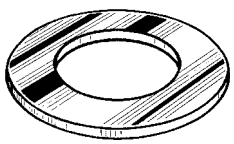
ASSORTMENT CONTAINS:

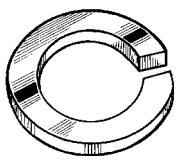
49 Sizes Metric Cap Screws..... 6mm through 20mm diameter
7 Sizes Metric Hex Nuts ..... 6mm through 20mm diameter
7 Sizes Metric Flat Washers ..... 6mm through 20mm diameter
7 Sizes Metric Lock Washers ..... 6mm through 20mm diameter

(2) P/N 7903 BINS — COMBINE TO MAKE 80-HOLE BIN









METRIC 8.8 CAP SCREWS ZINC PLATED ASST.

PART NO. 7875 – COARSE THREADS – 70 ITEMS / 80 HOLES

6 x 1.00 HEX NUT 66888	8 x 1.25mm HEX NUT 66889	10 x 1.50mm HEX NUT 66890	12 x 1.75mm HEX NUT 66891	14 x 2.00mm HEX NUT 66892	16 x 2.00mm HEX NUT 66897	20 x 2.50mm HEX NUT 66899	EXPANSION
6mm FLAT WASHER 67340	8mm FLAT WASHER 67344	10mm FLAT WASHER 67346	12mm FLAT WASHER 67348	14mm FLAT WASHER 67349	16mm FLAT WASHER 67350	20mm FLAT WASHER 67352	EXPANSION
6mm LOCK WASHER 67372	8mm LOCK WASHER 67376	10mm LOCK WASHER 67378	12mm LOCK WASHER 67380	14mm LOCK WASHER 67381	16mm LOCK WASHER 67382	20mm LOCK WASHER 67384	EXPANSION
6 x 10mm CAP SCREW 69151	8 x 12mm CAP SCREW 69183	10 x 20mm CAP SCREW 69216	12 x 20mm CAP SCREW 69244	14 x 35mm CAP SCREW 69274	16 x 25mm CAP SCREW 69297	20 x 40mm CAP SCREW 69337	EXPANSION
6 x 12mm CAP SCREW 69153	8 x 16mm CAP SCREW 69185	10 x 25mm CAP SCREW 69217	12 x 25mm CAP SCREW 69245	14 x 40mm CAP SCREW 69275	16 x 30mm CAP SCREW 69298	20 x 45mm CAP SCREW 69338	EXPANSION
6 x 16mm CAP SCREW 69155	8 x 20mm CAP SCREW 69187	10 x 30mm CAP SCREW 69218	12 x 30mm CAP SCREW 69246	14 x 45mm CAP SCREW 69276	16 x 35mm CAP SCREW 69299	20 x 50mm CAP SCREW 69339	EXPANSION
6 x 20mm CAP SCREW 69157	8 x 25mm CAP SCREW 69188	10 x 35mm CAP SCREW 69449	12 x 35mm CAP SCREW 69247	14 x 50mm CAP SCREW 69277	16 x 40mm CAP SCREW 69300	20 x 60mm CAP SCREW 69968	EXPANSION
6 x 25mm CAP SCREW 69388	8 x 30mm CAP SCREW 69189	10 x 40mm CAP SCREW 69220	12 x 40mm CAP SCREW 69248	14 x 60mm CAP SCREW 69279	16 x 50mm CAP SCREW 69302	20 x 70mm CAP SCREW 69969	EXPANSION
6 x 30mm CAP SCREW 69159	8 x 40mm CAP SCREW 69191	10 x 50mm CAP SCREW 69222	12 x 50mm CAP SCREW 69250	14 x 70mm CAP SCREW 69281	16 x 60mm CAP SCREW 69304	20 x 80mm CAP SCREW 69970	EXPANSION
6 x 40mm CAP SCREW 69161	8 x 50mm CAP SCREW 69193	10 x 60mm CAP SCREW 69224	12 x 60mm CAP SCREW 69252	14 x 80mm CAP SCREW 69283	16 x 70mm CAP SCREW 69306	20 x 90mm CAP SCREW 69971	EXPANSION

BIN ASSORTMENTS
METRIC 10.9 ZINC CAP SCREWS

80-Compartment Steel Bin

You Receive Two All-Steel 40-Hole Bins Labeled for 70 of the Fastest Moving Sizes Needed Today in Maintenance!

PART NO. 7876

TWO 40-HOLE BINS

33-3/4" wide, 22-1/2" high, 12" deep*

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 70 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. BINS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

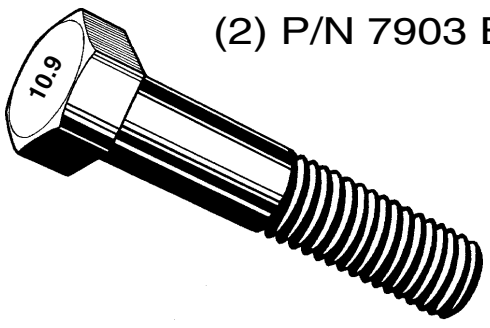
*Can be shipped via UPS

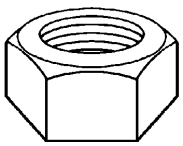
Use Bin Label Set #168373

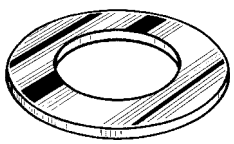
ASSORTMENT CONTAINS:

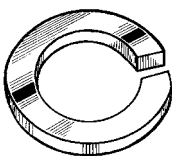
49 Sizes Metric Cap Screws..... 6mm through 20mm diameter
7 Sizes Metric Hex Nuts ..... 6mm through 20mm diameter
7 Sizes Metric Flat Washers ..... 6mm through 20mm diameter
7 Sizes Metric Lock Washers ..... 6mm through 20mm diameter

(2) P/N 7903 BINS — COMBINE TO MAKE 80-HOLE BIN









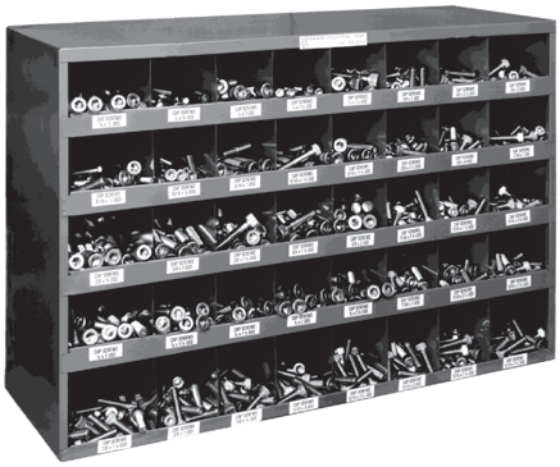
METRIC 10.9 CAP SCREWS ZINC PLATED ASST.

PART NO. 7876 – COARSE THREADS – 70 ITEMS / 80 HOLES

6 x 1.00 HEX NUT 67312	8 x 1.25mm HEX NUT 67314	10 x 1.50mm HEX NUT 67316	12 x 1.75mm HEX NUT 67318	14 x 2.00mm HEX NUT 67319	16 x 2.00mm HEX NUT 67320	20 x 2.50mm HEX NUT 67322	EXPANSION
6mm FLAT WASHER 67340	8mm FLAT WASHER 67344	10mm FLAT WASHER 67346	12mm FLAT WASHER 67348	14mm FLAT WASHER 67349	16mm FLAT WASHER 67350	20mm FLAT WASHER 67352	EXPANSION
6mm LOCK WASHER 67372	8mm LOCK WASHER 67376	10mm LOCK WASHER 67378	12mm LOCK WASHER 67380	14mm LOCK WASHER 67381	16mm LOCK WASHER 67382	20mm LOCK WASHER 67384	EXPANSION
6 x 10mm CAP SCREW 67086	8 x 16mm CAP SCREW 67120	10 x 20mm CAP SCREW 67152	12 x 20mm CAP SCREW 67180	14 x 35mm CAP SCREW 67261	16 x 30mm CAP SCREW 67210	20 x 40mm CAP SCREW 67240	EXPANSION
6 x 12mm CAP SCREW 67088	8 x 20mm CAP SCREW 67122	10 x 25mm CAP SCREW 67154	12 x 25mm CAP SCREW 67182	14 x 40mm CAP SCREW 67262	16 x 40mm CAP SCREW 67212	20 x 50mm CAP SCREW 67242	EXPANSION
6 x 16mm CAP SCREW 67090	8 x 25mm CAP SCREW 67124	10 x 30mm CAP SCREW 67156	12 x 30mm CAP SCREW 67184	14 x 45mm CAP SCREW 67263	16 x 45mm CAP SCREW 67213	20 x 60mm CAP SCREW 67244	EXPANSION
6 x 20mm CAP SCREW 67094	8 x 30mm CAP SCREW 67126	10 x 35mm CAP SCREW 67158	12 x 35mm CAP SCREW 67186	14 x 50mm CAP SCREW 67264	16 x 50mm CAP SCREW 67214	20 x 70mm CAP SCREW 67246	EXPANSION
6 x 25mm CAP SCREW 67096	8 x 35mm CAP SCREW 67128	10 x 40mm CAP SCREW 67160	12 x 40mm CAP SCREW 67188	14 x 60mm CAP SCREW 67266	16 x 60mm CAP SCREW 67216	20 x 80mm CAP SCREW 67248	EXPANSION
6 x 30mm CAP SCREW 67098	8 x 40mm CAP SCREW 67130	10 x 50mm CAP SCREW 67164	12 x 50mm CAP SCREW 67192	14 x 70mm CAP SCREW 67268	16 x 70mm CAP SCREW 67218	20 x 90mm CAP SCREW 67249	EXPANSION
6 x 40mm CAP SCREW 67102	8 x 50mm CAP SCREW 67134	10 x 60mm CAP SCREW 67168	12 x 60mm CAP SCREW 67194	14 x 80mm CAP SCREW 67270	16 x 80mm CAP SCREW 67220	20 x 100mm CAP SCREW 67250	EXPANSION

BIN ASSORTMENTS
METRIC 10.9 FASTENERS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Metric Sizes Needed in Maintenance!

PART NO. 7877

ONE STEEL 40-HOLE BIN
33-3/4" wide, 22-1/2" high, 12" deep*

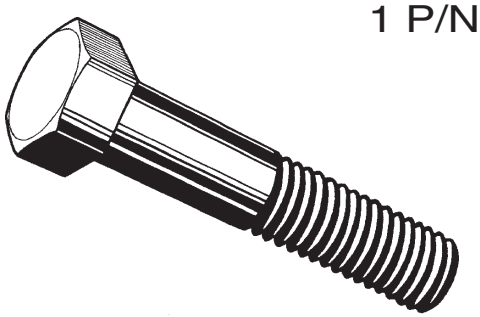
*Can be shipped via UPS

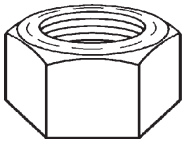
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

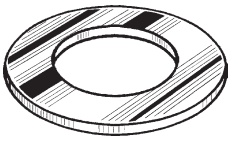
ASSORTMENT CONTAINS:

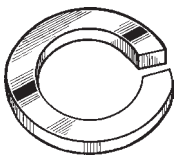
25 Sizes Metric Cap Screws ..... 6MM thru 16MM
5 Sizes Metric Hex Nuts ..... 6MM thru 16MM
5 Sizes Metric Flat Washers ..... 6MM thru 16MM
5 Sizes Metric Lock Washers ..... 6MM thru 16MM

1 P/N 7903 – 40-Compartment Bin









METRIC 10.9 FASTENER ASSORTMENT

P/N 7877 — METRIC 10.9 FASTENERS — 40 ITEMS / 40 HOLES

6 x 1.00MM METRIC HEX NUT 67312	6MM FLAT WASHER 67340	6MM LOCK WASHER 67372	6 x 16MM CAP SCREW 67090	6 x 20MM CAP SCREW 67094	6 x 25MM CAP SCREW 67096	6 x 30MM CAP SCREW 67098	6 x 40MM CAP SCREW 67102
8 x 1.25MM METRIC HEX NUT 67314	8MM FLAT WASHER 67344	8MM LOCK WASHER 67376	8 x 20MM CAP SCREW 67122	8 x 25MM CAP SCREW 67124	8 x 30MM CAP SCREW 67126	8 x 35MM CAP SCREW 67128	8 x 40MM CAP SCREW 67130
10 x 1.5MM METRIC HEX NUT 67316	10MM FLAT WASHER 67346	10MM LOCK WASHER 67378	10 x 20MM CAP SCREW 67152	10 x 25MM CAP SCREW 67154	10 x 30MM CAP SCREW 67156	10 x 35MM CAP SCREW 67158	10 x 40MM CAP SCREW 67160
12 x 1.75MM METRIC HEX NUT 67318	12MM FLAT WASHER 67348	12MM LOCK WASHER 67380	12 x 20MM CAP SCREW 67180	12 x 25MM CAP SCREW 67182	12 x 30MM CAP SCREW 67184	12 x 40MM CAP SCREW 67188	12 x 50MM CAP SCREW 67192
16 x 2.00MM METRIC HEX NUT 67320	16MM FLAT WASHER 67350	16MM LOCK WASHER 67382	16 x 40MM CAP SCREW 67212	16 x 50MM CAP SCREW 67214	16 x 60MM CAP SCREW 67216	16 x 70MM CAP SCREW 67218	16 x 80MM CAP SCREW 67220

FLEET MAINTENANCE

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- Ergo Tuflocks Push-Type Retainers 35.101

CHROMATE FLEET MAINTENANCE

The repair and maintenance of trucks, buses, trailers, agricultural machinery, transport maintenance, forwarding maintenance, marine maintenance and repair, road construction equipment, railway maintenance, and public services and transportation maintenance.

RED LION™ CHEMICALS

Part Numbers	Size	Product	Description
Adhesives/ Sealants			
74514	1.2 oz.	E-Z POXY Cups	Pre-measured, single use, fast setting epoxy
74547	4 fl. oz.	Liquid Electrical Tape	Forms a protective dielectric coating on connections Brush applicator
74516	1/3 fl. oz.	Instant Adhesive	Instant high-strength, cyanoacrylate adhesive for non-porous surfaces
74128, 74131, 74132, 74133	8 oz.	RTV Gasket Maker	Tough silicone adhesive sealer/gasket maker (white, black, blue clear)
74153	8 oz.	RTV Gasket Maker	High temperature resistant, tough silicone adhesive, meets GM specs (red)
74542, 74548, 74543, 74541	10.3 oz.	RTV Gasket Maker/Sealer	Tough silicone adhesive in a caulking gun cartridge (white, black, blue clear)
74515	1.2 fl. oz.	Stud Lock & Bearing Mount	High temperature resistant adhesive for locking studs and bearings
74513	1.2 fl. oz.	Threadlocker	Strong temporary lock for threaded fasteners
Cleaners/Degreasers			
74136	15.25 oz.	Air Tool Conditioner	Solvent-based, air tool cleaner and lubricant
74106	15 oz.	Battery Protector & Cleaner	Versatile 4-in-1 product (cleans, detects, neutralizes, protects)
74115	14.75 oz.	Choke and Carb Cleaner	Fast-drying carburetor cleaner
74147	12.25 oz.	Brake Cleaner	Non-chlorinated cleaner and degreaser
74120	17.75 oz.	Glass Cleaner	Strong, ammonia based glass and surface cleaner
74609	90 count	H.D. Multi-Purpose Citrus Towels	Strong, citrus based, pre-moistened hand/surface cleaner towels
Soaps			
74629	85 fl. oz.	Antimicrobial Hand Cleaner and Sanitizer	Conforms to the E-2 Designation requirements of the USDA.
74630 74633	120 fl. oz. 18 fl. oz.	Heavy Duty Scrub Hand Soap	Concentrated industrial hand cleaner fortified with leading edge skin conditioners and free floating polymer scrubbers.
74631 74632	120 fl. oz. 18 fl. oz.	H.D. Citrus Hand Soap	A liquid heavy duty hand cleaner based on a synergistic blend of detergents, emulsifiers, solvents, and emollients.
74471 74472	120 fl. oz. 18 fl. oz.	Cherry Impact Hand Soap	An industrial hand cleaner with cherry fragrance that contains superior emollients to reduce drying and cracking.
74458 74459	120 fl. oz. 18 fl. oz.	Magic Hand Soap	All natural industrial hand cleaner that contains walnut shell scrubbers to clean the toughest soils.
Lubricants			
74151	14 oz.	Cable & Chain Core Lube	Dry film lube for moisture and saltwater resistance
74108	17.75 oz.	Silicone	All Purpose Silicone Lube
Pro-Coat™ Paints			
74014, 74010, 74003, 74016, 74012	15.25 oz.	Acrylic Enamel Paints	Extremely tough, corrosion resistant, fast drying (Gloss black, gloss white, gray primer, hi-temp flat black, gray, red oxide primer)
74190, 74194, 74196	15.25 oz.	OSHA Color Industrial Enamels	Extremely tough, corrosion resistant, fast drying (Red, yellow, green)
74024	12 oz.	Clear Epoxy Grit Coating	Extremely tough, corrosion resistant, fast drying (clear)
Specialty Products			
74169	16 oz.	Insta-Shine Truck/Bus Protectant	Fast polish and shine for painted and chrome surfaces
74426	8 oz.	Anti-Seize II - Copper Compound	Blend of lubricating solids prevents seizing and galling of metal parts
Bulk Chemicals			
74235	55 gal.	Big Job™ Truck Wash	Concentrated, water-based, biodegradable, manual or auto wash
74236	30 gal.	Big Job™ Truck Wash	Concentrated, water-based, biodegradable, manual or auto wash
74237	20 gal.	Big Job™ Truck Wash	Concentrated, water-based, biodegradable, manual or auto wash
74238	5 gal.	Big Job™ Truck Wash	Concentrated, water-based, biodegradable, manual or auto wash
74239	1 gal.	Big Job™ Truck Wash	Concentrated, water-based, biodegradable, manual or auto wash
74245	55 gal.	Diesel Fuel Additive	Injector cleaner, rust inhibitor, smoke reducer
74246	30 gal.	Diesel Fuel Additive	Injector cleaner, rust inhibitor, smoke reducer
74247	20 gal.	Diesel Fuel Additive	Injector cleaner, rust inhibitor, smoke reducer
74248	5 gal.	Diesel Fuel Additive	Injector cleaner, rust inhibitor, smoke reducer
74249	1 gal.	Diesel Fuel Additive	Injector cleaner, rust inhibitor, smoke reducer
74305	55 gal.	Equipment Clean™	Emulsifiable, solvent based, engine/equipment cleaner/degreaser
74306	30 gal.	Equipment Clean™	Emulsifiable, solvent based, engine/equipment cleaner/degreaser
74307	20 gal.	Equipment Clean™	Emulsifiable, solvent based, engine/equipment cleaner/degreaser
74308	5 gal.	Equipment Clean™	Emulsifiable, solvent based, engine/equipment cleaner/degreaser
74309	1 gal.	Equipment Clean™	Emulsifiable, solvent based, engine/equipment cleaner/degreaser
74310	55 gal.	Steam Clean™	All purpose, deep cleaning, free-rinsing
74311	30 gal.	Steam Clean™	All purpose, deep cleaning, free-rinsing
74312	20 gal.	Steam Clean™	All purpose, deep cleaning, free-rinsing
74313	5 gal.	Steam Clean™	All purpose, deep cleaning, free-rinsing
74314	1 gal.	Steam Clean™	All purpose, deep cleaning, free-rinsing
74257	55 gal.	Brake Clean	Non-chlorinated cleaner and degreaser
74256	30 gal.	Brake Clean	Non-chlorinated cleaner and degreaser

Please refer to Section 30 for the full description and proper use of all Red Lion™ Chemicals.

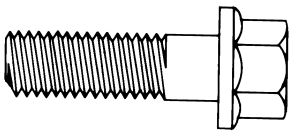
HEX FLANGE BOLTS AND LOCK NUTS

WHEN A STRONG BEARING SURFACE IS REQUIRED

TRIPLE HEAT TREATED ALLOY STEEL. U.S. MADE WITH U.S. STEEL AND U.S. LABOR.

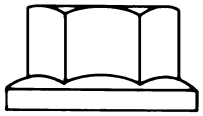
- Minimum 150,000 psi tensile strength
- For use on Autocar, International Harvester, Mack, Peterbilt, Western, White and many other types of heavy equipment
- Grade "GT" Hex Flange Locknuts recommended for use with flange bolts - ALLOY 200 and Grade 8.2 applications
- Improves bearing load surface
- Eliminates the need for washers
- Meets IFI-107 specifications
- USS class 2 Threads
- 30% stronger than standard nuts

HEX FLANGE BOLTS



LENGTH	3/8-16	1/2-13	5/8-11	3/4-10
1	L 19503	-	-	-
1-1/4	L 19504	L 19517	-	-
1-1/2	L 19505	L 19518	I 19536	-
1-3/4	L 19508	-	-	-
2	L 19509	L 19522	I 19540	I 19550
2-1/4	L 19512	-	I 19541	E 19552
2-1/2	-	L 19526	I 19544	E 19554
3	-	I 19528	I 19546	-
3-1/2	-	-	I 19548	-
4	-	I 19532	I 19549	E 19560

HEX FLANGE LOCK NUTS



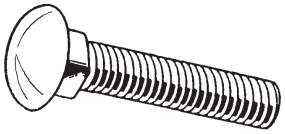
SIZE	WAF	USS	SAE
1/4	7/16	R 19589	–
3/8	9/16	R 19590	–
1/2	3/4	N 19592	R 19582
5/8	15/16	L 19594	L 19584
3/4	1 - 1/8	I 19596	E 19585

SHAKER SCREEN AND PLOW BOLTS

HEAT-TREATED GRADE 5 BOLTS FOR HIGH STRENGTH

High carbon content, 120,000 PSI bolts with U.S.S. threads and square neck. Nuts not included.

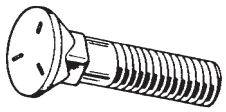
FULLY THREADED SHAKER SCREEN BOLTS



- **DURABLE CHROMATE PLATING**
- **GRADE 5 CARRIAGE BOLT**

LENGTH	1/2 DIA.	5/8 DIA.	3/4 DIA.
1-1/2	L 22899	-	-
2	L 22900	I 22911	-
2-1/2	L 22901	I 22912	-
3	L 22902	I 22913	-
3-1/2	L 22903	I 22914	E 22918
4	L 22904	I 22915	E 22920
4-1/2	L 22905	I 22916	E 22921
5	I 22906	E 22917	E 22922
5-1/2	I 22907	-	E 22923
6	I 22908	E 22919	E 22924
8	E 22910	-	-

#3 HEAD PLOW BOLTS



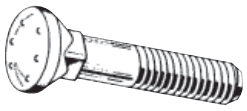
LENGTH	7/16 DIA.	1/2 DIA.
1	O 99412	O 99421
1-1/4	99413	O 99422
1-1/2	O 99414	O 99423
1-3/4	O 99415	L 99424
2	O 99416	L 99425
2-1/2	O 99418	L 99427
2-3/4	-	L 99428
3	L 99420	L 99429
3-1/2	-	L 99430
4	-	L 99431
	-	-

#3 DOME HEAD PLOW BOLTS & FINISHED HEX NUTS

HEAT-TREATED GRADE 8 BOLTS FOR ULTIMATE HIGH STRENGTH

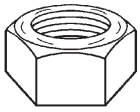
High carbon content, 150,000 PSI bolts with U.S.S. threads and square neck. Nuts not included.

#3 DOME HEAD PLOW BOLTS



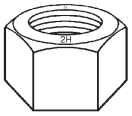
LENGTH	5/8 DIA.	3/4 DIA.	7/8 DIA.	1 DIA.	1-1/4 DIA.
1-1/2	L 99432	-	-	-	-
1-3/4	L 99433	I 99443	-	-	-
2	L 99434	I 99444	E 99453	-	-
2-1/4	L 99407	I 99411	-	-	-
2-1/2	L 99435	I 99445	E 99454	E 99464	-
3	I 99436	I 99446	E 99455	E 99465	-
3-1/4	-	-	-	99410	-
3-1/2	I 99437	I 99447	E 99456	E 99466	-
4	I 99438	E 99448	E 99457	E 99467	-
4-1/2	I 99439	E 99449	E 99458	E 99468	A 99408
5	I 99440	E 99450	E 99459	E 99469	A 99409
5-1/2	-	E 99451	E 99460	E 99470	-
6	E 99442	E 99452	E 99461	E 99471	-
6-1/2	-	-	-	E 99472	-
7	-	-	E 99463	A 99473	-

GRADE 8 HEX NUTS



SIZE	PART	SIZE	PART
7/16-14	R 8929	3/4-10	N 8933
1/2-13	R 8930	7/8-9	I 8934
5/8-11	R 8932	1-8	I 8935

2H HEX NUTS

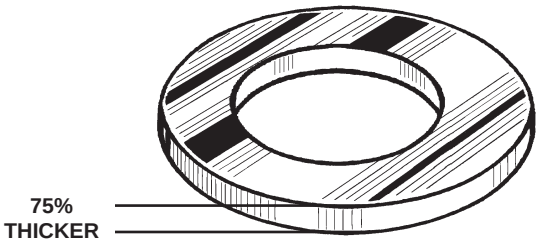


SIZE	PART	SIZE	PART
1/2-13	R 4850	7/8-9	I 4865
5/8-11	N 4855	1-8	I 4870
3/4-10	L 4860		

ALLOY 200 XT™ FLAT WASHERS

FOR ULTRA-HIGH STRENGTH APPLICATIONS

ALLOY 200 XT™ FLAT WASHERS PROVIDE THE ULTIMATE IN LOAD BEARING PERFORMANCE



- **EXTRA THICK PATTERN**
  75% THICKER THAN STANDARD SAE WASHERS — ELIMINATING DISHING, BENDING AND GALLING.
- **MANUFACTURED FROM HIGH STRENGTH, HEAT-TREATED ALLOY STEEL**
  PROVIDES SUPERIOR STRENGTH TO ACHIEVE HIGHEST CLAMPING LOADS AVAILABLE.
- **YELLOW DICHROMATE PLATING**
  ASSURES SUPERIOR RESISTANCE TO RUST AND CORROSION FOR LONGER LIFE.

SIZE	THICKNESS	ID	OD	PART	
1/4	3/32 - 7/64	9/32	5/8	T	5900
5/16	3/32 - 7/64	11/32	11/16	T	5901
3/8	3/32 - 7/64	13/32	13/16	T	5902
7/16	3/32 - 7/64	15/32	59/64	T	5903
1/2	5/32 - 3/16	17/32	1-1/16	R	5904
5/8	11/64 - 13/64	11/16	1-5/16	R	5906
3/4	11/64 - 13/64	13/16	1-15/32	N	5907
7/8	15/64 - 17/64	15/16	1-3/4	N	5908
1	15/64 - 17/64	1-1/8	2	L	5909

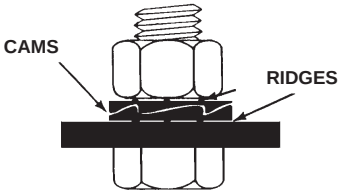
ALLOY 200 VI-LOC WASHERS

THE MOST RELIABLE VIBRATION-RESISTANT LOCKING DEVICE AVAILABLE

THE MORE THEY VIBRATE — THE TIGHTER THEY LOCK

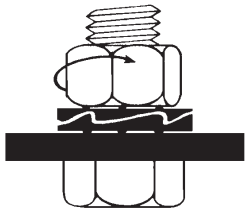
Meets military specification
- MSN-5310-01-051-4149

Special Chromate protective plating eliminates rust and corrosion.



The Vi-LOC principle calls for two washer shaped pieces that have inclined cams on one side and a series of ridges on the other. When the inclined cams are mated and set-up as shown in the diagram, one washer seizes to the joint material and the other washer to the nut or capscrew.

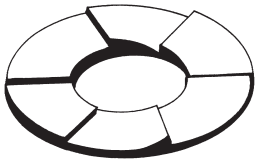
When the bolt contracts, the inclined planes of the cams cause the nut or capscrew to rotate back to its original position. This creates a fastening system that is vibration proof and meets military specifications. The Vi-LOC fastening system may be loosened by exerting approximately 50% more torque than required for tightening.



When a bolt elongates due to vibration or shock, the nut or capscrew starts to rotate loose. The Vi-LOC system prevents this since the cam rise angle is greater than the lead angle of the thread. As one piece of the Vi-LOC attempts to rotate with the nut or capscrew, the preload is actually increased, forcing the assembly back to a tight fitting unit.

ALLOY 200 VI-LOC WASHERS

- **USE ONLY IN PAIRS**
- **SELF-MATING**
- **RIDGES ON OUTSIDE**



RESISTS:
- **VIBRATION**
- **LOST HOLDING POWER**
- **SLIPPAGE**
- **WEAR**
- **EQUIPMENT BREAKDOWN**

SIZE	INSIDE DIA.	OUTSIDE DIA.	PART	SIZE	INSIDE DIA.	OUTSIDE DIA.	PART
3/16 (5mm)	.203"	.401"	T 6100	9/16 (14mm)	.572"	1.128"	L 6106
1/4 (6mm)	.262"	.495"	T 6101	5/8 (16mm)	.651"	1.247"	L 6107
5/16 (8mm)	.326"	.628"	T 6102	3/4 (20mm)	.820"	1.381"	L 6110
3/8 (10mm)	.409"	.705"	R 6103	7/8 (22mm)	.883"	1.470"	I 6111
7/16 (11mm)	.450"	.880"	R 6104	1" (25mm)	1.015"	1.626"	I 6112
1/2 (12mm)	.510"	1.005"	Q 6105	-	-	-	-

COTTER PINS

EASY TO INSERT, LOCK, REMOVE AND REUSE

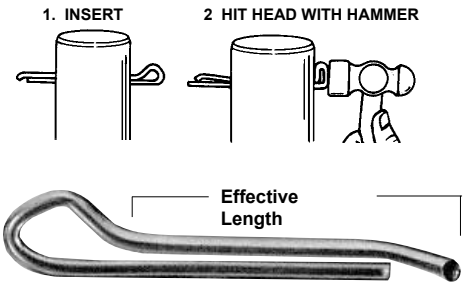
- **PRECISION MADE AND PROTECTED WITH SPECIAL CHROMATE PLATING**

7719

LENGTH	1/16	3/32	7/64	1/8	9/64	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2
1/2	U 915	U 920	-	T 905	-	-	-	-	-	-	-	-	-
3/4	U 916	U 921	T 91925	U 927	-	T 907	T 910	-	-	-	-	-	-
1	U 917	U 922	T 91926	T 928	-	T 935	T 941	-	T 900	-	-	-	-
1-1/4	U 918	U 923	T 91928	T 929	-	T 971	T 913	-	T 901	-	-	-	-
1-1/2	U 919	T 924	T 91927	T 930	-	936	T 942	T 914	R 948	N 974	-	-	-
1-3/4	-	T 925	T 91929	T 931	-	R 937	-	-	-	-	-	-	-
2	T 902	T 926	T 91930	R 932	T 912	R 938	R 943	-	R 949	N 954	R 959	-	-
2-1/4	-	-	-	-	-	T 908	-	-	-	-	-	-	-
2-1/2	T 903	-	-	R 933	-	R 939	R 944	-	R 950	N 955	R 985	-	-
3	T 904	-	-	R 934	-	R 940	R 945	T 969	N 951	N 956	R 960	-	I 965
3-1/2	-	-	-	T 906	-	-	R 946	-	N 952	N 957	I 961	-	-
4	-	-	-	-	-	T 909	R 947	-	N 953	N 958	I 962	I 970	E 966
5	-	-	-	-	-	-	-	-	N 973	N 984	I 963	I 972	E 967
6	-	-	-	-	-	-	-	-	-	N 911	I 964	-	E 968

HAMMERLOCK COTTER PINS

- MADE FROM LOW CARBON STEEL AND ZINC PLATED
- SPECIAL DESIGN LOCKS THE COTTER IN PLACE WITH ONE HAMMER BLOW
- MADE FOR SEMI-PERMANENT APPLICATIONS
- SIZE IS BASED UPON EFFECTIVE LENGTH AS MEASURED FROM UNDER HEAD TO END OF PRONG



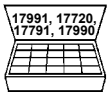
LENGTH	1/16	3/32	7/64	1/8	9/64	5/32
1/2	U 90100	U 90108	-	T 90121	-	-
3/4	U 90101	U 90109	T 90115	U 90122	-	T 90132
1	U 90102	U 90110	T 90116	T 90123	-	T 90133
1-1/4	U 90103	U 90111	T 90117	T 90124	-	T 90134
1-1/2	U 90104	T 90112	T 90118	T 90125	-	T 90135
1-3/4	-	T 90113	T 90119	T 90126	-	R 90136
2	T 90105	T 90114	T 90120	R 90127	T 90131	R 90137
2-1/4	-	-	-	-	-	T 90138
2-1/2	T 90106	-	-	R 90128	-	R 90139
3	T 90107	-	-	R 90129	-	R 90140
3-1/2	-	-	-	T 90130	-	-
4	-	-	-	-	-	T 90141

LENGTH	3/16	7/32	1/4	5/16	3/8	7/16	1/2
3/4	T 90142	–	–	–	–	–	–
1	T 90143	–	T 90153	–	–	–	–
1-1/4	T 90144	–	T 90154	–	–	–	–
1-1/2	T 90145	T 90151	R 90155	N 90162	–	–	–
1-3/4	–	–	–	–	–	–	–
2	R 90146	–	R 90156	N 90163	R 90170	–	–
2-1/2	R 90147	–	R 90157	N 90164	R 90171	–	–
3	R 90148	T 90152	N 90158	N 90165	R 90172	–	I 90179
3-1/2	R 90149	–	N 90159	N 90166	I 90173	–	–
4	R 90150	–	N 90160	N 90167	I 90174	I 90177	E 90180
5	–	–	N 90161	N 90168	I 90175	I 90178	E 90181
6	–	–	–	N 90169	I 90176	–	E 90182

HAIR PIN COTTERS

QUICK INSTALLATION, STRONG AND REUSABLE

- ACCURATELY FORMED FROM QUALITY SPRING STEEL
- PROTECTED WITH CHROMATE PLATING

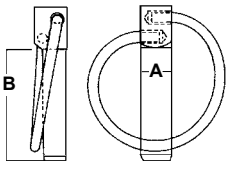


GAUGE	WIRE DIA.	LENGTH	I.D. OF EYE	SHAFT DIA.	DRILL HOLES	PART	
22	.028	.600	.093	1/8 – 5/32	1/32	R	47365
20	.035	7/16	.078	7/64 – 9/64	.040	R	47366
19	.042	7/16	.080	1/16 – 1/8	.047	R	47367
19	.042	1	1/4	3/16 – 1/4	3/64	R	47368
18	.047	19/32	1/8	1/8 – 3/16	1/16	R	47369
18	.047	1-9/16	5/16	1/4 – 3/8	1/16	R	47370
17	.054	3/4	1/8	3/16 – 1/4	1/16	R	47371
17	.054	7/8	9/64	1/4 – 3/8	1/16	R	47372
16	.062	1-5/16	5/16	1/4 – 1/2	5/64	R	47373
16	.062	1-9/16	3/8	3/8 – 1/2	5/64	R	47374
15	.072	1-3/32	9/64	5/16 – 3/8	5/64	R	47375
15	.072	1-7/8	5/8	3/8 – 1/2	5/64	R	47376
14	.080	1-3/16	1/4	1/4 – 3/8	3/32	R	47377
13	.093	1-1/8	1/4	1/4 – 1/2	7/64	R	47379
12	.105	1-1/4	1/8	5/16 – 3/8	1/8	R	47380
14	.080	1-9/16	3/8	3/8 – 1/2	3/32 or 7/64	R	47098
13	.093	1-5/8	3/8	1/4 – 1/2	7/64	R	47090
13	.093	2-5/16	5/8	1/4 – 5/8	7/64	N	47092
13	.093	2	5/8	3/8 – 1/2	7/64	N	47378
13	.093	2-1/2	9/16	3/8 – 3/4	7/64	N	47096
11	.125	1-15/16	7/16	1/2 – 3/4	9/64	N	47097
11	.125	2-9/16	9/16	7/16 – 3/4	9/64	N	47095
9	.148	3-5/16	3/4	3/4 – 1-1/8	5/32 or 11/64	L	47094
9	.148	2-15/16	3/4	5/8 – 1	5/32	I	47383
7	.177	3-1/4	15/16	5/8 – 1	3/16 or 13/64	I	47091
7	.177	3-3/4	15/16	7/8 – 1-1/4	3/16 or 13/64	-	47093
3	.243	4	15/16	3/4 – 1	1/4 or 17/64	-	47099
3	.243	5-1/8	1-1/2	1-1/4 – 1-1/2	17/64	-	47387
0	.310	4-1/16	7/8	7/8 – 1	21/64	-	47389

LYNCH PINS

1010 CARBON STEEL, ZINC PLATED

- 1010 STEEL, ZINC ELECTROPLATED AND DICHROMATE DIPPED FOR CORROSION RESISTANCE
- ROCKWELL HARDNESS OF Ra 50-60
- SELF-LOCKING RING ALLOWS THE PIN TO BE SECURELY HELD IN PLACE AND PROVIDES AN EASY GRIP FOR QUICK REMOVAL



SIZE (A x B)		PART	SIZE (A x B)		PART	SIZE (A x B)		PART
3/16 x 1-9/16	L	47390	7/16 x 1-9/16	L	47393	7/16 x 1-3/4 with Heavy Duty Ring	I	47395
1/4 x 1-9/16	L	47391	7/16 x 1-31/32	I	47394	7/16 x 1-31/32 with Heavy Duty Ring	I	47396
5/16 x 1-9/16	L	47392	–		–	–		–

CIC 200™ PRIMARY WIRE

CROSS-LINK WIRE

- TYPE SXL, SAE J1128
- CROSS-LINKED POLYETHYLENE INSULATION HAS SMOOTH SURFACE FINISH
- MOISTURE RESISTANT
- CHEMICAL RESISTANT — IMPERVIOUS TO GREASE, OIL, GASOLINE AND ACIDS
- HIGH TEMPERATURE RANGE: -50°F TO 350°F WITHOUT MELTING OR FUSING
- 100 FOOT ROLLS

SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART	SIZE	STRANDS	COLOR	PART
18	16	BLACK	A 8103	16	19	BROWN	A 8119	12	19	BLACK	A 8139
18	16	WHITE	A 8105	16	19	YELLOW	A 8120	12	19	WHITE	A 8140
18	16	RED	A 8106	14	19	BLACK	A 8123	12	19	RED	A 8143
18	16	BLUE	A 8164	14	19	WHITE	A 8129	12	19	BROWN	A 8098
16	19	BLACK	A 8107	14	19	RED	A 8130	12	19	YELLOW	A 8145
16	19	WHITE	A 8108	14	19	BLUE	A 8133	10	19	BLACK	A 8146
16	19	RED	A 8109	14	19	GREEN	A 8135	10	19	WHITE	A 8147
16	19	BLUE	A 8110	14	19	BROWN	A 8136	10	19	RED	A 8148
16	19	GREEN	A 8113	14	19	YELLOW	A 8137	–	–	–	–

MULTI-CONDUCTOR PRIMARY WIRE

- MEETS SAE J1128 SPECIFICATIONS
- FOR USE AT 50 VOLTS OR LESS
- TEMPERATURE RATING: 221°F (105°C)
- HEAVY DUTY PVC GRAY JACKET WITH COLOR CODED CONDUCTORS

- RECOMMENDED FOR TRUCKS, BUSES, TRACTORS, LIGHT DUTY BOATS AND GENERAL SERVICE

BLACK/WHITE/GREEN/RED
100 FOOT ROLLS

GAUGE	PART	GAUGE	PART	GAUGE	PART
16/2	A 28100	14/3	A 28104	12/4	A 28108
16/3	A 28101	14/4	A 28105	10/2	A 28109
16/4	A 28102	12/2	A 28106	10/3	A 28110
14/2	A 28103	12/3	A 28107	10/4	A 28111

TRAILER LIGHT CABLE

100 FOOT ROLLS

- MEETS SAE J1128 SPECS
- FOR USE AT 50 VOLTS OR LESS
- TEMPERATURE RATING: -7.6°F (-22°C) TO 176°F (80°C)
- FULL CAUGE COPPER CORE TO SAE AND ATA SPECIFICATIONS
- MULTIPLE CONDUCTOR CABLE, COLOR-CODED FOR CIRCUIT IDENTIFICATION

14/4 = RED / WHITE / BLACK / BROWN
14/6 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW
14/7 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW / BLUE
12/6-10/1 = RED / WHITE / BLACK / BROWN / GREEN / YELLOW / BLUE

GAUGE	PART	GAUGE	PART
14/4	A 28115	14/7	A 28117
14/6	A 28116	12/6-10/1	A 28120

CIC 200™ WIRE TIES AND ACCESSORIES

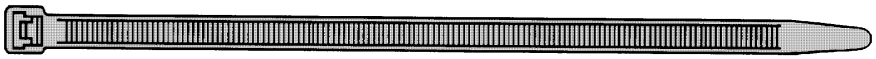
WIRE TIES

Superior design and construction that is QPL listed and UL recognized.

STANDARD — WHITE

WIDTH	LENGTH	MAX. DIA.	PSI	PART	WIDTH	LENGTH	MAX. DIA.	PSI	PART
3/32	4	3/4	18	T 8401	3/16	11-1/8	3	50	R 8409
3/32	5-1/2	1-1/4	18	T 8402	3/16	14-1/8	4	50	R 8410
3/32	8	2	18	T 8403	5/16	8-7/8	2	120	N 8411
9/64	5-1/2	1-1/4	30	T 8404	5/16	14-1/4	4	120	N 8413
5/32	8-1/2	2	40	T 8405	11/32	15	4	175	N 8414
5/32	11-5/8	3	40	T 8406	11/32	24	6	175	I 8415
5/32	14-5/8	4	40	R 8407	11/32	36	9	175	I 8416
3/16	7-1/2	1-3/4	50	T 8408	11/32	42	12	175	I 8417

STANDARD — COLORED TIES



COLOR	TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART
BROWN	1/8	8	2	40	T 8578
BLUE	1/8	8	2	40	T 8579
PURPLE	1/8	8	2	40	T 8580
GRAY	1/8	8	2	40	T 8581
RED	1/8	8	2	40	T 8582

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

WIRE TIES

Superior design and construction that is QPL listed and UL recognized.

STANDARD — FLUORESCENT COLORS

7799

COLOR	WIDTH	LGTH.	MAX. DIA.	PSI	PART	COLOR	WIDTH	LGTH.	MAX. DIA.	PSI	PART
PINK	1/8	8	2	40	T 8425	ORANGE	1/8	8	2	40	T 8427
PINK	3/16	11	3	40	T 8586	ORANGE	3/16	11	3	40	T 8588
GREEN	1/8	8	2	40	T 8426	YELLOW	1/8	8	2	40	T 8428
GREEN	3/16	11	3	40	T 8589	YELLOW	3/16	11	3	40	T 8587
–	–	–	–	–	–	BLUE	3/16	11	3	40	T 8412

WEATHER RESISTANT — BLACK

- **RESISTANT TO SOLVENTS, FUNGUS, OIL, GREASE, ALKALIES, MILD ACIDS, ULTRA-VIOLET RAYS, ETC.**
- **MEETS MIL SPECIFICATIONS (3367-2 TO 5-0), TEMPERATURE RANGE 40° TO 185°F.**

7733

WIDTH	LENGTH	MAX. DIA.	PSI	PART	WIDTH	LENGTH	MAX. DIA.	PSI	PART
3/32	4	5/8	18	T 8430	3/16	7-1/2	1-7/8	50	T 8438
3/32	4	7/8	18	T 8431	3/16	11-1/8	3-1/16	50	R 8439
3/32	6	1-1/2	18	T 8432	3/16	14-1/2	4-1/8	50	R 8437
3/32	8	2-3/16	18	T 8433	5/16	15-1/8	4-1/16	120	N 8443
9/64	5-3/4	1-7/16	40	T 8434	11/32	25	7-3/16	175	I 8445
9/64	8-3/4	2-3/8	40	T 8435	11/32	36	11	175	I 8436

REUSABLE WEATHER RESISTANT — BLACK

- **SELF-LOCKING, RELEASABLE, DURABLE, NON-BRITTLE AND NON-CRACKING**
- **RESISTS CORROSION, MOISTURE, ABRASION, ULTRA-VIOLET RAYS,**
- **SAVES MONEY, REUSABLE**
- **TEMPERATURE RANGE: 40°F TO 185°F**

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART
5/16	6	1-3/8	50	R 8452
3/16	14-1/2	4	50	N 8595

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

WIRE TIES

REUSABLE (NOT WEATHER RESISTANT) — WHITE

- SELF-LOCKING, RELEASABLE, DURABLE, NON-BRITTLE AND NON-CRACKING
- TEMPERATURE RANGE: 40°F TO 185°F

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
5/32	6	1-3/8	50	R	8451
3/16	14-1/2	4	50	R	8598

STAINLESS STEEL SELF-LOCKING TIES

- MORE LOCKING FORCE THAN CONVENTIONAL BALL CLAMPS BECAUSE THE LOCKING BAR CONTACTS BOTH THE TOP AND BOTTOM OF THE BAND AT THE EDGES, THE STRONGEST PART OF THE BUCKLE
- EASY TO USE – SIMPLY INSERT THE TAIL AND TIGHTEN
- MINIMUM LOOP TENSILE STRENGTH: 150 LBS.
- WIDTH: 3/16" (5mm)
  THICKNESS: .010" (.245mm)
- CAN BE TIGHTENED BY HAND OR INSTALLED WITH THE HAND TOOL

- TYPE 304 STAINLESS STEEL

LENGTH (INCHES)	MAX. DIA. (INCHES)	PART	
8.4	2	T	8084
14.9	4	T	8085
20.9	6	T	8086
27.4	8	T	8087
33.4	10	T	8088

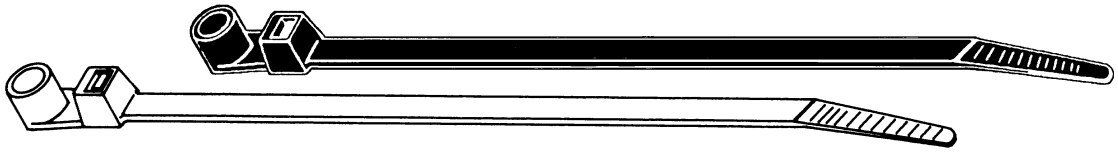
SELF-LOCKING HAND TOOL

- HAND TOOL INSTALLS SELF-LOCKING STAINLESS STEEL TIES
- INCLUDES ADJUSTABLE TENSION AND AUTOMATIC CUT-OFF

DESCRIPTION	PART	
Self-Locking Tool	A	28080

SPECIAL PURPOSE WIRE TIES

STANDARD MOUNTING TYPE — WHITE

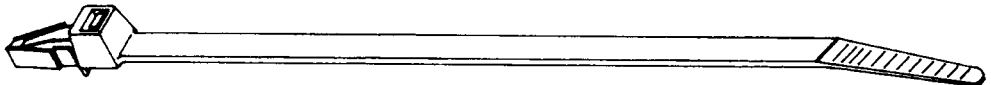


TIE WIDTH	LENGTH	MAX. DIA.	PSI	WHITE PART		BLACK UV PART	
3/32	4-1/4	3/4	18	T	8418		
9/64	6-1/4	1-1/4	30	T	8419	R	8440
3/16	7-1/2	1-3/4	50	T	8420	R	8441
3/16	16	4	50	N	8421		
5/16	14	4	120	N	8422	N	8442

CIC 200™ WIRE TIES AND ACCESSORIES (Cont'd.)

SPECIAL PURPOSE WIRE TIES

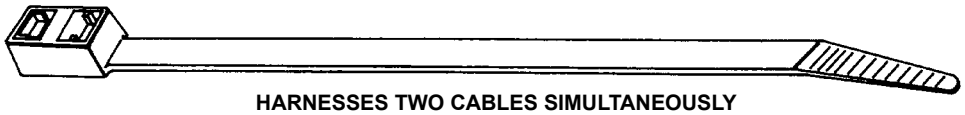
PUSH MOUNT TYPE



PUSH-FITS INTO ANY 1/4" DIAMETER HOLE

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
3/16	8-1/2	1-3/4	50	T	8423

DOUBLE LOOP TYPE

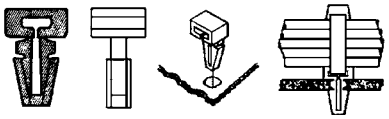


HARNESSES TWO CABLES SIMULTANEOUSLY

TIE WIDTH	LENGTH	MAX. DIA.	PSI	PART	
3/16	8-1/2	1ST LOOP 3/4 2ND LOOP 3/4	1ST LOOP 50 2ND LOOP 40	R	8424

MOUNTING HEADS

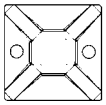
MOUNTING HEAD CONVERTS TIES TO MOUNTING TYPE



PUSH-IN CABLE TIE

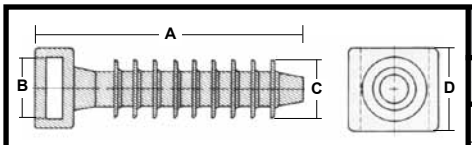
DESCRIPTION	FITS TIE WIDTHS	PART	
Mounting Head Converts Ties to Mounting Type	3/32 – 3/16	T	8462
Push-In Cable Tie	3/32 – 3/16	N	8464

MOUNTING BASES



**with adhesive backing*

DESCRIPTION	FITS TIE WIDTHS	SIZE	PART (BLACK)		PART (WHITE)	
Cable Tie Mounting Screw Type Base 4-Way – From All 4 Sides	3/32 – 9/64	3/4	R	8081*	N	8456*
	3/32 – 3/16	1-1/8		–	N	8458
	3/32 – 3/16	1-1/8	N	8083*	N	8459*
	3/32 – 3/16	1-1/2	L	8093*	N	8466*



WEATHER RESISTANT FOR INDOOR OR OUTDOOR USE

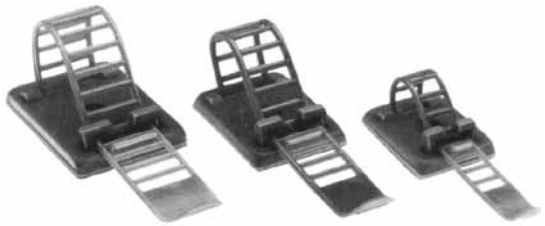
MASONRY TIE MOUNTS

MOUNTING	MIN. DEPTH	A	B	C	D	PART	
.188" Hole	.935"	1.185"	.218"	.236"	.390"	N	8080
.312" Hole	1-1/2"	1.715"	.313"	.362"	.500"	N	8082

CIC 200™ ADJUSTABLE CABLE CLAMPS

ADJUSTABLE HOLDING POWER FOR A WIDE RANGE OF CABLE DIAMETERS

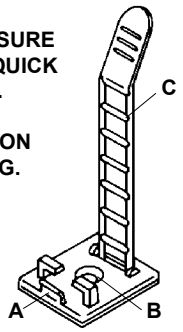
- SECURES WIRES, CABLES, BUNDLES AND HARNESSES TO VIRTUALLY ANY SURFACE
- PROVIDES HIGH RESISTANCE TO IMPACT, HEAT AND CHEMICALS



A. EXTREMELY STRONG PRESSURE SENSITIVE ADHESIVE FOR QUICK AND SIMPLE INSTALLATION.

B. SCREW HOLE OFFERS OPTION FOR PERMANENT MOUNTING.

C. LADDER STYLE FASTENING SYSTEM ALLOWS FOR INSTANT RELEASING AND PRE-FASTENING.



SIZE	SMALL	MEDIUM	LARGE
CLAMP RANGE	3/16 - 1/2	13/64 - 53/64	9/32 - 63/64
BASE DIMEN.	45/64 x 63/64	53/64 x 1-11/64	63/64 x 1-3/8'
PART	N 8476	N 8478	N 8480

CIC 200™ MOUNTING CLAMPS & BLOCKS

NYLON CABLE CLAMPS

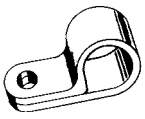
These nylon cable clamps are rustproof, rotproof, weatherproof and chemical proof. Temperature range is -40° to 185°F continuously, 250°F intermittently.

NON-ADJUSTABLE – BLACK

17974

WIDTH	DIA.	PART	WIDTH	DIA.	PART
5/32	1/8	T 2602	3/8	3/8	T 2614
5/32	3/16	T 2604	3/8	7/16	T 2616
1/4	1/4	T 2608	3/8	1/2	T 2618
3/8	1/4	T 2610	1/2	1/2	R 2640
3/8	5/16	T 2612	1/2	5/8	R 2642

NON-ADJUSTABLE – WHITE



17974

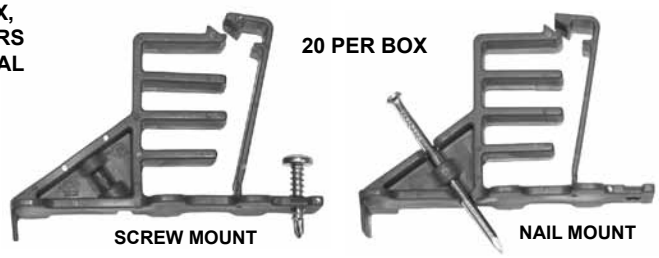
WIDTH	DIA.	PART	WIDTH	DIA.	PART
1/2	1/8	T 2976	1/2	1/2	T 2985
1/2	3/16	T 2977	1/2	5/8	R 2993
1/2	1/4	T 2978	1/2	3/4	R 2994
1/2	5/16	T 2979	1/2	1	R 2996
1/2	3/8	T 2981	1/2	1-1/4	R 2998
1/2	7/16	T 2983	1/2	1-1/2	R 2999

CIC 200™ MOUNTING CLAMPS & BLOCKS (Cont'd)

MULTIPLE CABLE ORGANIZERS

- **QUICKLY SECURES MULTIPLE CABLE RUNS SUCH AS NM/ROMEX, COAXIAL AND CAT 5 AS WELL AS OTHER CABLE WITH DIAMETERS LESS THAN 1/4" (6.3mm) ON A STUD FOR A CLEAN PROFESSIONAL INSTALLATION**
- **FAST, EASY INSTALLATION WITH ONE NAIL FOR WOOD OR ONE SCREW FOR METAL STUDS**
- **PATENT PENDING "SNAP LOCK GATE" QUICKLY SECURES ALL CABLES WITHOUT RESTRICTING THEM**
- **MADE OF FIRE-RETARDANT HIGH DENSITY POLYPROPYLENE**
- **NATIONAL ELECTRICAL CODE 300-4-(D) COMPLIANT**

20 PER BOX



SCREW MOUNT **NAIL MOUNT**

DESCRIPTION		PART	DESCRIPTION		PART
MULTIPLE CABLE ORGANIZER – SCREW	A	2966	MULTIPLE CABLE ORGANIZER – NAIL	A	2967

VINYL COATED METAL TUBE AND HOSE CLAMPS

- **PROVIDES PROTECTION AND ROUTING SUPPORT FOR TUBES, PIPES, WIRE BUNDLES AND CABLES WHERE ABRASION, MOVING PARTS OR HEAT MAY EXIST.**
- **HEAVY DUTY GALVANIZED STEEL CONSTRUCTION**
- **ONE OVAL HOLE FOR EASY ALIGNMENT**
- **1/32" THICK BLACK VINYL CUSHION**
- **3/4" WIDTH AND 13/32" HOLE DIAMETER**

DIAMETER		PART	DIAMETER		PART	DIAMETER		PART
1/4	N	30153	5/8	N	30159	1-1/2	L	30173
5/16	N	30154	3/4	N	30161	1-3/4	L	30177
3/8	N	30155	1	L	30165	2	L	30181
1/2	N	30157	1-1/4	L	30169	–		–

CIC 200™ WIRE AND CABLE PROTECTORS

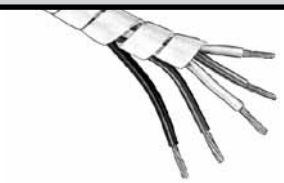
SPLIT LOOM WIRE WRAP

- ALLOWS QUICK AND EASY WIRE PROTECTION
- KEEPS WIRES NEAT AND FREE FROM ABRASION
- MADE FROM HIGH DENSITY POLYETHYLENE FOR DURABILITY
- TEMPERATURE RANGE -40°F TO 176°F

DESCRIPTION	I.D.		PART	DESCRIPTION	I.D.		PART
1/4" SPLIT LOOM WIRE WRAP (100' ROLL)	.272	A	8479	3/4" SPLIT LOOM WIRE WRAP (50' ROLL)	.760	A	8485
3/8" SPLIT LOOM WIRE WRAP (100' ROLL)	.405	A	8481	1" SPLIT LOOM WIRE WRAP (50' ROLL)	.915	A	8487
1/2" SPLIT LOOM WIRE WRAP (100' ROLL)	.505	A	8483				

SPIRAL WIRE WRAP

- ALLOWS FOR FLEXIBLE ROUTING OF WIRE OR CABLE HARNESSES
- PROVIDES A NEAT PROTECTIVE BUNDLE
- TWISTS ON QUICKLY AND EASILY AND ALLOWS LEAD-OUTS AT ANY POINT



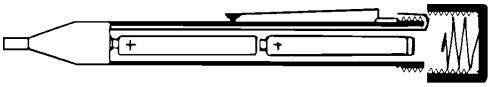
DESCRIPTION	O.D.	WALL THICKNESS	MIN./MAX. BUNDLE RANGE		PART
1/4" SPIRAL WIRE WRAP (100' ROLL)	1/4	.045	3/16 TO 2	A	8482
3/8" SPIRAL WIRE WRAP (100' ROLL)	3/8	.052	5/16 TO 3	A	8484
1/2" SPIRAL WIRE WRAP (100' ROLL)	1/2	.062	3/8 TO 4	A	8486

SENSORS AND DETECTORS

"STARLITE" AC SENSOR

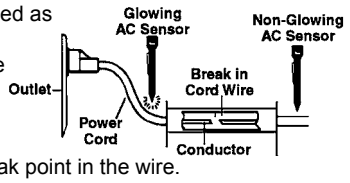
- A UL LISTING, PATENTED HAND HELD DEVICE USED FOR DETERMINING THE PRESENCE OR ABSENCE OF AC VOLTAGE IN INSULATED WIRES, WAL RECEPTACLES, FUSES, JUNCTION BOXES, SWITCHES OR ANY OTHER VOLTAGE CARRYING ELECTRICAL SYSTEM
- WILL LOCATE VOLTAGE OF 110-600 AC
- NO NEED TO DISCONNECT THE SYSTEM IN QUESTION BECAUSE NO CONTACT IS REQUIRED FOR OPERATION AND CURRENT FLOW IS NOT NECESSARY TO LOCATE VOLTAGE
- USE 2 AAA ALKALINE BATTERIES (INCLUDED)
- MADE IN U.S.A.

P/N 8207



DIRECTIONS:

1. Simply touch the plastic probe tip to a connection point or move it along an insulated wire. If AC voltage is present, the LED light in the probe tip will glow bright red.
2. Illumination will stop at a break in the circuit or wire and this allows the AC sensor to be used as a troubleshooting instrument.
3. As you move the plastic probe tip away from the electrical source, in this case the wall receptacle, the probe tip will stop glowing at the exact break point in the wire.



PRESSURE DETECTION VALVE CAP

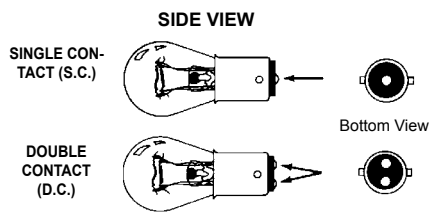
- THIS PRESSURE DETECTION VALVE CAP FLASHES WHEN TIRE PRESSURE FALLS 4 PSI (TRUCK VERSION 8 PSI) BELOW THE CORRECT PRESSURE
- THIS SMALL, SIMPLE, LIGHTWEIGHT DEVICE HAS NO IMPACT ON THE WHEEL BALANCING OR THE APPEARANCE OF THE VEHICLE
- DURABLE DESIGN WITHSTANDS EVEN THE TOUGHEST CONDITIONS
- CHROME PLATED BRASS BODY AND A POLY CARBONATE LENS IS 100% SELF-CONTAINED WITH ONBOARD BATTERY
- HAS NO MOVING COMPONENTS EXCEPT FOR A FLEXING SENSOR WHICH WILL TRIGGER IF THE TIRE PRESSURE DROPS
- CAP AUTOMATICALLY AND PERMANENTLY CALIBRATES THE FIRST TIME IT IS PLACED ON VALVE STEM AND CANNOT BE RECALIBRATED
- ONE SIZE FITS ALL CARS, SUVS AND TRUCKS (10-130 PSI)
- MAXIMIZES GAS MILEAGE
- IMPROVES SAFETY
- REDUCES TIRE WEAR

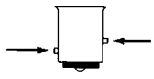
BATTERIES:

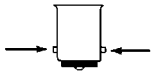
- BATTERIES ARE GOOD FOR ABOUT 3-4 YEARS OF STAND-BY AND UP TO 6 WEEKS OF BLINKING
- BATTERIES CANNOT BE CHANGED SINCE THE UNIT IS TOTALLY SEALED TO MAKE SURE IT IS AIRTIGHT

DESCRIPTION		PART
Pressure Detection Valve Cap – Car	A	78026
Pressure Detection Valve Cap – Truck	A	78027

BULBS – AUTOMOTIVE AND TRUCK







LAMP #	VOLTS	C.P.	LIFE HRS.	BASE		PART	LAMP #	VOLTS	C.P.	LIFE HRS.	BASE		PART
24	14.0	2	1500	Wedge	I	28901	1073	12.0	32	200	S.C. Bay	i	28924
37	14.0	0.5	2500	Wedge	I	28903	1141	12.0	21	500	S.C. Bay	i	28926
53	14.4	1	1000	Min. Bay	i	28900	1156	12.0	32	600	S.C. Bay, HD	i	28928
57	14.0	2	500	Min. Bay	i	28902	1156NA	12.8	24	1200	S.C. Bay	I	28921
67	13.5	4	**	S.C. Bay	i	28904	1157	12.0	32	600	D.C. Ind., HD	i	28930
74	14.0	0.7	500	Wedge	I	28905	1157 NA	12.8[A]	32	**	D.C. Ind., HD	i	28932
89	13.0	6	750	S.C. Bay	i	28906	1176	12.0	21/6	200/1M	D.C. Bay	i	28934
90	13.0	6	750	D.C. Bay	i	28908	1445	12.0	1.5	**	Min. Bay	i	28936
97	13.5	4	**	S.C. Bay	i	28910*	1816	13.0	3	1000	Mini Bayonet	I	28923
168	14.0	2	500	Wedge	i	28912	1889	14.0	2	2000	Mini Bayonet	I	28925
193	14.0	2	5000	Wedge	I	28907	1891	14.0	2	500	Mini Bayonet	I	28927
194	14.0	2	1500	Wedge	I	28914	1893	12.0	2	5000	S.C. Bay	i	28938
194NA	14.0	1.5	2500	Wedge	i	28909	1895	14.0	2	1500	Min. Bay, HD	i	28940
198	12.8	32	1200	D.C. Index	I	28911	2057	12.8	32	1200	D.C. Index	I	28929
199	12.8	32	1200	S.C. Bay	I	28913	2057NA	12.8	24	1200	D.C. Ind., HD	i	28943
211-2	12.8	12	1000	Dbl. End Cap	i	28916	3057	12.8	32	1200	Wedge	I	28931
906	13.0	6	1000	Wedge	I	28915	3057NA	12.8	24	1200	Wedge	I	28933
912	12.8	12	1000	Wedge	I	28917	3156	12.8	32	1200	Wedge	I	28935
921	12.8	21	1000	Wedge	I	28919	3157	12.8	32	1200	Wedge	I	28941
1003	12.8	15	100	S.C. Bay	i	28918	3157NA	12.8	24	1200	Wedge	I	28942
1004	12.0	15	100	D.C. Bay	i	28920	3357	12.8	40	400	Wedge	I	28937
1034	12.0	32.3	200	D.C. Bay	i	28922	-	-	-	-	-		-

* HEAVY DUTY FLEET SERVICE **INDEFINITELY LONG A=AMBER

AUTOMOTIVE SHOP SUPPLIES

FLASHERS

ELECTRONIC SIGNAL FLASHERS

- MEETS THE DEMANDS OF HEAVY TRUCKS
- TEMPERATURE COMPENSATOR FOR AN EVEN FLASHING RATE IN ALL TEMPERATURE RANGES
- THICKER PALLADIUM CONTACT FOR LONGER LIFE UNDER HEAVY LOADS
- BRASS TERMINALS FOR CORROSION RESISTANCE AND GREATER STABILITY UNDER HIGH HEAT
- DESIGNED TO CONFORM TO ALL D.O.T. REQUIREMENTS AND SAE SPECIFICATIONS

INDUSTRY #	# OF PRONGS	VOLTAGE	LOAD LAMPS	TOTAL MAX WATTS		PART
EL 12	2	12	1 TO 10	250	A	29060
EL 13	3	12	1 TO 10	250	A	29061

AUTOMOTIVE SHOP SUPPLIES (Cont'd)

SOCKETS/PLUGS AND TOGGLE SWITCHES

SOCKETS

- EXPOSED TERMINAL SCREWS
- SPLIT CONTACT PINS
- REPLACEABLE INTERIOR WITH SPECIAL HOUSING DESIGN TO PROTECT CONNECTIONS FROM ROAD SPLASH, DIRT, ETC.
- FLANGE HOLES 17/64" (6.74MM) DIAMETER, 2-15/16" (74.60MM) ON CENTERS
- MOUNTS THROUGH 1-3/8" (34.90MM) DIAMETER HOLE

SIZE	INDUSTRY #	PART	
6-POLE	1235	A	29100

7-POLE SOCKETS

- SELF GROUNDING
- CORROSION RESISTANT DIE CAST METAL CONSTRUCTION
- SOLID BRASS SPLIT CONTACT PINS
- FLANGE HOLES 21/64" (8.33MM) DIA., 2-15/16" (74.60MM) ON CENTERS
- MOUNTS THROUGH 2" (50.80MM) DIAMETER HOLE

SIZE	INDUSTRY #	PART	
7-POLE	12063-01	A	29105

PLUGS

- INTEGRAL CLAMP PREVENTS CABLE FROM BEING PULLED LOOSE FROM CONNECTIONS
- REPLACEABLE INTERIOR
- PLATED STEEL SPRING CABLE PROTECTOR

SPRING SOLD SEPARATELY

SIZE	INDUSTRY #	PART	
4-POLE	1253	A	29101
6-POLE	1254	A	29102
SPRING	–	A	29109

7-POLE PLUGS

SPRING SOLD SEPARATELY

- HEAVY DUTY CORROSION RESISTANT DIE CAST CONSTRUCTION
- INTEGRAL CABLE CLAMP (HOLDS ALL SIZE CABLES FIRMLY IN PLACE)
- REPLACEABLE INTERIOR
- PLATED STEEL SPRING CABLE PROTECTOR ELIMINATES DESTRUCTIVE SHARP BENDS
- CONTACTS "FLOAT" FOR PROPER ENGAGEMENT WITH ALL MATING SOCKETS
- GROUND TERMINAL ACCEPTS UP TO #8 GAUGE WIRE, OTHER TERMINALS UP TO #10 GAUGE WIRE
- SCREW TERMINALS WITH OPTIMUM THREAD DESIGN FOR SECURE WIRE CONNECTIONS

SIZE	INDUSTRY #	PART	
7-POLE	12092	A	29106
SPRING	–	A	29109

TOGGLE SWITCHES

- PLASTIC HOUSING WITH PLATED STEEL CAP
- STEM AND MOUNTING HARDWARE ARE NICKEL PLATED BRASS
- NICKEL PLATED BRASS HANDLES, STANDARD OR LONG VERSION
- MOUNTING STEM 15/32-32 THREAD, 15/32" LONG
- FITS PANELS UP TO 1/4" THICK
- SILVER CONTACTS FOR DEPENDABLE ELECTRICAL OPERATION
- KEYWAY IN STEM LOCATED IN DOWN POSITION

DESCRIPTION	UP POSITION	DOWN POSITION	TERMINAL #	TERMINAL TYPE	PART	
Double Pole - Single Throw	ON	OFF	4	SCREW	A	29108
Double Pole - Single Throw	ON	OFF	4	BLADE	A	29110
Single Pole - Single Throw	ON	OFF	2	SCREW	A	29107

CIC 200™ CABLE AND BATTERY SUPPLIES

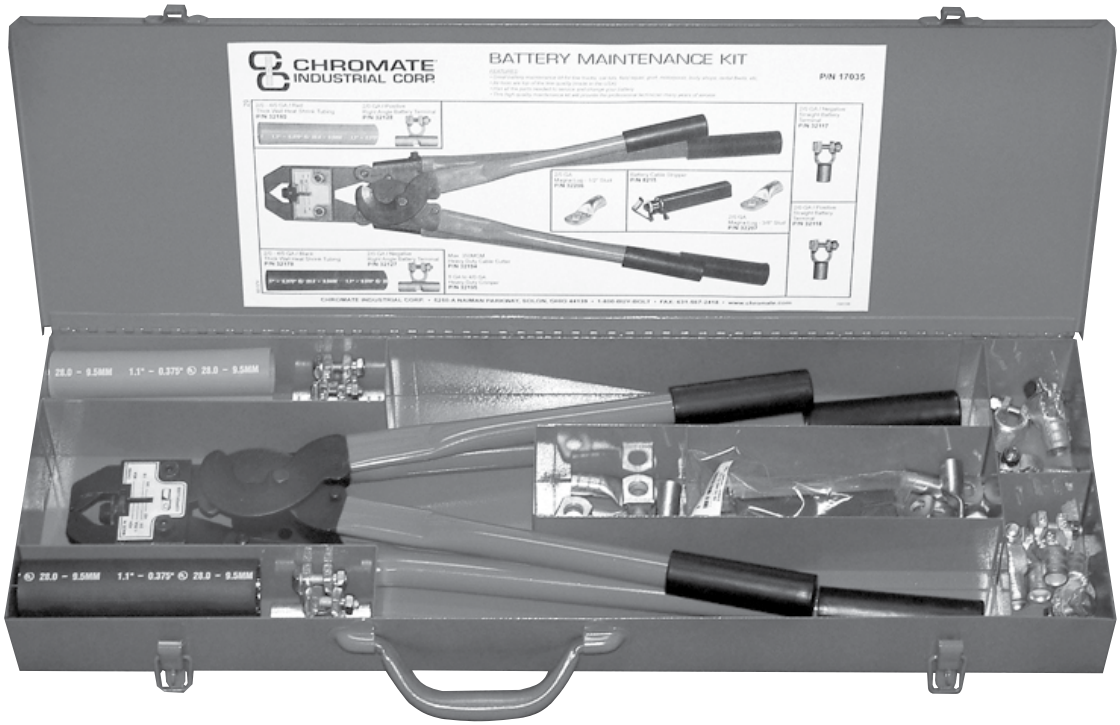
BATTERY MAINTENANCE KIT

FEATURES & BENEFITS

- Great battery maintenance kit for tow trucks, car lots, field repair, govt. motorpools, body shops, rental fleets, etc.
- 29 pieces total
- All tools are top of the line quality (made in the USA)
- Packaged in a portable, rugged all steel case with carrying handle, finished in red laquer paint
- Has all the parts needed to service and change your battery
- This high quality maintenance kit will provide the professional technician many years of service

THE KIT CONTAINS:

- Heavy Duty Crimper – 6 GA to 4/0 GA
- Heavy Duty Cable Cutter – Max. 350 MCM
- Battery Cable Stripper
- Positive Straight Battery Terminals – 2/0 GA
- Negative Straight Battery Terminals – 2/0 GA
- Positive Right Angle Battery Terminals – 2/0 GA
- Negative Right Angle Battery Terminals – 2/0 GA
- Magna Lug / 3/8" Stud – 2/0 GA
- Magna Lug / 1/2" Stud – 2/0 GA
- Black 6" Heavy Wall Heat Shrink Tubing – 2 GA to 4/0 GA
- Red 6" Heavy Wall Heat Shrink Tubing – 2 GA to 4/0 GA



P/N 17035

BOOSTER CABLES

- **HEAVY DUTY BOOSTER CABLES FOR ALL-SEASON RELIABILITY**
- **PROFESSIONAL QUALITY 400 AMP CLAMPS ENSURE QUICK AND EASY CONNECTIONS**
- **HEAVY 40 GA CABLE REMAINS FLEXIBLE TO -40°F**
- **FULLY INSULATED CLAMPS PROVIDE ADDED SAFETY**
- **LONG 16 FOOT LENGTH FOR EASY HOOKUP**

SIZE		PART
4GA x 16 FT BLUE / BLACK BOOSTER CABLES	A	28090

CIC 200™ CABLE AND BATTERY SUPPLIES

BATTERY TERMINALS

MARINE

BOTH POSITIVE AND NEGATIVE, EACH FEATURING DIFFERENT SIZE STUD AND WING NUT. DIMENSIONAL DIFFERENCE PREVENTS CROSS POLARITY WHEN ATTACHING CABLE TO BATTERY POST.

SIZE	POS.	NEG.
5/16	–	I 2870
3/8	I 2872	–

UNIVERSAL

SIZE	PART
#2 to 4/0	I 2811
#4 to #2	I 2813

BOLT & NUT

Bolt & Nut #2855
Nuts only #2860

SIZE	PART
5/16 x 1-3/8	T 2855
5/16	T 2860

MILITARY

- LOW PROFILE DESIGN MEASURES ONLY 3/4" HIGH
- LONG BOLT PERMITS ADDITIONAL POWER CONNECTIONS
- POLARITY SPECIFIC LEAD CONSTRUCTION, ZINC PLATED STEEL FASTENERS INCLUDED
- MIL SPEC A52425-1 / A52425-2

POSITIVE	NEGATIVE
D 2810	D 2812

POST TYPE TERMINALS

Easily identified, electro-tin plated copper connector provides high conductivity and resists corrosion.

STRAIGHT

CABLE SIZE	POLARITY	PART
6 GA.	POS.	E 32219
6 GA.	NEG.	E 32221
6-4 GA.	UNIV.	E 32220
4 GA.	UNIV.	D 32110
1 + 2 GA.	NEG.	D 32113
1 + 2 GA.	POS.	D 32114
1/0	NEG.	D 32115
1/0	POS.	D 32116
2/0	NEG.	D 32117
2/0	POS.	D 32118
3/0	NEG.	D 32119
3/0	POS.	D 32120
4/0	NEG.	D 32121
4/0	POS.	D 32122

RIGHT ANGLE (FLAG)

CABLE SIZE	POLARITY	PART
1/0	NEG.	D 32125
1/0	POS.	D 32126
2/0	NEG.	D 32127
2/0	POS.	D 32128
3/0	NEG.	D 32129
3/0	POS.	D 32130
4/0	NEG.	D 32131
4/0	POS.	D 32132
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–

RIGHT ELBOW

CABLE SIZE	POLARITY	PART
1/0	NEG.	D 32135
1/0	POS.	D 32136
2/0	NEG.	D 32137
2/0	POS.	D 32138
3/0	NEG.	D 32139
3/0	POS.	D 32140
4/0	NEG.	D 32141
4/0	POS.	D 32142
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–

CIC 200™ CABLE AND BATTERY SUPPLIES

POST TOP — LEFT ELBOW

CABLE SIZE	POLARITY		PART
1/0	NEG.	D	32145
1/0	POS.	D	32146
2/0	NEG.	D	32147
2/0	POS.	D	32148
3/0	NEG.	D	32149
3/0	POS.	D	32150
4/0	NEG.	D	32151
4/0	POS.	D	32152

STUD TOP/SIDE MOUNT — STRAIGHT

CABLE SIZE	POLARITY		PART
4 GA.	UNIV.	D	32155
1 + 2 GA.	UNIV.	D	32156
1/0	UNIV.	D	32157
2/0	UNIV.	D	32158
3/0	UNIV.	D	32159
4/0	UNIV.	D	32160
-	-		-
-	-		-

STUD TOP/SIDE MOUNT — DOUBLE (SPLICE)

CABLE SIZE	POLARITY		PART
2/0	UNIV.	D	32162
3/0	UNIV.	D	32163
-	-		-
-	-		-
-	-		-
-	-		-
-	-		-
-	-		-

STUD NUT

SIZE		PART
3/8-16	I	32165

SIDE MOUNT BOLT

SIZE		PART
3/8-16 (OEM)	I	32166

SIDE MOUNT BOLT - X-LONG

SIZE		PART
3/8-16 (X-LONG)	F	32167

CRIMPING COLOR CODES

AWG #	LEFT DIE	RIGHT DIE	TERMINAL COLOR CODE	# OF CRIMPS
4	J	H	GREEN	1
2	H	H	PINK	2
1	H	H	PINK	2
1/0	E	A	BLACK	2
2/0	A	C	ORANGE	2
3/0	A	B	PURPLE	2
4/0	A	A	YELLOW	2

SOLDER BUTT CONNECTORS

SOLDER OR CRIMP TYPE

NON-INSULATED

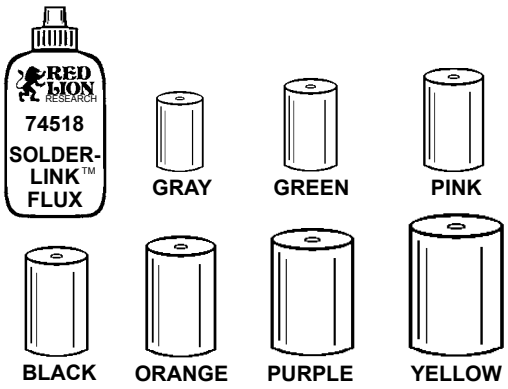
- **HIGHEST GRADE PURE ELECTROLYTIC COPPER**
- **TIN PLATED**
- **FULLY ANNEALED FOR EASY, SECURE CRIMPING**
- **FLARED BARREL ENDS**
- **SEAMLESS CONSTRUCTION**
- **EASY IDENTIFICATION**

CABLE SIZE	LENGTH	BARREL I.D.		PART
8 GA.	1.000	.186	R	6261
6 GA.	1.075	.232	R	6262
4 GA.	1.215	.286	R	6263
2 GA.	1.350	.336	N	6264
1 GA.	1.350	.360	N	6265
1/0	1.550	.407	N	6266
2/0	1.800	.461	L	6267
3/0	1.900	.511	L	6268
4/0	2.000	.590	I	6269

CIC 200™ CABLE AND BATTERY SUPPLIES

CIC 200™ SOLDER LINK SLUGS

CIC 200 Solder Link Slugs and Sur-Seal Shrink Tubing provide the fastest, easiest, hermetically sealed battery connections possible — far superior to crimping.



FEATURES:

- COST EFFICIENT — NO EXPENSIVE TOOLS REQUIRED
- PRE-MEASURED — PROVIDES THE EXACT AMOUNT OF SOLDER FOR EACH SIZE CONNECTOR
- AVAILABLE IN SEVEN SIZES — 4 GAUGE TO 4/0
- COLOR CODED — COINCIDES WITH INDUSTRY STANDARDS
- PROVIDES THE PERFECT CONNECTION EVERY TIME — COMPLETE AND ENVIRONMENTALLY SEALED
- FLUX-CORED TO ELIMINATE CONTAMINATION
- EASY TO USE

SIMPLY DROP A SOLDER LINK SLUG INTO A BATTERY TERMINAL, HEAT WITH TORCH WHILE PRESSING STRIPPED CABLE INTO TERMINAL AND ALLOW TO COOL. FIT SHRINK TUBING FOR EXTRA PROTECTION AGAINST THE ELEMENTS.

SIZE	COLOR / DESCRIPTION		PART
4 GA	Gray	N	6270
2 GA	Green	N	6271
1 GA	Pink	R	6272
1/0	Black	R	6273
2/0	Orange	N	6274
3/0	Purple	N	6275
4/0	Yellow	L	6276
2 oz. Bottle	Solder-Link™ Flux	A	74518

CABLE

BATTERY CABLE

- BLACK
- SPECIAL ALL-WEATHER VINYL INSULATION
- FLEXIBLE AND CRACK PROOF
- OIL, ACID, GREASE AND WATER RESISTANT
- EASIER STRIPPING
- PLASTICITY REMAINS CONSTANT IN EXTREME TEMPERATURES
- MEETS ALL QUALITY AND PERFORMANCE REQUIREMENTS OF U.S. GOVERNMENT

SIZE	25 FEET	50 FEET
6	8168	8184
4	8170	8186
2	8172	8188
1	8174	8190
1/0	8176	8192
2/0	8178	8194
3/0	8180	8196
4/0	8182	8198

FLEXIBLE WELDING/BATTERY CABLE

- MUCH MORE FLEXIBLE THAN STANDARD BATTERY CABLE
- TEMPERATURE RANGE -40°C to 90°C (-40°F to 194°F)
- 600 VOLT RATING
- RESISTS FLAME, OIL, GREASE, SOLVENTS, ACIDS, OZONE AND ABRASION

RED		BLACK	
SIZE	25 FEET	SIZE	25 FEET
6	8169	6	8185
4	8171	4	8187
2	8173	2	8189
1	8175	1	8191
1/0	8177	1/0	8193
2/0	8179	2/0	8195
3/0	8181	3/0	8197
4/0	8183	4/0	8199

CIC 200™ CABLE AND BATTERY SUPPLIES

CRIMPING/STRIPPING TOOLS

HAMMER TYPE BATTERY CRIMPER

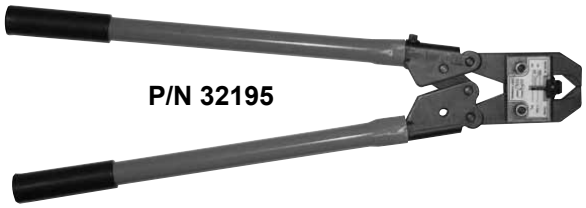
6 GA to 4/0 GA Professional Tool
Convenient and economical alternative for crimping lugs and terminals.

Features Include
- Spring Loaded; locks in up position for loading connector and cable and locks them in place when released
- Just hammer the top of the pin to crimp
- Simple and easy

P/N 32191

HEAVY DUTY CRIMPING TOOL

Features
- 6 GA to 4/0 GA
- A rugged tool that is easy to use
- Wire range from 4 GA to 4/0 GA
- Just rotate knob to desired crimping gauge
- Permanently installed jaws – no missing parts
- Long handle provides excellent leverage



P/N 32195

HEAVY DUTY CABLE CUTTER

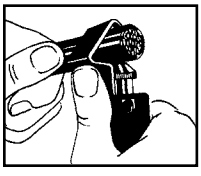
Features
- Maximum 350 MCM
- A rugged tool that is easy to use

P/N 32194

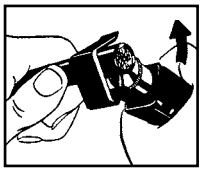
BATTERY CABLE STRIPPER

- **PRECISE DEPTH CONTROL ASSURES A CLEAN EASY STRIP WITH NO KNICKING OF CONDUCTORS**
- **HEAVY DUTY DESIGN PROVIDES LASTING, DEPENDABLE SERVICE**
- **ADJUSTABLE FOR CABLE SIZES 8 GAUGE THROUGH 400 MCM**
- **REPLACEMENT BLADE INCLUDED (STORED IN HANDLE)**
- **CAN BE USED FOR BOTH END AND CENTER STRIPPING**

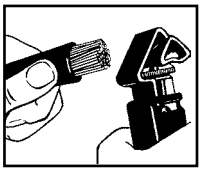
P/N 8215



1. Raise cable guide and place cable inside.



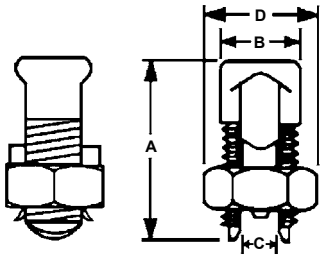
2. Rotate tool around cable.



3. Remove insulation.

CIC 200™ CABLE AND BATTERY SUPPLIES

COPPER SPLIT BOLTS



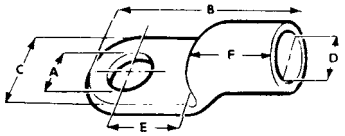
WIRE RANGE		DIMENSIONS					
EQUAL MAIN & TAP (MIN-MAX)	MIN. TAP WITH MAX. MAIN	A	B	C	D		PART
12 STR - 10 STR	16 STR	23/32	9/32	1/8	31/64	E	2740
10 STR - 8 STR	14 STR	23/32	3/8	9/64	37/64	E	2741
8 STR - 6 SOL	14 STR	63/64	7/16	11/64	45/64	E	2742
8 STR - 4 SOL	14 STR	1-3/64	1/2	7/32	25/32	E	2743
6 STR - 2 SOL	14 STR	1-5/64	37/64	17/64	27/32	B	2744
6 STR - 2 STR	14 STR	1-1/2	5/8	21/64	59/64	B	2745
4 STR - 1/0 STR	14 STR	1-25/32	13/16	7/16	1-3/16	B	2746
1 STR - 2/0 STR	14 STR	1-11/16	13/16	27/64	1-1/16	A	2747
2/0 STR - 3/0 STR	8 STR	2-3/32	63/64	17/32	1-1/4	A	2752
4/0 STR - 250 MCM	8 STR	2-3/32	1-1/16	37/64	1-1/4	A	2764

NOTE: Use Red Lion™ Red Insulating Varnish (P/N 4139) to assure a long-term, weather resistant connection.

CIC 200™ CABLE AND BATTERY SUPPLIES

HEAVY DUTY CRIMP OR SOLDER ELECTRICAL LUGS

- TIN PLATED, HIGH GRADE PURE ELECTROLYTIC COPPER LUGS THAT ARE FULLY ANNEALED FOR EASY, SECURE CRIMPING
- FLARED BARREL ENDS WITH SEAMLESS CONSTRUCTION ARE MARKED WITH WIRE SIZE



AWG WIRE SIZE	PAD THICK-NESS	A STUD SIZE	B LTH	C PAD WTH	D BARREL I.D.	E CLEAR-ANCE	F BARREL LTH	PART	AWG WIRE SIZE	PAD THICK-NESS	A STUD SIZE	B LTH	C PAD WTH	D BARREL I.D.	E CLEAR-ANCE	F BARREL LTH	PART
8	.075	10	1.23	.46	.186	.32	.450	R 6200	2	.100	3/8	1.65	.63	.336	.38	.575	N 6225
8	.075	1/4	1.23	.46	.186	.32	.450	R 6201	2	.115	1/2	1.78	.78	.336	.44	.575	N 6226
8	.075	3/8	1.37	.62	.186	.38	.450	R 6202	1	.100	1/4	1.75	.68	.360	.38	.625	N 6229
8	.075	1/2	1.51	.78	.186	.44	.450	R 6203	1	.100	5/16	1.75	.68	.360	.38	.625	N 6230
6	.080	10	1.30	.46	.232	.32	.475	R 6208	1	.100	3/8	1.75	.68	.360	.38	.625	N 6231
6	.080	1/4	1.30	.46	.232	.32	.475	R 6209	1	.115	1/2	1.86	.78	.360	.44	.625	N 6232
6	.080	5/16	1.44	.62	.232	.38	.475	R 6211	1/0	.100	1/4	1.89	.75	.407	.38	.675	N 6235
6	.080	3/8	1.44	.62	.232	.38	.475	R 6212	1/0	.100	5/16	1.89	.75	.407	.38	.675	N 6236
6	.080	1/2	1.58	.78	.232	.44	.475	R 6213	1/0	.100	3/8	1.89	.75	.407	.38	.675	N 6237
4	.085	10	1.53	.54	.286	.38	.550	N 6216	1/0	.115	1/2	1.98	.84	.407	.44	.675	N 6238
4	.085	1/4	1.53	.54	.286	.38	.550	N 6217	2/0	.105	3/8	2.11	.83	.461	.48	.700	N 6241
4	.085	5/16	1.58	.64	.286	.38	.550	N 6218	2/0	.105	1/2	2.11	.83	.461	.48	.700	N 6242
4	.085	3/8	1.58	.64	.286	.38	.550	N 6219	3/0	.115	3/8	2.22	.92	.511	.48	.725	L 6245
4	.115	1/2	1.71	.78	.286	.44	.550	N 6220	3/0	.115	1/2	2.22	.92	.511	.48	.725	L 6246
2	.100	1/4	1.65	.63	.336	.38	.575	N 6223	4/0	.125	3/8	2.38	1.00	.559	.52	.750	L 6248
2	.100	5/16	1.65	.63	.336	.38	.575	N 6224	4/0	.125	1/2	2.38	1.00	.559	.52	.750	L 6249

MAGNA LUGS

STARTER/GROUND UG BATTERY TERMINALS

17036

- COLOR CODED FOR EASY IDENTIFICATION
- WIDER PADS FOR BETTER ELECTRICAL CONTACT
- THICKER PADS FOR GREATER STRENGTH
- 80% THICKER WALLS FOR GREATER CONDUCTIVITY AND STRENGTH
- SAME CRIMP SETTINGS AS BATTERY TERMINALS, SAVING YOU TIME, TROUBLE AND ERRORS
- EXCEED SAE CONDUCTIVITY STANDARDS
- MADE OF 100% COPPER, TIN PLATED TWICE AS THICK AS INDUSTRY STANDARDS
- CAN BE CRIMPED OR SOLDERED

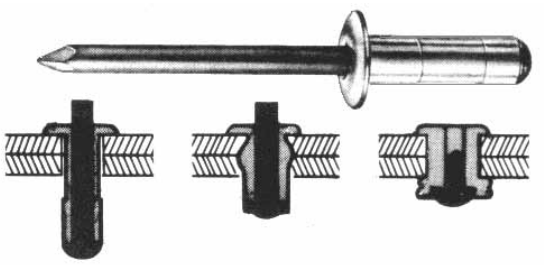
WIRE GAUGE	STUD SIZE	COLOR CODE	PART	WIRE GAUGE	STUD SIZE	COLOR CODE	PART
6	1/4"	Gray	I 32216	1/0	5/16"	Black	I 32202
6	5/16"	Gray	I 32217	1/0	3/8"	Black	I 32201
6	3/8"	Gray	I 32218	1/0	1/2"	Black	I 32200
4	1/4"	Gray	I 32213	2/0	5/16"	Orange	I 32208
4	5/16"	Gray	I 32215	2/0	3/8"	Orange	I 32207
4	3/8"	Gray	I 32214	2/0	1/2"	Orange	I 32206
1-2	5/16"	Pink	I 32205	3/0	3/8"	Purple	E 32210
1-2	3/8"	Pink	E 32204	3/0	1/2"	Purple	E 32209
1-2	1/2"	Pink	I 32203	4/0	3/8"	Yellow	E 32212
				4/0	1/2"	Yellow	E 32211

CIC 200™ MULTI-GRIP PULL RIVETS

DOME HEAD

Only Chromate multi-grip pull rivets adapt to hole size variance and pull up snug regardless of material thickness. Only a few sizes cover the applications of up to 15 standard rivets.

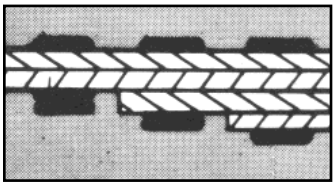
THE CHROMATE MULTI-GRIP DIFFERENCE



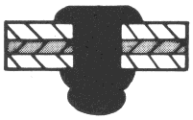
EXCLUSIVE FEATURES:

7740

- EXPANDS UP TO ITS OWN HEAD DIAMETER FOR USE IN WIDE TOLERANCE HOLES
- ONE LENGTH FITS ALL THICKNESSES WITHIN GRIP RANGE
- SUPERIOR CLAMP-UP ACTION ELIMINATES LOOSE PART UNDER ADVERSE CONDITIONS
- LOW PROFILE GUARANTEED FOR FINISHED APPEARANCE ON BOTH SIDES
- SEALED STEM FOR WATERPROOF, DUSTPROOF APPLICATION



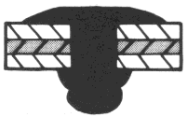
- DOME HEAD RIVETS ARE USED IN STANDARD APPLICATIONS REQUIRING MAXIMUM HOLE FILL AND CLAMP-UP



DOME HEAD

DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE	PART	
1/8	1/32 to 3/16	13/64	#29	U	6850
1/8	1/8 to 5/16	13/64	#29	U	6853
5/32	3/64 to 1/4	1/4	#19	U	6855
3/16	1/16 to 1/4	11/32	#8	U	6860
3/16	3/16 to 7/16	11/32	#8	T	6865

- LARGE FLANGE RIVETS INCREASE HEAD BEARING SURFACE, PREVENTING PULL-THROUGH IN SOFT MATERIALS



LARGE FLANGE

DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE	PART	
1/8	1/32 to 3/16	21/64	#29	U	6875
1/8	1/8 to 5/16	21/64	#29	U	6876
3/16	1/4 to 1/2	5/8	#8	T	6879
3/16	1/2 to 25/32	5/8	#8	T	6882

- 120° COUNTERSUNK RIVETS PROVIDE SMOOTH OFFSIDE SURFACES AND CLEARANCE FOR MOVING PARTS

120° COUNTERSUNK

DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE	PART	
1/8	3/32 to 1/4	13/64	#29	U	6867

DUAL-ACTION HAND RIVET TOOL

NOSE PIECES INCLUDED:	PART	
3/32, 1/8, 5/32, 3/16	A	6885

HAND RIVET TOOL

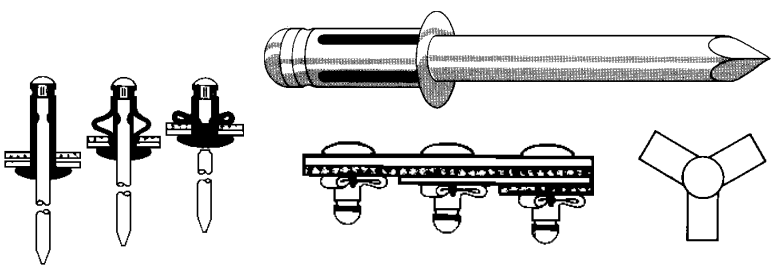
- SETS 1/8" - 1/4" DIAMETER RIVETS IN ALL MATERIALS. CAN ALSO SET T-RIVET/KLIK-SPLIT®, KLIK-LOCK™ AND ALL OTHER STRUCTURAL BLIND RIVETS
- HEAVY DUTY CONSTRUCTION WITH SHOCK RESISTANT HANDLES
- 1/4" NOSEPIECE INSTALLED IN THE TOOL AND 3/16" AND 5/32" NOSEPIECES IN THE HANDLE
- LONGER HANDLES PERMIT ACCESS TO HARD-TO-REACH AREAS
- OVERALL LENGTH 21", HANDLE LENGTH 16"

NOSE PIECES INCLUDED:	PART	
1/4", 3/16" and 5/32"	A	6884

CIC 200™ MULTI-GRIP PULL RIVETS (Cont'd.)

TRI-CLAMP

All aluminum, multi-purpose, multi-grip rivet designed to fasten all materials including metal, plastic, fiberglass, ceramic, plexiglass and other composites where pull-through with standard rivets is a common cause of failure.



17940

- **EASY USE – INSERT AND SQUEEZE**
- **POSITIVE FASTENING**
- **ADAPTS TO ALL MATERIALS – THIN, BRITTLE, CLAD, SOFT**
- **MULTI-GRIP – WILL FASTEN MATERIALS FROM 3/64" TO 15/32" THICK**
- **SUPERIOR CLAMPING – SLOTTED SHELL UPSETS INTO 3 UNIFORM TINES ON BLIND SIDE CREATING A LARGE BEARING SURFACE EXTENDING PROPER CLAMPING FORCE FROM BOTH SIDES**

DIAMETER	GRIP RANGE	HEAD DIA.	DRILL SIZE		PART
5/32	3/64 to 1/8	5/16	11/64 (.1719)	T	6887
5/32	3/64 to 9/32	5/16	11/64 (.1719)	T	6888
3/16	3/64 to 5/32	25/64	#8 (.1990)	T	6883
3/16	3/64 to 11/32	25/64	#8 (.1990)	T	6886
3/16	5/32 to 15/32	25/64	#8 (.1990)	T	6889

FINISHING CAPS FOR TRI-CLAMP RIVETS

- **THESE DECORATIVE "SNAP-ON" PLASTIC CAPS PROVIDE A FINISHED QUALITY IN APPLICATIONS WHERE RIVET HEADS SHOULD BE CONCEALED**

17940

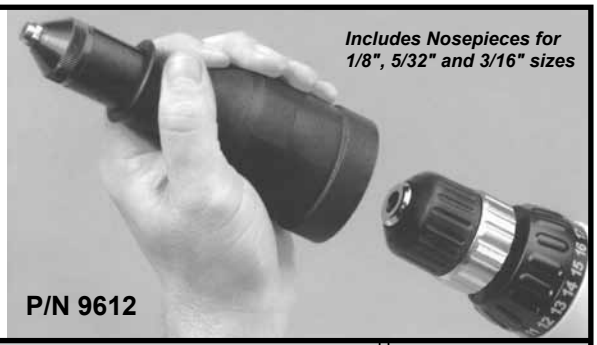
DIAMETER	USE WITH PART NOS.	COLOR		PART
5/32	6887, 6888	WHITE	T	6896
5/32	6887, 6888	BLACK	T	6897
3/16	6883, 6886, 6889	WHITE	T	6898
3/16	6883, 6886, 6889	BLACK	T	6899

RIVEDRILL™

PATENTED DRILL ATTACHMENT WITH EFFORTLESS OPERATION

- **EASILY CONVERTS CORDLESS, ELECTRIC AND PNEUMATIC DRILLS INTO BLIND RIVET GUNS**
- **INSTALLS AS EASILY AS A DRILL BIT**
- **COMPATIBLE WITH ANY REVERSIBLE DRILLING MACHINE WITH OR WITHOUT CORD**
- **ALLOWS OPERATORS TO SET UP TO 14 RIVETS PER MINUTE**
- **ERGONOMICALLY FRIENDLY – REQUIRING JUST 6.6 POUND OF PRESSURE TO OPERATE**

APPLICATIONS:
- **AUTOMOTIVE AFTERMARKET**
- **SMALL AIRCRAFT AND BOAT REPAIR**
- **RESIDENTIAL AND COMMERCIAL CONSTRUCTION**
- **GENERAL FACILITY MAINTENANCE AND REPAIR**

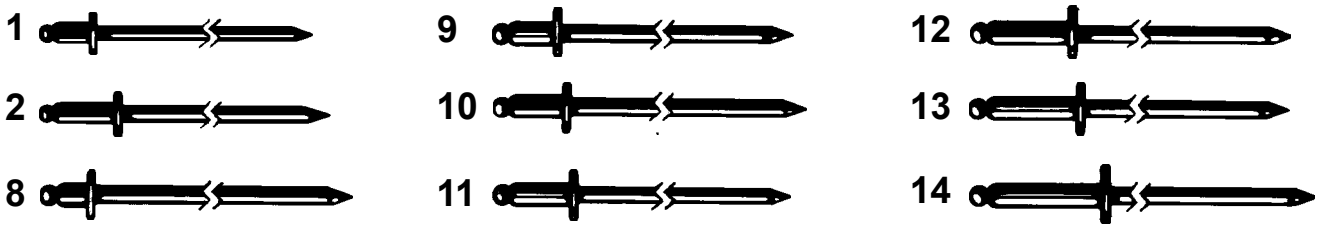


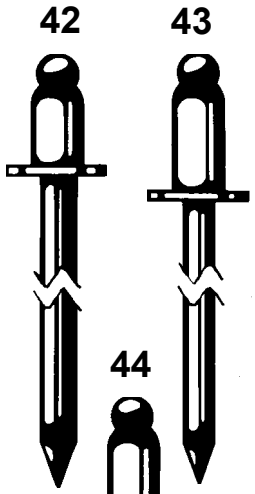
DESCRIPTION		PART	REPLACEMENT NOSEPIECES		PART
Rivedrill	A	9612	1/8	A	9612NP18
Replacement Jaws for Rivedrill	A	9612JAWS	3/16	A	9612NP316
			5/32	A	9612NP532

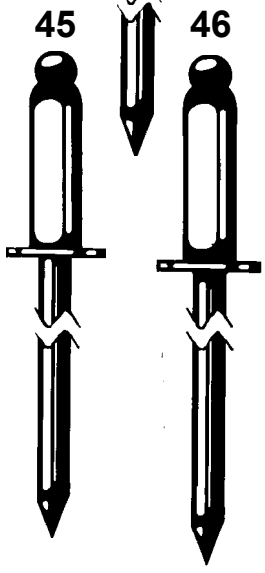
CIC 200™ PULL RIVETS

DOME HEAD

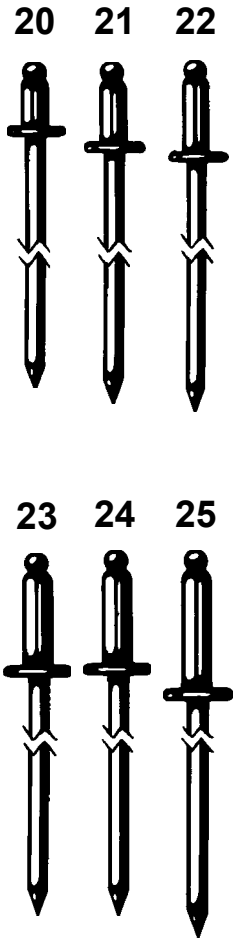
7737

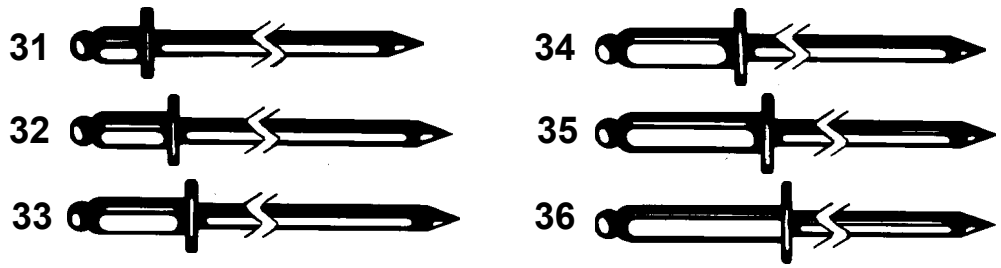






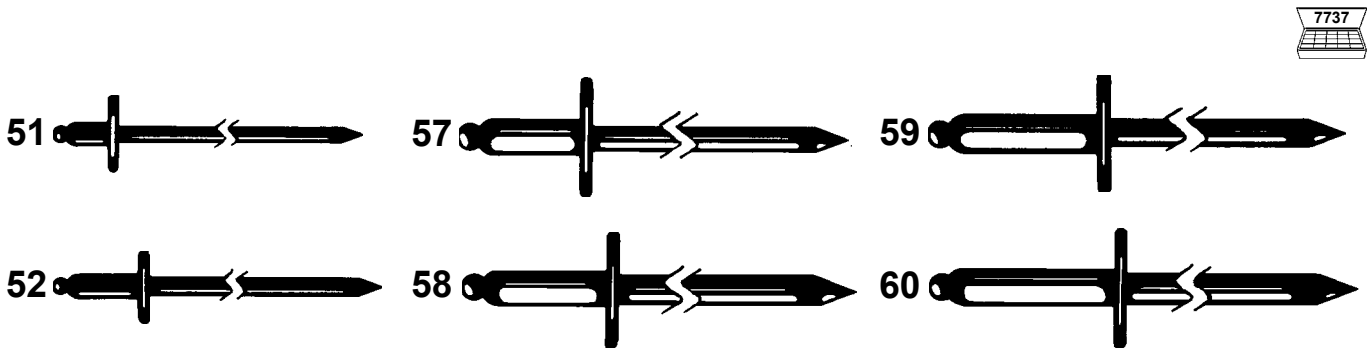
DIA.	DRILL SIZE	NO.	GRIP RANGE	ALUM. RIVET ALUM. MANDREL		ALUM. RIVET STEEL MANDREL		STEEL RIVET STEEL MANDREL		IN-DUS-TRY NO.
3/32	#41 (.0960)	1	to 1/8	V	9800	V	9851	V	9911	32
		2	1/8 to 1/4	V	9801	V	9852	V	9912	34
1/8	#30 (.1285)	8	to 1/16	V	9806	V	9858	V	9918	41
		9	1/16 to 1/8	V	9807	V	9859	V	9919	42
		10	1/8 to 3/16	V	9808	V	9860	V	9920	43
		11	3/16 to 1/4	V	9809	V	9861	V	9921	44
		12	1/4 to 5/16	V	9810	V	9862	V	9922	45
		13	5/16 to 3/8	V	9811	V	9863	V	9923	46
		14	3/8 to 1/2	U	9812	U	9864	U	9924	48
5/32	#20 (.1610)	20	to 1/8	U	9818	U	9869	U	9930	52
		21	1/8 to 3/16		-	U	9870		-	53
		22	3/16 to 1/4		-	U	9871		-	54
		23	1/8 to 1/4	U	9820		-	U	9932	54
		24	1/4 to 3/8	U	9821	U	9872	U	9933	56
		25	3/8 to 1/2	U	9822		-	U	9934	58
3/16	#11 (.1910)	31	to 1/8	U	9827	U	9878	U	9939	62
		32	1/8 to 1/4	U	9828	U	9879	U	9940	64
		33	1/4 to 3/8	U	9829	U	9880	U	9941	66
		34	3/8 to 1/2	U	9830	U	9881	U	9942	68
		35	1/2 to 5/8	U	9831	U	9882	U	9943	610
		36	5/8 to 3/4	T	9832	T	9883	T	9944	612
1/4	F (.2370)	42	to 1/4		-	T	9889	T	9950	84
		43	1/4 to 3/8		-	T	9890	T	9951	86
		44	3/8 to 1/2		-	T	9891	T	9952	88
		45	1/2 to 5/8		-		-	T	9953	810
		46	5/8 to 3/4		-		-	T	9954	812





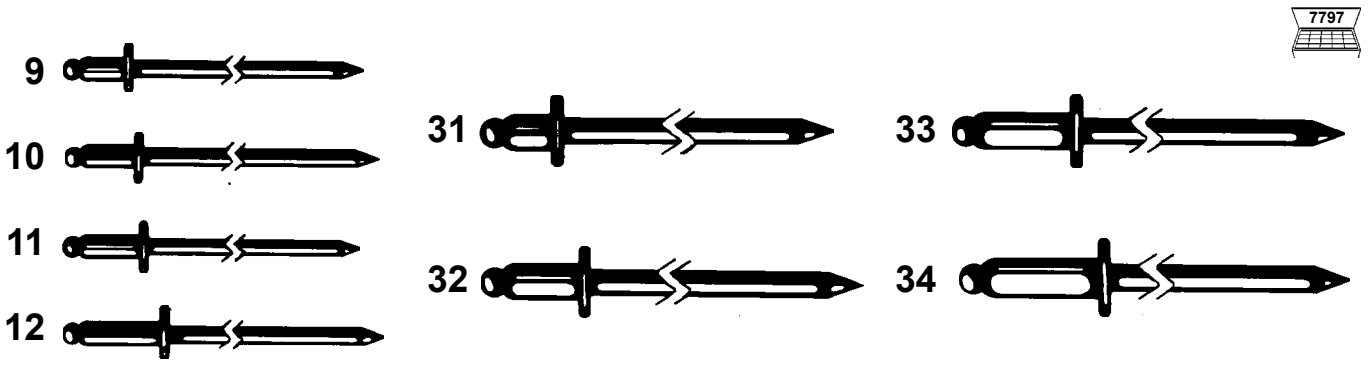
CIC 200™ PULL RIVETS (Cont'd.)

LARGE FLANGE



DIA.	FLANGE DIA.	DRILL SIZE	NO.	GRIP RANGE	ALUM. RIVET ALUM. MANDREL	ALUM. RIVET STEEL MANDREL	STEEL RIVET STEEL MANDREL
1/8	3/8	#30 (.1285)	51	1/16 to 1/8	U 9838	U 9897	U 9960
			52	1/8 to 1/4	U 9839	U 9898	U 9961
3/16	5/8	#11 (.1910)	57	1/4 to 3/8	U 9844	U 9903	U 9967
			58	3/8 to 1/2	-	U 9904	U 9968
			59	1/2 to 5/8	T 9846	T 9905	T 9969
			60	5/8 to 3/4	-	T 9906	T 9970

STAINLESS STEEL

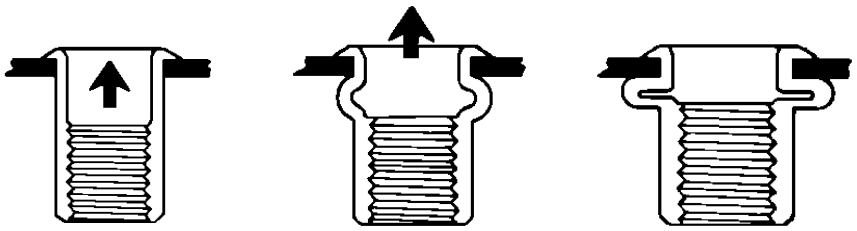


DIAMETER	DRILL SIZE	NO.	GRIP RANGE	PART
1/8	#30 (.1285)	9	to 1/8	T 9702
		10	1/8 to 3/16	T 9704
		11	3/16 to 1/4	T 9706
		13	1/4 to 3/8	T 9708
3/16	#11 (.1910)	31	to 1/8	R 9710
		32	1/8 to 1/4	R 9712
		33	1/4 to 3/8	R 9714
		34	3/8 to 1/2	R 9716

CIC 200™ THREADED INSERT FASTENERS

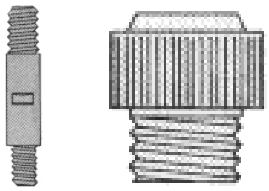
FAST, CONVENIENT INSTALLATION OF THREADS IN ANY BLIND AREA

CIC 200 Thinserts are an easily-installed alternative to many "blind" fasteners. They offer strength, permanence and load-bearing capabilities for a variety of materials.



THINSERTS
DESIGNED TO PROVIDE A HIGHLY EFFICIENT METHOD OF SECURING THREADS FROM ONE SIDE OF WORK IN MATERIALS TOO THIN TO SUPPORT THREADS.

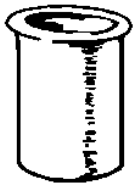
FOR MATERIALS .020" TO .200" THICK.

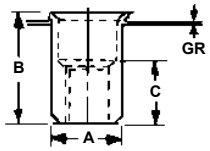
THINSERTS				ADAPTERS/MANDRELS		
						
SIZE	**DRILL SIZE**	**PART**		**SIZE**	**PART**	
6-32	1/4	T	581	4-40	A	460
8-32	1/4	T	582	6-32	A	483
10-24	9/32	T	583	8-32	A	484
10-32	9/32	T	584	10-24	A	485
1/4-20	3/8	R	585	10-32	A	486
5/16-18	1/2	R	587	12-24	A	487
–	–		–	1/4-20	A	488
–	–		–	1/4-28	A	492
–	–		–	5/16-18	A	490
–	–		–	5/16-24	A	493
–	–		–	3/8-16	A	489
–	–		–	3/8-24	A	494

CIC 200™ THREADED INSERT FASTENERS (Cont'd.)

SPECIFICATIONS

THINSERTS





THREAD SIZE CLASS 2B AFTER INSTALLATION	RECOMMENDED GRIP RANGE		'A' MAX.	'B' MAX.	'C' MAX.	HOLE SIZE
	PILOT	FORMED				
6-32 and 8-32	.020 / .080	.020 / .060	.249	.410	.250	.250 / .254
10-24 and 10-32	.020 / .130	.020 / .100	.280	.465	.240	.281 / .285
1/4-20	.030 / .165	.030 / .130	.374	.610	.335	.375 / .379
5/16-18	.040 / .180	N/A	.499	.720	.395	.500 / .504

QUIK TOOL KITS

KIT INCLUDES:
- **QUIK TOOL**
- **ADAPTERS/MANDRELS 6-32, 8-32, 10-24, 10-32, 1/4-20 AND 5/16-18**

P/N 9600

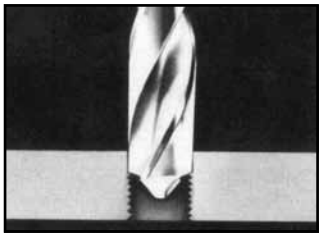
QUIK TOOL (WITHOUT ADAPTER)

P/N 9610

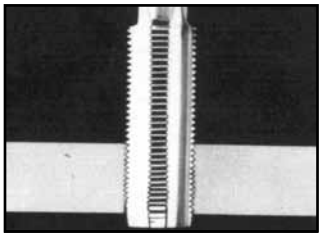
CIC 200™ PERMASERTS™

PERMANENT, LOCKING STEEL THREAD REPAIR INSERTS

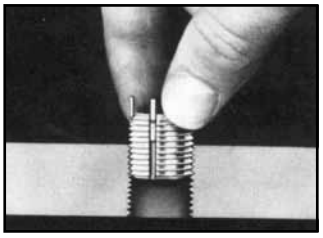
Quickly repairs stripped, damaged or worn threads. Also for use on original equipment applications where softer materials won't hold. Installed with standard drills and taps. No pre-winder tool required. Positive mechanical lock against rotation.



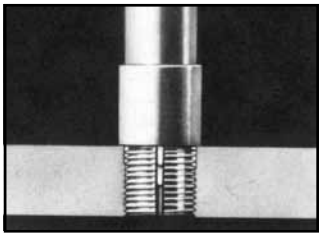
1. Drill out old threads, using standard drill.



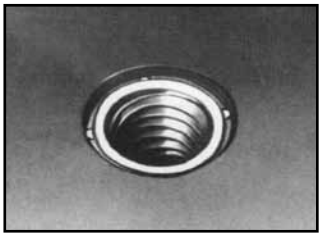
2. Tap new threads, using standard tap.



3. Screw in insert until slightly below surface. "Kees" act as depth stop.



4. Drive "Kees" down with several light taps on installation tool.



5. Installed Insert

INSTALLATION TOOL

- **SOLID BUSHING WITH LOCKING KEES — PROVIDES POSITIVE MECHANICAL LOCKING AGAINST ROTATION**
- **USE IN ALUMINUM, MAGNESIUM, CAST IRON, COLD ROLLED STEEL AND PLASTIC — NO RESTRICTIONS ON PARENT MATERIAL**
- **HIGH STRENGTH AND RELIABILITY — PROVIDES MAXIMUM PULLOUT STRENGTH; BREAKS GRADE 8 BOLT**
- **EASY INSTALLATION — LEARN IN MINUTES**
- **HOLE PREPARED WITH STANDARD DRILL AND TAP — NO SPECIAL, COSTLY, SINGLE-PURPOSE DRILLS OR TAPS REQUIRED**
- **INSERT WITH FINGERS — NO SPECIAL PRE-WINDER TOOLS REQUIRED**
- **IMPOSSIBLE TO CROSS-THREAD DURING INSTALLATION — PERFECT EVERY TIME**
- **SIMPLE REMOVAL — PERMANENTLY INSTALLED UNLESS REMOVAL IS REQUIRED**

USS THREAD SIZES

INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL DIA.	TAP SIZE	DRILL REMOVAL SIZE	DRILL REMOVAL DEPTH	PART		INSTALLATION TOOL	
10-24	3/8-16	.31	"Q"	3/8-16	9/32	1/8	L	1913	A	1881
1/4-20	7/16-14	.37	"X"	7/16-14	11/32	3/16	L	1915	A	1882
5/16-18	1/2-13	.43	29/64	1/2-13	13/32	3/16	L	1917	A	1883
3/8-16	9/16-12	.50	33/64	9/16-12	15/32	3/16	I	1919	A	1884
7/16-14	5/8-11	.62	37/64	5/8-11	17/32	3/16	I	1921	A	1885
1/2-13	3/4-16	.62	45/64	3/4-16	21/32	3/16	I	1923	A	1886
5/8-11	7/8-14	.87	53/64	7/8-14	25/32	3/16	F	1927	A	1888
3/4-10	1-1/8-12	1.12	1-1/16	1-1/8-12	31/32	5/16	D	1929	A	1889
7/8-9	1-1/4-12	1.25	1-3/16	1-1/4-12	1-3/32	5/16	D	1931	A	1890
1-8	1-3/8-12	1.37	1-5/16	1-3/8-12	1-7/32	5/16	B	1933	A	1891

SAE THREAD SIZES

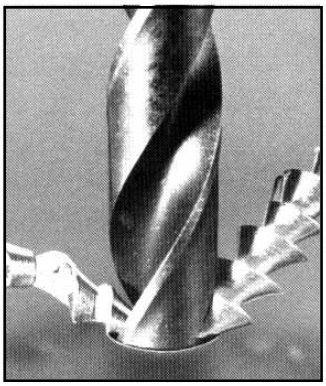
10-32	3/8-16	.31	"Q"	3/8-16	9/32	1/8	L	1914	A	1881
1/4-28	7/16-14	.37	"X"	7/16-14	11/32	3/16	L	1916	A	1882
5/16-24	1/2-13	.43	29/64	1/2-13	13/32	3/16	L	1918	A	1883
3/8-24	9/16-12	.50	33/64	9/16-12	15/32	3/16	I	1920	A	1884
7/16-20	5/8-11	.62	37/64	5/8-11	17/32	3/16	I	1922	A	1885
1/2-20	3/4-16	.62	45/64	3/4-16	21/32	3/16	I	1924	A	1886
5/8-18	7/8-14	.87	53/64	7/8-14	25/32	3/16	F	1928	A	1888
3/4-16	1-1/8-12	1.12	1-1/16	1-1/8-12	31/32	5/16	D	1930	A	1889
7/8-14	1-1/4-12	1.25	1-3/16	1-1/4-12	1-3/32	5/16	D	1932	A	1890
1-14	1-3/8-12	1.37	1-5/16	1-3/8-12	1-7/32	5/16	B	1935	A	1891

CIC 200™ THREAD REPAIR INSERTS

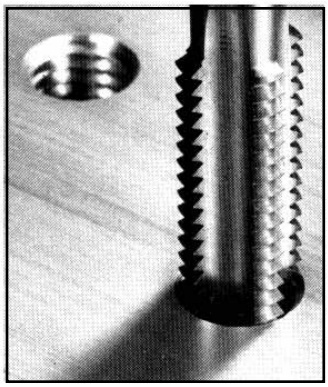
METAL

Installs permanent threads that won't fail, strip, rotate or pull out even under excessive loading.

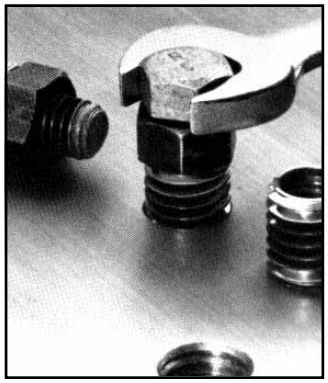
7736



DRILL WITH STANDARD DRILL



TAP HOLE WITH STANDARD TAP



TURN E-Z LOK HOM FLUSH WITH BOLT

AUTOMATIC SELF-LOCKING EXTENERAL THREAD

USS THREAD SIZES							
INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL SIZE	TAP SIZE	MIN. FULL THREAD DEPTH		PART
4-40	10-32	.250	5/32	10-32	9/32	L	1653
6-32	1/4-20	.280	7	1/4-20	11/32	L	1654
8-32	5/16-18	.290	F	5/16-18	7/16	L	1655
10-24	3/8-16	.406	5/16	3/8-16	15/32	L	1656
1/4-20	7/16-14	.437	23/64	7/16-14	1/2	L	1657
5/16-18	1/2-13	.484	27/64	1/2-13	9/16	I	1658
3/8-16	9/16-12	.515	31/64	9/16-12	19/32	I	1659
7/16-14	5/8-11	.656	17/32	5/8-11	23/32	I	1660
1/2-13	3/4-10	.656	21/32	3/4-10	3/4	I	1661
5/8-11	7/8-9	.687	49/64	7/8-9	13/16	E	1662
5/8-11-Long	7/8-9	1.125	49/64	7/8-9	1-1/4	E	1663
3/4-10	1-8	.781	7/8	1-8	7/8	E	1664
1-8	1-3/8-12	1.250	1-9/32	1-3/8-12	1-3/8	E	1665
SAE THREAD SIZES							
10-32	3/8-16	.406	5/16	3/8-16	15/32	L	1757
1/4-28	7/16-14	.437	23/64	7/16-14	1/2	L	1758
5/16-24	1/2-13	.484	27/64	1/2-13	9/16	I	1759
3/8-24	9/16-12	.515	31/64	9/16-12	19/32	I	1760
7/16-20	5/8-11	.656	17/32	5/8-11	23/32	I	1761
1/2-20	3/4-10	.656	21/32	3/4-10	3/4	I	1762
5/8-18	7/8-9	.687	49/64	7/8-9	13/16	E	1763
3/4-16	1/8	.781	7/8	1-8	7/8	E	1764

CIC 200™ THREAD REPAIR INSERTS (Cont'd.)

303 STAINLESS STEEL, PASSIVATED

USS THREAD							
INTERNAL THREAD	EXTERNAL THREAD	OVERALL LENGTH	TAP DRILL SIZE	TAP SIZE	MIN. FULL THREAD DEPTH		PART
10-24	3/8-16	.406	5/16	3/8-16	15/32	E	1564
1/4-20	7/16-14	.437	23/64	7/16-14	1/2	E	1565
5/16-18	1/2-13	.484	27/64	1/2-13	9/16	E	1566
3/8-16	9/16-12	.515	31/64	9/16-12	19/32	E	1567
7/16-14	5/8-11	.656	17/32	5/8-11	23/32	E	1568
1/2-13	3/4-10	.656	21/32	3/4-10	3/4	E	1569
SAE THREAD							
10-32	3/8-16	.406	5/16	3/8-16	15/32	E	1575
1/4-28	7/16-14	.437	23/64	7/16-14	1/2	E	1576
5/16-24	1/2-13	.484	27/64	1/2-13	9/16	E	1577
3/8-24	9/16-12	.515	31/64	9/16-12	19/32	E	1578
7/16-20	5/8-11	.656	17/32	5/8-11	23/32	E	1579
1/2-20	3/4-10	.656	21/32	3/4-10	3/4	E	1580

WOOD

The most effective way to make strong joints in hard wood, soft wood and particle board using machine screws and/or bolts.

INTERNAL THREAD	MAX. DIA. EXT. THREAD	OVERALL LENGTH	DRILLED HOLE SIZE		PART
6-32	.350	.375	1/4"	R	3786
8-32	.350	.375	1/4"	R	3788
10-24	.453	.500	3/8"	R	3790
10-32	.453	.500	3/8"	R	3792
1/4-20	.453	.500	3/8"	R	3794
5/16-18	.594	.562	1/2"	O	3796
3/8-16	.600	.625	1/2"	O	3798

INSTALLATION TOOL

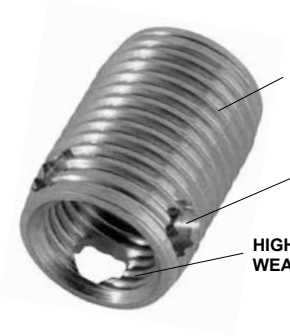
SIZE	USS	SAE		PART
8	32	-	A	1893
10	24	32	A	1894
1/4	20	28	A	1895
5/16	18	24	A	1896
3/8	16	24	A	1897
7/16	14	20	A	1898
1/2	13	20	A	1899

SELF-TAPPING THREADED INSERTS

FOR USE IN ALUMINUM, ALUMINUM ALLOY, MAGNESIUM AND MILD STEEL

- **TAPS AND INSTALLS IN ONE EASY STEP SAVING TIME, MONEY AND LABOR**
- **DESIGNED TO PROVIDE MAXIMUM PULL-OUT STRENGTH AND WEAR RESISTANT THREADS IN ALUMINUM, ALUMINUM ALLOY, MAGNESIUM AND MILD STEEL**
- **THREE LATERAL CUTTING HOLES PROVIDES AN EASY SELF-TAPPING INSTALLATION RESULTING IN A CONNECTION HIGHLY RESISTANT TO VIBRATION**

17785



SUPERIOR PULL-OUT RESISTANCE IN SOFTER METALS AND PLASTICS FROM THE EXTERNAL V-FORM THREAD.

CIRCULAR CUTTING ELEMENTS SELF-TAP AND LOCK INTO THE BASE MATERIAL. RESISTS EXTREME VIBRATION WITH NO LOSS IN PERFORMANCE.

HIGH-QUALITY INTERNAL THREADS ARE WEAR RESISTANT STANDARD CLASS 2B.

INSTALLATION INSTRUCTIONS:
(Using a hex head cap screw and nut)

1. **Drill to recommended hole size.**
2. **Thread hex nut onto cap screw. Screw insert onto cap screw with holes away from nut. Tighten the nut snugly to the top of the insert.**
3. **Using appropriate wrench or socket, carefully align insert perpendicular to the hole and turn clockwise until flush with surface. To remove cap screw, hold the nut with a wrench and loosen cap screw.**

SIZE	LENGTH	DRILL/ HOLE SIZE	HOLE DEPTH	PART	SIZE	LENGTH	DRILL/ HOLE SIZE	HOLE DEPTH	PART
4-40	.236	#15 (.181)	.315	N 1940	1/4-20	.472	U (.366)	.591	N 1945
6-32	.315	7/32 (.216)	.394	N 1941	5/16-18	.551	7/16 (.437)	.669	I 1946
8-32	.315	15/64 (.236)	.394	N 1942	3/8-16	.709	33/64 (.516)	.866	I 1947
10-24	.394	L (.291)	.512	N 1943	7/16-14	.866	19/32 (.590)	1.024	I 1948
10-32	.394	L (.291)	.512	N 1944	1/2-13	.945	43/64 (.669)	1.102	I 1949
–	–	– –	–		5/8-11	.945	3/4 (.748)	1.102	E 1950

HI-TORQUER TOOL AND CONVERSION KITS

- **EASILY INSTALLS ALL SIZES OF THREADED INSERTS**
- **"QUICK-CHANGE" THREAD ADAPTATION KIT CHANGE OVER OF THE BASE TOOL (TOOL BODY WITH "T" HANDLE) TO PLACE DIFFERENT THREAD SIZES WITHOUT THE NEED OF ANY TOOLS**

17861

INSTALLATION INSTRUCTIONS:

1. **Lock the correct size conversion kit into the Hi-Torquer threaded insert tool.**
2. **Screw a nutsert or threadsert onto socket head cap screw.**
3. **Using the tool, place the insert into the hole until the tool comes to rest on the base material.**
4. **Hold in place with handle and turn the T-handle until insert is installed.**
5. **Remove the tool by unscrewing the T-handle out of the insert.**

HEX DRIVER | **SOCKET HEAD CAP SCREW** | **METAL WASHER** | **BRASS WASHER** | **NUT**

HI-TORQUER THREADED INSERT TOOL

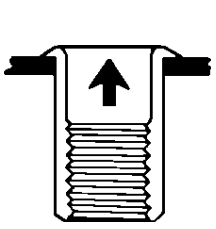
CONVERSION KIT

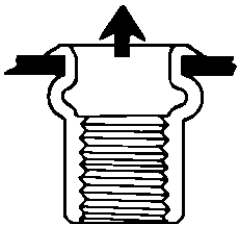
DESCRIPTION	PART	DESCRIPTION	PART
Hi-Torquer Threaded Insert Tool	A 9611	1/4-20 Hi-Torquer Conversion Kit	A 22105
4-40 Hi-Torquer Conversion Kit	A 22100	1/4-28 Hi-Torquer Conversion Kit	A 22106
6-32 Hi-Torquer Conversion Kit	A 22101	5/16-18 Hi-Torquer Conversion Kit	A 22107
8-32 Hi-Torquer Conversion Kit	A 22102	5/16-24 Hi-Torquer Conversion Kit	A 22108
10-24 Hi-Torquer Conversion Kit	A 22103	3/8-16 Hi-Torquer Conversion Kit	A 22109
10-32 Hi-Torquer Conversion Kit	A 22104	3/8-24 Hi-Torquer Conversion Kit	A 22110

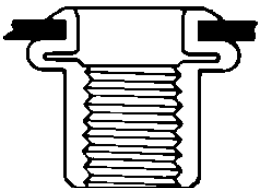
KNURLED FLANGED THREADED INSERT FASTENERS

FAST, CONVENIENT INSTALLATION OF THREADS IN ANY BLIND AREA

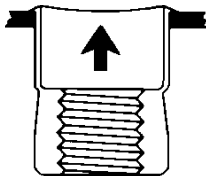
Knurled Flanged Thinserts and Nutserts are an easily-installed alternative to many "blind" fasteners. They offer strength, permanence and load-bearing capabilities for a variety of materials.

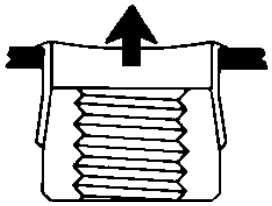


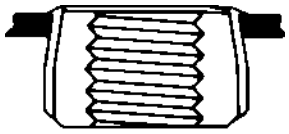




THINSERTS
DESIGNED TO PROVIDE A HIGHLY EFFICIENT METHOD OF SECURING THREADS FROM ONE SIDE OF WORK IN MATERIALS TOO THIN TO SUPPORT THREADS. FOR MATERIALS .020" TO .200" THICK.







NUTSERTS
UNIQUE "BREAKAWAY" DESIGN PROVIDES SUPERIOR HOLDING POWER. A CONICALLY-SHAPED THREADED BASE IS DRAWN INTO THE UPPER SLEEVE, WEDGING THE SLEEVE FIRMLY IN THE HOLE. FOR MATERIALS .030" AND THICKER.

THINSERTS

- **SPLINED BODY PROVIDES INCREASED TORQUE-TO-TURN RESISTANCE OVER CONVENTIONAL NON-SPLINED INSERTS**
- **LOW PROFILE HEAD PROVIDES NEAR-FLUSH SEATING WITHOUT SPECIAL HOLE PREPARATION**
- **MATERIAL THICKNESS RANGING FROM .020" TO 0.312"**
- **HARDENED SURFACE PROVIDING HIGH-STRENGTH, LOAD-BEARING THREADS**
- **LEAD-IN CHAMFER ON THE BODY PROVIDES EASE OF INSERTION INTO THE WORK PIECE**

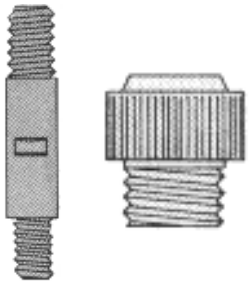
SIZE	DRILL SIZE		PART
6-32	17/64	T	590
8-32	17/64	T	591
10-24	19/64	T	592
10-32	19/64	T	593
1/4-20	25/64	T	594
5/16-18	17/32	R	595
3/8-16	17/32	R	596
-	-		-
-	-		-

NUTSERTS

- **REDUCED ASSEMBLY COSTS – INSTALLED FROM ONE SIDE OF THE WORKPIECE**
- **NOT GRIP SENSITIVE – CAN BE USED IN ANY MATERIAL THICKNESS FROM .030" THROUGH SOLID MATERIALS**
- **PERMANENT – RADIAL EXPANSION PROVIDES 360° CONTACT WITH PARENT MATERIAL**
- **PORTABILITY – ALLOWS INSTALLATION ANYWHERE AND AT ANY TIME IN THE ASSEMBLY PROCESS**
- **REDUCED REAR-SHEET PROTRUSION**

SIZE	DRILL SIZE		PART
4-40	3/16	R	47900
6-32	7/32	R	47901
8-32	1/4	R	47902
10-24	9/32	R	47903
10-32	9/32	R	47904
1/4-20	3/8	R	47905
1/4-28	3/8	R	47906
5/16-18	1/2	N	47907
5/16-24	1/2	N	47908

ADAPTERS/MANDRELS

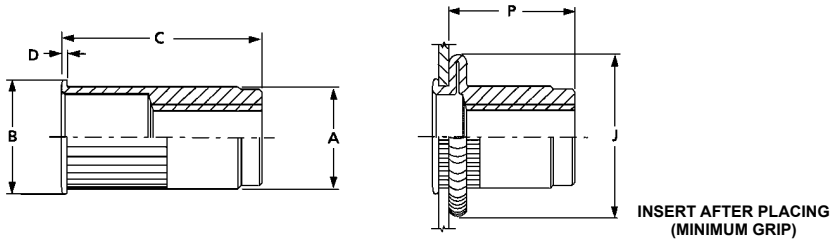


SIZE		PART
4-40	A	460
6-32	A	483
8-32	A	484
10-24	A	485
10-32	A	486
1/4-20	A	488
1/4-28	A	492
5/16-18	A	490
5/16-24	A	493
3/8-16	A	489

KNURLED FLANGED INSERT FASTENERS (Cont'd.)

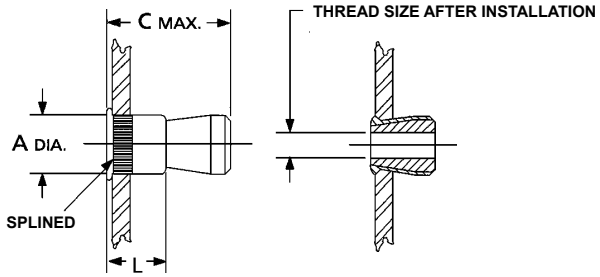
SPECIFICATIONS

THINSERTS



THREAD DESIGNATION	GRIP RANGE	HOLE DIA. +.006 –.000	A MAX.	B NOM.	C MAX.	P REF.	D MAX.	J MAX.
6-32 and 8-32	.020 - .080	17/64 (.2656)	.265	.310	.450	.305	.019	.390
10-24 and 10-32	.020 - .130	19/64 (.2969)	.296	.340	.505	.315	.020	.450
1/4-20	.027 - .165	25/64 (.3906)	.390	.455	.610	.380	.021	.550
5/16-18 and 3/8-16	.027 - .150	17/32 (.5312)	.530	.595	.720	.470	.023	.740

NUTSERTS



THREAD SIZE	A	L	C	SUGGESTED HOLE SIZE FOR MATERIAL THICKNESS			
				.030-.090	.091-.124	.125-.186	.187-OVER
4-40	.1820 - .1870	.180 - .190	.385	.1875	.1935	.1935	.1935
6-32	.2136 - .2186	.180 - .190	.385	.2187	.2210	.2280	.2280
8-32	.2449 - .2499	.180 - .190	.385	.2500	.2570	.2656	.2656
10-24	.2760 - .2810	.180 - .190	.385	.2812	.2900	.2968	.2968
10-32	.2760 - .2810	.180 - .190	.385	.2812	.2900	.2968	.2968
1/4-20	.3699 - .3749	.252 - .262	.525	.375	.375	.386	.3906
1/4-28	.3699 - .3749	.252 - .262	.525	.375	.375	.386	.3906
5/16-18	.4949 - .4999	.302 - .312	.625	.500	.500	.5156	.5156
5/16-24	.4949 - .4999	.302 - .312	.625	.500	.500	.5156	.5156

QUIK TOOL KITS

KIT INCLUDES:
- **QUIK TOOL**
- **ADAPTERS/MANDRELS 6-32, 8-32, 10-24, 1/4-20 AND 5/16-18**

P/N 9600

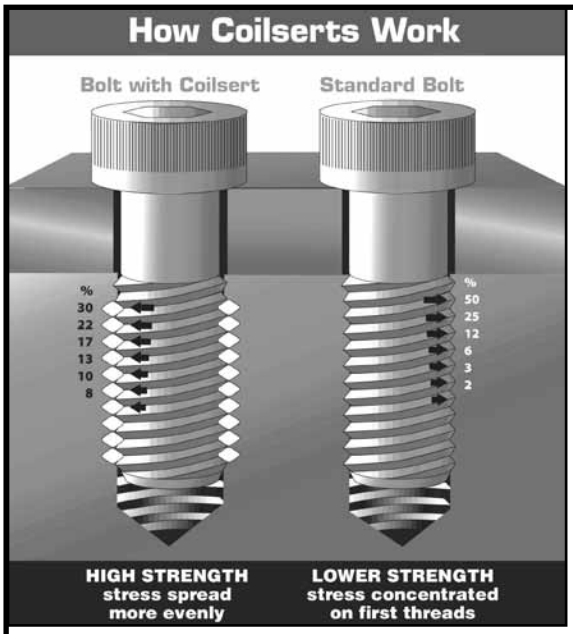
QUIK TOOL (WITHOUT ADAPTER)

P/N 9610

COILSERTS

PERMANENT AND WEAR RESISTANT THREAD REPAIR INSERT

Coilserts are the quickest and simplest method of repair to stripped or damaged threads.
A complete system of coilsert, STI tap and installation tools are offered.



In conventional threaded joints over 75% of the load is placed on the first three theads of the assembly. Coilsert on the left shows how the spring-like design of the insert allows the shear loading to be transformed into a preferable "hoop stress" or radial loading over the entire length of the insert.

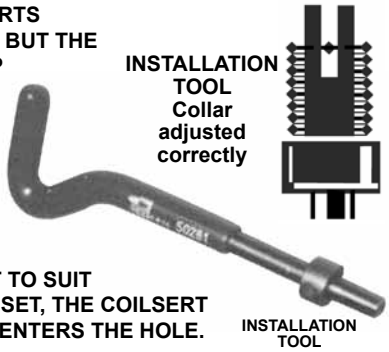
COILSERTS

- ROLLED FROM HIGH QUALITY STAINLESS STEEL WIRE WOUND TO THE SHAPE OF A SPRING THREAD
- ONCE THE WIRE IS WOUND INTO A HELICAL COIL AND INSTALLED INTO A TAPPED HOLE, IT PROVIDES A PERMANENT AND WEAR RESISTANT THREAD IN THE PARENT MATERIAL THAT IS GENERALLY STRONGER THAN THE ORIGINAL THREAD
- COILSERT'S COMPENSATORY ACTION SHARES THE LOAD OVER THE ENTIRE BOLT AND HOLE, INCREASING HOLDING OR PULL OUT STRENGTH
- WITH A COILSERT IN PLACE, LOAD AND STRESS ARE MORE EVENLY DISTRIBUTED

COILSERT
(partially installed)

STI TAPS

- SCREW THREAD INSERT (STI) TAPS ARE ONLY SUITABLE FOR USE WITH COILSERTS
- THEY HAVE A LARGER DIAMETER BUT THE SAME PITCH AS A STANDARD TAP IN ORDER TO ACCOMMODATE THE WIRE INSERT



INSTALLATION TOOL
Collar adjusted correctly

INSTALLATION TOOL

INSTALLATION TOOL

- THE MOST PRACTICAL AND SIMPLE TO USE FOR GENERAL APPLICATIONS
- CARE MUST BE TAKEN TO ENSURE THAT THE ADJUSTABLE COLLAR IS CORRECTLY SET TO SUIT THE PARTICULAR TYPE AND LENGTH OF THE COILSERT. IF THE COLLAR IS CORRECTLY SET, THE COILSERT WILL NOT DRIVE PROPERLY AND THE TOOL MAY SLIP OFF THE TANG AS THE COILSERT ENTERS THE HOLE.

USS THREAD SIZES

INTERNAL THREAD	LENGTH	TAP DRILL DIA.	PART	STI TAP PART	INSTALLATION TOOL
1/4-20	1-1/2	17/64	R 21823	A 21823T	A 21861
5/16-18	1-1/2	21/64	N 21825	A 21825T	A 21862
3/8-16	1-1/2	25/64	N 21827	A 21827T	A 21864
7/16-14	1-1/2	29/64	N 21829	A 21829T	A 21866
1/2-13	1-1/2	17/32	I 21831	A 21831T	A 21867
9/16-12	1-1/2	19/32	I 21833	A 21833T	A 21868
5/8-11	1-1/2	21/32	E 21835	A 21835T	A 21869
3/4-10	1"	25/32	E 21837	A 21837T	A 21870
7/8-9	1"	29/32	E 21839	A 21839T	A 21871
1-8	1-1/2	1-1/32	B 21841	A 21841T	A 21872

SAE THREAD SIZES

1/4-28	1-1/2	17/64	R 21824	A 21824T	A 21861
5/16-24	1-1/2	21/64	N 21826	A 21826T	A 21863
3/8-24	1-1/2	25/64	N 21828	A 21828T	A 21865
7/16-20	1-1/2	29/64	N 21830	A 21830T	A 21866
1/2-20	1-1/2	33/64	I 21832	A 21832T	A 21867
9/16-18	1-1/2	37/64	I 21834	A 21834T	A 21868
5/8-18	1-1/2	41/64	E 21836	A 21836T	A 21869
3/4-16	1"	49/64	E 21838	A 21838T	A 21870
7/8-14	1"	57/64	E 21840	A 21840T	A 21871
1-14	1-1/2	1-1/32	B 21842	A 21842T	A 21872

METRIC COILSERTS

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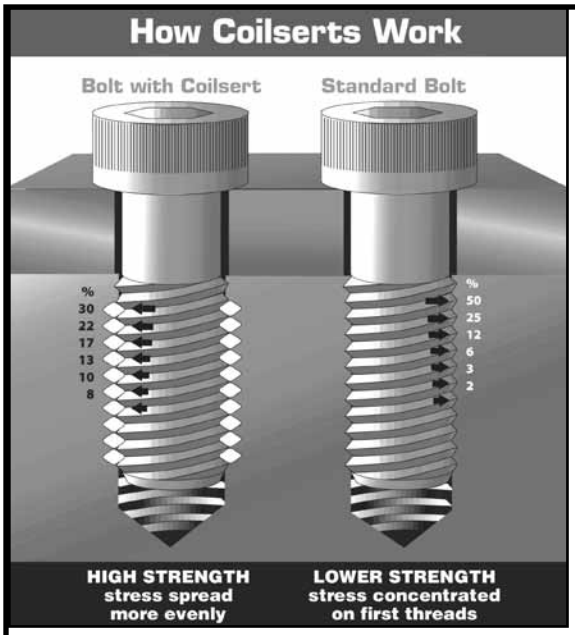

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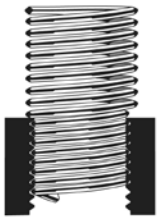

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(partially installed)

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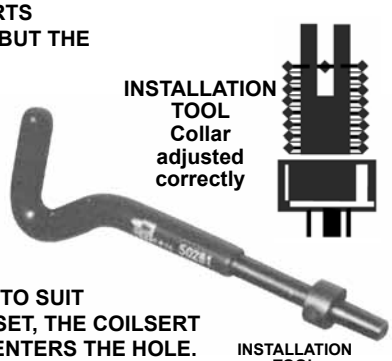

INSTALLATION TOOL

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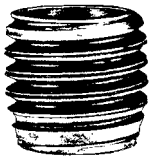
METRIC THREAD SIZES

INTERNAL THREAD	LENGTH	TAP DRILL DIA.	PART	STI TAP PART	INSTALLATION TOOL
M3 x .5	1-1/2	3.10	R 21843	A 21843T	A 21858
M4 x .7	1-1/2	4.10	R 21844	A 21844T	A 21859
M5 x .8	2	5.20	N 21845	A 21845T	A 21860
M6 x 1	1-1/2	6.20	N 21846	A 21846T	A 21861
M7 x 1	1-1/2	7.20	N 21847	A 21847T	A 21862
M8 x 1	1-1/2	8.20	N 21848	A 21848T	A 21863
M8 x 1.25	1-1/2	8.30	N 21849	A 21849T	A 21863
M9 x 1	1-1/2	9.30	N 21850	A 21850T	A 21864
M9 x 1.25	1-1/2	9.30	N 21851	A 21851T	A 21864
M10 x 1.25	1-1/2	10.30	N 21852	A 21852T	A 21865
M10 x 1.5	1-1/2	10.30	N 21853	A 21853T	A 21864
M11 x 1.25	1-1/2	11.30	N 21854	A 21854T	A 21866
M11 x 1.5	1-1/2	11.30	N 21855	A 21855T	A 21866
M12 x 1.5	1-1/2	12.50	I 21856	A 21856T	A 21867
M12 x 1.75	1-1/2	12.40	I 21857	A 21857T	A 21867

CIC 200™ METRIC THREAD REPAIR INSERTS

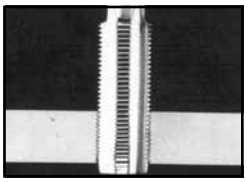


INTERNAL THREAD	EXTERNAL THREAD	LENGTH SIZE	TAP DRILL SIZE	TAP SIZE	THREAD DEPTH		PART
METRIC INTERNAL/METRIC EXTERNAL							
M3-0.5	M6-1.0	6.5mm	5.1mm (or #7)	M6-1.0	7.8mm	I	1860
M4-0.7	M8-1.25	7.5mm	6.9mm (or I)	M8-1.25	8.5mm	I	1861
M5-0.8	M8-1.25	7.5mm	6.9mm (or I)	M8-1.25	9.0mm	I	1862
M14-1.25*	M18-1.5	11.5mm	15.5mm (or 5/8)	M18-1.5	12.7mm	E	1876*
METRIC INTERNAL — USS EXTERNAL							
M6-1.0	3/8-16	.406	5/16	3/8-16	15/32	L	1867
M8-1.25	1/2-13	.484	27/64	1/2-13	9/16	I	1868
M10-1.50	9/16-12	.515	31/64	9/16-12	19/32	I	1869
M12-1.75	3/4-10	.656	21/32	3/4-10	3/4	E	1870
M14-2.0	7/8-9	.687	49/64	7/8-9	13/16	E	1871
M16-2.0	1-8	.781	7/8	1-8	7/8	E	1872

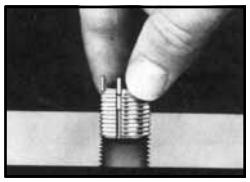
* FOR 14mm SPARK PLUGS (12.7mm REACH)

METRIC THIN WALL PERMASERTS™

1. Drill out old threads, using standard drill.



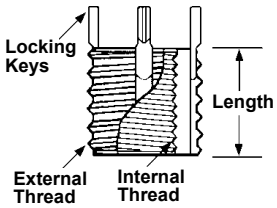
2. Tap new threads, using standard tap.



3. Screw in insert until slightly below surface. "Kees" act as depth stop.

4. Drive "Kees" down with several light taps on installation tool.

5. Installed insert



- SOLID BUSHING WITH LOCKING KEES – PROVIDES POSITIVE MECHANICAL LOCKING AGAINST ROTATION
- USE IN ALUMINUM, MAGNESIUM, CAST IRON, COLD ROLLED STEEL AND PLASTIC – NO RESTRICTIONS ON PARENT MATERIAL
- HIGH STRENGTH AND RELIABILITY – PROVIDES MAXIMUM PULLOUT STRENGTH; BREAKS GRADE 8 BOLT
- EASY INSTALLATION – LEARN IN MINUTES
- HOLE PREPARED WITH STANDARD DRILL AND TAP – NO SPECIAL, COSTLY, SINGLE-PURPOSE DRILLS OR TAPS REQUIRED
- INSERT WITH FINGERS – NO SPECIAL PRE-WINDER TOOLS REQUIRED
- IMPOSSIBLE TO CROSS-THREAD DURING INSTALLATION – PERFECT EVERY TIME
- SIMPLE REMOVAL – PERMANENTLY INSTALLED UNLESS REMOVAL IS REQUIRED

INSTALLATION TOOL

METRIC THREAD SIZES

INTERNAL THREAD	EXTERNAL THREAD	LENGTH	DRILL DIA.	DRILL REMOVAL SIZE	DRILL REMOVAL DEPTH	PART		INSTALLATION TOOL	
M5 x .8	M8 x 1.25	8.0	6.9 or I	5.5	4	E	21800	A	21815
M6 x 1	M10 x 1.25	10.0	8.8 or 11/32	7.5	4.75	E	21801	A	21816
M8 x 1.25	M12 x 1.25	12.0	10.8 or 27/64	9.5	4.75	C	21802	A	21817
M8 x 1	M12 x 1.25	12.0	10.8 or 27/64	9.5	4.75	C	21803	A	21818
M10 x 1.5	M14 x 1.5	14.0	12.8 or 1/2	11.5	4.75	B	21804	A	21819
M10 x 1.25	M14 x 1.5	14.0	12.8 or 1/2	11.5	4.75	B	21805	A	21820
M12 x 1.75	M16 x 1.5	16.0	14.75 or 37/64	13.5	4.75	B	21806	A	21821
M12 x 1.25	M16 x 1.5	16.0	14.75 or 37/64	13.5	4.75	B	21807	A	21822

CIC 200™ SUPER CUT™ SPOTWELD DRILLS

SUPER COBALT HIGH SPEED STEEL – GOLD FINISH

Rugged, high performance drill effectively cuts autobody panel spot welds, rivet heads and screw heads. Also ideal for drilling precision, burr-free holes in sheet metal.

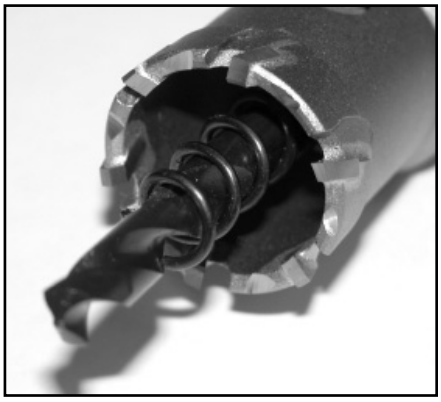
- **HIGH HARDNESS COBALT STEEL – PERMITS 30% GREATER DRILLING SPEEDS THAN HIGH SPEED STEEL DRILLS**
- **ABRASION RESISTANT ALLOY – RESULTS IN EXTREMELY LONG LASTING CUTTING EDGES**
- **UNIQUE SPUR POINT – REMOVES SPOTWELDS, SCREW HEADS AND RIVET HEADS WITHOUT DAMAGING PANELS BEHIND**

DIAMETER	SPOTWELD SIZE	OVERALL LENGTH	DOUBLE/SINGLE END	PART	
6.5 MM	1/4	1.75"	Single	C	61540
6.5 MM	1/4	3.62"	Double	A	61545
8.0 MM	5/16	1.75"	Single	B	61550
8.0 MM	5/16	3.62"	Double	A	61555
10.0 MM	3/8	1.75"	Single	A	61560
10.0 MM	3/8	3.62"	Double	A	61565

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

THE ULTIMATE SOLUTION TO DRILLING THICK STEEL

The perfect, portable tool for the professional electrician, plumber, mechanic and general contractor. An extremely productive tool that is a cost effective alternative to bi-metal holesaws.

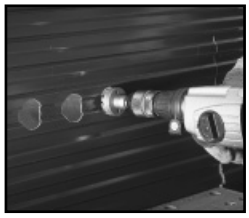


APPLICATIONS

- Junction/Switch Boxes
- Metal Studs
- Electrical Appliances
- Lighting Fixtures
- Auto Body Repair
- Truck/Trailer Frames
- Ductile Pipe
- *Anywhere a standard holesaw just won't cut it!*

INCREDIBLY FAST & EASY TO USE!

For cutting pipe, thick steel, steel plate, iron, aluminum, copper, cast iron and stainless steel up to 1" thick. An invaluable time, money and labor saver!



- **SPECIAL TUNGSTEN CARBIDE TEETH**
  SUPERIOR WEAR AND HEAT RESISTANCE. CUTS STAINLESS STEEL AND TOUGH ALLOYS
- **ONE-PIECE CONSTRUCTION**
  NO ASSEMBLY REQUIRED AND ASSURES STABLE, ACCURATE DRILLING
- **EJECTOR SPRING AND PILOT DRILL**
  (INCLUDED AND ASSEMBLED) – EJECTS THE SLUG SAVING TIME AND AGGRAVATION TRYING TO REMOVE SLUGS
- **SAFETY COLLAR STOP**
  PREVENTS OVER PENETRATION FOR SAFER, FASTER OPERATION

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTERS

DIAMETER	STEEL (RPM)	PART	DIAMETER	STEEL (RPM)	PART	DIAMETER	STEEL (RPM)	PART
9/16"	700-1000	A 51109	1-7/16"	300-600	A 51123	2-1/2"	150-300	A 51136
5/8"	700-1000	A 51110	1-1/2"	300-600	A 51124	2-5/8"	150-300	A 51137
11/16"	700-1000	A 51111	1-9/16"	300-600	A 51125	2-3/4"	150-300	A 51138
3/4"	700-1000	A 51112	1-5/8"	200-500	A 51126	3"	150-300	A 51139
13/16"	700-1000	A 51113	1-11/16"	200-500	A 51127	3-1/4"	100-200	A 51140
7/8"	500-800	A 51114	1-3/4"	200-500	A 51128	3-1/2"	100-200	A 51141
15/16"	500-800	A 51115	1-13/16"	200-500	A 51129	3-5/8"	100-200	A 51107
1"	500-800	A 51116	1-7/8"	200-500	A 51130	3-3/4"	100-200	A 51142
1-1/16"	500-800	A 51117	1-15/16"	200-500	A 51131	4"	100-200	A 51143
1-1/8"	500-800	A 51118	2"	200-500	A 51132	4-1/8"	100-200	A 51108
1-3/16"	500-800	A 51119	2-1/8"	200-400	A 51133	4-1/4"	100-200	A 51144
1-1/4"	300-600	A 51120	2-1/4"	200-400	A 51134	4-1/2"	100-200	A 51145
1-5/16"	300-600	A 51121	2-3/8"	150-300	A 51135			
1-3/8"	300-600	A 51122	2-9/16"	150-300	A 51106			

RAZORQWIK™ CARBIDE TIPPED HOLE CUTTER ACCESSORIES

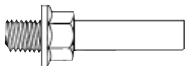
DESCRIPTION	PART
Pilot Drill for Hole Cutters	A 51146
Spring for Carbide Hole Saw	A 51148
Carbide Tipped Pilot Drill	A 51149
Extender – Precision machined tool steel, extends hole cutters by 4" (for 1/2" shank)	A 51104
Extender – Precision machined tool steel, extends hole cutters by 4" (for 3/8" shank)	A 51105

ABRASIVES

QUICK-LOK™ ABRASIVES

Fast, efficient deburring, blending, finishing and polishing on all types of metals and composites. Just a half twist and they're securely locked in place; a half twist again and it's off. Ideal for use with air tools & flex-shaft grinders.

THREADED SHAFT AND BACK-UP PADS



1/4" THREADED SHAFT

17738-41 & 17850

BACK-UP PAD

SIZE	MAX RPM	PART
1" Dia.	30,000	A 45634
2" Dia.	25,000	A 45638
3" Dia.	18,000	A 45642
4" Dia.	12,000	A 45644
1/4" Threaded Shaft		A 45630

ABRASIVE DISCS

17738-9

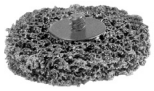
Color-coded disc buttons for easy grade identification:
Brown = 36 Orange = 60 White = 120

PREMIUM ALUMINUM OXIDE MINERALS ON DURABLE RESIN BOND AND FIBRE BACKING

GRIT	2" DIA	3" DIA	4" DIA
36	L 45655	I 45661	I 45667
60	L 45657	I 45663	I 45669
120	L 45660	I 45666	I 45672

STRIPPING DISCS

- EXTRA-COURSE DISCS ARE CONSTRUCTED FROM AN OPEN, NON-LOADING WEB
- MAKES TOUGH CLEANING AND STRIPPING JOBS QUICK AND EASY
- CLEANS FASTER AND SAFER THAN WIRE BRUSHES



2" DIA	3" DIA	4" DIA
E 45617	E 45618	E 45619

SURFACE COND. PADS

NON-WOVEN NYLON, IMPREGNATED WITH ABRASIVE PARTICLES, PROVIDES A BUR-FREE SURFACE SUITABLE FOR PAINTING OR COATING. IDEAL FOR RUST, OXIDE AND COATING REMOVAL.
Medium = Maroon Coarse = Brown

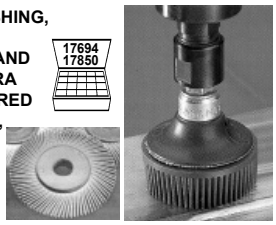
17740-1

DIA.	RPM	MEDIUM	COARSE
2"	18,000	L 45681	L 45682
3"	15,000	I 45685	I 45686
4"	11,000	I 45687	I 45688

BRISTLE BRUSHES/DISCS

- IDEAL FOR CLEANING, FINISHING, BLENDING AND DEBURRING
- USE ON CORNERS, WELDS AND OTHER AREAS WHERE EXTRA CONFORMABILITY IS REQUIRED
- USE FOR CLEANING RIVETS, WELDS AND CORNERS
- 50 GRIT - GREEN
- 80 GRIT - YELLOW
- 120 GRIT - WHITE

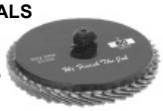
17694 17850



SIZE	MAX RPM	PART
1" x 50 Grit - Green	30,000	B 45689
1" x 80 Grit - Yellow	30,000	B 45694
1" x 120 Grit - White	25,000	B 45696
2" x 50 Grit - Green	25,000	B 45690
2" x 80 Grit - Yellow	25,000	B 45692
2" x 120 Grit - White	25,000	B 45697
3" x 50 Grit - Green	18,000	B 45691
3" x 80 Grit - Yellow	18,000	B 45693
3" x 120 Grit - White	25,000	B 45698
4.5" x 50 Grit - Green	12,000	A 45703
4.5" x 80 Grit - Yellow	12,000	A 45704
4.5" x 120 Grit - White	12,000	A 45705
Radial Versions		
3" x 3/8 x 50 Grit - Green	25,000	B 45720
3" x 3/8 x 80 Grit - Yellow	25,000	B 45721
3" x 3/8 x 120 Grit - White	25,000	B 45722

MINI FLAP DISCS

- HIGH QUALITY ZIRCONIUM EFFECTIVE ON MATERIALS FROM MILD STEEL TO EXOTIC TITANIUM ALLOYS, COMPOSITES AND PLASTICS
- COMBINES GRINDING AND FINISHING IN ONE STEP
- "MINI" SIZE ALLOWS ACCESS TO TIGHT AREAS

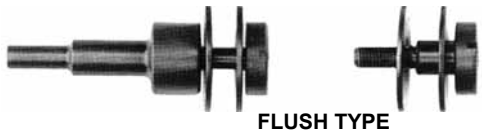


GRIT	2" DIA	3" DIA
40	C 33937	C 33943
80	C 33939	C 33945
120	C 33941	C 33946

ABRASIVES (Cont'd.)

CIC 200™ RAPID CUT MANDRELS

HUMMER WHEEL MANDRELS



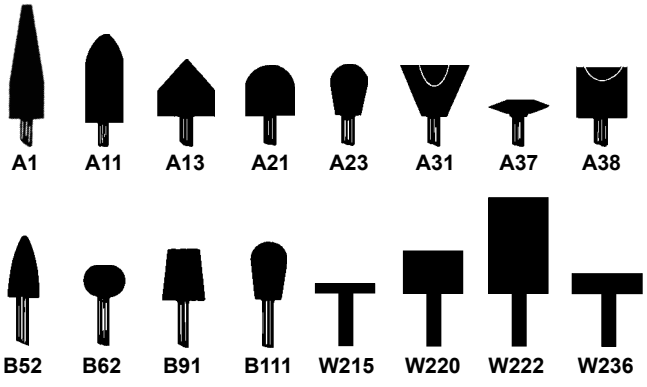
FLUSH TYPE

- FLUSH MANDRELS TIGHTEN BY SCREW, CAN HANDLE ANY NUT-TYPE MANDREL APPLICATION.
- ALLOW EASY ACCESS TO AREAS INACCESSIBLE WITH NUT-TYPE MANDRELS (EX: FLUSH CUTS AND CORNER CUTS).

NUT TYPE

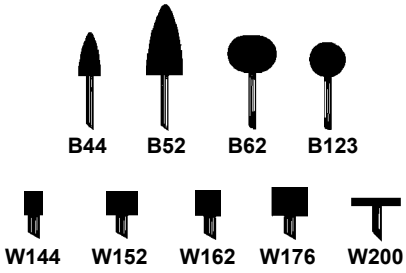
TYPE	SHANK SIZE	ARBOR HOLE SIZE	WHEEL THICKNESS	PART	
FLUSH SET	1/4" and 3/8"	1/4" and 3/8"	1/32" - 1/4"	C	33955
NUT	1/4"	1/4"	1/32" - 3/8"	B	33950
ADAPTER	1/4"	3/8"	1/32" - 1/4"	A	33801

MOUNTED POINTS

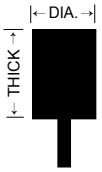


1/4" SHANKS

- FOR HIGH-SPEED AIR AND ELECTRIC GRINDERS.
- IDEAL FOR GRINDING DIES, CASTINGS, WELD SEAMS AND OTHER GENERAL METAL REMOVAL APPLICATIONS.
- MANUFACTURED WITH ALUMINUM OXIDE GRAIN AND VITRIFIED BOND.



1/8" SHANKS

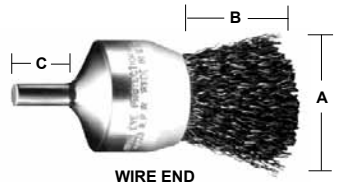


SHAPE NO.	DIA.	THICK	SHANK	MAX. R.P.M.		PART
A1	3/4	2-1/2	1/4"	19,800	B	33840
A11	7/8	2	1/4"	19,860	B	33841
A13	1-1/8	1-1/8	1/4"	33,950	B	33842
A21	1	1	1/4"	34,500	B	33843
A23	3/4	1	1/4"	39,370	B	33844
A31	1-3/8	1	1/4"	27,780	B	33845
A37	1-1/4	1/4	1/4"	30,560	B	33846
A38	1	1	1/4"	34,500	B	33847
B52	3/8	3/4	1/4"	81,000	B	33848
B62	1/2	3/8	1/4"	71,250	B	33849
B91	1/2	5/8	1/4"	61,500	B	33850
B111	7/16	11/16	1/4"	66,000	B	33851
W215	1	1/8	1/4"	38,200	B	33852
W220	1	1	1/4"	25,500	B	33853
W222	1	2	1/4"	15,900	B	33854
W236	1-1/2	1/2	1/4"	25,470	B	33855
B44	7/32	3/8	1/8"	68,400	E	33825
B52	3/8	3/4	1/8"	45,370	E	33826
B62	1/2	3/8	1/8"	41,020	E	33827
B123	3/16	3/16	1/8"	104,250	E	33828
W144	1/8	1/4	1/8"	105,000	E	33829
W152	3/16	1/4	1/8"	105,000	E	33835
W162	1/4	3/8	1/8"	68,400	E	33836
W176	3/8	1/2	1/8"	45,370	E	33837
W200	3/4	1/8	1/8"	50,930	E	33838

IMPORTANT: All CIC Wheels are manufactured under rigid quality conditions to insure product strength and safety. However, approved guards must be used for operator protection (ANSI Code B7.1).

BRUSHES

WIRE END BRUSHES



WIRE END

CIRCULAR FLARED END

HOLLOW END

STEM MOUNTED

KNOTTED CUP

HIGH QUALITY, OIL TEMPERED, CRIMPED WIRE PROVIDES SUPERIOR CUTTING CHARACTERISTICS AND FATIGUE RESISTANCE WHILE A STANDARD 1/4" STEM MAKES THEM PERFECT FOR USE IN PORTABLE AIR, ELECTRIC AND DRILL PRESS CHUCKS

TYPICAL APPLICATIONS:
- **WELD CLEANING**
- **MOLD CLEANING**
- **DEBURRING**
- **POLISHING TOOLS, DIES AND MOLDS**
- **REMOVING RUST AND PAINT**
- **SPOT PAINTING**

DESCRIPTION	(A) DIA.	(B) TRIM LENGTH	(C) STEM	WIRE SIZE	PART		MAX. SAFE FREE SPEED RPM
Wire End	1/2	7/8	1/4	.014	B	41320	20,000
Wire End	3/4	7/8	1/4	.014	B	41315	20,000
Circular Flared End	1-1/2	—	1/4 x 7/8	.006	A	41325	20,000
Circular Flared End	3	—	1/4 x 7/8	.008	A	41326	15,000
Hollow End	1-3/4	3/4	1/4	.0118	A	41330	13,000
Stem Mounted	2	—	1/4	.0118	A	41335	20,000
Stem Mounted	3	—	1/4	.014	A	41336	20,000
Knotted Cup	4	1-1/4	5/8-11	.014	A	41350	8,500
Knotted Cup	6	1-3/8	5/8-11	.014	A	41352	6,000

HAND SCRATCH BRUSHES

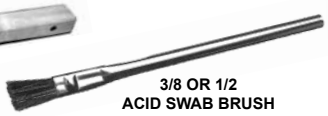
PIPE/TUBE BRUSH FEATURES:
- **CLEANS BOTH THE INSIDE AND OUTSIDE OF COPPER TUBING IN PREPARATION FOR SOLDER WHEN SWEATING PIPES**
- **CLEANS MOST POPULAR 1/2" AND 3/4" I.D. TUBE AND 5/8" & 7/8" O.D. TUBE**
- **HARDENED STEEL BRUSHES AND POLYPROPYLENE BODY FOR STRENGTH AND DURABILITY**

HAND SCRATCH BRUSHES FEATURES:

17878

- **CONSTRUCTED OF HEAVY GAUGE WIRE EMBEDDED IN A HEAVY DUTY HARDWOOD HANDLE**
- **USE FOR REMOVING PAINT, RUST, SCALE, SOLDER CHIPS AND DIRT**
- **CLEANS METAL PARTS, THREADS, FILES, ETC.**

GENERAL PURPOSE


3/8 OR 1/2 ACID SWAB BRUSH

1/2 OR 3/4 TUBE FITTING BRUSH

4-IN-1 PIPE/TUBE BRUSH

S/S SHOE HANDLE

NYLON, BRASS OR STAINLESS STEEL SMALL SCRATCH PLASTIC HANDLE

DESCRIPTION	ROWS	OVERALL LENGTH	TRIM	BRUSH LENGTH	PART	
General Purpose	4 x 19	13-1/4	1-1/8	6	B	41310
S/S Shoe Handle	4 x 16	10	1-1/8	5-1/2	A	41312
S/S Small Scratch	3 x 7	7-7/8	1/2	1-3/8	C	41340
Brass Small Scratch	3 x 7	7-7/8	1/2	1-3/8	C	41342
Nylon Small Scratch	3 x 7	7-7/8	1/2	1-3/8	B	41347
3/8 Acid Swab	–	5-3/4	3/4	3/8 (width)	J	41345
1/2 Acid Swab	–	5-3/4	3/4	1/2 (width)	J	41346
1/2 S/S Tube Fitting	–	6-1/2	–	1/2 (width)	B	41348
3/4 S/S Tube Fitting	–	6-1/2	–	3/4 (width)	B	41349
4-in-1 Pipe/Tube Brush	–	7-1/2	–	3/4 (width) and 1" (width)	A	41344

SCRAPERS

RAZOR BLADE SCRAPER

SCRAPER FEATURES:
- RETRACTABLE BLADE
- STRONG, GALVANIZED, NON-RUSTING STEEL
- COMFORTABLE, FORM-FITTED GRIP

BLADE FEATURES:
- HIGH QUALITY, CARBON STEEL DOUBLE-BEVELED GROUND RAZOR EDGE
- FOLDED STEEL BACKING CRIMPED ON BOTH ENDS TO HOLD BLADE SECURELY
- INDIVIDUALLY WRAPPED IN CARDBOARD SLEEVES

DESCRIPTION		PART
Industrial Scraper	E	66403
#9 Industrial Blades	T	66402

HAND SCRAPERS

- STAINLESS STEEL SCRAPERS HAVE A THREADED HANDLE TO FIT ANY WOOD OR ALUMINUM POLE – EASY ACCESS FOR HARD TO REACH AREAS
- ROLLERGRIP HANDLE ENSURES YEARS OF DEPENDABLE SERVICE AND A FIRM AND COMFORTABLE GRIP

DESCRIPTION		PART
3-1/8" Flat Stainless Steel	A	66405
3" 20° Stainless Steel	A	66406

SUPER SCRAPERS

- UNIQUE HEAD DESIGN FOR EASY BLADE CHANGE AND PROPER ANGLE FOR SCRAPING
- EXTREMELY DURABLE AND DEPENDABLE
- 4" MODEL IS ERGONOMICALLY DESIGNED AND WILL GET INTO THE TIGHTEST PLACES. THE 8" AND 13" COMPLETE YOUR SCRAPER NEEDS FOR TOUGH TO REACH AREAS.

DESCRIPTION		PART
4" Mini Scraper	A	66407
8" Super Scraper	A	66408
13" Super Scraper	A	66409

UTILITY KNIVES

AUTO-LOAD UTILITY KNIFE

- SLIDER KNOB AUTOMATICALLY LOADS NEW BLADE
- SIDE LOADING 5 BLADE CHAMBER
- NO PARTS TO LOSE
- ERGONOMIC HANDLE WITH RUBBER GRIP
- PUSH BUTTON BLADE REMOVAL

DESCRIPTION		PART
"AUTO-LOAD" UTILITY KNIFE WITH 5 BLADES	A	66412

SUPERKNIFE ULTRASHEAR

- ULTRASHEAR NEVER HAS TO BE SHARPENED
- ACCEPTS STANDARD UTILITY KNIFE STYLE BLADES
- CUTS ROPE, HOSE, PLASTIC, PLANTS, VINYL AND RUBBER
- QUICK RELEASE THUMB OPERATED SAFETY LOCK
- STAINLESS STEEL FRAME
- RUBBERIZED GRIP

PART #66502

BLADES

METAL BLADES

ROUND BLADE

BI-METAL UTILITY KNIFE BLADE

HOOK BLADE

- PATENT PROTECTED
- BLUE FOR INSTANT RECOGNITION
- UNBREAKABLE – SPRING BACKING STEEL FLEXES BUT WILL NOT BREAK
- STAYS SHARPER 3X LONGER – HIGH SPEED STEEL EDGE HEAT TREATED TO HIGHER HARDNESS THAN STANDARD CARBON

PLASTIC BLADES

DOUBLE SIDED BLADE

DESIGNED WITH 2 SHARP EDGES. FOR SCRAPING, CLEANING AND PEELING, NOT FOR CUTTING. WON'T DAMAGE SURFACE MATERIAL. BREAKS BOND BETWEEN SURFACE AND SUBSTANCE TO BE REMOVED.

DESCRIPTION		PART
Hook Blade	N	66418
Round Blade	N	66421
Economy Straight Blade*	T	66414
Bi-metal Utility Knife Blade*	A	66415
Bi-metal Utility Knife Blade Dispenser Pack*	T	66415-100
General Purpose Double-sided Plastic Blade	N	66423

*0.025 thick

U-BOLT WITH PLATE

- USED TO SECURE PIPE, HOSE AND TUBING IN VARIOUS STRUCTURAL MOUNTING APPLICATIONS
- STEEL ZINC PLATED
- MADE IN USA

DIAMETER	WIDTH	LENGTH		PART	DIAMETER	WIDTH	LENGTH		PART
1/4	9/16	1-1/4	I	60560	5/16	1-3/4	4-1/2	I	60577
1/4	3/4	1-1/4	I	60561	5/16	2	2-11/16	I	60578
1/4	3/4	2-1/4	I	60562	5/16	2	4-3/4	I	60579
1/4	1	1-3/4	I	60563	3/8	1-1/4	2-1/4	I	60583
1/4	1	2-3/4	I	60564	3/8	1-1/2	2-1/2	E	60585
1/4	1-1/8	2	I	60565	3/8	2	2-5/8	E	60587
1/4	1-1/8	3-1/8	I	60566	3/8	2-1/2	3-1/8	E	60588
1/4	1-1/4	2-1/4	I	60567	3/8	3	6-5/8	E	60590
1/4	1-1/2	2-3/4	I	60568	1/2	3	4-1/2	B	60592
1/4	1-3/4	3	I	60569	1/2	3-1/2	8-1/2	B	60594
1/4	2	3-1/4	I	60570	1/2	4-1/2	6	B	60596
5/16	1	2-3/16	I	60571					

WIRE ROPE CLIPS

MALLEABLE:
- PRECISION MANUFACTURED AND GALVANIZED
- MEETS FEDERAL SPECIFICATIONS FF-C-450, TYPE 1, CLASS 2
- SHOULD BE USED IN LIGHT DUTY, NON-CRITICAL APPLICATIONS ONLY

DROP FORGED:
- PRECISION MANUFACTURED AND GALVANIZED
- MEETS FEDERAL SPECIFICATIONS FF-C-450, TYPE 1, CLASS 1
- FOR HEAVY DUTY APPLICATIONS

MALLEABLE

ROPE SIZE	TYPE		PART	ROPE SIZE	TYPE		PART
1/8	Galvanized	E	12000	1/8	Plain	I	12003
3/16	Galvanized	E	12001	3/16	Plain	I	12004
1/4	Galvanized	E	12002	1/4	Plain	I	12005

DROP FORGED

ROPE SIZE	TYPE		PART	ROPE SIZE	TYPE		PART
5/8	Galvanized	B	12006	1/4	Galvanized	E	12010
3/4	Galvanized	A	12007	5/16	Galvanized	E	12011
1/8	Galvanized	E	12008	3/8	Galvanized	B	12012
3/16	Galvanized	E	12009	1/2	Galvanized	B	12013

TURNBUCKLES

EYE & EYE AND HOOK AND EYE

FEATURES:
- **MAXIMUM STRENGTH AND EASY ADJUSTMENT OF WIRE ROPE ATTACHMENTS**
- **HOT DIP GALVANIZED**
- **FORGED BODY**
- **HEAT TREATED**
- **MEETS SPECIFICATIONS FF-T-791B, TYPE 1, FORM 1, EYE & EYE CLASS 4 AND HOOK & EYE CLASS 6**

EYE & EYE

HOOK & EYE

EYE AND EYE

THREAD DIA.	TYPE		PART	THREAD DIA.	TYPE		PART
3/8 x 6	Plain	A	11196 (Round)	5/8 x 9	Galvanized	A	11205 (Tear Drop)
1/2 x 6	Plain	A	11197 (Round)	1/4 x 4	Plain	A	11206 (Tear Drop)
5/8 x 9	Plain	A	11198 (Round)	5/16 x 4-1/2	Plain	A	11207 (Tear Drop)
5/8 x 12	Plain	A	11199 (Round)	3/8 x 6	Galvanized	A	11208 (Tear Drop)
–	–		–	1/2 x 6	Plain	A	11209 (Tear Drop)

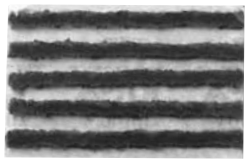
HOOK AND EYE

THREAD DIA.	TYPE		PART	THREAD DIA.	TYPE		PART
1/4 x 4	Plain	A	11200	1/2 x 6	Plain	A	11203
5/16 x 4-1/2	Plain	A	11201	1/2 x 9	Plain	A	11204
3/8 x 6	Plain	A	11202	–	–		–

TIRE MAINTENANCE

Universal Tire Repair Patches
- For nail hole injuries in auto & light truck tires
- Black with black vulcanizing gum on a blue poly backing

P/N 52168 1-3/4" Round
P/N 52169 2-1/4" Round
P/N 52170 3-1/8" Round

String Type Inserts


- 4" Long
- Butyl rubber
- Very strong
- For passenger or truck tires
- For radial or bias-ply tires
- Easy insertion through steel belted radials
- Temporary repairs, sealing by compression only

P/N 52171

Universal Quilled Combination Unit

- Rubber reinforced patch heads
- Multidirectional
- Can be applied in any repairable area
- For radial or bais-ply tires
- Black with black vulcanizing gum
- Both the stem and the repair unit will vulcanize chemically effecting a perfect repair

P/N 52172 1-3/4" Round, 3/16" Stem Diameter
P/N 52173 2-1/4" Round, 5/16" Stem Diameter

Lead Wire Combination Units

- Requires no special wire pulling tools
- Insert the lead wire into the injury from the inside of the tire and pull the repair unit through from the outside
- Stem and the repair unit are gum coated to provide the most complete bond

P/N 52174 2" Round, 5/16" Stem Diameter
P/N 52175 2" Round, 3/8" Stem Diameter

Chemical Vulcanizing Cement

- 8 oz.
- For Chemical or Heat Vulcanization
- Use with any repair unit or insert
- Flammable

P/N 52176

Buffing Solution
- 32 oz.

For removing dirt, debris & mold lubricants from the repair area prior to buffing.

P/N 52177

Bead Sealer
- 32 oz.

For sealing small air leaks between the tire bead and the wheel.

P/N 52178

Inner Liner Sealer
- 16 oz

For sealing the over-buff area around a finished repair.

P/N 52179

Cotton Tire Swab
- 11"

Applies tire lube evenly for easy remounting.

P/N 52180

Mounting Compound
- 25 lb

Use to install tubes and prevent sticking.

P/N 52181

Chrome T-Handle End Slot Needle Tool
Used to remove objects and insert repair materials into the hole to be repaired.

P/N 52182

Wood Handle Stitcher
- 3/16" x 1-1/2"

Used to stitch down a repair unit to assure permanent adhesion.

P/N 52183

Arbor Adapter
- 3/8" x 1-1/2" Long Threads

P/N 52184

Carbide Buffing Wheel
- 2-1/2" Diameter
- 3/8" Arbor

P/N 52185

Counteract Balancing Beads
- 10 oz. – For Heavy Trucks
- Counteract is an internal balancing compound used to balance the entire wheel assembly.
- Balances for the complete life of the tire by readjusting the balanced position as required.
- Benefits of keeping the entire wheel assembly in balance include increased tread life, increased fuel economy, and elimination of wheel vibration.

P/N 52186

TIRE MAINTENANCE

Tubeless Snap-In Valves

- 1.25" Long
- 0.453" Valve Hole

P/N 52271

- 1.50" Long
- 0.453" Valve Hole

P/N 52188

- 2" Long
- 0.453" Valve Hole

P/N 52272

- 1.25" Long
- 0.625" Valve Hole

P/N 52273

Maximum cold inflation pressure 65 psi, maximum rim thickness of 0.156"

Tubeless Snap-In Valves

- Chrome sleeve/cap
- 1.25" Long
- 0.453" Valve Hole

P/N 52187

Maximum cold inflation pressure 65 psi, maximum rim thickness of 0.156"

High Pressure Snap-In Valve

- 1.25" Long
- 0.453" Valve Hole

P/N 52189

Maximum cold inflation pressure 100 psi, maximum rim thickness of 0.205"

Bolt-In Valve

- Flush Mount
- 1.50" Long
- 0.453" / 0.625" Valve Hole

P/N 52274

Brass Valves (For Steel Wheels)

- 1.50" Long
- 0.625" Valve Hole

P/N 52190

- 3.75" Long
- 0.625" Valve Hole
- Unassembled

P/N 52192

- 4.38" Long
- 0.625" Valve Hole
- Unassembled

P/N 52193

Nickel Plated Valve

- 4.75" Long
- 0.625" Valve Hole
- 90º Angle

P/N 52191

Short Valve Core

P/N 52277

Short Valve Core, High Temperature

P/N 52194

Long Metal Dome Valve Cap

P/N 52195

Plastic Valve Caps

- Black

P/N 52276

- Green

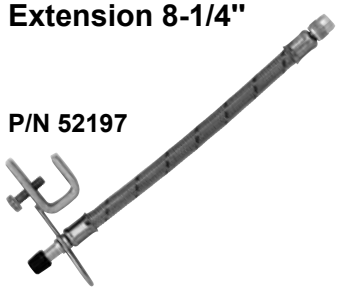
P/N 52196

Plastic Valve Extension 3/4"

P/N 52275

Metal Braided Flexible Extension 8-1/4"

P/N 52197



TIRE MAINTENANCE

Tire Repair Kit

- **SEALS THE INJURY COMPLETELY THROUGH THE TIRE, KEEPING OUT MOISTURE AND CONTAMINATES THAT CAN CAUSE THE CORDS TO RUST AND CAUSE TIRE SEPARATION**
- **CONFORMS TO THE SHAPE OF THE INJURY, UNLIKE HARD-CURED REPAIRS THAT FORCE THE INJURY TO CONFORM TO THE SHAPE OF THE PLUG**
- **CONFORMS TO THE SIZE AND SHAPE OF THE INJURY & ELIMINATES STRESS TO THE BELTS AND PRESERVE THE TIRE BODY WHILE COMPLETELY SEALING OUT MOISTURE AND DIRT**

KIT INCLUDES:

- **PROFESSIONALLY ENGINEERED HEAVY DUTY HIGH IMPACT MOLDED CASE WITH INDUSTRIAL STRENGTH LATCH**
- **HEAVY DUTY 12 OZ CHROME T-HANDLE WITH REPLACEABLE NEEDLE**
- **SPIRAL DESIGNED PROBE CLEANS INJURY WITHOUT CAUSING ADDITIONAL STRESS OF THE TIRE**
- **HARDENED STEEL SET SCREW HOLDS NEEDLE OR PROBE IN PLACE WITHOUT STRIPING**
- **CHROME OPEN-EYE INSERTION NEEDLE**
- **HARDENED STEEL ALLEN WRENCH FOR EASY REPLACING PROBE NEEDLE OR OPEN-EYE NEEDLE**
- **RAZOR BLADE TO CUT OFF EXCESS REPAIR**
- **LARGE JAR OF INSERTION LUBE, MAKES INSERTING PROBE AND REPAIR EASY**
- **40 PERMANENT REPAIRS, 4 INCHES LONG WITH CARBON BLACK ADDED TO STRENGTHEN REPAIRS AND MATACH THE COLOR OF THE TIRE**
- **INSTRUCTION GUIDE PERMANENTLY ADHERED TO INNER LID**

DESCRIPTION		PART
TIRE REPAIR KIT	A	78028
4" REPLACEMENT STRIPS	I	78023
TIRE REPAIR LUBE	A	78024

Four-Way Valve Tool

P/N 52198

Dual Foot Air Chuck, Angled

P/N 52232

Straight-On Dual Foot Air Gauge

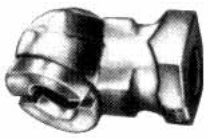
- 10-150 psi
- 2 sided nylon bar

P/N 52199

Female Air Chuck

- 1/4" NPT Female

P/N 52234



Clip-on Air Chuck

- 1/4" FPT
- For large bore valves

P/N 52167

TIRE MAINTENANCE

Pressure Detection Valve Caps

- Flashes when tire pressure falls 4 psi (8 psi for trucks) below the correct pressure
- Chrome plated brass body with polycarbonate lens
- Self-contained on-board battery
- Automatically and permanently calibrates the 1st time it is placed on the valve stem
- Maximizes gas mileage and improves safety

P/N 78026 Pressure Detection Valve Cap – Car
P/N 78027 Pressure Detection Valve Cap – Truck

Inflator Gauge with 12" Hose and Sight Glass

- Heavy Duty
- Inflates with single lever
- Magnifying leans allows full view of scale
- Calibrated in 2 lb. increments from 10 – 120 lbs.
- Dual head chuck with 15" rubber hose

P/N 52270

Paint Sticks

- Real paint in stick form
- Lead free
- Weather resistant and UV resistant
- Use for identification, coding, fabrication and layout
- Marks through oil and water, and on smooth, rough or dirty surfaces
- For use on rubber, metal, plastic, wood, and concrete

P/N 28400 **Cold Surf – White**
P/N 28401 **Cold Surf – Yellow**
P/N 28402 **Cold Surf – Red**
P/N 28403 **Cold Surf – Black**

BRAKE HUB CLEANING DISCS

Remove Rust and Corrosion Quickly

Brake hub cleaning disc and holder combine an aggressive 3-D disc construction with a unique, center hole attachment system for improved productivity. The system removes rust and corrosion quickly, even in hard to reach places. The attachment provides quick disc changes with the convenience of running on high-speed tools. All this adds up to saving time, increasing speed and effectiveness on the brake job.

Features

- Extremely tough 3-D web
- Non-metallic attachment system and disc pad holder
- Unique attachment system, Type H
- Disc holder is designed to fit on a variety of tools with collets or chucks
- Discs contain no wire filaments
- Potential for injury from flying wires is eliminated

Benefits

- Removes rust and corrosion without excessive metal removal or gouging of the metal
- Attachment button and holder are made of tough polymers that will not damage the wheel stud threads
- Disc locks securely; 1/2 turn on, 1/2 turn off (fits over wheel stud)
- Ideal for use on right angle air tools
- Helps to maintain AOEM surface milling marks
- Cleans the area fast while protecting the threads

- **P/N 45616**
  Brake Hub Cleaning Disc (Pkg. 2)
- **P/N 45615**
  Brake Hub Cleaning Disc Holder

WHEEL WEIGHTS

COATED AND UNCOATED, FOR STEEL OR ALLOY WHEELS – DOMESTIC/IMPORTED

UNCOATED FOR STANDARD PASSENGER CAR STEEL WHEELS

P Type
- USE ON 13" TO 15" WHEELS
- CLIPS ARE PLATED
- TESTED TO COMPLY WITH DEMANDING OEM CORROSION RESISTANCE SPECIFICATIONS
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
1/4 oz.	R	50150	2-1/4 oz.	R	50158
1/2 oz.	R	50151	2-1/2 oz.	R	50159
3/4 oz.	R	50152	2-3/4 oz.	R	50160
1 oz.	R	50153	3 oz.	R	50161
1-1/4 oz.	R	50154	3-1/4 oz.	N	50162
1-1/2 oz.	R	50155	3-1/2 oz.	N	50163
1-3/4 oz.	R	50156	3-3/4 oz.	N	50164
2 oz.	R	50157	4 oz.	N	50165

COATED FOR STANDARD PASSENGER CAR ALLOY WHEELS

AW Type
- SPECIAL POLYMER SILVER/GRAY COATING PREVENTS CORROSION
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
1/4 oz.	N	50262	1-3/4 oz.	N	50268
1/2 oz.	N	50263	2 oz.	N	50269
3/4 oz.	N	50264	2-1/4 oz.	N	50270
1 oz.	N	50265	2-1/2 oz.	N	50271
1-1/4 oz.	N	50266	2-3/4 oz.	N	50272
1-1/2 oz.	N	50267	3 oz.	N	50273

UNCOATED FOR STANDARD PASSENGER CAR ALLOY WHEELS

AW Type
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS
- UNIQUE CLIP DESIGN PREVENTS THE WEIGHT FROM COMING OFF THE FLANGE

WEIGHT		PART	WEIGHT		PART
1/4 oz.	R	50250	1-3/4 oz.	N	50256
1/2 oz.	R	50251	2 oz.	N	50257
3/4 oz.	R	50252	2-1/4 oz.	R	50258
1 oz.	R	50253	2-1/2 oz.	N	50259
1-1/4 oz.	R	50254	2-3/4 oz.	N	50260
1-1/2 oz.	R	50255	3 oz.	N	50261

COATED FOR IMPORTED CAR ALLOY WHEELS

IAW Type
- SPECIAL POLYMER SILVER/GRAY COATING PREVENTS CORROSION
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS
- UNIQUE CLIP DESIGN PREVENTS THE WEIGHT FROM COMING OFF THE FLANGE

WEIGHT		PART	WEIGHT		PART
10 g	N	50275	40 g	N	50281
15 g	N	50276	45 g	N	50282
20 g	N	50277	50 g	N	50283
25 g	N	50278	55 g	N	50284
30 g	N	50279	60 g	N	50285
35 g	N	50280	–		–

COATED FOR STANDARD PASSENGER CAR ALLOY WHEELS

MC Type
- SPECIAL POLYMER SILVER/GRAY COATING PREVENTS CORROSION
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
1/4 oz.	N	50300	1-3/4 oz.	N	50306
1/2 oz.	N	50301	2 oz.	N	50307
3/4 oz.	N	50302	2-1/4 oz.	N	50308
1 oz.	N	50303	2-1/2 oz.	N	50309
1-1/4 oz.	N	50304	2-3/4 oz.	N	50310
1-1/2 oz.	N	50305	3 oz.	N	50311

WHEEL WEIGHTS

COATED, FOR ALLOY WHEELS – DOMESTIC OR IMPORTED

COATED WHEEL WEIGHTS FOR ALLOY WHEELS

LH Type
- USE ON LATE MODEL CHRYSLER CARS
- DESIGNED TO FIT UNIQUE WHEEL FLANGE PROFILE
- MEETS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
1/4 oz.	N	50286	1-3/4 oz.	N	50292
1/2 oz.	N	50287	2 oz.	N	50293
3/4 oz.	N	50288	2-1/4 oz.	N	50294
1 oz.	N	50289	2-1/2 oz.	N	50295
1-1/4 oz.	N	50290	2-3/4 oz.	N	50296
1-1/2 oz.	N	50291	3 oz.	N	50297

COATED WHEEL WEIGHTS FOR MANY JAPANESE ALLOY WHEELS

FN Type
- DESIGNED FOR THICKER FLANGE ALLOY WHEELS BEING USED ON MANY JAPANESE VEHICLES
- MEETS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
5 g	N	50192	32.5 g	N	50203
7.5 g	N	50193	35 g	N	50204
10 g	N	50194	37.5 g	N	50205
12.5 g	N	50195	40 g	N	50206
15 g	N	50196	45 g	N	50207
17.5 g	N	50197	50 g	N	50208
20 g	N	50198	55 g	N	50209
22.5 g	N	50199	60 g	N	50210
25 g	N	50200	65 g	N	50211
27.5 g	N	50201	70 g	N	50212
30 g	N	50202	-		-

TWO PIECE COATED WHEEL WEIGHTS FOR ALLOY WHEELS

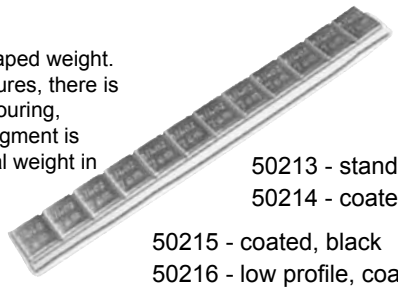
MBN Type
- ORIGINAL EQUIPMENT WHEEL WEIGHTS FOR MERCEDES BENZ AUTOMOBILES
- MEETS OR EXCEEDS ALL OEM SPECIFICATIONS

WEIGHT		PART	WEIGHT		PART
5 g	N	50166	40 g	N	50173
10 g	N	50167	45 g	N	50174
15 g	N	50168	50 g	N	50175
20 g	N	50169	55 g	N	50176
25 g	N	50170	60 g	N	50177
30 g	N	50171	65 g	N	50178
35 g	N	50172	70 g	N	50179

SEGMENTED ADHESIVE WEIGHTS FOR ALLOY WHEELS

KwikStik Type

The only pre-cut, pre-taped weight. With these unique features, there is no cutting, no pre-contouring, and no waste. Each segment is stamped with the actual weight in ounces. It is the ideal weight for racing and off-road performance applications, and wheels without flanges.



50213 - standard
50214 - coated
50215 - coated, black
50216 - low profile, coated

WEIGHT		PART	WEIGHT		PART
3 oz.	O	50213	3 oz.	O	50215
3 oz.	O	50214	3 oz.	R	50216

ADHESIVE COATED WHEEL WEIGHTS FOR ALLOY AND STEEL WHEELS

CUC Type

High-quality, contoured, pre-taped adhesive style weight for alloy and steel wheels. Designed for high-performance sports cars. Applications include Porsche and other wheels that do not have the clip-on type flange. Available in sizes ranging from 10 grams to 60 grams.

WEIGHT		PART	WEIGHT		PART
10 g	N	50312	40 g	N	50318
15 g	N	50313	45 g	N	50319
20 g	N	50314	50 g	N	50320
25 g	N	50315	55 g	N	50321
30 g	N	50316	60 g	N	50322
35 g	N	50317	-		-

WHEEL WEIGHTS

LEAD FREE ZINC – COATED, FOR STEEL OR ALLOY WHEELS

COATED FOR STANDARD PASSENGER CAR STEEL WHEELS

P Type
- **Zinc**
- **Coated**

Weights for standard steel rims.

WEIGHT		PART	WEIGHT		PART
1/4 oz.	N	50323	1-3/4 oz.	N	50329
1/2 oz.	N	50324	2 oz.	N	50330
3/4 oz.	N	50325	2-1/4 oz.	N	50331
1 oz.	N	50326	2-1/2 oz.	N	50332
1-1/4 oz.	N	50327	2-3/4 oz.	N	50333
1-1/2 oz.	N	50328	3 oz.	N	50334

COATED FOR PASSENGER CAR & LIGHT TRUCK ALLOY WHEELS

MC Type
- **Zinc**
- **Coated**

Weights for many domestic car and light truck alloy rims.

WEIGHT		PART	WEIGHT		PART
1/2 oz.	N	50335	2 oz.	N	50341
3/4 oz.	N	50336	2-1/4 oz.	N	50342
1 oz.	N	50337	2-1/2 oz.	N	50343
1-1/4 oz.	N	50338	2-3/4 oz.	N	50344
1-1/2 oz.	N	50339	3 oz.	N	50345
1-3/4 oz.	N	50340	–		–

COATED FOR CHRYSLER PASSENGER CAR ALLOY WHEELS

LH Type
- **Zinc**
- **Coated**

The “LH” is used primarily on late model Chrysler cars. Designed to fit unique wheel flange profile.

WEIGHT		PART	WEIGHT		PART
1/4 oz.	N	50346	1-3/4 oz.	N	50352
1/2 oz.	N	50347	2 oz.	N	50353
3/4 oz.	N	50348	2-1/4 oz.	N	50354
1 oz.	N	50349	2-1/2 oz.	N	50355
1-1/4 oz.	N	50350	2-3/4 oz.	N	50356
1-1/2 oz.	N	50351	3 oz.	N	50357

COATED FOR EUROPEAN & JAPANESE PASSENGER CAR ALLOY WHEELS

IAW Type
- **Zinc**
- **Coated**

Weights for European and Japanese alloy rims.

WEIGHT		PART	WEIGHT		PART
5 g	N	50358	35 g	N	50364
10 g	N	50359	40 g	N	50365
15 g	N	50360	45 g	N	50366
20 g	N	50361	50 g	N	50367
25 g	N	50362	55 g	N	50368
30 g	N	50363	60 g	N	50369

WHEEL WEIGHTS

LEAD FREE ZINC OR STEEL – COATED, FOR ALLOY WHEELS

UNCOATED FOR JAPANESE PASSENGER CAR ALLOY WHEELS

FN Type

- **Zinc**
- **Coated**

This type is designed for the thicker flange alloy wheels being used on many Japanese vehicles.

WEIGHT		PART	WEIGHT		PART
5 g	N	50370	35 g	N	50376
10 g	N	50371	40 g	N	50377
15 g	N	50372	45 g	N	50378
20 g	N	50373	50 g	N	50379
25 g	N	50374	55 g	N	50380
30 g	N	50375	60 g	N	50381

SEGMENTED STEEL ADHESIVE WEIGHTS FOR ALLOY WHEELS

KwikStik

- **Segmented Steel with Adhesive**
- **Coated**

The only pre-cut, pre-taped weight. With these unique features, there is no cutting and no pre-contouring.

50382 (low profile)
50383 (standard profile)

WEIGHT		PART
3 oz.	N	50382
60 g	N	50383

WHEEL WEIGHT ACCESSORIES

WHEEL WEIGHT PLIERS AND STICK-ON WHEEL WEIGHT REMOVER

- **WHEEL WEIGHT PLIERS**

- **STICK-ON WHEEL WEIGHT REMOVER**

PART		PART
A	50298	A	50299

INSTANT LENS REPAIR PRODUCTS

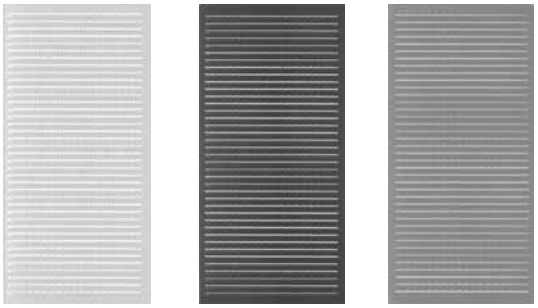
LENS REPAIR KITS (CLEAR, RED, AMBER)

PROVIDES A SPECIAL PRE-FORMED LIGHT DIFFUSER REPAIR PANEL AND HEAVY DUTY WEATHER-PROOF GASKET THAT MAKES A HIGH QUALITY REPAIR. THE PRE-FORMED PANEL IS STRONG AS WELL AS FLEXIBLE AND CAN COVER COMMON TYPE LENS DAMAGE ON FLAT OR CURVED LENS SURFACES.

HEADLIGHT LENS REPAIR KIT (CLEAR - P/N 78032)
- REPAIRS HEADLIGHTS AND BACKUP LIGHT LENSES
- FAST AND EASY TO APPLY – REPAIRS WITHOUT REMOVING HOUSING
- PREVENTS HEADLIGHTS FROM BURNING OUT
- SAVES HIGH COST OF REPLACEMENT
- PANEL SIZE 7-3/4" x 3-3/4"

TAIL LIGHT LENS REPAIR KIT (RED - P/N 78031)
- REPAIRS TAIL LIGHT LENSES
- FAST AND EASY TO APPLY – REPAIRS WITHOUT REMOVING LENS
- RESTORES LIGHT DIFFUSER GRID PATTERN
- FORMS A PERMANENT WEATHER-PROOF SEAL
- PANEL SIZE 7" x 10"

TAIL LIGHT LENS REPAIR KIT (AMBER - P/N 78030)
- REPAIRS TAIL LIGHT LENSES
- FAST AND EASY TO APPLY – REPAIRS WITHOUT REMOVING LENS
- RESTORES LIGHT DIFFUSER GRID PATTERN
- FORMS A PERMANENT WEATHER-PROOF SEAL
- PANEL SIZE 7-3/4" x 3-3/4"



78032 (CLEAR) 78031 (RED) 78030 (AMBER)

DESCRIPTION		PART
INSTANT LENS HEADLIGHT AND BACKUP LIGHT LENSES REPAIR KIT (CLEAR)	A	78032
INSTANT LENS TAIL LIGHT LENS REPAIR KIT (RED)	A	78031
INSTANT LENS TAIL LIGHT LENS REPAIR KIT (AMBER)	A	78030

REARVIEW MIRROR REPAIR KIT

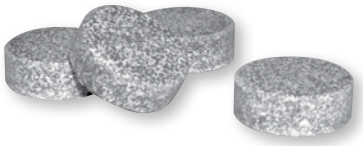
REARVIEW MIRROR SAVER REPAIR KIT

- **QUICK AND EASY MIRROR BUTTON REATTACHMENT KIT**
- **ALSO RESTORES MIRROR BUTTON MOUNTING SURFACE WHEN GLASS IS BROKEN AWAY**
- **DOUBLE STRENGTH ADHESIVE**
- **HOT AND COLD TEMPERATURE CHANGES ACTUALLY STRENGTHEN BOND**

DESCRIPTION		PART
REARVIEW MIRROR SAVER REPAIR KIT	A	78025

WINDSHIELD WASHER TABLETS

P/N 74529



- ***One super-concentrated tablet makes 1 gallon windshield cleaner***
- ***Just add 1 tablet to 1 gallon water; or drop in reservoir of clean water***
- ***Virtually eliminates shipping costs****

- 25 tablets per package
- Completely removes bugs, road film, dirt and grime.
- **Winter Conditions:** Anti-freeze type windshield solvents are poor cleaners. For triple cleaning power with any anti-freeze windshield solvent, add a Red Lion™ Windshield Washer Tablet.
- Red Lion™ Windshield Washer Tablets have kept millions of plastic containers out of landfills and from having to be recycled.
- Used by freight delivery services, car rental agencies, and state and local governments.
- This is a *GREEN* product. It is Non-Toxic and Biodegradable. Always keep out of reach of children. Mild eye irritant. If contact with eyes occurs, flush with plenty of water. If accidentally swallowed, drink a glass of water. Do not induce vomiting. If needed, seek medical attention.

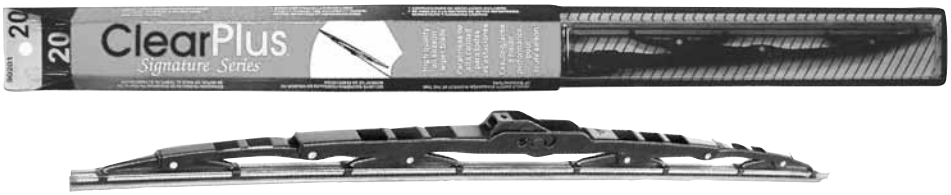
**** 2,500 gallon containers of pre-mix windshield cleaner weighs 20,750 lbs.***

One UPS package of Red Lion™ Windshield Washer Tablets (4 cases/100 ea. 25-tablet tubes) also makes 2,500 gallons, but weighs only 33 lbs! An astounding 99.84% LESS shipping weight!

Virtually eliminates shipping costs!

CLEARPLUS® WINDSHIELD WIPERS

More pressure points in comparison to other premium brands (six for sizes 16/17 and eight starting in size 18) provide significantly better quality of wipe. Hugs the windshield like a beam blade! Wider spaced wind channels and better wrap around prevent losing contact at high speeds with highly curved windshields.



Features a unique graphite/MOS2 composition impregnated on compression molded rubber. This protects the rubber from road and environmental contamination and optimizes the quality of wipe and the durability. All products meet or exceed National Highway Traffic Standards.

DESCRIPTION		PART
16" Signature Series Wiper Blades	A	50403
17" Signature Series Wiper Blades	A	50404
18" Signature Series Wiper Blades	A	50405
19" Signature Series Wiper Blades	A	50406
20" Signature Series Wiper Blades	A	50407
21" Signature Series Wiper Blades	A	50408
22" Signature Series Wiper Blades	A	50409
24" Signature Series Wiper Blades	A	50410
26" Signature Series Wiper Blades	A	50411
28" Signature Series Wiper Blades	A	50412

CLEARPLUS® WINTER WINDSHIELD WIPERS

- **Designed with a heavy duty galvanized steel structure and a large profile molded squeegee, winter wiper blades lift heavy and slushy snow and ice better than the competition.**
- **Synthetic boot (vs. natural rubber in competitor products) has stronger tear and ozone resistance than most winter blades on the market.**
- **Universal pre-installed adapter**
- **All products meet or exceed National Highway Traffic Standards.**

DESCRIPTION		PART
16" Winter Wiper Blades	A	50413
18" Winter Wiper Blades	A	50414
20" Winter Wiper Blades	A	50415
22" Winter Wiper Blades	A	50416
24" Winter Wiper Blades	A	50417
26" Winter Wiper Blades	A	50418

WINDSHIELD REPAIR SYSTEM

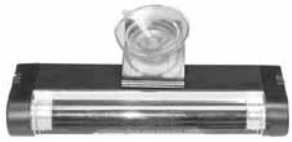
REPAIRS COMMON WINDSHIELD DAMAGE

- **PENETRATES THE GLASS SURFACE THROUGH THE PIT OF THE BREAK WITH A TRANSPARENT LIQUID RESIN**
- **THE RESIN REPLACES THE ENTRAPPED AIR, THEN CURES AND RESTORES VISIBILITY**
- **AVOID VISIBILITY HAZARDS AND REPLACEMENT COSTS**
- **FORMS A CLEAR PERMANENT REPAIR**
- **STOPS DAMAGE FROM SPREADING OR CRACKS FROM DEVELOPING**
- **NO MIXING – FAST AND EASY TO USE**
- **PATENTED**

78001

78009

78008

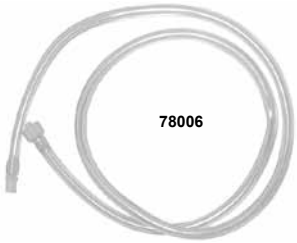


78002

78000

78004

78005



78006

78007

78010

66403

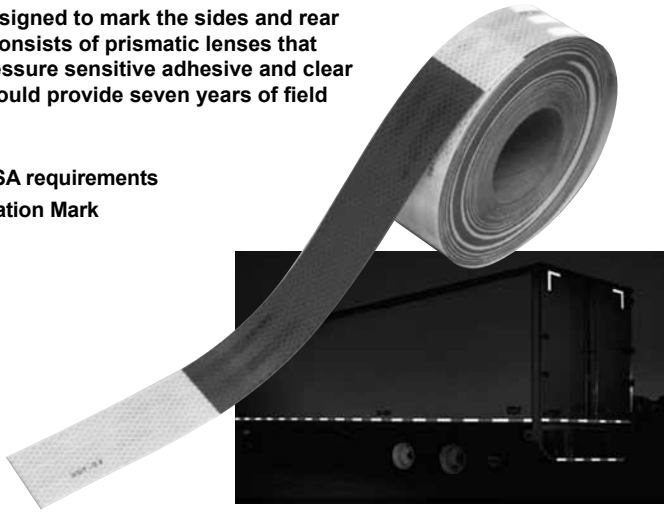
DESCRIPTION		PART	DESCRIPTION		PART
UV QUICK CURE RESIN – 1/2 OZ.	A	78000	FLOW REGULATOR	A	78007
INJECTOR ASSEMBLY	A	78001	CURE GUARD	A	78008
UV CURING LAMP	A	78002	CARBIDE PROBE	A	78009
UV LAMP 12V ADAPTER (not shown)	A	78003	MYLAR SQUARE CURING FILM – 25 PACK	A	78010
ADHESIVE ALIGNMENT SEALS	A	78004	SCRAPER	A	66403
PEDESTAL RESIN CHAMBERS	A	78005	INSTRUCTION VIDEO (not shown)	A	78012
HOSE – 30"	A	78006	WINDSHIELD REPAIR SYS. MANUAL (not shown)	A	78013

REFLECTIVE DOT TAPE

DOT APPROVED – ROLLS AND STRIPS

Reflective DOT Tape is a highly retroreflective microprismatic marking designed to mark the sides and rear of vehicles for enhanced visibility and detection. The reflective marking consists of prismatic lenses that are formed in a transparent, synthetic resin, sealed and backed with a pressure sensitive adhesive and clear poly liner. Applied to properly prepared surfaces, Reflective DOT Tape should provide seven years of field performance.

- **Reflective DOT Tape is certified and guaranteed to meet and exceed NHTSA requirements**
- **Meets or exceeds all FMVSS 108 requirements, including DOT-C2 Certification Mark**
- **Strong and durable for easy application to smooth surfaces**
- **Non-corroding / high brightness**
- **Resists weather, dirt and aging**
- **Aggressive pressure sensitive adhesive with an easy to remove liner**
- **Wide angularity to almost 90° from perpendicular**
- **Pre-sealed edges**
- **Non-metallic construction to prevent corrosion**
- **7 year warranty (non-prorated)**
- **Other mandatory markings available**



DESCRIPTION		PART
Reflective DOT Tape / Rolls (2" x 50 yards / Red 11" and White 7")	A	32878
Reflective DOT Tape / Strips (18" / Red 11" and White 7")	A	32879

SAFETY FLARES

FOR LONG DISTANCE ILLUMINATION

- **PROVIDES LONG DISTANCE ILLUMINATION FOR SAFETY DURING EMERGENCY ROAD-SIDE SITUATIONS**
- **VISIBLE IN FOG, RAIN OR SNOW**
- **EASY TO IGNITE WITH SELF-CONTAINED STRIKER**
- **20 MINUTE DURATION**
- **36 FLARES IN A CASE**

DESCRIPTION		PART
20 MINUTE NON-SPIKE SAFETY FLARES (Package Quantity: 36 Flares)		59080

EARLY WARNING TRIANGLE KIT

REFLECTIVE SAFETY WARNING SYSTEM

- **Instant Alert for Oncoming Motorists**
- **Meets US Federal Motor Vehicle Safety Standard No. 125 for Warning Devices**
- **Weighted Base for Stability**
- **Kit Includes 3 Reflective Triangles**

APPLICATIONS
- **Emergency Assistance**
- **Truck / Auto Accidents**
- **Hazardous Conditions**
- **Visually Alerts Authorities Quickly**

DESCRIPTION		PART
EARLY WARNING TRIANGLE KIT	A	59082

GLOW STICKS

A DEPENDABLE LIGHT SOURCE THAT LASTS FOR 12 HOURS

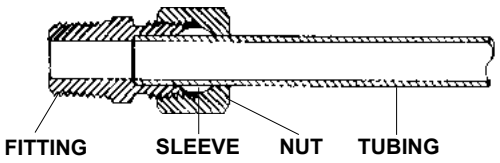
- **A DEPENDABLE LIGHT SOURCE WHENEVER AND WHEREVER YOU NEED IT, LIGHT LASTS FOR 12 HOURS**
- **NON-TOXIC / NON-FLAMMABLE / WEATHERPROOF**
- **MADE WITH CYALUME® TECHNOLOGY (10 mL FLUID)**
- **TO ACTIVATE REMOVE FROM FOIL WRAPPER, BEND, SNAP AND SHAKE**

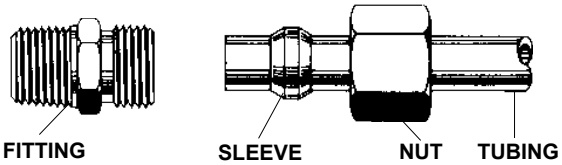
DESCRIPTION		PART
6" GLOW STICKS – 12 HOUR	J	59081

NTA AIR BRAKE FITTINGS – BRASS

MEETS ALL AIR BRAKE SPECIFICATIONS — FULLY D.O.T. APPROVED

Utilizes ribbed sleeve for compression and positive grip. Five remakes possible when disassembled. Body (less insert) interchangeable with standard air brake compression bodies.





SPECIFICATIONS

USE WITH: Nylon tubing (SAE J844, type 3).

ASSEMBLY INSTRUCTIONS:
1. Cut tubing to length required.
2. Insert tubing into fitting.
3. Tighten nut.

DISSASSEMBLY INSTRUCTIONS:
1. Remove nut and pull tubing out of fitting body.
2. Insert will remain in tubing.

RE-ASSEMBLY INSTRUCTIONS:
1. Push tubing and insert into fitting body until it bottoms.
2. Thread nut onto fitting body and tighten.

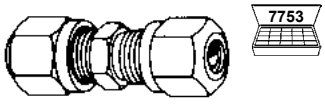
SLEEVE

TUBE SIZE	INDUSTRY TYPE	PART
1/4	1460-4	R 55402
3/8	1460-6	R 55403
1/2	1460-8	O 55404
5/8	1460-10	L 55405
3/4	1460-12	I 55406

NUT

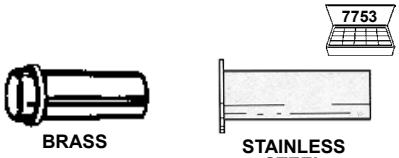
TUBE SIZE	INDUSTRY TYPE	PART
1/4	1461-4	O 55410
3/8	1461-6	O 55411
1/2	1461-8	L 55412
5/8	1461-10	I 55413
3/4	1461-12	I 55414

UNION



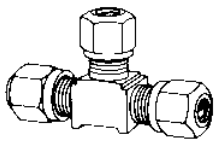
TUBE SIZE	INDUSTRY TYPE	PART
1/4	1462-4	I 55418
3/8	1462-6	I 55419
1/2	1462-8	F 55420
5/8	1462-10	D 55421
3/4	1462-12	B 55422

TUBE INSERT



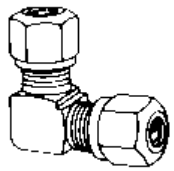
BRASS			STAINLESS STEEL	
TUBE SIZE	IND. TYPE	PART	TUBE SIZE	PART
1/4	1484-4	R 55425	1/4	N 55447
3/8	1484-6	R 55426	3/8	N 55448
1/2	1484-8	O 55427	1/2	N 55449
5/8	1484-10	L 55428	5/8	I 55450
3/4	1484-12	I 55429	-	-

UNION TEE



TUBE SIZE	INDUSTRY TYPE	PART
1/4	1464-4	D 55433
3/8	1464-6	D 55434
3/8 x 3/8 x 1/4	1464-664	D 55435
1/2	1464-8	B 55437
1/2 x 1/2 x 3/8	1464-886	B 55438

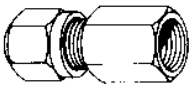
UNION ELBOW



TUBE SIZE	INDUSTRY TYPE	PART
1/4	1465-4	D 55443
3/8	1465-6	G 55444
1/2	1465-8	D 55445
5/8	1465-10	B 55446

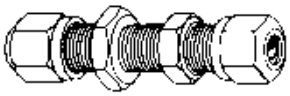
NTA AIR BRAKE FITTINGS – BRASS (Cont'd.)

FEMALE CONNECTOR



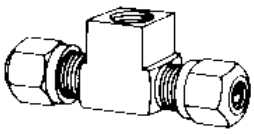
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1466-42	I 55451
1/4	1/4	1466-44	I 55452
3/8	1/8	1466-62	I 55453
3/8	1/4	1466-64	I 55454
3/8	3/8	1466-66	G 55455
1/2	3/8	1466-86	D 55456
5/8	1/2	1466-108	B 55457
3/4	1/2	1466-128	B 55458

BULKHEAD UNION



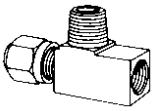
TUBE SIZE	INDUSTRY TYPE	PART
1/4	1474-4	F 55532
3/8	1474-6	F 55533
1/2	1474-8	D 55534
5/8	1474-10	B 55535

FEMALE BRANCH TEE

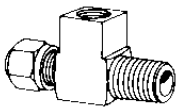


TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	1477-64	B 55538
1/2	1/4	1477-84	B 55539

ADAPTER TEE



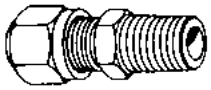
55556



55557

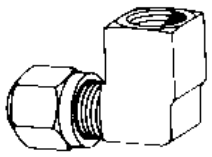
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4 x 3/8	1482-646	D 55556
3/8	3/8 x 1/4	1483-664	D 55557

MALE CONNECTOR



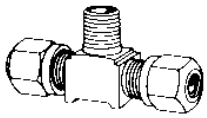
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1468-42	I 55463
1/4	1/4	1468-44	I 55464
1/4	3/8	1468-46	I 55465
3/8	1/8	1468-62	I 55466
3/8	1/4	1468-64	I 55467
3/8	3/8	1468-66	I 55468
3/8	1/2	1468-68	G 55469
1/2	1/4	1468-84	I 55470
1/2	3/8	1468-86	I 55471
1/2	1/2	1468-88	F 55472
5/8	3/8	1468-106	F 55473
5/8	1/2	1468-108	F 55474
3/4	1/2	1468-128	D 55475
3/4	3/4	1468-1212	D 55476

FEMALE ELBOW



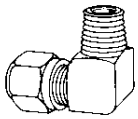
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1470-42	I 55501
3/8	1/8	1470-62	F 55502
3/8	1/4	1470-64	G 55503
3/8	3/8	1470-66	G 55504
1/2	3/8	1470-86	F 55505

MALE BRANCH TEE



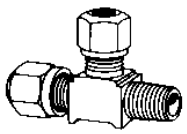
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1472-42	F 55522
1/4	1/4	1472-44	F 55523
3/8	1/8	1472-62	F 55524
3/8	1/4	1472-64	F 55525
3/8	3/8	1472-66	F 55526
1/2	3/8	1472-86	D 55527
5/8	1/2	1472-108	D 55528

90° MALE ELBOW



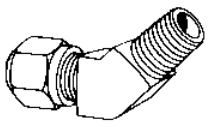
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1469-42	I 55482
1/4	1/4	1469-44	I 55483
1/4	3/8	1469-46	F 55484
3/8	1/8	1469-62	I 55485
3/8	1/8 long	1469-62 L	I 55486
3/8	1/4	1469-64	I 55487
3/8	3/8	1469-66	I 55488
3/8	1/2	1469-68	F 55489
1/2	1/4	1469-84	F 55490
1/2	3/8	1469-86	G 55491
1/2	1/2	1469-88	F 55492
5/8	3/8	1469-106	D 55493
5/8	1/2	1469-108	D 55494
3/4	1/2	1469-128	B 55495

MALE RUN TEE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1471-42	F 55510
1/4	1/4	1471-44	D 55511
3/8	1/4	1471-64	F 55513
3/8	3/8	1471-66	D 55514
1/2	3/8	1471-86	D 55515
5/8	1/2	1471-108	D 55516

45° MALE ELBOW



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
1/4	1/8	1480-42	G 55546
3/8	1/4	1480-64	G 55547
3/8	3/8	1480-66	F 55548
1/2	3/8	1480-86	D 55549
1/2	1/2	1480-88	D 55550
5/8	1/2	1480-108	B 55551

NTA AIR BRAKE FITTINGS – BRASS (Cont'd.)

EATON – FULLER AIR TRANSMISSION FITTINGS

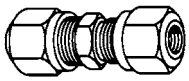
COLLET – SPLIT SLEEVE

TUBE SIZE	INDUSTRY TYPE		PART
1/8	560-2	R	55576
5/32	560-2.5	R	55575
1/4	560-4	R	55577

NUT

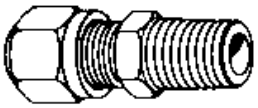
TUBE SIZE	INDUSTRY TYPE		PART
1/8	561-2	O	55580
5/32	561-2.5	O	55579
1/4	561-4	O	55581

UNION – SPLIT SLEEVE



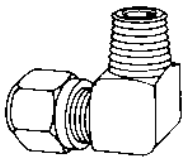
TUBE SIZE	INDUSTRY TYPE		PART
1/8	562-2	I	55584
5/32	562-2.5	I	55583
1/4	562-4	I	55585

MALE CONNECTOR – SPLIT SLEEVE



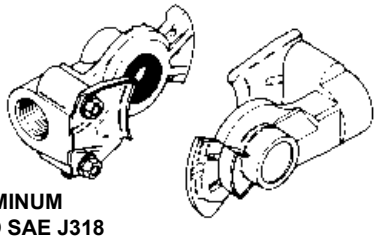
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
1/8	1/16	568-21	I	55587
1/8	1/8	568-22	I	55588
5/32	1/16	568-2.51	I	55595
5/32	1/8	568-2.52	I	55596
1/4	1/8	568-42	I	55589

90° MALE ELBOW – SPLIT SLEEVE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE		PART
1/8	1/16	569-21	I	55592
1/8	1/8	569-22	I	55593
5/32	1/8	569-2.52	I	55591
1/4	1/8	569-42	I	55594

MISCELLANEOUS AIR BRAKE FITTINGS



- DIE CAST ALUMINUM
- CONFORMS TO SAE J318
- CONNECTS TO 1/2" PIPE

GLADHAND COUPLINGS AND SEALS

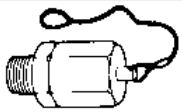
DESCRIPTION	INDUSTRY TYPE		PART
Service type coupling — connect only to service	78850	A	55597
Emergency type coupling — connect only to emergency	78851	A	55598
Universal type coupling — connects to all three styles	75150	A	55599

GLADHAND SEAL

EASY INSTALLATION LUBRICATE WITH HYDRAULIC FLUID

INDUSTRY TYPE		PART
13630	I	54763

AIR TANK DRAIN VALVE

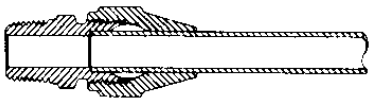


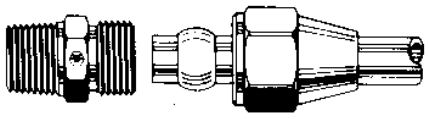
PIPE THREAD	INDUSTRY TYPE		PART
1/4	1421	A	55542

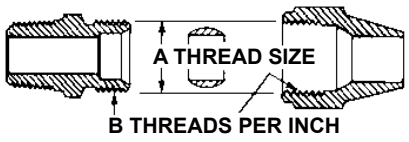
AIR BRAKE FITTINGS FOR COPPER TUBING – BRASS

EXCEEDS PRESSURE REQUIREMENTS FOR ALL AIR BRAKE SYSTEMS

Manufactured from virgin high density brass alloy. Low cost. No flare required. Easy to assemble.







SPECIFICATIONS

PRESSURE: Exceeds pressure requirements of all automotive air brake systems.

TEMPERATURE: -65°F to +250°F.

USE WITH: Copper tubing in air brake systems.

CONFORMANCE: Meets specifications and standards of SAE and MS (Military Standards).

ASSEMBLY INSTRUCTIONS:

1. Slide nut and then sleeve on tubing. Threaded end of nut must face out.
2. Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
3. Tighten assembly hand tight. From that point, tighten with a wrench the number of turns indicated below:

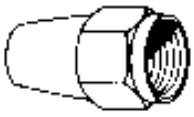
TUBE SIZE	ADD'L. # TURNS FROM HAND TIGHT
1/4, 3/8	1-3/4
1/2, 5/8, 3/4	3-1/4

TUBE SIZE	1/4	3/8	1/2	5/8	3/4
A - THREAD SIZE	7/16	17/32	11/16	13/16	1
B - THREADS/INCH	24	24	20	18	18

SLEEVE

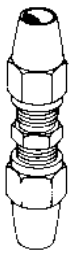
TUBE SIZE	INDUSTRY TYPE	PART
1/4	00457	T 53425
3/8	00361	T 53426
1/2	03754	T 53427
5/8	10612	R 53428
3/4	03897	R 53429

NUT



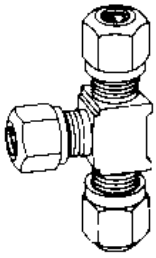
TUBE SIZE	INDUSTRY TYPE	PART
1/4	00455	R 53435
3/8	00360	O 53436
1/2	03755	L 53437
5/8	10613	I 53438
3/4	03896	E 53439

UNION



TUBE SIZE	INDUSTRY TYPE	PART
1/4	05514	I 53445
3/8	05134	I 53446
1/2	15710	E 53447
5/8	21826	A 53448
3/4	16523	A 53449
-	-	-

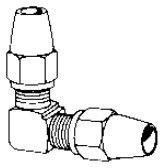
UNION TEE



TUBE SIZE	INDUSTRY TYPE	PART
1/4	B-164-4	E 53455
3/8 x 3/8 x 1/2	17663	E 53456
3/8	05106	A 53457
1/2	15712	A 53458
5/8	21984	A 53459
3/4	B-164-12	A 53460

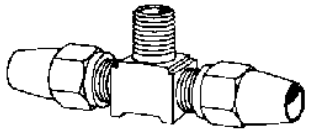
AIR BRAKE FITTINGS FOR COPPER TUBING – BRASS (Cont'd.)

UNION ELBOW



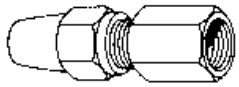
TUBE SIZE	INDUSTRY TYPE	PART	
1/4	B-165-4	E	53466
3/8	05113	E	53467
1/2	22359	A	53468
5/8	22360	A	53469
3/4	B-165-12	A	53470

MALE BRANCH TEE



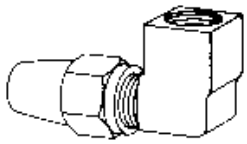
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-172-42	E	53489
3/8	1/8	17051	E	53490
3/8	1/4	05103	E	53491
3/8	3/8	05177	A	53492
1/2	3/8	15700	A	53493
5/8	1/2	21982	A	53494
3/4	1/2	B-172-128	A	53495

FEMALE CONNECTOR



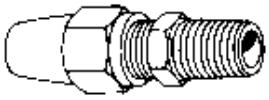
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-166-42	L	53476
3/8	1/8	05418	I	53477
3/8	1/4	05826	I	53478
3/8	3/8	05827	E	53479
1/2	3/8	15711	L	53480
1/2	1/2	B-166-88	E	53481
5/8	1/2	B-166-108	E	53482
3/4	1/2	B-166-128	A	53483

FEMALE ELBOW



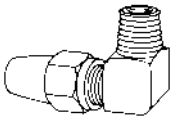
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-170-42	I	53537
3/8	1/8	B-170-62	I	53538
3/8	1/4	05135	E	53539
3/8	3/8	05830	E	53540
1/2	3/8	15702	E	53541
1/2	1/2	B-170-88	A	53542
5/8	1/2	B-170-108	A	53543

MALE CONNECTOR



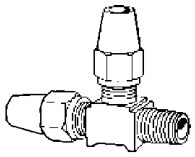
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	05127	L	53501
1/4	1/4	05183	L	53502
3/8	1/8	05509	I	53503
3/8	1/4	05053	I	53504
3/8	3/8	05824	I	53505
3/8	1/2	22063	I	53506
1/2	1/4	17690	I	53507
1/2	3/8	17525	I	53508
1/2	1/2	17691	I	53509
5/8	3/8	16685	E	53510
5/8	1/2	16684	A	53511
5/8	3/4	B-168-1012	E	53512
3/4	1/2	17621	A	53513
3/4	3/4	15762	A	53514

90° MALE ELBOW



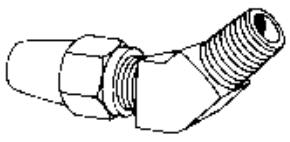
TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-169-42	L	53520
1/4	1/4	24318	I	53521
3/8	1/8	05522	I	53522
3/8	1/4	05102	I	53523
3/8	3/8	05829	E	53524
3/8	1/2	22062	E	53525
1/2	1/4	20475	E	53526
1/2	3/8	15709	E	53527
1/2	1/2	16310	E	53528
5/8	3/8	21993	A	53529
5/8	1/2	21825	A	53530
3/4	1/2	B-169-128	A	53531

MALE RUN TEE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-171-42	E	53549
1/4	1/4	B-171-44	E	53550
3/8	1/8	17051	E	53551
3/8	1/4	05103	E	53552
3/8	3/8	05177	A	53553
1/2	3/8	15700	A	53554
1/2	1/2	B-171-88	A	53555
5/8	1/2	21982	A	53556
3/4	1/2	B-171-128	A	53557

45° MALE ELBOW TUBE



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART	
1/4	1/8	B-177-42	I	53563
3/8	1/4	20722	E	53564
1/2	3/8	20292	E	53565
5/8	1/2	22065	A	53566

BULKHEAD COUPLING

53572
53573

53574
53575

53576
53577

THREAD A	THREAD B	LENGTH	INDUSTRY TYPE	PART	
1/2	1/4	2-15/16	05730	A	53572
1/2	1/4	3-15/16	23464	A	53573
1/2	1/4	2-5/32	05498	A	53574
1/2	1/4	2-17/32	05499	A	53575
1/4	1/4	1-1/2	05465	E	53576
1/4	1/4	5/16	21204	E	53577

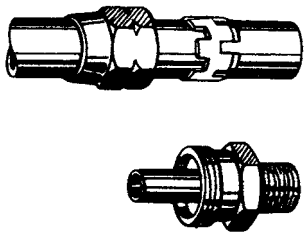
REUSABLE AIR BRAKE FITTINGS – BRASS

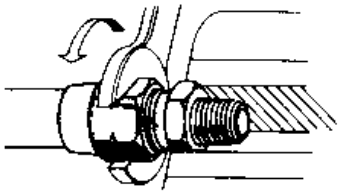
HOSE ENDS AND ASSEMBLIES

ASSEMBLY INSTRUCTIONS:

1. Slide nut and sleeve onto hose. Make sure bevel edge of sleeve faces out toward fitting.
2. Push hose into fitting until it bottoms.
3. Tighten nut down all the way.

HOSE: P/N 53419





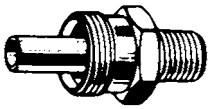
HOSE CONNECTOR ASSEMBLY

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15540	A 53583
3/8	3/8	24887	A 53584
3/8	1/2	15539	A 53585
1/2	3/8	368-86	A 55442

HOSE COUPLING NUT

HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	03624	I 53591

HOSE COUPLING BODY

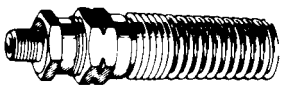


HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15993	I 53597
3/8	3/8	33470	E 53598
3/8	1/2	15992	E 53599

SLEEVE

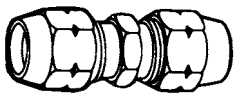
HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	-	03610	L 53626

HOSE CONNECTOR WITH SPRING GUARD



HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	1/4	15536	A 53605
3/8	3/8	23907	A 53606
3/8	1/2	15535	A 53607

HOSE SPLICER

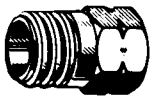


HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	-	362-6	A 55416
1/2	-	362-8	A 55417

HOSE COUPLING NUT WITH SPRING GUARD

TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	379-6	E 53614

HOSE COUPLING NUT FOR SPRING GUARD



TUBE SIZE	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	03613	I 53613

SPRING GUARD

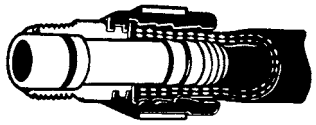
HOSE ID	PIPE THREAD	INDUSTRY TYPE	PART
3/8	–	01045	O 53620

AIR BRAKE HOSE REPAIR KIT

FIELD INSTALLATION KIT MEETS DOT AND SAE SPECIFICATIONS

CIC 200™ Heavy Duty Air Brake Hose Repair Kit is ideal for shop and field installations and repairs of 3/8" air brake hose. Repairs are fast, simple and conform to both DOT 106 and SAE J1402 requirements. These fittings are standard original equipment with manufacturers such as Strick, Monon, Loadcraft, Dorsey, Great Dane, GMC, Pike, Trail King, etc.

FEATURES:
- **REINFORCED NYLON AND BRASS COMPONENTS**
- **DOT 106 AND SAE J1402 CERTIFIED**
- **FOR USE ON AIR CHAMBERS, RELAY VALVES, GLAD HANDS, ETC.**

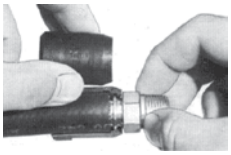


DESCRIPTION		PART
TWO 3/8" AIR BRAKE END FITTINGS	A	53420
3/8" FEMALE X 1/4" MALE ADAPTOR	R	54415

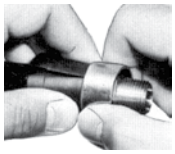
INSTALLATION PROCEDURE

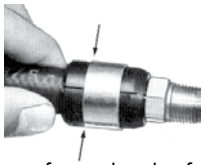
1. Disassemble Kit

2. Position hose end on SHELL (A) flush with groove (see arrows).



3. Insert FITTING (B) into groove and position SHELL (C) opposite SHELL (A).



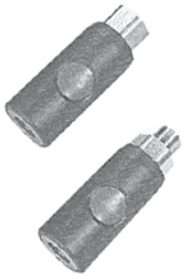


4. With assembly in hand, squeeze forward ends of shell and push and twist RETAINING RING (D) over shells to its final position as shown by arrows.

5. Insert BARB (E) into fitting. (Threaded end of barb should be greased). Push and turn to start threads. Using a 5/16" hexagon key continue to push and turn until the barb is flush inside the fitting. *NOTE: Check final assembly visually to insure that hose has not shifted position during assembly.*

QUICK DISCONNECTS – PUSH BUTTON

PUSH BUTTON SAFETY RELEASE COUPLINGS



- **STATE OF THE ART PUSH-BUTTON COUPLING TECHNOLOGY**
- **DOUBLE RELEASE AIR SAFETY COUPLING PREVENTS HOSE WHIP**
- **LEAKAGE FREE – "THRU O-RING" DESIGN GREATLY REDUCES EXPENSIVE AIR LEAKS**
- **FULLY INTERCHANGEABLE WITH SERIES LISTED BELOW MEETING MIL-C-4109 AND ISO 6150-B SPECIFICATIONS CONFORMS TO ISO 4144 SAFETY SPECIFICATIONS**

APPLICATIONS:
- **SAFETY REQUIRED AIR TOOLS, BLOWGUNS, AIR AUTOMATIC EQUIPMENT**
- **PAINT AND BODY SHOPS**
- **AUTOMOTIVE AND AIRCRAFT ASSEMBLY LINES**

INSTRUCTIONS:
1. The first press on the push-button decompresses the lower part of the circuit without disconnecting the plug and with reduced risk to the user.
2. The second press on the push button safely releases the plug.

ARO STYLE INTERCHANGE SERIES			INDUSTRIAL INTERCHANGE SERIES						TRU-FLATE/PARKER STYLE INTERCHANGE SERIES					
"A" STYLE – 1/4"			"H" STYLE – 3/8"			"M" STYLE – 1/4"			"P" STYLE – 3/8"			"T" STYLE – 1/4"		
NPT PIPE THREAD	FLOW I.D.	PART	NPT PIPE THREAD	FLOW I.D.	PART	NPT PIPE THREAD	FLOW I.D.	PART	NPT PIPE THREAD	FLOW I.D.	PART	NPT PIPE THREAD	FLOW I.D.	PART
1/4 Female	1/4	A 52296	3/8 Female	3/8	A 52293	1/4 Female	1/4	A 52289	3/8 Female	3/8	A 52299	1/4 Female	1/4	A 52295
–	–	–	3/8 Male	3/8	A 52294	1/4 Male	1/4	A 52290	3/8 Male	3/8	A 52301	1/4 Female	3/8	A 52297
			–	–	–	3/8 Female	1/4	A 52291	OSHA Safety Vented Blowgun with 1/4" NPT Female Thread					A 52233
			–	–	–	3/8 Male	1/4	A 52292						

TUBING, HOSE AND ACCESSORIES

TUBING

COPPER

- SEAMLESS, SOFT, BRIGHT ANNEALED TUBING.
- USE FOR FUEL, OIL, WATER, GAS, ETC.
- EASY TO WORK WITH.

25 FOOT ROLL

TUBE SIZE	WALL THICKNESS	PART	TUBE SIZE	WALL THICKNESS	PART
1/8	.030	A 54509	3/8	.032	A 54513
3/16	.030	A 54510	1/2	.032	A 54515
1/4	.030	A 54511	5/8	.035	A 54516
5/16	.032	A 54512	3/4	.035	A 54517

NYLON

- MILKY COLORED SEMI-RIGID TUBING USED IN AGRICULTURE, FOOD PROCESSING AND LABORATORIES.
- PROVIDES GOOD CHEMICAL RESISTANCE TO ALIPHATICS, AMMONIA, AMMONIUM HYDROXIDE, BENZENE AND OTHER SUBSTANCES.
- TEMPERATURE RANGE: -60°F TO 180°F
- MAXIMUM WORKING PRESSURE @ 70°F: 333 PSI
- MINIMUM BURST PRESSURE @ 70°F: 1,000 PSI

50 FOOT ROLL

TUBE SIZE	TUBE I.D.	WALL THK.	PART	TUBE SIZE	TUBE I.D.	WALL THK.	PART
1/8	.096	.015	A 54536	5/16	.242	.036	A 54539
3/16	.142	.023	A 54537	3/8	.295	.040	A 54540
1/4	.190	.030	A 54538	-	-	-	A -

METRIC NYLON

25 METERS

SIZE	PART	SIZE	PART
4mm	A 55686	8mm	A 55689
5mm	A 55687	10mm	A 55690
6mm	A 55688	12mm	A 55691

NYLON AIR BRAKE — SINGLE WALL

- FOR USE ON TRUCKS, TRACTORS, OFF-THE-ROAD EQUIPMENT
- TEMP. RANGE: -40°F to +200°F
- MAX. WORKING PRESSURE: 150 PSI
- MEETS DOT FMVSS 571-106
- DESIGNED FOR AIR BRAKE SYSTEMS, AIR CONTROL LINES, AIR GAUGE LINES, FUEL LINES (GAS, DIESEL) ANTI-FREEZE LINES, AIR SUPPLY LINES, SHIFT CONTROL LINES

SAE SPEC. J844 TYPE 3A – INDUSTRY TYPE NT-100

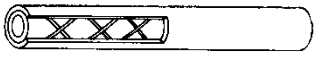
100 FOOT ROLL

TUBE SIZE	WALL THICKNESS	BURST RATING (PSI)	MIN. BEND RADIUS	PART
1/8	.023	1000	3/8"	A 55565
1/4	.040	1200	1"	A 55566

NYLON AIR BRAKE — REINFORCED

- FOR USE ON TRUCKS, TRACTORS, OFF-THE-ROAD EQUIPMENT
- TEMP. RANGE: -40°F to +200°F
- MAX. WORKING PRESSURE: 150 PSI
- MEETS DOT FMVSS 571-106
- DESIGNED FOR AIR BRAKE SYSTEMS, AIR CONTROL LINES, AIR GAUGE LINES, FUEL LINES (GAS, DIESEL) ANTI-FREEZE LINES, AIR SUPPLY LINES, SHIFT CONTROL LINES

SAE SPEC. J844 TYPE 3B – INDUSTRY TYPE NT-100



100 FOOT ROLL

TUBE SIZE	WALL THICKNESS	BURST RATING (PSI)	MIN. BEND RADIUS	PART
3/8	.062	1400	1-1/2"	A 55570
1/2	.062	950	2"	A 55571
5/8	.092	900	2-1/2"	A 55572
3/4	.092	800	3"	A 55573

VACUUM AND WINDSHIELD WASHER

- SPECIAL EPSYN® COMPOUND WITHSTANDS THE EFFECTS OF HEAT, OZONE AND WASHER SOLUTIONS.
- MEETS SAE J1037 SPECIFICATIONS.
- IDEAL FOR WINDSHIELD WASHER, VACUUM OPERATED ACCESSORIES AND EMISSION CONTROL APPLICATIONS.

50 FOOT ROLL

HOSE I.D.	NIPPLE SIZE	PART	HOSE I.D.	NIPPLE SIZE	PART
7/64	1/8	A 52540	7/32	1/4	A 52544
5/32	3/16	A 52542	9/32	5/16	A 52546

TUBING, HOSE AND ACCESSORIES (Cont'd.)

POLYETHYLENE — LOW DENSITY

- NATURAL COLOR
- FLEXIBLE
- GOOD CHEMICAL RESISTANCE
- TEMP. RANGE: -40°F TO +135°F

100 FOOT ROLL

O.D. TUBE	I.D. TUBE	WALL THICKNESS	MAX PSI @ 70°F	PART
1/4	11/64	.406	150	A 55661
5/16	15/64	.062	130	A 55662
3/8	1/4	.062	125	A 55663
1/2	3/8	.062	100	A 55664

VINYL

- CLEAR, SOFT, PLIABLE
- EXCELLENT RESISTANCE TO ALCOHOLS, ANTI-FREEZE, MINERAL ACIDS AND ALKALIES
- TEMP. RANGE: -5°F TO +105°F

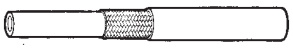
100 FOOT ROLL

O.D. TUBE	I.D. TUBE	WALL THICKNESS	MAX PSI @ 70°F	PART
1/4	11/64	.040	55	A 55675
1/4	1/8	.062	65	A 55676
5/16	3/16	.062	55	A 55677
3/8	1/4	.062	55	A 55678
1/2	3/8	.062	40	A 55679

HOSES

NEOPRENE AIR BRAKE — REINFORCED

- MAXIMUM WORKING PRESSURE: 125 PSI
- MINIMUM BURST PRESSURE: 900 PSI
- SPECIFICATIONS: Penn State approved. SAE 40R2 type B (DOT FMVSS 571.106A1).
- CONSTRUCTION: Neoprene inner tube and cover. One ply braided fiber reinforcing material over inner wall.
- TEMPERATURE RANGE: -40°F TO +250°F.
- MAXIMUM AIR TEMPERATURE: APPROXIMATELY 160°F.

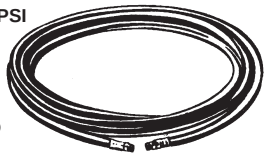


50 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART	USE WITH HOSE ENDS:
3/8	3/4	50 FEET	A 53419	REUSABLE AIR BRAKE See Section 29

RUBBER COVERED AIR HOSE

- MAXIMUM WORKING PRESSURE: 300 PSI
- RESISTS OIL, GREASE AND DETERIORATION FROM OZONE
- 2-PLY REINFORCED
- EACH LENGTH OF HOSE HAS A 1/4" NPT MALE FITTING ON EACH END
- REMAINS FLEXIBLE IN USE



50 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
3/8	5/8	50 FEET	A 54560

LOW PRESSURE — GENERAL PURPOSE

- DESIGNED FOR LOW PRESSURE AUTOMOTIVE AND INDUSTRIAL APPLICATIONS. (HOSE CLAMPS NOT REQUIRED).
- USE FOR ASSEMBLY OF LOW PRESSURE FUEL AND OIL LINES, VACUUM GAUGE LINES, AIR LINES AND OTHER USES WHERE APPLICATION WILL NOT EXCEED WORKING PRESSURES OVER 250 PSI.
- INNER TUBE: SYNTHETIC RUBBER COMPOUNDED RESISTS DETERIORATING EFFECTS OF GASOLINE, OIL, DIESEL, FUEL, AIR, WATER, GREASE, KEROSENE AND COMMON HYDRAULIC FLUIDS.
- RUBBER OUTER COVER: TOUGH, ABRASION-RESISTANT RUBBER.
- COTTON OUTER COVER: TOUGH COTTON JACKET TREATED WITH GRAPHITE. RESISTS OIL, GASOLINE, VIBRATION, HEAT AND COLD.
- TEMPERATURE RANGE: -40°F TO +250°F. MAXIMUM AIR TEMPERATURE: 160°F.
- REINFORCEMENT: ONE PLY BRAIDED FIBER.

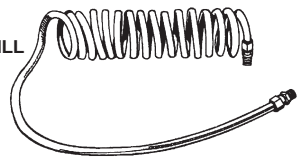
RUBBER COVER — 25 FOOT ROLL

COTTON COVER — 25 FOOT ROLL

RUBBER I.D.	RUBBER O.D.	PART	USE WITH HOSE ENDS:	COTTON I.D.	COTTON O.D.	PART
1/4	1/2	A 54546	REUSABLE "PUSH ON" See Section 29	1/4	1/2	A 54547
3/8	5/8	A 54548		3/8	5/8	A 54549
1/2	3/4	A 54553		-	-	-

POLYURETHANE SELF-COILING AIR HOSE

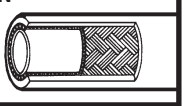
- KINK RESISTANT, LIGHT WEIGHT AND MOBILE
- SUPERIOR MEMORY, IT SNAPS BACK TO ORIGINAL SIZE
- EXCELLENT CHEMICAL, OXIDATION, HYDROLYSIS AND OZONE RESISTANCE
- 100 PSI WORKING PRESSURE AT 70°F
- 18" NON-COILED TOOL END. HOSE WILL NOT INTERFERE WITH TOOL USE.
- 360° WORKING 1/4" MALE PIPE SWIVEL FITTING ON BOTH ENDS
- TEMPERATURE -40°F TO +170°F



INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
1/4	3/8	15 FEET	A 54561
1/4	3/8	25 FEET	A 54562

FUEL LINE HOSE

- MANUFACTURED TO MEET OR EXCEED SAE J30R6, SAE J30R7 AND GM 6165M SPECIFICATIONS
- SUITABLE FOR USE WITH LEADED AND UNLEADED GASOLINE, ETHANOL AND METHANOL BASED GASOHOL AND DIESEL FUEL. DO NOT USE FOR FUEL INJECTION APPLICATION.
- CONSTRUCTED OF A NITRILE TUBE, 2-BRAID RAYON CORD REINFORCEMENT AND A HYPALON COVER
- RESISTS HEAT UP TO 257°F
- 175 PSI BURST STRENGTH



25 FOOT ROLL

INSIDE DIA.	OUTSIDE DIA.	PKG.	PART
1/4	1/2	25 FEET	A 54550
5/16	9/16	25 FEET	A 54551
3/8	5/8	25 FEET	A 54552

DOT FITTINGS – COMPOSITE

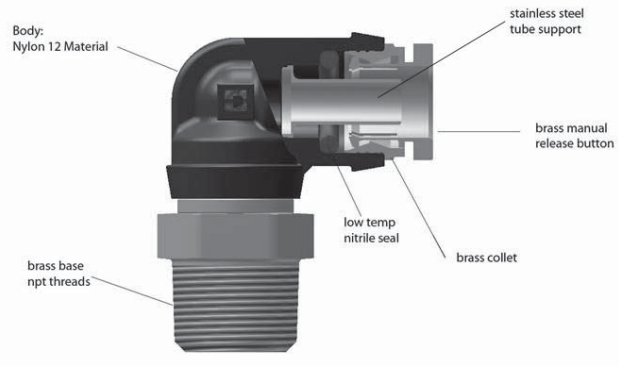
THE FASTEST CONNECTIONS FOR COMPRESSED AIR

Instant pneumatic/compressed air connections. Automatic locking and sealing to maximum working pressure. Release collar for instant removal of tubing.

Features

- **Optimum Flow**
  Full Flow: The gripping and sealing of the fitting is achieved using the outside diameter of the tube without deformation, compact yet no restriction in flow.
- **Immediate Seal**
  Seals in both static and dynamic applications.
- **Threads**
  Threaded bases - available in 1/8" to 1/2" NPT.
- **Buttons/Caps**
  Optional colored release buttons or caps.
- **Time Savings**
  Tube fitting assembly time is substantially reduced. Savings are on average, 80% of conventional compression fittings. The Instant Fitting System provides a 100% tubing lock. This feature eliminates the need for tightening. No special tools required for assembly.

DOT FMVSS 571.106
SAEJ1131
SAEJ2494-3



Technical Specifications

- **Materials**
  - Fitting Body: Brass
  - Collet: Brass
  - Tube Support: Stainless Steel
  - O-ring: BUNA N
  - Threads: Brass
- **Working Pressure:** Up to 250 psi
- **Working Temperature:** -40°F to +200°F
- **Suitable Fluids:**
  Compressed air only. Lubricated or non-lubricated.
- **Tubing:**
  Tubing used should be that specified in SAE J844 (Oct '80) which also meets NHTSA FMVSS 106.

MALE CONNECTOR

TUBE SIZE	NPT PIPE THREAD	PART	
5/32	1/8	I	44526
5/32	1/4	I	44527
3/16	1/8	I	44528
3/16	1/4	I	44529
1/4	1/8	I	44530
1/4	1/4	I	44531
1/4	3/8	I	44532
3/8	1/8	I	44533
3/8	1/4	I	44534
3/8	3/8	I	44535
3/8	1/2	I	44536
1/2	1/4	E	44537
1/2	3/8	E	44538
1/2	1/2	E	44539

MALE RUN TEE

TUBE SIZE	NPT PIPE THREAD	PART	
5/32	1/8	I	44574
5/32	1/4	I	44575
3/16	1/8	I	44576
1/4	1/8	I	44577
1/4	1/4	I	44578
1/4	3/8	I	44579
3/8	1/4	I	44580
3/8	3/8	I	44581
3/8	1/2	I	44582
1/2	1/4	E	44583
1/2	3/8	E	44584
1/2	1/2	E	44585

MALE ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
5/32	1/8	I	44540
3/16	1/8	I	44541
1/4	1/8	I	44542
1/4	1/4	I	44543
1/4	3/8	I	44544
3/8	1/4	I	44545
3/8	3/8	I	44546
3/8	1/2	I	44547
1/2	1/4	E	44548
1/2	3/8	E	44549
1/2	1/2	E	44550

DOT FITTINGS – COMPOSITE

MALE BRANCH TEE

TUBE SIZE	NPT PIPE THREAD		PART
5/32	1/8	I	44562
5/32	1/4	I	44563
3/16	1/8	I	44564
1/4	1/8	I	44565
1/4	1/4	I	44566
1/4	3/8	I	44567
3/8	1/4	I	44568
3/8	3/8	I	44569
3/8	1/2	I	44570
1/2	1/4	E	44571
1/2	3/8	E	44572
1/2	1/2	E	44573

MALE "Y" CONNECTOR

TUBE SIZE	NPT PIPE THREAD		PART
5/32	1/8	I	44586
1/4	1/8	I	44587
1/4	1/4	I	44588

FEMALE CONNECTOR

TUBE SIZE	NPT PIPE THREAD		PART
5/32	1/8	I	44551
5/32	1/4	I	44552
3/16	1/8	I	44553
1/4	1/8	I	44554
1/4	1/4	I	44555
3/8	1/4	I	44556
3/8	3/8	I	44557

UNION

TUBE SIZE		PART
5/32	I	44589
3/16	I	44590
1/4	I	44591
3/8	I	44592
1/2	E	44593

UNION ELBOW

TUBE SIZE		PART
5/32	I	44594
3/16	I	44595
1/4	I	44596
3/8	I	44597
1/2	E	44598

UNION TEE

TUBE SIZE		PART
5/32	I	44393
3/16	I	44394
1/4	I	44395
3/8	I	44396
1/2	E	44397

BULKHEAD UNION

TUBE SIZE		PART
5/32	I	44558
1/4	I	44559
3/8	I	44560
1/2	E	44561

"Y" UNION

TUBE SIZE		PART
5/32	I	44733
1/4	I	44734
3/8	I	44735

PLUG-IN ELBOW

TUBE SIZE		PART
1/4	I	44736

PLUG-IN RUN TEE

TUBE SIZE		PART
1/4	I	44737

PLUG-IN UNION TEE

TUBE SIZE		PART
1/4	I	44738

REDUCER

TUBE SIZE	NPT PIPE THREAD		PART
5/32	1/4	I	44398
1/4	3/8	I	44399

DOT AIR BRAKE BRASS PUSH-IN FITTINGS

GET YOUR VEHICLE CONNECTED

Advantages

- **Patented design of sizes 5/32" and above meet SAE J2494 and DOT FMVSS 571.106 air brake performance specifications.**
- **No special tools are needed to assemble. Just bottom the tubing in the fitting body for a positive seal.**
- **Stainless steel tube support in sizes 1/4" and above assures maximum flow and performance requirements of SAE J1131.**

Application

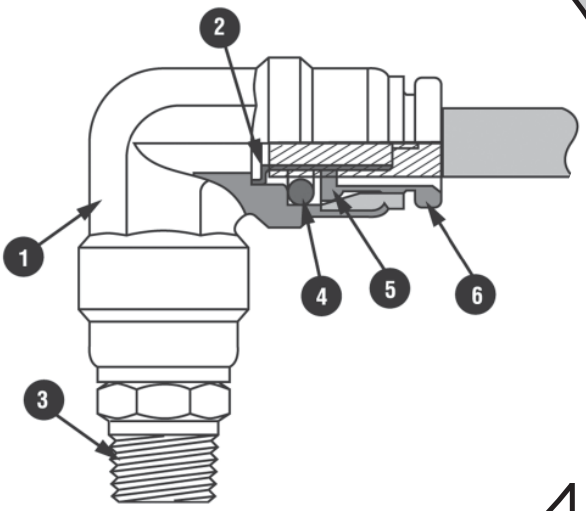
- **Use with SAE J844 type A & B nylon tubing. Designed for all DOT truck and trailer applications.**

Technical Data

- **Working pressure from vacuum to 250 psi.**
- **Working temperature:**
  -40° F to +200° F for 5/32", 1/4", 3/8", 1/2 fittings
  -40° F to +225° F for 5/8" fittings
- **Buna N (Nitrile) O-Rings.**

Inch Fittings

DOT FMVSS 571.106



Features

1. All brass body.
2. Stainless steel tube support assures maximum flow and performance characteristics.
3. Elbows and tees are available in swivel or rigid dryseal pipe threads. Swivels are designed for alignment purposes only.
4. Lubricated O-Ring Seal (Buna N) insures a quick, easy and positive seal.
5. Innovative Collet design insures positive grip on tubing.
6. Release button offers quick and easy disconnections.

Chromate air brake push-in fittings can be used in the same applications where you currently use NTA style compression air brake fittings. All sizes of these fittings 1/4" and above meet the requirements of DOT FMVSS 571.106 as well as SAE J1131, J2494-1, and J2494-3. Sizes less than 1/4" are designed for use in pressure protected air accessory lines that are isolated from the air brake system.

DOT AIR BRAKE BRASS PUSH-IN FITTINGS

STRAIGHT MALE CONNECTOR

TUBE SIZE	NPT PIPE THREAD	PART	
5/32	1/16	E	44742
5/32	1/8	E	44743
1/4	1/8	I	44739
1/4	1/4	I	44740
1/4	3/8	E	44741
3/8	1/8	E	44744
3/8	1/4	E	44745
3/8	3/8	E	44746
3/8	1/2	E	44747
1/2	1/4	E	44748
1/2	3/8	E	44749
1/2	1/2	E	44750
5/8	1/8	B	44906
5/8	1/4	B	44907

STRAIGHT UNION

TUBE SIZE	TUBE SIZE	PART	
5/32	5/32	B	44778
1/4	1/4	E	44779
3/8	3/8	B	44780
1/2	1/2	B	44781
5/8	5/8	B	44908

MALE SWIVEL BRANCH TEE

TUBE SIZE	NPT PIPE THREAD	PART	
1/4	1/4	B	44771
3/8	1/4	B	44772
3/8	3/8	B	44773
1/2	3/8	A	44774

FEMALE ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
1/4	1/4	E	44798

MALE SWIVEL RUN TEE

TUBE SIZE	NPT PIPE THREAD	PART	
1/4	1/8	B	44782
1/4	1/4	B	44783
3/8	1/4	B	44784
3/8	3/8	B	44785
1/2	3/8	A	44786
1/2	1/2	A	44787

UNION TEE

TUBE SIZE	TUBE SIZE	TUBE SIZE	PART	
1/4	1/4	1/4	B	44775
3/8	3/8	3/8	B	44776
1/2	1/2	1/2	B	44777
5/8	5/8	5/8	B	44909

MALE ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
5/32	1/8	E	44751
1/4	1/8	E	44752
1/4	1/4	E	44753
1/4	3/8	E	44754
3/8	1/4	E	44755
3/8	3/8	E	44756
3/8	1/2	E	44757
1/2	3/8	B	44758
1/2	1/2	B	44759
5/8	3/8	B	44910
5/8	1/2	B	44911

MALE BULKHEAD CONNECTOR

TUBE SIZE	NPT PIPE THREAD	PART	
3/8	1/2	B	44788
1/2	1/2	B	44789

MALE SWIVEL ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
1/4	1/8	E	44763
1/4	1/4	E	44764
1/4	3/8	E	44765
3/8	1/8	B	44766
3/8	1/4	B	44767
3/8	3/8	B	44768
1/2	3/8	B	44769
1/2	1/2	B	44770
5/8	3/8	B	44913
5/8	1/2	B	44914

45° MALE SWIVEL ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
5/8	1/2	B	44912

45° MALE ELBOW

TUBE SIZE	NPT PIPE THREAD	PART	
1/4	1/8	B	44790
1/4	1/4	B	44791
3/8	1/8	B	44792
3/8	1/4	B	44793
3/8	3/8	B	44794
1/2	1/4	B	44795
1/2	3/8	B	44796
1/2	1/2	B	44797
5/8	3/8	B	44915
5/8	1/2	B	44916

UNION ELBOW

TUBE SIZE	TUBE SIZE	PART	
1/4	1/4	B	44760
3/8	3/8	B	44761
1/2	1/2	B	44762

AURALLOY 610 RESEARCH

HIGH STRENGTH FLUX-CORED ALUMINUM BRAZING ALLOY

GENERAL PURPOSE TORCH BRAZING OF ALL WELDABLE ALUMINUM

FEATURES:
A specially engineered alloy with flux core center for faster, easier joining of all aluminum and aluminum alloys. Provides deep penetration in tight joints. Excellent for out of position brazing and build-up deposits.

TYPICAL APPLICATIONS:
- Motor Housings
- Tools
- Tanks
- Vats
- Ladders
- Utensiles
- Rails
- Beverage Cases
- Pulleys
- Sheaves

TECHNICAL DATA:
Tensile Strength: 30,000 PSI

WELDING TECHNIQUES:
Clean weld area, removing plating or anodized finish. Leave gap approximately 1/6". For thicker parts, cracks or butt joints, bevel a 60° to 70°vee. Use a carburizing flame (excess acetylene with oxygen) and heat work with flame 1" to 3" from surface. Touch rod to weld area depositing small amounts of alloy and allow to flow out and bond to base metal.

SIZE	1/8"
PART	E 8745

AURALLOY 620 RESEARCH

EASY-FLOW ALUMINUM ALLOY WIRE

FOR JOINING, FABRICATING AND REPAIRING OF MOST ALUMINUM GRADES

FEATURES:
Provides exceptional strength and ductility for general purpose joining, fabricating and repairing of most aluminum grades. Minimum preparation and low melt (950° - 1010° F) for ease of application. Thin flowing for tight fits. Perfect color match.

TECHNICAL DATA:
Tensile Strength: 35,000 PSI
For torch or tig welding.

TYPICAL APPLICATIONS:
- Poles
- Frames
- Bus Bars
- Sign Posts
- Guard Rails
- Furniture
- Structural Parts
- Housings

WELDING TECHNIQUES:
Clean joint with wire brush removing grease and oxides. Apply Auralloy 620 Flux. Using excess acetylene (carburizing) flame, keep torch in constant motion to uniformly heat area. When flux turns to clear liquid, start adding alloy to the joint.

SIZE	1/16"	3/32"	1/8"
PART	i 8750	i 8751	i 8752

AURALLOY 630 RESEARCH

EZ-WELD ALUMINUM ALLOY

BRAZING ROD FORMULATED FOR HIGH STRENGTH FABRICATION AND ALUMINUM REPAIR

FEATURES: Joints stronger than parent metal. Easy machining of welded areas. Non-corrosive joints. Low heat requirement (propane torch application). Superior strength and adhesion provides permanent seal and strength when subjected to extreme pressure. Contains no lead or cadmium.
TYPICAL APPLICATIONS: AUTOMOTIVE: Radiators, manifolds, transmission housings, pump housings, carburetors, motorcycles, running boards, mobile homes, recreational vehicles. TRADES: Plumbing, heating and A/C, power tools, farm equipment, storm shutters, screen enclosures, satellite dishes, sign companies, aluminum awnings, gutters and down spouts. MARINE: Hulls, leaking rivets, props, brass & bronze fittings, engine parts. HOUSEHOLD: Lawn furniture, doors/windows, bicycles, fishing rods, antiques.
WELDING TECHNIQUES: Clean the surface with a stainless steel brush. Heat the parent metal surface, NOT the E-Z Weld Aluminum Alloy. Apply the E-Z Weld to the heated surface. Keep flame in motion. Allow weld to air-cool naturally. Never plunge into water.

TECHNICAL DATA:
Tensile Strength (lbs./sq. inch): 47,000 PSI
Melting Range: 715°F - 730°F
Density: 25
Elongation: 3%
Compression Strength (lbs./sq. inch): 60-75,000
Shear Strength (lbs./sq. inch): 34,000
Electrical Conductivity: 24.9% of cu
Impact Strength: (Charpy) 4 ft. lbs. to break 1/4" bar
Thermal Conductivity: .24 cal/cu.cm
Hardness: (Brinell 100)
Corrosion Penetration: 300 x 10 in 11-R
Ductility: Good

SIZE	1/8"
PART	E 8733 (includes stainless steel wire brush P/N 41340)

AURALLOY RESEARCH 900 "GRANITE"

HARD SURFACING ELECTRODE

SUPERIOR IMPACT AND ABRASION RESISTANCE

FEATURES: A truly unique electrode combining unsurpassed weldability plus super impact and abrasion resistance and high hardness. It is the ideal alloy combination where hardness and toughness are required on carbon and alloy steels, manganese steels and cast iron.

TECHNICAL DATA:
Hardness: RC 56-60
Use any AC or DC coated electrode power sources.
On DC use reverse polarity.

TYPICAL APPLICATIONS:
Crusher jaws, hammers, bucket lips and teeth. Wear plates, pins, axles, shafts, cams, eccentrics.

WELDING TECHNIQUES: Prepare weld surface by chamfering to remove old overlays and loosely adhering metal. Use a cushion, if required. Deposit the electrode using any technique applicable such as stringer beading or weaving up to 4X. Allow each layer to cool somewhat before continuing. Remove slag between passes.

SIZE	1/8"	5/32"
AMPERAGE	80-135	120-160
PART	i 8735	i 8736

AURALLOY RESEARCH 910

HARD FACING CHROMIUM CARBIDE TUBULAR ELECTRODE

FOR APPLICATIONS SUBJECT TO HIGH ABRASION, COMPRESSIVE IMPACT LOADS AND EROSION

FEATURES: For manual application to large parts where deposition rate and job completion times are paramount. Easy to use and offers the greatest range of carbide bearing alloys to overcome a great variety of wear caused by abrasion, erosion, impact and heat. Designed for all position welding and can be used at low amperature to hardface thin edges on tillage tools and similar parts. A proprietary coating formulation is completely moisture-resistant and will survive storage in damp conditions for years. Can be applied to cast iron, manganese steel and mild steel without preheat; high carbon and alloy steels may require preheat.

TECHNICAL DATA:
Hardness: RC 55-60
Use with either AC or DC welding power sources.
Amperage: 70-125
TYPICAL APPLICATIONS: Ideal for hardfacing parts made from austenitic manganese steel. Dredge bucket lips, crusher jaws, crusher mantles and liners, manganese steel swing hammers, quarry screen plates, grizzly bars and feeder spots, and shovel buckets.

SIZE	1/4" x 18"
PART	J 8739

AURALLOY RESEARCH

HOLD-IT™
JIGGING / HEAT DAM PUTTY

- **HOLDS PARTS FIRMLY IN PLACE FOR "HANDS FREE" WELDING, BRAZING AND SOLDERING**
- **PROTECTS MATERIAL SURFACES FROM HEAT**
- **ELIMINATES HEAT DAMAGE SUCH AS BUCKLING, WARPING, DISTORTION AND DISCOLORATION**
- **WITHSTANDS TEMPERATURES OF 3,000°F**
- **MAINTAINS SHAPE WHEN HEATED**
- **USE ON ANY HORIZONTAL, VERTICAL OR OVERHEAD SURFACE**

DIRECTIONS: Apply a thin layer of Hold-It™ putty, covering the entire area to be protected. In extreme heat, use a thicker covering. If surface is affected by moisture, use a sheet of impervious plastic as a barrier and then apply Hold-It™ putty. When using as a jigging putty, treat each part to be held separately by placing in individual mounds of putty. Wipe off and clean with water.

SIZE	2 LB. CONTAINER
PART	A 8800

AURALLOY RESEARCH

BRAZING/ SOLDERING FLUXES

500 FLUX: LIQUID SOLDERING – For difficult soldering applications. Especially active for use on stainless related alloys. Non-fuming. Completely water soluble. Use with Auralloy 500 Silver Solder when additional flux is required.

620 FLUX: ALUMINUM BRAZING (POWDER) – Becomes active well below the melting temperature of the aluminum and produces maximum flow of the brazing alloy. Easy to use as a powder or paste with Auralloy 620 aluminum brazing rods.

700 FLUX: SILVER BRAZING (LIQUID) – Dissolves surface oxides and protects joint area to improve bonding and wetting action of all silver brazing wires. Particularly useful when joining stainless steel and high alloy steels. When additional power is required use with Auralloy 700 silver brazing rods.

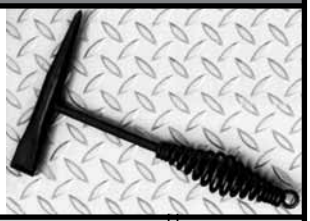
825 FLUX: GENERAL PURPOSE (LIQUID PASTE) – "Wide Range" brazing flux designed to improve results when joining cast iron, mallable iron, copper, brass, bronze and steel. For use in applications not requiring specialized fluxes.

	500 FLUX	620 FLUX	700 FLUX	825 FLUX
SIZES	1 Pint Bottle	6 oz. Jar	1 lb. Jar	8 oz. Jar
PART	A 8787	A 8790	A 8796	A 8798

AURALLOY ACCESSORIES

WELDER'S CHIPPING HAMMER

- SOLID STEEL
- SHARP 1" BLADE ON ONE END, TAPERS TO A POINT ON THE OTHER END
- COIL SPRING HANDLE FOR SHOCK AND HEAT DISSIPATION
- RUST RESISTANT, BLACK OXIDE FINISH



BLADE	LENGTH	HEAD WEIGHT		PART
Horizontal	10*	16 oz.	A	8867
Vertical	10*	16 oz.	A	8868

WELDING MAGNET

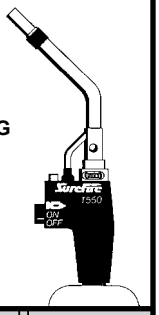
- MULTIPLE ANGLES: 30°, 45°, 60°, 75° and 90°
- IDEAL WELDING AID
- SPECIAL POWDER COATING FINISH TO RESIST WELD SPATTER
- OVERALL DIMENSIONS: 3-3/4 X 2-1/2

DESCRIPTION		PART
Multi-Angle Clamping Welding Magnet	A	8869

SUREFIRE® PROPANE TORCH

- DESIGNED FOR PROFESSIONAL USE*
- IGNITES AUTOMATICALLY
- INSTANT ON – INSTANT OFF!
- NO MATCHES!
- VARIABLE FLAME ADJUSTMENT
- TRIGGER LOCK PROVIDES CONTINUOUS BURNING
- IGNITES AND BURNS UPSIDE DOWN
- 3400°F AT TIP – BRAZE AND SOLDER COPPER PIPE, LIGHT STEEL AND SHEET METAL
- PRESSURE REGULATOR PROVIDES EVEN FLOW OF GAS IN ALL POSITIONS
- SAFE AND EASY TO USE

*Not available in mass-market retail stores



DESCRIPTION		PART
Surefire® Self-Igniting Propane or Mapp Torch	A	8866

MAPP® GAS CYLINDER

- FOR BRAZING, WELDING OR SOLDERING – BURNS HOTTER THAN PROPANE
- CYLINDER HAS 1" - 20 THREADED FUEL OUTLET VALVE THAT FITS ALL STANDARD PROPANE TORCHES
- NON-REFILLABLE CYLINDER MEETS DOT 39 SPECIFICATIONS
- 16 OZ.

DESCRIPTION		PART
16 oz. Mapp® Gas Cylinder	A	8875

SOLDER PRO 180™

- EQUIVALENT TO A 185-WATT SOLDERING IRON AND 2500°F TORCH
- POWERED BY PATENTED REFILLABLE LIQUID ENERGY CELL (LEC)
- COMES WITH 3.4MM CHISEL SOLDERING TIP AND BLOW TORCH HEAD, 2 LECS
- SAFELY TRAVELS ANYWHERE WITHOUT HAZARD
- CORDLESS, SIMPLE AND SAFE TO OPERATE IN ALMOST ANY CONDITION
- READY TO USE IN 30 SECONDS AFTER IGNITION
- TIPS CHANGE IN SECONDS FOR SOLDERING GUN, TORCH OR HOT AIR BLOWER
- REMOVABLE LEC™ CONTAINS POWER FOR UP TO 120 MINUTES
- RECHARGE FROM BUTANE FUEL AVAILABLE ALMOST ANYWHERE
- FREE STANDING – DOES NOT REQUIRE SEPARATE STAND

SPECIFICATIONS:

Length w/soldering tip	203mm (8in)
Weight (with LEC™)	560 g
Approximate temp. soldering tip	250-550°C (480-1000°F)
Torch	1300°C (2500°F)
Gas container capacity	40 ml
Operating Time (one gas filling)	100 min @ mid setting

DESCRIPTION		PART	TIP STYLE		PART	TIP STYLE		PART
Solder Pro 180™ with LEC™ Power Technology	A	8842	Heat Blower	A	8842PS70	Deflector	A	8842PS80

EXCALIBER BUTANE SOLDER / TORCH KIT

- BUTANE POWERED, SELF-IGNITING, PORTABLE, MULTI-FUNCTION HEAT TOOL
- 30W TO 100W POWER RANGE
- AUTOMATIC PIEZO IGNITION
- COMPLETE PORTABILITY
- COMFORTABLE GRIP
- RAPID TIP HEAT-UP
- COMPLETE WITH: 5 TIPS – CONICAL, HOT KNIFE, HEAT BLOWER, REFLECTOR, PLUS 2 SPECIALTY SOLDER TIPS, 17 GRAM TUBE 60/40 SOLDER, COOLING/CLEANING SPONGE AND HEAVY DUTY ULTRA-BOX

SPECIFICATIONS:

Approximate Temperatures:	
Soldering Tip	250-500°C (480-950°F)
Torch	1300°C (2400°F)
Hot Knife	200-350°C (400-660°F)
Heat Blower	250-500°C (480-950°F)
Gas Container Capacity	15 grams
Operating Time (one gas filling)	70 min at mid-setting

P/N 8843

DESCRIPTION		PART
EXCALIBER BUTANE SOLDER / TORCH KIT	A	8843

SAFETY ACCESSORIES

PROTECTION FOR INDUSTRIAL JOBS

BIONIC® SHIELD

ULTIMATE COMFORT AND SUPERIOR PROTECTION
THE BIONIC SHIELD REDEFINES A HIGHER LEVEL OF TECHNOLOGY IN THE FACESHIELD CATEGORY. ITS ADVANCED ERGONOMIC DESIGN COMBINES SUPERIOR PROTECTION AND ALL-DAY COMFORT WITH THE KIND OF EASY-TO-USE FEATURES THAT WORKERS DESIRE.

- **ENHANCED PROTECTION FROM AIRBORNE DEBRIS**
- **EXCELLENT OPTICS AND INCREASED VISIBILITY**
- **EASILY REPLACEABLE VISOR WITH DUAL POSITION CHOICES**
- **SECURE VISOR ATTACHEMENT**
- **LIGHTWEIGHT AND BALANCED, ERGONOMIC DESIGN FOR EXTENDED USE**
- **COMFORTABLE CELL FOAM ON BACK OF HEADGEAR**
- **BREATHABLE, REMOVEABLE, WASHABLE HEADBAND**
- **BLACK MATTE FINISH**
- **COMFORTABLY WORN WITH MOST GOGGLES AND RESPIRATORS**
- **FACESHIELD OFFERS SECONDARY PROTECTION AND MUST BE WORN WITH SPECTACLES OR GOGGLES**
- **PERFECT FOR WORKERS EXPOSED TO FALLING OR FLYING OBJECTS, IMPACT, CHEMICAL SPLASH, AND AIRBIORNE DEBRIS**
- **HARDHAT ACCESSORY IS COMPATIBLE WITH MULTIPLE HARDHATS, INCLUDING WILLSON® AND MOST MAJOR COMPETITOR STYLES**
- **LEAVES SLOTS FREE**
- **IS 100% DIELECTRIC – AND NO METAL PARTS**

DESCRIPTION		PART
Bionic Shield	A	8876
Bionic Shield Replacement Visor	A	8877
Bionic Shield Replacement Visor (Shaded 5.0)	A	8878
Bionic Shield Hardhat Adapter	A	8879

VEHICLE SNOW REMOVER

PUSH SNOW AWAY FAST!

WILL NOT SCRATCH PAINT OR LEAVE SCUFF MARKS!

- **Quickly sweep off snow and push it away**
- **Oversized head safely removes snow from vehicles, trailers, awnings, spa covers, and all other delicate surfaces**
- **Push heavy, wet snow off the roof, hood, and trunk without scratching the paint, leaving scuff marks, or harming the finish or fabric**
- **Features the same high grade and durable foam, crosslinked polyethylene, used by auto dealers to clear dozens of cars after snow storms**
- **Telescoping handle**
- **Made in the USA**

DESCRIPTION		PART
Vehicle Snow Remover	A	78029

GLOVES

SUPER GRIP GLOVES

- **Heavy coat premium yellow PVC**
- **Surface of granulated plastic particles for super grip & long wear**
- **Superior resistance to cutting**
- **12" length**
- **Uses:** roto-rooter, fishing, water & sewer work, plywood manufacturing, heavy parts

(PAIR)

DESCRIPTION		PART
SUPER GRIP GLOVES	A	59048

GRIP PVC JERSEY LINED GLOVES

- **Green, fully coated PVC work gloves**
- **Features a jersey lining with superior sandpaper grip finish**

(PAIR)

DESCRIPTION		PART
GRIP PVC JERSEY LINED GLOVES	F	59045

PVC SAFETY ORANGE FOAM LINED GLOVES

- **PVC coating resists chemicals, grease and oils**
- **Foam lining for optimum warmth and comfort**
- **Knit wrist**

(PAIR)

DESCRIPTION		PART
PVC GLOVES (LARGE)	C	59047
PVC GLOVES (SMALL)	C	59047SMALL

NEOPRENE GLOVES

- **Multi-dipped in premium-grade neoprene** ***(PAIR)***
- **Offers superior durability against acids, caustics, oils, greases and many solvents**
- **Provides extra protection against cuts and punctures**
- **Rough finish offers great gripping capabilities**

DESCRIPTION		PART
ROUGH FINISH NEOPRENE GLOVES	A	59033

PREMIUM KNIT RUBBER COATED PALM

- **White knit for comfort**
- **Blue latex palm coated for excellent grip**
- **Provides superior fit and dexterity**
- **Resists cuts and abrasion**

(PAIR)

DESCRIPTION		PART
PREMIUM KNIT RUBBER COATED (LARGE)	C	59044
PREMIUM KNIT RUBBER COATED (X-LARGE)	C	59044XL

CUT RESISTANT GLOVES – KEVLAR®/STAINLESS STEEL COMPOSITE

- Cut resistance is ASTM level 4/CE level 5
- Blend of Kevlar®, wire-core steel and Cordura nylon for stellar cut protection
- Over a quarter-mile of steel in each glove
- Cut and abrasion-resistance is twice that of a regular Kevlar® glove
- PU coating has a very low particulate shed, offers good grip
- High abrasion resistance with great comfort and dexterity

(PAIR)

Applications

Sharp Steel • Circuit Boards • Automotive • Metal Fabrication • Assembly • Sheet Metal Work

DESCRIPTION		PART
Cut Resistant Gloves (Medium)	A	59055MED
Cut Resistant Gloves (Large)	A	59055LARGE
Cut Resistant Gloves (Extra Large)	A	59055XL

GLOVE DISPENSER

- **STORE YOUR BOXES OF GLOVES IN AN EASILY ACCESSIBLE LOCATION**
- **HOLDS MOST POPULAR BRANDS OF GLOVES**
- **STAINLESS STEEL TENSION SPRING KEEPS BOXES SECURELY IN PLACE**
- **DISPENSERS HAVE TWO 1/2" SLOTTED MOUNTING HOLES FOR WALL MOUNTING (FASTENERS INCLUDED)**
- **DURABLE AND ATTRACTIVE WHITE POWDER COATED FINISH IS RUST AND ACID RESISTANT**
- **DIMENSIONS:** 5-11/16" W x 3-13/16" D x 10" H

DESCRIPTION		PART
Glove Dispenser	A	50020

GLOVES – NITRILE

NITRILE CHEMICAL RESISTANT GLOVES

- Resistant to most solvents and parts cleaners
- Stronger and more puncture resistant than regular latex gloves
- Hypoallergenic for hands sensitive to latex
- Snug fit helps keep liquids from leaking on hands
- Disposable, convenient, single-use saves clean-up time
- Made of 100% non-sterile nitrile polymer

100 GLOVES PER BOX

DESCRIPTION		PART
BLUE NITRILE GLOVES (X-LARGE)	A	59035
BLUE NITRILE GLOVES (LARGE)	A	59034
BLUE NITRILE GLOVES (MEDIUM)	A	59034MED
BLUE NITRILE GLOVES (SMALL)	A	59034SMALL

NITRILE GLOVES – FLOCK LINED

- **Provides excellent protection against cuts, abrasion, punctures**
- **Superior resistance to a broad range of solvents, animal fats and other chemicals**
- **Case hardened finish enhances chemical and abrasion resistance, while making them easier to pull on and off**
- **Non-slip grip makes wet work easier and safer**
- **Ergonomic design maximizes comfort**

DESCRIPTION		PART
NITRILE GLOVES – FLOCK LINED (LARGE)	F	59037
NITRILE GLOVES – FLOCK LINED (MEDIUM)	F	59037MED

NITRILE CHEMICAL RESISTANT GLOVES

- **Resistant to most solvents and parts cleaners**
- **Stronger and more puncture resistant than regular latex gloves**
- **Snug fit helps keep liquids from leaking on hands**
- **Disposable, convenient, single-use saves clean-up time**
- **Made of 100% non-sterile nitrile polymer**

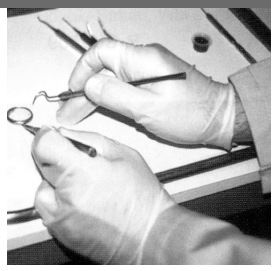
100 GLOVES PER BOX

DESCRIPTION		PART
BLACK NITRILE GLOVES (M)	A	59054MED
BLACK NITRILE GLOVES (L)	A	59054LARGE
BLACK NITRILE GLOVES (XL)	A	59054XL
BLACK NITRILE GLOVES (XXL)	A	59054XXL

GLOVES – LATEX

INDUSTRIAL LATEX GLOVES

- **Industrial-use, pre-powdered glove**
- **Wrist-length, reinforced rolled cuffs**
- **5 mils thick**
- **Stretches to fit**
- **Excellent sensitivity and touch**



(PAIR)
100/BOX

DESCRIPTION		PART
LATEX DISPOSABLE GLOVES (LARGE)	A	59032
LATEX DISPOSABLE GLOVES (X-LARGE)	A	59032XL

BLUE LIGHTNING GLOVES – LATEX

BLUE LATEX / POWDER FREE APPROVED FOR MEDICAL USE

50 GLOVES PER BOX

- **Extra long 12" cuff for added protection**
- **15 mils thick – super strength**
- **Additionally processed to remove extra latex proteins from the glove, which may reduce the risk of latex allergies.**
- **Meets or exceeds the emergency medical glove requirements of NFPA 1999, Standard on Protective Clothing for Emergency Medical operations, 2013 edition.**
- **Textured fingertips and smooth palm**

DESCRIPTION		PART
BLUE LIGHTNING GLOVES (X-LARGE)	A	59215XL
BLUE LIGHTNING GLOVES (LARGE)	A	59215LARGE
BLUE LIGHTNING GLOVES (MEDIUM)	A	59215MED
BLUE LIGHTNING GLOVES (SMALL)	A	59215SMALL

ABSORBENTS

FLUID ABSORBENTS – UNIVERSAL

Universal Rolls, Pads, Socks, and Drum Tops are made with Q-CEL™ technology! Q-CEL™ technology is the most significant absorbent development in almost 20 years! Industry Leading... You can take care of almost 90% of your industrial spill control with just a few absorbents.

Universal Absorbent Rolls
The market leader in absorbency vs. major competitors. Use for oil and water applications only, not for use with aggressive acids or caustics. The rolls have perforated tear-off sheets every 19". Made with recycled fibers. Class A fire retardant.

Universal Absorbent Pads
The market leader in absorbency vs. major competitors. Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

Universal Absorbent Socks
Designed to meet the absorbency that you expect. Our socks provide great moldability in the workplace, ensuring the perfect fit for each job. Packed with our recycled fibers to help save our environment and yet is still a fast-acting sorbent. Definitely one of our best products yet! Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

Drum Tops
Big bulk, laminated Drum Top Pads, keep liquids from getting to the floor so there is no messy or hazardous cleanup. Use for oil and water applications only, not for use with aggressive acids or caustics. Made with recycled fibers. Class A fire retardant.

DESCRIPTION		PART
Universal Absorbent Roll, 28.5" x 125', perforated	A	28222
Universal Absorbent Socks, Gray Socks, 3" x 45"	I	28218
Universal Absorbent Pads, Gray Pads, 15" x 19", Laminated – Standard	T	28219
Drum Top Absorbent 22"	I	28224

FLUID ABSORBENTS – UNIVERSAL SPILL KIT – PORTABLE 10" BUCKET

Universal Spill Kit
Designed to handle small and medium spills. Universal absorbents are packed inside our patented bucket to keep the contents inside safe from liquids.
Use for oil and water applications only, not for use with aggressive acids or caustics.
Made with recycled fibers. Class A fire retardant.

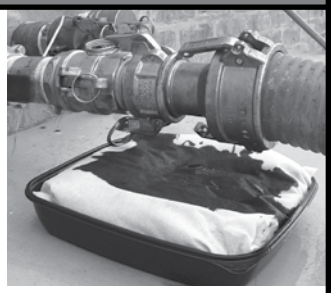
Spill Kit Contents:
- 6 Universal Pads (Basic Version)
- 2 Universal Socks
- 1 Hazardous Waste Disposal Bag (with plastic tie)
- 1 Pair Industrial Gloves

DESCRIPTION		PART
Universal Spill Kit	A	28230

ABSORBENTS – OIL ONLY

OIL EATER ABSORBENT DRIP PAN

The new Oil Eater Absorbent Drip pan is designed for leaks that occur in tight spaces – such as under machinery and pipes – and are too big for an absorbent pad. The Drip Pan is made of sturdy plastic and houses an eco-friendly absorbent pillow made of plant fibers and other renewable resources. When soiled, the pillow is easily removed and replaced with a new one.



DESCRIPTION		PART
Drip Pan (10" x 12" x 2")	A	28231
Replacement Pillow	A	28232

OIL ONLY ROLLS

- Oil Only Rolls are made with meltblown polypropylene.
- They are a standard grade absorbent used for oil spills.
- The rolls have perforated tear-off sheets every 19".

DESCRIPTION		PART
Oil Only Absorbent Roll, 36" x 130', Perforated	A	28223

OIL ONLY SPILL CONTAINMENT KIT – PORTABLE FIVE-GALLON PAIL

Take everything you need to clean up hazardous materials directly at the spill site.

Includes:
- 5 sorbent socks
- 5 sorbent sheets
- One pair of nitrile gloves
- Polyethylene pail with cover

Features and Benefits
- Oil only kit – Will not absorb water
- Ideal for service vehicles and for other confined areas
- Use in multiple locations
- Compact – Easy storage
- Light weight: 12 lbs
- Helps you in complying with EPA 40 CFR263.30 (a)

DESCRIPTION		PART
Oil Only Spill Containment Kit	A	28228

ABSORBENTS – RAILROAD CONTAINMENT

TRACK MAT – RAILROAD CONTAINMENT ABSORBENT

**For preventing or controlling oil spills, leaks, and drips,
The Track Mat is capable of absorbing nearly three gallons**

of oil or other petroleum products per square yard.

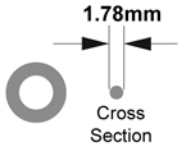
Our Track Mat is the heaviest, thickest and most absorbent barrier mat available. Its unique 3-ply construction includes an oil only polypropylene core, surrounded by an impenetrable barrier film that prevents absorbed liquids from leaching out. It also has a UV resistant cover-stock, providing an outdoor life of 12 to 18 months.

The Track Mat was originally designed for use between and outside railroad tracks, it is also widely used by transportation companies, utilities, refineries, steel mills, and in other environments in which a high absorbency barrier is required.

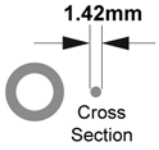
DESCRIPTION		PART
Track Mat Inner Roll, 59" x 100'	A	28226
Track Mat Outer Roll, 19" x 100'	B	28227

A/C SERVICE COMPONENTS

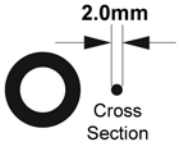
R12 AND R-134a COMPATIBLE A/C O-RINGS



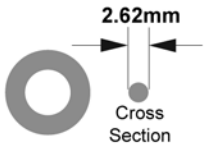
P/N 59745
CAPILLARY TUBE O-RING
Package Quantity: I



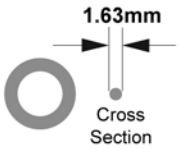
P/N 59746
NISSAN 6MM STV,
EXP VALVE O-RING
Package Quantity: I



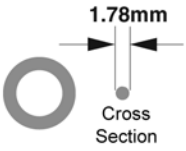
P/N 59747
HYUNDAI SERVICE
O-RING
Package Quantity: I



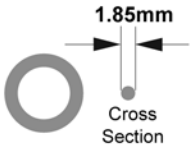
P/N 59748
6 GM CAPTIVE O-RING
Package Quantity: I



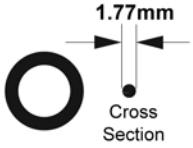
P/N 59749
NISSAN 16MM
HOSE FITTING O-RING
Package Quantity: I



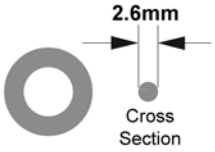
P/N 59750
NISSAN M8 EXPANSION
VALVE O-RING
Package Quantity: I



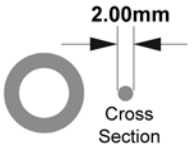
P/N 59751
NISSAN METRIC
SERVICE O-RING
Package Quantity: I



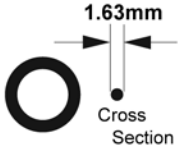
P/N 59752
SUBARU / MAZDA FILTER
DRIER/SRVC O-RNG
Package Quantity: I



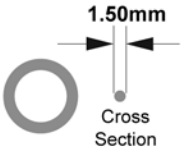
P/N 59753
JAGUAR SERVICE O-RING
Package Quantity: I



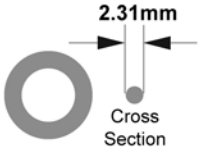
P/N 59754
GENERAL MOTORS
ORIFICE TUBE O-RING
Package Quantity: I



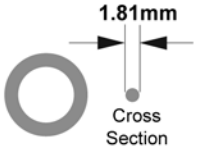
P/N 59755
GM METRIC ORIFICE
TUBE O-RING
Package Quantity: I



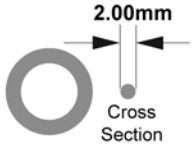
P/N 59756
M7 TOYOTA/IMPORT HOSE
FITTING/DRIER O-RING
Package Quantity: I



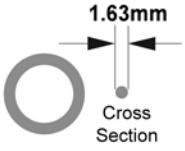
P/N 59757
RANGE ROVER
SERVICE O-RING
Package Quantity: I



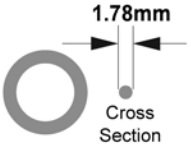
P/N 59758
FORD #6 METRIC SPRING
LOCK FTG O-RING
Package Quantity: I



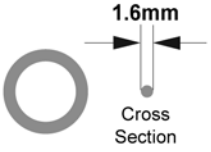
P/N 59759
MERCEDES R-134A
SERVICE O-RING
Package Quantity: I



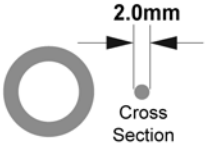
P/N 59760
FORD ORIFICE
TUBE O-RING
Package Quantity: I



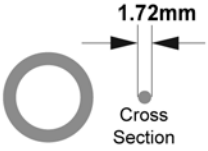
P/N 59761
#6 HOSE FITTING/FILTER
DRIER O-RING
Package Quantity: I



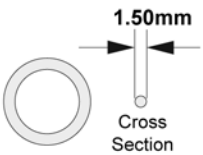
P/N 59762
JAGUAR SERVICE O-RING
Package Quantity: I



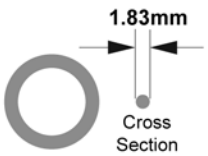
P/N 59763
FORD PRESSURE
CYCLING SWITCH O-RING
Package Quantity: I



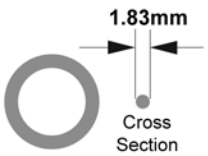
P/N 59764
JAGUAR SERVICE O-RING
Package Quantity: I



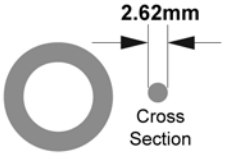
P/N 59765
VOLVO SERVICE O-RING
Package Quantity: I



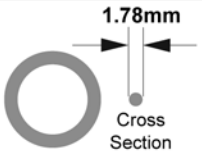
P/N 59766
GM LOW SIDE
PORT O-RING
Package Quantity: I



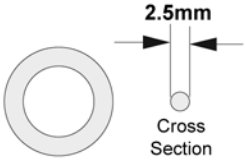
P/N 59767
HIGH PRESSURE RELIEF
VALVE O-RING
Package Quantity: I



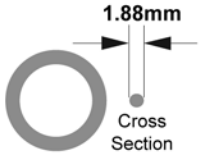
P/N 59768
#8 GM CAPTIVE O-RING
Package Quantity: I



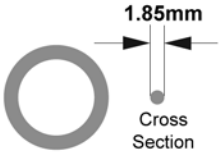
P/N 59769
GM & FORD PRES
CYCLG SWITCH O-RING
Package Quantity: I



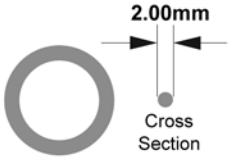
P/N 59770
VOLVO SERVICE O-RING
Package Quantity: I



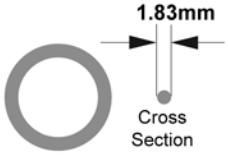
P/N 59771
GM 1/2" DUAL
METRIC O-RING
Package Quantity: I



P/N 59772
FORD #8 METRIC
SPRINGLOCK O-RING
Package Quantity: I



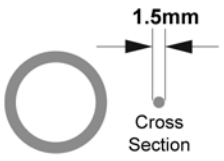
P/N 59773
MERCEDES R-134A
SERVICE O-RING
Package Quantity: I



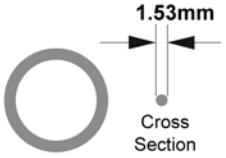
P/N 59774
COMPRESSOR
DISCHARGE FTG O-RING
Package Quantity: I

A/C SERVICE COMPONENTS

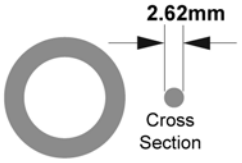
R12 AND R-134a COMPATIBLE A/C O-RINGS



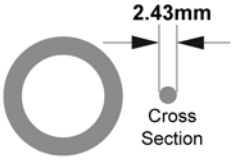
P/N 59775
TOYOTA SERVICE O-RING
Package Quantity: I



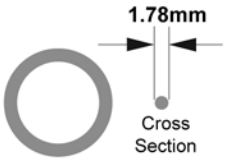
P/N 59776
TOYOTA SERVICE O-RING
Package Quantity: I



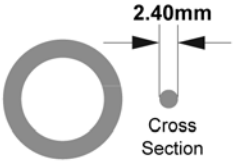
P/N 59777
NISSAN M12 COMP
DISCHARGE O-RING
Package Quantity: I



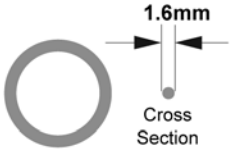
P/N 59778
GM / SUZUKI M11 R-134A
EXP VLV O-RNG
Package Quantity: I



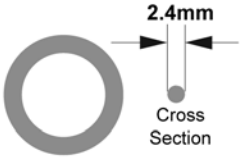
P/N 59779
#8 HOSE FITTING O-RING
Package Quantity: I



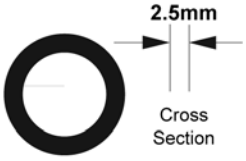
P/N 59780
NISSAN METRIC
SERVICE O-RING
Package Quantity: I



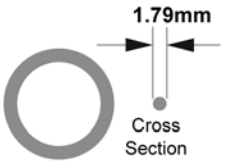
P/N 59781
JAGUAR SERVICE O-RING
Package Quantity: I



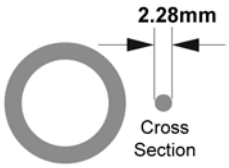
P/N 59782
NISSAN R-134A
SERVICE O-RING
Package Quantity: I



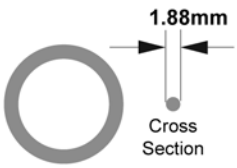
P/N 59783
HONDA/ACURA/LXS/TYTA
SRVC VLV O-RNG
Package Quantity: I



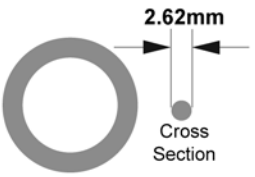
P/N 59784
VW/AUDI SERVICE O-RING
Package Quantity: I



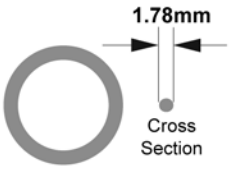
P/N 59785
COND M11 O-RING
US & IMPORT VHCL
Package Quantity: I



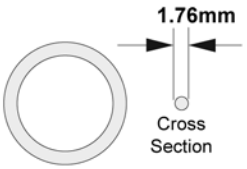
P/N 59786
GM 5/8" DUAL
METRIC O-RING
Package Quantity: I



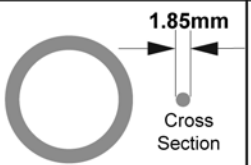
P/N 59787
#10 GM CAPTIVE O-RING
Package Quantity: I



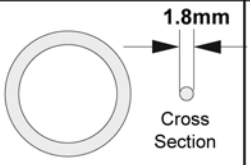
P/N 59788
#8 COMPRESSION
FITTING O-RING
Package Quantity: I



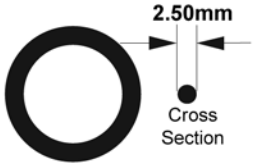
P/N 59789
VOLVO SERVICE O-RING
Package Quantity: I



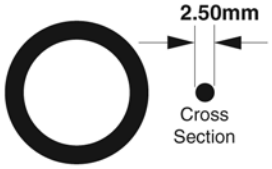
P/N 59790
FORD #10 METRIC
SPRINGLOCK O-RING
Package Quantity: I



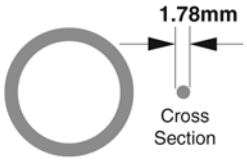
P/N 59791
VOLVO SERVICE O-RING
Package Quantity: I



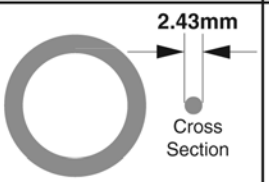
P/N 59792
IMPORT SERVICE
VALVE O-RING
Package Quantity: I



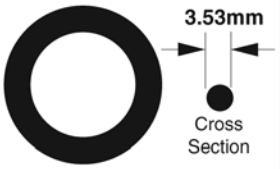
P/N 59793
IMPORT SUCTION
FLANGE O-RING
Package Quantity: I



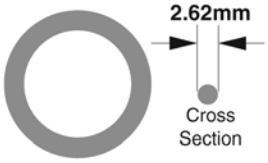
P/N 59794
HYUNDAI SERVICE
O-RING
Package Quantity: I



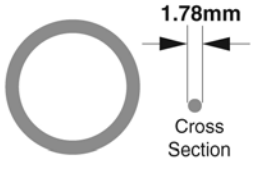
P/N 59795
NISSAN R-134A
SERVICE O-RING
Package Quantity: I



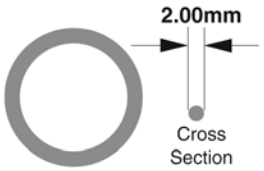
P/N 59796
SAAB COMPRESSOR
PORT O-RING
Package Quantity: I



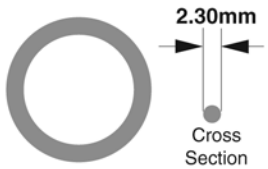
P/N 59797
#12 GM CAPTIVE O-RING
Package Quantity: I



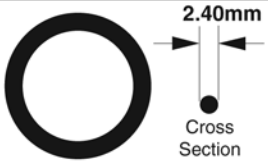
P/N 59798
#10 HOSE FITTING
O-RING
Package Quantity: I



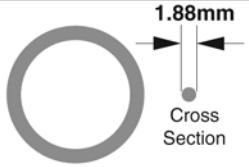
P/N 59799
NIHON DKV14C
DISCHARGE PORT O-RING
Package Quantity: I



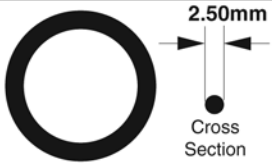
P/N 59800
NISSAN R-134A
SERVICE O-RING
Package Quantity: I



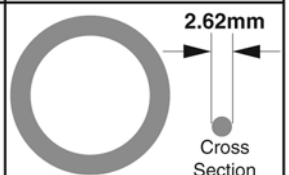
P/N 59801
IMPORT DISCHARGE
FLANGE O-RING
Package Quantity: I



P/N 59802
GM 3/4" DUAL
METRIC O-RING
Package Quantity: I



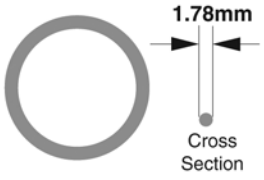
P/N 59803
NISSAN SERVICE
VALVE O-RING
Package Quantity: I



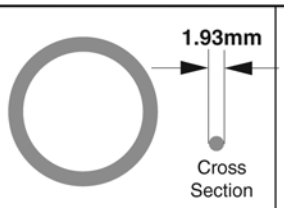
P/N 59804
SANDEN COMP PAD
MOUNT DSCHRG O-RNG
Package Quantity: I

A/C SERVICE COMPONENTS

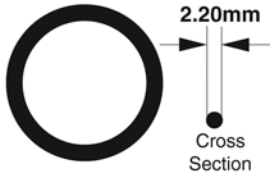
R12 AND R-134a COMPATIBLE A/C O-RINGS



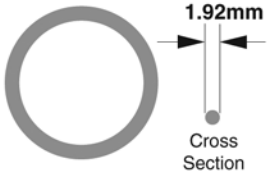
P/N 59805
GM #12 HOSE
FITTING O-RING
Package Quantity: I



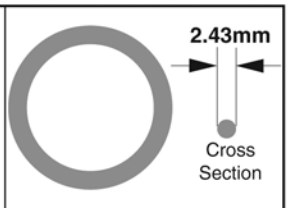
P/N 59806
FORD #12 METRIC
SPRINGLOCK O-RING
Package Quantity: I



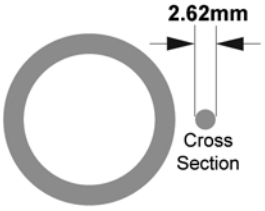
P/N 59807
IMPORT SERVICE
VALVE O-RING
Package Quantity: I



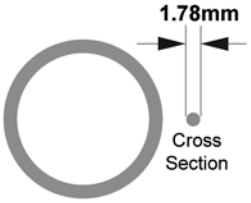
P/N 59808
CONTROL VALVE
UPPER O-RING
Package Quantity: I



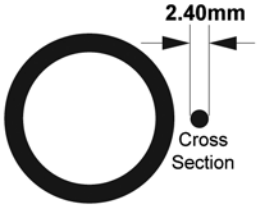
P/N 59809
SERVICE VALVE
O-RING
Package Quantity: I



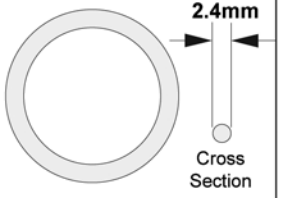
P/N 59810
DIESEL 17G DISCHARGE
PORT O-RING
Package Quantity: I



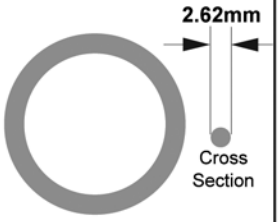
P/N 59811
#12 HOSE FITTING
O-RING
Package Quantity: I



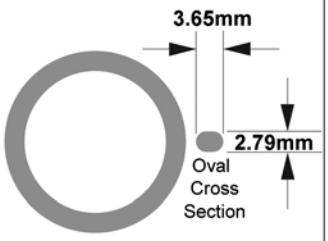
P/N 59812
IMPORT SERVICE
VALVE O-RING
Package Quantity: I



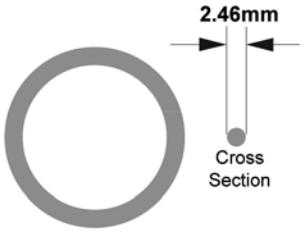
P/N 59813
VOLVO SERVICE O-RING
Package Quantity: I



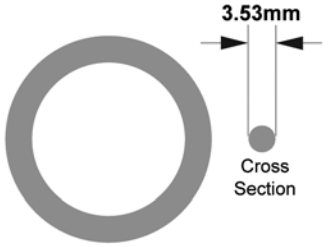
P/N 59814
10P COMP SUCTION/
DISCHARGE PORT O-RING
Package Quantity: I



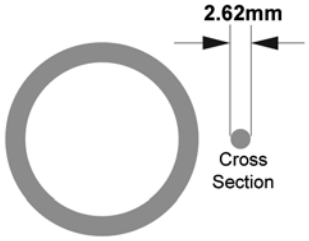
P/N 59815
FORD OVAL SERVICE
VALVE O-RING
Package Quantity: I



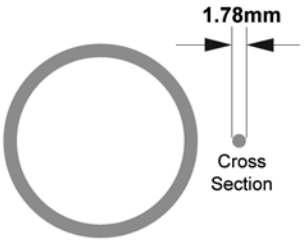
P/N 59816
DOMESTIC COMP
SERVIC PORT O-RING
Package Quantity: I



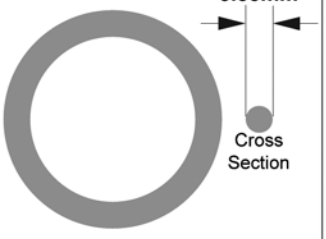
P/N 59817
GM SERVICE
VALVE O-RING
Package Quantity: I



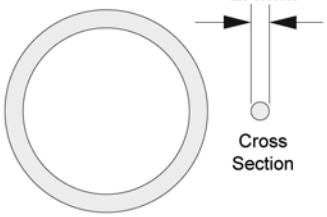
P/N 59818
SANDEN SUCTION
PORT O-RING
Package Quantity: I



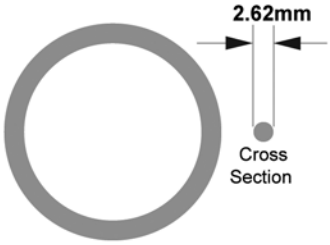
P/N 59819
AUDI/VOLKSWAGEN
SERVICE PORT O-RING
Package Quantity: I



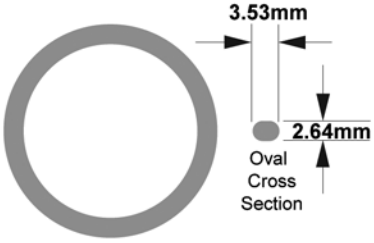
P/N 59820
GM SERVICE
VALVE O-RING
Package Quantity: I



P/N 59821
VOLVO SERVICE
O-RING
Package Quantity: I



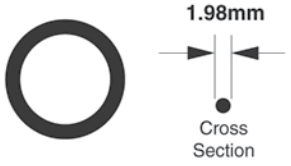
P/N 59822
CHRYS RV2
DISCHARGE O-RING
Package Quantity: I



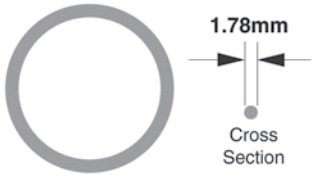
P/N 59823
GM OVAL SERV O-RING
Package Quantity: I

A/C SERVICE COMPONENTS

SEALS AND GARTER SPRINGS / LUBRICANT



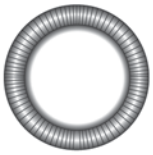
P/N 59824
GENERAL MOTORS
11MM O-RING
Package Quantity: I



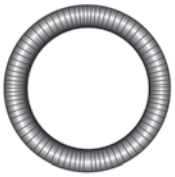
P/N 59825
CONTROL VALVE
UPPER O-RING
Package Quantity: I

P/N 59826
COMPRESSOR ROTOLOCK
TEFLON SEAL
Package Quantity: I

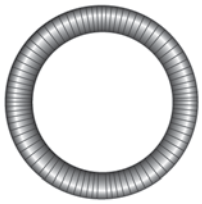
P/N 59827
MERCEDES SCTN
DISCHARG MANIFOLD SEAL
Package Quantity: I



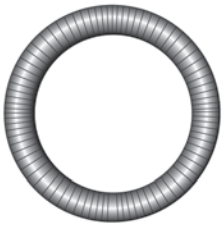
P/N 59828
CHRYSLER, FORD #6
GARTER SPRING
Package Quantity: I



P/N 59829
CHRYSLER, FORD # 8
GARTER SPRING
Package Quantity: I



P/N 59830
CHRYSLER, FORD #10
GARTER SPRING
Package Quantity: I



P/N 59831
CHRYSLER, FORD #12
GARTER SPRING
Package Quantity: I

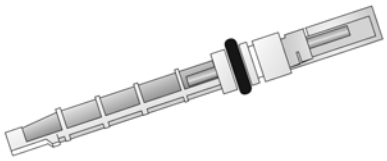
P/N 59832
R12 / R-134A POE
OIL TUBE 4CC
Package Quantity: I

P/N 74396

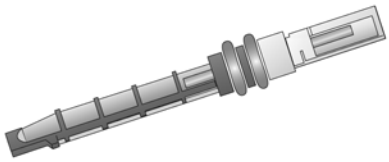
A/C System Lubricant – For O-Rings, Seals and Parts
- For R12 and R134a A/C Systems
- Resealable tubes
- 4 cc each
- Pack of 5

A/C SERVICE COMPONENTS

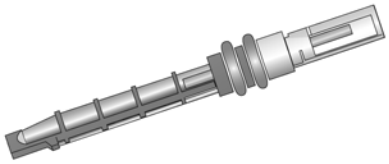
A/C ORIFICE TUBES



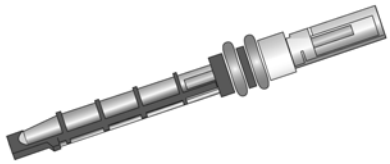
P/N 59845
GM & IMPORT
WHITE ORIFICE TUBE
Package Quantity: E



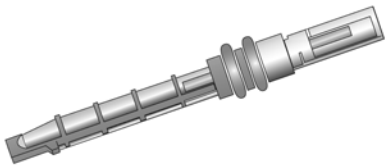
P/N 59846
FORD & IMPORT
BLUE ORIFICE TUBE
Package Quantity: E



P/N 59847
FORD & IMPORT
GREEN ORIFICE TUBE
Package Quantity: E



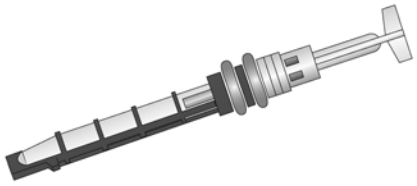
P/N 59848
FORD & IMPORT
RED ORIFICE TUBE
Package Quantity: E



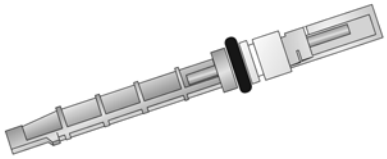
P/N 59849
FORD & IMPORT
ORANGE ORIFICE TUBE
Package Quantity: E

P/N 59850
GM & IMPORT
BLACK/WHITE ORIFICE TUBE
Package Quantity: E

P/N 59851
FORD
BROWN ORIFICE TUBE
Package Quantity: E



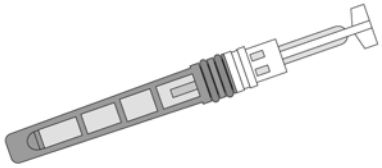
P/N 59852
CHRYSLER
PURPLE ORIFICE TUBE
Package Quantity: E



P/N 59853
GM & IMPORT
YELLOW/WHITE ORIFICE TUBE
Package Quantity: E

P/N 59854
GM
YELLOW/WHITE ORIFICE TUBE
Package Quantity: E

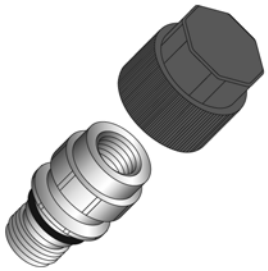
P/N 59855
FORD
BLACK/WHITE ORIFICE TUBE
Package Quantity: E



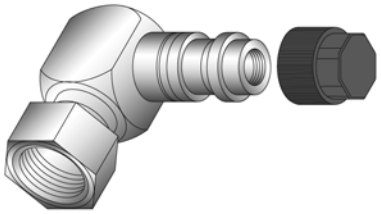
P/N 59856
DODGE/CHRYSLER
ORANGE T-TOP ORIFICE TUBE
Package Quantity: E

A/C SERVICE COMPONENTS

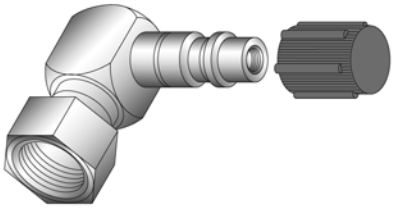
RETRO-FIT A/C ADAPTERS



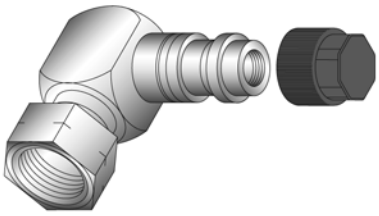
P/N 59862
GM RETRO ADAPTER
RED CAP/VALVE CORE 16MM
Package Quantity: C



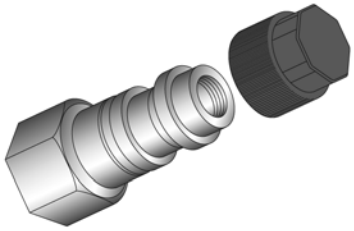
P/N 59863
90° M16 x 1/4"
R-134a ADAPTER/CAP-VALVE
Package Quantity: A



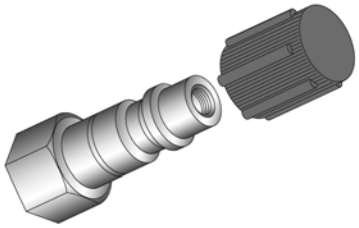
P/N 59864
90° M13 x 1/4"
R-134a ADAPTER/CAP-VALVE
Package Quantity: A



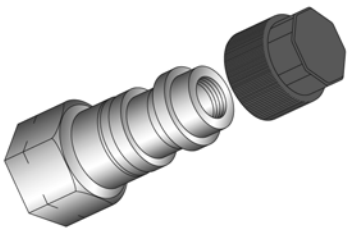
P/N 59865
90° M16 x 3/16"
R-134a ADAPTER/CAP-VALVE
Package Quantity: A



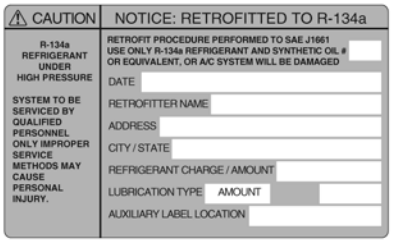
P/N 59866
M16 x 1/4"
R-134a ADAPTER/CAP-VALVE
Package Quantity: C



P/N 59867
M13 x 1/4"
R-134a ADAPTER/CAP-VALVE
Package Quantity: C



P/N 59868
M16 x 3/16"
R-134a ADAPTER/CAP-VALVE
Package Quantity: C



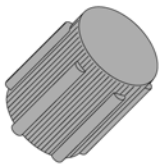
P/N 59869
STANDARD
R-134a RETROFIT LABEL
Package Quantity: I

P/N 59870
3/16" BLOCK OFF CAP
Package Quantity: C

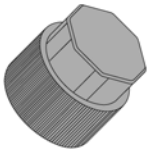
P/N 59871
1/4" BLOCK OFF CAP
Package Quantity: C

A/C SERVICE COMPONENTS

CAPS AND VALVE CORES



P/N 59877
M13 BLUE R-134a
LOW SIDE
VALVE PORT CAP
Package Quantity: I



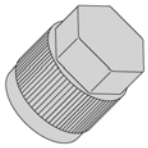
P/N 59878
M16 RED R-134a
HIGH SIDE
VALVE PORT CAP
Package Quantity: I

P/N 59879
3/16" BLK R-12 VALVE
PORT PLASTIC CAP
Package Quantity: I

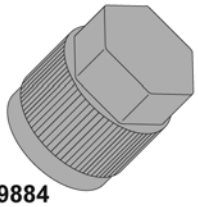
P/N 59880
1/4" BLK R-12 VALVE
PORT PLASTIC CAP
Package Quantity: I

P/N 59881
M13 BLUE R-134a
LOW SIDE
VALVE PORT CAP
Package Quantity: E

P/N 59882
M16 RED R-134a
VSIDE
VALVE PORT CAP
Package Quantity: E



P/N 59883
M13 BLUE R-134a
LOW SIDE
VALVE PORT CAP
Package Quantity: E



P/N 59884
M16 RED R-134a
HIGH SIDE
VALVE PORT CAP
Package Quantity: E

P/N 59885
M13 BLK R-134a
LOW SIDE
VALVE PORT CAP
Package Quantity: E

P/N 59886
M16 BLK R-134a
HIGH SIDE
VALVE PORT CAP
Package Quantity: E

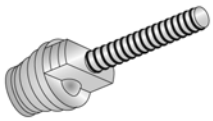
P/N 59887
M9 - 1.0
LOW SIDE
VALVE PORT CAP
Package Quantity: I

P/N 59888
M10 - 1.25
HIGH SIDE
VALVE PORT CAP
Package Quantity: I

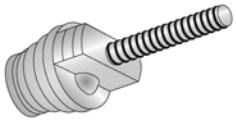
P/N 59889
R-12 & R-134a
US/IMPORT STD.
FLOW VALVE CORE
Package Quantity: I

P/N 59890
M6 R-134a
JRA IMPORT HIGH
FLOW VALVE CORE
Package Quantity: I

P/N 59891
GM R-12 & R-134a
LG BORE HIGH
FLOW VALVE CORE
Package Quantity: E



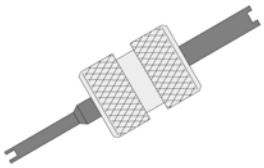
P/N 59892
M8 R-134a
U.S. EATON SSV
HIGH FLOW VALVE
CORE
Package Quantity: E



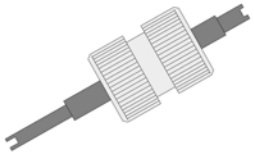
P/N 59893
M10 R-134a
US EATON SSV
HIGH FLOW
VALVE CORE
Package Quantity: E

P/N 59894
M8 R-134a
PEUGEOT & VOLVO
HIGH FLOW
VALVE CORE
Package Quantity: E

P/N 59896
M5 R-12/R-134a
RENALT FR STD.
FLOW VALVE CORE
Package Quantity: E

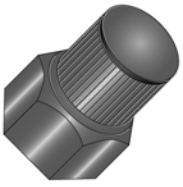


P/N 59897
M8 & M10
EATON SSV
VALVE CORE TOOL
Package Quantity: A

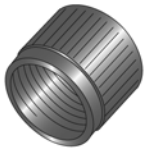


P/N 59898
R-12 & R-134a
STD. & HIGH
FLOW VALVE TOOL
Package Quantity: A

P/N 59899
YORK / TECUMSEH
SERVICE VALVE CAP
Package Quantity: E



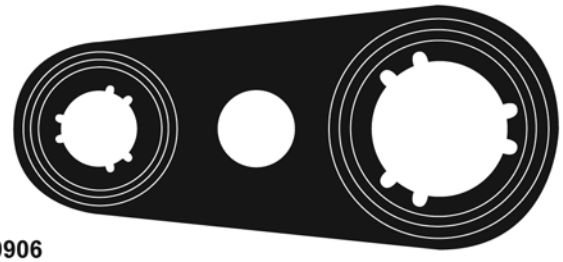
P/N 59900
M12X1.5
ROUND CAP W/ SEAL
Package Quantity: E



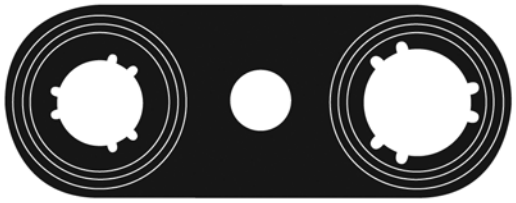
P/N 59901
M10X1.25
BELL HEX CAP W/ SEAL
Package Quantity: E

A/C SERVICE COMPONENTS

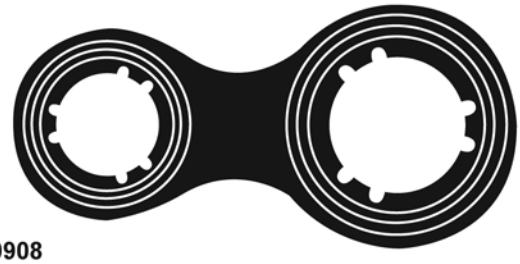
METAL GASKETS AND PILOTS



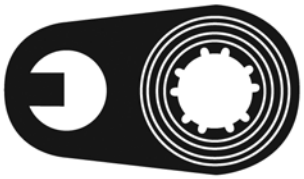
P/N 59906
CHRYSLER VALVE SUCTION / LIQUID LINE GASKET
Package Quantity: I



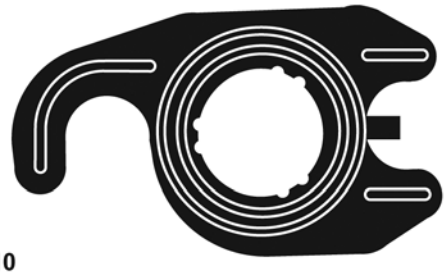
P/N 59907
CHRYSLER CONDENSOR BLOCK GASKET
Package Quantity: I



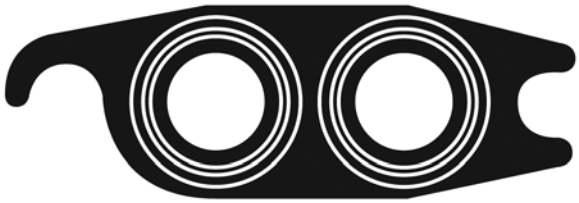
P/N 59908
CHRYSLER STD. BLOCK EXPANSION VALVE GASKET
Package Quantity: I



P/N 59909
CHRYSLER STD. BLOCK FILTER DRIER GASKET
Package Quantity: I

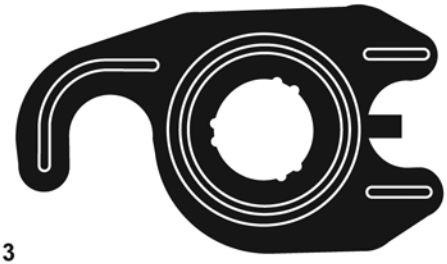


P/N 59910
CHRYSLER 6C17 5/8" ID SRVC FLANGE GSKT
Package Quantity: I

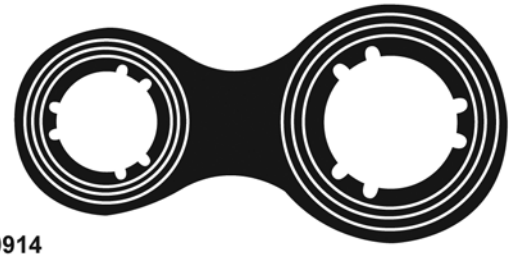


P/N 59911
CHRYSLER C171 & A590 SRVC PORT GASKET
Package Quantity: I

P/N 59912
CHRYSLER 6C17 SERVICE FLANGE GASKET
Package Quantity: I



P/N 59913
CHRYSLER 6C17 SRVC FLANGE GASKET 1/2" ID
Package Quantity: I



P/N 59914
CHRYSLER BLK BLOCK EXPN VALVE GASKET
Package Quantity: I

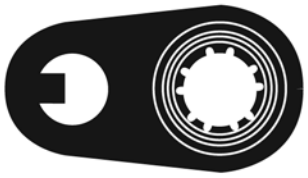
P/N 59915
GM DUAL O-RING CON MTL BCKP GASKET #8
Package Quantity: I

A/C SERVICE COMPONENTS

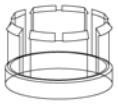
METAL GASKETS AND PILOTS

P/N 59916
GM DUAL O-RING CON METAL BCKP GSKT #10
Package Quantity: I

P/N 59917
GM DUAL O-RING CON METAL BCKP GSKT #12
Package Quantity: I



P/N 59918
CHRYSLER FILTER BLOCK GASKET .377 BLT HOLE
Package Quantity: I



P/N 59919
CHRYSLER SUCTION/DISCHARGE PORT PLASTIC PILOT
Package Quantity: I

P/N 59920
CHRYSLER SUCTION PORT GASKET 16MM ID
Package Quantity: I

P/N 59921
CHRYSLER 5/8 KJ HOS FTG MTL GSKT/O-RING
Package Quantity: I

P/N 59922
CHRYSLER 3/8 LQD LNE MTL GSKT/O-RNG KIT
Package Quantity: I

P/N 59923
CHRYSLER VALVE SUCTION/DISCHARGE PILOT SET
Package Quantity: I

P/N 59924
CHRYSLER VALVE SUCTION/DISCHARGE PILOT SET
Package Quantity: I

P/N 59925
CHRYSLER DISCHARGE PORT GASKET
Package Quantity: I

P/N 59926
CHRYSLER DISCHARGE GASKET & O-RING
Package Quantity: I

P/N 59927
CHRYSLER SUCTION GASKET & O-RING
Package Quantity: I

A/C SERVICE COMPONENTS

SEALING WASHERS

P/N 59933
GM 5/8" ID
COMPRESSOR SEALING WASHER - BLACK
Package Quantity: D

P/N 59934
GM/CHRYSLER 5/8" ID
COMPRESSOR SEALING WASHER - SILVER
Package Quantity: D

P/N 59935
GM 3/4" ID
COMPRESSOR SEALING WASHER - SILVER
Package Quantity: D

P/N 59936
GM COMPRESSOR RETRO-FIT
SEALING WASHER - GREEN
Package Quantity: D

P/N 59937
GM COMPRESSOR RETRO-FIT
SEALING WASHER - RED
Package Quantity: D

P/N 59938
GM COMPRESSOR RETRO-FIT
SEALING WASHER - YELLOW
Package Quantity: D

P/N 59939
DODGE COMPRESSOR SUCTION PORT
SEALING WASHER - SILVER
Package Quantity: D

P/N 59940
DODGE COMPRESSOR DISCHARGE
PORT SEALING WASHER - GOLD
Package Quantity: D

P/N 59941
CHRYSLER, GM, OPEL
5/8" ID SEALING WASHER
Package Quantity: D

P/N 59942
CHRYSLER, GM, OPEL
8MM SEALING WASHER
Package Quantity: D

P/N 59943
CHRYSLER, GM, OPEL
11MM SEALING WASHER
Package Quantity: D

P/N 59944
GM 17MM SEALING WASHER
Package Quantity: D

A/C SERVICE COMPONENTS

EASY TO OPERATE A/C TOOLS & AIR CONDITIONING EQUIPMENT

A/C R134A HOSE RECHARGE KIT

For use with 12 ounce containers of R-134a Refrigerant.

DESCRIPTION		PART
A/C R-134a Hose Recharge Kit	A	78045

PRESTITE TAPE

For insulation of pipes, fittings, and A/C lines.

- **1/8" thick x 2" wide x 30 ft. long roll**

DESCRIPTION		PART
Prestite Tape	A	32905

A/C FLUSH GUN

Air Conditioner Flush Gun

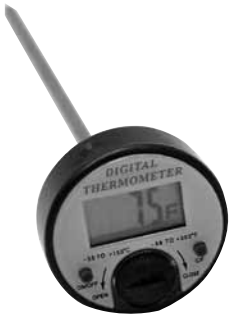
With Hose And Cut Off Valve.

DESCRIPTION		PART
A/C Flush Gun	A	78047

A/C DIGITAL TEST THERMOMETER

For Home And Auto A/C Systems

- **C/F Button Reads -50°C to 150°C & -58°F to 320°F**
- **Comes With Extra Battery**



DESCRIPTION		PART
A/C Digital Test Thermometer	A	78046

LEAK DETECTION

ULTRASONIC DIAGNOSTIC TOOL KIT

THE ULTRASONIC DETECTIVE

Listen To Problems Before They Become Breakdowns

Converts and amplifies inaudible ultrasonic sound into audible "natural" sound for accurate diagnosis of leaks and defects. Finds problems before they result in major breakdowns!

- **Detects air brake, tire, compressed air, vacuum, EVAP system, and other pressurized leaks quickly and effortlessly.**
- **Pinpoints gear and bearing wear in wheel hubs, transmissions, transfer cases, differentials, and electric motors.**
- **Checks for electrical discharge associated with insulation breakdown, carbon tracking, and arcing.**
- **Finds air and water leaks around faulty seals, gaskets, weather stripping in passenger cabs, trailers, and other non-pressurized enclosures.**

2 year warranty

Ideal For Detecting:

- **Air brake leaks**
- **Compressed air leaks**
- **Gear and bearing wear**
- **Vacuum leaks**
- **EVAP system leaks**
- **Electrical discharge**
- **Exhaust leaks**
- **Refrigerant leaks**
- **Gas and liquid turbulence**
- **Cabin seal and gasket integrity**

Applications:

- **Automotive**
- **Heavy-duty trucks**
- **Industrial**
- **Marine**
- **Railroad**
- **Air conditioning**
- **Refrigeration**

Kit Includes:

Ultrasonic Receiver
Features both audio feedback and 10 bar LED indicator for zeroing in on the problem source.

Ultrasonic Emitter
Emits ultrasonic pulses for testing faulty seals and gaskets in non-pressurized enclosures

Headphones
Full-sized headphone set with 3.5 mm stereo jack.

Air Probe and Contact Probe
Air and contact probes optimize receiver versatility and extend user's reach.

Padded Carrying Case

DESCRIPTION		PART
The Ultrasonic Detective – Ultrasonic Diagnostic Tool Kit	A	78039

Replacement Parts:

- **Padded Carrying Case, P/N 78039C**
- **Headphones, P/N 78051**
- **Ultrasonic Emitter, P/N 78048**
  Emits ultrasonic pulses for testing faulty seals and gaskets in non-pressurized enclosures.
- **Ultrasonic Nylon Air Probe, P/N 78049**
  The Nylon Air Probe optimizes receiver versatility and extends the user's reach.
- **Ultrasonic Solid Contact Probe, P/N 78050**
  The Solid Contact Probe optimizes receiver versatility and extends the user's reach.

P/N 78048

P/N 78049

P/N 78050

LEAK DETECTION

HEAVY DUTY LEAK DETECTION KIT

Find Undetectable Leaks Fast!

Slash Operating Costs, Reduce Fleet Downtime, and Save on Diagnostic Labor!

Includes everything needed for complete A/C and fluid leak detection (LOW-SIDE injection). Dye injector is the easiest, most accurate, and most compact method of adding dye to any truck, bus, train, off-road, and refrigerated transport vehicle's A/C system!

Kit Includes:

- **Leak detection mini high-intensity LED flashlight**
- **Injector with (2) universal A/C dye cartridges for servicing up to 28 vehicles**
- **All-In-One concentrated dye for oil, fuel, ATF, PS, and hydraulic leaks - 8 oz. bottle**
- **Coolant dye - 8 oz. bottle**
- **Fluorescence enhancing glasses and plastic case**.

P/N 78040

Replacement Parts

P/N 78042

All-in-One Oil Dye - 8 oz.

For oil, fuel, ATF, power steering, and hydraulic leaks. Serves up to 16 vehicles. This unique, full-spectrum formula contains two different fluorescent dyes; one designed to fluoresce best under UV, and the other under blue light.

No matter what type of inspection lamp you use, our All-In-One dye will glow brighter than ever!

Super-effective and economical, All-In-One dye contains over twice the amount of active ingredients per dose as competitors' dyes. A single one ounce bottle can often be used for two or more applications, offering dramatic savings! Our All-In-One dye ensures you'll always have the right dye on hand when you need it!

Super Intensity LED Flashlight w/ Glasses
Ultra Compact leak detection flashlight and glasses.

- Very high intensity (compare to 75W lamp) LED bulb with 100,000 hours service life
- Over 4 hours of peak performance
- Inspection range to 6 feet (1.8 m)
- Powered by 3 AA batteries (included)
- Fluorescence-enhancing glasses

P/N 78044

P/N 78043

Coolant Dye - 8 oz.

Leak detection dye for all engine coolants and auto body leak checks.

Finds leaks in radiators, hoses, water pumps, and fittings. Also ideal for pinpointing wind and water leaks in truck/trailer/auto bodies.

P/N 78041

Universal A/C Dye Cartridge - 6 pk.

It's cost effective — Each disposable universal dye cartridge treats up to

14 vehicle A/C systems. The revolutionary new way to add fluorescent dyes into vehicle air conditioning and refrigeration

systems - without the use of additional refrigerant. Just one connection, then turn the handle to inject the dye - no complicated hookups!

Ideal for preventive and programmed maintenance. The dye remains safely in the system for future inspections.

BIOREMEDIATION PARTS WASHER

SMARTWASHER® MOBILE PARTS/BRAKE WASHER

The SmartWasher® uses a unique technology called bioremediation. (Ozzys) breakdown "eat" the grease and oil or carbon-based products in the OzzyJuice and turn those contaminants into harmless carbon dioxide and water EVAPORATION.

Microbes (Ozzys) continuously eat the contaminants out of the OzzyJuice leaving it clean and strong every time. The microbes (Ozzys) will "eat" grease, oil, mineral spirits, solvents and other petroleum based products, just to name a few. Because of bioremediation and as long as the SmartWasher is maintained properly, the customer should NEVER have to change the fluid.

OzzyJuice Eats:

- Crude Oil
- Hydraulic Transmission Fluid
- Cutting Oils
- Ink/Toner
- Asphalt
- Burned-On Carbon
- Automotive Varnish
- Animal Fat
- Impacted Grease
- Fifth Wheel Grease
- Resin Products
- Automotive Grease
- Bearing Grease
- Solder & Flux
- Motor Oil
- Creosote

SmartWasher®
P/N 27723

Overall Dimensions	43" x 27" x 42"
Inside Sink Dimensions	27" x 23" x 8"
Parts Washer Structure	Heavy-Duty HDPE
Controls	Toggle Switch
Pump Capacity	300 gph
Adjustable Thermostat	105º to 115º F
Flow Control Timer	10 Minutes
Standard Equipment	Customized Dolly
Certified	ETL (UL/CSA), CE, NSF
SmartWasher Start-up Kit	Ships completely assembled, with one OzzyMat™ and enough OzzyJuice® to get started.

OzzyJuice® Parts/Brake Solution
P/N 27724

OzzyJuice® Degreaser Solution
P/N 27726

OzzyJuice® Truck Degreasing Solution
P/N 27727

OzzyJuice® Metal Degreasing Solution
P/N 27728

OzzyJuice® Aircraft/Weapon Degreaser
P/N 27729

OzzyJuice® Heavy Duty Degreaser Solution
P/N 27731

OzzyMat™ Multi-Layer Fluid Activator
P/N 27725

OzzyMat™ Single Layer Fluid Activator
P/N 27730

BIOREMEDIATION PARTS WASHER

OVERVIEW OF SMARTWASHER® SYSTEMS

SmartWasher® Mobile Parts/Brake Washer

P/N 27723

- 300 gph Pump
- Onboard Diagnostics / Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 43'' x 27'' x 42''
- Inside Sink Dimensions: 27'' x 23'' x 8''
- Customized Dolly
- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Signature

P/N 27722

- 300 gph Pump
- Onboard Diagnostics
- Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 39'' x 29'' x 40''
- Inside Sink Dimensions: 26'' x 17'' x 8''
- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Super Sink XE

P/N 27721

- 300 gph Pump
- Onboard Diagnostics / Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 47'' x 38'' x 42''
- Inside Sink Dimensions: 41'' x 26'' x 8''
- 2 brush stations, light kit and parts basket
- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

SmartWasher® Super Sink

P/N 27720

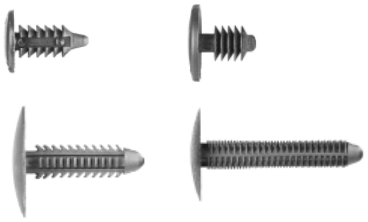
- 300 gph Pump
- Onboard Diagnostics
- Adjustable Thermostat
- Load Capacity of 550 lbs.
- Overall Dimensions: 47'' x 38'' x 42''
- Inside Sink Dimensions: 41'' x 26'' x 8''
- No Health & Safety Hazards
- No Environmental Damage
- No Toxic Solvents
- No Service Contracts
- No Waste Hauling
- No Flash Point

All SmartWashers ship completely assembled with one OzzyMat™ & enough OzzyJuice® to get started.

NYLON RETAINERS

FOR AUTOMOTIVE AND TRUCK APPLICATIONS

UNIVERSAL NYLON RETAINERS / BLACK AND BLUE



- Covers 2.5 mm to 10 mm hole sizes
- Nylon Shield Retainers
- Weatherstrip Retainers
- Dash Panel Retainers
- Rear Hood Seal Retainers
- Bumper Filler Retainers
- Fascia Panel Retainers
- Textured Head Panel Retainers
- Trim Panel Retainers
- Radiator Panel Retainers
- Fascia Bumper Retainers

DESCRIPTION	HOLE SIZE	PANEL RANGE	HEAD	STEM		PART
Nylon Shield Retainer, Black	7/64" (2.5mm)	.069" - .250"	7/32"	25/64"	C	9720
Nylon Shield Retainer, Black	5/32" (4mm)	.030" - .275"	23/64"	7/16"	C	9721
Nylon Shield Retainer, Black	3/16" (4.5mm)	.080" - .200"	7/16"	21/64"	N	9722
Weatherstrip Retainer, Black	3/16" (4.5mm)	.125" - .310"	3/8"	17/32"	N	9723
Dash Panel Retainer, Black	3/16" (4.5mm)	.060" - .390"	7/16"	21/32"	R	9724
Nylon Shield Retainer, Blue	13/64" (5.3mm)	.065" - .515"	3/4"	11/16"	R	9725
Short Weatherstrip Retainer, Black	13/64" (5.3mm)	.030" - .285"	10 mm	11.5 mm	R	9726
Short Weatherstrip Retainer, Black	13/64" (5.3mm)	.030" - .365"	19/32"	5/8"	R	9727
Nylon Shield Retainer, Black	7/32" (5.5mm)	.060" - .565"	21/32"	3/4"	R	9728
Nylon Shield Retainer, Black	7/32" (5.5mm)	.080" - .545"	1"	25/32"	R	9729
Nylon Shield Retainer, Black	15/64" (6mm)	.035" - .285"	15/32"	1/2"	R	9730
Nylon Shield Retainer, Black	1/4" (6.4mm)	.070" - .805"	1"	1-1/16"	N	9731
Short Nylon Shield Retainer, Black	1/4" (6.4mm)	.115" - .400"	11/16"	21/32"	C	9732
Long Nylon Shield Retainer, Black	1/4" (6.4mm)	.095" - .540"	23/32"	13/16"	C	9733
Fascia Panel Retainer, Black	1/4" (6.4mm)	.070" - .590"	25.5 mm	20 mm	R	9734
Bumper Filler Retainer, Black	1/4" (6.4mm)	.110" - .460"	1/2"	23/32"	R	9735
Textured Head Panel Retainer, Black	9/32" (7.1mm)	.075" - 1.510"	1"	1-3/4"	N	9736
Nylon Shield Retainer, Black	5/16" (7.8mm)	.080" - .800"	3/4"	1-1/16"	N	9737
Nylon Shield Retainer, Black	5/16" (7.8mm)	.080" - .270"	33/64"	19/32"	N	9738
Trim Panel Retainer, Black	5/16" (7.8mm)	.078" - .490"	3/4"	31/32"	N	9739
Rear Hood Seal Retainer, Black	5/16" (7.8mm)	.060" - 1.025"	3/4"	1-7/16"	N	9740
Trim Panel Retainer, Black	23/94" (9mm)	.060" - .510"	16 mm	19.5 mm	R	9741
Radiator Panel Retainer, Black	3/8" (9.5mm)	.115" - .565"	1"	27/32"	N	9742
Fascia Bumper Retainer, Black	25/64" (10mm)	.040" - .787"	22 mm	30 mm	R	9743

NYLON RETAINERS

FOR AUTOMOTIVE AND TRUCK APPLICATIONS

ERGO TUFLOKS NYLON PUSH-TYPE RETAINERS / BLACK

- Hole Sizes: 6.5 mm to 10 mm
- Flange Sizes: 14 mm to 25 mm
- Panel Rages: 2 mm to 10 mm

DESCRIPTION	HOLE SIZE	PANEL RANGE	STEM	FLANGE	PART	
Ergo Tuflocks Retainer	6.5mm	2mm - 4.5mm	18mm	18mm	N	9760
Ergo Tuflocks Retainer	6.5mm	4.5mm - 7mm	20mm	18mm	R	9761
Ergo Tuflocks Retainer	6.5mm	7mm - 9.5mm	22mm	14mm	N	9762
Ergo Tuflocks Retainer	8mm	5mm - 7mm	16mm	19mm	N	9763
Ergo Tuflocks Retainer	8.5mm	2mm - 4.5mm	20.5mm	20mm	N	9764
Ergo Tuflocks Retainer	8.5mm	2.7mm - 5.3mm	14mm	19mm	R	9765
Ergo Tuflocks Retainer	8.5mm	4.5mm - 7mm	22mm	20mm	N	9766
Ergo Tuflocks Retainer	8.5mm	7mm - 10mm	24mm	20mm	N	9767
Ergo Tuflocks Retainer	9.5mm	2.95mm - 5.75mm	20mm	18mm	N	9768
Ergo Tuflocks Retainer	10mm	3mm - 6mm	20mm	25mm	K	9769
Ergo Tuflocks Retainer	10.5mm	6mm - 9mm	22.5mm	25mm	K	9770

Wheel Weight Bin Assortments

Lead Weights - Coated

With more cars and light trucks coming equipped with expensive alloy wheels, it is important to have the right products to properly service them. This means the right fit and the right coating. Chromate's polymer coating is the approved original equipment coating used on new cars' and light trucks' wheel weights to prevent corrosion of the alloy wheel that normally occurs when uncoated or improperly coated wheel weights are used. They are designed to meet or exceed original equipment manufacturers specifications to protect the wheels from damaging corrosion for the life of the vehicle, when recommended service intervals are followed.

- **40-hole Bin (Labeled)**
- **33-3/4" Wide x 22-1/2" High x 12" Deep**
- **640 pieces**

Bin Assortment Contains the Following:

- Type P ..... 50150 - 50157
- Type FN ..... 50194 - 50207
- Type AW ..... 50250 - 50257
- Type IAW ..... 50275 - 50282
- Type MC ..... 50300 - 50307

P/N 7852

Chromate helps you renew your lead weights while making it easy for you to be environmentally responsible. Chromate accepts used wheel weights and even pays the freight! Chromate makes available free-of-charge return boxes that hold approximately 50 pounds of weights per box.
See back page for details.

Lead Free Zinc Weights - Coated

There is growing concern of lead wheel weights and lead's effects on the environment. Europe has already mandated the elimination of lead and the U.S. is researching similar measures. To ensure the market has an effective alternative, Chromate now offers Zinc wheel weights. These weights have the same functionality, appearance, and the same fit characteristics as conventional wheel weights. These new lead-free weights are designed and produced for cars with either steel or alloy wheels and are coated with a special wheel protector coating.

- **40-hole Bin (Labeled)**
- **33-3/4" Wide x 22-1/2" High x 12" Deep**
- **400 pieces**

Bin Assortment Contains the Following:

- Type P ..... 50323 - 50330
- Type MC ..... 50335 - 50342
- Type LH ..... 50346 - 50353
- Type IAW ..... 50359 - 50366
- Type FN ..... 50371 - 50378

P/N 7853

CHROMATE® INDUSTRIAL CORP.

EXCEPTIONAL PRODUCTS, SERVICE AND INNOVATIVE SOLUTIONS

5250-A Naiman Parkway . Solon . OH . 44139
1-800-BUY-BOLT . www.chromate.com

STORAGE EQUIPMENT

- Assortment Bins
- Assortment Trays
- Plastic Assortment Trays
- Slide Racks
- Storage Cabinets
- Aerosol Can Cabinet
- Bases
- Drill Cabinets / Organizers
- Drill Cases / Indexes
- Extractor / Hole Saw Cases
- Caddies
- Miscellaneous

CHROMATE STORAGE EQUIPMENT ORGANIZES YOUR INVENTORY TO BE INSTANTLY ACCESSIBLE, EASILY IDENTIFIABLE AND PROTECTED. **Rugged construction and space saving design provides years of service and minimum floor space. Chromate storage equipment will save you time, money and labor with more efficient control of your inventory.**

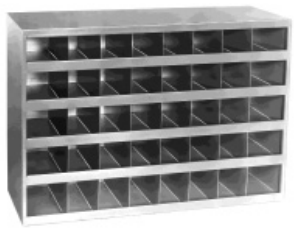
CIC 200™ STORAGE EQUIPMENT

ASSORTMENT BINS

Rugged, heavy gauge steel construction with baked enamel finish. For long-term organized storage of all maintenance supplies.

40 COMPARTMENT ASSORTMENT BIN

CIF



P/N 7903

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENTS:
4" W x 11-7/8" D x 4-1/2" H

USE BASE: P/N 7909

24 COMPARTMENT ASSORTMENT BIN

CIF

P/N 7901

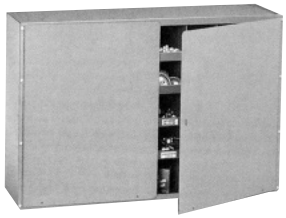
BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

COMPARTMENTS (LARGE):
5-3/8" W x 11-7/8" D x 5-1/2" H

USE BASE: P/N 7909

40 COMPARTMENT ASSORTMENT BIN WITH DOORS

CIF



P/N 7903WD

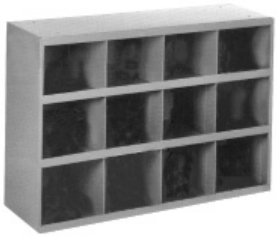
With 2 recessed locks and handles on both doors

BIN DIMENSIONS:
33-3/4" W x 12" D x 23-7/8" H

USE BASE: P/N 7909

12 COMPARTMENT ASSORTMENT BIN

CIF



P/N 27903

BIN DIMENSIONS:
33-7/8" W x 12" D x 23-7/8" H

COMPARTMENTS (LARGE):
8" W x 12" D x 6-5/8" H

USE BASE: P/N 7909

DOORS FOR 40 HOLE BIN (DOORS ONLY)

CIF

P/N 7990 DOOR DIMENSION: 16-3/4" W x 23-1/2" H

Two hinged doors with 2 recessed locks on each door.
- Handles included w/ hardware. Attach doors w/ metal screws or pull rivets.

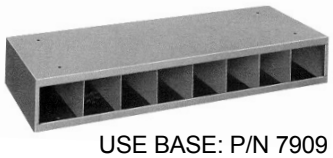
8 COMPARTMENT ASSORTMENT BIN

CIF

P/N 7995

BIN DIMENSIONS:
33-3/4" W x 12" D x 5-1/4" H

COMPARTMENTS:
4" W x 11-7/8" D x 5-1/4" H



USE BASE: P/N 7909

36 COMPARTMENT ASSORTMENT BIN

CIF

P/N 7994

BIN DIMENSIONS:
17-7/8" W x 12" D x 42" H

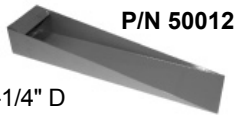
COMPARTMENTS:
4" W x 11-7/8" D x 4-1/2" H

METAL BIN SCOOP

CIF

Quite effective in removing or adding product during conversions.

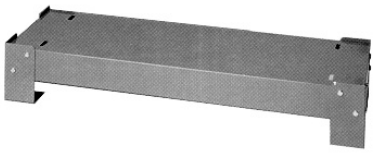
P/N 50012



DIMENSIONS: 3-3/8" W x 14-1/2" L x 2-1/4" D

BASE – FOR BINS AND DRAWERS

CIF



- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
34" W x 12" D x 5-3/4" H

For use with:

• 40 Compartment Assortment Bin	***P/N 7903, 7903WD***
• 24 Compartment Assortment Bin	***P/N 7901***
• 12 Compartment Assortment Bin	***P/N 27903***
• 8 Compartment Assortment Bin	***P/N 7995***
• 24 Drawer Cabinet	***P/N 7911***
• 18 Drawer Cabinet	***P/N 7912***
• 6 Drawer Cabinet	***P/N 7915***

DESCRIPTION		PART
Base For Bins and Drawers (Raises Rack 5-3/4")	A	7909

CIC 200™ STORAGE EQUIPMENT

ASSORTMENT TRAYS

Rugged, heavy gauge steel construction with baked enamel finish for long-term organized storage of all maintenance supplies.

6 COMPARTMENTS

CIF

HORIZONTAL TRAY

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7919

16 COMPARTMENTS

CIF

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7989

21 COMPARTMENTS

CIF

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7922

24 COMPARTMENTS

CIF

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7921

24 COMP. CUT DOWN

CIF

DIMENSIONS		PART
CD Tray Holds Tool	A	7924

32 COMPARTMENTS

CIF

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7932

ADJUSTABLE COMPARTMENTS

CIF

DIMENSIONS		PART
Adjustable with 9 Horizontal Dividers	A	7923
With Movable Horizontal & Vertical Dividers	A	7920
Dividers Only	A	7925

HORIZONTAL ADJUSTABLE COMP.

CIF

COMES WITH 12 DIVIDERS

DIMENSIONS		PART
18" W x 12" D x 3" H	A	7927
Dividers Only	A	7934

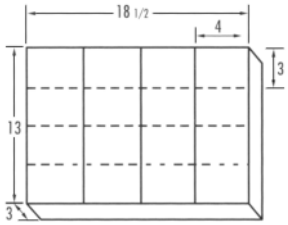
CIC 200™ STORAGE EQUIPMENT

PLASTIC ASSORTMENT TRAYS

Molded from copolymer resins that resist common solvents and odors, will not rust or dent. Comfortable handle, double positive latches, translucent cover and brass hinge pins for optimum strength and durability. Translucent lids allow for quick identification of contents. Rounded corners, no sharp edges and lightweight covers make these cases "user friendly".

ADJUSTABLE COMPARTMENTS

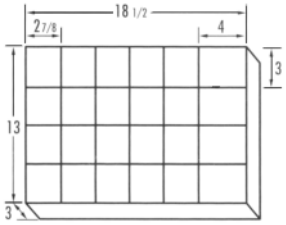
CIF



DESCRIPTION		PART
Large Tray Adjustable with 12 Horizontal Dividers. 18-1/2"W x 13"H x 3"D	A	7923P

24 COMPARTMENTS

CIF



DESCRIPTION		PART
Large Tray – Fixed 24 Compartments Satchel style case molded from rugged copolymer resin for long-term organized storage of all maintenance supplies. 18-1/2"W x 13"H x 3"D	A	7921P

PLASTIC POLY TRAYS

CIF

P/N 7967

- **EXTREMELY DURABLE, HIGH IMPACT STRENGTH**
- **ABRASION AND STRESS CRACK RESISTANT**
- **CONVENIENT STORAGE FOR SMALL SHOP ITEMS**

CIF

Small
P/N 7996

RESIST MOST COMMON CHEMICALS AND INCLUDE SNAP LATCHES, A DETACHABLE LID AND THE ABILITY TO CONFIGURE YOUR OWN COMPARTMENTS

CIF

Large
P/N 27996

DESCRIPTION		PART
12 Compartment Poly Tray – 13-1/8" W x 2-5/16" H x 9" D	A	7967
Small Porta-Pak Poly Tray – Expandable with 3 Fixed Horizontal Compartments and Movable Vertical Dividers 8-3/4" W x 1-3/8" H x 3-3/8" D	A	7996
Large Porta-Pak Poly Tray – Expandable with 6 Fixed Vertical Compartments and Movable Horizontal Dividers 10-3/4" W x 1-3/4" H x 6-7/8" D	A	27996

BEARING SLIDE RACKS

SPACE SAVER - 4-DRAWER BEARING SLIDE RACK

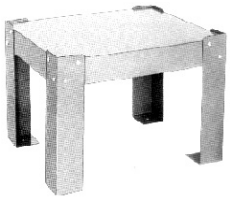
CIF

The slide mechanism is "ball bearing" this makes opening and closing smooth and secure.

- **Holds any 4 metal assortment trays**
- **3-1/2" shorter in depth than the full size slide rack**
- **More efficient use of the customer's storage space**
- **Very strong, each tray holds 75 pounds/ 300 pounds per unit**
- **Built-in "snap" holds trays secure while not in use**

DIMENSIONS:
W 20-3/8" x D 12-9/16" x H 15"

Long Leg Base



P/N 50005

Short Leg Base

P/N 7904

DESCRIPTION		PART
4-Drawer Bearing Rack (Space Saver Slide Rack)	A	50004
Long Leg Base (Raises Rack 14-3/4")	A	50005
Short Leg Base (Raises Rack 5-3/8")	A	7904

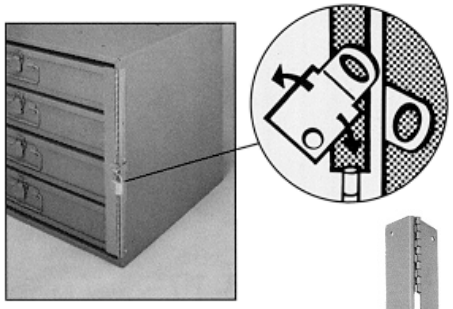
4-DRAWER BEARING SLIDE RACK (WITH HINGES)

CIF

The slide mechanism is "ball bearing" this makes opening and closing smooth and secure.

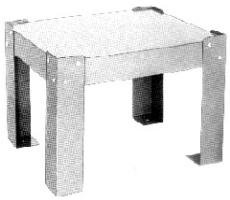
- **Holds any 4 metal assortment trays**
- **Rugged, heavy gauge steel construction**
- **Baked enamel finish**
- **Long-term organized storage of all maintenance supplies**
- **Rack will not tilt, even when fully loaded trays are in the open position**
- **Exclusive locking hinge holds rack securely in place**

DIMENSIONS:
W 20-1/4" x D 15-3/4" x H 14-3/4"



Locking Hinge
- **Holds racks securely in place**
- **Padlock not included**

Long Leg Base



P/N 7929

Short Leg Base

P/N 7930

DESCRIPTION		PART
4-Drawer Bearing Slide Rack (With Hinges)	A	7928BRWH
Long Leg Base (Raises Rack 15-5/8")	A	7929
Short Leg Base (Raises Rack 5-3/4")	A	7930

CIC 200™ STORAGE EQUIPMENT

FRICTION SLIDE RACKS

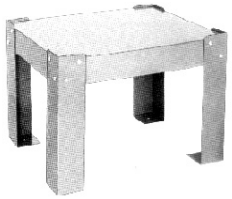
4-DRAWER FRICTION SLIDE RACK

CIF

- **Holds any 4 metal assortment trays**
- **Rugged, heavy gauge steel construction**
- **Baked enamel finish**
- **Long-term organized storage of all maintenance supplies**
- **Rack will not tilt, even when fully loaded trays are in the open position**

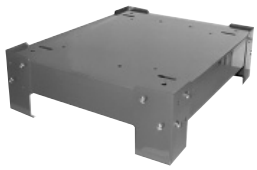
DIMENSIONS:
W 20-1/4" x D 15-3/4" x H 14-3/4"

Long Leg Base



P/N 7929

Short Leg Base



P/N 7930

DESCRIPTION		PART
4-Drawer Friction Slide Rack	A	7928
Long Leg Base (Raises Rack 15-5/8")	A	7929
Short Leg Base (Raises Rack 5-3/4")	A	7930

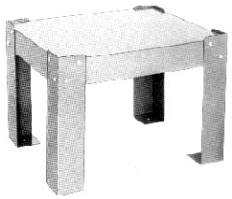
2-DRAWER FRICTION SLIDE RACK

CIF

- **Holds any 2 metal assortment trays**
- **Rugged, heavy gauge steel construction**
- **Baked enamel finish**
- **Long-term organized storage of all maintenance supplies**
- **Rack will not tilt, even when fully loaded trays are in the open position**

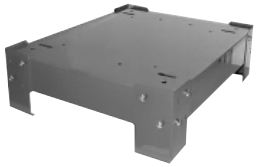
DIMENSIONS:
W 20-1/4" x D 15-3/4" x H 8"

Long Leg Base



P/N 7929

Short Leg Base



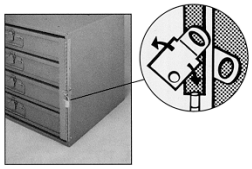
P/N 7930

DESCRIPTION		PART
2-Drawer Friction Slide Rack	A	7910
Long Leg Base (Raises Rack 15-5/8")	A	7929
Short Leg Base (Raises Rack 5-3/4")	A	7930

LOCKING HINGE - LONG

CIF

- **For 4 drawer slide racks - P/Ns 7928, 7928BRSS**
- **Holds racks securely in place**
- **Padlock not included**



DESCRIPTION		PART
Locking Hinge - Long	A	7988

LOCKING HINGE - SHORT

CIF

- **For 2 drawer slide rack P/N 7910**
- **Holds racks securely in place**
- **Padlock not included**

DESCRIPTION		PART
Locking Hinge - Short	A	50029

FRICTION SLIDE RACK

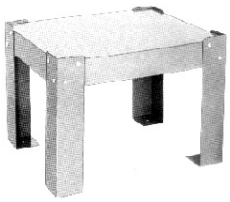
6-DRAWER FRICTION SLIDE RACK WITH "LOCKING" DOOR

CIF

- **Holds any 6 metal assortment trays**
- **Six (6) sliding trays**
- **Heavy duty cold-rolled steel construction**
- **Durable powder coated finish**
- **Includes an exclusive keyed sliding lock system**

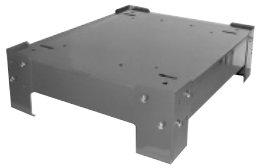
DIMENSIONS:
W 20-3/4" x D 14" x H 24"

Long Leg Base



P/N 27929

Short Leg Base



P/N 27930

DESCRIPTION		PART
6-Drawer Friction Slide Rack with Locking Door	A	7907
Long Leg Base (Raises Rack 15-5/8") - 20-5/8" W x 16-1/4" D x 15-5/8" H	A	27929
Short Leg Base (Raises Rack 5-3/4") - 20-5/8" W x 16-1/4" D x 5-3/4" H	A	27930

BASES FOR 6-DRAWER FRICTION SLIDE RACK

LONG LEG BASE

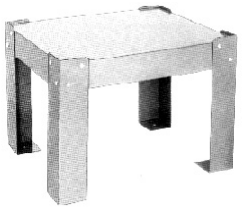
CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 14" D x 15-5/8" H

For use with:
- ***6-Drawer Friction Slide Rack with Locking Door***

P/N 7907



DESCRIPTION		PART
Long Leg Base (Raises Rack 15-5/8")	A	27929

SHORT LEG BASE

CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 14" D x 5-3/4" H

For use with:
- ***6-Drawer Friction Slide Rack with Locking Door***

P/N 7907

DESCRIPTION		PART
Short Leg Base (Raises Rack 5-3/4")	A	27930

CIC 200™ STORAGE EQUIPMENT

BASES FOR SLIDE RACKS

LONG LEG BASE

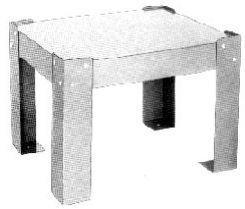
CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 15-3/4" D x 15-5/8" H

For use with:

• 4-Drawer Slide Rack	***P/N 7928***
• 4-Drawer Bearing Rack with Hinges	***P/N 7928BRWH***
• 2-Drawer Slide Rack	***P/N 7910***



DESCRIPTION		PART
Long Leg Base (Raises Rack 15-5/8")	A	7929

SHORT LEG BASE

CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 15-3/4" D x 5-3/4" H

For use with:

• 4-Drawer Slide Rack	***P/N 7928***
• 4-Drawer Bearing Rack with Hinges	***P/N 7928BRWH***
• 2-Drawer Slide Rack	***P/N 7910***

DESCRIPTION		PART
Short Leg Base (Raises Rack 5-3/4")	A	7930

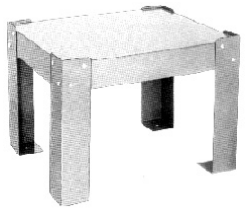
SPACE SAVER - LONG LEG BASE

CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 12-3/4" D x 15-1/8" H

For use with:
• 4-Drawer Bearing Rack (Space Saver) ***P/N 7928BRSS***



DESCRIPTION		PART
Long Leg Base (Raises Rack 15-1/8")	A	7929SS

SPACE SAVER - SHORT LEG BASE

CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**

DIMENSIONS:
20-5/8" W x 12-3/4" D x 8" H

For use with:
• 4-Drawer Bearing Rack (Space Saver) ***P/N 7928BRSS***

DESCRIPTION		PART
Short Leg Base (Raises Rack 8-1/4")	A	7930SS

CIC 200™ STORAGE EQUIPMENT

CABINETS – WITH DRAWERS & TUBING/HOSE

Rugged, heavy gauge steel construction with baked enamel finish for long-term organized storage of all maintenance supplies.

24 DRAWERS

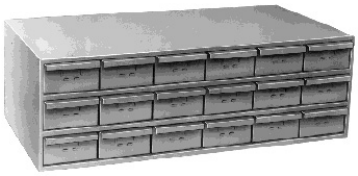
CIF

COMES WITH 48 DRAWER DIVIDERS
USE BASE: P/N 7909

CABINET DIMENSIONS	DRAWER DIMENSIONS		PART
34"W x 14-1/2"H x 11-5/8"D	5-5/16"W x 2-3/4"H x 11-3/16"D	A	7911
Dividers Only		A	7918

18 DRAWERS

CIF



COMES WITH 36 DRAWER DIVIDERS
USE BASE: P/N 7909

CABINET DIMENSIONS	DRAWER DIMENSIONS		PART
34"W x 11"H x 11-5/8"D	5-5/16"W x 2-3/4"H x 11-3/16"D	A	7912
Dividers Only		A	7918

6 DRAWERS

CIF

COMES WITH 12 DRAWER DIVIDERS
USE BASE: P/N 7909

CABINET DIMENSIONS	DRAWER DIMENSIONS		PART
34"W x 4"H x 11-5/8"D	5-5/16"W x 2-3/4"H x 11-3/16"D	A	7915
Dividers Only		A	7918

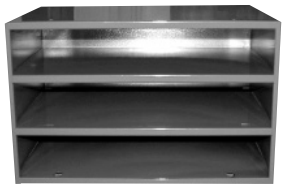
SMALL TUBING CABINET

CIF

Convenient, durable and easy to use, the small tubing cabinet is a great organizational tool.

- **Heavy duty cold-rolled steel**
- **Durable baked enamel finish**
- **3 shelf openings**

Dimensions:
17-1/4" W x 11-3/4" D x 10-3/4" H



DESCRIPTION		PART
Small Tubing Cabinet	A	50019

LARGE HOSE CABINET

CIF

Convenient, durable and easy to use, the large hose cabinet is a great organizational tool.

- **Heavy duty cold-rolled steel**
- **Durable baked enamel finish**
- **3 compartments**

Dimensions:
21-1/2" W x 24" D x 24" H

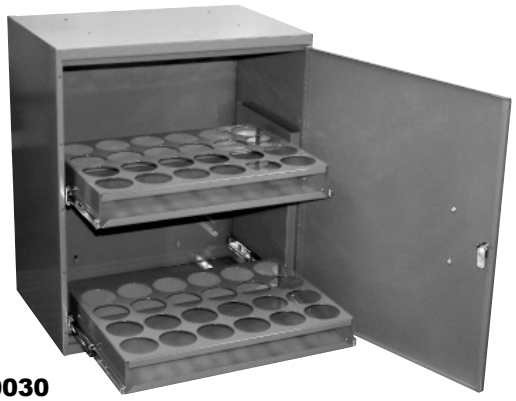
DESCRIPTION		PART
Large Hose Cabinet	A	9-932-22-75

CIC 200™ STORAGE EQUIPMENT

CABINETS – AEROSOLS

Rugged, heavy gauge steel construction with baked enamel finish for long-term organized storage of all maintenance supplies.

AEROSOL CAN CABINET



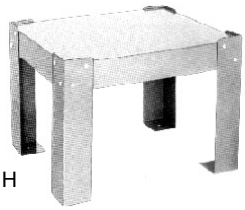
P/N 50030

- **Constructed of Heavy Duty Cold-rolled Steel**
- **Featuring Room for 48 Standard Sized Aerosol Cans**
- **Two "Ball Bearing" Sliding Trays Provide Easy Access**
- **Detent Feature Secures Trays in Closed Position**
- **Keyed Lock Included**
- **Overall Dimensions: 24" H x 20-3/4" W x 14" D**

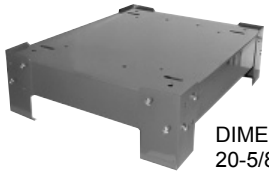
LONG AND SHORT LEG BASES – FOR AEROSOL CAN CABINET

CIF

- **Convenient**
- **Heavy duty**
- **Durable baked enamel finish**



DIMENSIONS:
20-5/8" W x 14" D x 15-5/8" H



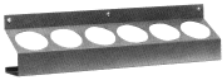
DIMENSIONS:
20-5/8" W x 14" D x 5-3/4" H

DESCRIPTION		PART
Aerosol Can Cabinet	A	50030
Long Leg Base (Raises Rack 15-5/8")	A	27929
Short Leg Base (Raises Rack 5-3/4")	A	27930

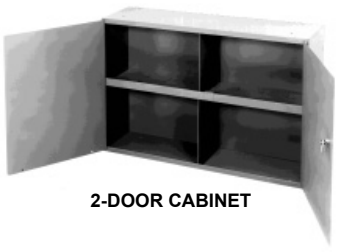
AEROSOL / UTILITY CABINETS

CIF

UTILITY CABINET



6-CAN CADDY



2-DOOR CABINET

DESCRIPTION	DIMENSIONS		PART
1-DOOR CABINET	19-7/8" W x 32-3/4" H x 14-1/4" D	A	7997
1-DOOR CABINET	13-3/4" W x 30" H x 12-3/4" D	A	50003
2-DOOR CABINET	33-3/16" W x 22-5/16" H x 9" D	A	7968
CAN CADDY	21-1/2" W x 5-3/8" H x 3-1/8" D	A	7969

CIC 200™ STORAGE EQUIPMENT

DRILL CABINETS AND ORGANIZERS

Rugged, heavy gauge steel construction with baked enamel finish for long-term organized storage of all drills.

UNDERMOUNT DISPENSER

CIF

- **WORKBENCH SPACESAVER**
- **BUILT-IN LOCK SECURES DRILL INVENTORY (2 KEYS INCLUDED)**
- **HEAVY-DUTY BALL BEARING DRAWER SLIDES**
- **3 EACH OF THE MOST POPULAR FRACTIONAL PRO DRILL SIZES**

DESCRIPTION		PART
UNDERMOUNT DISPENSER	A	7896

DRILL CABINETS

CIF

14-1/2"W x 7-1/4"H x 7-1/4"D

- **RUGGED, HEAVY-GAUGE STEEL CONSTRUCTION WITH BAKED ENAMEL FINISH FOR STORAGE AND ORGANIZATION OF ALL CHROMATE DRILLS**
- **COMPARTMENTS ARE CLEARLY LABELED FOR PROPER STORAGE OF DRILLS**

DESCRIPTION		PART
FRACTIONAL SIZES: 3 Drawers – 29 sizes 1/16" to 1/2" by 64ths	A	7938
LETTER SIZES: 3 Drawers – 26 sizes letters A to Z	A	7940
NUMBER SIZES: 5 Drawers – 60 sizes #1 to #60	A	7939
Locking Hinge for Drill Cabinet	A	50029

MASTER DRILL DISPENSER – 4 DRAWER

CIF

26"W x 12-1/2"H x 12"D

- **BALL BEARING SLIDES**
- **ALL STEEL CABINET WITH VINYL DIVIDERS TO HELP PROTECT AND SEPARATE BITS**
- **EACH CABINET IS LOCKABLE WITH ITS OWN SET OF 2 KEYS**
- **STACKABLE FOR LARGER INVENTORIES AT ONE LOCATION**
- **LOWER DRAWER IS UNDIVIDED FOR EXTRA LONGER DRILLS, REAMERS AND MISCELLANEOUS TOOLS**
- **HOLDS FULL PACKAGES OF JOBBER OR SCREW MACHINE LENGTH DRILLS, FRACTIONAL, LETTER AND WIRE GAUGE SIZES IN ONE COMPLETE CABINET**
- **TOP DRAWER HOLDS FRACTIONAL DRILLS 1/16" TO 1/2" BY 64TH WITH 42 COMPARTMENTS**
- **SECOND DRAWER HOLDS #1 TO #60 WIRE GAUGE WITH 75 COMPARTMENTS**
- **THIRD DRAWER HOLDS LETTER SIZE A TO Z WITH 42 COMPARTMENTS**

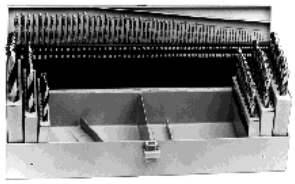
DESCRIPTION		PART
FRACTIONAL, NUMBER AND LETTER SIZES 4 Drawers	A	7897

CIC 200™ STORAGE EQUIPMENT

DRILL CASES *(TAPS & DRILLS NOT INCLUDED)*

MASTER DRILL CASE

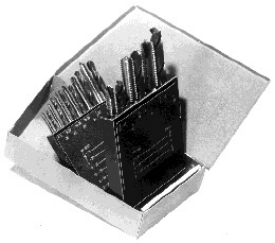
CIF



DESCRIPTION		PART
Holds 115 Drills: 29 Fractional sizes from 1/16" to 1/2" by 64ths 60 # sizes from #1 to #60 26 Letter sizes from A to Z	A	7959

18-PIECE TAP/DRILL CASE

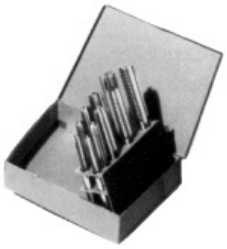
CIF



DESCRIPTION		PART
Holds 9 Taps and 9 Drills: 6-32 to 1/2-13 Taps #35 to 7/16 Drills	A	7952

10-PIECE TAP CASE

CIF



DESCRIPTION		PART
Holds 10 Taps: 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13 and 1/2-20	A	7964

DRILL INDEXES – FRACTIONAL SIZES *(DRILLS NOT INCLUDED)*

29-PIECE DRILL CASE

CIF

DESCRIPTION		PART	
Holds 29 Drills 1/16" to 1/2" by 64ths	A	JOBBER STUBBY MECHANICS	7958 7953 7958

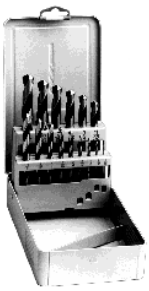
29-PIECE DRILL CADDY

CIF

DESCRIPTION	JOBBER PART		MECHANICS PART	
Holds 29 Drills 1/16" to 1/2" by 64ths	A	70112	A	70113

15-PIECE DRILL CASE

CIF



DESCRIPTION		PART	
Holds 15 Drills 1/16" to 1/2" by 32nds	A	JOBBER STUBBY MECHANICS	7956 7956 7966

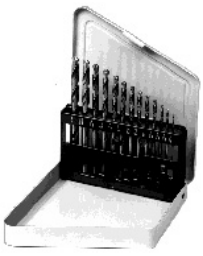
21-PIECE DRILL CASE

CIF

DESCRIPTION	JOBBER PART		MECHANICS PART	
Holds 21 Drills 1/16" to 3/8" by 64ths	A	7947	A	7957*

13-PIECE DRILL CASE

CIF



DESCRIPTION	JOBBER PART		MECHANICS PART	
Holds 13 Drills 1/16" to 1/4" by 64ths	A	7944	A	7955*

8-PIECE DRILL CASE

CIF

1/2" REDUCED SHANK

DESCRIPTION		PART
Holds 8 Drills 9/16" to 1" by 16ths	A	7941

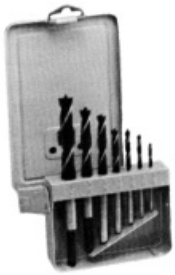
***** Mechanics length cases not suitable for jobber length drills.

CIC 200™ STORAGE EQUIPMENT

DRILL INDEXES – FRACTIONAL SIZES (DRILLS NOT INCLUDED)

7-PIECE DRILL CASE

CIF



DESCRIPTION		PART
Holds 17 Drills: 1/8" to 1/2" by 64ths	A	7961

4-PIECE STEP DRILL CASE

CIF

DESCRIPTION		PART
Holds 4 Step Drills: P/N's 11100, 11102, 11104 and 11106 Includes diecut foam insert	A	7963

BROKEN STUD REMOVAL

CIF

DESCRIPTION		PART
Holds 10 Pieces: Spiral Easy Outs – #1, #2, #3, #4 and #5 Left Hand Drills – 5/16, 7/64, 5/32, 1/4 and 19/64	A	7943

DRILL STANDS (DRILLS NOT INCLUDED)

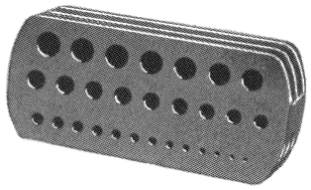
33 LARGE FRACTIONAL SIZES

CIF

DESCRIPTION		PART
Holds 33 Drills 1/2" to 1" by 64ths	A	7942

29 SMALL FRACTIONAL SIZES

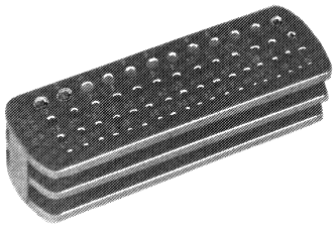
CIF



DESCRIPTION		PART
Holds 29 Drills 1/16" to 1/2" by 64ths	A	16019

60 NUMBER SIZES

CIF



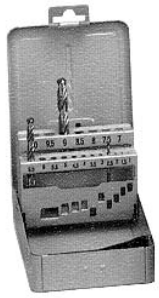
DESCRIPTION		PART
Holds 60 Drills #1 to #60	A	16020

CIC 200™ STORAGE EQUIPMENT

DRILL INDEXES – METRIC SIZES *(DRILLS NOT INCLUDED)*

19 PIECE METRIC INDEX

CIF



DESCRIPTION		PART
Holds 19 Metric Drills 1mm to 10mm x 0.5mm	A	7971

25 PIECE METRIC INDEX

CIF

DESCRIPTION		PART
Holds 25 Metric Drills 1mm to 13mm x 0.5mm	A	7973

DRILL INDEXES – NUMBER AND LETTER SIZES *(DRILLS NOT INCLUDED)*

60 NUMBER DRILL CASE

CIF

DESCRIPTION	JOBBER PART		STUBBY PART	
Holds 60 Drills #1 to #60	A	7950	A	7954

26 LETTER DRILL CASE

CIF

DESCRIPTION	JOBBER PART	
Holds 26 Drills Letter A to Z	A	7948

20 NUMBER DRILL CASE

CIF

DESCRIPTION		PART
Holds 20 Drills #61 to #80	A	7946

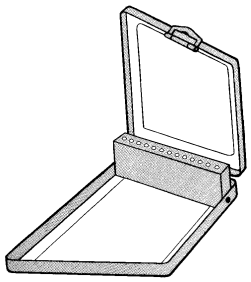
8-PIECE ROTARY FILE CASE (1/4" SHANK)

CIF

DESCRIPTION		PART
Holds 8 Rotary Files	A	7965

13-PIECE ROTARY FILE CASE (1/8" SHANK)

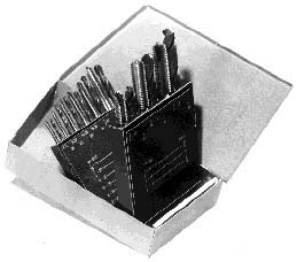
CIF



DESCRIPTION		PART
Holds 13 Miniature Rotary Files	A	7977

PRO SHOOTER TAP AND DRILL INDEX

CIF



DESCRIPTION		PART
Holds 18 Taps and Drills	A	7998

CIC 200™ STORAGE EQUIPMENT

DRILL POUCHES *(DRILLS NOT INCLUDED)*

WOOD SPADE BIT POUCH

CIF

DESCRIPTION		PART
Holds 7 Wood Spade Bits 1/4", 3/8", 1/2", 5/8", 3/4", 7/8" and 1"	A	70000

METRIC COMBO DRILL & TAP

CIF

DESCRIPTION		PART
Holds 8 Metric Drills 4mm x 0.7mm, 5mm x 0.8mm, 6mm x 1.0mm, 8mm x 1.25mm, 10mm x 1.5mm, 12mm x 1.75mm, 14mm x 2.0mm and 16mm x 2.0mm	A	70002

BLACK BEAUTY DRILL POUCH

CIF

DESCRIPTION		PART
Holds 8 Masonry Drills 1/8 x 3 x 1/8, 3/16 x 6 x 3/16, 1/4 x 6 x 1/4, 5/16 x 6 x 5/16, 3/8 x 6 x 3/8, 7/16 x 6-1/4 x 3/8, 1/2 x 6-3/4 x 3/8 and 5/8 x 6 x 3/8	A	70003

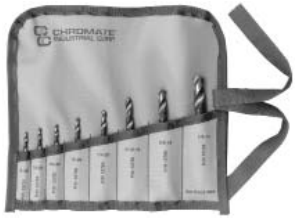
CARBIDE TIPPED HARD STEEL BIT POUCH

CIF

DESCRIPTION		PART
Holds 8 Bits 1/8, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8 and 1/2	A	70004

PRO COMBO DRILL AND TAP POUCH

CIF



DESCRIPTION		PART
Holds 8 Drills 8-32, 10-24, 10-32, 12-24, 1/4-20, 5/16-18, 3/8-16 and 1/2-13 **or** SAE sizes 8-36,10-32, 12-28, 1/4-28, 5/16-24, 3/8-24, 7/16-20 and 1/2-20	A	70003-NS

ABRASIVE WHEEL DISPENSER

FOR 4-1/2'' DIAMETER FLAP DISCS, CUT-OFF WHEELS, ETC.

- Heavy-duty construction with flip top for loading discs
- Wide-mouth bottom for easy-access dispensing
- Gravity feed
- Can hold up to 25 flap discs
- 4 holes for wall mounting
- Dimensions: 16-1/8" H x 6-1/4" W x 5-1/4" D

DESCRIPTION		PART
4-1/2'' Abrasive Wheel Dispenser	A	50032

CIC 200™ STORAGE EQUIPMENT

TAP AND PIPE EXTRACTOR CASES *(EXTRACTORS NOT INCLUDED)*

6-PIECE TAP CASE

CIF

DESCRIPTION		PART
Holds 6 Tap Extractors	A	61637CASE

13-PIECE TAP CASE

CIF

DESCRIPTION		PART
Holds 13 Tap Extractors	A	61639CASE

5 AND 7-PIECE PIPE CASE

CIF

DESCRIPTION		PART
Holds 5 Pipe Extractors	A	61628CASE

HOLE SAW CASES *(HOLE SAWS NOT INCLUDED)*

INDUSTRIAL CASE

CIF

DESCRIPTION		PART
Holds 13 pieces: 3/4", 7/8", 1-1/8", 1-3/8", 1-1/2", 1-3/4", 2", 2-1/8", 2-1/2", 1/4" Round Shank Arbor with 1/2"-20 Threads, 7/16" Hex Shank Arbor with 1/2"-20 Threads, 7/16" Hex Arbor with Locking Pins and 5/8"-18 Threads, and 12" Long 7/16" Drive Extension	A	7975

MECHANICS CASE

CIF

DESCRIPTION		PART
Holds 7 pieces: 7/8", 1", 1-1/8", 1-1/4", 1-1/2", 1/4" Round Shank Arbor with 1/2"-20 Threads and Arbor Adapter	A	7974

LARGE INDUSTRIAL CASE

CIF

DESCRIPTION		PART
Holds 19 pieces: 3/8", 7/8", 1-1/8", 1-3/8", 1-1/2", 2", 2-1/4", 2-1/2", 3", 3-1/4", 3-5/8", 3-3/4", 4-1/4", 4-1/2, 1/4" Round Shank Arbor with 1/2"-20 Threads, 7/16" Hex Shank Arbor w/ 1/2"-20 Threads, 7/16" Hex Arbor w/ Locking Pins and 5/8"-18 Threads, and 12" Long 7/16" Drive Extension	A	8831C

CIC 200™ STORAGE EQUIPMENT

MISCELLANEOUS

WIRE SPOOL RACKS

CIF

2-BAR

- ALL STEEL CONSTRUCTION
- PLATED STEEL RODS
- RED BAKED ENAMEL FINISH
- EASY WALL MOUNT DESIGN

4-BAR

DESCRIPTION		PART
2-Bar Wire Spool Rack 26-1/8"W x 17-7/8"H x 5-3/4"D	A	7913
4-Bar Wire Spool Rack 26-1/8"W x 36-1/2"H x 5-3/4"D	A	7914

WALL MOUNTABLE THREAD CHECKER

CIF

DIMENSIONS: 3"W x 39"H

- BOLT AND NUT THREAD CHECKER IN BOTH STANDARD AND METRIC SIZES
- BOLT LENGTH AND SCREW SIZE CHECKER IN BOTH STANDARD AND METRIC SIZES
- MOUNTED ON HEAVY-DUTY 1/2 INCH SINTRA
- STANDARD SIZES: 6-32, 8-32, 10-24, 10-32, 1/4-20, 1/4-28, 5/16-18, 5/16-24, 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13, 1/2-20, 9/16-12 AND 9/16-18
- METRIC SIZES: M4x0.7, M5x0.8, M6x1.0, M7x1.0, M8x1.0, M8x1.25, M10x1.0, M10x1.25, M10x1.5, M12x1.25, M12x1.5 and M12x1.75

DESCRIPTION		PART
Wall Mountable Thread Checker Measures nuts and bolts 6-32 to 9/16-18 coarse & fine thread and metric sizes M4x0.7 to M12x1.75	A	7899

WIRE STORAGE CADDY

CIF

Caddy shown with 3-bars

TWELVE SEPARATE COMPARTMENTS KEEP SUPPLIES ORGANIZED

CONVENIENT, DURABLE AND EASY TO USE, THE WIRE STORAGE CADDY IS A GREAT, PORTABLE ORGANIZATIONAL TOOL.

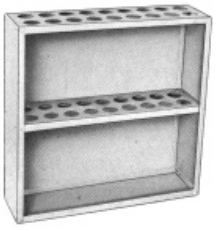
- HEAVY DUTY COLD ROLLED STEEL CONSTRUCTION
- DURABLE BAKED RED ENAMEL FINISH
- ELEVEN ROD MOUNTING HOLES GIVE YOU THE FREEDOM TO CONFIGURE THE CADDY IN SEVERAL WAYS
- LARGE CARRYING HANDLE MAKES TRANSPORTATION EASY
- PLENTY OF STORAGE FOR CONNECTORS, TERMINALS, AND STRIP/CRIMP TOOL
- LID CAN BE SECURED WITH A PADLOCK

PRE-CONFIGURED CADDIES WITH WIRE ASSORTMENTS ARE AVAILABLE TO MAKE YOUR TASKS EVEN EASIER. SEE SECTION 20, PART NUMBERS 17995, 17996.

DESCRIPTION		PART
4-Bar Wire Storage Caddy – 16-3/4" H x 11" W x 7-1/2" D	A	50007

THREADED ROD HOLDER

CIF



DESCRIPTION		PART
18 Compartments 2-1/8" Dia. to separate and protect threaded rod. 24"W x 24-3/8"H x 6-7/8"D	A	7960

KEY STOCK BIN

CIF

STOCK NOT INCLUDED IN STORAGE BIN SHOWN – ONLY FOR DISPLAY

DESCRIPTION		PART
12 compartments to separate and protect key stock. Key hole slots for wall mounting. 3" panel for use as sign. 12-1/4"W x 12"H x 6-1/8"D	A	7931

WIRE, HOSE, TUBING DISPENSER

CIF

DESCRIPTION		PART
19-9/16"W x 13-3/32"H back x 11-15/16"H front)	A	50002

CIC 200™ STORAGE EQUIPMENT

MISCELLANEOUS

WINDSHIELD WIPER DISPLAY RACKS

CIF

WALL RACK
1 FT. PEGBOARD RACK WITH 5 HOOKS. HOLDS UP TO 50 WIPER BLADES. INCLUDES HEADER CARD.

FREE STANDING DISPLAY RACK
RACK ON WHEELS CAN BE PLACED ANYWHERE IN STORES OR WAITING AREAS. DESIGNED TO ATTRACT CUSTOMER ATTENTION, THIS RACK HOLDS UP TO 100 WIPER BLADES. INCLUDES HEADER CARDS.

Wall Rack Displays 50 Wipers

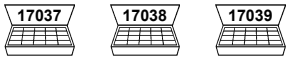
Free Standing Rack Displays 100 Wipers

DESCRIPTION		PART
Wall Windshield Wiper Rack – Holds 50 Wipers	A	50013
Free Standing Windshield Wiper Rack – Holds 100 Wipers	A	50014

NIPPLE CADDY

CIF

- For pipe nipples: 1/2" and 3/4"
- Holds: 42 1/2" nipples and 36 3/4" nipples
- Dimensions: 18-1/2" x 8-1/4" x 8-3/4"
- For easy toting and organization
- Made of high density polyethylene
- Withstands harsh chemicals, acids, & oils
- Will not rust or corrode and nipples will not rust
- When bent or crushed, will spring back into shape (no permanent damage)
- Strong enough to take abuse, yet caddy is half the weight of metal
- Keeps nipples out of water & other liquids (drain holes in bottom of caddy)
- Perfect for every plumber's truck



DESCRIPTION		PART
Nipple Caddy	A	50022

DELUXE CARRY CADDY

CIF

Work Smarter! Multi-purpose design helps lower labor costs by reducing the number of trips to supply closets.

- Versatile storage for cleaning cloths, spray bottles, and more
- Lightweight, durable construction
- Dimensions: 15" L x 10.9" W x 7.4" H
- Interior shape prevents spray bottles from shifting and falling over
- Ergonomic non-slip handle extends above caddy for improved user comfort
- Round corners and smooth surfaces for easy cleaning and maintenance

Large capacity securely carries up to eight 32 oz. spray bottles or a combination of cleaning tools and supplies more efficiently.

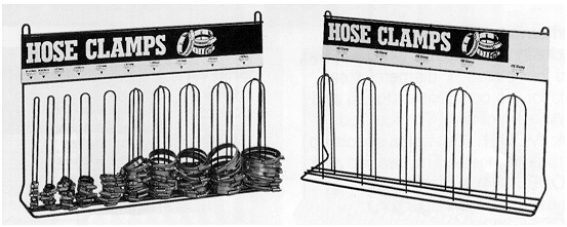
DESCRIPTION		PART
Deluxe Carry Caddy	A	50025

CIC 200™ STORAGE EQUIPMENT

MISCELLANEOUS

HOSE CLAMP

CIF



DESCRIPTION		PART
Sturdy steel wire construction holds 10 sizes of hose clamps 23-1/4"W x 16-1/4"H x 5-1/4"D	A	7935
Sturdy steel wire construction holds 5 sizes of hose clamps 23-1/4"W x 16-1/4"H x 5-1/4"D	A	7985

BIN AND TOOLBOX MAGNETIC HOLDER

AIF

- POWERFUL MAGNETS HOLD ITEMS SECURELY TO FERROUS METAL SURFACES
- ADJUSTABLE AND REUSABLE DOUBLE STRAP SYSTEM HOLDS A VARIETY OF OBJECTS
- HOLDS TROUBLE LIGHTS, SPRAY CANS, SMALL POWER TOOLS, BROOMS, TAPE GUNS AND MORE TO METAL BEAMS, WALLS, STORAGE RACKS, FILE CABINETS OR TOOL BINS FOR EASY ACCESS

FLASHLIGHT NOT INCLUDED

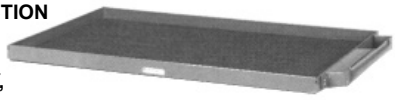
DESCRIPTION		PART
Bin and Toolbox Magnetic Holder	A	66426

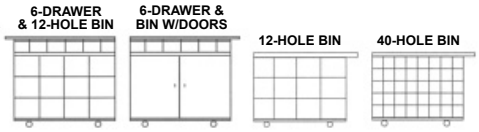
MOBILE CART/WORK STATION

CIF

- **EASILY CREATE ANY 2-SIDED BIN CONFIGURATION THAT MOVES EASILY AND SMOOTHLY ON HEAVY-DUTY CASTERS AND OFFERS WELL ARRANGED SPACE TO STORE PARTS, TOOLS AND NEEDED SUPPLIES**
- **MADE OF PRIME COLD-ROLLED STEEL CONSTRUCTION**
- **RUST AND ACID RESISTANT**
- **HEAVY-DUTY CASTERS HAVE 1,000 LBS. CAPACITY, 2 RIGID, 2 SWIVEL (FIXED WITH LOCKING BRAKES)**
- **ALL WELDED COMPONENTS BOLT TOGETHER WITH PROVIDED FASTENERS FOR EASY ASSEMBLY**
- **RUBBER TRAY MAT OFFERS DURABLE, NON-SKID WORK SURFACE**

BINS NOT INCLUDED





SAMPLE CONFIGURATIONS

DESCRIPTION		PART
Mobile Cart / Work Station Includes top surface with handle and base with heavy-duty casters	A	50001

WELDING ROD BIN

CIF

DIMENSIONS: 16-1/16" W x 18-1/16" D x 8-1/8" H

COMPARTMENTS: 5-1/4" W x 18-1/16" D x 4" H

DESCRIPTION		PART
Welding Rod Bin	A	7908

CIC 200™ STORAGE EQUIPMENT

MISCELLANEOUS

GEAR / TOOL BOXES

AIF

- DEEP OPEN INTERIOR ACCOMMODATES LARGE, TALL PARTS AND EQUIPMENT
- CAM-OVER LATCH DESIGN PROVIDES ADDED STRENGTH
- LARGE CARRY HANDLE MAKES HAULING EASIER
- TONGUE AND GROOVE DESIGN HELPS KEEP DUST AND CONTAMINATES OUT
- SNAP-OPEN LID IS PERFECT FOR STORING SMALL PARTS
- LIFT-OUT TRAY KEEPS EVERYTHING ORGANIZED AND AT YOUR FINGERTIPS

DESCRIPTION		PART
Orange Gear/Tool Box	A	79000

MDK TOOL BOX

AIF

- FRONT LOADER
- BULK STORAGE BENEATH LID FOR LARGER TOOLS & SUPPLIES
- TWO OUTSIDE TOOL HOLDERS
- COMES WITH 3 STORAGE TRAYS
  - 8258 (2)
  - 28258 (1)
- SIZE: 21" x 12.25" x 14.5"
- MADE IN U.S.A.

DESCRIPTION		PART
Flambeau Tool Box	A	8257
MDK Large Insert Tray/Drawer	A	8258
MDK Large Double Insert Tray with Dividers	A	28258

UTILITY SOFT SIDE TOOL ORGANIZER

AIF

- LARGE CAPACITY STORAGE
- OPENED AT TOP FOR EASY ACCESS
- POCKETS DESIGNED TO PROVIDE BETTER ORGANIZATION
- DURABLE WATER RESISTANT BOTTOM
- REINFORCED RIVETS THROUGHOUT FORADDED DURABILITY
- SOFT, RUBBERIZED HANDLE
- INDUSTRIAL-GRADEMETAL CLASPS

DESCRIPTION		PART
Large Utility Soft Side Tool Organizer	A	79002
Small Utility Soft Side Tool Organizer	A	79003

UTILITY TOOL HOLSTER

CIF

Heavy Duty Tool Holder with Metal Belt Clip

- Tough nylon case
- Durable steel belt clip
- Holds all kinds of tools
- Also holds drill bits
- Seals tight with Velcro® cover

Utility Tool Holster
P/N 70005
- 7" Length
- 2-1/2" Width

DESCRIPTION		PART
Utility Tool Holster	A	70005

CIC 200™ STORAGE EQUIPMENT

MISCELLANEOUS

ROLLING CASE (HOLDS 8 METAL ASSORTMENT TRAYS)

AIF

- **TOTAL PROTECTION FOR YOUR EQUIPMENT – UNBREAKABLE, WATERTIGHT, DUSTPROOF, CHEMICAL RESISTANT & CORROSION PROOF**
- **MADE OF DURABLE ULTRA HIGH IMPACT STRUCTURAL COPOLYMER**
- **EXCLUSIVE 1/4" (6.4mm) POLYMER O-RING AND ABS "EASY-TO-OPEN" LATCHES SEAL PERFECTLY AND INCLUDE AN AUTOMATIC PURGE VALVE FOR QUICK EQUALIZATION AFTER CHANGES IN ATMOSPHERIC PRESSURE**
- **EQUIPPED WITH HEAVY DUTY WHEELS, A RETRACTABLE EXTENSION HANDLE AND MULTIPLE FOLD DOWN CARRYING HANDLES**
- **1" FOAM LINING ON ALL SIDES AND CONVOLUTED FOAM IN LID FOR TOTAL SUBJECTION AND PROTECTION AGAINST IMPACT, VIBRATION OR SHOCK**

DESCRIPTION		PART
Rolling Case	A	79004C

GRADE 5 FASTENERS

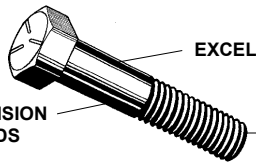
- Heat-Treated Alloy Steel
- Minimum 120,000 psi Tensile Strength
- Special Chromate Protective Plating
- Class 2A Precision Rolled Threads
- Excellent Elongation Properties
- Smooth, Chamfered End
- Heat Treated Alloy Steel Washers Assures Highest Clamping Load Without Dishing, Bending or Galling

CHROMATE GRADE 5 FASTENERS MEET ALL GRADE 5 SPECIFICATIONS.
Manufactured to exacting specifications and plated for corrosion resistance and durability.

GRADE 5 CAP SCREWS

WITH CHROMATE PROTECTIVE PLATING

- HEAT-TREATED ALLOY STEEL
- MINIMUM 120,000 PSI TENSILE STRENGTH



LENGTH	1/4 DIA.		5/16 DIA.		3/8 DIA.		7/16 DIA.		1/2 DIA.	
	USS-20	SAE 28	USS-18	SAE 24	USS-16	SAE 24	USS-14	SAE 20	USS-13	SAE 20
3/8	R 50511	–	–	–	–	–	–	–	–	–
1/2	T 50510	T 40510	T 50534	T 40534	T 50557	T 40557	–	–	–	–
5/8	T 50512	T 40512	T 50535	T 40535	T 50549	*	–	–	–	–
3/4	T 50514	T 40514	T 50536	T 40536	T 50558	T 40558	R 50579	T 40579	R 50595	R 40595
7/8	T 50515	T 40515	T 50539	T 40539	T 50561	*	*	*	*	*
1	T 50516	T 40516	T 50538	T 40538	T 50560	T 40560	R 50580	R 40580	R 50594	R 40594
1-1/4	T 50518	T 40518	T 50540	T 40540	R 50562	R 40562	R 50582	R 40582	R 50596	N 40596
1-1/2	T 50520	T 40520	T 50542	T 40542	R 50564	R 40564	R 50584	R 40584	R 50598	N 40598
1-3/4	T 50522	T 40522	T 50544	T 40544	R 50566	R 40566	R 50586	R 40586	N 50600	N 40600
2	T 50524	T 40524	T 50546	R 40546	R 50568	R 40568	R 50588	N 40588	N 50602	N 40602
2-1/4	R 50525	T 40525	R 50547	R 40547	R 50569	R 40569	N 50585	N 40585	N 50603	N 40603
2-1/2	R 50526	T 40526	R 50550	R 40550	R 50572	R 40572	N 50590	N 40590	N 50604	N 40604
2-3/4	R 50527	R 40527	R 50548	R 40548	R 50570	R 40570	*	*	N 50605	*
3	R 50528	R 40528	R 50552	R 40552	R 50574	R 40574	N 50592	N 40592	N 50606	N 40606
3-1/4	*	*	*	*	N 50563	*	*	*	N 50609	*
3-1/2	R 50530	R 40530	R 50554	N 40554	N 50576	N 40576	N 50591	N 40591	N 50608	N 40608
3-3/4	*	*	*	*	N 50565	*	*	*	N 50614	*
4	R 50532	N 40532	N 50556	N 40556	N 50578	N 40578	N 50593	I 40593	I 50610	I 40609
4-1/2	N 50533	N 40533	N 50551	N 40551	I 50573	I 40573	I 50587	I 40587	I 50611	I 40610
5	N 50529	I 40529	N 50553	I 40553	I 50575	I 40575	I 50589	I 40589	I 50612	I 40612
5-1/2	N 50537	I 40537	I 50559	I 40559	I 50571	I 40571	I 50581	I 40581	I 50601	I 40611
6	I 50531	I 40531	I 50700	I 40555	I 50577	I 40577	I 50583	I 40583	I 50607	I 40607
6-1/2	*	*	*	*	I 50567	*	*	*	E 50657	*
7	*	*	*	*	E 50699	*	*	*	E 50639	E 40639
8	*	*	*	*	–	*	*	*	E 50641	E 40641

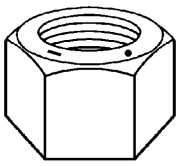
LENGTH	9/16 DIA.		5/8 DIA.		3/4 DIA.		7/8 DIA.	1 DIA.	1-1/8 DIA.	1-1/4 DIA.
	USS-12	SAE 18	USS-11	SAE 18	USS-10	SAE 16	USS-9	USS-8	USS-7	USS-7
1	N 50615	*	N 50623	I 40623	I 50643	–	–	–	–	–
1-1/4	N 50617	N 40617	N 50625	I 40625	I 50655	I 40655	–	–	–	–
1-1/2	N 50618	N 40618	N 50626	I 40626	I 50648	I 40648	E 50669	*	–	–
1-3/4	N 50619	N 40619	N 50628	I 40628	I 50649	I 40649	*	*	–	–
2	I 50620	I 40620	N 50630	I 40630	I 50650	I 40650	E 50671	E 50682	*	*
2-1/4	*	*	I 50635	I 40635	I 50651	–	*	*	*	*
2-1/2	I 50622	I 40622	I 50632	I 40632	I 50652	E 40652	E 50672	E 50683	B 50692	-
2-3/4	*	*	I 50637	*	I 50653	E 40653	*	*	*	*
3	I 50624	I 40624	I 50634	I 40634	I 50654	E 40654	E 50673	E 50684	B 50693	*
3-1/4	*	*	I 50659	*	E 50505	E 40505	*	E 50681	*	*
3-1/2	I 50613	I 40613	I 50636	I 40636	E 50656	E 40656	E 50674	E 50685	B 50694	B 50501
4	I 50621	I 40621	I 50638	I 40638	E 50658	E 40658	E 50675	B 50686	B 50695	*
4-1/2	I 50627	I 40627	I 50640	I 40640	E 50660	E 40660	E 50670	*	B 50696	–
5	I 50629	I 40629	I 50642	I 40642	E 50662	E 40662	E 50676	B 50687	B 50697	A 50502
5-1/2	I 50631	*	E 50644	–	E 50664	E 40664	E 50680	*	*	A 50503
6	E 50633	E 40633	E 50646	E 40646	E 50666	E 40666	B 50677	B 50688	*	A 50504
6-1/2	*	*	E 50661	*	*	*	*	*	*	*
7	*	*	E 50645	–	B 50667	B 40667	B 50678	B 50689	*	*
7-1/2	*	*	E 50663	*	*	*	*	*	*	*
8	*	*	E 50647	E 40647	B 50668	B 40668	B 50679	B 50690	*	*
8-1/2	–	–	E 50665	*	*	*	*	*	*	*

*Available in Grade 8 series

GRADE 5 NUTS

DESIGNED FOR USE WITH GRADE 5 CAP SCREWS

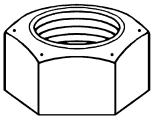
FINISHED THICK HEX NUTS



- USE WITH GRADE 5 CAP SCREWS FOR BALANCED ASSEMBLY
- MEETS GRADE 5 SPECIFICATIONS
- 30% THICKER FOR GREATER HOLDING/WRENCHING POWER
- HEAT TREATED
- CHROMATE PROTECTIVE PLATING AND WAXED

SIZE		TPI (USS)	WAF	HGT	P/N USS
T	1/4	20	7/16	9/32	52330
T	3/8	16	9/16	13/32	52334
R	7/16	14	11/16	29/64	52336
R	1/2	13	3/4	9/16	52338
N	5/8	11	15/16	23/32	52342

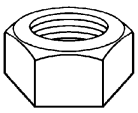
PREVAILING TORQUE TAPER LOCK NUTS



- USE WITH GRADE 5 CAP SCREWS
- GRADE B SPECIFICATIONS
- TRIPLE HEAT TREATED
- SUPERIOR VIBRATION AND SHOCK RESISTANCE
- 120,000 PSI
- CLEAR PLATING ZINC

SIZE		TPI		WAF	HGT	USS	SAE
		USS	SAE				
T	1/4	20	28	7/16	1/4	52345	52360
T	5/16	18	24	1/2	19/64	52346	52361
T	3/8	16	24	9/16	3/8	52347	52362
R	7/16	14	20	11/16	27/64	52348	52363
R	1/2	13	20	3/4	1/2	52349	52364
N	9/16	12	18	7/8	35/64	52350	52365
N	5/8	11	18	15/16	41/64	52351	52366
L	3/4	10	16	1-1/8	47/64	52352	52367
I	7/8	9	14	1-5/16	27/32	52353	52368
E	1	8	14	1-1/2	15/16	52354	52369

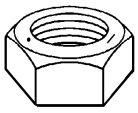
HEAVY HEX NUTS



- SPECIAL PRIME STEEL
- EXTRA WIDTH FOR OVER-SIZED WRENCHING
- CHROMATE PROTECTIVE PLATING

SIZE		TPI		WAF	HGT	USS
		USS	SAE			
U	1/4	20	28	1/2	15/64	43320
U	5/16	18	24	9/16	19/64	43322
T	3/8	16	24	11/16	23/64	43324
T	7/16	14	20	3/4	27/64	43326
R	1/2	13	20	7/8	31/64	43328
O	9/16	12	18	15/16	35/64	43330
O	5/8	11	18	1-1/16	39/64	43332
O	3/4	10	16	1-1/4	47/64	43334
L	7/8	9	14	1-7/16	55/64	43336
I	1	8	14	1-5/8	63/64	43338

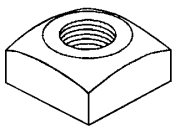
FINISHED HEX NUTS



- USE WITH GRADE 5 CAP SCREWS FOR BALANCED ASSEMBLY
- MEETS GRADE 5 SPECIFICATIONS
- CLEAR ZINC PLATED

SIZE	TPI		WAF	HGT	USS		SAE	
	USS	SAE						
1/4	20	28	7/16	7/32	T	52300	T	42200
5/16	18	24	1/2	17/64	T	52302	T	42202
3/8	16	24	9/16	21/64	T	52304	T	42204
7/16	14	20	11/16	3/8	R	52306	T	42206
1/2	13	20	3/4	7/16	R	52308	T	42208
9/16	12	18	7/8	31/64	R	52310	R	42210
5/8	11	18	15/16	35/64	R	52312	R	42212
3/4	10	16	1-1/8	41/64	N	52314	R	42214
7/8	9	14	1-5/16	3/4	I	52316	N	42216
1	8	14	1-1/2	55/64	I	52318	N	42218

SQUARE NUTS



SIZE	USS TPI	WAF	HEIGHT	USS		SIZE	USS TPI	WAF	HGT	USS	
1/4	20	7/16	7/32	T	62800	3/4	10	1-1/8	21/32	R	62806
5/16	18	9/16	17/64	T	62801	7/8	9	1-5/16	49/64	N	62807
3/8	16	5/8	21/64	T	62802	1	8	1-1/2	7/8	N	62808
7/16	14	3/4	3/8	T	62803	1-1/8	7	1-13/16	1-5/64	I	62809
1/2	13	13/16	7/16	T	62804	1-1/4	7	1-7/8	1-3/32	E	62810
5/8	11	1	35/64	T	62805	1-1/2	6	2-1/4	1-5/16	E	62811

GRADE 5 NUTS

ASSORTED NUTS FOR VARIOUS USES

SLOTTED HEX NUTS

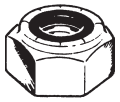
- **Meets Grade 5 specifications**
- **USS and SAE threads**
- **Hex nut with opposed slots cut into the top of the nut – slots allow the insertion of a cotter pin**
- **Commonly used in automotive industry to secure wheel bearings / hubs to spindles**
- **Zinc clear finish**

17693

17692

SIZE	TPI		WAF	THICKNESS	USS	SAE
	USS	SAE				
1/4"	20	28	7/16	7/32	I 42220	I 42229
5/16"	18	24	1/2	17/64	I 42221	I 42230
3/8"	16	24	9/16	21/64	I 42222	I 42231
7/16"	14	20	11/16	3/8	I 42223	I 42232
1/2"	13	20	3/4	7/16	I 42224	I 42233
5/8"	11	18	15/16	35/64	I 42225	I 42234
3/4"	10	16	1-1/8	41/64	I 42226	I 42235
7/8"	9	14	1-5/16	3/4	I 42227	I 42236
1"	8	14	1-1/2	55/64	I 42228	I 42237

NYLON LOCK NUTS

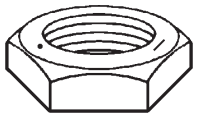


- **SPECIAL PRIME STEEL**
- **ONE-PIECE NYLON INSERT FOR POSITIVE 360⁰ LOCKING**
- **REUSABLE**
- **CHROMATE PROTECTIVE PLATING**

BIN

SIZE	WAF	HGT	USS	SAE	SIZE	WAF	HGT	USS	SAE
T 4-40	1/4	9/64	6000	—	R 3/8	9/16	7/16	6030	5030
T 6-32	5/16	11/64	6005	—	R 7/16	11/16	7/16	6035	5035
T 8-32	11/32	15/64	6010	—	O 1/2	3/4	19/32	6040	5040
T 10-24	3/8	15/64	6015	—	O 9/16	7/8	21/32	6045	5045
T 10-32	3/8	15/64	—	5015	L 5/8	15/16	3/4	6050	5050
T 12-24	3/8	15/64	6017	—	I 3/4	1-1/8	7/8	6055	5055
T 1/4	7/16	21/64	6020	5020	I 7/8	1-5/16	1	6060	5060
T 5/16	1/2	11/32	6025	5025	E 1	1-1/2	1-1/16	6065	5065

JAM NUTS



- **MEETS GRADE 5 SPECIFICATIONS**
- **N.C. / N.F. THREADS**
- **DURABLE ZINC CHROMATE PLATING**

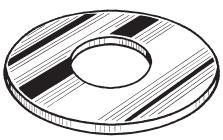
17780

SIZE	TPI		WAF	THICK	USS	SAE
	USS	SAE				
1/4	20	28	7/16	5/32	T 6001	T 6021
5/16	18	24	1/2	3/16	T 6002	T 6022
3/8	16	24	9/16	7/32	T 6003	T 6023
7/16	14	20	11/16	1/4	T 6004	T 6024
1/2	13	20	3/4	5/16	T 6006	T 6026
9/16	12	18	7/8	5/16	T 6008	–
5/8	11	18	15/16	3/8	T 6009	R 6029
3/4	10	16	1-1/8	27/64	T 6011	R 6031
7/8	9	14	1-5/16	31/64	T 6012	N 6032
1	8	14	1-1/2	35/64	T 6013	N 6033
1-1/2	–	12	2-1/4	27/32	–	E 6034

WASHERS

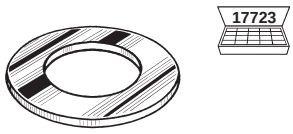
USS WASHERS

USS WIDEBAND WASHERS



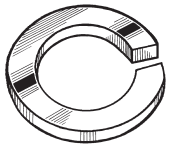
SIZE	I.D.	O.D.	PART	
#10 (3/16)	1/4	9/16	W	66431
1/4	5/16	3/4	T	66432
5/16	3/8	7/8	T	66433
3/8	7/16	1	T	66435
7/16	1/2	1-1/4	T	66437
1/2	9/16	1-3/8	T	66439
9/16	5/8	1-1/2	R	66441
5/8	11/16	1-3/4	R	66443
3/4	13/16	2	N	66445
7/8	15/16	2-1/4	N	66447
1	1-1/16	2-1/2	N	66449

USS NARROW WASHERS



SIZE	I.D.	O.D.	PART	
#4	1/8	5/16	W	31235
#6	5/32	3/8	W	31236
#8	3/16	7/16	W	31237
#10 (3/16)	7/32	1/2	W	31238
#12	1/4	9/16	W	31239
1/4	9/32	5/8	T	31240
5/16	11/32	11/16	T	31242
3/8	13/32	13/16	T	31244
7/16	15/32	59/64	T	31246
1/2	17/32	1-1/16	T	31248
9/16	19/32	1-3/16	R	31250
5/8	21/32	1-5/16	R	31252
3/4	13/16	1-1/2	N	31254
7/8	15/16	1-3/4	N	31256
1	1-1/16	2	N	31258

USS LOCKWASHERS

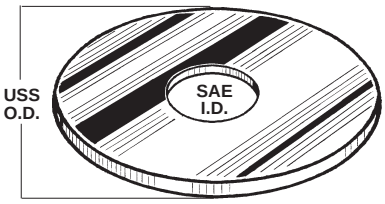


SIZE	USS		SIZE	PART	
#4	W	71200	7/16	T	71216
#6	W	71202	1/2	T	71218
#8	W	71204	9/16	T	71220
#10 (3/16)	W	71206	5/8	R	71222
#12	W	71208	3/4	R	71224
1/4	U	71210	7/8	R	71226
5/16	U	71212	1	N	71228
3/8	U	71214	-		-

UNI-FIT™ FLAT WASHERS

TIGHTER TOLERANCE WITH INCREASED BEARING SURFACE

A superior strength flat washer combining the closer inside diameter tolerance of an SAE washer with the greater load bearing surface of a USS washer.



- **THICKER, WIDER PATTERN IMPROVED STRENGTH AND INCREASED BEARING SURFACE FOR MORE UNIFORM TORQUE TENSION PERFORMANCE.**
- **MARKED WITH CIC LOGO AND SIZE FOR TRACEABILITY AND EASY IDENTIFICATION.**
- **FEWER SIZES NEEDED LOWERS INVENTORY COSTS.**
- **BLUE DICHROMATE MECHANICAL PLATING ASSURES SUPERIOR RESISTANCE TO RUST AND CORROSION FOR LONGER LIFE.**
- **MANUFACTURED FROM HIGH STRENGTH, HEAT-TREATED ALLOY STEEL ASSURES HIGHEST CLAMPING LOAD WITHOUT DISHING, BENDING OR GALLING.**

SIZE	THICKNESS	I.D.	O.D.	PART	
1/4	.086	9/32	3/4	U	6500
5/16	.086	11/32	7/8	U	6501
3/8	.086	13/32	1	U	6502
7/16	.098	15/32	1-1/4	T	6503
1/2	.132	17/32	1-3/8	T	6504
5/8	.146	11/16	1-3/4	R	6506
3/4	.146	13/16	2	O	6507

BIN ASSORTMENTS

GRADE 5 DOUBLE HEAT-TREATED USS FASTENERS

80-Compartment Combo Bin

You Receive Two All-Steel 40-Hole Bins Labeled for 70 of the Fastest Moving Sizes Needed Today in Maintenance!

PART NO. 7878

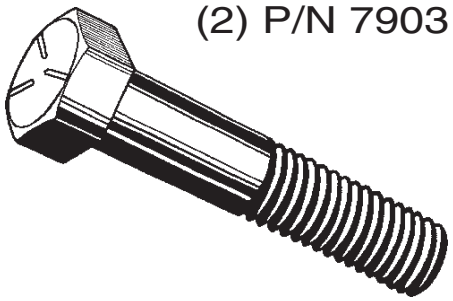
TWO 40-HOLE BINS
33-3/4" wide, 22-1/2" high, 12" deep*

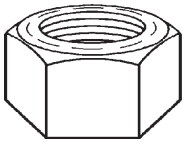
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 70 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. BINS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

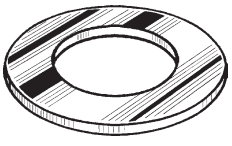
ASSORTMENT CONTAINS:

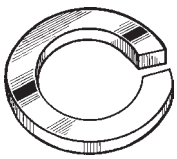
49 Sizes Cap Screws	1/4" thru 3/4" Diameter
7 Sizes Finished Hex Nuts	1/4" thru 3/4" Diameter
7 Sizes Flat Washers	1/4" thru 3/4" Diameter
7 Sizes Lock Washers	1/4" thru 3/4" Diameter

(2) P/N 7903 BINS – COMBINE TO MAKE 80-HOLE BIN









GRADE 5 USS FASTENER ASSORTMENT

P/N 7878 — USS SIZES — 70 ITEMS / 80 HOLES

1/4-20 FINISHED HEX NUT 52300	5/16-18 FINISHED HEX NUT 52302	3/8-16 FINISHED HEX NUT 52304	7/16-14 FINISHED HEX NUT 52306	1/2-13 FINISHED HEX NUT 52308	EXPANSION	5/8-11 FINISHED HEX NUT 52312	3/4-10 FINISHED HEX NUT 52314
1/4 UNI-FIT™ FLAT WASHER 6500	5/16 UNI-FIT™ FLAT WASHER 6501	3/8 UNI-FIT™ FLAT WASHER 6502	7/16 UNI-FIT™ FLAT WASHER 6503	1/2 UNI-FIT™ FLAT WASHER 6504	EXPANSION	5/8 UNI-FIT™ FLAT WASHER 6506	3/4 UNI-FIT™ FLAT WASHER 6507
1/4 LOCK WASHER 71210	5/16 LOCK WASHER 71212	3/8 LOCK WASHER 71214	7/16 LOCK WASHER 71216	1/2 LOCK WASHER 71218	EXPANSION	5/8 LOCK WASHER 71222	3/4 LOCK WASHER 71224
1/4 x 1/2 CAP SCREW 50510	5/16 x 1/2 CAP SCREW 50534	3/8 x 3/4 CAP SCREW 50558	7/16 x 1 CAP SCREW 50580	1/2 x 1 CAP SCREW 50594	EXPANSION	5/8 x 1-1/4 CAP SCREW 50625	3/4 x 1-1/2 CAP SCREW 50648
1/4 x 3/4 CAP SCREW 50514	5/16 x 3/4 CAP SCREW 50536	3/8 x 1 CAP SCREW 50560	7/16 x 1-1/4 CAP SCREW 50582	1/2 x 1-1/4 CAP SCREW 50596	EXPANSION	5/8 x 1-1/2 CAP SCREW 50626	3/4 x 1-3/4 CAP SCREW 50649
1/4 x 1 CAP SCREW 50516	5/16 x 1 CAP SCREW 50538	3/8 x 1-1/4 CAP SCREW 50562	7/16 x 1-1/2 CAP SCREW 50584	1/2 x 1-1/2 CAP SCREW 50598	EXPANSION	5/8 x 2 CAP SCREW 50630	3/4 x 2 CAP SCREW 50650
1/4 x 1-1/2 CAP SCREW 50520	5/16 x 1-1/2 CAP SCREW 50542	3/8 x 1-1/2 CAP SCREW 50564	7/16 x 1-3/4 CAP SCREW 50586	1/2 x 2 CAP SCREW 50602	EXPANSION	5/8 x 2-1/2 CAP SCREW 50632	3/4 x 2-1/2 CAP SCREW 50652
1/4 x 2 CAP SCREW 50524	5/16 x 2 CAP SCREW 50546	3/8 x 2 CAP SCREW 50568	7/16 x 2 CAP SCREW 50588	1/2 x 2-1/2 CAP SCREW 50604	EXPANSION	5/8 x 3 CAP SCREW 50634	3/4 x 3- CAP SCREW 50654
1/4 x 2-1/2 CAP SCREW 50526	5/16 x 2-1/2 CAP SCREW 50550	3/8 x 2-1/2 CAP SCREW 50572	7/16 x 2-1/2 CAP SCREW 50590	1/2 x 3 CAP SCREW 50606	EXPANSION	5/8 x 3-1/2 CAP SCREW 50636	3/4 x 3-1/2 CAP SCREW 50656
1/4 x 3 CAP SCREW 50528	5/16 x 3 CAP SCREW 50552	3/8 x 3 CAP SCREW 50574	7/16 x 3 CAP SCREW 50592	1/2 x 3-1/2 CAP SCREW 50608	EXPANSION	5/8 x 4 CAP SCREW 50638	3/4 x 4 CAP SCREW 50658

BIN ASSORTMENTS

GRADE 5 DOUBLE HEAT-TREATED USS FASTENERS

40-Compartment Steel Bin

You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7870

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

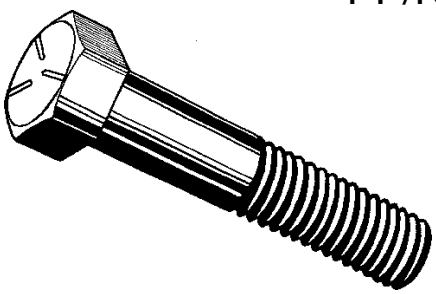
*Can be shipped via UPS

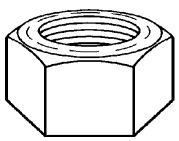
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED.
(See Plan-A-Graph for complete details)

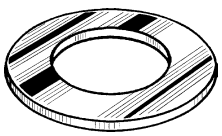
ASSORTMENT CONTAINS:

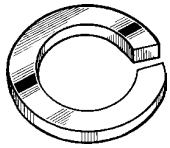
25 Sizes	Cap Screws	1/4" thru 1/2" Diameter
5 Sizes	Finished Hex Nuts	1/4" thru 1/2" Diameter
5 Sizes	Flat Washers	1/4" thru 1/2" Diameter
5 Sizes	Lock Washers	1/4" thru 1/2" Diameter

1 P/N 7903 — 40-Compartment Bin









GRADE 5 USS FASTENER ASSORTMENT

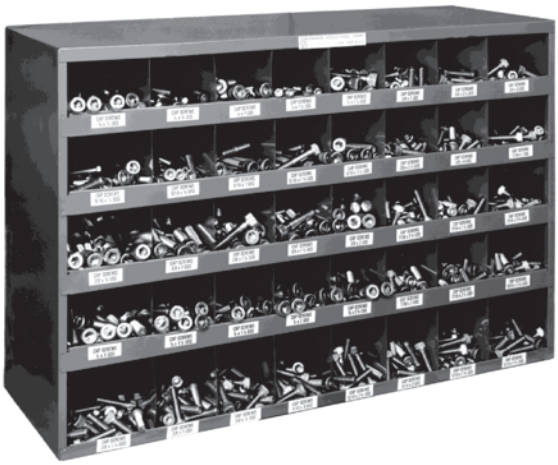
P/N 7870 — USS SIZES — 40 ITEMS / 40 HOLES

1/4-20 FINISHED HEX NUT 52300	1/4 UNI-FIT™ FLAT WASHER 6500	1/4 LOCK WASHER 71210	1/4 x 1/2 CAP SCREW 50510	1/4 x 3/4 CAP SCREW 50514	1/4 x 1 CAP SCREW 50516	1/4 x 1-1/2 CAP SCREW 50520	1/4 x 2 CAP SCREW 50524
5/16-18 FINISHED HEX NUT 52302	5/16 UNI-FIT™ FLAT WASHER 6501	5/16 LOCK WASHER 71212	5/16 x 1/2 CAP SCREW 50534	5/16 x 3/4 CAP SCREW 50536	5/16 x 1 CAP SCREW 50538	5/16 x 1-1/2 CAP SCREW 50542	5/16 x 2 CAP SCREW 50546
3/8-16 FINISHED HEX NUT 52304	3/8 UNI-FIT™ FLAT WASHER 6502	3/8 LOCK WASHER 71214	3/8 x 3/4 CAP SCREW 50558	3/8 x 1 CAP SCREW 50560	3/8 x 1-1/4 CAP SCREW 50562	3/8 x 1-1/2 CAP SCREW 50564	3/8 x 2 CAP SCREW 50568
7/16-14 FINISHED HEX NUT 52306	7/16 UNI-FIT™ FLAT WASHER 6503	7/16 LOCK WASHER 71216	7/16 x 1 CAP SCREW 50580	7/16 x 1-1/4 CAP SCREW 50582	7/16 x 1-1/2 CAP SCREW 50584	7/16 x 2 CAP SCREW 50588	7/16 x 2-1/2 CAP SCREW 50590
1/2-13 FINISHED HEX NUT 52308	1/2 UNI-FIT™ FLAT WASHER 6504	1/2 LOCK WASHER 71218	1/2 x 1 CAP SCREW 50594	1/2 x 1-1/2 CAP SCREW 50598	1/2 x 2 CAP SCREW 50602	1/2 x 2-1/2 CAP SCREW 50604	1/2 x 3 CAP SCREW 50606

BIN ASSORTMENTS

GRADE 5 DOUBLE HEAT-TREATED SAE FASTENERS

40-Compartment Steel Bin



You Receive a 40-Compartment Bin Labeled for 40 of the Fastest Moving Sizes Needed in Maintenance!

PART NO. 7871

ONE STEEL 40-HOLE BIN

33-3/4" wide, 22-1/2" high, 12" deep*

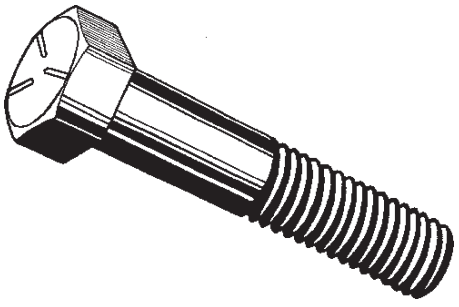
*Can be shipped via UPS

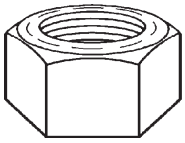
INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 40 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. COMPARTMENTS ARE FULLY LABELED. (See Plan-A-Graph for complete details) ***Use Bin Label Set #168113***

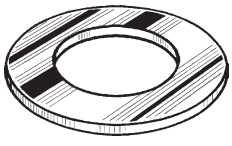
ASSORTMENT CONTAINS:

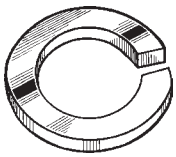
25 Sizes Cap Screws ..... 1/4" thru 1/2" Diameter
5 Sizes Finished Hex Nuts ..... 1/4" thru 1/2" Diameter
5 Sizes Uni-Fit™ Flat Washers ..... 1/4" thru 1/2" Diameter
5 Sizes Lock Washers ..... 1/4" thru 1/2" Diameter

1 P/N 7903 — 40-Compartment Bin









GRADE 5 SAE FASTENER ASSORTMENT

P/N 7871 — SAE SIZES — 40 ITEMS / 40 HOLES

1/4-28 FINISHED HEX NUT 42200	1/4 UNI-FIT™ FLAT WASHER 6500	1/4 LOCK WASHER 71210	1/4 x 1/2 CAP SCREW 40510	1/4 x 3/4 CAP SCREW 40514	1/4 x 1 CAP SCREW 450516	1/4 x 1-1/2 CAP SCREW 40520	1/4 x 2 CAP SCREW 40524
5/16-24 FINISHED HEX NUT 42202	5/16 UNI-FIT™ FLAT WASHER 6501	5/16 LOCK WASHER 71212	5/16 x 1/2 CAP SCREW 40534	5/16 x 3/4 CAP SCREW 40536	5/16 x 1 CAP SCREW 40538	5/16 x 1-1/2 CAP SCREW 40542	5/16 x 2 CAP SCREW 40546
3/8-24 FINISHED HEX NUT 42204	3/8 UNI-FIT™ FLAT WASHER 6502	3/8 LOCK WASHER 71214	3/8 x 3/4 CAP SCREW 40558	3/8 x 1 CAP SCREW 40560	3/8 x 1-1/4 CAP SCREW 40562	3/8 x 1-1/2 CAP SCREW 40564	3/8 x 2 CAP SCREW 40568
7/16-20 FINISHED HEX NUT 42206	7/16 UNI-FIT™ FLAT WASHER 6503	7/16 LOCK WASHER 71216	7/16 x 1 CAP SCREW 40580	7/16 x 1-1/4 CAP SCREW 40582	7/16 x 1-1/2 CAP SCREW 40584	7/16 x 2 CAP SCREW 40588	7/16 x 2-1/2 CAP SCREW 40590
1/2-20 FINISHED HEX NUT 42208	1/2 UNI-FIT™ FLAT WASHER 6504	1/2 LOCK WASHER 71218	1/2 x 1 CAP SCREW 40594	1/2 x 1-1/2 CAP SCREW 40598	1/2 x 2 CAP SCREW 40602	1/2 x 2-1/2 CAP SCREW 40604	1/2 x 3 CAP SCREW 40606

BIN ASSORTMENTS
GRADE 5
SAE ALLOY FASTENERS
80-Compartment Steel Bin

You Receive Two All-Steel 40-Hole Bins Labeled for 70 of the Fastest Moving Sizes Needed Today in Maintenance!

PART NO. 7873

TWO 40-HOLE BINS
33-3/4" wide, 22-1/2" high, 12" deep*

INCLUDED IN THE ORIGINAL ASSORTMENT YOU WILL RECEIVE 70 DIFFERENT ITEMS. YOU WILL BE ABLE TO FILL IN ADDITIONAL SIZES EACH MONTH ON MY SERVICE CALL. BINS ARE FULLY LABELED.

(See Plan-A-Graph for complete details)

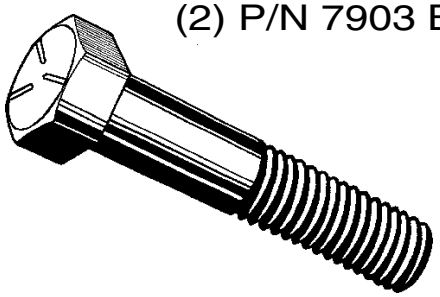
*Can be shipped via UPS

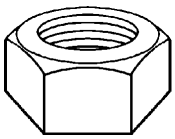
Use Bin Label Set #168113

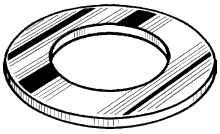
ASSORTMENT CONTAINS:

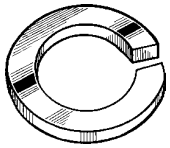
49 Sizes Alloy Cap Screws ..... 1/4" to 3/4" Diameter
7 Sizes Alloy Finished Hex Nuts ..... 1/4" to 3/4" Diameter
7 Sizes Alloy Uni-Fit™ Flat Washers ..... 1/4" to 3/4" Diameter
7 Sizes Alloy Lock Washers ..... 1/4" to 3/4" Diameter

(2) P/N 7903 BINS — COMBINE TO MAKE 80-HOLE BIN









GRADE 5 SAE ALLOY FASTENER ASSORTMENT

PART NO. 7873 — SAE SIZES — 70 ITEMS / 80 HOLES

1/4-28 FINISHED HEX NUT 42200	5/16-24 FINISHED HEX NUT 42202	3/8-24 FINISHED HEX NUT 42204	7/16-20 FINISHED HEX NUT 42206	1/2-20 FINISHED HEX NUT 42208	EXPANSION	5/8-18 FINISHED HEX NUT 42212	3/4-16 FINISHED HEX NUT 42214
1/4 UNI-FIT™ FLAT WASHER 6500	5/16 UNI-FIT™ FLAT WASHER 6501	3/8 UNI-FIT™ FLAT WASHER 6502	7/16 UNI-FIT™ FLAT WASHER 6503	1/2 UNI-FIT™ FLAT WASHER 6504	EXPANSION	5/8 UNI-FIT™ FLAT WASHER 6506	3/4 UNI-FIT™ FLAT WASHER 6507
1/4 LOCK WASHER 71210	5/16 LOCK WASHER 71212	3/8 LOCK WASHER 71214	7/16 LOCK WASHER 71216	1/2 LOCK WASHER 71218	EXPANSION	5/8 LOCK WASHER 71222	3/4 LOCK WASHER 71224
1/4 x 1/2 CAP SCREW 40510	5/16 x 1/2 CAP SCREW 40534	3/8 x 3/4 CAP SCREW 40558	7/16 x 1 CAP SCREW 40580	1/2 x 1 CAP SCREW 40594	EXPANSION	5/8 x 1 CAP SCREW 40623	3/4 x 1-1/2 CAP SCREW 40648
1/4 x 3/4 CAP SCREW 40514	5/16 x 3/4 CAP SCREW 40536	3/8 x 1 CAP SCREW 40560	7/16 x 1-1/4 CAP SCREW 40582	1/2 x 1-1/2 CAP SCREW 40598	EXPANSION	5/8 x 1-1/2 CAP SCREW 40626	3/4 x 2 CAP SCREW 40650
1/4 x 1 CAP SCREW 40516	5/16 x 1 CAP SCREW 40538	3/8 x 1-1/4 CAP SCREW 40562	7/16 x 1-1/2 CAP SCREW 40584	1/2 x 2 CAP SCREW 40602	EXPANSION	5/8 x 2 CAP SCREW 40630	3/4 x 2-1/2 CAP SCREW 40652
1/4 x 1-1/2 CAP SCREW 40520	5/16 x 1-1/2 CAP SCREW 40542	3/8 x 1-1/2 CAP SCREW 40564	7/16 x 2 CAP SCREW 40588	1/2 x 2-1/2 CAP SCREW 40604	EXPANSION	5/8 x 2-1/2 CAP SCREW 40632	3/4 x 3 CAP SCREW 40654
1/4 x 2 CAP SCREW 40524	5/16 x 2 CAP SCREW 40546	3/8 x 2 CAP SCREW 40568	7/16 x 2-1/2 CAP SCREW 40590	1/2 x 3 CAP SCREW 40606	EXPANSION	5/8 x 3 CAP SCREW 40634	3/4 x 3-1/2 CAP SCREW 40656
1/4 x 2-1/2 CAP SCREW 40526	5/16 x 2-1/2 CAP SCREW 40550	3/8 x 2-1/2 CAP SCREW 40572	7/16 x 3 CAP SCREW 40592	1/2 x 3-1/2 CAP SCREW 40608	EXPANSION	5/8 x 3-1/2 CAP SCREW 40636	3/4 x 4 CAP SCREW 40658
1/4 x 3 CAP SCREW 40528	5/16 x 3 CAP SCREW 40552	3/8 x 3 CAP SCREW 40574	7/16 x 3-1/2 CAP SCREW 40591	1/2 x 4 CAP SCREW 40609	EXPANSION	5/8 x 4 CAP SCREW 40638	3/4 x 5 CAP SCREW 40662

AURALLOY RESEARCH

Superior Performance Welding Products Designed to Solve the Maintenance and Repair Welders Problems

- **MAKES WELDING EASIER, EVEN ON INADEQUATE EQUIPMENT**
- **SAVES YOUR COMPANY MONEY**
- **ELIMINATES LARGE INVENTORIES**
- **QUALITY AND VERSATILITY THAT REDUCES DOWN-TIME**

Auralloy helps improve the ability of the mechanic with limited welding experience, while enabling the highly skilled welder to do an even better job by:

- Welding metals of unknown analysis.
- Welding through Paint, Rust, Grease and Oil when cleaning is normally required.
- Welding without pre-heat in most applications.
- Salvaging expensive parts that are now being scrapped.
- No guesswork, the right rod for the job everytime.

Our customers have benefitted from Auralloy's performance with:

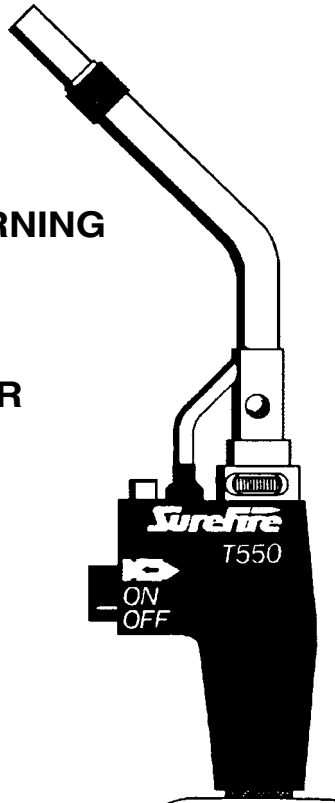
- Reduced Downtime
- Extended Repair Life
- Increased Performance
- Ease of application
- Decreased Costs

The Auralloy Quality Formula will put Maintenance and Repair Power into your Shop — ***NOW!***

AURALLOY RESEARCH

THE SUREFIRE HEAVY DUTY SELF-IGNITING PROPANE OR MAPP TORCH

- **DESIGNED FOR PROFESSIONAL USE***
- **IGNITED AUTOMATICALLY AT THE PUSH OF A BUTTON**
- **INSTANT ON — INSTANT OFF! NO MATCHES!**
- **VARIABLE FLAME ADJUSTMENT**
- **TRIGGER LOCK PROVIDES CONTINUOUS BURNING**
- **IGNITES AND BURNS UPSIDE DOWN**
- **3400°F AT TIP — BRAZE AND SOLDER COPPER PIPE, LIGHT STEEL AND SHEET METAL**
- **PRESSURE REGULATOR PROVIDES EVEN FLOW OF GAS IN ALL POSITIONS**
- **SAFE AND EASY TO USE**



Not Available in Mass-Market Retail Stores

P/N 8866
PKG. OF 1

MAPP OR PROPANE

AURALLOY®
WELDING PRODUCTS

FEATURES:

- **High Quality, High Purity Welding, Brazing and Soldering Supplies**
- **Engineered Specifically For the Maintenance and Repair Welder**
- **Superior Strength**
- **Full Compliment of Alloys For Most Every Common Maintenance Application**
- **Unmatched Performance and Reliability**

AURALLOY WELDING, BRAZING AND SOLDERING PRODUCTS ARE DESIGNED FOR THE MAINTENANCE WELDER WHO GENERALLY PERFORMS REPAIRS IN LESS THAN IDEAL CONDITIONS. **Overcoming the problems of welding on equipment in place or on oily, greasy or corroded materials -- Auralloy products outperform the rest. Always use Auralloy to make tough repairs easy.**

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AURALLOY 210 RESEARCH *"BLUE VELVET"*

HIGH SPEED WELDING FOR MILD STEELS

SUPERIOR STRENGTH, VERSATILITY AND EASE OF APPLICATION

FEATURES: Ideal for all position welding including vertical and overhead applications. Added iron powder in the coating gives this electrode increased deposition. Excellent penetration and quick solidification makes this electrode excellent for poor as well as good fit up work. Features excellent restrike characteristics, easy slag removal and excellent bead appearance.

TECHNICAL DATA:
Tensile Strength: 81,000 PSI Elongation: 26%
AC-DC either polarity. All positions.

TYPICAL APPLICATIONS:
- Angles and Beams
- Galvanized, Painted, Rusted and Dirty Steels
- Sheet Metal
- Filling Holes

WELDING TECHNIQUES:
While special preparation of the base metal is not necessary, in many cases best results are obtained by first cleaning the weld area of grease, oxides or rust. Maintain a short arc. Use stringer or weave beads. When making stringer beads, a drag type technique may be used.

SIZE	3/32	1/8	5/32
AMPERAGE	80-125	110-150	140-190
PART	e 8700	e 8701	e 8702

AURALLOY 220 RESEARCH

HIGH STRENGTH STEEL ELECTRODE

ALL POSITION ELECTRODE FOR LOW & MEDIUM CARBON STEELS & LOW ALLOY STEELS

FEATURES: Formulated and developed to provide non-cracking high physical properties for welding of low alloy high strength steels, inclu-ding T-1, HY-80 and others. Welds pass-over-pass without chipping slag.

TECHNICAL DATA:
Tensile Strength: 110,000 PSI
Elongation: 28% Hardness: B.H.N. 237
AC or DC constant current. On DC use reverse polarity.

TYPICAL APPLICATIONS:
- Tanks
- Boilers
- Pressure Tubing
- Structural Steels

WELDING TECHNIQUES: Clean weld area. Set amperage within recommended range for electrode size. Hold a close arc and use either stringer or weave technique. Pause momentarily over each crater before extinguishing arc.

SIZE	3/32	1/8	5/32	3/16
AMPERAGE	80-100	110-150	140-210	200-280
PART	i 8705	i 8706	i 8707	i 8708

AURALLOY 225 RESEARCH *"THUNDERBOLT"*

HIGHEST STRENGTH UNIVERSAL STEEL ELECTRODE

WELDS ALL TYPES & GRADES OF SIMILAR & DISSIMILAR STEELS INCLUDING STAINLESS

FEATURES:
The ultimate, multi-purpose steel welding electrode providing a superior combination of tensile strength and elongation.

WELDING TECHNIQUES:
Wire brush away loosely adhering metal, oxides, dirt and contaminants. Set amperage within the range prescribed for the electrode size and initiate arc. Vary amperage and arc gap up or down to suit. Use any technique from stringer bead to wide weave. Electrode lead angle is not critical — vary to suit. Self-releasing slag should be brushed away between passes.

TYPICAL APPLICATIONS:
- Horizontal fillet welds on all grades of construction steels.
- Welding every known grade of tool steel, including prehardened.
- Joining abrasion, heat and corrosion resistant steels.
- Welding specialized iron-base castings with high carbon content.
- Welding Tools and dies of all types.

TECHNICAL DATA:
Tensile Strength: 128,000 PSI Elongation: 36%
AC or DC constant current. On DC use reverse polarity.

SIZE	1/16	3/32	1/8	5/32
AMPERAGE	30-40	40-90	70-110	90-160
PART	i 8709	i 8710	i 8711	i 8712

AURALLOY 225-MIG RESEARCH

MILD STEEL WELDING WIRE

ALL POSITIONS

FEATURES: Mild steel welding wire that contains higher levels of manganese and silicon than other standard grades of MIG wire to produce high quality welds when used on dirty, oily or rusty steel. The high silicon content increases the fluidity of the weld pool, thus creating a smoother bead appearance and resulting in minimal post-weld grinding. This wire is engineered to provide porosity-free, x-ray quality welds at the highest tensile strength (as welded) of all the plain carbon steel wires. This product requires a shielding gas: CO_2 and/or CO_2 mix.

TYPICAL APPLICATIONS:
- General shop applications with poor fit-up or rusty, oily plates
- Steel castings or forging salvage
- Home projects, tanks, sheet metal and construction work

TECHNICAL DATA:
Tensile Strength: 95,000 PSI % Elongation in 2": 25
Welding Current: DECP (Electrode Positive, Reverse Polarity)

SPOOLED	.035
AMPERAGE	100-150
PART	a 8727

AURALLOY 225-B RESEARCH

HIGH STRENGTH UNIVERSAL BARE STEEL ROD

FOR TORCH AND TIG WELDING

FEATURES:
Excellent heat, cracking and fatigue resistance and expansion-contraction properties. Easily joins dissimilar steels while low temperature application allows thin metal joining, overlays or repairs. Produces a non-porous, crack-free deposit.

TYPICAL APPLICATIONS:
- Hospital Equipment
- Food/Beverage Processing Machinery
- Chemical Mixing and Storage Equip.
- Construction Equipment Repairs
- Research Laboratory Equipment
- Oil and Gas Refineries
- Marine and Aircraft Repairs
- Joining Unknown Steels

TECHNICAL DATA:
Tensile Strength: 128,000 PSI Elongation: 36% DC straight polarity

WELDING TECHNIQUES FOR TIG APPLICATIONS:

METAL THICKNESS	AMPS	TUNGSTEN DIAMETER	ARGON FLOW		HELIUM FLOW		ALLOY DIA.
			CFH	PSI	CFH	PSI	
1/8"	DC 60-90	1/16"	17	20	—	—	1/16" / 3/32"
3/16"	DC 150-180	3/32"	21	20	—	—	3/32"
1/4"	DC 170-210	1/8"	25	25	—	—	3/32"
1/2"	DC 200-250	1/8"	—	—	—	—	3/32" / 1/8"

For torch application, a small tip on an oxyacetylene torch is recommended. FLUX should be painted along the area to be joined, overlayed or repaired. Adjust flame to a near neutral stage but slightly more acetylene for best results. Hold torch close and apply drop by drop always allowing deposit to solidify under the flame to prevent oxidation. Always keep the rod under the flame so the rod end will not oxidize. Remove excess flux with water and clean with stainless steel brush.

SIZE	1/16	3/32	1/8
AMPERAGE	60-90	150-210	200-250
PART	i 8728	i 8729	i 8730

AURALLOY 225-V RESEARCH

VERTICAL STEEL ELECTRODE

VERTICAL POSITION HIGH STRENGTH ELECTRODE FOR DISSIMILAR STEELS

FEATURES:
Unique "fast-freeze" coating simplifies vertical down and up welding. Welds all steels, reducing welding rod inventory and eliminating guesswork. Exceptionally high tensile strength for added confidence in all high strength applications. Controlled weld puddle allows for filling holes and joining dissimilar steels.

TECHNICAL DATA:
Tensile Strength: 128,000 PSI
Elongation: 32% Use DC Reverse Polarity or AC

WELDING TECHNIQUES:
The area in which the weld is to be made should be free of rust, grease, paint and other materials which cause weld contamination. A 90° vee joint should be used when joining heavy sections. Maintain a short arc length and use stringer beads.

TYPICAL APPLICATIONS:
- Agitators
- Air tool chucks and jaws
- Armor plates
- Augers
- Axles
- Barker drum staves
- Brake drums, shoes
- Bucket teeth
- Bulldozer frames
- Camshafts
- Castings
- Chipper knives
- Clutch plates
- Coil springs
- Collars
- Crane booms
- Crane rails
- Dies
- Draw bars
- Drills
- Forks
- Foundry racks
- Hole diggers
- Hooks
- Hubs
- Journal bearings
- Journal boxes
- Keyways
- Motor chocks
- Pinions
- Pins
- Pipes
- Propellars
- Pulleys
- Punches
- Pulverizers
- Reamers
- Rollers
- Rotor blades
- Shafts
- Shock absorbers
- Shoval buckets
- Splines
- Spokes
- Spring leaves
- Sprockets
- Thrust bearings
- Tools
- Transmission shafts
- Truck frames
- Valve seats
- Wear plates
- Wheels
- Wobblers
- Worm gears

SIZE	3/32	1/8
AMPERAGE	35-70	60-110
PART	i 8718	i 8719

AURALLOY 230 RESEARCH *"DIRT DEVIL"*

ADVERSE CONDITIONS MILD STEEL ELECTRODE

HIGH TENSILE STRENGTH WELDING OF ALL COMMON MILD STEELS

FEATURES:
Superior all position design for welding vertical, horizontal and overhead applications. Excels on rusty, greasy poor fitting joints in all positions. Can weld through 1/2" (12mm) of surface contamination without porosity. Can bridge gaps as wide as 3/8" (9mm). Exceptional flexibility – electrode can be bent without flux chipping. Faster and easier to use – Slag can be welded over without removal.

WELDING TECHNIQUES:
Weld with a short-medium arc length at low amperage. When surface preparation is impractical, use a medium-long arc and favor high amperages. Multi-pass welds can be made without intermittent slag removal. Use any welding technique from stringer bead to wide weave.

TECHNICAL DATA:
Tensile Strength: 88,000 PSI Elongation: 28%
DC reverse, straight or AC. All position

TYPICAL APPLICATIONS:
Ideally suited for difficult maintenance repairs. Easily welds steels that have been galvanized, painted, rusted or otherwise contaminated in service. Misaligned parts or difficult to access areas are also easily remedied with this electrode.

SIZE	3/32	1/8	5/32	3/16
AMPERAGE	25-75	35-125	50-160	75-200
PART	i 8850	i 8851	i 8852	i 8853

AURALLOY RESEARCH 240 *"HAMMER"*

IMPACT RESISTANT ELECTRODE

FOR JOINING AND SURFACING STEELS

FEATURES: Extra high strength welds that do not spall. Outwears ordinary hardfacing alloys in impact conditions as much as 10 to 1.

TECHNICAL DATA: Tensile Strength: 119,000 PSI
Elongation: 41%
Hardness: Brinell 200-520, Rockwell C10-C50
Use DC Reverse Polarity or AC

WELDING TECHNIQUES: Do not pre-heat. Use the lowest possible amperage and move the electrode as quickly as feasible. Allow to cool slowly.

TYPICAL APPLICATIONS: For joining and repairing steel and manganese steel parts used throughout the railroad, construction and related industries.

SIZE	1/8
AMPERAGE	90-150
PART	[a] 8713

AURALLOY RESEARCH 250 *"STERLING"*

UNIVERSAL STAINLESS STEEL ELECTRODE

HIGH HEAT AND CORROSION RESISTANT

FEATURES: Provides the best combination of AC/DC weldability and deposit chemistry.

WELDING TECHNIQUES: Deposit at low amperage, holding a close arc. Stringer beads are preferred, but the electrode can be weaved up to three times, if the application requires. For filleting, raise amperage 10% and drag electrode, maintaining light pressure. Backwhip crators and remove slag between passes.

TECHNICAL DATA: Tensile Strength: 95,000 PSI
Elongation: 45% AC-DC reverse polarity

TYPICAL APPLICATIONS: Furnace parts including baffle plates, chain links and guides, woven belts and associated hardware. All types of stainless castings, both non-magnetic and magnetic. Crucible tongs, plating baskets and hooks, retorts, vats and other chemical processing components.

SIZE	1/16	3/32	1/8	5/32
AMPERAGE	30-60	60-90	90-120	120-160
PART	[a] 8714	[g] 8715	[i] 8716	[i] 8717

AURALLOY RESEARCH 250-B

UNIVERSAL STAINLESS STEEL BARE ROD

FOR TORCH AND TIG WELDING

FEATURES: Easy to work stainless steel wire with superior corrosion resistant deposits. Excellent strength, impact and abrasion-resistant qualities.

WELDING TECHNIQUES: For torch application, clean area of grease and dirt. Apply Flux to repair area. Use slightly excess flame. Keep torch in motion to uniformly heat area. As flux liquifies, hold torch close. Add alloy to joint drop by drop.

TECHNICAL DATA: Tensile Strength: 86,000 PSI

TYPICAL APPLICATIONS:

- Chemical Mixing and Storage Equipment
- Food and Beverage Processing Machinery
- Marine and Aircraft Repairs
- Research Laboratory Equipment
- Oil and Gas Refineries
- Hospital Equipment

SIZE	1/16	3/32	1/8
PART	[i] 8740	[i] 8741	[i] 8742

AURALLOY RESEARCH 255 *"CASCADE"*

SPECIAL VERTICAL POSITION STAINLESS STEEL ELECTRODE

HIGH HEAT AND CORROSION RESISTANCE

FEATURES: Superior combination of AC/DC weldability and deposit chemistry provides smoother deposits with minimum susceptibility to carbide precipitation and cracking. Faster and easier to use with fast deposition rate, no spatter and easy slag removal.

TYPICAL APPLICATIONS: Especially suited for vertical down and up welding of thin to medium gauge molybdenum bearing stainless steels. Furnace parts including baffle plates, chain links and guides, woven belts and associated hardware. All types of stainless castings, both non-magnetic and magic. Crucible tongs, plating baskets and hooks, retorts, tanks, pipe, tubing, vats and other chemical processing components. Pumps, valves and fittings. Heat exchangers and heat treating boxes.

TECHNICAL DATA: Tensile Strength: 80,000 PSI
Elongation: 42%
Use DC Reverse Polarity or AC

WELDING TECHNIQUES: For vertical welding, set amperage at high end of the scale. Maintain a sharp angle with the electrode pointing upward. Whip the electrode quickly back and forth while moving up or down. Electrode may show a red color from the excess amperage which is normal.

SIZE	3/32	1/8
AMPERAGE	60-80	90-110
PART	[j] 8737	[j] 8738

AURALLOY 300 RESEARCH *"MIDNIGHT"*

FULLY MACHINABLE CAST IRON ELECTRODE

HIGHEST QUALITY ELECTRODE FOR JOINING ALL GRADES OF CAST IRON

FEATURES:
State-of-the-art coated electrode for welding every known grade of cast iron, heavy or thin, and for joining these to steel.

TYPICAL APPLICATIONS:
All grades 30, 40 and 50 gray cast irons in all thicknesses and all positions. All alloy cast irons — ductile, nodular (spheroidal graphitic iron), malleable, meehanite. Engine blocks, diesel heads, gear boxes, transmission housings, differentials, machine bases and presses.

TECHNICAL DATA:
Tensile Strength: 70,000 PSI Elongation: 40%
Use AC or DC. On DC use reverse polarity.

WELDING TECHNIQUES:
Remove loosely adhering material. Searing of surface is highly recommended. Cracks should be beveled after piercing holes at either end to prevent propagation. Preheat is not required unless casting is unusually thick. Adjust amperage and deposit beads approximately 2" long. Skip and stagger to suit. Remove slag between passes. Linger momentarily over final crater before extinguishing the arc.

SIZE	3/32	1/8	5/32
AMPERAGE	50-80	70-110	100-140
PART	i 8720	i 8721	i 8722

AURALLOY 310 RESEARCH

NON-CONDUCTIVE FLUX COATED CAST IRON ELECTRODE

HIGHEST QUALITY ELECTRODE FOR JOINING ALL GRADES OF CAST IRON

FEATURES:
State-of-the-art non-conductive flux coated electrode for welding every known grade of cast iron, heavy or thin, and for joining these to steel.

TYPICAL APPLICATIONS:
All grades 30, 40 and 50 gray cast irons in all thicknesses and all positions. All alloy cast irons — ductile, nodular (spheroidal graphitic iron), malleable, meehanite. Engine blocks, diesel heads, gear boxes, transmission housings, differentials, machine bases and presses.

TECHNICAL DATA:
Tensile Strength: 55,000 PSI Use AC or DC. Reverse polarity.

WELDING TECHNIQUES:
Remove loosely adhering material. Searing of surface is highly recommended. Cracks should be beveled after piercing holes at either end to prevent propagation. Preheat is not required unless casting is unusually thick. Adjust amperage and deposit beads approximately 2" long. Skip and stagger to suit. Remove slag between passes. Linger momentarily over final crater before extinguishing the arc.

SIZE	3/32	1/8
AMPERAGE	60-90	85-120
PART	i 8746	i 8747

AURALLOY 320 RESEARCH *"BLACK BEAUTY"*

COPPER CLAD "TRI-METAL" CORED CAST IRON ELECTRODE

PROPRIETARY COPPER-NICKEL-IRON DEPOSIT CHEMISTRY

FEATURES:
Unique copper plated core wire provides unequaled cast iron welding performance. High efficiency weld metal transfer eliminates electrode overheating. Ultimate combination of software, ductility and tensile strength for ease of use and maximum stress relief.

TYPICAL APPLICATIONS:
The high deposition rate of this electrode creates an extremely narrow heat affected zone. This feature is suitable for all weldable cast irons that require posts weld machining.

TECHNICAL DATA:
Tensile Strength: 77,000 PSI Elongation: 15%
DC Reverse (+) or AC. Flat, Vertical Up, Horizontal, Overhead

WELDING TECHNIQUES:
Guide the electrode at a steep angle keeping the arc length short. Use short staggered beads when welding restrained parts.

SIZE	3/32	1/8	5/32
AMPERAGE	50-70	70-100	100-130
PART	e 8855	e 8856	e 8857

AURALLOY 400 RESEARCH "TURBO"

NEW IMPROVED 25% stronger blast than any other chamfering/cutting electrode

CUTTING, GROOVING AND CHAMFERING ELECTRODE

FOR RAPID METAL REMOVAL ON CAST IRON, STAINLESS, INCONEL, MANGANESE AND ALUMINUM

FEATURES:
The fastest, most economical method of removing unwanted metal. Uses a common welding machine to save hours of grinding and machining time. Extra deep cut, easy restrike and 20% less smoke.

TYPICAL APPLICATIONS:
Dismantling welded structures such as towers, sign supports, and pipe piles. Use for blowing out rivets and for removing old weld overlays on railroad frogs, cross-overs and switches. Ideal for preparing work hardened or heat-treated dies for welding.

TECHNICAL DATA:
AC-DC straight polarity

WELDING TECHNIQUES:
Point electrode in direction of travel and initiate arc. For a shallow chamfer, move electrode quickly along line of cut. A slower or weaving motion provides deeper groove. The molten metal is pushed ahead as the chamfer is made. For deeper grooves, repeat until the required depth is achieved.

SIZE	3/32	1/8	5/32
AMPERAGE	130-200	160-300	180-400
PART	L 8724	L 8725	L 8726

AURALLOY 500 RESEARCH

SUPER STRENGTH SELF-FLUXING SILVER SOLDER

95% TIN 5% SILVER FLUX-CORED SOLDER ALLOY WITH OUTSTANDING STRENGTH

FEATURES:
Fast, easy high strength deposits with solder gun, iron or torch. Melts at a low 430°F, eliminating distortion and weakening of base melt. Conductivity 25% greater than ordinary solders. Contains no lead, cadmium or zinc for safe use and compliance with all pure food laws. Available in 1/2 lb and 1 lb spools or in convenient, pocket-size dispenser.

TECHNICAL DATA:
Tensile Strength: 15,000 PSI

TYPICAL APPLICATIONS:
- Food and Beverage Containers
- Toilet Fixtures
- Sanitary Equipment
- A/C and Refrigeration
- Auto Radiators
- Evaporators
- Regulators and Meters
- Machine Guides
- Chrome Plated Fittings
- Electrical Connections
- Toy and Hobby Repair

SIZE	1/32	1/16	1/16	1/16	1/8	1/8
WEIGHT	.6 oz. Disp. Tube	1.0 oz. Disp. Tube	1/2 lb. Spool	1 lb. Spool	1/2 lb. Spool	1 lb. Spool
PART	F 8781	F 8780	A 8776	A 8775	A 8779	A 8778

AURALLOY 600 RESEARCH "WHITE LIGHTNING"

ALL POSITION ALUMINUM ELECTRODE

FOR JOINING AND METAL BUILD-UP OF ALL WELDABLE GRADES OF ALUMINUM

FEATURES:
Universal electrode for welding all cast, wrought and extruded aluminum and aluminum alloys.

WELDING TECHNIQUES:
Remove oil and grease and sand immediate weld area. Chamfer edges of plates to be joined and open up cracks. Make holes to be filled wider at the top. Preheat heavy sections broadly. In thick-to-thin joining, preheat heavier member. Use any conventional DC coated electrode power source-rectifier type of motor or engine driven generator. Adjust for upper end of recommended amperage range and reduce as welding progresses.

TECHNICAL DATA:
Tensile Strength: 34,000 PSI Use DC current. Reverse polarity.

TYPICAL APPLICATIONS:
- Truck beds, bodies and frames
- Pipe railings, bannisters, stairs, diamond plate
- Irrigation piping
- Engine and motor blocks
- Traffic light bases, highway signs and supports
- Loading ramps and docks
- Door/window frames
- Transmission housings and gear boxes
- Machine bases and supports
- Bus bars, electrical switch boxes and mounts

SIZE	1/8	5/32
AMPERAGE	70-110	100-150
PART	e 8731	e 8732

AURALLOY 610 RESEARCH

HIGH STRENGTH FLUX-CORED ALUMINUM BRAZING ALLOY

GENERAL PURPOSE TORCH BRAZING OF ALL WELDABLE ALUMINUM

FEATURES:
A specially engineered alloy with flux core center for faster, easier joining of all aluminum and aluminum alloys. Provides deep penetration in tight joints. Excellent for out of position brazing and build-up deposits.

TYPICAL APPLICATIONS:
- Motor Housings
- Tools
- Tanks
- Vats
- Ladders
- Utensiles
- Rails
- Beverage Cases
- Pulleys
- Sheaves

TECHNICAL DATA:
Tensile Strength: 30,000 PSI

WELDING TECHNIQUES:
Clean weld area, removing plating or anodized finish. Leave gap approximately 1/6". For thicker parts, cracks or butt joints, bevel a 60° to 70°vee. Use a carburizing flame (excess acetylene with oxygen) and heat work with flame 1" to 3" from surface. Touch rod to weld area depositing small amounts of alloy and allow to flow out and bond to base metal.

SIZE	1/8
PART	e 8745

AURALLOY 620 RESEARCH

EASY-FLOW ALUMINUM ALLOY WIRE

FOR JOINING, FABRICATING AND REPAIRING OF MOST ALUMINUM GRADES

FEATURES:
Provides exceptional strength and ductility for general purpose joining, fabricating and repairing of most aluminum grades. Minimum preparation and low melt (950° - 1010° F) for ease of application. Thin flowing for tight fits. Perfect color match.

TECHNICAL DATA:
Tensile Strength: 35,000 PSI
For torch or tig welding.

TYPICAL APPLICATIONS:
- Poles
- Frames
- Bus Bars
- Sign Posts
- Guard Rails
- Furniture
- Structural Parts
- Housings

WELDING TECHNIQUES:
Clean joint with wire brush removing grease and oxides. Apply Auralloy 620 Flux. Using excess acetylene (carburizing) flame, keep torch in constant motion to uniformly heat area. When flux turns to clear liquid, start adding alloy to the joint.

SIZE	1/16	3/32	1/8
PART	i 8750	i 8751	i 8752

AURALLOY 630 RESEARCH

EZ-WELD ALUMINUM ALLOY

BRAZING ROD FORMULATED FOR HIGH STRENGTH FABRICATION AND ALUMINUM REPAIR

FEATURES: Joints stronger than parent metal. Easy machining of welded areas. Non-corrosive joints. Low heat requirement (propane torch application). Superior strength and adhesion provides permanent seal and strength when subjected to extreme pressure. Contains no lead or cadmium.

TYPICAL APPLICATIONS: AUTOMOTIVE: Radiators, manifolds, transmission housings, pump housings, carburetors, motorcycles, running boards, mobile homes, recreational vehicles. TRADES: Plumbing, heating and A/C, power tools, farm equipment, storm shutters, screen enclosures, satellite dishes, sign companies, aluminum awnings, gutters and down spouts. MARINE: Hulls, leaking rivets, props, brass & bronze fittings, engine parts. HOUSEHOLD: Lawn furniture, doors/windows, bicycles, fishing rods, antiques.

WELDING TECHNIQUES: Clean the surface with a stainless steel brush. Heat the parent metal surface, NOT the E-Z Weld Aluminum Alloy. Apply the E-Z Weld to the heated surface. Keep flame in motion. Allow weld to air-cool naturally. Never plunge into water.

TECHNICAL DATA:
Tensile Strength (lbs./sq. inch): 47,000 PSI
Melting Range: 715°F - 730°F
Density: 25
Elongation: 3%
Compression Strength (lbs./sq. inch): 60-75,000
Shear Strength (lbs./sq. inch): 34,000
Electrical Conductivity: 24.9% of cu
Impact Strength: (Charpy) 4 ft. lbs. to break 1/4" bar
Thermal Conductivity: .24 cal/cu.cm
Hardness: (Brinell 100)
Corrosion Penetration: 300 x 10 in 11-R
Ductility: Good

SIZE	1/8
PART	e 8733 (includes stainless steel wire brush P/N 41340)

AURALLOY 710 RESEARCH *"PINK CADILLAC"*

PREMIUM FLUX COATED SILVER BRAZING ALLOY

PRECISE THIN FLOW JOINING OF ALL FERROUS AND MOST NON-FERROUS METALS

FEATURES:
High 56% silver, cadmium-free formulation provides the ultimate strength for joining all ferrous and most non-ferrous metals. Low working temperature (1120ºF to 1185ºF) for excellent flowing action and adhesion. Super active, fast-flowing flux coating provides twice the base metal cleansing action of conventional silver flux coatings. Cleans the most oxidized stainless steel surfaces to promote rapid wetting action. Superior performance flux coating is totally flexible and chip resistant.

TECHNICAL DATA:
Tensile Strength: 71,000 PSI
Elongation: 25%
Melting Temperature: 1120ºF Solidus, 1200ºF Liquidous

TYPICAL APPLICATIONS:
All ferrous and non-ferrous metals, except aluminum and magnesium. Manufacturing and repairing of all food and beverage equipment. Thin flow joints on aerospace and aircraft applications. Color matching on stainless steel and nickel. Carbide tipping. Joining medical tools and instruments. Hospital carts and equipment.

SIZE	1/16 x 18" PINK FLUX
PART	[j] 8786

AURALLOY 800 RESEARCH *"RUBY"*

FLUX-COATED NICKEL SILVER ALLOY

HIGH STRENGTH ABRASION-RESISTANT BUILD-UP OF FERROUS AND NON-FERROUS METALS

FEATURES:
For oxyacetylene welding of hot or cold rolled steel, tool steel, stainless steel, high carbon steel, cast iron, malleable iron, all alloys of the bronze, copper and nickel family and dissimilar metals (not white metals). Extremely versatile brazing rod with low melt (bonds at approximately 1450ºF) and thin flowing for tight fits. Excellent for rapid build-up deposits for cladding or replacing missing metal. Tough, wear-resistant deposits (150-200 BHN) for strong, non-porous, lasting welds. Highly machinable with minimum preparation for rusty, dirty parts.

TECHNICAL DATA:
Tensile Strength: 100,000 PSI

TYPICAL APPLICATIONS:
Joining and fast build-up of metals and filling holes in steel and cast iron. Ideal for drive shafts, friction plates and gear teeth.

SIZE	3/32	1/8
PART	[i] 8755	[i] 8756

AURALLOY 810 RESEARCH

SELF-FLUXING, NON-FUMING STEEL WIRE

GENERAL PURPOSE JOINING OF STEEL SHEETS, PLATES AND PIPE OF LOW CARBON ANALYSIS

FEATURES:
A versatile mild steel bare rod for gas or tig brazing. Copper metallic coating inhibits rust and improves weldability. Provides a dense, smooth, even bead with no weld porosity. Can be used in all positions and is easily machined, filed or sanded. No flux is required for tig or gas brazing.

TECHNICAL DATA:
Tensile Strength: 70,000 PSI

TYPICAL APPLICATIONS:
- Tanks
- Shafts
- Vats
- Machinery Guards
- Hoods
- Brackets
- Frames
- Wire Mesh
- Sheet Metal

WELDING TECHNIQUES:
Clean joint area to remove grease, paint, rust, dirt or moisture. Keep neutral flame in constant motion on the repair area. Add alloy to joint insuring weld bead has complete penetration of the joint. No flux is required.

SIZE	1/16	3/32	1/8
PART	[i] 8760	[i] 8761	[i] 8762

AURALLOY 820 RESEARCH

HIGH STRENGTH THIN FLOWING BRONZE BRAZING ALLOY

FOR EASY BRAZING OF COPPER, COPPER ALLOYS, BRONZE, BRASS AND NICKEL ALLOYS

FEATURES:
Ideal for joining and repairing thin sheet metal, tubing and fittings of non-ferrous metals. Self-fluxing on copper to copper applications. Ductile deposits withstand vibration. High electrical and heat conductivity. Easily machined. Strong corrosion and wear properties.

TYPICAL APPLICATIONS:
- Refrigeration
- Copper Wire and Cable
- Bus Bars
- Electrical Contacts
- Piping
- Air Conditioning
- Plumbing
- Marine Equipment

TECHNICAL DATA:
Tensile Strength: 46,000 PSI
Working Temperature: 1300ºF to 1460ºF

WELDING TECHNIQUES:
Clean joint area to remove grease and dirt. Use a slightly oxidizing flame and keep flame as low as possible to obtain a free-flowing bead. On copper to copper welds, no flux is required. Use Auralloy 825 Flux for other materials. All joints should be tight fitting. As flux liquifies, melt off a small amount of alloy and continue heating until bonding is complete. Do not overheat. Remove excess flux with water and a clean brush.

SIZE	1/16	3/32	1/8
PART	8765	8766	8767

AURALLOY 830 RESEARCH

HIGH STRENGTH SILICON BRONZE BRAZING ALLOY

ALL POSITION JOINING OF COPPER, COPPER-SILICON AND COPPER-ZINC BASED METALS

FEATURES:
Joins copper, copper-silicon and copper-zinc based metals to themselves or to mild or galvanized steel. Highly corrosion reistant. Eliminates "burn-through" on galvanized coatings. Ideal for dissimilar metal applications. Suitable for thin flow or bead forming deposits. Non-fuming.

WELDING TECHNIQUES:
Clean joint area to remove grease and dirt. Use Auralloy 825 Flux. With a slightly oxidizing flame, heat work until flux liquifies. Keep weld puddle small to assure rapid solidification and to avoid contraction strains. Remove flux residue with hot water and a clean stiff brush.

TECHNICAL DATA:
Tensile Strength: 64,000 PSI
Working Temperature: 1450ºF to 1600ºF

TYPICAL APPLICATIONS:
- Galvanized Parts
- Castings
- Marine Repairs
- Valves and Seats
- Tubing
- Fittings
- Joints and overlays on steel, copper, brass, bronze, naval brass and galvanized sections

SIZE	1/16	3/32
PART	8770	8771

AURALLOY 840 RESEARCH *"SAPPHIRE"*

"SAFE VUE" MOISTURE SEALED FLUX COATED TRIPLE DEOXIDIZED BRONZE BRAZING ALLOY

FOR EASY BRAZING OF STEEL CAST IRON AND COPPER BASE ALLOYS

FEATURES:
Unique "Safe Vue" flux coating eliminates harsh chemical odors and the bright orange visibility blocking glare of conventional sodium type flux coatings. Slick, smooth moisture sealed flux has triple the shelf life of similar products. Flux cleansing action is exceptional on dirty steels and cast irons. Can braze copper base alloys without melting base. No cracking – totally flexible coating.

TYPICAL APPLICATIONS:
Bearings, bushings, cams, cast iron, carbide tipping, chain saws, drills, jig and fixtures, levers, linkage, piping, racks and shaft repair.

TECHNICAL DATA:
Tensile Strength: 71,000 PSI
Working Temperature: 1595ºF

WELDING TECHNIQUES:
Clean joint area to remove grease and dirt. Pre-heat general area to 700ºF (400ºC) and then specific area to 1200ºF (650ºC). Melt off flux and apply alloy.

SIZE	1/16	3/32	1/8
PART	8860	8861	8862

AURALLOY RESEARCH 900 "GRANITE"

HARD SURFACING ELECTRODE

SUPERIOR IMPACT AND ABRASION RESISTANCE

FEATURES: A truly unique electrode combining unsurpassed weldability plus super impact and abrasion resistance and high hardness. It is the ideal alloy combination where hardness and toughness are required on carbon and alloy steels, manganese steels and cast iron.

TECHNICAL DATA:
Hardness: RC 56-60
Use any AC or DC coated electrode power sources.
On DC use reverse polarity.

TYPICAL APPLICATIONS:
Crusher jaws, hammers, bucket lips and teeth. Wear plates, pins, axles, shafts, cams, eccentrics.

WELDING TECHNIQUES: Prepare weld surface by chamfering to remove old overlays and loosely adhering metal. Use a cushion, if required. Deposit the electrode using any technique applicable such as stringer beading or weaving up to 4X. Allow each layer to cool somewhat before continuing. Remove slag between passes.

SIZE	1/8	5/32
AMPERAGE	80-135	120-160
PART	i 8735	i 8736

AURALLOY RESEARCH 910

HARD FACING CHROMIUM CARBIDE TUBULAR ELECTRODE

FOR APPLICATIONS SUBJECT TO HIGH ABRASION, COMPRESSIVE IMPACT LOADS AND EROSION

FEATURES: For manual application to large parts where deposition rate and job completion times are paramount. Easy to use and offers the greatest range of carbide bearing alloys to overcome a great variety of wear caused by abrasion, erosion, impact and heat. Designed for all position welding and can be used at low amperature to hardface thin edges on tillage tools and similar parts. A proprietary coating formulation is completely moisture-resistant and will survive storage in damp conditions for years. Can be applied to cast iron, manganese steel and mild steel without preheat; high carbon and alloy steels may require preheat.

TECHNICAL DATA:
Hardness: RC 55-60
Use with either AC or DC welding power sources.
Amperage: 70-125

TYPICAL APPLICATIONS: Ideal for hardfacing parts made from austenitic manganese steel. Dredge bucket lips, crusher jaws, crusher mantles and liners, manganese steel swing hammers, quarry screen plates, grizzly bars and feeder spots, and shovel buckets.

SIZE	1/4 x 18"
PART	j 8739

AURALLOY RESEARCH

HOLD-IT™

JIGGING / HEAT DAM PUTTY

- **HOLDS PARTS FIRMLY IN PLACE FOR "HANDS FREE" WELDING, BRAZING AND SOLDERING**
- **PROTECTS MATERIAL SURFACES FROM HEAT**
- **ELIMINATES HEAT DAMAGE SUCH AS BUCKLING, WARPING, DISTORTION AND DISCOLORATION**
- **WITHSTANDS TEMPERATURES OF 3,000°F**
- **MAINTAINS SHAPE WHEN HEATED**
- **USE ON ANY HORIZONTAL, VERTICAL OR OVERHEAD SURFACE**

DIRECTIONS: Apply a thin layer of Hold-It™ putty, covering the entire area to be protected. In extreme heat, use a thicker covering. If surface is affected by moisture, use a sheet of impervious plastic as a barrier and then apply Hold-It™ putty. When using as a jigging putty, treat each part to be held separately by placing in individual mounds of putty. Wipe off and clean with water.

SIZE	2 LB. CONTAINER
PART	A 8800

AURALLOY RESEARCH

BRAZING/ SOLDERING FLUXES

500 FLUX: LIQUID SOLDERING – For difficult soldering applications. Especially active for use on stainless related alloys. Non-fuming. Completely water soluble. Use with Auralloy 500 Silver Solder when additional flux is required.

620 FLUX: ALUMINUM BRAZING (POWDER) – Becomes active well below the melting temperature of the aluminum and produces maximum flow of the brazing alloy. Easy to use as a powder or paste with Auralloy 620 aluminum brazing rods.

700 FLUX: SILVER BRAZING (LIQUID) – Dissolves surface oxides and protects joint area to improve bonding and wetting action of all silver brazing wires. Particularly useful when joining stainless steel and high alloy steels. When additional power is required use with Auralloy 700 silver brazing rods.

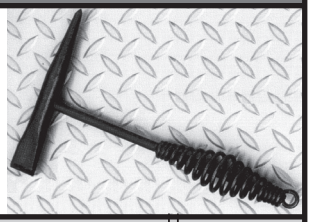
825 FLUX: GENERAL PURPOSE (LIQUID PASTE) – "Wide Range" brazing flux designed to improve results when joining cast iron, mallable iron, copper, brass, bronze and steel. For use in applications not requiring specialized fluxes.

	500 FLUX	620 FLUX	700 FLUX	825 FLUX
SIZES	1 Pint Bottle	6 oz. Jar	1 lb. Jar	8 oz. Jar
PART	A 8787	A 8790	A 8796	A 8798

AURALLOY ACCESSORIES

WELDER'S CHIPPING HAMMER

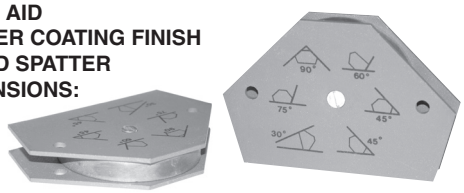
- SOLID STEEL
- SHARP 1" BLADE ON ONE END, TAPERS TO A POINT ON THE OTHER END
- COIL SPRING HANDLE FOR SHOCK AND HEAT DISSIPATION
- RUST RESISTANT, BLACK OXIDE FINISH



BLADE	LENGTH	HEAD WEIGHT		PART
Horizontal	10*	16 oz.	A	8867
Vertical	10*	16 oz.	A	8868

WELDING MAGNET

- MULTIPLE ANGLES: 30°, 45°, 60°, 75° and 90°
- IDEAL WELDING AID
- SPECIAL POWDER COATING FINISH TO RESIST WELD SPATTER
- OVERALL DIMENSIONS: 3-3/4 X 2-1/2

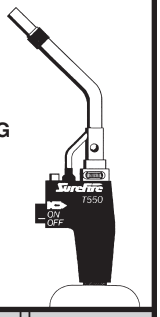


DESCRIPTION		PART
Multi-Angle Clamping Welding Magnet	A	8869

SUREFIRE® PROPANE TORCH

- DESIGNED FOR PROFESSIONAL USE*
- IGNITES AUTOMATICALLY
- INSTANT ON – INSTANT OFF!
- NO MATCHES!
- VARIABLE FLAME ADJUSTMENT
- TRIGGER LOCK PROVIDES CONTINUOUS BURNING
- IGNITES AND BURNS UPSIDE DOWN
- 3400°F AT TIP – BRAZE AND SOLDER COPPER PIPE, LIGHT STEEL AND SHEET METAL
- PRESSURE REGULATOR PROVIDES EVEN FLOW OF GAS IN ALL POSITIONS
- SAFE AND EASY TO USE

Not available in mass-market retail stores



DESCRIPTION		PART
Surefire® Self-Igniting Propane or Mapp Torch	A	8866

MAP-PRO™ GAS CYLINDER

- FOR BRAZING, WELDING OR SOLDERING – BURNS HOTTER THAN PROPANE
- CYLINDER HAS 1" - 20 THREADED FUEL OUTLET VALVE THAT FITS ALL STANDARD PROPANE TORCHES
- NON-REFILLABLE CYLINDER MEETS DOT 39 SPECIFICATIONS
- 14.1 OZ.

DESCRIPTION		PART
MAP-Pro™ Gas Cylinder, 14.1 oz.	A	8874

SOLDER PRO 180™

- EQUIVALENT TO A 185-WATT SOLDERING IRON AND 2500°F TORCH
- POWERED BY PATENTED REFILLABLE LIQUID ENERGY CELL (LEC)
- COMES WITH 3.4MM CHISEL SOLDERING TIP AND BLOW TORCH HEAD, 2 LECS
- SAFELY TRAVELS ANYWHERE WITHOUT HAZARD
- CORDLESS, SIMPLE AND SAFE TO OPERATE IN ALMOST ANY CONDITION
- READY TO USE IN 30 SECONDS AFTER IGNITION
- TIPS CHANGE IN SECONDS FOR SOLDERING GUN, TORCH OR HOT AIR BLOWER
- REMOVABLE LEC™ CONTAINS POWER FOR UP TO 120 MINUTES
- RECHARGE FROM BUTANE FUEL AVAILABLE ALMOST ANYWHERE
- FREE STANDING – DOES NOT REQUIRE SEPARATE STAND

SPECIFICATIONS:

Length w/soldering tip	203mm (8in)
Weight (with LEC™)	560 g
Approximate temp. soldering tip	250-550°C (480-1000°F)
Torch	1300°C (2500°F)
Gas container capacity	40 ml
Operating Time (one gas filling)	100 min @ mid setting

DESCRIPTION		PART	TIP STYLE		PART	TIP STYLE		PART
Solder Pro 180™ with LEC™ Power Technology	A	8842	Heat Blower	A	8842PS70	Deflector	A	8842PS80

AURALLOY ACCESSORIES

EXCALIBER BUTANE SOLDER / TORCH KIT

- **BUTANE POWERED, SELF-IGNITING, PORTABLE, MULTI-FUNCTION HEAT TOOL**
- **30W TO 100W POWER RANGE**
- **AUTOMATIC PIEZO IGNITION**
- **COMPLETE PORTABILITY**
- **COMFORTABLE GRIP**
- **RAPID TIP HEAT-UP**
- **COMPLETE WITH:**
  5 TIPS – CONICAL, HOT KNIFE, HEAT BLOWER, REFLECTOR, PLUS 2 SPECIALTY SOLDER TIPS, 17 GRAM TUBE 60/40 SOLDER, COOLING/CLEANING SPONGE AND HEAVY DUTY ULTRA-BOX

SPECIFICATIONS:
Approximate Temperatures:
Soldering Tip ..... 250-500°C (480-950°F)
Torch..... 1300°C (2400°F)
Hot Knife..... 200-350°C (400-660°F)
Heat Blower..... 250-500°C (480-950°F)
Gas Container Capacity ..... 15 grams
Operating Time (one gas filling)..... 70 min at mid-setting

P/N 8843

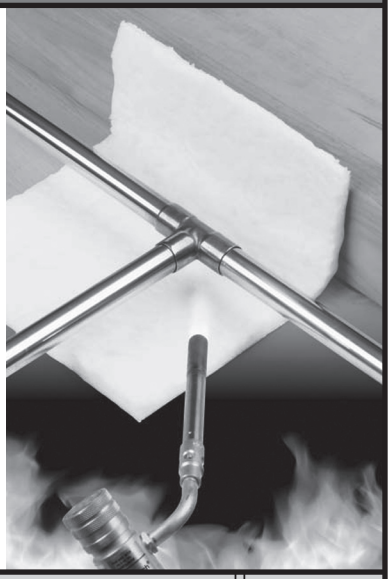
DESCRIPTION		PART
EXCALIBER BUTANE SOLDER / TORCH KIT	A	8843

SOLDER GUARD – DESIGNED FOR SOLDERING & BRAZING USING PROPANE & MAPP GAS

Features
- **Protects wood, painted, or metal surfaces from the heat and flame of a torch**
- **You can't buy a more durable or longer lasting, flexible heat & flame protective product**
- **Belongs on every service truck, in every tool box, and at every work bench**

Benefits
- **Don't burn – always use the Solder Guard**
- **Non-asbestos**
- **No smoke & no odor**
- **Reusable over and over again**
- **Recommended for use with today's new higher temperature, lead-free solders**

Applications
- **Plumbing**
- **Heating**
- **Maintenance**
- **Air conditioning**
- **Refrigeration**
- **Fire sprinkler**
- **Commercial, Industrial, Residential, Institutional**



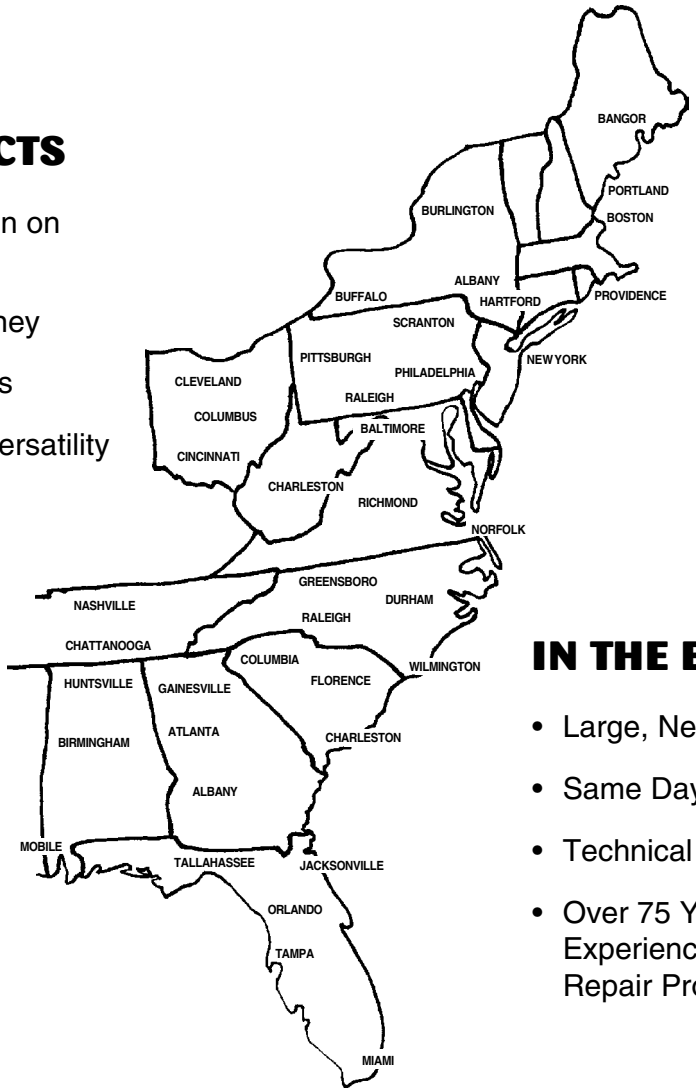
DESCRIPTION		PART
SOLDER GUARD – 9" x 12"	A	66370

AURALLOY RESEARCH

SUPERIOR PERFORMANCE WELDING PRODUCTS DESIGNED TO SOLVE THE MAINTENANCE AND REPAIR WELDERS PROBLEMS

AURALLOY PRODUCTS

- Make Welding Easier, Even on Inadequate Equipment
- Saves Your Company Money
- Eliminate Large Inventories
- Provide the Qualifty and Versatility to Reduce Down-Time
- Solves YOUR Problems



IN THE EAST

- Large, Nearby Inventories
- Same Day Shipments
- Technical Service Support
- Over 75 Years Combined Experience with Welding Repair Problems

AURALLOY

QUALITY, SIMPLICITY AND SERVICE THAT WILL PUT MAINTENANCE AND REPAIR POWER BACK IN YOUR SHOP — NOW!

Auralloy improves the ability of mechanics with limited welding experience and enables the highly skilled welder to do an even better job by:

- Welding metals of **unknown analysis**
- Welding through **Paint, Rust, Grease** and **Oil** when cleaning is normally required
- Welding **without Pre-Heat** in most applications
- **Salvaging** expensive parts that are now being scrapped
- **No Guesswork,** the right rod for the job everytime

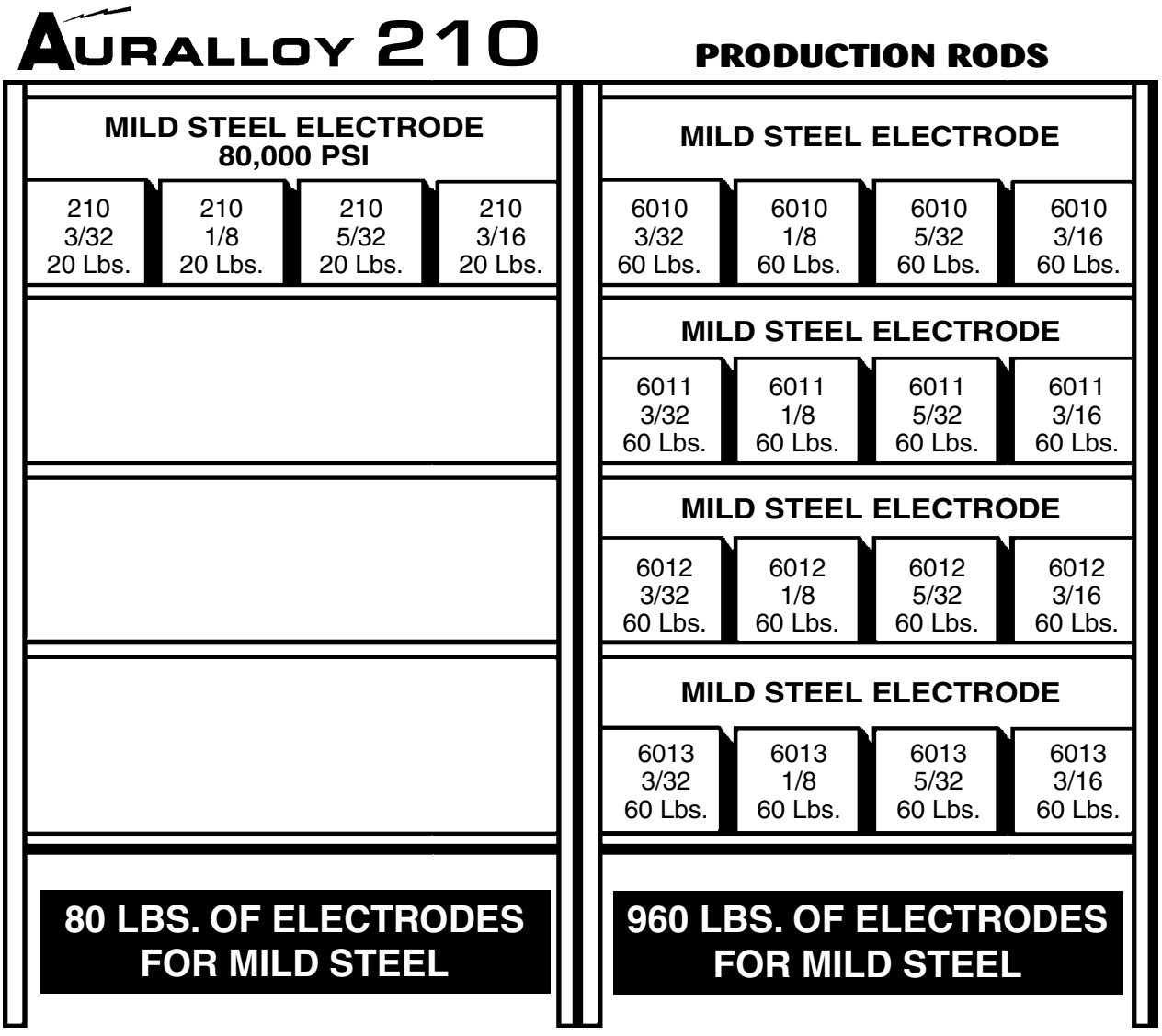
Our customers benefit from Auralloy's performance with:

- Reduced Downtime
- Extended Repair Life
- Increased Performance
- Ease of Application
- Decreased Costs, by eliminating duplication.

WHAT DO WE MEAN BY DUPLICATION?

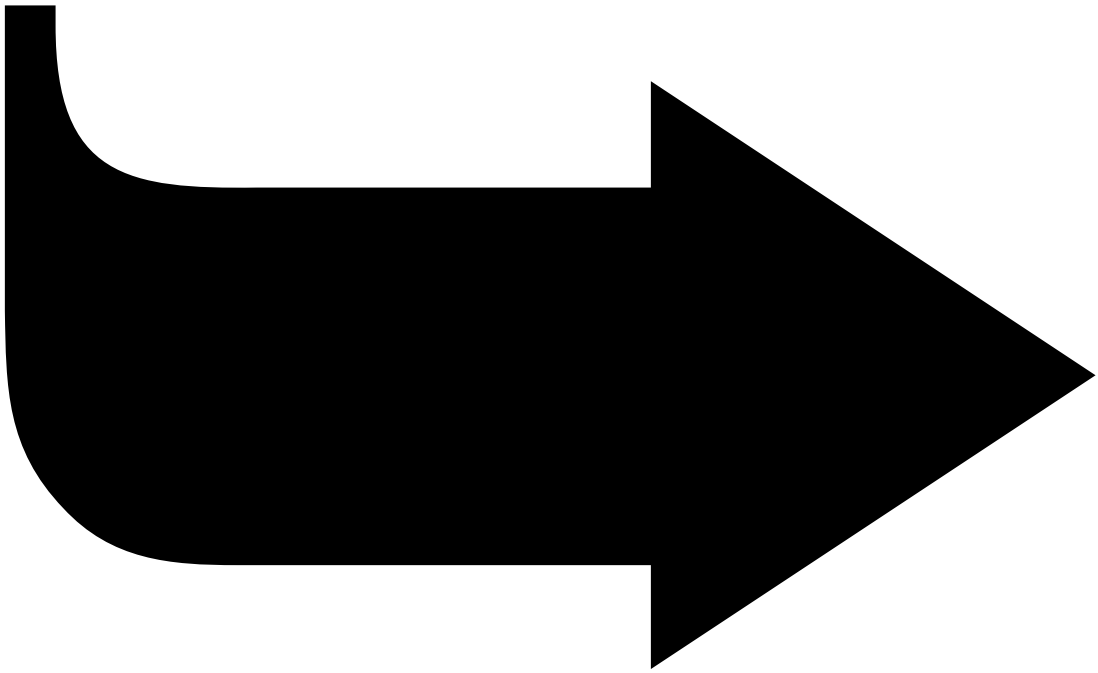
THE AURALLOY ADVANTAGE

When you compare the products offered by production welding rod manufacturers, you will find that they each offer up to four products, with different numbers or colors that are meant to do the same job. This is **DUPLICATION**, and results in overstock. Auralloy provides you with one product that replaces all four, eliminating the excessive dollar waste. To further illustrate our point, compare and save money.



NO MORE CONFUSION
The Right Rod Every Time

Here are the products that will do the job for you . . .



AURALLOY RESEARCH

WELDING ELECTRODES

The Finest Maintenance and Repair Electrodes Available

AURALLOY RESEARCH • 100 DaVINCI DRIVE, BOHEMIA, NY 11716

AURALLOY® 210 "BLUE VELVET"

AR RESEARCH

MILD STEEL ELECTRODE

HIGH TENSILE STRENGTH ARC WELDING OF ALL COMMON MILD STEELS

- ***SUPERIOR ALL POSITION DESIGN —***
  FOR WELDING VERTICAL, HORIZONTAL AND OVERHEAD APPLICATIONS.
- ***QUICK SOLIDIFICATION —***
  MAKES THIS ELECTRODE IDEAL FOR BOTH POOR AND GOOD FIT UP WORK.
- ***INSTANT ARC AND NON-STICKING—***
  PROVIDES FOR EASY APPLICATION AND WELL FORMED FILLETS.
- ***NO SPATTER AND EASILY REMOVED SLAG —***
  ASSURES A PROFESSIONAL QUALITY FINISH.
- ***WELDS THRU RUSTY, DIRTY, OILY & PAINTED SURFACES —***
  SAVING TIME, MONEY AND LABOR.

NEW AND IMPROVED

APPLICATIONS

- Joining angle iron, channel, "T", perforated steel sheet, expanded metal, sheet metal and all other shapes and forms of mild steel used in maintenance.
- Repairing and fabricating machine guards, covers, housings and ducts.
- Welding floor plate, diamond plate, black iron, bulkheads and partitions.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8700	50-100
1/8"	8701	70-126
5/32"	8702	90-160

TENSILE STRENGTH: 80,000 psi
ELONGATION: 29%
CURRENT: AC or DC
POSITION: All

For All Types of Maintenance and Repair Welding of Mild Steel

AURALLOY® 210 "BLUE VELVET"

RESEARCH

MILD STEEL ELECTRODE

FEATURES

Ideal for all position welding including vertical and overhead applications. Excellent penetration and quick solidification makes this electrode excellent for poor as well as good fit up work. Features excellent restrike characteristics, easy slag removal and excellent bead appearance.

- Welds on any shape or thickness of mild steel
- Low heat eliminates burn through
- High strength welds with deep penetration
- Easy application, no sticking even at low amps
- Welds equally well on AC or DC, either polarity

WELDING TECHNIQUES

Use any constant current stick welding power source regardless of open circuit voltage, both AC or DC. Clean surface. Use any technique desirable — short, medium or long arc; stringer beads or weave beads — in all positions. Remove slage between passes.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Superior Performance with Exceptional Versatility

AURALLOY® 220

RESEARCH

SUPER STRENGTH ELECTRODE FOR LOW TO MEDIUM ALLOY STEELS

SUPERIOR STRENGTH WITH EXCELLENT MACHINABILITY

- ***ALL POSITION DESIGN —***
  FOR WELDING PASS-ON-PASS IN ANY POSITION WITHOUT CHIPPING OF SLAG
- ***A UNIQUE COMBINATION OF STRENGTH AND DUCTILITY —***
  FOR HIGH STRENGTH WELDS THAT WON'T CRACK
- ***RAPID DEPOSITION —***
  FOR EASY WEAVE AND STRINGER TYPE WELDS
- ***HIGH MOISTURE RESISTANCE —***
  ELIMINATES UNDERBEAD CRACKS AND PRE-HEATING OF WELD AREA
- ***EXCEPTIONAL MACHINEABILITY —***
  SAVES MONEY IN MACHINING TIME
- ***NO SPATTER AND EASILY REMOVED SLAG —***
  ASSURES A SUPERIOR QUALITY FINISH AND LESS CLEAN UP

HIGH STRENGTH APPLICATIONS

- Truck Body Liners
- Chutes
- Articulated Loaders
- Earth Moving Equipment
- Loading Platforms
- Crane Boom Tips
- Bucket and Boom Front Loader
- Fan Blades
- Wear Plates
- Shovel Boom
- Fork Lifts
- Shutter Car Chassis
- Fifth Wheel Plates
- Dragline Buckets
- Drilling Barges
- Dipper Buckets
- Oil Rigs
- Bulldozers
- Liquid Gas Tanks
- Surge Bin Coal Diverter
- Crawler Frame
- Drilling Masts

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8705	80-110
1/8"	8706	110-150
5/32"	8707	140-210
3/16"	8708	200-280

TENSILE STRENGTH: 115,000 psi
ELONGATION: 28%
CURRENT: DC Reverse Polarity
POSITION: All
HARDNESS: B.H.N. 237

High Strength, Crack-Free Welds Every Time

AURALLOY® 220 RESEARCH

SUPER STRENGTH ELECTRODE FOR LOW TO MEDIUM ALLOY STEELS

FEATURES

A special electrode formulated and developed to provide non-cracking high physical properties for welding of low alloy high strength steels, including Corten, T-1, HY-80 and Mayarir. Welds pass-over-pass without chipping slag.

- Produces welds of x-ray quality
- One electrode covers a wide variety of steels
- Welds "tramp" steels normally considered unweldable
- No spatter means less clean up time
- Flame-cuttable electrode
- Easy re-strike
- Can be used in all positions
- Dense deposits eliminates rework
- Slag is easily removed
- Excellent for build-up prior to hard facing

WELDING TECHNIQUES

Clean weld area. Set amperage within recommended range for electrode size. Hold a close arc and use either stringer or weave technique. Pause momentarily over each crater before extinguishing arc.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Superior Strength, Versatility and Ease of Application . . .
The Best Choice for the Maintenance Welder

AURALLOY® 225 "THUNDERBOLT"

AR RESEARCH

UNIVERSAL STEEL ELECTRODE

WELDS ALL TYPES AND GRADES OF SIMILAR AND DISSIMILAR STEELS

- ***WELDS ALL STEELS —***
  REDUCING WELDING ROD INVENTORY AND ELIMINATING GUESSWORK.
- ***EXCEPTIONALLY HIGH TENSILE STRENGTH —***
  FOR ADDED CONFIDENCE IN ALL HIGH STRENGTH APPLICATIONS.
- ***SUPERIOR FLOWING CHARACTERISTICS —***
  PRODUCE SMOOTH FILLETS AND CRACK-FREE, NON-POROUS DEPOSITS.
- ***SELF-LIFTING SLAG —***
  FOR PROFESSIONAL FINISH WITH MINIMUM CLEAN UP.

HIGH STRENGTH APPLICATIONS

Journal bearings	Shafts	Crane booms	Drills	Air tool chucks and jaws
Spring leaves	Shock absorbers	Crane rails	Hubs	Valve seats
Sprockets	Keyways	Truck frames	Hooks	Wear plates
Spokes	Barker drum staves	Draw bars	Armor plates	Wheels
Splines	Brake drums, shoes	Pins	Augers	Wobblers
Pulleys	Bucket teeth	Pinions	Axles	Worm gears and drives
Punches	Bulldozer frames	Pipes	Foundry racks	Journal boxes
Pulverizers	Camshafts	Propellers	Thrust bearings	Hole diggers
Rollers	Castings	Motor chocks	Transmission shafts	
Rotor blades	Clutch plates	Coil springs	Tools	
Reamers	Forks	Chipper knives	Agitators	
Shovel buckets	Collars	Dies		

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/16"	8709	30-40
3/32"	8710	40-90
1/8"	8711	70-110
5/32"	8712	90-160

TENSILE STRENGTH: 128,000 psi
ELONGATION: 36%
CURRENT: AC or DC
POSITION: All

The Ultimate Strength, Multi-Purpose Steel Welding Electrode

AURALLOY® 225 "THUNDERBOLT"

RESEARCH

UNIVERSAL STEEL ELECTRODE

FEATURES

- Can run at lower amperage for steels prone to cracking
- Easily applied in all positions
- Eliminates undercutting
- Stronger than stainless rods
- High shock resistance
- Minimum deposit with maximum weld strength
- Smooth, even fillets without spatter
- Welds any steel and any combination of dissimilar steels
- Retains elongation properties by not "work-hardening" significantly

WELDING TECHNIQUES

Remove loosely adhering metal and wire brush away oxides, dirt and contaminants. Use any stick electrode welding machine available. Set the amperage within the range prescribed for the electrode size and initiate the arc. Vary the amperage and the arc gap up or down to suit. Use any technique from stringer bead to wide weave. The electrode lead angle is not critical — vary to suit application. Self-releasing slag should be brushed away between passes.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

A Superior Combination of Tensile Strength and Elongation

AURALLOY® 225-B

RESEARCH

UNIVERSAL BARE STEEL ROD

STEEL ELECTRODE FOR TORCH AND TIG WELDING

- ***WELDS ALL STEELS —***
  REDUCING WELDING ROD INVENTORY AND ELIMINATING GUESSWORK
- ***EXCEPTIONALLY HIGH TENSILE STRENGTH —***
  FOR ADDED CONFIDENCE IN ALL HIGH STRENGTH APPLICATIONS
- ***SUPERIOR FLOWING CHARACTERISTICS —***
  PRODUCING A NON-POROUS, CRACK-FREE DEPOSIT
- ***EASILY JOINS DISSIMILAR STEELS —***
  WHILE LOW TEMPERATURE APPLICATION ALLOWS THIN METAL JOINING, OVERLAYS OR REPAIRS

HIGH STRENGTH APPLICATIONS

- Hospital Equipment
- Food/Beverage Processing Machinery
- Chemical Mixing and Storage Equipment
- Construction Equipment Repairs
- Research Laboratory Equipment
- Oil and Gas Refineries
- Marine and Aircraft Repairs
- Joining Unknown Steels

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/16"	8728	60-90
3/32"	8729	150-210
1/8"	8730	200-250

TENSILE STRENGTH: 128,000 psi
ELONGATION: 36%
CURRENT: DC straight polarity

Ultimate Strength, Multi-Purpose Torch or TIG Steel Welding Rod

AURALLOY® 225-B

RESEARCH

UNIVERSAL BARE STEEL ROD

FEATURES

- Excellent heat, cracking and fatigue resistance and expansion contraction properties.
- Easily joins dissimilar steels while low temperature application allows thin metal joining, overlays or repairs.
- Produces a non-porous, crack-free deposit.

WELDING TECHNIQUES

For torch application, a small tip on an oxyacetylene torch is recommended. FLUX should be painted along the area to be joined, overlayed or repaired. Adjust flame to a near neutral stage but slightly more acetylene for best results. Hold torch close and apply drop by drop always allowing deposit to solidify under the flame to prevent oxidation. Always keep the rod under the flame so the rod end will not oxidize. Remove excess flux with water and clean with stainless steel brush.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

A Superior Combination of Tensile Strength and Elongation

AURALLOY® RESEARCH 225-MIG

MILD STEEL WELDING WIRE

MILD STEEL WELDING WIRE

- ***WELDS ALL STEELS THAT CONTAIN HIGHER LEVELS***
  OF MANGANESE AND SILICON THAN OTHER STANDARD GRADES OF MIG WIRE TO PRODUCE HIGH QUALITY WELDS WHEN USED ON DIRTY, OILY OR RUSTY STEEL.
- ***THE HIGH SILICON CONTENT INCREASES THE FLUIDITY OF THE WELD POOL —***
  THUS CREATING A SMOOTHER BEAD APPEARANCE AND RESULTING IN MINIMAL POST-WELD GRINDING.
- ***THIS WIRE IS ENGINEERED TO PROVIDE POROSITY-FREE,***
  X-RAY QUALITY WELDS AT THE HIGHEST STRENGTH (AS WELDED) OF ALL THE PLAIN CARBON STEEL WIRES.
- ***REQUIRES A SHIELDING GAS: CO_2 AND/OR CO_2 MIX***

TYPICAL APPLICATIONS

- General shop applications with poor fit-up or rusty, oily plates
- Steel castings or forging salvage
- Home projects, tanks, sheet metal and construction work

SPECIFICATIONS

SPOOLED	P/N	AMPERAGE
.035	8727	100-150

TENSILE STRENGTH: 95,000 psi
ELONGATION IN 2": 25%
WELDING CURRENT: DECP
(Electrode Positive, Reverse Polarity)

Requires a Shielding Gas: CO_2 and/or CO_2 Mix

AURALLOY® RESEARCH 225-MIG

MILD STEEL WELDING WIRE

FEATURES

- Mild steel welding wire that contains higher levels of manganese and silicon than other standard grades of MIG wire to produce high quality welds when used on dirty, oily or rusty steel.
- The high silicon content increases the fluidity of the weld pool, thus creating a smoother bead appearance and resulting in minimal post-weld grinding.
- Engineered to provide porosity-free, x-ray quality welds at the highest tensile strength (as welded) of all the plain carbon steel wires.
- This product requires a shielding gas: CO_2 and/or CO_2 mix.

WELDING TECHNIQUES

Always clean weld joint with a wire brush or grinding wheel. Always insure good fit up. Direct current electrode is used for all modes of metal transfer. Suited for spray or pulse spray general purpose welding using CO2 gas as a shielding medium. Recommended for single or multi-pass welds on low carbon steel plate, tubing, piping, structural members, steel castings, pressure vessels, etc.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

All Positions

AURALLOY® 225-V

RESEARCH

VERTICAL STEEL ELECTRODE

VERTICAL POSITION HIGH STRENGTH ELECTRODE FOR DISSIMILAR STEELS

- ***UNIQUE "FAST-FREEZE" COATING —***
  SIMPLIFIES VERTICAL DOWN AND UP WELDING.
- ***WELDS ALL STEELS —***
  REDUCING WELDING ROD INVENTORY AND ELIMINATING GUESSWORK.
- ***EXCEPTIONALLY HIGH TENSILE STRENGTH —***
  FOR ADDED CONFIDENCE IN ALL HIGH STRENGTH APPLICATIONS.
- ***CONTROLLED WELD PUDDLE —***
  ALLOWS FOR FILLING HOLES AND JOINING DISSIMILAR STEELS.

HIGH STRENGTH APPLICATIONS

Agitators
Air tool chucks and jaws
Armor plates
Augers
Axles
Barker drum staves
Brake drums, shoes
Bucket teeth
Bulldozer frames
Camshafts
Castings
Chipper knives
Clutch plates
Coil springs
Collars
Crane booms
Crane rails
Dies
Draw bars
Drills
Forks
Foundry racks
Hole diggers
Hooks
Hubs
Journal bearings
Journal boxes
Keyways
Motor chocks
Pinions
Pins
Pipes
Propellers
Pulleys
Punches
Pulverizers
Reamers
Rollers
Rotor blades
Shafts
Shock absorbers
Shovel buckets
Splines
Spokes
Spring leaves
Sprockets
Thrust bearings
Tools
Transmission shafts
Truck frames
Valve seats
Wear plates
Wheels
Wobblers
Worm gears and drives

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8718	35-70
1/8"	8719	60-110

TENSILE STRENGTH: 128,000 psi
ELONGATION: 32%
CURRENT: DC Reverse Polarity or AC
POSITION: All

Ideal for Poor Fit Up Joints in All Positions

AURALLOY® 225-V RESEARCH

VERTICAL STEEL ELECTRODE

FEATURES

- Unique "fast-freeze" coating simplifies vertical down and up welding
- Runs at lower amperage for steels prone to cracking
- Easily applied in all positions
- Eliminates undercutting
- Stronger than stainless rods
- High shock resistance
- Minimum deposit with maximum weld strength
- Smooth, even fillets without spatter
- Welds any steel and any combination of dissimilar steels
- Retains elongation properties by not "work-hardening" significantly

WELDING TECHNIQUES

The area in which the weld is to be made should be free of rust, grease, paint and other materials which cause weld contamination. A 90° vee joint should be used when joining heavy sections. Maintain a short arc length and use stringer beads.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

A Superior Combination of Tensile Strength and Elongation

AURALLOY® 230 "DIRT DEVIL"

AR RESEARCH

ADVERSE CONDITIONS MILD STEEL ELECTRODE

HIGH TENSILE STRENGTH WELDING OF ALL COMMON MILD STEELS

- ***SUPERIOR ALL POSITION DESIGN —***
  FOR WELDING VERTICAL, HORIZONTAL AND OVERHEAD APPLICATIONS
- ***WELDS THRU RUSTY, GREASY, POOR FITTING JOINTS IN ALL POSITIONS —***
  SAVING TIME, MONEY AND LABOR
- ***EXCEPTIONAL FLEXIBILITY —***
  ELECTRODE CAN BE BENT WITHOUT FLUX CHIPPING
- ***FASTER AND EASIER TO USE —***
  SLAG CAN BE WELDED OVER WITHOUT REMOVAL
- ***QUICK SOLIDIFICATION —***
  WELDS THROUGH 1/2 INCH OF SURFACE CONTAMINATION WITHOUT POROSITY

APPLICATIONS

- Ideally suited for difficult maintenance repairs.
- Easily welds steels that have been galvanized, painted, rusted or otherwise contaminated in service.
- Misaligned parts or difficult to access areas are also easily remedied with this electrode.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8850	25-75
1/8"	8851	35-125
5/32"	8852	50-160
3/16"	8853	75-200

TENSILE STRENGTH: 88,000 psi
ELONGATION: 28%
CURRENT: DC Reverse, Straight or AC
POSITION: All

Ideally Suited for Difficult Maintenance Repairs

AURALLOY® 230 "DIRT DEVIL"

RESEARCH

ADVERSE CONDITIONS MILD STEEL ELECTRODE

FEATURES

- Superior all position design for welding vertical, horizontal and overhead applications
- Excels on rusty, greasy poor fitting joints in all positions
- Can weld through 1/2 inch (12mm) of surface contamination without porosity
- Can bridge gaps as wide as 3/8 inch (9mm)
- Electrode can be bent without flux chipping
- Slag can be welded over without removal

WELDING TECHNIQUES

Weld with a short-medium arc length at low amperage. When surface preparation is impractical, use a medium-long arc and favor high amperages. Multi-pass welds can be made without intermittent slag removal. Use any welding technique from stringer bead to wide weave.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Superior Performance With Exceptional Versatility

AURALLOY® 240 "HAMMER"

RESEARCH

IMPACT RESISTANT ELECTRODE

HIGH HEAT AND CORROSION RESISTANCE

- ***EXTRA HIGH STRENGTH WELDS —***
  THAT DO NOT SPALL
- ***OUTWEARS ORDINARY HARDFACING ALLOYS —***
  IN IMPACT CONDITIONS AS MUCH AS 10 TO 1

APPLICATIONS

- For joining and repairing steel and manganese steel parts used throughout the railroad, construction and related industries

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/8"	8713	90-150

TENSILE STRENGTH: 119,000 psi
ELONGATION: 41%
CURRENT: AC or DC Reverse Polarity
HARDNESS: Brinell 200-520, Rockwell C10-C50

For Joining and Surfacing Steels

AURALLOY® 240 "HAMMER"

RESEARCH

IMPACT RESISTANT ELECTRODE

FEATURES

- Extra high strength welds that do not spall.
- Outwears ordinary hardfacing alloys in impact conditions as much as 10 to 1.

WELDING TECHNIQUES

Do not pre-heat. Use the lowest possible amperage and move the electrode as quickly as feasible. Allow to cool slowly.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

For Joining and Surfacing Steels

AURALLOY® 250 "STERLING"

AR RESEARCH

UNIVERSAL STAINLESS STEEL ELECTRODE

HIGH HEAT AND CORROSION RESISTANCE

➤ ***SUPERIOR COMBINATION OF AC/DC WELDABILITY AND DEPOSIT CHEMISTRY —***

PROVIDES SMOOTHER DEPOSITS WITH MINIMUM SUSCEPTIBILITY TO CARBIDE PRECIPITATION AND CRACKING

➤ ***FASTER AND EASIER TO USE —***

WITH FAST DEPOSITION RATE, NO SPATTER AND EASY SLAG REMOVAL

APPLICATIONS

- Furnace Parts — baffle plates, chain links and guides, woven belts and associated hardware
- All types of stainless castings, both non-magnetic and magnetic
- Crucible tongs, plating baskets and hooks, retorts, tanks, pipe, tubing, vats and other chemical processing components
- Pumps, valves and fittings
- Heat exchangers and heat treating boxes

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/16"	8714	30-60
3/32"	8715	60-90
1/8"	8716	90-120
5/32"	8717	120-160

TENSILE STRENGTH: 95,000 psi
ELONGATION: 45%
CURRENT: AC or DC Reverse Polarity
POSITION: All

For Maintenance and Repair Applications

AURALLOY® 250 "STERLING"

RESEARCH

UNIVERSAL STAINLESS STEEL ELECTRODE

FEATURES

- Corrosion and heat resistance superior to ordinary stainless steel electrodes
- Smooth deposits with minimum susceptibility to carbide precipitation and cracking
- Easy to use — no spatter, fast deposition rate, easy slag removal
- Used on most stainless steel applications assigned for maintenance and repair
- Excellent for joining or overlays on most grades of stainless steel, carbon and alloy steel and stainless steel of unknown analysis.

WELDING TECHNIQUES

Deposit at low amperage, holding a close arc. Stringer beads are preferred, but electrode can be weaved up to 3 times if the application requires. For filleting, raise amperage 10% and drag the electrode, maintaining light pressure. Back-whip crators, removing slag between passes.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

The Only Stainless Steel Electrode for the Maintenance and Repair Welder

AURALLOY® 250-B

RESEARCH

UNIVERSAL STAINLESS STEEL BARE ROD

STAINLESS STEEL ELECTRODE FOR TORCH AND TIG WELDING

- ***EASY TO WORK STAINLESS WIRE —***
  PROVIDES SUPERIOR RESISTANCE TO CORROSION, HEAT AND ABRASION
- ***WELDS ALL TYPES OF STAINLESS STEEL —***
  REDUCING WELDING ROD INVENTORY AND ELIMINATING GUESSWORK
- ***HIGH TENSILE STRENGTH —***
  FOR ADDED CONFIDENCE IN ALL HIGH STRENGTH APPLICATIONS
- ***SUPERIOR FLOWING CHARACTERISTICS —***
  PRODUCING A NON-POROUS, CRACK-FREE DEPOSIT

HIGH STRENGTH APPLICATIONS

- Chemical Mixing and Storage Equipment
- Construction Equipment Repairs
- Food and Beverage Processing Machinery
- Marine and Aircraft Repairs
- Research Laboratory Equipment
- Oil and Gas Refineries
- Hospital Equipment

SPECIFICATIONS

SIZE	P/N
1/16"	8740
3/32"	8741
1/8"	8742

TENSILE STRENGTH: 86,000 psi

Multi-Purpose Torch or TIG Stainless Steel Welding Rod

AURALLOY® 250-B
RESEARCH

UNIVERSAL STAINLESS STEEL BARE ROD

FEATURES

- Easy to work stainless steel wire with superior corrosion resistant deposits.
- Excellent strength, impact and abrasion-resistant qualities.

WELDING TECHNIQUES

For torch application, clean area of grease and dirt. Apply flux to repair area. Use slightly excess flame. Keep torch in motion to uniformly heat area. As flux liquifies, hold torch close. Add alloy to joint drop by drop.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

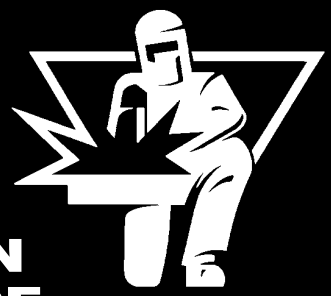
- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Universal Stainless Steel Electrode
For Torch and TIG Welding

AURALLOY® 255 "CASCADE"

AR RESEARCH

SPECIAL VERTICAL POSITION STAINLESS STEEL ELECTRODE



HIGH HEAT AND CORROSION RESISTANCE

➤ ***SUPERIOR COMBINATION OF AC/DC WELDABILITY AND DEPOSIT CHEMISTRY —***

PROVIDES SMOOTHER DEPOSITS WITH MINIMUM SUSCEPTIBILITY TO CARBIDE PRECIPITATION AND CRACKING

➤ ***FASTER AND EASIER TO USE —***

WITH FAST DEPOSITION RATE, NO SPATTER AND EASY SLAG REMOVAL

APPLICATIONS

- Especially suited for vertical down and up welding of thin to medium gauge molybdenum bearing stainless steels
- Furnace Parts — baffle plates, chain links and guides, woven belts and associated hardware
- All types of stainless castings, both non-magnetic and magnetic
- Crucible tongs, plating baskets and hooks, retorts, tanks, pipe, tubing, vats and other chemical processing components
- Pumps, valves and fittings
- Heat exchangers and heat treating boxes

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8737	60-80
1/8"	8738	90-110

TENSILE STRENGTH: 80,000 psi
ELONGATION: 42%
CURRENT: DC Reverse Polarity or AC
POSITION: All

For Maintenance and Repair Applications

AURALLOY® 255 "CASCADE"

RESEARCH

SPECIAL VERTICAL POSITION STAINLESS STEEL ELECTRODE

FEATURES

- Unique "fast-freeze" coating simplifies vertical down and up welding.
- Ideal for poor fit up joints in all positions.
- Controlled weld puddle allows for filling holes on stainless steels.

WELDING TECHNIQUES

For vertical welding, set amperage at high end of the scale. Maintain a sharp angle with the electrode pointing upward. Whip the electrode quickly back and forth while moving up or down. Electrode may show a red color from the excess amperage which is normal.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Vertical Position Stainless Steel Electrode for the Maintenance and Repair Welder

AURALLOY® 300 "MIDNIGHT"

AR RESEARCH

ULTIMATE ELECTRODE FOR WELDING ALL GRADES OF CAST IRON

STRONG, RELIABLE REPAIRS OF HOUSINGS AND CASTINGS

- ***SUPERIOR ALL POSITION DESIGN —***
  FOR WELDING PASS-ON-PASS, WITHOUT CHIPPING OF SLAG
- ***ULTIMATE TENSILE STRENGTH —***
  ASSURES CRACK-FREE WELDS ON ALL CAST IRON
- ***OUTSTANDING ELONGATION —***
  PROVIDES BUILT-IN STRESS RELIEF, REDUCING WELD FAILURES AND CRACKING
- ***NO PREHEATING REQUIRED —***
  REDUCING TIME AND LABOR COSTS
- ***SUPER STRONG ARC DRIVE —***
  FOR EASY PENETRATION OF CONTAMINATED CASTINGS
- ***UNIFORM, HIGH-LUSTER DEPOSITS —***
  ASSURES A SUPERIOR QUALITY FINISH AND LESS CLEAN UP TIME

HIGH STRENGTH APPLICATIONS

- All grades 30, 40 and 50 gray cast irons in all thicknesses and all positions.
- All alloy cast irons — ductile, nodular (spheroidal graphitic iron), malleable and meehanite.
- Engine blocks, diesel heads, gear boxes, transmission housings, differentials, machine bases and presses.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8720	50-80
1/8"	8721	70-110
5/32"	8722	100-140

TENSILE STRENGTH: 70,000 psi
ELONGATION: 40%
CURRENT: AC or DC
On DC use Reverse Polarity
POSITION: All

Highest Quality, Fully Machinable Cast Iron Electrode . . .
The Best Choice for the Maintenance Welder

AURALLOY® 300 "MIDNIGHT"

RESEARCH

ULTIMATE ELECTRODE FOR WELDING ALL GRADES OF CAST IRON

FEATURES

- Exceptional machinability — easily ground, filed or shaped
- Welds through paint, rust, grease and oil — without porosity
- High resistant to hydrostatic pressure

WELDING TECHNIQUES

Remove loosely adhering material in area to be welded (use Auralloy 400). Searing of the surface is highly recommended. Cracks should be beveled after piercing holes at either end to prevent propagation. Preheating is not required unless casting is unusually thick. Adjust the welding machine within the prescribed amperage range and deposit beads approximately 2" long. Skip and stagger to suit. Remove slag by lightly chipping and brushing. Linger momentarily over the final crater before extinguishing the arc.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

High Strength, Crack-Free Welding on All Cast Iron

AURALLOY® 310

RESEARCH

ULTIMATE CAST IRON ELECTRODE WITH NON-CONDUCTIVE FLUX COATING

STRONG, RELIABLE REPAIRS OF HOUSINGS AND CASTINGS

- ***UNIQUE, NON-CONDUCTIVE FLUX COATING —***
  ALLOWS WELDING IN TIGHT SPOTS WITHOUT ARCING ON SIDE OF ROD
- ***SUPERIOR ALL POSITION DESIGN —***
  FOR WELDING PASS-ON-PASS, WITHOUT CHIPPING OF SLAG
- ***ULTIMATE TENSILE STRENGTH —***
  ASSURES CRACK-FREE WELDS ON ALL CAST IRON
- ***OUTSTANDING ELONGATION —***
  PROVIDES BUILT-IN STRESS RELIEF, REDUCING WELD FAILURES AND CRACKING
- ***NO PREHEATING REQUIRED —***
  REDUCING TIME AND LABOR COSTS
- ***SUPER STRONG ARC DRIVE —***
  FOR EASY PENETRATION OF CONTAMINATED CASTINGS
- ***UNIFORM, HIGH-LUSTER DEPOSITS —***
  ASSURES A SUPERIOR QUALITY FINISH AND LESS CLEAN UP TIME

HIGH STRENGTH APPLICATIONS

- All grades 30, 40 and 50 gray cast irons in all thicknesses and all positions.
- All alloy cast irons — ductile, nodular (spheroidal graphitic iron), malleable and meehanite.
- Engine blocks, diesel heads, gear boxes, transmission housings, differentials, machine bases and presses.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8746	60-90
1/8"	8747	85-120

TENSILE STRENGTH: 55,000 psi
CURRENT: AC or DC Reverse Polarity
POSITION: All

Highest Quality Electrode for Joining All Grades of Cast Iron

AURALLOY® 310
RESEARCH

ULTIMATE CAST IRON ELECTRODE WITH NON-CONDUCTIVE FLUX COATING

FEATURES

- State-of-the-art non-conductive flux coated electrode for welding every known grade of cast iron, heavy or thin, and for joining these to steel
- Will not arc on side of electrode when contacting metals
- Exceptional machinability — easily ground, filed or shaped
- Welds through paint, rust, grease and oil — without porosity
- High resistant to hydrostatic pressure

WELDING TECHNIQUES

Remove loosely adhering material in area to be welded (use Auralloy 400). Searing of the surface is highly recommended. Cracks should be beveled after piercing holes at either end to prevent propagation. Preheating is not required unless casting is unusually thick. Adjust the welding machine within the prescribed amperage range and deposit beads approximately 2" long. Skip and stagger to suit. Remove slag by lightly chipping and brushing. Linger momentarily over the final crater before extinguishing the arc.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
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High Strength, Crack-Free Welding on All Cast Iron

AURALLOY® 320 "BLACK BEAUTY"

AR RESEARCH

COPPER CLAD "TRI-METAL" CORED CAST IRON ELECTRODE

PROPRIETARY COPPER-NICKEL-IRON DEPOSIT CHEMISTRY

- ***UNIQUE COPPER PLATED CORE WIRE —***
  PROVIDES UNEQUALED CAST IRON WELDING PERFORMANCE
- ***HIGH EFFICIENCY WELD METAL TRANSFER —***
  ELIMINATES ELECTRODE OVERHEATING
- ***ULTIMATE COMBINATION OF SOFTWARE, DUCTILITY AND TENSILE STRENGTH —***
  FOR EASE OF USE AND MAXIMUM STRESS RELIEF

APPLICATIONS

The high deposition rate of this electrode creates an extremely narrow heat affected zone. This feature is suitable for all weldable cast irons that require post weld machining.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8855	50-70
1/8"	8856	70-100
5/32"	8857	100-130

TENSILE STRENGTH: 77,000 psi
ELONGATION: 15%
CURRENT: DC Reverse (+) or AC
POSITION: Flat, Vertical Up, Horizontal, Overhead

Ultimate Combination of Softness, Ductility and Tensile Strength

AURALLOY® 320 "BLACK BEAUTY"

RESEARCH

COPPER CLAD "TRI-METAL" CORED CAST IRON ELECTRODE

FEATURES

- Unique core wire for ultimate cast iron performance.
- High efficiency weld metal transfer totally eliminates electrode overheating.
- Proprietary copper-nickel-iron deposit chemistry yields the ultimate combination of softness, ductility and tensile strength.

WELDING TECHNIQUES

Guide the electrode at a steep angle keeping the arc length short. Use short staggered beads when welding restrained parts.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Suitable for All Weldable Cast Irons that Require Post Weld Machining

AURALLOY® 400 "TURBO"

RESEARCH

CUTTING, GROOVING AND CHAMFERING ELECTRODE

FOR RAPID METAL REMOVAL

➤ ***SUPERIOR ALL POSITION DESIGN —***
QUICKLY REMOVES UNWANTED METAL WITHOUT GRINDING OR MACHINING

➤ ***WORKS WITH STANDARD ARC WELDING MACHINES —***
NO ACCESSORIES OR ATTACHMENTS NECESSARY

➤ ***SAFER AND EASIER TO USE —***
CAN BE USED WHERE TORCH CUTTING IS DIFFICULT OR IMPOSSIBLE

➤ ***EXCELLENT FOR PRE-WELD PREPARATION —***
EASILY PREPARES CRACKED AND FATIGUED METAL FOR WELDING

➤ ***LEAVES A CLEAN, SCALE-FREE SURFACE —***
ASSURING A PROFESSIONAL QUALITY FINISH WITHOUT GRINDING TO REMOVE CARBON DEPOSITS

APPLICATIONS

- Dismantling welded structures such as towers, sign supports and pipe piles.
- Use for blowing out rivets and for removing old weld overlays on railroad frogs, cross-overs and switches.
- Ideal for preparing work-hardened or heat-treated dies for welding.

SPECIFICATIONS

SIZE	P/N	AMPERAGE
3/32"	8724	90-170
1/8"	8725	150-300
5/32"	8726	175-400

CURRENT: AC or DC Straight Polarity

The Maintenance and Repair Welders "Third Hand"

AURALLOY® 400 "TURBO"

RESEARCH

CHAMFERING / CUTTING ELECTRODE

FEATURES

- Quickly prepares cracks and fatigued metal for welding.
- Metal removal where cutting by torch is either difficult or impossible
- A clean, scale-free surface which rarely requires further finishing
- Use on your present arc welding machine — no additional accessories or attachments necesary.
- 3/32" diameter works on same machine adjustments as 1/8" steel welding rod . . . no need to adjust.

WELDING TECHNIQUES

Point electrode in direction of travel and initiate arc. For a shallow chamfer, move electrode quickly along line of cut. A slower or weaving motion provides deeper groove. The molten metal is pushed ahead as the chamfer is made. For deeper grooves, repeat until the required depth is achieved.

WARNING

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- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Fastest, Most Economical Method of Removing Unwanted Metal Using a Common Welding Machine

AURALLOY® 500

RESEARCH

SUPER STRENGTH SELF-FLUXING SILVER SOLDER

95% TIN 5% SILVER FLUX-CORED SOLDER ALLOY

- ***MELTS AT A LOW 430°F —***
  ELIMINATING DISTORTION AND WEAKENING OF BASE MELT
- ***FAST, EASY HIGH STRENGTH DEPOSITS —***
  WITH SOLDER GUN, IRON OR TORCH
- ***SELF-FLUXING —***
  FOR ONE-STEP APPLICATION
- ***CONTAINS NO LEAD, CADMIUM OR ZINC —***
  FOR SAFE USE AND COMPLIANCE WITH ALL PURE FOOD LAWS

APPLICATIONS

- Food and Beverage Containers
- Toilet Fixtures
- Sanitary Equipment
- A/C and Refrigeration
- Auto Radiators
- Evaporators
- Regulators and Meters
- Machine Guides
- Chrome Plated Fittings
- Electrical Connections
- Toy and Hobby Repair

SPECIFICATIONS

SIZE	P/N	WEIGHT
1/32"	8781	.6 oz. Disp. Tube
1/16"	8780	1.0 oz. Disp. Tube
1/16"	8776	1/2 lb. Spool
1/16"	8775	1 lb. Spool
1/8"	8779	1/2 lb. Spool
1/8"	8778	1 lb. Spool

TENSILE STRENGTH: 15,000 psi
MELTING TEMP.: 430°F

The Ideal Maintenance Solder

AURALLOY® 500

RESEARCH

SUPER STRENGTH SELF-FLUXING SILVER SOLDER

FEATURES

- Fast, easy high strength deposits with solder gun, iron or torch.
- Melts at a low 430°F, eliminating distortion and weakening of base melt.
- Conductivity 25% greater than ordinary solders.
- Contains no lead, cadmium or zinc for safe use and compliance with all pure food laws.
- Available in 1/2 lb. and 1 lb. spools or convenient pocket-size dispenser.

SOLDERING TECHNIQUES

Heat both surfaces to be joined with solder gun, iron or torch. Touch end of solder wire to joint allowing solder to flow evenly into joint.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

95% Tin 5% Silver Flux-Cored Solder Alloy with Outstanding Strength

AURALLOY® 600 RESEARCH "WHITE LIGHTNING"

UNIVERSAL ALUMINUM ALLOY ELECTRODE

FOR JOINING AND METAL BUILD-UP OF ALL WELDABLE GRADES OF ALUMINUM

- ***LOW MELT COATING —***
  ALLOWS FOR USE AS A TORCH BRAZING ALLOY
- ***UNUSUALLY SMOOTH ARC TRANSFER —***
  FOR MINIMAL SPATTER AND CONSISTENT DEPOSITIONS
- ***STABILIZED AND DE-OXIDIZED CORE WIRE —***
  PREVENTS POROSITY
- ***SPECIAL, BAKED-ON COATING —***
  CONTROLS ALUMINUM OXIDE FORMATION AND ASSURES LONG SHELF LIFE
- ***EXCELLENT WELDABILITY —***
  FOR EASY APPLICATION IN ALL POSITIONS INCLUDING VERTICAL AND OVERHEAD
- ***STABLE ARC —***
  FOR SMOOTH APPLICATION WITH NO SPATTER
- ***DENSE DEPOSITS —***
  ASSURE FLATTER BEADS WITH NO POROSITY

APPLICATIONS

- Truck beds, bodies and frames
- Pipe railings, bannisters, stairs, diamond plate
- Irrigation piping
- Engine and motor blocks
- Traffic light bases, highway signs and supports
- Loading ramps and docks
- Door/window frames
- Transmission housings and gear boxes
- Machine bases and supports
- Bus bars, electrical switch boxes and mounts

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/8"	8731	70-110
5/32"	8732	100-150

TENSILE STRENGTH: 34,000 psi
CURRENT: DC Reverse Polarity
POSITION: All

Superior Performance With Exceptional Versatility

AURALLOY® 600 "WHITE LIGHTNING"

RESEARCH

UNIVERSAL ALUMINUM ALLOY ELECTRODE

FEATURES

- Universal electrode welds all cast, wrought and extruded aluminum and aluminum alloys.
- Smooth arc transfer
- Minimum spatter
- Can also be used as a torch brazing alloy

WELDING TECHNIQUES

Remove oil and grease with wire brush or sand/grind immediate weld area. Chamfer edges of plates to be joined and open up cracks. Make holes to be filled wider at the top. Preheat heavy sections broadly. In thick-to-thin joining, preheat heavier member. Use any conventional DC coated electrode power source-rectifier type of motor or engine driven generator. Adjust for upper end of the recommended amperage range and reduce amperage as welding progresses and base metal absorbs heat. Feed the electrode quickly and move fast. When picking up each bead, weld into the previous crater before continuing.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Arc Welding of All Aluminum and Aluminum Alloys

AURALLOY® 610

RESEARCH

HIGH STRENGTH FLUX-CORED ALUMINUM BRAZING ALLOY

GENERAL PURPOSE TORCH BRAZING OF ALL WELDABLE ALUMINUM

- ***SPECIALLY ENGINEERED ALLOY WITH FLUX CORE —***
  FOR FASTER, EASIER JOINING OF ALL ALUMINUM AND ALUMINUM ALLOYS.
- ***EXCELLENT FOR OUT OF POSITION BRAZING AND BUILD-UP DEPOSITS —***
  PROVIDING DEEP PENETRATION IN TIGHT JOINTS
- ***LOW MELT TEMPERATURE —***
  FOR EASIER, FASTER TORCH BRAZING

APPLICATIONS

- Motor Housings
- Ladders
- Beverage Cases
- Tools
- Utensils
- Pulleys
- Tanks
- Rails
- Sheaves
- Vats

SPECIFICATIONS

SIZE	P/N
1/8"	8745

TENSILE STRENGTH: 30,000 psi

High Strength Deposits on Sheet, Wrought or Cast Aluminum

AURALLOY® 610 RESEARCH

HIGH STRENGTH FLUX-CORED ALUMINUM BRAZING ALLOY

FEATURES

- Flux-cored aluminum alloy for high strength deposits at low temperatures.
- Superior results on all types of aluminum.
- A specially engineered alloy with flux core center for faster, easier application.
- Provides deep penetration in tight joints.
- Excellent for out of position brazing and build-up deposits.

WELDING TECHNIQUES

Clean weld area, removing plating or anodized finish. Leave gap approximately 1/16". For thicker parts, cracks or butt joints, bevel a 60° to 70° vee. Use a carburizing flame (excess acetylene with oxygen) and heat work with flame 1" to 3" from surface. Touch rod to weld area, depositing small amounts of alloy and allow to flow out and bond to base metal.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Ultimate Aluminum Maintenance Rod

AURALLOY® 620 RESEARCH

EASY-FLOW ALUMINUM ALLOY WIRE

FOR TORCH OR TIG WELDING

- ***EXCEPTIONAL STRENGTH AND DUCTILITY —***
  FOR GENERAL PURPOSE JOINING, FABRICATING AND REPAIRING OF MOST ALUMINUM GRADES
- ***MINIMUM PREPARATION AND LOW MELT (950° - 1010°F) —***
  FOR EASE OF APPLICATION
- ***THIN FLOWING —***
  ALLOWS FOR APPLICATION IN TIGHT FITS

APPLICATIONS

- Poles
- Guard Rails
- Frames
- Furniture
- Bus Bars
- Structural Parts
- Sign Posts
- Housings
- Tools
- Ladders
- Utensils
- Tubing
- Vats
- Tanks
- Rails
- Patterns
- Fixtures
- Truck Bodies
- Evaporators
- Castings
- Marine Equipment
- Pipe

SPECIFICATIONS

SIZE	P/N
1/16"	8750
3/32"	8751
1/8"	8752

TENSILE STRENGTH: 35,000 psi

High Strength Aluminum Alloy

AURALLOY® 620

RESEARCH

EASY-FLOW ALUMINUM ALLOY WIRE

FEATURES

- Provides exceptional strength and ductility for general purpose joining, fabricating and repairing of most aluminum grades.
- Minimum preparation and low melt (950° - 1010°F) for ease of application.
- Thin flowing for tight fits.
- Excellent color match.

WELDING TECHNIQUES

Clean joint with wire brush removing grease and oxides. Apply Auralloy 620 Flux. Using excess acetylene (carburizing) flame, keep torch in constant motion to uniformly heat area. When flux turns to clear liquid, start adding alloy to the joint.

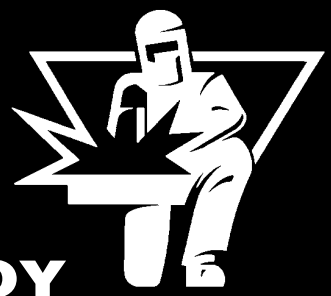
WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

AURALLOY® 630

RESEARCH



EZ-WELD ALUMINUM ALLOY

PROPRIETARY BRAZING ROD FOR HIGH STRENGTH ALUMINUM REPAIR

- ***SUPERIOR STRENGTH AND ADHESION —***
  PROVIDES PERMANENT SEAL AND STRENGTH WHEN SUBJECTED TO EXTREME PRESSURE
- ***JOINTS STRONGER THAN PARENT METAL —***
  FOR STRENGTH AND DURABILITY
- ***LOW HEAT REQUIREMENT (PROPANE TORCH APPLICATION) —***
  IS IDEAL FOR FIELD INSTALLATIONS AND REPAIRS
- ***NON-CORROSIVE JOINTS —***
  WILL NOT DETERIORATE IN SALT WATER ENVIRONMENTS

APPLICATIONS

AUTOMOTIVE: • Radiators • Manifolds • Transmission Housings • Pump Housings • Carburetors • Motorcycles • Running Boards • Mobile Homes • Recreational Vehicles
TRADES: • Plumbing • Heating and A/C • Power Tools • Farm Equipment • Storm Shutters • Screen Enclosures • Satellite Dishes • Sign Companies • Aluminum Awnings • Gutters and Down Spouts
MARINE: • Hulls • Leaking Rivets • Props • Brass & Bronze Fittings • Engine Parts
HOUSEHOLD: • Lawn Furniture • Lawn Mowers • Doors/Windows • Exercise Equipment • Bicycles • Fishing Rods • Antiques and Metal Work

SPECIFICATIONS

SIZE
1/2 x 18"

P/N
8733
(includes s/s wire brush P/N 41340)

MELTING RANGE: 715°F - 730°F
DENSITY: 25
ELONGATION: 3%
TENSILE STRENGTH: 47,000
COMPRESSION STRENGTH: 60-75,000
SHEAR STRENGTH: 34,000
ELECTRICAL CONDUCTIVITY: 24.9% of cu

IMPACT STRENGTH: (Charpy) 4 ft. lbs. to break 1/4" bar
THERMAL CONDUCTIVITY: .24 cal/cu.cm
HARDNESS: (Brinell 100)
CORROSION PENETRATION: 300 x 10 in 11-R
DUCTILITY: Good

No Specialty Equipment - No Flux or Scale - No Lead or Cadmium

AURALLOY® 630 RESEARCH

EZ-WELD ALUMINUM ALLOY

FEATURES

- Joints stronger than parent metal
- Easy machining of welded areas
- Non-corrosive joints
- Low heat requirement (propane torch application)
- No specialty equipment
- No flux or scale
- Contains no lead or cadmium
- Environmentally friendly

WELDING TECHNIQUES

Clean the surface with a stainless steel brush. With a propane torch, heat the parent metal surface, NOT the EZ-Weld Aluminum Alloy. Apply EZ-Weld to the heated surface. Keep flame in motion. Allow weld to air-cool naturally. Never plunge into water.
T-JOINTS: For maximum strength, tin both members. Again, heat the parts, NOT the EZ-Weld and flow into the intersection. Stir solid end of EZ-Weld stick through the molten EZ-Weld to remove any trapped oxide.
BUTT-JOINTS: Bevel both ends and bring together. Tin both beveled surfaces, then lay bead of EZ-Weld into groove.
LAP JOINTS: Parts can be tinned and slid together while EZ-Weld is molten, or a generous fillet of EZ-Weld can be applied around the edges of the lap joint. Make sure of tinning by running the stock through the molten E-Z Weld Aluminum Alloy.

WARNING

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- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Alloy Brazing Rod for High Strength Aluminum Repair

AURALLOY® 710 "PINK CADILLAC"

AR RESEARCH

PREMIUM FLUX COATED SILVER BRAZING ALLOY

FOR TORCH BRAZING

➤ ***HIGH 56% SILVER, CADMIUM-FREE FORMULATION —***
PROVIDES THE ULTIMATE STRENGTH FOR JOINING ALL FERROUS AND MOST NON-FERROUS METALS

➤ ***LOW WORKING TEMPERATURE (1120°F to 1185°F) —***
FOR EXCELLENT FLOWING ACTION AND ADHESION

➤ ***SUPER ACTIVE, FAST-FLOWING FLUX COATING —***
PROVIDES TWICE THE BASE METAL CLEANSING ACTION OF CONVENTIONAL SILVER FLUX COATINGS. CLEANS THE MOST OXIDIZED STAINLESS STEEL SURFACES TO PROMOTE RAPID WETTING ACTION

➤ ***SUPERIOR PERFORMANCE —***
FLUX COATING IS TOTALLY FLEXIBLE AND CHIP RESISTANT

APPLICATIONS

- All ferrous and non-ferrous metals, except aluminum and magnesium
- Manufacturing and repairing of all food and beverage equipment
- Thin flow joints on aerospace and aircraft applications
- Color matching on stainless steel and nickel
- Carbide tipping
- Joining medical tools and instruments
- Hospital carts and equipment

SPECIFICATIONS

SIZE	P/N
1/16" x 18" (Pink Flux)	8786

TENSILE STRENGTH: 71,000 psi
ELONGATION: 25%
CORROSION RESISTANCE: Excellent
MELTING TEMP.: 1120°F Solidus, 1200°F Liquidous

Precise Thin Flow Joining of All Ferrous and Most Non-Ferrous Metals

AURALLOY® 710 "PINK CADILLAC"

RESEARCH

PREMIUM FLUX COATED SILVER BRAZING ALLOY

FEATURES

- Cadmium, lead and zinc-free
- High 56% silver content
- Precise thin flowing formulation
- Low working temperature (1120°F to 1185°F)
- Fast-flowing action
- Cleans oxidized surfaces to promote rapid wetting action
- Fast-flowing flux is bendable and chip resistant

WELDING TECHNIQUES

Joint must be clean. For maximum strength, joint clearance should not exceed .003". Maintain alignment by use of fixtures and jigs. Preheat parts broadly with a slightly carburizing flame to 350°F. Then heat joint area to 800°F. Melt off some flux and allow to flow throughout joint. Melt a small amount of alloy onto the joint. BASE METAL MUST NOT BE OVERHEATED. After the part has cooled slowly, remove flux residue with warm water.

WARNING

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- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Super Active Flux Coated Silver Brazing Alloy
High 56% Silver Content

AURALLOY® 800 "RUBY"

AR RESEARCH

HIGH STRENGTH, NICKEL SILVER BRAZING ALLOY

EXTREMELY VERSATILE AND ABRASION RESISTANT

- ***LOW MELT, OXYACETYLENE WELDING —***
  FOR FASTER, EASIER APPLICATION
- ***THIN FLOWING —***
  FOR TIGHT FIT UP WORK
- ***DENSE, TOUGH DEPOSITS —***
  ENSURES STRONG, NON-POROUS AND DURABLE WELDS
- ***RAPIDLY BUILDS UP DEPOSITS —***
  FOR CLADDING OR REPLACING MISSING METAL
- ***HIGHLY MACHINABLE —***
  SAVING TIME AND MONEY

APPLICATIONS

- Truck Body Liners
- Chutes
- Loading Platforms
- Crane Boom Tips
- Fan Blades
- Wear Plates
- Shovel Boom
- Fork Lifts
- Fifth Wheel Plates
- Dragline Buckets
- Dipper Buckets
- Oil Rigs
- Liquid Gas Tanks
- Hot or Cold Rolled Steel
- Tool Steel
- Stainless Steel
- High Carbon Steel
- Cast Iron
- Malleable Iron
- All Alloys of the Bronze, Copper and Nickel Family

SPECIFICATIONS

SIZE	P/N
3/32"	8755
1/8"	8756

TENSILE STRENGTH: 100,000 psi
MELTING TEMP: 1,450°F

The Perfect Rod for the Most Difficult Applications

AURALLOY® 800 "RUBY"

RESEARCH

HIGH STRENGTH, NICKEL SILVER BRAZING ALLOY

FEATURES

For oxyacetylene welding of hot or cold rolled steel, tool steel, stainless steel, high carbon steel, cast iron, malleable iron, all alloys of the bronze, copper and nickel family and dissimilar metals (not white metals). Extremely versatile brazing rod with low melt (bonds at approximately 1450°F) and thin flowing for tight fits. Excellent for rapid build-up deposits for cladding or replacing missing metal. Tough, wear-resistant deposits (150 to 200 BHN) for strong, non-porous, lasting welds. Highly machinable and minimum preparation for rusty, dirty parts. Joining and fast build-up of metals and filling holes in steel and cast iron. Ideal for drive shafts, friction plates and gear teeth.

WELDING TECHNIQUES

Heat the base metal until red hot and flux is liquid. Dip the rod into the base metal just behind the flame. Then back up the flame to "wet out" the deposit.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

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- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

The Most Versatile Brazing Alloy . . .
The Best Choice for the Maintenance Welder

AURALLOY® 810

RESEARCH

SELF-FLUXING, NON-FUMING STEEL WIRE

VERSATILE MILD STEEL BARE ROD FOR TORCH OR TIG BRAZING

- ***COPPER METALLIC COATING —***
  INHIBITS RUST AND IMPROVES WELDABILITY
- ***UNIQUE SELF-FLUXING DESIGN —***
  PROVIDES A SMOOTH, EVEN BEAD WITH NO WELD POROSITY
- ***DENSE, TOUGH DEPOSITS —***
  ENSURES STRONG, NON-POROUS AND DURABLE WELDS
- ***CAN BE USED IN ALL POSITIONS —***
  FOR EASE OF MACHINING, FILING OR SANDING

APPLICATIONS

- Tanks
- Hoods
- Sheet Metal
- Shafts
- Brackets
- Vats
- Frames
- Machinery Guards
- Wire Mesh

SPECIFICATIONS

SIZE	P/N
1/16"	8760
3/32"	8761
1/8"	8762

TENSILE STRENGTH: 70,000 psi

High Quality, General Purpose Brazing Alloy

AURALLOY® 810

RESEARCH

SELF-FLUXING, NON-FUMING STEEL WIRE

FEATURES

- General purpose joining of steel sheets, plates and pipe of low carbon analysis.
- Versatile mild steel bare rod for torch or tig brazing.
- Copper metallic coating inhibits rust and improves weldability.
- Provides a dense, smooth, even bead with no weld porosity.
- Can be used in all positions and is easily machined, filed or sanded.
- No flux is required for torch or tig brazing.

WELDING TECHNIQUES

Clean joint area to remove grease, paint, rust, dirt or moisture. Keep neutral flame in constant motion on the repair area. Add alloy to joint insuring weld bead has complete penetration of the joint. Flux is not required.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Versatility and Performance

AURALLOY® 820

RESEARCH

HIGH STRENGTH THIN FLOWING BRONZE BRAZING ALLOY

EASY BRAZING OF COPPER, BRONZE, BRASS AND NICKEL ALLOYS

- ***SPECIAL FORMULATION —***
  JOINS AND REPAIRS NON-FERROUS METALS
- ***PROVIDES DUCTILE DEPOSITS —***
  FOR VIBRATION RESISTANCE
- ***SELF-FLUXING ON COPPER TO COPPER APPLICATIONS —***
  ASSURES EASE OF USE

APPLICATIONS

- Refrigeration
- Copper Wire and Cable
- Bus Bars
- Electrical Contacts
- Piping
- Air Conditioning
- Plumbing
- Marine Equipment

SPECIFICATIONS

SIZE	P/N
1/16"	8765
3/32"	8766
1/8"	8767

TENSILE STRENGTH: 46,000 psi
WORKING TEMP.: 1300°F to 1460°F

Superior Non-Ferrous Metal Brazing

AURALLOY® 820
RESEARCH

HIGH STRENGTH THIN FLOWING BRONZE BRAZING ALLOY

FEATURES

- Ideal for joining and repairing thin sheet metal, tubing and fittings made of non-ferrous metals.
- Self-fluxing on copper to copper applications.
- Ductile deposits withstand vibration.
- High electrical and heat conductivity.
- Easily machined.
- Strong corrosion and wear properties.

WELDING TECHNIQUES

Clean joint area to remove grease and dirt. Use a slightly oxidizing flame and keep flame as low as possible to obtain a free-flowing bead. On copper to copper welds, flux is not required. Use Auralloy 825 Flux for other materials. All joints should be tight fitting. As flux liquifies, melt off a small amount of alloy and continue heating until bonding is complete. Do not overheat. Remove excess flux with water and a clean brush.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Easy Brazing of Copper, Bronze, Brass and Nickel Alloys

AURALLOY® 830

RESEARCH

HIGH STRENGTH SILICON BRONZE BRAZING ALLOY

IDEAL FOR DISSIMILAR METAL APPLICATIONS

➤ ***HIGHLY CORROSION RESISTANT DEPOSITS —***
INHIBITS RUST AND IMPROVES WELDABILITY

➤ ***EXTREMELY VERSATILE —***
JOINS COPPER BASED METALS TO THEMSELVES OR GALVANIZED STEEL

➤ ***SUITABLE FOR THIN FLOW OR BEAD FORMING DEPOSITS —***
ENSURING STRONG, NON-POROUS AND DURABLE WELDS

APPLICATIONS

- Galvanized Parts
- Castings
- Marine Repairs
- Valves and Seats
- Tubing
- Fittings
- Joints and overlays on steel, copper, brass, bronze, naval brass and galvanized sections

SPECIFICATIONS

SIZE	P/N
1/16"	8770
3/32"	8771

TENSILE STRENGTH: 64,000 psi
WORKING TEMP.: 1450°F to 1600°F

High Strength, Versatility and Ease of Application

AURALLOY® 830

RESEARCH

HIGH STRENGTH SILICON BRONZE BRAZING ALLOY

FEATURES

- Joins copper, copper-silicon and copper-zinc based metals to themselves or to mild or galvanized steel.
- Highly corrosion resistant.
- Eliminates "burn-through" on galvanized coatings.
- Ideal for dissimilar metal applications.
- Suitable for thin flow or bead forming deposits.
- Non-fuming.

WELDING TECHNIQUES

Clean joint area to remove grease and dirt. Use Auralloy 825 Flux. With a slightly oxidizing flame, heat work until flux liquifies. Keep weld puddle small to assure rapid solidification and to avoid contraction strains. Remove flux residue with hot water and a clean stiff brush.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Join or Repair Copper, Copper-Silicon and Copper-Zinc Based Metals

AURALLOY® 840 "SAPPHIRE"

AR RESEARCH

"SAFE VUE" MOISTURE SEALED FLUX COATED BRONZE BRAZING ALLOY

EASY BRAZING OF STEEL CAST IRON AND COPPER BASE ALLOYS

➤ ***UNIQUE "SAFE VUE" FLUX COATING —***

ELIMINATES HARSH CHEMICAL ODORS AND THE BRIGHT ORANGE VISIBILITY BLOCKING GLARE OF CONVENTIONAL SODIUM TYPE FLUX COATINGS

➤ ***SLICK, SMOOTH MOISTURE SEALED FLUX —***

HAS TRIPLE THE SHELF LIFE OF SIMILAR PRODUCTS

➤ ***FLUX CLEANSING ACTION —***

EXCEPTIONAL ON DIRTY STEELS AND CAST IRONS

➤ ***CAN BRAZE COPPER BASE ALLOYS —***

WITHOUT MELTING BASE

➤ ***NO CRACKING —***

TOTALLY FLEXIBLE COATING

APPLICATIONS

- Bearings
- Bushings
- Cams
- Cast Iron
- Carbide Tipping
- Chain Saws
- Drills
- Jig and Fixtures
- Levers
- Linkage
- Piping
- Racks
- Shaft Repair

SPECIFICATIONS

SIZE	P/N
1/16"	8860
3/32"	8861
1/8"	8862

TENSILE STRENGTH: 71,000 psi

WORKING TEMP.: 1595°F

AURALLOY® 840 "SAPPHIRE"

RESEARCH

"SAFE VUE" MOISTURE SEALED FLUX COATED BRONZE BRAZING ALLOY

FEATURES

- Unique "Safe Vue" flux coating eliminates harsh chemical odors and the bright orange visibility blocking glare of conventional sodium type flux coatings.
- Slick, smooth moisture sealed flux has triple the shelf life of similar products.
- Flux cleansing action is exceptional on dirty steels and cast irons.
- Can braze copper base alloys without melting base.
- No cracking – totally flexible coating.

WELDING TECHNIQUES

Clean joint area to remove grease and dirt. Pre-heat general area to 700°F (400°C) and then specific area to 1200°F (650°C). Melt off flux and apply alloy.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Triple Deoxidized Bronze Brazing Alloy

AURALLOY® 900 "GRANITE"

AR RESEARCH

HARD SURFACING ELECTRODE

SUPERIOR IMPACT AND ABRASION RESISTANCE

➤ ***EXCEPTIONAL HARD SURFACING ALLOY —***
PRODUCES OUTSTANDING IMPACT AND ABRASION RESISTANCE

➤ ***IDEAL ALLOY COMBINATION —***
PROVIDES SUPERIOR HARDNESS AND TOUGHNESS ON CARBON AND ALLOY STEELS, MANGANESE STEELS AND CAST IRON

➤ ***HIGH DEPOSITION RATE —***
FOR MAXIMUM WEAR RESISTANCE WITH LITTLE OR NO SPATTER

➤ ***PROLONGS SERVICE LIFE OF NEW AND WORN PARTS —***
AVOIDING EXPENSIVE REPLACEMENT COSTS

APPLICATIONS

- Agricultural, Construction, Industrial, Mining and Municipal Equipment of all types where wear is a problem
- Crusher Jaws; Hammers; Bucket Lips and Teeth
- Wear plates; Pins; Axles; Shafts; Cams; Eccentrics

SPECIFICATIONS

SIZE	P/N	AMPERAGE
1/8"	8735	80-135
5/32"	8736	120-160

HARDNESS: RC 56-60
CURRENT: AC or DC
On DC use reverse polarity
POSITION: All

For All Hard Surfacing Applications

AURALLOY® 900 "GRANITE"

RESEARCH

HARD SURFACING ELECTRODE

FEATURES

- A truly unique electrode combining unsurpassed weldability plus superior impact and abrasion resistance and high hardness.
- The ideal alloy combination where hardness and toughness are required on carbon and alloy steels, manganese steels and cast iron.

WELDING TECHNIQUES

Prepare weld surface by chamfering to remove old overlays and loosely adhering metal. Use a cushion, if required. Deposit the electrode using any technique applicable such as stringer beading or weaving up to 4X. Allow each layer to cool before continuing. Remove slag between passes.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

Superior Hardness and Protection Against Wear

AURALLOY® 910

RESEARCH

HARD FACING CHROMIUM CARBIDE TUBULAR ELECTRODE

SUPERIOR IMPACT AND ABRASION RESISTANCE

- ***FOR MANUAL APPLICATION TO LARGE PARTS —***
  WHERE DEPOSITION RATE AND JOB COMPLETION TIMES ARE PARAMOUNT
- ***EASY TO USE —***
  AND OFFERS THE GREATEST RANGE OF CARBIDE BEARING ALLOYS TO OVERCOME A GREAT VARIETY OF WEAR CAUSED BY ABRASION, EROSION, IMPACT AND HEAT
- ***DESIGNED FOR ALL POSITION WELDING —***
  AND CAN BE USED AT LOW AMPERATURE TO HARDFACE THIN EDGES ON TILLAGE TOLS AND SIMILAR PARTS
- ***A PROPRIETARY COATING FORMULATION IS COMPLETELY MOISTURE RESISTANT —***
  AND WILL SURVIVE STORAGE IN DAMP CONDITIONS FOR YEARS
- ***CAN BE APPLIED TO CAST IRON, MANGANESE STEEL —***
  AND MILD STEEL WITHOUT PREHEAT; HIGH CARBON AND ALLOY STEELS MAY REQUIRE PREHEAT

APPLICATIONS

- Ideal for hardfacing parts made from austenitic manganese steel.
- Dredge bucket lips, crusher jaws, crusher mantles and liners, manganese steel swing hammers, quarry screen plates, grizzly bars and feeder spots and shovel buckets.

SPECIFICATIONS

SIZE	P/N
1/4 x 18"	8739

HARDNESS: RC 55-60
CURRENT: AC or DC Welding Power Sources
POSITION: All

For Applications Subject to High Abrasion, Compressive Impact Loads and Erosion

AURALLOY® 910
RESEARCH

HARD FACING CHROMIUM CARBIDE TUBULAR ELECTRODE

FEATURES

- For manual applications to large parts where deposition rate and job completion times are paramount.
- Easy to use and offers the greatest range of carbide bearing alloys to overcome a great variety of wear caused by abrasion, erosion, impact and heat.
- Designed for all position welding and can be used at low amperature to hardface thin edges on tillage tools and similar parts.
- A proprietary coating formulation is completely moisture-resistant and will survive storage in damp conditions for years.
- Can be applied to cast iron, manganese steel and mild steel without preheat; high carbon and alloy steels may require preheat.

WELDING TECHNIQUES

Prepare weld surface by chamfering to remove old overlays and loosely adhering metal. Use a cushion, if required. Deposit the electrode using any technique applicable such as stringer beading or weaving up to 4X. Allow each layer to cool before continuing. Remove slag between passes.

WARNING

Protect yourself and others. Read and understand this label. FUMES and GASES can be dangerous to your health. ARC RAYS can injure eyes and burn skin. ELECTRIC SHOCK can kill.

- Read and understand the manufacturer's instructions and your employer's safety practices.
- Keep your head out of the fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases away from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1. Safety in Welding and Cutting published by the American Welding Society, 550 North LeJeune Road, Miami, Florida, 33135: OSHA Safety and Health Standards, 29 CFR 1910, available from the U.S. Government Printing Office, Washington, D.C. 20402.

For Applications Subject to High Abrasion, Compressive Impact Loads and Erosion

IDENTIFICATION OF METALS

TEST	METAL			
	Manganese Steel	Stainless Steel	Cast Iron	Wrought Iron
Appearance	DULL CAST SURFACE	BRIGHT, SILVERY SMOOTH	DULL GREY EVIDENCE OF SAND MOLD	LIGHT GREY SMOOTH
Magnetic	NON-MAGNETIC	DEPENDS ON EXACT ANALYSIS	STRONGLY MAGNETIC	STRONGLY MAGNETIC
Chisel	EXTREMELY HARD TO CHISEL	CONTINUOUS CHIP SMOOTH BRIGHT COLOR	SMALL CHIPS ABOUT 1/8 INCH. NOT EASY TO CHIP, BRITTLE	CONTINUOUS CHIP SMOOTH EDGES SOFT AND EASILY CUT AND CHIPPED
Fracture	COARSE GRAINED	DEPENDS ON TYPE BRIGHT	BRITTLE	BRIGHT GREY FIBROUS APPEARANCE
Flame	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING	MELTS SLOWLY BECOMES DULL RED BEFORE MELTING	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING
Spark *For best results, use at least 5,000 surface feet per minute on grinding equipment. (Cir. x R.P.M. = S.F. per Min.) / 12	 Bright White Fan-Shaped Burst	 1. Nickel-Black Shape close to wheel. 2. Moly-Short Arrow Shape Tongue (only). 3. Vanadium-Long Spearpoint Tongue (only).	 Red Carrier Lines (Very little carbon exists)	 Long Straw Color Lines (Practically free of bursts or sprigs)

TEST	METAL			
	Low Carbon Steel	Medium Carbon Steel	High Carbon Steel	High Sulphur Steel
Appearance	DARK GREY	DARK GREY	DARK GREY	DARK GREY
Magnetic	STRONGLY MAGNETIC	STRONGLY MAGNETIC	STRONGLY MAGNETIC	STRONGLY MAGNETIC
Chisel	CONTINUOUS CHIP SMOOTH EDGES CHIPS EASILY	CONTINUOUS CHIP SMOOTH EDGES CHIPS EASILY	HARD TO CHIP CAN BE CONTINUOUS	CONTINUOUS CHIP SMOOTH EDGES CHIPS EASILY
Fracture	BRIGHT GREY	VERY LIGHT GREY	VERY LIGHT GREY	BRIGHT GREY FINE GRAIN
Flame	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING	MELTS FAST BECOMES BRIGHT RED BEFORE MELTING
Spark *For best results, use at least 5,000 surface feet per minute on grinding equipment. (Cir. x R.P.M. = S.F. per Min.) / 12	 Long Yellow Carrier Lines (Approx. .20% carbon or below)	 Yellow Lines Sprigs Very Plain Now (Approx. .20% to .45% carbon)	 Yellow Lines Bright Burst Very Clear Numerous Star Burst (Approx. .45% carbon and above)	 Swelling Carrier Lines Cigar Shape

AURALLOY® RESEARCH
100 DaVINCI DRIVE • BOHEMIA, NEW YORK 11716
516-567-2200 • FAX: 516-567-2418

AURALLOY CROSS REFERENCE TABLE

AURALLOY PRODUCT	TS ALLOYS	PART #	DIAMETER	DESCRIPTION	TENSILE STRENGTH	BOWMAN	CERTANIUM	CRONATRON	EUTECTIC	X-ERGON
210	Blue Velvet	8700, 8701, 8702	3/32, 1/8, 5/32	**General Purpose Steel Electrode** Welding all mild steels. Flux coated.	85,000 psi 29% elongation	25120	702, 704	338	Beautyweld 666, 3001, 6000	106
220	–	8705, 8706, 8707, 8708	3/32, 1/8, 5/32, 3/16	**Superior Strength Steel Electrode** Welding low alloy, carbon and cast steels. Flux coated.	120,000 psi 28% elongation	—	705	375	110	102
225	Thunder-bolt	8709, 8710, 8711, 8712	1/16, 3/32, 1/8, 5/32	**High Tensile Strength Steel Electrode** Welding all types and grades of similar and dissimilar steels. Flux coated.	128,000 psi 36% elongation	25180	707, 770 MOX	333	Fantastec 680, 3026, 680 CGS	100XL, 171B, Unique 100, 1000 HPM
225-B	–	8728, 8729, 8730	1/16, 3/32 1/8	**High Tensile Strength Bare Steel Rod** Welding all steels.	128,000 psi	—	76SL	388 TIG	Tigtectic BMO	122 TIG 1000 HPM
225-V	–	8718 8719	3/32 1/8	**Vertical Position Steel Electrode** Special vertical position high strength electrode for dissimilar steels.	128,000 psi 32% elongation	25180	707, 770 MOX	333	Fantastec 680, 3026, 680 CGS	100XL, 171B, Unique 100
250	Sterling	8714, 8715, 8716, 8717	1/16, 3/32 1/8, 5/32	**Universal Stainless Steel Electrode** Welding most grades of stainless steels, carbon steels, alloy steels and stainless steels of unknown analysis. Flux coated.	95,000 psi 45% elongation	25370	709	377	Staintrode D, 57, 670	—
250-B	–	8740, 8741, 8742	1/16, 3/32 1/8	**Universal Stainless Steel Bare Rod** Welding all types of stainless steels.	86,000 psi 45% elongation	—	707 TIG	333 TIG	Tigtectic 680 57, 670	Xinect 100XL
255	Cascade	8737, 8738	3/32, 1/8	**Vertical Position Stainless Steel Electrode** Vertical down/up welding of stainless steels. Flux coated.	80,000 psi 42% elongation	—	—	—	—	—
300	Midnight	8720, 8721, 8722, 8723	3/32, 1/8 5/32, 3/16	**Ductile Cast Iron Electrode** Welding all grades of cast iron and alloyed cast iron. Flux coated.	70,000 psi 40% elongation	25250	889	211	223, 225, 232, 2233, 3055, 2255	131
310	–	8746, 8747	3/32, 1/8	**Machinable Cast Iron Electrode** Welding all grades of cast iron and alloyed cast iron. Flux coated.	55,000 psi	25270	887	222	224, 244, 240, 2240, 3099	—
400	Turbo	8724, 8725, 8726	3/32, 1/8 5/32	**Cutting and Chamfering Electrode** Rapid metal removal on cast iron, stainless steel, inconel, manganese and aluminum. Flux coated.	—	25310	100	110	Chamfertrode, Cuttrode, Exotrode	161
500	–	8775, 8776, 8778, 8779, 8780	1/16 - 1/2 & 1 lb. 1/8 - 1/2 & 1 lb. 1.0 oz. tube	**Super Strength Self-Fluxing Silver Solder** Soldering all steels, including stainless and chrome plated, copper and nickel alloys and dissimilar combinations of these metals. No white metals. *(Use Auralloy 500 Flux)*	15,000 psi	—	—	—	—	—
600	White Lightning	8731, 8732	1/8, 5/32	**Aluminum Arc Welding / Brazing Rod** Welding all types and grades of aluminum.	34,000 psi	25360	608	510	2101, 3021, 2109	141
610	–	8745	1/8	**High Strength Flux-Cored Aluminum Brazing Alloy** Torch brazing of all weldable aluminum.	30,000 psi	877	—	54C	21FC-E	—
620	–	8750, 8751, 8752	1/16, 3/32, 1/8	**Easy Flow Aluminum Alloy Wire** Welding most grades of aluminum. *(Use Auralloy 620 Flux)*	35,000 psi	24970	65/66	55	190	241
710	Pink Cadillac	8786	1/16 Pink Flux	**Premium Flux Coated Silver Brazing Alloy** Brazing alloy for use on all ferrous and most non-ferrous metals, except aluminum and magnesium. *(Use Auralloy 700 Flux)*	71,000 psi	24870	54	43F, 40F	1030FC, 1020FC, 1020XFC, 1801FC	261, 262
800	Ruby	8755, 8756	3/32, 1/8	**High Tensile Strength Brazing Rod** Brazing hot or cold rolled steels, tool steels, stainless and high carbon steels, cast iron, malleable iron, all alloys of bronze, copper and nickel and dissimilar metals. *(Use Auralloy 825 Flux)*	100,000 psi	908, 914	87F, 70F	30F	185FC, 185XFC, 16, 16FC, 16XFC	201
810	–	8760, 8761, 8762	1/16, 3/32, 1/8	**Self-Fluxing, Non-Fuming Steel Wire** Brazing steel sheets, plates and pipe of low carbon analysis. *(Use 825 Flux)*	70,000 psi	—	—	—	—	—
820	Sapphire	8765, 8766, 8767	1/16, 3/32 1/8	**High Strength Bronze Brazing Alloy** Brazing copper, copper alloys, bronze, brass and nickel. *(Use 825 Flux)*	46,000 psi	—	50	44	180	263
830	–	8770, 8771	1/16, 3/32	**High Strength Silicon Bronze Brazing Alloy** Brazing copper based metals, galvanized steel and dissimilar metals. *(Use Auralloy 825 Flux)*	64,000 psi	25000	71F, 83F	21, 23F	18FC, 146FC, 18FXC, 146XFC, 145FC, 3046XFC	205, 207
900	Granite	8735, 8736	1/8, 5/32	**Abrasion Resistant Hard Surfacing Electrode** Welding carbon and alloy steels, manganese steels & cast iron. Flux coated.	Rockwell "C" Hardness 56-60	25350	250	—	3005, N5005, N6006 N6712, N6715	174, 176, 178

AURALLOY PRODUCT APPLICATIONS

AURALLOY PRODUCT #	TYPE OF ACCOUNTS	TYPICAL APPLICATIONS
210	• Airlines • Asphalt/Cement Plants • Contractors • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Hospitals, Hotels, Schools • Mines, Quarries • Plant Maintenance • Welding Repair Shops	• Brackets • Ducts • Floor Plates • Frames • Galvanized Iron • Guards • Piping • Scaffolding • Shelving • Tanks • Trucks
220	• Airlines • Asphalt/Cement Plants • Contractors • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Hospitals, Hotels, Schools • Mines, Quarries • Plant Maintenance • Welding Repair Shops	• Axles • Bearings • Blades • Brackets • Bumpers • Chain • Conveyors • Fork Lift Tines • Floor Plates • Gears • Hoppers • Levers • Rails • Scaffolding • Shafts • Shelves • Tanks • Tow Bars • Wheels
225 **225-B** **225-V**	• Airlines • Asphalt/Cement Plants • Contractors • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Hospitals, Hotels, Schools • Mines, Quarries • Plant Maintenance • Welding Repair Shops	• Arms • Asphalt Mixer Paddles • Augers • Axles • Bars • Bearings • Blades • Bucket Teeth • Bumpers • Cases • Chain • Chisels • Conveyors • Crane Booms • Drills • Fork Lift Tines • Frames • Hoppers • Housings • Impellers • Levers • Lift Truck Tines • Mowers • Pneumatic Bits • Rails • Rams • Shafts • Skids • Snow Plows • Springs • Tools • Tow Bars/Hooks • Wheels
250 **250-B** **255**	• Farms, Golf Courses, Parks, Cemeteries • Food Processing • Hospitals, Hotels, Schools • Welding Repair Shops	• Agitator Blades • Cafeteria Equipment • Dairy Equipment • Heat Exchangers • Impellers • Keyways • Paddles • Processing Equipment • Tanks • Tubing • Vats
300 **310**	• Airlines • Asphalt/Cement Plants • Contractors • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Hospitals, Hotels, Schools • Mines, Quarries • Plant Maintenance • Welding Repair Shops	• Arms • Bell Housings • Bosses • Cylinder Heads • Dollies • Engine Blocks • Exhaust Manifolds • Farm Implements • Flywheels • Gears • Housings • Landing Gear • Levers • Machine Bases • Molds • Mowers • Oil Pans • Ornamental Iron Work • Pulleys • Pumps • Valves • Water Jackets • Wheels
400	• Contractors • Electronic/Electrical Repair Shops • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Garages/Body Shops • Mines, Quarries • Plant Maintenance • Welding Repair Shops	• Cutting • Grooving • Gouging • Piercing • Bolt Removal • Sheet Cutting • Fabrication
500	• Airlines • Contractors • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Garages/Body Shops • Mines, Quarries • Plant Maintenance • Welding Repair Shops • Electronic / Electrical Repair Shops	• Air Conditioning and Refrigeration • Auto Radiators • Chrome Plated Fittings • Electrical Connections • Evaporators • Food and Beverage Containers • Machine Guides • Regulations and Meters • Sanitary Equipment • Toilet Fixtures • Toy and Hobby Repair
600 **610** **620**	• Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Plant Maintenance • Welding Repair Shops	• Blocks • Cafeteria Equipment • Cases • Cylinder Heads • Housings • Mixers • Paddles • Piping • Structural Members • Tanks • Truck & Trailer Bodies • Vats
710	• Airlines • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Food Processing • Garages/Body Shops • Hospitals, Hotels, Schools • Plant Maintenance • Welding Repair Shops	• Manufacturing and Repairing Food and Beverage Equipment • Carbide Tipping • Color Matching Stainless Steel and Nickel • Joining Medical Tools and Instruments • Hospital Carts and Equipment • Thin Flow Joints on Aerospace and Aircraft Applications
800 **810** **820** **830**	• Airlines • Farms, Golf Courses, Parks, Cemeteries • Fleets, Bus Lines • Garages/Body Shops • Hospitals, Hotels, Schools • Plant Maintenance • Welding Repair Shops	• Arms • Bearings • Brackets • Cams • Cast Legs • Chain • Coils • Cylinder Heads • Drill Bit Extensions • Drill Tangs • Elgonated Holes • Faucets • Floor Plates • Furniture • Gears • Guards • Guides • Hand Rails • Housings • Hubs • Impellers • Keyways • Levers • Lugs • Machining Errors • Manifolds • Mild Steel Piping • Missing Sections • Mufflers • Oil Pans • Piping • Pulleys • Pumps • Shafts • Sheet Repair • Tail Pipes • Tools • Trucks • Tubes • Valves
900	• Asphalt/Cement Plants • Contractors • Mines, Quarries	• Augers • Blades • Buckets • Chutes • Concrete Cutter Wheels • Crusher Concaves • Feeder Sprockets • Hammers • Hoppers • Impellers • Jaws

AURALLOY RESEARCH

TRIAL PACKS

WELDING ELECTRODES

AURALLOY 210

SIZE		PART
3/32 x 12"	E	8936
1/8 x 14"	E	8937
5/32 x 14"	E	8938

AURALLOY 220

SIZE		PART
3/32 x 12"	B	8940
1/8 x 14"	B	8941
5/32 x 14"	B	8942
3/16 x 14"	B	8943

AURALLOY 225 & 225MIG

SIZE		PART
3/32 x 10"	E	8945
1/8 x 14"	E	8946
5/32 x 14"	E	8947
.035 (1 lb.)	A	98727

AURALLOY 225-V

SIZE		PART
3/32 x 10"	B	8944
1/8 x 14"	B	8948

AURALLOY 230

SIZE		PART
3/32 x 14"	B	8953
1/8 x 14"	B	98851
5/32 x 14"	B	98852
3/16 x 14"	B	8957

AURALLOY 240

SIZE		PART
1/8 x 14"	A	8939

AURALLOY 250

SIZE		PART
1/16 x 9-1/2"	A	8949
3/32 x 12"	B	8950
1/8 x 14"	B	8951
5/32 x 14"	B	8952

AURALLOY 255

SIZE		PART
3/32 x 14"	B	98737
1/8 x 14"	B	98738

AURALLOY 300

SIZE		PART
3/32 x 14"	B	8954
1/8 x 14"	B	8955
5/32 x 14"	B	8956

AURALLOY 310

SIZE		PART
3/32 x 10"	B	8998
1/8 x 14"	B	8999

AURALLOY 320

SIZE		PART
3/32 x 14"	B	98855
1/8 x 14"	B	98856
5/32 x 14"	B	98857

AURALLOY 400

SIZE		PART
1/8 x 14"	B	8959
5/32 x 14"	B	8960
3/32 x 14"	B	8958

AURALLOY 600

SIZE		PART
1/8 x 14"	B	8962
5/32 x 14"	B	8963

AURALLOY 900

SIZE		PART
1/8 x 14"	B	8965
5/32 x 14"	B	8966

AURALLOY 910

SIZE		PART
1/4 x 18"	A	8961

BRAZING/SOLDER/TIG ALLOYS

AURALLOY 225-B

SIZE		PART
1/16 x 36"	B	8995
3/32 x 36"	B	8996
1/8 x 36"	B	8997

AURALLOY 250-B

SIZE		PART
1/16 x 36"	B	8968
3/32 x 36"	B	8969
1/8 x 36"	B	8970

AURALLOY 810

SIZE		PART
1/16 x 36"	E	8984
3/32 x 36"	E	8985
1/8 x 36"	E	8986

AURALLOY 620

SIZE		PART
1/16 x 36"	B	8974
3/32 x 36"	B	8975
1/8 x 36"	B	8976

AURALLOY 710

SIZE		PART
1/16 x 18" (Pink Flux)	F	8980

AURALLOY 800

SIZE		PART
3/32 x 18"	B	8981
1/8 x 18"	B	8982

AURALLOY 610

SIZE		PART
1/8 x 32"	B	8972

AURALLOY 820

SIZE		PART
1/16 x 36"	B	8988
3/32 x 36"	B	8989
1/8 x 36"	B	8990

AURALLOY 830

SIZE		PART
1/16 x 36"	B	8992
3/32 x 36"	B	8993

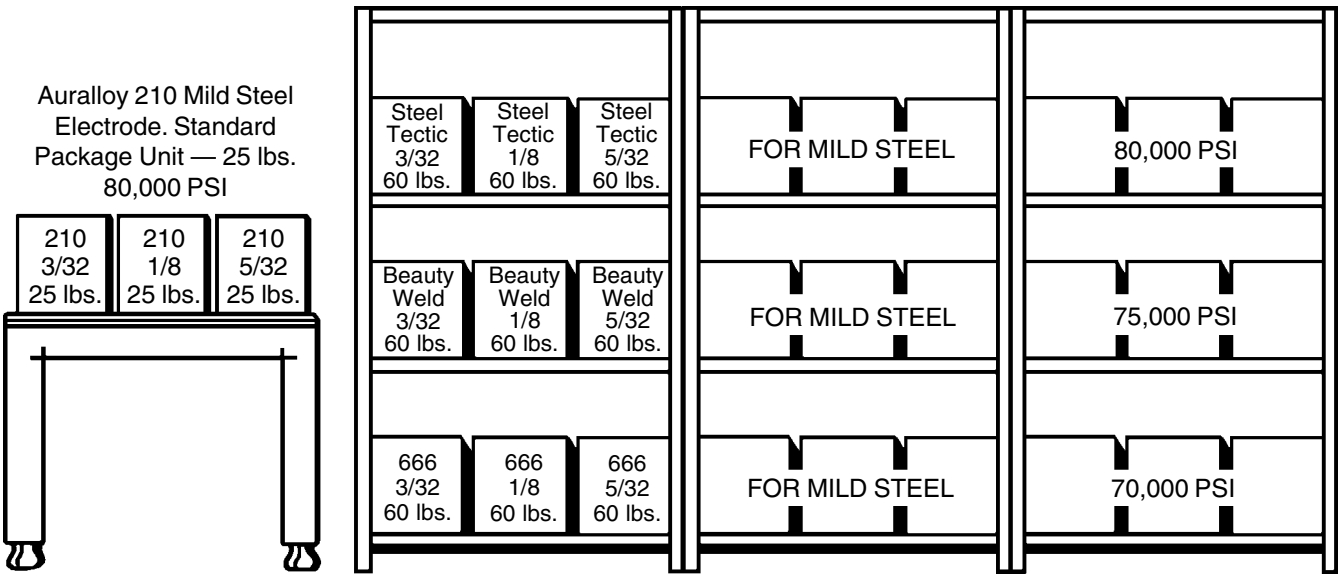
AURALLOY 840

SIZE		PART
1/16 x 36"	B	98860
3/32 x 36"	B	98861
1/8 x 36"	B	98862

AURALLOY RESEARCH

ADVANTAGES

When you compare the products offered by Eutectic, Certanium, Cronatron and Nassau, you will find that they each offer up to 3 or more products with different numbers or colors that are meant to do the same job. This is **Duplication**, and results in overstock. Auralloy will supply you with only one product to avoid duplication and eliminate the excessive dollar waste. To further illustrate our point, compare and save dollars.



75 LBS. OF ELECTRODES FOR MILD STEEL

540 LBS. OF ELECTRODES FOR MILD STEEL

With Auralloy — No More Confusion — The Right Rod Every Time

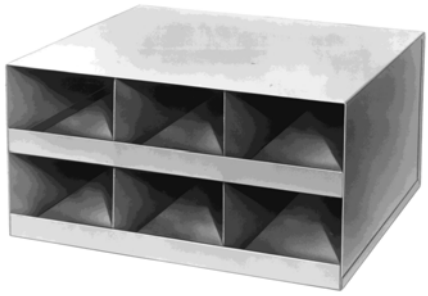
AURALLOY OFFERS:

- **The Best Materials for the Best Results.**
- **The Right Tool for the Right Job.**
- **Quality Alloys Researched and Developed Strictly for the Maintenance and Repair Welder . . . *See For Yourself.***

AURALLOY RESEARCH

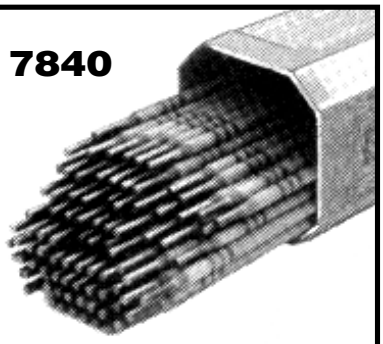
MAINTENANCE WELDING ROD STARTER ASSORTMENT

Five Of Our Most Popular Maintenance Welding Rods Used By Our Customers



- **A TOTAL OF 13 LBS. OF ROD**
- **LABELED CABINET**
- **EASY IDENTIFICATION**

P/N 7840



AURALLOY 210
1/8" - 85,000 PSI
General Purpose Steel Electrode
Welding all mild steels. Flux coated.

AURALLOY 220
1/8" - 120,000 PSI
Superior Strength Steel Electrode
Welding low alloy, carbon and cast steels. Flux coated.

AURALLOY 225
1/8" - 128,000 PSI
High Tensile Strength Steel Electrode
Welding all types and grades of similar and dissimilar steels. Flux coated.

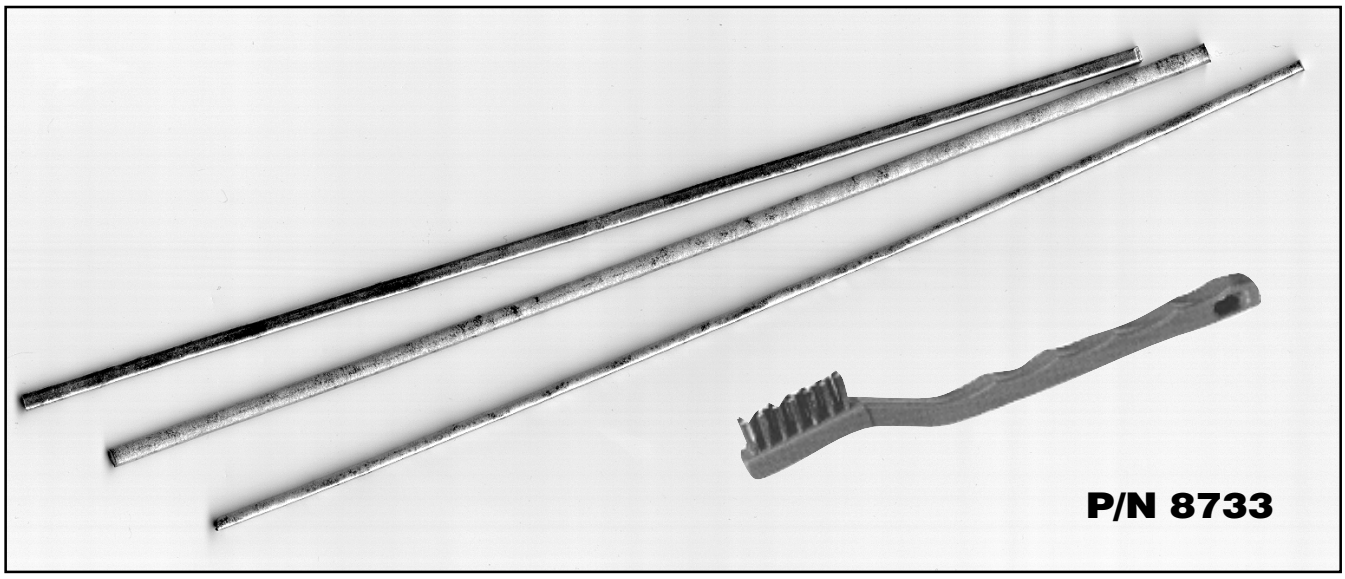
AURALLOY 300
1/8"
40% ELONGATION
Ductile Cast Iron Electrode
Welding all grades of cast iron and alloyed cast iron. Flux coated.

AURALLOY 800
3/32" - 100,000 PSI
High Tensile Strength Brazing Rod
Brazing hot or cold rolled steels, tool steels, stainless and high carbon steels, cast iron, malleable iron, all alloys of bronze, copper and nickel and dissimilar metals. *(Use Auralloy 825 Flux)*

AURALLOY RESEARCH

EZ-WELD ALUMINUM ALLOY KIT

Now You Can Weld Aluminum "Easily" with a Common Propane Torch!



- **A TOTAL OF 1/2 LB OF AURALLOY 630 (P/N 8734) –**
  Approximately ten (10) 18" sticks of proprietary brazing rod formulated for high strength fabrication and aluminum repair.

- **STAINLESS STEEL WIRE BRUSH (P/N 41340)**
  Constructed of heavy gauge wire embedded in a plastic handle.
  7-7/8" overall length

- **PACKAGED IN A PROTECTIVE PLASTIC TUBE**

SAFETY/FIRST AID

- **Heavy duty glow-in-the-dark metal cabinets are perfect for large industrial sites, cabinets meet and exceed ANSI Z308.1-1998**
- **Handy door pockets are filled with useful products for quick recognition**
- **Wall mountable or convenient handles for portability**
- **Personal protection; masks, safety eyewear, and gloves for every task**
- **High-vis clothing & gloves**
- **LED lighting solutions**
- **Shop supplies**
- **Chemicals**
- **Spill containment**

CHROMATE'S GLOW-IN-THE-DARK FIRST-AID CABINETS ARE FILLED WITH HIGH-QUALITY PRODUCTS FOR MINOR OR MAJOR FIRST AID EMERGENCIES. **Products designed for professional use in professional maintenance shops.**

FIRST AID & MEDICAL PRODUCTS

INDUSTRIAL FIRST AID ASSORTMENTS

LARGE 4-SHELF FIRST AID ASSORTMENT

- Heavy duty metal cabinet is sturdy and dust resistant
- Four-shelf cabinet with door pockets
- A large variety of high-quality first aid products
- Glow-in-the-dark front panel for added visibility
- Meets and exceeds ANSI standard Z308.1-2003
- Dimensions: 15" x 22" x 5-1/2"

85004

DESCRIPTION		PART
Large 4-Shelf First Aid Assortment	A	85004
Large Empty Metal Cabinet	A	85004C
Large Cabinet Door Pouch (20 Pockets) – Empty	A	85004P

Large 4-Shelf Assortment includes:

Ammonia Inhalant Ampoule (10)	212-005
Certi-Strip Adhesive Bandage, Plastic X-LG. (6)	210-009
Bandage Compress 4"	211-008
Certi-Gauze Pad 4" x 4" (2)	211-012
Certi-Gauze Pad 2" x 2" (6)	211-029
Burn Gel, Certi-Gel 1/8 oz. (6)	215-010
First Aid Cream 1 gm. (6)	213-010
Antibiotic Cream, Certi-Sporyn 1 gm. (10)	213-011
Antiseptic BZK Towelettes 5" x 7" (10)	213-038
Eye Pads & Tape Oval (4)	214-008
Absorbent Compress 32 sq.in.	211-020
Insect Sting Wipe-Ups 1" x 2" (10)	213-014
Alcohol Wipe-Ups 1" x 2" (10)	213-040
PVP Iodine Wipe-Ups 1" x 2" (10)	213-005
Hydrocortisone Cream 1 gm. (6)	216-025
Biohazard Bag w/Tie 24" x 24" (2)	216-123
Antimicrobial Towelette 5" x 8" (10)	213-006
Triangular Bandage, O/W 40"	211-037
Gloves, Nitrile, Pair M/L	216-081
Certi-Strip Adhesive Bandage, Plastic 1" x 3" (100)	220-103
Certi-Strip Adhesive Bandage, Woven Knuckle (25)	220-228
Certi-Strip Adhesive Bandage, Woven Med. Fingertip (25)	220-229
Certi-Strip Adhesive Bandage, Woven 1" x 3" (50)	220-260
Antiseptic BZK Solution 2 oz. Spray (Non-Aerosol)	R514-043
Cotton Swabs, Vial 3" 100/Vial	224-210
Elastic Bandage, Ace Style 2" x 5 yd.	228-102
Eye Wash w/Eye Cup, Certi-Ose 4 oz. (2)	229-043
Certi-Gauze Roll - Boxed 2" x 6 yd.	211-024
Certi-Gauze Pad 3" x 3" (25)	231-211
Trauma Dressing, Certi-Stopper XL-TD/Boxed 4" x 60"	231-400
Burn Spray, Certi-Burn, 1 oz.	233-004
First Aid Facts Book - 20 Page 24" x 24"	234-010
Cold Pack, Certi-Cool Large	234-295
Scissors, Bandage w/Red Handle 4"	237-010
Adhesive Certi-Tape Tri-Cut	240-037
Certi-Lan-Cet (2)	242-007
Forceps, Plastic 4.25"	242-014
Finger Splint, Plastic Medium	262-025
Finger Splint, Plastic Large	262-027
CPRotector - O/W 5.5 sq. in.	270-026
Certi-Ache Tablets, Analgesic 2/pkg. 25/2's	504-043
Certi-Cet Tablets, Non-Aspirin 2/pkg. 25/2's	504-044
Certi-Lak, Tablets, Antacid 2/pkg. 25/2's	504-070

FIRST AID & MEDICAL PRODUCTS

INDUSTRIAL FIRST AID ASSORTMENTS

MEDIUM 3-SHELF FIRST AID ASSORTMENT

- Heavy duty metal cabinet is sturdy and dust resistant
- Three-shelf cabinet with door pockets
- A large variety of high-quality first aid products
- Glow-in-the-dark front panel for added visibility
- Meets and exceeds ANSI standard Z308.1-2003
- Dimensions: 13-1/2" x 16" x 5-1/2"

DESCRIPTION		PART
Medium 3-Shelf First Aid Assortment	A	85003
Medium Empty Metal Cabinet	A	85003C
Medium Cabinet Door Pouch (12 Pockets) – Empty	A	85003P

Medium 3-Shelf Assortment includes:

Ammonia Inhalant Ampoules (10)	212-005	Antiseptic BZK Solution 2 oz. Spray (Non-Aerosol)	R514-043
Certi-Strip, Plastic Skin Closure M/L (16)	210-008	Cotton Swabs, Vial 3" 100/Vial	224-210
Bandage Compress 4"	211-008	Certi-Rip Elastic Cohesive Bandage 2" x 5 yd.	228-346
Certi-Gauze Non-Stick Pads 2" x 3" (4)	211-030	Eye Wash w/Eye Cup, Certi-Ose 4 oz. (2)	229-043
Triangular Bandage 40"	211-033	Certi-Gauze Roll, Boxed 2" x 6 yd.	211-024
Certi-Burn Gel 1/8 oz. (6)	215-010	Certi-Gauze Pads 3" x 3" (25)	231-211
First Aid Cream 1 gm. (6)	213-010	XL-TD Trauma Dressing, Certi-Stopper 4" x 60"	231-400
Antibiotic Cream, Certi-Sporyn 1 gm. (10)	213-011	Certi-Burn Spray, 1 oz.	233-004
Antiseptic BZK Towelettes 5" x 7" (10)	213-038	First Aid Facts Book - 20 Page 4.25" x 5.5"	234-010
Eye Pads w/Tape Oval (4)	214-008	Certi-Cool Instant Cold Pack, Boxed Large	234-295
Certi-Strip, Adhesive Bandage, Plastic Jr-XL (40)	210-018	Scissors, Bandage w/Red Handle 4"	237-010
Absorbent Compress 32 sq.in.	211-020	Certi-Adhesive Tape Tri-Cut	240-037
Insect Sting Wipe-Ups 1" x 2" (10)	213-014	Forceps, Plastic 4.25"	242-014
Alcohol Wipe-Ups 1" x 2" (10)	213-040	Eye & Skin Wash, Certi-Lizer 4 oz.	508-016
PVP Iodine Wipe-Ups 1" x 2" (10)	213-005	CPRotector, Mouth to Mouth Barrier 5.5 sq. in.	270-026
Hydrocortisone Cream 1 gm. (6)	216-025	Tri-Buffered Aspirin Tablets 2/pkg. 25/2's	504-041
Biohazard Bag w/Tie 24" x 24" (2)	216-123	Certi-Ache Tablets, Analgesic 2/pkg. 25/2's	504-043
Gloves, Nitrile, Pair M/L	216-081	Certi-Cet Tablets, Non-Aspirin 2/pkg. 25/2's	504-044
Certi-Strip, Adhesive Bandage, Plastic 1" x 3" (50)	220-170		
Certi-Strip, Adhesive Bandage, Woven Knuckle (25)	220-228		
Certi-Strip, Adhesive Bandage, Woven Med. Fingertip (25)	220-229		
Certi-Strip, Adhesive Bandage, Woven 1" x 3" (50)	220-260		

FIRST AID & MEDICAL PRODUCTS

INDUSTRIAL FIRST AID ASSORTMENTS

SMALL 3-SHELF FIRST AID ASSORTMENT

- Heavy duty metal cabinet is sturdy and dust resistant
- Vertical three-shelf cabinet with door pockets
- A large variety of high-quality first aid products
- Glow-in-the-dark front panel for added visibility
- Meets and exceeds ANSI standard Z308.1-2003
- Dimensions: 10-1/4" x 14-3/4" x 4-1/2"

DESCRIPTION		PART
Small 3-Shelf First Aid Assortment	A	85002
Small Empty Metal Cabinet	A	85002C
Small Cabinet Door Pouch (12 Pockets) – Empty	A	85002P

Small 3-Shelf Assortment includes:

Certi-Strip Adhesive Bandage, Plastic 1" x 3" (100)	220-103	Elastic Bandage, Cohesive, Certi-Rip, Tan 2" x 5 yd.	228-346
Certi-Strip Adhesive Bandage, Plastic Jr-XL (100)	220-014	Eye Pad/Gauze Assortment:	206-132
Certi-Strip Adhesive Bandage, Plastic X-LG (6)	210-009	(4) - Eye Pads, (2) - Gauze Roll 2" x 6 yd. and	
Certi-Strip Adhesive Bandage, Woven 1" x 3" (100)	220-205	(1) - Gauze Roll 3" x 6 yd.	
Certi-Strip Adhesive Bandage, Woven Med. Fingertip (50)	220-213	Eye Wash w/Eye Cup, Certi-Ose 4 oz. (2)	229-043
Certi-Strip Adhesive Bandage, Woven Knuckle (50)	220-220	Finger Splint, Wood 1" x 6" 6/lb	235-055
Certi-Skin Closures 1/2" x 6" (16)	210-008	First Aid Facts Book - 20 Page 4.25" x 5.5"	234-010
Certi-Adhesive Tape - Spool Tri-Cut	240-037	Forceps, Plastic 4.25"	242-014
Alcohol Wipe-Ups 1" x 2" (100)	221-007	Gauze Non-Stick Pads 2" x 3" (10)	231-306
Ammonia Inhalant Ampoule	212-005	Gauze Non-Stick Pads 3" x 4" (10)	231-305
Antiseptic BZK Solution 2 oz. Spray (Non-Aerosol)	R514-043	Certi-Gauze Pads 2" x 2" (25)	231-209
Antiseptic BZK Towelettes 5" x 7" (10)	213-038	Certi-Gauze Pads 3" x 3" (25)	231-211
Biohazard Bag w/Tie 24" x 24" (2)	216-123	Gloves, Nitrile, Pair M/L	216-081
Tri-Buffered Aspirin Tablets 2/pkg. 25/2's	504-041	Hydrocortisone Cream 1 gm. (6)	216-025
Certi-Burn Cream 1 gm. (6)	215-007	Insect Sting Wipe-Ups 1" x 2" (10)	213-014
Certi-Burn Spray, 1 oz.	233-004	PVP Iodine Wipe-Ups 1" x 2" (25)	233-096
Certi-Ache Tablets, Analgesic 2/pkg. 25/2's	504-043	Scissors, Bandage w/Red Handle 4"	237-010
Cold Pack, Certi-Cool	234-295	Certi-Lan-Cet 2/pkg. 2	242-007
Absorbent Compress 32 sq.in.	211-020	XL-TD Trauma Dressing - Certi-Stopper 4" x 60"	231-400
Cotton Swabs, Vial 3" (100)	224-210	Triangular Bandage 40"	211-037
CPRotector 5.5 sq. in.	270-026	Antibiotic Cream, Certi-Sporyn 1 gm. (25)	233-358

FIRST AID & MEDICAL PRODUCTS

FIRST AID KITS

SMALL 2-SHELF FIRST AID KIT

85001

- Heavy duty cabinet is sturdy, moisture and dust resistant
- Two-shelf cabinet
- Large variety of high-quality first aid products
- Meets and exceeds ANSI standard Z308.1-2003
- Dimensions: 10-1/2" x 10-1/2" x 2-1/2"

DESCRIPTION		PART
Small 2-Shelf First Aid Kit	A	85001
Includes:		
Adhesive Bandage Assortment, 45/box	A	220-110
Ammonia Inhalant Ampoules	A	212-005
Antiseptic Assortment, 21/box	A	220-111
Biohazard Bag with Tie	A	216-123
Non-Aspirin, 50/2's (10 tablets)	A	232-101
Cold Pack, Junior (2)	A	216-033
CPRotector®	A	270-026
Eye Wash, 15 ml	A	229-050
Forceps, Plastic, 4-1/4"	A	242-014
Eye/Gauze Pad Assortment, 10/box	A	231-115
Gauze/Tape Assortment, 3/box	A	211-050
Gauze Roll, 1" x 6 yards	A	211-022
Gloves, Nitrile, Medium/Large (2 Pair)	A	216-081
Scissors, Bandage w/ Red Handle, 4"	A	237-010
Lancing Tool, 2/package	A	242-007
Triangular Bandage	A	211-037
Elastic Bandage (Ace Style) 2" x 5 yards	A	228-102

PORTABLE FIRST AID KIT

85000

- Heavy duty poly cabinet is sturdy and dust resistant
- Greater variety and more product than any other #25 first aid kit
- Unique packaging, economically priced and easy to use
- Glow-in-the-dark front panel
- Meets and exceeds ANSI standard Z308.1-2003
- Polypropylene box dimensions: 10" x 7" x 3"

DESCRIPTION		PART
Portable First Aid Kit	A	85000
Portable First Aid Kit – Case Only	A	85000C
Includes:		
Adhesive Bandage Assortment, 45/box	A	220-110
Ammonia Inhalant (2)	A	212-005
Antiseptic Assortment, 21/box	A	220-111
Biohazard Bag with Tie	A	216-123
Cold Pack, Junior	A	216-033
CPRotector®	A	270-026
Eye Wash, 15 ml	A	229-050
Forceps, Plastic, 4-1/4"	A	242-014

FIRST AID REFILL KIT

- Contains the fastest moving items in a first aid cabinet for fast, easy and convenience refills
- Comes packaged in a heavy duty moisture and dust resistant poly cabinet

DESCRIPTION		PART
First Aid Refill Kit	A	85008
Includes:		
Adhesive Bandages, Woven, 1" x 3", 50/box	A	220-260
Adhesive Bandages, Woven, Fingertip M/L, 25/box	A	220-229
Adhesive Bandages, Woven, Knuckle, 25/box	A	220-228
Certi-Sporyn Antibiotic, 1gm., 25/box	A	233-358
Gloves, Nitrile, Medium/Large, 1 Pair/Bag	A	216-081
Adhesive Bandages, Plastic, 1" x 3", 100/box	A	220-103

FIRST AID & MEDICAL PRODUCTS

FIRST AID KITS

FIRST AID LARGE POUCH KIT

- White nylon pouch
- Kit comes with belt loops and key ring
- Dimensions: 4-1/2" x 4-1/4" x 2-1/4"

85007

DESCRIPTION		PART
Large First Aid Pouch Kit	A	85007
Includes:		
(9) Adhesive Bandages, Plastic, 1" x 3"	A	220-170
(6) Adhesive Bandages, Plastic, 3/4" x 3"	A	220-173
(4) Adhesive Bandages, Plastic, Jr-XL	A	220-014
(2) Adhesive Bandages, Woven, Fingertip, M	A	220-229
(2) Adhesive Bandages, Woven, Knuckle	A	220-228
(4) Antiseptic BZK Towelette	A	221-009
(4) Burn Cream, 1 gm.	A	233-375
(1) Cold Pack, Certi-Cool Junior	A	216-033
(2) Gauze Non-Stick Pad, 2" x 3"	A	231-306
(2) Gauze Pad, 2" x 2"	A	231-209
(1) Gauze Roll, 2" x 6 yd.	A	211-024
(2) Insect Sting Wipes	A	213-014
(2) PVP Iodine Wipes	A	213-005

PROMOTIONAL KIT

- Plastic Certi-Strip design
- Two-piece plastic box
- Dimensions: 4-3/4" x 1-3/4" x 1"

16850

DESCRIPTION		PART
Promotional Kit	A	16850
Includes:		
(2) Adhesive Bandages, Plastic, 1" x 3"	A	210-006
(2) Adhesive Bandages, Plastic, 3/4" x 3"	A	220-100
(2) Adhesive Bandages, Plastic, JrXL	A	220-014
(2) Alcohol Wipes	A	221-022
(1) Aspirin Tablet, 2/pkg	A	232-018
(1) First Aid Cream, 1 gm.	A	233-319

CPR KIT

- Contains the essential items for quick CPR
- Heavy duty poly cabinet is sturdy and dust resistant
- Disposable barrier helps protect the rescuer from unsafe mouth-to-mouth contact
- One way valve prevents back flow of air or fluids to the rescuer from the victim's oral secretions
- Complete with gloves and instructions

85009

Some states are requiring Public Places by laws to have available for cardiopulmonary resuscitation (CPR) masks and gloves to protect rescuers. This kit meets this requirement.

DESCRIPTION		PART
CPR Kit	A	85009
Includes:		
CPRotector® "Mouth-to-Mouth" Barrier (4)	A	270-026
Gloves, Nitrile, Medium/Large, 4 Pair/Bag	A	216-081
CPR Instructions		-

CPR BLACK MINI POUCH KIT

- Black nylon pouch with key ring and belt loops
- Disposable barrier helps protect the rescuer from unsafe mouth-to-mouth contact
- One way valve prevents back flow of air or fluids to the rescuer from the victim's oral secretions.
- Cross-section on bottom of stem prevents tongue blockage
- Complete with gloves and instructions
- Pouch dimensions: 2-1/2" x 3-1/2" x 1-1/2"

85006

DESCRIPTION		PART
CPR Black Mini Pouch Kit	A	85006
Includes:		
CPRotector® "Mouth-to-Mouth" Barrier	A	270-026
Gloves, Nitrile, Medium/Large, 1 Pair/Bag	A	216-081
CPR Instructions		-

FIRST AID & MEDICAL PRODUCTS

FIRST AID KITS AND MISCELLANEOUS

KUT-KIT

Accidents, injuries, and emergencies happen to everyone. being properly prepared for these instances is important. now you can be, with the CIC™ Medical Kut-Kit.

- Quick Relief® Powder included in Kut-Kit.

Great for school buses, nurses' offices, maintenance shops, recreation departments and service vehicles!

DESCRIPTION		PART
Kut-Kit	A	K607-034
Includes:		
(1) Certi-Strip, Woven, 1" x 3", 16/unit	A	210-007
(1) Gauze Compress, 24" x 72", 1/unit	A	211-021
(1) Certi-Strip, Woven, 5/Fingertip 4/Knuckle, 9/unit	A A	210-019
(1) Antiseptic Towelettes, 10/unit	A	213-038
(1) Eye Wash (15 ml), 2/unit	A	229-050
(1) Quick Relief® Powder, 1/unit	A	510-011

BLOODBORNE PATHOGEN KIT

- Meets and exceeds OSHA bloodborne pathogen standard
- Separate eye and mouth protection to maintain safety when giving CPR
- Unique scoop bag for safe, easy clean up

DESCRIPTION		PART
Bloodborne Pathogen Kit	A	85010
Includes:		
(1) CPRotector® with Nitrile Gloves	A	216-070
(1) Gown (full length, long sleeve) and Cap	A	216-084
(1) Eye Shield, Mask and Nitrile Gloves	A	216-078
(1) Absorbent Powder-99 2 oz., Scoop Bag with Handle Scraper, Nitrile Gloves	A	216-079
(1) Biohazard Bag, Antiseptic, Antimicrobial, Certi-Green Towelette	A	216-080

QUICK RELIEF® POWDER

Quick Relief® powder stops bleeding without relying on the body's natural clotting process and does not cauterize or burn the skin. It is not biologically derived, non-toxic, not metabolized, does not create allergic reactions, and will not react with other medications.

- Quick Relief® powder stops bleeding instantly
- Its unique components combine with blood to form an instant and flexible scab that seals the wound
- Protects against infection
- Allows the body's own mechanism to begin healing
- For skin lacerations and nosebleeds

Ingredients: Hydrophillic polymer and Potassium salt.

P/N 510-011

DESCRIPTION		PART
Quick Relief Powder	A	510-011

FIRE BLANKET

- Made of nomex/Kevlar® blend – a tough, soft, fire and heat resistant fabric
- More effective than fire retardent-treated wool blankets
  - Effectively takes the fuel away from the flame – absorbs liquids
  - No mess to clean up after
- Won't melt, drip, burn or support combustion in the air
- Affordable and lightweight
- Packed in a white polypropylene box

DESCRIPTION		PART
Fire Blanket – 36" x 60"	A	85015

FIRST AID & MEDICAL PRODUCTS

FIRST AID KITS AND MISCELLANEOUS

HEAT STRESS RESPONDER CABINET

- Metal Cabinet
  - 10.25" H x 15" W x 4.625" D
- Ideal for hot work environments
- Protect yourself and your workers
- A necessity for anyone working outside in the hot sun
- Convenient and portable
- First Aid for:
  - Heat cramps
  - Heat exhaustion
  - Heat stroke

DESCRIPTION		PART
Heat Stress Responder Cabinet	A	85096
Includes:		
(6) Instant Cold Packs, Junior	A	216-033
(4) Rescue Blanket, 52" x 84"	A	286-038
(8) Instant Cold Packs, Large	A	234-295
(1) Electrolyte - 50/2's (100 tablets)	A	232-200
(6) Adhesive Tape - 1" x 5 yd. Spool	A	240-028
(6) Sqwincher Qwik Stik Powder, 8-10 oz.	A	512-008
(1) Forehead Thermometer, Reusable	A	235-050

HEAT STRESS RESPONDER KIT

- Plastic Case
  - 10" H x 7" W x 3" D
- Ideal for hot work environments
- Protect yourself and your workers
- A necessity for anyone working outside in the hot sun
- Convenient and portable
- First Aid for:
  - Heat cramps
  - Heat exhaustion
  - Heat stroke

DESCRIPTION		PART
Heat Stress Responder Kit	A	85095
Includes:		
(4) Instant Cold Packs, Junior	A	216-033
(2) Adhesive Tape - 1" x 10 yd. Spool	A	240-034
(1) Electrolyte - 25/2'S (50 tablets)	A	509-009
(1) Rescue Blanket, 52" x 84"	A	286-038
(2) Sqwincher Qwik Stik Powder, 8-10 oz.	A	512-008
(1) Forehead Thermometer, Reusable	A	235-050

FIRST AID & MEDICAL PRODUCTS

FIRST AID AND SUPPLIES

BANDAGES

- Adhesives that stick but do not hurt when removed
- Blue bandaids – blue metal detectable strips for the food processing industry

DESCRIPTION		PART
Absorbent Compress, 32 sq. in., 1/unit	A	211-020
Adhesive Skin Closure, Plastic 1/2" x 6", 16/box	A	210-008
Adhesive, Plastic, 1" x 3", 50/box	A	220-170
Adhesive, Plastic, 1" x 3", 100/box	A	220-103
Adhesive, Plastic, Jr-XL 1/2" x 2-1/4", 100/box	A	220-014
Adhesive, Plastic, X-Large 2" x 3", 25/box	A	220-020
Adhesive, Woven, 1" x 3", 50/box	A	220-260
Adhesive, Woven, Fingertip M/L, 25/box	A	220-229
Adhesive, Woven, Knuckle, 25/box	A	220-228
Adhesive, Woven, Fingertip/Knuckle	A	210-019
Adhesive, Woven, Blue Metal Detectable, 49/box Asst.	A	220-266
Adhesive, Woven, Blue Metal Detect., 1" x 3", 100/box	A	220-201
Adhesive, Woven, Blue Metal Detect., XL, 2" x 3", 25/box	A	220-230
Adhesive, Woven, Blue Metal Detect., Fingertip M/L, 50/box	A	220-239
Adhesive, Woven, Blue Metal Detect., Knuckle, 50/box	A	220-217
Cloth Tape, 1/2" x 10 yards spool	A	240-003
Cloth Tape, 1" x 5 yards spool	A	240-009
Compress, 2", 4/unit	A	211-002
Compress, 4", 1/unit	A	211-008
Cotton Swabs, 3" 100/vial	A	224-210
Elastic, Ace Style, 2" x 5 yards	A	228-102
Elastic, Ace Style, 3" x 5 yards	A	228-104
Elastic, Ace Style, 4" x 5 yards	A	228-106
Elastic Cohesive, 2" x 5 yards	A	228-346
Elastic Cohesive, 3" x 5 yards	A	228-347
Eye Pads, Gauze Assortment	A	206-132
Finger Splint, Plastic, Medium	A	262-025
Gauze Pads, 2" x 2", 25/box	A	231-209
Gauze Pads, 3" x 3", 25/box	A	231-211
Gauze Pads, 4" x 4", 10/box	A	231-208
Gauze Roll, Sterile, 2" x 6 yards	A	211-024
Gauze Roll, Sterile, 3" x 6 yards	A	230-091
Gauze Roll, Sterile, 4" x 6 yards	A	211-027
Pads, Non-Stick, 2" x 3", 10/box	A	231-306
Tape, Tri-Cut, Spool	A	240-037
Trauma Dressing X-Large, 1/bag	A	231-400
Triangular Bandage in Clear Plastic Bag	A	211-037

OINTMENTS / WIPES

- Pump sprays allow for ease of use and environmentally safe disposal

DESCRIPTION		PART
Alcohol Gel, 1/8 oz. 25/box	A	213-034
Alcohol Wipes, 50/box	A	221-022
Antibiotic Ointment, 1 gm. 25/box	A	233-358
Antimicrobial Towelettes, 10/unit	A	213-006
Antiseptic BZK Solution 2 oz. Spray (Non-Aero.)	A	R514-043
Antiseptic BZK Towelettes, 25/box	A	221-009
Barrier Hand/Skin Cream, 3 oz.	A	225-217
Burn Cream 1 gm. 25/box	A	233-375
Burn Dressing, 4" x 4", 2 oz. Gel	A	215-016
Burn Gel, 1/8 oz. 6/unit	A	215-010
Burn Spray, 1 oz. (Non-Aerosol)	A	233-004
Certi-Green Towelettes, 10/box	A	213-022
Certi-Green Towelettes, 50/box	A	221-024
First Aid Cream, 1 gm. 25/box	A	233-319
Hydrocortisone Cream 1%, 1gm., 6/unit	A	216-025
Hydrocortisone Cream 1%, 1gm., 50/unit	A	225-150
Insect Sting Wipes, 10/unit	A	213-014
Peroxide Spray, 3 oz. Non-Aerosol	A	221-035
Poison Ivy Cream, 1/8 oz. 6/unit	A	216-027
PVP Iodine Swabs, 10/unit	A	213-004
PVP Iodine Wipes 10/unit	A	213-005
Poison Ivy Barrier Lotion, 1/4 oz. 5/box	A	225-019
Sun Screen Towelettes, SPF-30, 2/unit	A	213-020

FIRST AID & MEDICAL PRODUCTS

FIRST AID AND SUPPLIES

TABLETS

- All medicinals are made with the highest quality ingredients with complete instructions and warnings

DESCRIPTION		PART
Analgesic, "Certi-Ache", 50/2's (100)	A	232-131
Antacid, "Certi-Lak", 50/2's (100)	A	238-012
Aspirin, 50/2's (100)	A	232-018
Cold & Sinus, "Certi-Cold" 50/unit	A	504-071
Decongestant, "Certi-Decon", 50/2's (100)	A	222-010
Electrolyte, "Certi-Lyte", 50/2's (100)	A	232-200
Ibuprofen, "Certi-Prin", 50/2's (100)	A	232-110
Menstrual Relief, "Certi-Fern", 50/2's (100)	A	232-128
Non-Aspirin, "Certi-Cet", 50/2's (100)	A	232-101
Non-Aspirin, X-str., "Certi-Cet Plus", 50/2's (100)	A	232-107
Sinus Relief, "Certi-Sine", 50/2's (100)	A	222-030
TLH Cough Drops, Cherry 50/box	A	241-012

MISCELLANEOUS

DESCRIPTION		PART
Ammonia Inhalant, 10/unit	A	212-005
Biohazard Bags with Tie, 2/unit	A	216-123
Cold Packs, Junior – 5" x 7"	A	216-033
Cold Packs, Large 6" x 9"	A	234-295
CPRotector®, Clear Plastic Overwrap	A	270-026
Gloves, Nitrile, Medium/Large, 1 Pair/Bag	A	216-081
Finger Splint, Plastic, Large	A	262-027
First Aid Facts Book	A	234-010
Forceps, Plastic, 4-1/4"	A	242-014
Lancing Tool, 2/package	A	242-007
Scissors, 4" Metal	A	237-010

EYE CARE

- Our eye care products provide emergency first aid for any type of eye injury, not just chemical splash
- Eye and skin wash is a specially formulated isotonic buffered solution that neutralizes acid and alkali burns, as well as flushing out debris in eyes

DESCRIPTION		PART	DESCRIPTION		PART
Eye and Skin Wash, 4 oz. Bottle	A	508-016	Eye Drops, Single Dose, .02 oz. 5/unit	A	229-048
Eye and Skin Wash, 32 oz. Bottle	A	511-030	Eye Pads, Gauze Assortment	A	206-132
Eye Cups, Plastic 6/unit	A	229-018	Eye Pads, Non-Woven, 10/box	A	231-115
Eye Dressing Kit 4/unit	A	214-009	Eye Wash, 15 ml, 2/unit	A	229-050

CLEANSE A LENS STATION

- 10" H x 9" W x 4" D White Poly Case with Glow-in-the-dark Face
- Safe for all glass and poly-coated lenses
- Certi-Clear anti-fog, anti-static solution
- Non-treated lens cleaning tissues – 4.5" x 5"
- Neat attractive wall mount station with waste receptacle for used tissues
- Disposable and recyclable – non refillable

DESCRIPTION		PART
Cleanse A Lens Station	A	K335-050
Anti-Fog Lens Cleaning Solution (8 oz. Spray)	A	335-020
Lens Cleaning Tissues (800/pkg)	A	335-022

FIRST AID & MEDICAL PRODUCTS

PERSONAL PROTECTION

WELDING RESPIRATOR

- Features an added sorbent that helps filter out nuisance levels of ozone and organic vapors (less than the OSHA PEL)
- Can be used where welding fumes are present
- Exhalation valve reduces hot air build-up, keeping workers cool and comfortable
- Collapse-resistant polymesh shell has integral flame retardants for added protection
- Shaped for comfort with a contour-molded nose bridge
- NIOSH 42 CFR 84 certified to have filter efficiency of 95% against particulate aerosols free of oil

DESCRIPTION		PART
Welding Respirator	I	59012

PARTICULATE RESPIRATOR

- Features electrostatically charged microfibers infused into its construction, making breathing easier and cooler
- Designed to provide reliable protection against certain non-oil based particles
- Lightweight, high quality design
- Adjustable nose clip – secure seal
- Elastic straps keep respirator snug against the face
- NIOSH 42 CFR 84 classification of N95 (95% efficient, not resistant to oil)

DESCRIPTION		PART
Particulate Respirator	I	59014

NUISANCE MASK

- Lightweight, economical mask provides protection for nuisance dusts like alfalfa, pollen, sawdust and animal dander
- Contoured nosepiece and elastic headband holds mask comfortably without restricting visibility

DESCRIPTION		PART
Nuisance Mask	R	59010

INSECT REPELLENT

- Contains 25% DEET
- Repels mosquitos, chiggers, ticks, deer flies, stable flies, black flies, gnats and fleas on exposed skin surfaces
- Use just enough repellent to cover exposed skin and/or clothing
- Do not use under clothing
- Avoid over-exposure

DESCRIPTION		PART
Insect Repellent (6 oz.)	A	74705

INSECT REPELLING WRISTBANDS

- Repels mosquitoes, flies, gnats, and no-see-ums
- DEET Free
- Natural & Effective – Made with naturally derived geranoil
- Vapors from the wristband form a protective shield around the immediate area, keeping insects a safe distance away
- While many repellents are easily diluted or rinsed off with swimming or perspiration, the wristband just keeps working, up to 120 hours
- Packaged in a reusable plastic “pod” that can be sealed between uses
- Can be worn on belt loops, hatbands, fastened in tents, or applied to other areas
- Designed with a patented break-away strap – snaps if it becomes entangled
- Several wristbands can be strung together to create a longer band

DESCRIPTION		PART
Green	C	85085
Glow-in-the-dark	C	85086
Pink	C	85087
Red	C	85088
Yellow	C	85089
Blue	C	85090

FIRST AID & MEDICAL PRODUCTS

PERSONAL PROTECTION

MECHANIX WEAR® PRO KNEE PADS

- 100% Kevlar®
- Heavy duty professional pad
- 3mm neoprene full coverage protection
- Multi-layered EVA foam pad conforms to knee
- Nylon web pull strap allows quick adjustment and positioning
- Upper / lower extra wide hook and loop for adjustability

DESCRIPTION		PART
Mechanix Wear® Pro Knee Pads	A	162804

PONCHO

- Color: yellow
- Size: 52" x 80"
- Thickness: 10mm PVC film
- An economical way to stay dry in various weather conditions
- Comes in a handy tote pouch
- Snap closures at sides
- Attached hood
- One size fits all

DESCRIPTION		PART
Poncho	B	59060

OVER-THE-HEAD EARMUFF

- This lightweight muff features very low profile ear cups that fit well with most helmets, eyewear and other safety equipment
- Comfortable earmuff in design and style
- Provides effective protection, especially against the high frequency noise associated with many work areas and functions including machine shops and power tools
- For loud noise levels up to 95 dba

DESCRIPTION		PART
Over-The-Head Earmuff	A	59085

PUSH-TO-LISTEN EARMUFF

- With the touch of a button, hear coworkers more clearly
- No more lifting the cup or removing the muff to communicate with coworkers
- Comfortable earmuff in design and style
- Provides effective protection, especially against the high frequency noise associated with many work areas and functions including machine shops and power tools

DESCRIPTION		PART
Push-To-Listen Earmuff	A	59086
Push-To-Listen Earmuff Hard Hat Mount	A	59087

EAR PLUGS

- Foam ear plugs do not require rolling prior to insertion, eliminating the possibility of hand-to-ear contamination
- Their pre-shaped design features a built-in flexible stem that makes insertion easy
- Clean with soap and water for reuse

DESCRIPTION		PART
Corded Ear Plugs	L	59000
Uncorded Ear Plugs	L	59001

SAFETY ACCESSORIES

SAFETY EYEWEAR

SAFETY GOGGLES

- One-piece, impact-resistant polycarbonate toric lens provides superior optics and peripheral vision
- Ideal for chemical splash and impact protection
- Lens is 99.9% UV rated
- Durable polypropylene frame features a soft, flexible elastomer that conforms gently to most facial contours
- Indirect ventilation system minimizes fogging
- Quick-adjust headband easily clips onto hard hats
- Meets ANSI Z87.1-1989 and CSA Z94.3-1992 standards

DESCRIPTION		PART
Safety Goggles	A	59020

SPORT BLACK FRAME - SMOKE LENS

- New wraparound aerodynamic sporty styling
- Side tapered lens provides extra protection against sun and harmful objects
- Soft rubber nosepiece and temples
- Lens offers 99% UV protection
- Meets ANSI Z87.1 requirements

DESCRIPTION		PART
Sport Black Frame - Smoke Lens	A	59023

SPORT CLEAR FRAME - CLEAR LENS

- New wraparound aerodynamic sporty styling
- Side tapered lens provides extra protection against sun and harmful objects
- Soft rubber nosepiece and temples
- Lens offers 99% UV protection
- Meets ANSI Z87.1 requirements

DESCRIPTION		PART
Sport Clear Frame - Clear Lens	A	59024

PERFORATED SAFETY GOGGLES

- Multi-purpose ultra soft goggle with poly-carbonate lens
- Flexible vinyl frame provides an excellent facial fit
- Perforated to allow comfortable ventilation
- Meets ANSI Z87.1 requirements
- Black strap masks grease and grime

DESCRIPTION		PART
Perforated Safety Goggles	A	59021

BLACK FRAME - CLEAR LENS

- Fashionable, lightweight plastic frames
- Contemporary, panoramic, polycarbonate lens offer 99% UV protection
- Universal fit with 4-position adjustable temples
- Meets ANSI Z87.1 requirements

DESCRIPTION		PART
Black Frame - Clear Lens	A	59026

SPORT BLACK FRAME - SILVER MIRROR LENS

- New wraparound aerodynamic sporty styling
- Side tapered lens provides extra protection against sun and harmful objects
- Soft rubber nosepiece and temples
- Lens offers 99% UV protection
- Meets ANSI Z87.1 requirements

DESCRIPTION		PART
Sport Black Frame - Silver Mirror Lens	A	59025

OVER-PRESCRIPTION SAFETY EYEWEAR

- Provides an economical alternative
- Polycarbonate lens offers 99% UV protection
- Can be worn alone or over prescription glasses
- Meets ANSI Z87.1 requirements

DESCRIPTION		PART
Over-Prescription Safety Eyewear	A	59027

SAFETY ACCESSORIES

SAFETY EYEWEAR

ES4 - PEARL GRAY FRAME CLEAR LENS

Designed for all environments, the ES4 features an adjustable nosepiece, ultralight frame, and 100% visually correct lenses.

- Half frame
- Frame material: TR90
- 91% of light passes through
- CSA Approved
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
ES4 - Pearl Gray Frame/Clear Lens	A	59110

ES4 - CRYSTAL BLACK FRAME HD SILVER POLARIZED MIRROR LENS

Designed for all environments, the ES4 features an adjustable nosepiece, ultralight frame, and 100% visually correct lenses.

- Half frame
- Frame material:TR90
- 16% of light passes through
- High definition lens
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
ES4 - Crystal Black Frame/HD Silver Polarized Mirror Lens	A	59119

ES5 - CRYSTAL BROWN FRAME HD BROWN POLARIZED LENS

Designed for outdoor sports, the ES5 provides a polished style. The sleek framework provides substantial coverage for a variety of environments.

- Half frame
- Frame material: TR90
- 18% of light passes through
- High definition lens
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
ES5 - Crystal Brown Frame/HD Brown Polarized Lens	A	59122

ES5 - CRYSTAL BROWN FRAME HD BROWN FLASH MIRROR LENS

Filters blue light which can cause eye fatigue and cause a haze effect. Use in normal to bright outdoor use.

- Half frame
- Frame material: TR90
- 22% of light passes through
- High definition lens
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
ES5 - Crystal Brown Frame/HD Brown Flash Mirror Lens	A	59075

RPG - SHINY BLACK-PEARL RED FRAME SILVER MIRROR LENS

Similar to a smoke lens, but has the added mirror coating which filters more light, further reducing the glare. Ideal for bright outdoor conditions.

- Full frame
- Frame material: TR90
- 16% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
RPG - Shiny Black-Pearl Red Frame/Silver Mirror Lens	A	59077

RPG - MATTE BLACK FRAME HD BLUE POLARIZED LENS

Full Frame RPG fits a wide range of users and it is excellent in diverse environments. Diminishes glare. Good for outdoors.

- Full frame
- Frame material: TR90
- 18% of light passes through
- High definition lens
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
RPG - Matte Black Frame/HD Blue Polarized Lens	A	59117

SAFETY ACCESSORIES

SAFETY EYEWEAR

COBRA - MATTE BLACK FRAME RED MIRROR LENS

Colored mirrored surface over a smoke base lens diminishes glare by absorbing reflection across the mirror surface. Good for bright outdoor conditions.

- Half frame
- Frame Material: TR90
- 16% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
COBRA - Matte Black Frame/Red Mirror Lens	A	59078

COBRA - SHINY BLACK FRAME CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Half frame
- Frame material: TR90
- 91% of light passes through

DESCRIPTION		PART
COBRA - Shiny Black Frame/Clear Lens	A	59108

CORE - MILITARY GREEN CAMO FRAME SMOKE LENS

The perfect all around tint for normal outdoor conditions

- 3/4 frame
- Frame material: TR90
- 18% of light passes through
- CSA Approved
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
CORE - Military Green Camo Frame/Smoke Lens	A	59071

CORE - MOCHA BROWN FRAME HD BROWN POLARIZED LENS

Filters blue light which is known to cause eye fatigue and a haze effect. Normal to bright outdoor conditions.

- 3/4 frame
- Frame material: Polycarbonate
- 22% of light passes through
- CSA Approved
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
CORE - Mocha Brown Frame/HD Brown Polarized Lens	A	59120

CORE - EMERALD PEARL FRAME GOLD MIRROR LENS

The mirrored surface over a smoke base lens diminishes glare by absorbing reflection across the mirror surface. Good for bright, outdoor conditions.

- 3/4 frame
- Frame material: TR90
- 16% of light passes through
- CSA Approved
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
CORE - Emerald Pearl Frame/Gold Mirror Lens	A	59070

KP6 - CRYSTAL BLACK FRAME SMOKE LENS

The perfect all around tint for normal outdoor conditions.

- 3/4 frame
- Frame material: Polycarbonate
- 18% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
KP6 - Crystal Black Frame/Smoke Lens	A	59074

SAFETY ACCESSORIES

SAFETY EYEWEAR

INFINITY - CRYSTAL BROWN FRAME HD BROWN FLASH MIRROR LENS

Filters blue light which can cause eye fatigue and cause a haze effect. Use in normal to bright outdoor use.

- Full frame
- Frame material: TR90
- 22% of light passes through
- High definition lens
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
INFINITY - Crystal Brown Frame/HD Brown Flash Mirror Lens	A	59076

BRIGADE - BLACK-RED FRAME SILVER MIRROR LENS

Similar to a smoke lens, but has the added mirror coating which filters more light further reducing the glare. Ideal for bright outdoor conditions.

- Half frame
- Frame material: Nylon
- 16% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
BRIGADE - Black-Red Frame/Silver Mirror Lens	A	59066

INFINITY - CRYSTAL BROWN FRAME HD BROWN POLARIZED LENS

The comfortable fit is easy wear all day. Filters blue light which is known to cause eye fatigue and a haze effect. Normal to bright outdoor conditions.

- Full frame
- Frame material: TR90
- 22% of light passes through

DESCRIPTION		PART
INFINITY - Crystal Brown Frame/HD Brown Polarized Lens	A	59118

SNIPER - CRYSTAL BROWN FRAME HD BROWN FLASH MIRROR LENS

Filters blue light which can cause eye fatigue and cause a haze effect. For normal to bright outdoor use.

- Half frame
- Frame material: TR90
- 22% of light passes through
- High definition lens

DESCRIPTION		PART
SNIPER - Crystal Brown Frame/HD Brown Flash Mirror Lens	A	59067

VIPER - CRYSTAL CLEAR FRAME CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Frameless
- Frame material: Polycarbonate
- 91% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
VIPER - Crystal Clear Frame/Clear Lens	A	59109

SNIPER - BLACK-CRYSTAL BURGUNDY FRAME SILVER MIRROR LENS

Similar to a smoke lens, but has the added mirror coating which filters more light, further reducing the glare. Ideal for bright outdoor conditions.

- Half frame
- Frame material: TR90
- 16% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
SNIPER - Black-Crystal Burgundy Frame/Silver Mirror Lens	A	59068

SAFETY ACCESSORIES

SAFETY EYEWEAR

SNIPER - MATTE BLACK FRAME CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Half frame
- Frame material: TR90
- 91% of light passes through
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
SNIPER - Matte Black Frame/Clear Lens	A	59107

CONCEPT - CRYSTAL BLACK FRAME FOAM LINED / ANTI-FOG CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Half frame
- Frame material: TR90
- 91% of light passes through
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
CONCEPT - Crystal Black Frame, Foam Lined Anti-Fog Clear Lens	A	59111

SNIPER - SHINY BLACK FRAME SMOKE POLARIZED LENS

Count on the Sniper to perform on the job. Designed with the sportsman in mind, this style transitions easily from work to recreational environments.

- Half frame
- Frame material: TR90
- 18% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
SNIPER - Shiny Black Frame/Smoke Polarized Lens	A	59121

DIAMONDBACK - SHINY RED FRAME FOAM LINED / SILVER MIRROR LENS

Similar to a smoke lens, but has the added mirror coating which filters more light further reducing the glare. Ideal for bright outdoor conditions.

- Full frame
- Frame material: Polycarbonate
- 16% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
DIAMONDBACK - Shiny Red Frame, Foam Lined Silver Mirror Lens	A	59073

RAPTOR - SHINY PEARL GRAY FRAME FOAM LINED / ANTI-FOG CLEAR LENS

Suitable for indoor or low light conditions.

- Full frame
- Frame material: Polycarbonate
- 81% of light passes through
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
RAPTOR - Shiny Gray Pearl Frame, Foam Lined Anti-Fog Clear Lens	A	59112

DIAMONDBACK - BLACK MATTE FRAME FOAM LINED / ANTI-FOG CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Full frame
- Frame material: Polycarbonate
- 91% of light passes through
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
DIAMONDBACK - Shiny Red Frame, Foam Lined Anti-Fog Clear Lens	A	59114

SAFETY ACCESSORIES

SAFETY EYEWEAR

MP7 - CRYSTAL BROWN FRAME FOAMED LINED HD BROWN FLASH MIRROR LENS

Filters blue light which can cause eye fatigue and cause a haze effect. Use in normal to bright outdoor use.

- Full frame
- Frame material: TR90
- 22% of light passes through
- High definition lens
- CSA Approved
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
MP7 - Crystal Brown Frame Foamed Lined HD Brown Flash Mirror Lens	A	59069

MP7 – CRYSTAL BLACK FRAME BLUE GREEN POLARIZED LENS

Filters bent light caused from reflection, reducing glare and eye fatigue. Suitable for sunny outdoor conditions.

- Full frame
- No foam lining
- Frame material: TR90
- 18% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
MP7 - Crystal Black Frame/Blue Green Polarized Lens	A	59123

MP7 - CRYSTAL BLACK FRAME FOAMED LINED ANTI-FOG CLEAR LENS

Allows maximum light transmission without changing or distorting, sight or colors. Suitable for indoor, or low-light conditions.

- Full frame
- Frame material: TR90
- 91% of light passes through
- CSA Approved
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
MP7 - Crystal Brown Frame, Foamed Lined HD Brown Flash Mirror Lens	A	59113

ECLIPSE - MATTE BLACK FRAME FOAM LINED / YELLOW FLASH MIRROR LENS

Enhances available light. Appropriate for low light conditions in both indoor and outdoor environment.

- Full frame
- Frame material: Polycarbonate
- 80% of light passes through
- Protection from UVA & UVB Rays
- 100% visually correct de-centered lenses
- 2.2 mm Panlite Brand polycarbonate lenses
- Meets ANSI Z87.1-2003 high impact standards

DESCRIPTION		PART
ECLIPSE - Matte Black Frame, Foam Lined Yellow Flash Mirror Lens	A	59079

DUAL-LED SAFETY GLASSES WITH SHATTERPROOF POLYCARBONATE CLEAR LENSES

You'll never be in the dark with these multi purpose safety glasses. This functional safety frame is perfect for multiple uses.

- Forward facing LED lights on both temples
- Individual on/off switches
- Includes 3 alkaline button cell batteries per light (P/N 29206)
- Meets ANSI Z87.1 standards for safety eyewear
- Scratch resistant coating
- UV400 filter for maximum UV protection
- Foam padding on top of frame
- Rubber nose pads and tips
- Clear lenses and black frame

DESCRIPTION		PART
Dual-LED Safety Glasses	A	59124

SAFETY ACCESSORIES

SAFETY EYEWEAR

ELEMENT - BLACK SOFT TOUCH FRAME CLEAR ANTI-FOG LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Full frame
- Frame material: Coated Polycarbonate/Rubberized
- 91% of light passes through
- CSA Approved

DESCRIPTION		PART
ELEMENT - Black Soft Touch Frame/Clear Anti-Fog Lens	A	59072

MATTE BLACK FRAME BLACK WIRE MESH LENS

Provides protection while eliminating fog.
Designed for extremely humid environments.

- Full frame
- Frame material: Polycarbonate
- ANSI Z87.1-2010

DESCRIPTION		PART
Matte Black Frame/Black Wire Mesh Lens	A	59115

OG-3 - OVER GLASSES BLACK FRAME CLEAR LENS

Allows maximum light transmission without changing or distorting sight or colors. Suitable for indoor or low light conditions.

- Accommodates 134 x 34 inside Rx glass
- Accommodates Rx glass with a base curve of 5
- Full frame
- Frame material: Polycarbonate
- 91% of light passes through

DESCRIPTION		PART
OG-3 - Over Glasses Black Frame/Clear Lens	A	59065

ELASTIC BAND MATTE BLACK FRAME BLACK WIRE MESH LENS

Provides protection while eliminating fog.
Designed for extremely humid enviroments.

- Full frame w/ elastic strap
- Frame material: Polycarbonate
- ANSI Z87.1-2010

DESCRIPTION		PART
Elastic Band Matte Black Frame/Black Wire Mesh Lens	A	59116

FLEX SIDE SHIELDS

Flex Side Shields turn regular glasses into safety glasses

- Conforms to ANSI Z87.1 standards
- They're soft and molded to bend with your glasses, but are still durable enough to absorb the energy from an impact
- Provides side protection that you don't normally get from your spectacles
- Made from flexible material
- Weaves through the arm of your glasses
- Folds with temple
- Blocks 100% of harmful UV rays

To apply, weave the arms of your glasses through the cuts in the side shield. They fit on a variety of spectacle sizes and styles. Flex Side Shields also allow your glasses to fold up correctly for proper storage.

DESCRIPTION		PART
Flex Side Shields	A	59018

SAFETY ACCESSORIES

SAFETY EYEWEAR – BIFOCALS

TALON - MATTE BLACK FRAME SMOKE LENS (DIOPTER 1.5)

A sporty and lightweight design for fit and ease of use in diverse environments. The perfect all around tint for normal outdoor conditions.

- Diopter 1.5
- Half frame
- Frame material: Nylon
- 18% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Smoke Lens - Diopter 1.5	A	59101

TALON - MATTE BLACK FRAME CLEAR LENS (DIOPTER 1.5)

A sporty and lightweight design for fit and ease of use in diverse environments. Allows maximum light transmission without changing or distorting sight or colors.
For indoor or low light conditions.

- Diopter 1.5
- Half frame
- Frame material: Nylon
- 91% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Clear Lens - Diopter 1.5	A	59104

TALON - MATTE BLACK FRAME SMOKE LENS (DIOPTER 2.0)

A sporty and lightweight design for fit and ease of use in diverse environments. The perfect all around tint for normal outdoor conditions.

- Diopter 2.0
- Half frame
- Frame material: Nylon
- 18% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Smoke Lens - Diopter 2.0	A	59102

TALON - MATTE BLACK FRAME CLEAR LENS (DIOPTER 2.0)

A sporty and lightweight design for fit and ease of use in diverse environments. Allows maximum light transmission without changing or distorting sight or colors.
For indoor or low light conditions.

- Diopter 2.0
- Half frame
- Frame material: Nylon
- 91% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Clear Lens - Diopter 2.0	A	59105

TALON - MATTE BLACK FRAME SMOKE LENS (DIOPTER 2.5)

A sporty and lightweight design for fit and ease of use in diverse environments. The perfect all around tint for normal outdoor conditions.

- Diopter 2.5
- Half frame
- Frame material: Nylon
- 18% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Smoke Lens - Diopter 2.5	A	59103

TALON - MATTE BLACK FRAME SMOKE LENS (DIOPTER 2.5)

A sporty and lightweight design for fit and ease of use in diverse environments. Allows maximum light transmission without changing or distorting sight or colors.
For indoor or low light conditions.

- Diopter 2.5
- Half frame
- Frame material: Nylon
- 91% of light passes through
- Features: Bifocals

DESCRIPTION		PART
TALON - Matte Black Frame/Clear Lens - Diopter 2.5	A	59106

SAFETY ACCESSORIES

SAFETY EYEWEAR – POLARIZED LENSES

ES4 - CRYSTAL BLACK FRAME HD SILVER MIRROR POLARIZED LENS

Designed for all environments, the ES4 features an adjustable nosepiece, ultralight frame, and 100% visually correct lenses.

- Half frame
- Frame material:TR90
- 16% of light passes through

DESCRIPTION		PART
ES4 - Crystal Black Frame/HD Silver Mirror Lens	A	59119

ES5 - CRYSTAL BROWN FRAME HD BROWN POLARIZED LENS

Designed for outdoor sports, the ES5 provides a polished style. The sleek framework provides substantial coverage for a variety of environments.

- Half frame
- Frame material:TR90
- 18% of light passes through

DESCRIPTION		PART
ES5 - Crystal Brown Frame/HD Brown Lens	A	59122

RPG - MATTE BLACK FRAME HD BLUE POLARIZED LENS

Full frame RPG fits a wide range of users and it is excellent in diverse environments. Diminishes glare. Good for outdoor conditions.

- Full frame
- Frame material: TR90
- 18% of light passes through

DESCRIPTION		PART
RPG - Matte Black Frame/HD Blue Polarized Lens	A	59117

CORE - MOCHA BROWN FRAME HD BROWN POLARIZED LENS

Filters blue light which is known to cause eye fatigue and a haze effect. Normal to bright outdoor conditions.

- 3/4 frame
- Frame material: Polycarbonate
- 22% of light passes through
- CSA Approved

DESCRIPTION		PART
CORE - Mocha Brown Frame/HD Brown Polarized Lens	A	59120

INFINITY - CRYSTAL BROWN FRAME HD BROWN POLARIZED LENS

The comfortable fit is easy to wear all day. Filters blue light which is known to cause eye fatigue and a haze effect. Normal to bright outdoor conditions.

- Full frame
- Frame material: TR90
- 22% of light passes through

DESCRIPTION		PART
INFINITY - Crystal Brown Frame/HD Brown Polarized Lens	A	59118

SNIPER - SHINY BLACK FRAME SMOKE POLARIZED LENS

Count on the Sniper to perform on the job. Designed with the sportsman in mind, this style transitions easily from work to recreational environments.

- Half frame
- Frame material: TR90
- 18% of light passes through

DESCRIPTION		PART
SNIPER - Shiny Black Frame/Smoke Polarized Lens	A	59121

MP7 – CRYSTAL BLACK FRAME BLUE GREEN POLARIZED LENS

Filters bent light caused from reflection, reducing glare and eye fatigue. Suitable for sunny outdoor conditions.

- Full frame
- No foam lining
- Frame material: TR90
- 18% of light passes through

DESCRIPTION		PART
MP7 - Crystal Black Frame/Blue Green Polarized Lens	A	59123

SAFETY ACCESSORIES

FACE SHIELDS

BIONIC® SHIELD

The bionic shield redefines a higher level of technology in the faceshield category. An advanced ergonomic design combines superior protection & all-day comfort with easy-to-use features that workers desire.

- Enhanced protection from airborne debris
- Excellent optics and increased visibility
- Easily replaceable visor with dual position choices
- Secure visor attachment
- Lightweight and balanced, ergonomic design for extended use
- Comfortable cell foam on back of headgear
- Breathable, removeable, washable headband
- Black matte finish
- Comfortably worn with most goggles and respirators
- Faceshield offers secondary protection and must be worn with spectacles or goggles
- Perfect for workers exposed to falling or flying objects, impact, chemical splash, and airborne debris
- Hardhat accessory is compatible with multiple hardhats, including Willson® and most other major styles
- Leaves slots free
- 100% dielectric – and no metal parts

DESCRIPTION		PART
Bionic Shield	A	8876
Bionic Shield Replacement Visor	A	8877
Bionic Shield Replacement Visor (Shaded 5.0)	A	8878
Bionic Shield Hardhat Adapter	A	8879

HEADGEAR FACE SHIELD

- Provides standard pin-lock sizing adjustment
- Resilient cam-lock features hold the face shield in place
- Tension can be adjusted for any fixed or moveable window position
- Clear polycarbonate replaceable face shield
- Meets ANSI Z87.1 requirements
- Made in USA

Face Shields are considered as secondary protection only. Proper eye protection must be worn with face shields.

DESCRIPTION		PART
Headgear Face Shield	A	59022
Clear Face Shield Only	A	59022S

GLOVES – LATEX & NITRILE

GLOVES – LATEX

INDUSTRIAL LATEX GLOVES

- Industrial-use, pre-powdered glove
- Wrist-length, reinforced rolled cuffs
- 5 mils thick
- Stretches to fit
- Excellent sensitivity and touch

(PAIR) 100/BOX

DESCRIPTION		PART
Latex Disposable Gloves (Large)	A	59032
Latex Disposable Gloves (X-Large)	A	59032XL

BLUE LIGHTNING GLOVES – LATEX

BLUE LATEX / POWDER FREE

- Extra long 12" cuff for added protection
- 15 mils thick – super strength
- Additionally processed to remove extra latex proteins from the glove, which may reduce the risk of latex allergies.
- Meets or exceeds the emergency medical glove requirements of NFPA 1999, Standard on Protective Clothing for Emergency Medical operations, 2013 edition.
- Textured fingertips and smooth palm

50 GLOVES PER BOX

DESCRIPTION		PART
BLUE LIGHTNING GLOVES (X-LARGE)	A	59215XL
BLUE LIGHTNING GLOVES (LARGE)	A	59215LARGE
BLUE LIGHTNING GLOVES (MEDIUM)	A	59215MED
BLUE LIGHTNING GLOVES (SMALL)	A	59215SMALL

GLOVES – NITRILE, CHEMICAL RESISTANT

NITRILE CHEMICAL RESISTANT GLOVES

- Resistant to most solvents and parts cleaners
- Stronger and more puncture resistant than regular latex gloves
- Hypoallergenic for hands sensitive to latex
- Snug fit helps keep liquids from leaking on hands
- Disposable, convenient, single-use saves clean-up time
- Made of 100% non-sterile nitrile polymer

100 GLOVES PER BOX

DESCRIPTION		PART
Black Nitrile Gloves (M)	A	59054MED
Black Nitrile Gloves (L)	A	59054LARGE
Black Nitrile Gloves (XL)	A	59054XL
Black Nitrile Gloves (XXL)	A	59054XXL

NITRILE CHEMICAL RESISTANT GLOVES

- Resistant to most solvents and parts cleaners
- Stronger and more puncture resistant than regular latex gloves
- Hypoallergenic for hands sensitive to latex
- Snug fit helps keep liquids from leaking on hands
- Disposable, convenient, single-use saves clean-up time
- Made of 100% non-sterile nitrile polymer

100 GLOVES PER BOX

DESCRIPTION		PART
Blue Nitrile Gloves (X-Large)	A	59035
Blue Nitrile Gloves (Large)	A	59034
Blue Nitrile Gloves (Medium)	A	59034MED
Blue Nitrile Gloves (Small)	A	59034SMALL

GLOVE DISPENSER

- Store your boxes of gloves in an easily accessible location
- Holds most popular brands of gloves
- Stainless steel tension spring keeps boxes securely in place
- Dispensers have two 1/2" slotted mounting holes for wall mounting (fasteners included)
- Durable and attractive white powder coated finish is rust and acid resistant
- Dimensions: 5-11/16" W x 3-13/16" D x 10" H

DESCRIPTION		PART
Glove Dispenser	A	50020

GLOVES – NITRILE

GLOVES – NITRILE

NITRILE GLOVES – FLOCK LINED

- Provides excellent protection against cuts, abrasion, punctures
- Superior resistance to a broad range of solvents, animal fats and other chemicals
- Case hardened finish enhances chemical and abrasion resistance, while making them easier to pull on and off
- Non-slip grip makes wet work easier and safer
- Ergonomic design maximizes comfort

DESCRIPTION		PART
Nitrile Gloves – Flock Lined (Large)	F	59037
Nitrile Gloves – Flock Lined (Medium)	F	59037MED

ALOE POWER 5.5 MIL NITRILE GLOVES

- Aloe coated to moisturize irritated hands
- Proprietary Freeze-Dried technology gradually bathes hands in aloe to help soothe dry, chapped, and cracked hands!
- Superior comfort for extended wear
- Powder free
- Textured grip for unsurpassed grip control in both wet and dry working conditions.
- Ambidextrous

100 GLOVES PER BOX

DESCRIPTION		PART
Aloe Power Gloves (XX-Large)	A	59028XXL
Aloe Power Gloves (X-Large)	A	59028XL
Aloe Power Gloves (Large)	A	59028LARGE
Aloe Power Gloves (Medium)	A	59028MED

BLACK LIGHTNING GLOVES – NITRILE

- Natural 5.5 pH = natural comfort!
- 6 mils thick
- Super strong
- 100% quality nitrile (black)
- Superior durability, comfort and protection against day-to-day hazards
- Chlorinated and quadruple leached to ensure the cleanest, most comfortable long wearing glove possible

100 GLOVES PER BOX

The 5.5 pH comfort coating feature is a natural solution to aid your skin's own mechanism in restoration and repair efforts! Take a preventive stand with Black Lightning Gloves!

DESCRIPTION		PART
Black Lightning Gloves (XX-Large)	A	59056XXL
Black Lightning Gloves (X-Large)	A	59056XL
Black Lightning Gloves (Large)	A	59056LARGE
Black Lightning Gloves (Medium)	A	59056MED
Black Lightning Gloves (Small)	A	59056SMALL

ORANGE LIGHTNING GLOVES - NITRILE

- Natural 5.5 pH = natural comfort!
- 6 mils thick
- Super strong
- 100% quality nitrile (orange)
- Superior durability, comfort and protection against day-to-day hazards
- Chlorinated and quadruple leached to ensure the cleanest, most comfortable long wearing glove possible

100 GLOVES PER BOX

The 5.5 pH comfort coating feature is a natural solution to aid your skin's own mechanism in restoration and repair efforts! Take a preventive stand with Orange Lightning Gloves!

DESCRIPTION		PART
Orange Lightning Gloves (XX-Large)	A	59207XXL
Orange Lightning Gloves (X-Large)	A	59207XL
Orange Lightning Gloves (Large)	A	59207LARGE
Orange Lightning Gloves (Medium)	A	59207MED
Orange Lightning Gloves (Small)	A	59207SMALL

LIGHTNING STORM GLOVES - NITRILE

- Blue nitrile/powder free extended 12" cuff
- 9 mils thick, yet soft and durable
- For high risk applications
- Approved for medical use
- Textured fingertips for reliable grip in wet and dry conditions / ambidextrous
- Nitrile formulation alleviates the potential for adverse reactions associated with natural rubber latex proteins

50 GLOVES PER BOX

DESCRIPTION		PART
Lightning Storm Gloves (X-Large)	A	59211XL
Lightning Storm Gloves (Large)	A	59211LARGE
Lightning Storm Gloves (Medium)	A	59211MED

GLOVES

GLOVES – NEOPRENE

ROUGH FINISH NEOPRENE GLOVES

- Multi-dipped in premium-grade neoprene
- Offers superior durability against acids, caustics, oils, greases and many solvents
- Provides extra protection against cuts and punctures
- Rough finish offers great gripping capabilities

(PAIR)

DESCRIPTION		PART
Rough Finish Neoprene Gloves	A	59033

GLOVES – PVC COATED

SUPER GRIP GLOVES

- Heavy coat premium yellow PVC
- Surface of granulated plastic particles for super grip & long wear
- Superior resistance to cutting
- 12" length
- For fishing, water and sewer work, plywood manufacturing, heavy parts

(PAIR)

DESCRIPTION		PART
Super Grip Gloves	A	59048

GRIP PVC JERSEY LINED GLOVES

- Green, fully coated PVC work gloves
- Features a jersey lining with superior sandpaper grip finish

(PAIR)

DESCRIPTION		PART
Grip PVC Jersey Lined Gloves	F	59045

PVC SAFETY ORANGE FOAM LINED GLOVES

- PVC coating resists chemicals, grease and oils
- Foam lining for optimum warmth and comfort
- Knit wrist

(PAIR)

DESCRIPTION		PART
PVC Gloves (Large)	C	59047

GLOVES – COTTON & KNIT

COTTON STRING GLOVES PVC DOTTED

- PVC dots on both sides for extended life and grip
- 100% cotton for comfort

(PAIR)

DESCRIPTION		PART
Cotton String Gloves Dotted	J	59043

NATURAL COTTON CANVAS WORK GLOVES

- General all-purpose work gloves
- Strong and comfortable
- Provides reliable abrasion resistance

(PAIR)

DESCRIPTION		PART
Natural Cotton Canvas Work Gloves	A	59041

PREMIUM KNIT RUBBER COATED PALM

- White knit for comfort
- Blue latex palm coated for excellent grip
- Provides superior fit and dexterity
- Resists cuts and abrasion

(PAIR)

DESCRIPTION		PART
Premium Knit Rubber Coated (Medium)	C	59044MED
Premium Knit Rubber Coated (Large)	C	59044
Premium Knit Rubber Coated (X-Large)	C	59044XL

GLOVES – WORK

GLOVES – WORK

BROWN JERSEY WORK GLOVES

- 100% cotton
- All-purpose knitted jersey
- Form-fitting clute cut style with a knit wrist for comfortable fit

(PAIR)

DESCRIPTION		PART
Brown Jersey Work Gloves	J	59031

BROWN JERSEY RED FLEECE LINED

- Ideal for material handling, construction, shipping and utility workers
- Brown jersey knit cotton fabric stretches, providing comfortable dexterity
- Fleece lined for warmth and extra protection

(PAIR)

DESCRIPTION		PART
Brown Jersey Red Fleece-Lined	F	59042

DEERSKIN DRIVING GLOVES (UNLINED)

- Premium smooth grain deerskin
- Buttery soft and flexible, nature's finest leather, tailored keystone thumb, self hem & shirred elastic back

(PAIR)

DESCRIPTION		PART
Deerskin Driving Gloves (Medium)	A	59051MED
Deerskin Driving Gloves (Large)	A	59051
Deerskin Driving Gloves (X-Large)	A	59051XL

DEERSKIN WORK/DRIVING GLOVES (LINED)

- Premium deerskin
- Keystone thumb, self hem and shirred elastic back
- Thinsulate™ lined

(PAIR)

DESCRIPTION		PART
Deerskin Work Gloves (Medium)	A	59050MED
Deerskin Work Gloves (Large)	A	59050
Deerskin Work Gloves (X-Large)	A	59050XL

DELUXE PILE LINED LABOR GLOVES

- Comfortable, rugged split leather
- Keystone thumb, elastic back and leather palm strap for added durability
- Pile lining keeps out cold

(PAIR)

DESCRIPTION		PART
Pile Lined Labor Gloves (Large)	C	59038
Pile Lined Labor Gloves (X-Large)	C	59038XL

PIGSKIN LABOR GLOVES

- Grain pigskin and cotton canvas back
- Leather knuckle strap and wing thumb for durability
- Fully lined with Thinsulate™

(PAIR)

DESCRIPTION		PART
Pigskin Labor Gloves (Large)	C	59039
Pigskin Labor Gloves (X-Large)	C	59039XL

FULL FEATURE WORK GLOVES

- Striped canvas back with matching cuff
- Reinforced leather knuckle strap provides added protection
- Full leather index finger & fingertips

(PAIR)

DESCRIPTION		PART
Full Feature Work Gloves	F	59040

SPLIT LEATHER GLOVES

- Economy split leather gloves
- Ideal for basic hand protection
- Lining on palm & thumb for additional comfort
- with knit wrist

(PAIR)

DESCRIPTION		PART
Economy Split Leather Gloves	J	59030
Economy Split Leather Gloves (Small)	J	59030SMALL

WELDING GLOVES

- Russet cowhide
- Fully welted seams
- One-piece back
- Turned cuff & wing thumb
- Fully lined
- 13-1/2" length

(PAIR)

DESCRIPTION		PART
Welding Gloves	A	59046

GLOVES – WORK & WINTER

GLOVES – WORK & WINTER

BREATHABLE POLY/LATEX GLOVES

Excellent Multi-purpose MRO Gloves
- Durable and Form-fitting
- Unsurpassed Value
- Lightweight with Great Grip
- 13-Gauge Polyester Knit Liner
- Wrinkle Finish Latex Palm

(PAIR)

DESCRIPTION			PART
Breathable Poly/Latex Gloves (Small)	- Piping color: Red	A	59219SMALL
Breathable Poly/Latex Gloves (Medium)	- Piping color: Green	A	59219MED
Breathable Poly/Latex Gloves (Large)	- Piping color: Tan/Brown	A	59219LARGE
Breathable Poly/Latex Gloves (Extra Large)	- Piping color: Blue/Indigo	A	59219XL

WINTER WORK GLOVES (WATER RESISTANT)

- Ideal for working in cold winter climates
- Water resistant
- Poplin outer shell provides wind resistance
- Polyester insulation for comfort and warmth
- Foam laminated nylon liner locks in body heat
- Sure grip palm patch for durability and long wear
- Knit wrist with shirred elastic back
- Hook and D-rings attached
- Color: black

(PAIR)

DESCRIPTION		PART
Winter Work Gloves (Large)	A	59049
Winter Work Gloves (Extra Large)	A	59049XL

WINTER "WATERPROOF GLOVES WITH MINI HAND WARMERS

- Soft, durable, black gloves have palm and thumb grips for traction
- Snug fitting cuffs keep the cold out and the warmth in
- Waterproof/breathable
- Two reflective strips on back and cuff
- built-in "Mini Hand Warmer" pockets
- Includes one (1) pair of Heat Pax™ Mini Hand Warmers
- Mini Hand Warmers deliver up to 8 hours of air activated heat
- Simply tear open the package, wait 10 minutes for them to heat up fully, and insert into the hand warmer pockets
- Warmers maintain a minimum temperature of 104°F
- Heating can be suspended at any time by resealing the inserts in an airtight container or plastic bag

APPLICATIONS
- Industrial safety
- Construction
- Emergency services
- Military
- Rail yards
- Outdoor maintenance
- Snowmobiles
- Motor biking

(PAIR)

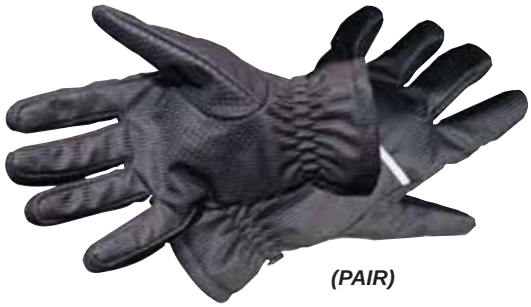
DESCRIPTION		PART
Winter Waterproof Gloves (Small/Medium)	A	59203
Winter Waterproof Gloves (Large/Extra large)	A	59204
Mini Hand Warmers (Pair)	A	59205

GLOVES – WINTER

GLOVES – WINTER

SOFT BLACK GLOVES WITH GRIPTRAX PALM / 40 GRAM THINSULATE™ LINING

- Wind and water resistant liner
- 40 gram Thinsulate™ lining keeps the warmth in and the cold out
- 3M™ Scotchlite™ reflective overlay for enhanced visibility
- Soft shell fabric in an articulated, pre-curved design for a natural fit
- Silicone griptrax on the palm, thumb and index finger
- Non-slip grip
- Maximum dexterity



(PAIR)

DESCRIPTION		PART
Soft Black Gloves with Griptrax Palm (Extra Small)	A	59088XS
Soft Black Gloves with Griptrax Palm (Small)	A	59088SMALL
Soft Black Gloves with Griptrax Palm (Medium)	A	59088MED
Soft Black Gloves with Griptrax Palm (Large)	A	59088LARGE
Soft Black Gloves with Griptrax Palm (Extra Large)	A	59088XL
Soft Black Gloves with Griptrax Palm (Extra, Extra Large)	A	59088XXL

MECHANIX WEAR® – THE ORIGINAL ®INSULATED GLOVE

The brisk cold air makes even the simplest tasks more burdensome, so The Original® Insulated Glove was designed to lock in the warmth. A comfortable single layer of form-fitting fleece lines the entire glove, preserving warmth without sacrificing valuable dexterity.

The Original® Insulated Glove incorporates a durable water-resistant coating and a water-resistant liner in the palm to keep your hands dry. Top it off with a low-profile TPR closure for full range of motion and you have a critical cold weather tool.

(PAIR)

FEATURES
- Form-fitting fleece lines the entire glove to preserve warmth
- Water-resistant coated fleece and liner keep hands dry
- Thermal Plastic Rubber (TPR) closure provides a secure fit to the wrist
- Machine washable

INTENDED USES
- Multipurpose cold weather
- Maintenance and repair
- Equipment operation

CERTIFICATIONS
- CE

INSULATED
Insulated and fleece lined top-of-hand for warmt and comfort.

WATER RESISTANT
Durable, water resistant coated fleece and liner keep hands dry.

DESCRIPTION		PART
Mechanix Wear Original Insulated Gloves – Small (Pair)	A	59213SMALL
Mechanix Wear Original Insulated Gloves – Medium (Pair)	A	59213MED
Mechanix Wear Original Insulated Gloves – Large (Pair)	A	59213LARGE
Mechanix Wear Original Insulated Gloves – Extra Large (Pair)	A	59213XL
Mechanix Wear Original Insulated Gloves – Extra, Extra Large (Pair)	A	59213XXL

GLOVES & SLEEVES – CUT RESISTANT

GLOVES AND SLEEVES – CUT RESISTANT

CUT RESISTANT GLOVES – KEVLAR®/STAINLESS STEEL COMPOSITE

- Cut resistance is ASTM Level 4/CE Level 5
- Blend of Kevlar®, wire-core steel and Cordura nylon for stellar cut protection
- Over a quarter-mile of steel in each glove
- Cut and abrasion-resistance is twice that of a regular Kevlar® glove
- PU coating has a very low particulate shed, offers good grip
- High abrasion resistance with great comfort and dexterity

Applications

Sharp steel • Circuit boards • Automotive • Metal fabrication • Assembly • Sheet metal work

(PAIR)

Kevlar® is a registered trademark of E.I. du Pont de Nemours and Company.

DESCRIPTION		PART
Cut Resistant Gloves (Medium)	A	59055MED
Cut Resistant Gloves (Large)	A	59055LARGE
Cut Resistant Gloves (Extra Large)	A	59055XL

KEVLAR® SLEEVES – CUT AND SLASH RESISTENT

Features and Benefits

- ASTM ANSI Cut Level 2 for protection against cuts and burns
- 100% knitted Kevlar®
- Two different lengths and two styles
  - 14"
  - 14" with thumb hole
  - 18" with thumb hole

Applications

- Sheet metal
- Metal fabrication
- Glass handling
- Heat protection

(PAIR)

(PAIR)

Kevlar® is a registered trademark of E.I. du Pont de Nemours and Company.

DESCRIPTION		PART
14" Kevlar® Sleeves	A	59061
14" Kevlar® Sleeves with thumb hole	A	59062
18" Kevlar® Sleeves with thumb hole	A	59063

19" TIRE CORE SLEEVES WITH GUSSET AND THUMB HOLE

Features and Benefits

- ASTM ANSI Cut Level 1 for added protection against cuts, abrasion, snags and tears
- Sleeves stay in place and are shaped for better fit with elastic casing and gusset at top
- Full arm protection
- CPPT of 480 grams
- Inside plated with cotton for all-day cool comfort
- Machine washable

Applications

- Glass plants
- Metal fabrication
- Automotive assembly

(PAIR)

DESCRIPTION		PART
19" Tire Core Sleeves	A	59064

GLOVES – MECHANIX WEAR®

GLOVES – MECHANIX WEAR®

ORIGINAL® GLOVES

- Designed and manufactured to take on the toughest tasks you can throw at it
- Provides a winning combination of versatility and performance
- The Clarino Synthetic Leather palm and fingertips extends the life of the glove
- The Thermal Plastic Rubber hook and loop cuff closure and two-way stretch spandex top provides a perfect fit
- Pink Original® Glove designed to fit the contours of a women's hand

DESCRIPTION		PART	DESCRIPTION		PART
Mechanix Wear Original Gloves – Medium (Pair)	A	162709MED	MW Original Women's Gloves – Small (Pair)	A	162709SMALL-PNK
Mechanix Wear Original Gloves – Large (Pair)	A	162709	MW Original Women's Gloves – Medium (Pair)	A	162709MED-PNK
Mechanix Wear Original Gloves – X-Large (Pair)	A	162709XL	MW Original Women's Gloves – Large (Pair)	A	162709LG-PNK
Mechanix Wear Original Gloves – XX-Large (Pair)	A	162709XXL	–		–

FASTFIT® GLOVES

- The FastFit® Glove is easy to pull-on and fits tons of tasks
- While the FastFit's® all-purpose design lends itself to a wide variety of jobs, the high-end features make it a great value
- New wider mouth cuff with added wrist padding
- Lycra® insert panels between fingers promotes comfort, mobility, plus synthetic leather palm make it a great grip too
- Color – Black

DESCRIPTION		PART
Mechanix Wear FastFit® Gloves – Medium (Pair)	A	59052MED
Mechanix Wear FastFit® Gloves – Large (Pair)	A	59052LARGE
Mechanix Wear FastFit® Gloves – X-Large (Pair)	A	59052XL
Mechanix Wear FastFit® Gloves – XX-Large (Pair)	A	59052XXL

IMPACT PRO GLOVES

- Race-inspired Mechanix Wear Impact Pro Glove can't be beat
- Designed to meet the stringent demands of serious tradesmen
- TPR molded rib panels to protect the backside of your hand, knuckles and fingertips
- Clarino Dura-Fit™ Synthetic Leather palm is enhanced with a padded and contoured palm heel for better flexibility and grip
- To keep you comfortable during a long day you'll appreciate the two-way stretch top with Tricot interior

DESCRIPTION		PART
Mechanix Wear Impact Pro Gloves, Black – Medium (Pair)	A	59053MED
Mechanix Wear Impact Pro Gloves, Black – Large (Pair)	A	59053LARGE
Mechanix Wear Impact Pro Gloves, Black – X-Large (Pair)	A	59053XL

GLOVES – MECHANIX WEAR®, CG

GLOVES – MECHANIX WEAR® COMMERCIAL GRADE

COMMERCIAL GRADE HEAVY DUTY GLOVES (WITH GENUINE LEATHER)

- When you just can't settle for anything but the best
- Top-of-the-line answer for the workforce requiring the ultimate protection against impact, abrasion and fatigue
- Manufactured with features such as comfortable and breathable top quality genuine leather
- A multi-zone padded palm combined with flexible molded rubber ribbing for protection
- Low profile wrist cuff that allows for a full range of motion
- The CG Heavy Duty Glove can easily handle the toughest punishment your job can dish out

(PAIR)

DESCRIPTION		PART
Mechanix Wear CG Heavy Duty Gloves – Small (Pair)	A	59095SMALL
Mechanix Wear CG Heavy Duty Gloves – Medium (Pair)	A	59095MED
Mechanix Wear CG Heavy Duty Gloves – Large (Pair)	A	59095LARGE
Mechanix Wear CG Heavy Duty Gloves – Extra Large (Pair)	A	59095XL
Mechanix Wear CG Heavy Duty Gloves – Extra, Extra Large (Pair)	A	59095XXL

COMMERCIAL GRADE CG4X IMPACT PRO GLOVES (WITH MATERIAL 4X®)

- The CG4X Series Impact Pro has protection where it counts
- A flexible molded rubber exoskeleton protects the top of your hand from impact and abrasion
- Additional Material 4X™ reinforces your knuckle, finger and palm creating extremely durable high-wear in and abrasion prone areas
- Feel safe knowing this is the glove built for extreme protection

(PAIR)

DESCRIPTION		PART
Mechanix Wear CG4X Impact Pro Gloves – Medium (Pair)	A	59094MED
Mechanix Wear CG4X Impact Pro Gloves – Large (Pair)	A	59094LARGE
Mechanix Wear CG4X Impact Pro Gloves – Extra Large (Pair)	A	59094XL

GLOVES – MECHANIX WEAR®, FINGERLESS

GLOVES – MECHANIX WEAR® FINGERLESS

COMMERCIAL GRADE FRAMER GLOVES – PROTECTION, FLEXIBILITY & COMFORT

- Mechanix Wear has taken the real-world demands of framers, added the technology learned at the racetrack, and integrated the two into a single glove that will blow away anything you've come to expect from a framer's glove
- Combination of Genuine Leather and Clarino MWX-2 Synthetic Leather for improved durability
- Anatomically shaped padded palm for maximum movement and protection against abrasion and fatigue
- Fingerless index and middle finger to deliver the utmost sensitivity when handling nails or other small items

DESCRIPTION		PART
Mechanix Wear CG Framer Fingerless Gloves – Small (Pair)	A	59201SMALL*
Mechanix Wear CG Framer Fingerless Gloves – Medium (Pair)	A	59201MED
Mechanix Wear CG Framer Fingerless Gloves – Large (Pair)	A	59201LARGE
Mechanix Wear CG Framer Fingerless Gloves – Extra Large (Pair)	A	59201XL
Mechanix Wear CG Framer Fingerless Gloves – Extra, Extra Large (Pair)	A	59201XXL

*Non-stock item. Please allow up to 10 days after receipt of order for delivery.

COMMERCIAL GRADE CG4X FRAMER GLOVES (WITH MATERIAL 4X®)

- When the job is on the line, feel the added protection from Material4x™ reinforced fingers, palm and knuckle area
- Anatomically shaped padded palm adds maximum movement and protection against abrasion & fatigue
- Fingerless index and middle finger deliver the utmost sensitivity when handling the smallest items

DESCRIPTION		PART
Mechanix Wear CG4x Framer Fingerless Gloves – Medium (Pair)	A	59202MED
Mechanix Wear CG4x Framer Fingerless Gloves – Large (Pair)	A	59202LARGE
Mechanix Wear CG4x Framer Fingerless Gloves – Extra Large (Pair)	A	59202XL
Mechanix Wear CG4x Framer Fingerless Gloves – Extra, Extra Large (Pair)	A	59202XXL

M-PACT® GLOVES – ULTIMATE DEXTERITY WITH KNUCKLE PROTECTION

- Designed to combine the utmost dexterity with knuckle protection
- New sonic welded molded rubber on knuckles
- High impact PORON® XRD™ in the palm
- Absorbs more shock and vibration associated with repetitive tasks than its much thicker, traditional EVA foam counterpart

DESCRIPTION		PART
Mechanix Wear M-Pact® Fingerless Gloves – Medium/Large (Pair)	A	59200MED/LARGE
Mechanix Wear M-Pact® Fingerless Gloves – Extra Large/Extra Extra Large (Pair)	A	59200XL/XXL

GLOVES – MECHANIX WEAR® HI-VISIBILITY

HI-VIS SAFETY ORIGINAL® GLOVES

- You can't beat the Safety Original® for performance, comfort, and safety in industrial environments
- We've customized our signature Original® Glove with high-visibility day-glow two-way stretch spandex
- Bright, day-glow, color-fast Clarino synthetic leather palm
- Mechanix scatter graphic pattern printed with 3M™ Scotchlite™ reflective ink to add a visual effect when illuminated

(PAIR)

DESCRIPTION		PART
Mechanix Wear Safety Original® Gloves – Small (Pair)	A	59097SMALL
Mechanix Wear Safety Original® Gloves – Medium (Pair)	A	59097MED
Mechanix Wear Safety Original® Gloves – Large (Pair)	A	59097LARGE
Mechanix Wear Safety Original® Gloves – Extra Large (Pair)	A	59097XL
Mechanix Wear Safety Original® Gloves – Extra, Extra Large (Pair)	A	59097XXL

HI-VIS SAFETY FAST FIT® GLOVES

- For the industrial workplace
- Enhanced contours for a more comfortable fit
- Reflective strip panel and high-visibility day-glow two-way stretch spandex adds visibility
- Clarino synthetic leather palm, Lycra® panels between the fingers, two-ply fingertips and thumb to reduce wear and increase protection
- A new taller cuff was incorporated for a more secure fit

(PAIR)

DESCRIPTION		PART
Mechanix Wear Safety Fast Fit® Gloves – Small (Pair)	A	59096SMALL
Mechanix Wear Safety Fast Fit® Gloves – Medium (Pair)	A	59096MED
Mechanix Wear Safety Fast Fit® Gloves – Large (Pair)	A	59096LARGE
Mechanix Wear Safety Fast Fit® Gloves – Extra Large (Pair)	A	59096XL
Mechanix Wear Safety Fast Fit® Gloves – Extra, Extra Large (Pair)	A	59096XXL

GLOVES – MECHANIX WEAR®, HI-VISIBILITY

GLOVES – MECHANIX WEAR® HI-VISIBILITY

HI-VIS SAFETY M-PACT® GLOVES

- A glove that absorbs punishment so your hands don't
- The M-Pact® Glove has been redesigned with an anatomically engineered direct sonic welded rubber top and EVA foam palm pads for improved protection
- For exceptional performance the glove gives you tapered finger stretch side panels and a spandex stretch panel at the thumb
- The wrap-around rubber molded wrist closure adds additional protection

(PAIR)

DESCRIPTION		PART
Mechanix Wear Safety M-Pact® Gloves – Small (Pair)	A	59098SMALL
Mechanix Wear Safety M-Pact® Gloves – Medium (Pair)	A	59098MED
Mechanix Wear Safety M-Pact® Gloves – Large (Pair)	A	59098LARGE
Mechanix Wear Safety M-Pact® Gloves – Extra Large (Pair)	A	59098XL
Mechanix Wear Safety M-Pact® Gloves – Extra, Extra Large (Pair)	A	59098XXL

HI-VIS SAFETY M-PACT® 2 GLOVES

- Super protection and an unbelievable fit
- Anatomically designed with advanced features
- Tapered stretch side panels that form comfortably between fingers
- Molded neoprene cuff for a seamless fit to your wrist
- We've also covered you by integrating impact absorbing molded rubber finger protection
- EVA deep ribbed accordion knuckle protection
- High-visibility day-glow two-way stretch spandex and printed reflective ink on the knuckle

(PAIR)

DESCRIPTION		PART
Mechanix Wear Safety M-Pact® 2 Gloves – Small (Pair)	A	59099SMALL
Mechanix Wear Safety M-Pact® 2 Gloves – Medium (Pair)	A	59099MED
Mechanix Wear Safety M-Pact® 2 Gloves – Large (Pair)	A	59099LARGE
Mechanix Wear Safety M-Pact® 2 Gloves – Extra Large (Pair)	A	59099XL
Mechanix Wear Safety M-Pact® 2 Gloves – Extra, Extra Large (Pair)	A	59099XXL

GLOVES – ANTI-VIBRATION & HI-VISIBILITY

GLOVES – ANTI-VIBRATION (HI-VISIBILITY)

ANTI-VIBRATION GLOVES – HI-VIS GREEN

Made for the oil and gas workers of today

- Meets ExxonMobil Development Company drilling's hand protection expectations
- Designed to reduce common hand injuries
- Injection molded Thermal Plastic Rubber on the back of fingers helps prevent smashed fingers
- Internal EVA Foam throughout the glove provides vibration and impact resistance without snagging
- Ergonomic design makes the glove comfortable
- Silver reflective stripe on back of hand increases visibility of worker
- Hi-vis green Spandex construction helps dexterity and increases visibility
- Double stitching provides excellent durability
- Reinforced fingertips offer extra protection and extended wear
- Synthetic leather palm performs well in wet or dry conditions
- Machine washable, air dry
- Open cuff design

DESCRIPTION	PART
Anti-Vibration Gloves – Hi-Vis Green (Small)	59218SMALL
Anti-Vibration Gloves – Hi-Vis Green (Medium)	59218MED
Anti-Vibration Gloves – Hi-Vis Green (Large)	59218LARGE
Anti-Vibration Gloves – Hi-Vis Green (Extra Large)	59218XL
Anti-Vibration Gloves – Hi-Vis Green (Extra, Extra Large)	59218XXL
Anti-Vibration Gloves – Hi-Vis Green (Extra, Extra, Extra Large)	59218XXXL

ANTI-VIBRATION GLOVES, OIL PROOF – HI-VIS ORANGE

Oil repellent technology – 100% rubber composition padding provides second layer of oil permeating protection

- Ergonomic EVA stripe design on back protects hands from vibration
- Reflective accents and hi-vis color scheme for optimal hand visibility
- TPR patch on fingers for impact protection and pinch injury prevention
- Anti-slip pure rubber padding performs better on anti-cut and anti-abrasion than common PVC
- Reinforced fingertips provide extra protection and extended wear
- Machine washable, air dry
- Open cuff design

Applications

- Oil/Gas Drilling
- Extraction
- Refining
- Fracking
- Tool Pushing
- Mining
- Demolition
- Construction
- Cargo Handling
- Ironwork
- Auto Repair

DESCRIPTION	PART
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Small)	59217SMALL
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Medium)	59217MED
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Large)	59217LARGE
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Extra Large)	59217XL
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Extra, Extra Large)	59217XXL
Anti-Vibration Gloves, Oil Proof – Hi-Vis Orange (Extra, Extra, Extra Large)	59217XXXL

GLOVES – HI-VISIBILITY

GLOVES – HI-VISIBILITY

HI-VIS 4-WAY STRETCH GLOVES

- Great form fitting gloves with a spandex contoured fit
- 3M™ Scotchlite™ overlay on palm and back provides high visibility
- Highly breathable abrasion resistant face with Teflon® water repellency

(PAIR)

DESCRIPTION		PART
Hi-Vis 4-Way Stretch Gloves (Extra Small)	A	59057XS
Hi-Vis 4-Way Stretch Gloves (Small)	A	59057SMALL
Hi-Vis 4-Way Stretch Gloves (Medium)	A	59057MED
Hi-Vis 4-Way Stretch Gloves (Large)	A	59057LARGE
Hi-Vis 4-Way Stretch Gloves (Extra Large)	A	59057XL
Hi-Vis 4-Way Stretch Gloves (Extra, Extra Large)	A	59057XXL

HEAVY DUTY HI-VIS PIGSKIN GLOVES

- Hi-Vis orange with yellow reflective stripe
- 3M Scotchlite™reflective material stripe on top of gloves
- Grain pigskin palm
- Water-resistant
- Insulate lined with knit wrist
- For hazardous work environments where visibility plays a big role

(PAIR)

DESCRIPTION		PART
Heavy Duty Hi-Vis Pigskin Gloves (Small)	A	59216SMALL
Heavy Duty Hi-Vis Pigskin Gloves (Medium)	A	59216MED
Heavy Duty Hi-Vis Pigskin Gloves (Large)	A	59216LARGE
Heavy Duty Hi-Vis Pigskin Gloves (XL)	A	59216XL
Heavy Duty Hi-Vis Pigskin Gloves (XXL)	A	59216XXL

HI-VIS THINSULATE™ GLOVES

- Yellow nylon shell with a 3M™ Scotchlite™ overlay on palm and back
- 2-sided reflectivity
- Water repellent shell
- Waterproof insert
- 40 gram Thinsulate™ insulation
- Keeps hands toasty and dry

(PAIR)

DESCRIPTION		PART
Hi-Vis Thinsulate™ Gloves (Extra Small)	A	59089XS
Hi-Vis Thinsulate™ Gloves (Small)	A	59089SMALL
Hi-Vis Thinsulate™ Gloves (Medium)	A	59089MED
Hi-Vis Thinsulate™ Gloves (Large)	A	59089LARGE
Hi-Vis Thinsulate™ Gloves (XL)	A	59089XL
Hi-Vis Thinsulate™ Gloves (XXL)	A	59089XXL

HI-VIS UNLINED STRETCH KNIT GLOVES

- Hi-Vis yellow
- Low cost, knit unlined acrylic stretch
- Flexible performance when dexterity and clean handling are required

(PAIR)

DESCRIPTION		PART
Hi-Vis Unlined Stretch Knit Gloves (Medium)	A	59059MED
Hi-Vis Unlined Stretch Knit Gloves (Large)	A	59059LARGE

HI-VIS UTILITY GLOVES

- Hi-Vis, fluorescent glow worker's glove
- Double sewn grip patches at key finger and palm wear points
- Manufactured in accordance with ANSI/ISEA 107-2004 standards

(PAIR)

DESCRIPTION		PART
Hi-Vis Utility Gloves (Extra Small)	A	59058XS
Hi-Vis Utility Gloves (Small)	A	59058SMALL
Hi-Vis Utility Gloves (Medium)	A	59058MED
Hi-Vis Utility Gloves (Large)	A	59058LARGE
Hi-Vis Utility Gloves (Extra Large)	A	59058XL
Hi-Vis Utility Gloves (Extra, Extra Large)	A	59058XXL

HI-VIS SUPER-DUTY THINSULATE™ GLOVES

- Hi-Vis 3M™ Scotchlite™ overlay on palm and back
- 2-sided reflectivity
- Water repellent shell
- Waterproof insert
- 100 gram Thinsulate™ insulation
- Neoprene cuff for complete cold weather protection
- Full suregrip polyurethane palm
- Adjustable nylon strap for customized fit

(PAIR)

DESCRIPTION		PART
Super-Duty Thinsulate™ Gloves (Extra Small)	A	59090XS
Super-Duty Thinsulate™ Gloves (Small)	A	59090SMALL
Super-Duty Thinsulate™ Gloves (Medium)	A	59090MED
Super-Duty Thinsulate™ Gloves (Large)	A	59090LARGE
Super-Duty Thinsulate™ Gloves (XL)	A	59090XL
Super-Duty Thinsulate™ Gloves (XXL)	A	59090XXL

HI-VISIBILITY CLOTHING – VESTS

HI-VISIBILITY CLOTHING – VESTS

HI-VISIBILTY VESTS - SAFETY YELLOW-LIME & YELLOW-LIME/ORANGE - SOLID OR MESH

Hi-Vis Safety Solid or Mesh Vests

- Meets ANSI/ISEA 107 Class II and 207-2006 Standards
- 5-point break away with Velcro® closures & hook & loop adjustable sides
- 2" certified tapes with 4" contrasting color stripes
- 2 nylon microphone tabs
- 2-divisional tool/pen pockets

5 pockets:
- 1 cell phone pocket
- 1 clear badge/ID pocket
- (1) 3-division pocket
- 2 bottom inside pockets (W x H: 7" x 7")

FRONT

BACK

DESCRIPTION		PART
Safety Yellow-Lime Solid – S/XL	A	59300
Safety Yellow-Lime Solid – 2XL/5XL	A	59301
Safety Yellow-Lime Mesh – S/XL	A	59302
Safety Yellow-Lime Mesh – 2XL/5XL	A	59303
Safety Yellow-Lime/Orange Mesh – S/XL	A	59304
Safety Yellow-Lime/Orange Mesh – 2XL/5XL	A	59305
Safety Yellow-Lime/Orange Solid – S/XL	A	59306
Safety Yellow-Lime/Orange Solid – 2XL/5XL	A	59307

HI-VISIBILITY CLOTHING - SHIRTS

HI-VISIBILITY CLOTHING – SHIRTS

HI-VISIBILTY SHIRTS - SAFETY YELLOW-LIME OR ORANGE MESH - SHORT SLEEVE T-SHIRTS

Hi-Vis Safety Short Sleeve T-Shirts

- Meets ANSI/ISEA 107 Class II Standard
- 100% polyester yellow-lime or orange breathable wick away mesh
- (1) H-360° & (2) vertical 2" silver reflective tape
- (1) pocket on the left chest

DESCRIPTION		PART
Safety Yellow-Lime Mesh – S/M	A	59308
Safety Yellow-Lime Mesh – L/XL	A	59309
Safety Yellow-Lime Mesh – 2XL/3XL	A	59310
Safety Yellow-Lime Mesh – 4XL/5XL	A	59311
Safety Orange Mesh – S/M	A	59312
Safety Orange Mesh – L/XL	A	59313
Safety Orange Mesh – 2XL/3XL	A	59314
Safety Orange Mesh – 4XL/5XL	A	59315

HI-VISIBILTY SHIRTS - SAFETY YELLOW-LIME MESH - LONG SLEEVE SHIRTS

Hi-Vis Safety Long Sleeve Shirts

- ANSI Class 3
- 100% polyester yellow-lime breathable wick-away mesh
- 2" silver reflective tape across the shoulders
- 2" silver reflective tape 360° around the torso and sleeves
- Chest pocket

DESCRIPTION		PART
Safety Yellow-Lime Mesh – S/M	A	59316
Safety Yellow-Lime Mesh – L	A	59317L
Safety Yellow-Lime Mesh – XL	A	59317XL
Safety Yellow-Lime Mesh – 2XL	A	59318XXL
Safety Yellow-Lime Mesh – 3XL	A	59318XXXL
Safety Yellow-Lime Mesh – 4XL/5XL	A	59319

HI-VISIBILITY CLOTHING – RAIN SUIT

HI-VISIBILITY CLOTHING – RAIN SUIT

HI-VISIBILTY RAIN SUIT - YELLOW-LIME JACKET AND PANTS

Hi-Vis Safety Yellow-Lime Waterproof Suit
"Jacket with Hood and BIB Pants"

- **ANSI 107 CLASS 3 Certified 3-piece High Visibility Rain Suit**
- **Waterproof Poly Oxford material with PU coating providing the maximum visibility**

Jacket:
- High-visibility yellow-lime jacket has 2" reflective stripes on arms and torso
- Full length storm flap with heavy duty zipper and snap front closures
- Two flapped front pockets with Velcro® closures to secure valuables
- Elastic cuff with adjustable straps

Pants:
- Adjustable elastic suspenders with quick release buckles & single snap fly

Hood:
- Yellow-lime removable hood has 4 snaps and chin strap for secure fit

DESCRIPTION		PART
Hi-Vis Rain Suit		
Yellow-Lime Jacket w/ Hood & BIB Pants – Medium	A	59320MED
Yellow-Lime Jacket w/ Hood & BIB Pants – Large	A	59320LARGE
Yellow-Lime Jacket w/ Hood & BIB Pants – XL	A	59320XL
Yellow-Lime Jacket w/ Hood & BIB Pants – 2XL	A	59320XXL
Yellow-Lime Jacket w/ Hood & BIB Pants – 3XL	A	59320XXXL
Hi-Vis Jacket		
Yellow-Lime Jacket w/ Hood – Medium	A	59321MED
Yellow-Lime Jacket w/ Hood – Large	A	59321LARGE
Yellow-Lime Jacket w/ Hood – XL	A	59321XL
Yellow-Lime Jacket w/ Hood – 2XL	A	59321XXL
Yellow-Lime Jacket w/ Hood – 3XL	A	59321XXXL
Hi-Vis BIB Pants		
Yellow-Lime BIB Pants – Medium	A	59322MED
Yellow-Lime BIB Pants – Large	A	59322LARGE
Yellow-Lime BIB Pants – XL	A	59322XL
Yellow-Lime BIB Pants – 2XL	A	59322XXL
Yellow-Lime BIB Pants – 3XL	A	59322XXXL

HI-VISIBILITY CLOTHING – 3-IN-1 PARKA

HI-VISIBILITY CLOTHING – 3-IN-1 PARKA

HI-VISIBILTY 3-IN-1 LIME PARKA

Hi-Vis Safety Lime 3-in-1 Parka
"Jacket with Hood and Removable Fleece"

- **Meets ANSI 107-2010 Class 3 Standard with 2" wide reflective stripes**
- **Weatherproof Poly Oxford Outer Shell with 300D PU Coating and waterproof taped seams**

Features

- Polyester mesh lining makes it a lightweight jacket
- Removable fleece lining makes it a thermal jacket
- Fleece lining can be worn as an independent jacket when removed
- Full length storm flap w/ heavy duty zipper & snaps
- Elastic cuff with adjustable snaps
- Detachable hood tucks into the collar with draw string
- 1 radio pocket
  1 I.D. pocket
  1 pen slot
  2 lower flap pockets with Velcro® closures
  2 slash pockets on the fleece liner
  2 microphone tabs

DESCRIPTION		PART
Hi-Visibility 3-in-1 Lime Parka – Medium*	A	59323MED
Hi-Visibility 3-in-1 Lime Parka – Large	A	59323LARGE
Hi-Visibility 3-in-1 Lime Parka – XL	A	59323XL
Hi-Visibility 3-in-1 Lime Parka – 2XL*	A	59323XXL
Hi-Visibility 3-in-1 Lime Parka – 3XL*	A	59323XXXL
Hi-Visibility 3-in-1 Lime Parka – 4XL*	A	59323XXXXL
Hi-Visibility 3-in-1 Lime Parka – 5XL*	A	59323XXXXXL

* For MED, 2XL, 3XL, 4XL, and 5XL, please allow up to 10 days for delivery.

HI-VISIBILITY EVAPORATIVE COOLING APPAREL

HI-VISIBILITY EVAPORATIVE COOLING APPAREL

HI-VIS EVAPORATIVE COOLING ANSI CLASS II VESTS*

Features

- V-neck w/snap closures
- ANSI compliant color with 3M™ reflective tape
- ANSI Class II compliant vest
- Provides 5-10 hours of cooling relief per soaking
- Comfortable polyester outer, with HyperKewl™ fabric inner and water repellent nylon liner
- Three large front pockets
- Hi-Viz Lime or Hi-Vis Orange with Cool Blue lining

*Vests are non-stock items, please allow 1-2 weeks for delivery.

DESCRIPTION		PART
Hi-Vis Evaporative Cooling ANSI Class II Vest (Lime – S/M)	A	59327
Hi-Vis Evaporative Cooling ANSI Class II Vest (Lime – L/XL)	A	59328
Hi-Vis Evaporative Cooling ANSI Class II Vest (Lime – 2XL/3XL)	A	59329
Hi-Vis Evaporative Cooling ANSI Class II Vest (Orange – S/M)	A	59330
Hi-Vis Evaporative Cooling ANSI Class II Vest (Orange – L/XL)	A	59331
Hi-Vis Evaporative Cooling ANSI Class II Vest (Orange – 2XL/3XL)	A	59332

HI-VIS EVAPORATIVE COOLING BASEBALL CAP

Features

- HyperKewl™ cooling material is integrated directly into hat panels
- Provides 5-10 hours of cooling relief
- Designed specifically for outdoor activities and safety
- Comfortable mesh polyester outer with reflective stripes, with HyperKewl™ fabric inner and water repellent nylon liner
- Hook and loop closure
- Hi-Viz Lime

DESCRIPTION		PART
Hi-Vis Evaporative Cooling Baseball Cap (One Size – Adult)	A	59324

HI-VISIBILITY EVAPORATIVE COOLING APPAREL

HI-VISIBILITY EVAPORATIVE COOLING APPAREL

HI-VIS EVAPORATIVE COOLING NECK SHADE*

Features
- Keep your neck cool, comfortable and protected from the sun's damaging rays
- Hook and loop conveniently attaches to hard hat (hard hat not included)
- Provides 5-10 hours of cooling relief per soaking; lightweight and durable
- Comfortable, quilted nylon outer with HyperKewl™ fabric inner, water repellent nylon liner, black poly-cotton trim and hook and loop attachments
- Hi-Viz Lime

*Approved for purchase by the CA, AZ and TX DOT (Departments of Transportation)

DESCRIPTION		PART
Hi-Vis Evaporative Cooling Neck Shade (One Size – Adult)	A	59325

HI-VIS EVAPORATIVE COOLING CROWN COOLER WITH NECK SHADE

Features
- Protect the head and neck from dangerous heat and sun while on the job
- Hook and loop attaches easily to hard hat liner (hard hat not included)
- Provides 5-10 hours of cooling relief per soaking; lightweight and durable
- Comfortable, quilted nylon outer with HyperKewl™ fabric inner, water repellent nylon liner, black poly-cotton trim and hook and loop attachments
- Hi-Viz Lime

DESCRIPTION		PART
Hi-Vis Evaporative Cooling Crown Cooler with Neck Shade (One Size – Adult)	A	59326

RETRACTA-BELT® SAFETY SYSTEM

SHOP SUPPLIES

MAGNETIC RETRACTA-BELT® SYSTEMS

Chromate's Retracta-Belt® Systems are designed to improve the safety and versatility of jobsite safety while increasing productivity. These units are used every day where maintenance or cleaning is being performed, allowing or restricting access into your working environment. Ideal for warehouse aisles, hallways, and doorways (ie, bathroom facilities). Great for hospitals, nursing homes, casinos, hotels, universities, public schools, utility companies, railroads, apartment/condo complexes, etc.

Yellow Unit

- 15' Yellow Belt
- CAUTION
  - DO NOT ENTER
  (Black imprint, double-sided)

P/N 20001

Black Unit

- 15' Red Belt
- DANGER
  - HIGH VOLTAGE
  - DO NOT ENTER
  (White imprint, double-sided)

P/N 20007

Features

- High impact polycarbonate construction, internal mechanism and body, for long term durability
- Extended top ridge; protects the unit during falls
- All parts easily replaceable
- 10 year warranty
- Unit available in smooth black or safety yellow
- Dimensions: 4-1/8" W x 5-1/8" D x 3-7/8" H
- Mountable units allow quicker setups and frees up valuable floor space
- Magnet Strength
  - Unit/housing magnet: 82 lbs. pull force
  - Belt end magnet: 20 lbs. pull force

OTHER RETRACTA-BELT® SYSTEMS – WALL MOUNT AND WAREHOUSE UNITS

P/N 20029

Available Mounting Options

4 different mounting plate options:

- Fixed/Removable permanently attach mounting plate to wall, unit slides on and off easily or can be fixed via a screw

- Magnet/Clip allows unit to attach to shelving quickly by means of a strong magnet and clip that hooks into holes or slots in most shelving units (3/8" minimum slot or hole required)

- Velcro® straps for quick and temporary installation on any column or post ranging from 1-1/2" to 5" diameter (longer straps available)

- Hose clamp metal straps for a secure and semi-permanent connection to uprights

RETRACTA-BELT® SAFETY SYSTEM

SHOP SUPPLIES

RETRACTA-BELT® SYSTEMS – PART NUMBERS FOR ORDERING

PART NUMBER	UNIT TYPE	BELT LENGTH	BELT COLOR	IMPRINT TEXT	TEXT COLOR	# OF SIDES
20000	BLACK MAGNETIC	15'	Black	BLANK	NA	NA
20001*	YELLOW MAGNETIC	15'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20001C	YELLOW MAGNETIC W/ CLIP	15'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20002	YELLOW MAGNETIC	30'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20003	BLACK MAGNETIC	30'	Red	DANGER - HIGH VOLTAGE - DO NOT ENTER	White	Double
20004	BLACK MAGNETIC	30'	Red	DANGER! ARC FLASH BOUNDARY - DO NOT ENTER	White	Double
20005	YELLOW MAGNETIC	30'	Yellow	CONTROLLED WORK AREA	Black	Double
20006	YELLOW MAGNETIC	15'	Yellow	CONTROLLED WORK AREA	Black	Double
20007	BLACK MAGNETIC	15'	Red	DANGER - HIGH VOLTAGE - DO NOT ENTER	White	Double
20008	BLACK MAGNETIC	15'	Red	SUPPLY PERSONNEL ONLY	White	Double
20009	YELLOW MAGNETIC	20'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20010MR	YELLOW MAGNETIC	15'	Red	DANGER - DO NOT ENTER - LIFT IN PROGRESS	White	Single
20010ML	YELLOW MAGNETIC	15'	Red	DANGER - DO NOT ENTER - LIFT IN PROGRESS	White	Single
20011MR	YELLOW MAGNETIC	30'	Red	DANGER - DO NOT ENTER - LIFT IN PROGRESS	White	Single
20011ML	YELLOW MAGNETIC	30'	Red	DANGER - DO NOT ENTER - LIFT IN PROGRESS	White	Single
20012	BLACK MAGNETIC	15'	Red	DO NOT ENTER	White	Double
20013	BLACK MAGNETIC	30'	Red	DO NOT ENTER	White	Double
20014	YELLOW HOSE CLAMP UP TO 12" DIA.	15'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20015	YELLOW MAGNETIC	15'	Red	DANGER ELECTRICAL SHOCK / ARC / HAZARD	White	Single
20016	YELLOW MAGNETIC	15'	Red	DANGER ELECTRICAL SHOCK / ARC / HAZARD	White	Single
20017	BLACK MAGNETIC	30'	Red	DANGER - DO NOT ENTER	White	Double
20018	YELLOW MAGNETIC	30'	Yellow	CAUTION - WELDING IN PROGRESS - DO NOT ENTER	Black	Double
20019	YELLOW MAGNETIC	15'	Green	DANGER - HIGH VOLTAGE - DO NOT ENTER	White	Double
20020	YELLOW MAGNETIC	30'	Green	CAUTION	White	Double
20021	YELLOW ALUM POST W/ WHEELS	25'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20022	RED ALUMINUM POST ONLY – NO BELT	NA	NA	NA	NA	NA
20023MR	YELLOW MAGNETIC	30'	Yellow	SMART TEAM WORK AREA	Black	Single
20023ML	YELLOW MAGNETIC	30'	Yellow	SMART TEAM WORK AREA	Black	Single
20024	MAGNET MOUNT REPLACEMENT	NA	NA	NA	NA	NA
20025	YELLOW HOSE CLAMP UP TO 12" DIA.	15'	Yellow	NA	NA	NA
20026	YELLOW WALL MOUNT	15'	Yellow	CAUTION - DO NOT ENTER	Black	Double
20027	YELLOW MAGNETIC	15'	Yellow	CLOSED FOR CLEANING	Black	Double
20028	N/A	N/A	N/A	N/A	N/A	N/A
20029	N/A	N/A	N/A	N/A	N/A	N/A

*Stocked item. All other part numbers will ship approximately 2 weeks after receipt of order. Lead time on custom items will be quoted as per the manufacturer's conditions.

For CUSTOM orders, specify the following:

Housing Finish: Smooth black or safety yellow

Mounting Style:
- Fixed/Removable
- Magnetic/Clip
- Velcro or Hose Clamp

Belt Length: 15', 20', 25' and 30'

Belt Color: Standard colors are: Blue, Red, Maroon, Grey, Green, Dark Green, Black, Black w/ White stripe, Dark Blue, Yellow, and Black/Yellow Diagonal

Printing:
- Text/Print
- One-side or double sided print
- Color of text
- Custom logo

BARRICADE TAPES / ANTI-SLIP TAPES

SHOP SUPPLIES

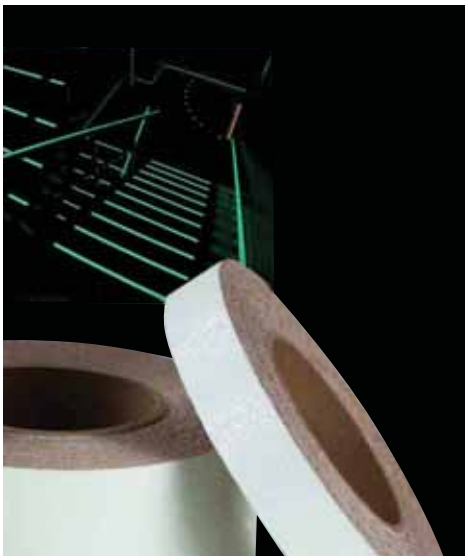
BARRICADE TAPE – CAUTION DO NOT ENTER / DANGER DO NOT ENTER

Applications
- Road work
- Construction sites
- Chemical and industrial plants
- Fire and crime scenes
- Any potential dangerous areas

Features
- **Roll length:** 1000'
- **Roll width:** 3''
- **Thickness:** 2 mil
- Standards OSHA 1910.144
- YELLOW or RED film with BLACK print
- Durable polyethylene
- Continuous repeating message or warning in bold black letters
- For visual warning in hazardous areas
- Temporarily control and secure identified areas on an immediate basis
- Protect pedestrians, employees and anyone who might fall into a dangerous situation

DESCRIPTION		PART
Barricade Tape (Yellow With Black Type - CAUTION DO NOT ENTER) 1000' Roll	A	20098
Barricade Tape (Red With Black Type - DANGER DO NOT ENTER) 1000' Roll	A	20099

ANTI-SLIP TAPES – GLOW-IN-THE-DARK – 50 GRIT



The ultimate non-slip egress tape! Sudden power outages or natural disasters can increase the potential for panic, as well as the risk of injuries caused by slips and falls.

Safety grade glow-in-the-dark solution for marking stairs and corridors that are part of the emergency egress route. Offered in 60 ft. rolls.

Features and Benefits
- Manufactured with the same aggressive adhesive system as our other safety tape products
- Complies with all safety grade photoluminescent domestic and international standards
- It will adhere to most clean, dry, oil-free surfaces
- For use on painted wood, metal, sealed concrete and non-porous surfaces
- NFSI - National Flooring Safety Institute certified for "high traction"

DESCRIPTION		PART
2'' x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28212
4'' x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28213
6'' x 60' Roll, 50 Grit, Glow-in-the-Dark	A	28214

ANTI-SLIP TAPES

SHOP SUPPLIES

ANTI-SLIP TAPES – COLORS – 46 / 50 / 60 GRIT

Anti-Slip Tape is the preferred product line when visual warning is required to mark potential slip and fall hazards. Developed with maximum visual warning characteristics in mind. We provide the best assortment of visual cues to meet your requirements. Anti-Slip Tape is offered in 60 ft. rolls and easy to apply sections.

Features and Benefits

- Durable high traction grit surface
- Easy to apply
- Aggressive adhesive system for product longevity
- Fuel, water and fluid resistant
- Reduce the risks of slips and falls
- Ensure worker safety on potentially hazardous surfaces
- Prevent costly injuries in the workplace due to slips and falls
- Reduce Worker's Compensation claims
- NFSI - National Flooring Safety Institute certified for "high traction"
- Exceeds OSHA standards for non-slip protection on walking surfaces

Applications

- Farm machinery
- Construction equipment
- Forklifts
- Cherry pickers
- Steps, stairs
- RVs
- Snowmobiles
- ATVs
- Garden tractors
- Lawn mowers
- Wet & oily areas
- Loading docks
- Cold storage
- Catwalks
- Platforms/ramps
- Ladders, step stools
- Scaffolds
- Airline decks
- Airline cargo holds
- Trains
- Semi-trailers
- Buses
- Ship decks
- Boats
- Conveyors
- Pulleys
- Food service areas
- Machine shops
- Auto repair shops
- Garages

DESCRIPTION		PART	DESCRIPTION		PART
2" x 60' Roll, 46 Grit, Black	A	28207	4" x 60' Roll, 60 Grit, Yellow	A	28265
4" x 60' Roll, 46 Grit, Black	A	28208	6" x 60' Roll, 60 Grit, Yellow	A	28266
6" x 60' Roll, 46 Grit, Black	A	28209	2" x 60' Roll, 60 Grit, Yellow/Black	A	28267
2" x 60' Roll, 60 Grit, Red	A	28261	4" x 60' Roll, 60 Grit, Yellow/Black	A	28268
4" x 60' Roll, 60 Grit, Red	A	28262	6" x 60' Roll, 60 Grit, Yellow/Black	A	28269
6" x 60' Roll, 60 Grit, Red	A	28263	6" x 24" Piece, 60 Grit, Caution	A	28215
2" x 60' Roll, 60 Grit, Yellow	A	28264	6" x 24" Piece, 60 Grit, Watch Your Step	A	28260

ANTI-SLIP TAPES – LOW PROFILE

- Prevents slips and falls on slippery surfaces
- Abrasive grain coated plastic film with pressure sensitive adhesive
- Low profile helps prevent edge curl
- Abrasive grain – provides a consistent co-efficient of friction
- Conformability – installs over most irregular surfaces
- Easy installation – simply position, peel-off backing paper and apply to a clean, dry, oil-free surface
- Superior quality materials – assures long life, durability and resistance to heavy traffic, water and grease
- Meets or exceeds motor vehicle safety standard no. 302, mil-d-17951e (ships), and non-slip mil-w-5044c type iv

Surface Compatibility: Painted wood, painted metal, sealed concrete
Application Temperature: Apply when above 50°F

DESCRIPTION		PART
2" x 60' Roll	A	28210
4" x 60' Roll	A	28211

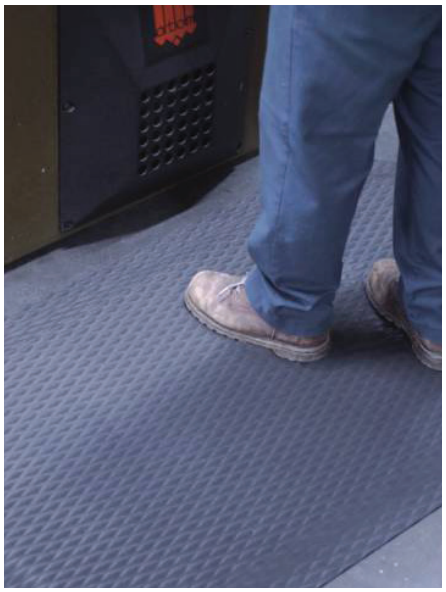
ANTI-FATIGUE

SHOP SUPPLIES

ANTI FATIGUE MAT – ALLEVIATES STRESS TO THE BACK AND LEGS

Anti-fatigue mats alleviate stress to the back and legs where people have to continually stand or walk, which in turn increases worker productivity. The non-slip surface means that the mat is ideal for use in wet or dry conditions to reduce slip hazards. The implementation of ergonomic concepts offers tremendous value to any company, and can be realized with the creation of comfortable, healthy and safe work environments. We know that standing workers are less fatigued while working, and feel less discomfort at the end of the day, if they stand on anti-fatigue mats. This has been proven time and time again.

- Outstanding Anti-fatigue qualities
- UV Stable
- Solid nitrile rubber top surface for excellent chemical resistance
- 100% nitrile rubber border remains flexible for the life of the mat and will not crack or curl.
- Textured nitrile rubber surface for superior slip resistance
- Welding safe
- Closed-cell nitrile/PVC cushion backing provides long lasting comfort
- Closed-cell cushion backing is permanently molded to the nitrile rubber surface, providing a comfortable long lasting mat.
- Thicknesses: 5/8"
- Available in black
- Certified slip-resistant by the National Floor Safety Institute.
- Recommended for use in work stations, assembly lines, shipping lines and other areas where workers stand for extended periods.



DESCRIPTION		PART
Anti-Fatigue Mat, 3' x 5'	A	28229

VISIBILITY SOLUTIONS

SHOP SUPPLIES

SAFETY FLARES – FOR LONG DISTANCE ILLUMINATION

- Provides long distance illumination for safety during emergency road-side situations
- Visible in fog, rain or snow
- Easy to ignite with self-contained striker
- 20 minute duration
- 36 flares in a case

DESCRIPTION		PART
20 Minute Non-Spike Safety Flares (Package Quantity: 36 Flares)		59080

EARLY WARNING TRIANGLE KIT – REFLECTIVE SAFETY WARNING

- Instant alert for oncoming motorists
- Visually alerts authorities quickly
- Meets US Federal Motor Vehicle Safety Standard No.125 for Warning Devices
- Weighted base for stability
- Kit includes three (3) reflective triangles

Applications
- Emergency assistance
- Truck / Auto accidents
- Hazardous conditions

DESCRIPTION		PART
Early Warning Triangle Kit	A	59082

GLOW STICKS

- A dependable light source whenever and wherever you need it, light lasts for 12 hours
- Non-toxic / non-flammable / weatherproof
- Made with Cyalume® technology (10 ml fluid)
- To activate remove from foil wrapper, bend, snap and shake

DESCRIPTION		PART
6" Glow Sticks – 12 Hour	F	59081

LIGHTING SOLUTIONS

SHOP SUPPLIES

ROUGH SERVICE LIGHT BULBS

Lasts longer under adverse operating conditions, 2000 to 4000 hours. Up to 4X longer than the average life of most rough service bulbs.

STANDARD

- Resists shock and vibration
- Brass base

50 WATTS	75 WATTS	100 WATTS
F 28952	F 28950	F 28951

TUFF SKIN COATED

- Provides safety from glass cuts, electric shock and burns when bulbs are broken
- Resists thermal shocks, precipitation, scratches and molten splatter
- No fragmentation of glass if accidentally broken

60 WATTS	75 WATTS	100 WATTS
F 28953	F 28954	F 28955

CORD CONNECT

- Provides a water-tight connection while locking cords together
- Protective "clamshell" housing is made of durable all-weather plastic
- Tapered ends ensure the cord connect pulls smoothly without getting caught
- Eliminates disruptive disconnects while working with extension cords or power tools
- Watertight gasket withstands jet nozzle sprays, drip box tests and prevents water from reaching the electrical connection
- Easy to handle design allows workers wearing heavy gloves to connect and disconnect easily
- UV protected

1. Open half, place cord inside, clip closed
2. Slip water-tight gasket on the male plug and plug cords together
3. Screw both halves together until plugs are securely pushed together

DESCRIPTION	PART
Cord Connect – OSHA Orange	A 28162
Cord Connect - Landscape Green	A 28163

LIGHTING SOLUTIONS

SHOP SUPPLIES

36'' PORTABLE JOBSITE LIGHTING - WOBBLELIGHT

Features
- Patented counter-weighted self-righting design!
- Floating shock system protects bulb from impact
- Low heat output, no hot surfaces
- High-impact thermoplastic housing and lens
- 400 watt metal halide work light
- Lumens: 40,000
- 360° lighting – Adjustable to 180° with optional reflector
- Plugs into 120V AC supply
- Convenience receptacle for connecting units in series

Applications
- Ideal for applications requiring temporary high-output lighting

Replacement/Optional Parts

- Bulb “400 watt”	P/N 66346
- 180° reflector	P/N 66347
- Body back panel	P/N 66335
- Body front panel	P/N 66336
- Dome cap	P/N 66337
- Dome and cap	P/N 66338

P/N 66345

27'' PORTABLE JOBSITE LIGHTING - WOBBLELIGHT JR.

Features
- Patented counter-weighted self-righting design!
- Floating shock system protects bulb from impact
- Energy efficient 85 watt compact fluorescent bulb
- Instant-on technology
- Lumens: 5,000
- Low heat output, no hot surfaces
- High-impact thermoplastic housing and lens
- 360° lighting – Adjustable to 180° with optional reflector
- Integrated 5-foot power cord

Applications
Ideal for applications requiring temporary energy efficient lighting.

Replacement/Optional Parts

• CFL bulb, 85 watt	P/N 66343
• 180° reflector	P/N 66342

P/N 66344

LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

66 LED RECHARGEABLE MAGNETIC WORK LIGHT

Spotlight **Floodlight**

- Dual Function / Spotlight – Floodlight
- 35,000 hour LED life
- 60 LED Floodlight / 6 LED Spotlight
- Bright white LEDs
- Impact and chemical resistant housing
- Rechargeable NiMH battery pack
- 8 hour charge time
- AC & DC adapters included
- Will stand upright on flat surface
- Dual position magnetic hook attaches to top or side
- Water resistant: IP-X4 rating

Features/Specifications
- **Spotlight:** 32 Lumens
- **Floodlight:** 230 Lumens
- **Run-time:** Spotlight 18 hours / Floodlight 3 hours
- Dual integrated magnets & hook
- Single rocker switch
- **Water rating:** IP-X4 water resistant
- **Length:** 14.25" (without hook)
- **Weight:** 16 oz. with battery

P/N 66358

Magnetic Hook
P/N 66358HOOK

DESCRIPTION		PART
66 LED Magnetic Work Light (Rechargeable)	A	66358

LED LIGHT (SAFETY ORANGE)

- Flashlight – Floodlight
- Bright white LEDs
- 35,000 hour life
- Small size – Light weight
- Safety orange housing
- Impact and chemical resistant
- Removable hanger-hook and magnet
- Rechargeable high quality NiMH battery
- Long run-time per charge
- Home and car chargers included

Features/Specifications
- **Flashlight:** 1 LED = 65 lumens
- **Floodlight:** 60 LEDs = 120 lumens
- **Run-time:** 4 hrs. flashlight, 4 hrs. floodlight
- **Charge time:** 4 hours
- **Length:** 11.5"
- **Weight:** 12.0 oz.

P/N 66380

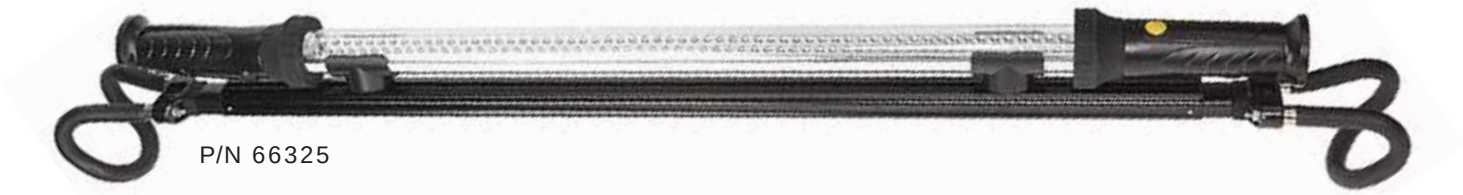
DESCRIPTION		PART
LED Light (Safety Orange – Rechargeable)	A	66380

LED LIGHTING SOLUTIONS

LED WORK LIGHT

120 LED UNDER-HOOD WORK LIGHT

- Under-hood illumination
- Interior illumination
- 120 premium LEDs
- 35,000 hour life
- Two light levels (full or half power)
- Use in the shop or roadside
- Use with or without the carrier
- Internal NiMH battery pack
- AC & DC chargers included
- Shop and car chargers included
- Chemical resistant housing
- Moisture and impact resistant
- Magnetic or hanger-hook mounting
- Spring loaded carrier extends 77"



Hook or Magnet Mounting Options

Magnets/Both Ends

Magnetic Mounts

Hang-Hooks

Specifications

- 1 Row (60 LED)
  Lumens: 150
  Run-time: 6.5 hours
- 2 Rows (120 LED)
  Lumens: 330
  Run-time: 3.5 hours
- Charge Time: 6 hours (AC or DC chargers)
- Length: 48"
- Weight: 4.9 lbs

DESCRIPTION		PART
120 LED Under-Hood Work Light (Rechargeable)	A	66325

LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

TECHNICIAN'S FLOODLIGHT

Features
- Over 300 lumens of brilliant white light with no hot spots or dark spots
- Strong, retractable hook allows you to hang it
- Dual rare-earth magnets, for fastening it to a work-space
- Removable belt clip
- Head tilts 180° and rotates 360°
- 6 AA rechargeable NiMH battery pack included, with smart recharger
- Run-time: High: 2 hours continuous, Low: 8 hours
- Battery condition indicator light
- Ergonomic light-weight, secure grip
- Includes a 12V charger and a 120V charger
- Flared base allows standing light on end
- Standard 1/4-20 threaded hole in base for tripod (not included)
- Length: 10-1/4" (26 cm)
- Weight: 1 lb (0.5 kg)

Applications
- Automotive
- Industrial
- HVAC repairmen
- IT maintenance
- Emergencies
- Power outages

THE BEST PROFESSIONAL LED WORK LIGHT!

P/N 66340

Details

Brightness: High: 300 emitter lumens
LOW: 75 emitter lumens

Color: Cool white

LED: Cree XP-G, 5 W

Material: High impact ABS, except hook, which is glass reinforced ABS

Head Adjustment: Tilt tension adjustment screw prevents head from flopping

Hook length: 3" (7.5 cm) when extended, retracts into body of floodlight

Hook diameter: 1" (2.5 cm)

Magnets: 2 co-planar, nickel-plated, neodymium rare-earth magnets

Charger: Smart switching charger, 120 VAC with standard “Type A”, 2 prong plug

Recharge Time: About 6 hours

DESCRIPTION		PART
Technician's Floodlight (Rechargeable)	A	66340

STREAMLIGHT® TWIN-TASK™ FLASHLIGHT

- Patented led/xenon combo for super brightness and ultra-long run time
- Computer-machined to exacting tolerances for superior quality
- Anodized aluminum – for lightweight design
- Water-resistant, o-ring sealed – great for outdoor use
- Unbreakable polycarbonate lens for durability and long life
- Adjustable focus – provides wide and narrow beam
- Micro-faceted reflector – increased brightness
- Enhanced knurled grip – ease of handling
- Lanyard included
- 100,000 hour LEDs

3-Modes:

3 LEDs	6 LEDs	XENON
Run Time 160 Hours	Run Time 100 Hours	Run Time 5 Hours

LIFETIME WARRANTY!
Uses 3 "C" Alkaline Batteries (Not Included)

P/N 66400

DESCRIPTION		PART
Streamlight Twin-Task™ Flashlight	A	66400
Replacement Xenon Bulb	A	66400X

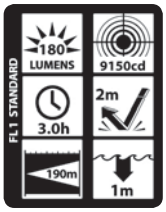
LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

WATERPROOF LED FLASHLIGHT "WITH GLASS FILLED NYLON POLYMER HOUSING"

- CREE® LED technology
- 50,000 + hours LED life
- Waterproof: IP-X7 Rating
- 180 lumens
- Momentary or constant-on flashlight
- Sharp focused beam
- Aircraft-grade 6061-T6 aluminum tail-cap with type 3 hard anodized finish
- Non-slip grip
- Large textured tail-switch
- 1" handle diameter fits most scope/flashlight mounts
- 1.25" head diameter accepts 3rd party filters
- Impact & chemical resistant
- Removable pocket clip
- Available in Black, Yellow & Tan
- Two CR-123 lithium batteries included

P/N 66321BLA



- **Lumens:** 180
- **Run-time:** 3 hours
- **Beam distance:** 190 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters

- **Length:** 5.5"
- **Head diameter:** 1.25"
- **Handle diameter:** 1.035"
- **Weight:** 4.4 oz.

Yellow and tan housing colors are also available. (non-stock items*).

- P/N 66321YEL
- P/N 66321TAN

*** Please call for delivery.**

DESCRIPTION		PART
Waterproof LED Flashlight – Black	A	66321BLA
Waterproof LED Flashlight – Yellow	A	66321YEL
Waterproof LED Flashlight – Tan	A	66321TAN
Replacement Lithium Batteries, Type CR-123	B	28899

POCKET FLOODLIGHT™

Features
- Up to 10X brighter than ordinary penlights
- Pure cool white LED high performance light
- Lightweight & compact
- Clips easily and comfortably into any pocket
- Indestructible T6 Aluminum with Black Type II Anodized Body
- Water & dirt resistant
- Rugged tailcap switch – rated at 100,000 cycles

P/N 66341

Applications
- Designed for all technicians in a demanding shop
- For use in manufacturing or maintenance environments

Details
- **Brightness:** 120 lumens
- **Forward Current:** 400 mA
- **Battery Voltage:** Between 3.3 and 4.8 volts
- **Batteries:** 3 AAAA alkaline, *included*
- **Run-Time:** 2 hours to half brightness / 4 hours light w/ typical intermittent use
- **Reflector:** Custom design w/ bright center spot. Orange peel (OP) surface for an even beam.
- **Switch Tailcap:** Click ON / Click OFF. Rubber cap seals out dirt and grit.
- **Water Resistant:** Threaded joints have rubber O-ring seals. Sealed tailcap switch.
- **Head Diameter:** 9/16" (14 mm)
- **Body Diameter:** 7/16" (10 mm)
- **Body Length:** 6" (15 cm)

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

RED LED POCKET FLOODLIGHT™

Features
- Up to 10X brighter than ordinary "Red" LED penlights
- LED high performance light
- Lightweight and compact
- Clips easily and comfortably into any pocket
- Indestructible T6 Aluminum with Red Type II Anodized Body
- Water and dirt resistant
- Rugged tailcap switch – rated at 100,000 cycles
- Energizer batteries included

P/N 66333

Applications
- Preserves night vision of individuals
- Reading flight plans
- Security
- Reading equipment in the dark
- Aviators
- Doctors/Nurses monitoring patients
- Astronomers
- Military/Police operating equipment
- Emergency Service Personnel
- Photographers
- Ushers

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

Details

BRIGHTNESS:	46 lumens
LED, WAVELENGTH:	Cree Xp-C, Red 620-630 nm
FORWARD CURRENT:	350 mA
BATTERY VOLTAGE:	Between 3.3 and 4.8 volts
BATTERIES:	3 AAAA alkaline (included)
RUN-TIME:	2 hours to half brightness / 4 hours light with typical intermittent use
REFLECTOR:	Custom design with bright center spot. Orange peel (OP) surface for a huge floodlight beam.
SWITCH TAILCAP:	Click ON / click OFF, plus half-press momentary on. Rubber cap seals out dirt & grit.
WATER RESISTANT:	Threaded joints have rubber O-ring seals. Tailcap switch is sealed with a rubber cap.
HEAD DIAMETER:	9/16" (14 mm)
BODY DIAMETER:	7/16" (10 mm)
BODY LENGTH:	6" (15 cm)

PROFESSIONAL UV LED INSPECTION FLOODLIGHT™

Features
- Up to 20X brighter than ordinary UV penlights
- High performance UV LED light
- Lightweight and compact
- Clips easily and comfortably into any pocket
- Indestructible T6 Aluminum with Violet Type II Anodized Body
- Water and dirt resistant
- Rugged tailcap switch – rated at 100,000 cycles
- Energizer batteries included

P/N 66334

Applications
- A/C refrigerant dye leak detection
- Hairline crack detection/Quality control
- Fluorescent hand stamp verification
- Dog, cat & rodent urine stain detection
- Restroom cleanliness inspection
- Document and lab analysis
- Crime scene investigation
- Paint authentication
- Currency verification
- Bacteria detection
- Gem inspection
- UV curing

AAAA Energizer Batteries (Pkg. 6)
P/N 29207

Details

BRIGHTNESS:	120 mW emitter radiant flux
LED, WAVELENGTH:	UltraViolet (UVA) 400-405 nm
FORWARD CURRENT:	350 mA
BATTERY VOLTAGE:	Between 3.3 and 4.8 volts
BATTERIES:	3 AAAA alkaline (included)
RUN-TIME:	2 hours to half brightness / 4 hours light with typical intermittent use
REFLECTOR:	Custom design with bright center spot. Orange peel (OP) surface for a huge floodlight beam.
SWITCH TAILCAP:	Click ON / click OFF, plus half-press momentary on. Rubber cap seals out dirt & grit.
WATER RESISTANT:	Threaded joints have rubber O-ring seals. Tailcap switch is sealed with a rubber cap.
HEAD DIAMETER:	9/16" (14 mm)
BODY DIAMETER:	7/16" (10 mm)
BODY LENGTH:	6" (15 cm)

CAUTION: *Wear 100% UVA blocking safety glasses when using. Do not shine the light in anyone's eyes.*

LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

DUAL LIGHT W/ DUAL MAGNETS

130 Flashlight Lumens / 110 Floodlight Lumens

- **Flashlight – Floodlight – Dual-light**
- **CREE® LED technology**
- **Flashlight beam distance, 181 meters**
- **50,000 + hours LED life**
- **Momentary or constant-on flashlight**
- **Sharp focused beam for distance illumination**
- **Unfocused wide-beam floodlight for close-up illumination**
- **Dual-light (flashlight & floodlight at same time) for maximum versatility**
- **Powerful integrated magnets built into the base and clip for multiple hands-free options**
- **Engineered polymer housing, red or black**
- **Non-slip grip**
- **Dual body switches**
- **Waterproof, IP-X7 rating**
- **Impact and chemical resistant**
- **Built-in pocket/belt clip**
- **Includes removable lanyard**
- **3 AA premium batteries included**

Flashlight

Floodlight

Dual-Light

P/N 66310
RED

Specifications

- Lumens:
  - Flashlight: 130 lumens
  - Floodlight: 110 lumens
  - Dual-light: 235 lumens
- Run-time:
  - Flashlight: 9.5 hrs
  - Floodlight: 10.5 hrs
  - Dual-light: 5 hrs
- Beam distance: 181 meters (594 ft)
- Water rating: IP-X7 waterproof
- Drop rating: 2 meters
- Length: 7"
- Head diameter: 1.8"
- Handle diameter: 1" x 1.3"
- Weight: 6.4 oz

P/N 66312B*
BLUE TRAFFIC
CONE

P/N 66311*
BLACK

Non-stock item. Please call for delivery.

Included Items

- Light with integrated magnets and built-in pocket/belt clip
- Removable lanyard
- 3 AA premium batteries

Replacement Batteries

- Duracell® Procell®
  AA alkaline batteries
  Pkg: 8
  P/N 29203

LED LIGHTING SOLUTIONS

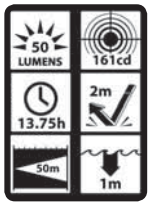
INTRINSICALLY SAFE

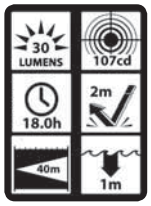
INTRINSICALLY SAFE LED PENLIGHTS

- 30 or 50 Lumens/Class I, II, III, Division I, Groups A-G
- CREE® LED technology – 50,000+ hours LED life
- 30 or 50 Lumens
- 13.75/18 hours run-time
- Ultra-compact and super slim
- Powerful light output designed to illuminate very tight spaces
- Single tail-cap switch provides momentary or constant-on functionality
- Sharp focused beam for distance illumination (50/40 meters)
- Waterproof: IP-X7 Rating
- Engineered polymer housing (impact & chemical resistant)
- Built-in pocket/belt clip

Safety Rating
cETLus Listed Intrinsically Safe for use in Class I II III Div 1
SECRURITE INTRINSEQUE Groups A,B,C,D,E,F & G Hazardous Locations

Specifications – P/N 66316
- **Lumens:** 50
- **Run-time:** 13.75 hrs
- **Beam distance:** 50 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Length:** 6.8"
- **Diameters:** 0.6" head / 0.5" handle
- **Weight:** 1.5 oz.
- **Power:** 3 AAAA batteries (P/N 29207) included





Specifications – P/N 66317*
- **Lumens:** 30
- **Run-time:** 18 hrs
- **Beam distance:** 40 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Length:** 5.8"
- **Diameters:** 0.9" head / 0.7" handle
- **Weight:** 1.9 oz.
- **Power:** 2 AAA batteries (P/N 29204) included

*Non-stock item, please call for delivery.

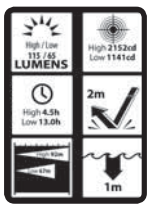
INTRINSICALLY SAFE LED HEADLAMPS

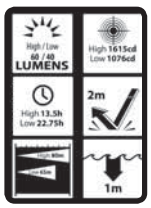
- Dual-Function/Class I, II, III, Division I, Groups A-G
- Multi-position tilt head design with elastic head strap (with non-slip lining) and a heavy-duty rubber head strap for use on a hard hat
- Selectable high or low brightness spotlight operation
- CREE® LED technology – 50,000+ hours LED life
- High-brightness spotlight – 115/60 Lumens Low-brightness spotlight – 65/40 Lumens
- Focused spotlight beam for distance illumination (92/80 meters)
- Waterproof: IP-X7 Rating
- Engineered polymer housing (impact & chemical resistant)
- Single switch located on top of light
- 3 AAA premium batteries (included), reorder using P/N 29204

P/N 66318
P/N 66319*

Safety Rating
cETLus Listed Intrinsically Safe for use in Class I II III Div 1 SECRURITE INTRINSEQUE Groups A,B,C,D,E,F & G Hazardous Locations
-20C ≤ Tamb ≤+40C
- Ex ia IIC T3 Ga Class 1 Zone 0
- AEx ia IIC T3 Ga, Zone 20
- AEx ia IIIC T 165C Da

Specifications – P/N 66318
- **Spotlight Lumens:** High - 115 / Low - 65
- **Run-time:** High - 4.5 hrs / Low - 13 hrs
- **Beam distance:** 92 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Dim:** 2.4" width x 1.9" height x 1.8" depth
- **Weight:** 3.5 oz.





Specifications – P/N 66319*
- **Spotlight Lumens:** High - 60 / Low - 40
- **Run-time:** High - 13.5 hrs / Low - 22.75 hrs
- **Beam distance:** 80 meters
- **Water rating:** IP-X7 waterproof
- **Drop rating:** 2 meters
- **Dim:** 2.4" width x 1.9" height x 1.8" depth
- **Weight:** 3.5 oz.

*Non-stock item, please call for delivery.

LED LIGHTING SOLUTIONS

INTRINSICALLY SAFE

INTRINSICALLY SAFE LED HEADLAMPS

- Designed for hazardous workplace environments
- Safe to use in potentially explosive atmospheres
- Night vision red floodlight or high contrast green floodlight
- Spotlight • Two level white floodlight • Colored floodlight
- Spotlight CREE® LED technology - 50,000 hour life
- White / red / green floodlight LEDs - 35,000 hour life
- Full or half power white floodlight for extended run-time
- Waterproof IP-X7
- Impact and chemical resistant
- Two switch light control
- Behind the head battery pack for comfort and balance
- Adjustable ratchet tilt headlamp
- Width: 3.3" • Height: 3.3" • Depth: 3.5" • Weight: 9.5 oz.
- Rubber hardhat strap included
- 3 premium alkaline AA batteries – Reorder with P/N 29203

Safety Rating

cETLus Listed Intrinsically Safe for use in Class I II III Div 1 SECRURITE INTRINSEQUE Groups A,B,C,D, E,F & G Hazardous Locations -20C ≤ Tamb ≤+40C

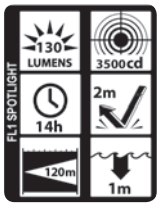
- Ex ia IIC T3 Ga Class 1 Zone 0
- AEx ia IIC T3 Ga, Zone 20
- AEx ia IIIC T 165C Da

P/N 66326

P/N 66327

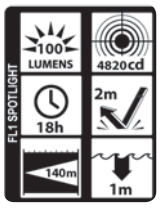
Specifications - P/N 66326

- **Spotlight:** 130 lumens
- **Floodlight:** 100 lumens - full power, 25 half-power
- **Dual-Light:** 190 lumens
- **Green floodlight:** 21 lumens
- **Run-time hours:**
  - Spotlight: 14
  - Floodlight at full power: 12.5
  - Floodlight at half-power: 70
  - Dual-light: 6
  - Green floodlight: 37



Specifications - P/N 66327

- **Spotlight:** 100 lumens
- **Floodlight:** 90 lumens - full power, 20 half-power
- **Dual-Light:** 175 lumens
- **Red floodlight:** 18 lumens
- **Run-time hours:**
  - Spotlight: 18
  - Floodlight at full power: 13.5
  - Floodlight at half-power: 75
  - Dual-light: 6.5
  - Red floodlight: 37



INTRINSICALLY SAFE LED DUAL-LIGHT

Designed for hazardous workplace environments and is safe to use in potentially explosive atmospheres.

- Dual-Light Innovation®
- 120 lumen CREE® LED
- Sharp focused flashlight
- Broad beam floodlight
- 50,000 hour LED life
- Separate switches for flashlight & floodlight
- Momentary or constant-on
- Non-slip grip textured push-buttons
- Rugged hi-visibility green polymer housing
- Impact and chemical resistant
- Built-in pocket clip and lanyard
- Rating: XP-67
- Length: 7.0 in (178 mm)
- Limited lifetime warranty

ANSI Performance

- Flashlight: 120 lumens
- Floodlight: 120 lumens
- Dual-Light: 240 lumens
- Flashlight beam distance: 170 m
- Run-time: 17.5 hours Flashlight/Floodlight and 4.5 hours Dual-light

Note: Order batteries with P/N 29203 (Duracell PC1500, MSHA approved batteries). See instruction manual for details. 3 AA alkaline batteries are not included.

P/N 66339

NEW & IMPROVED!
• 50% MORE LUMENS OUTPUT!
• MSHA APPROVED!

LED LIGHTING SOLUTIONS

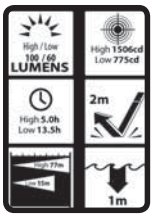
LED HEADLAMPS

MULTI-FUNCTION HEADLAMP

Dual Brightness Spotlight/Floodlight & Dual-light

- **CREE® LED technology – 50,000+ hours LED life**
- Top mounted dual switches provide: high/low-brightness spotlight & high/low-brightness floodlight
- Dual-light (spotlight & white floodlight mode at same time) for maximum versatility
- Spotlight: 100/60 lumens / Floodlight: 90/50 lumens / Dual-light: 115 lumens
- Multi-position adjustable ratchet tilt head design with non-slip elastic head strap
- Focused spotlight beam for distance illumination
- Unfocused wide-beam floodlight for close-up illumination
- Engineered polymer housing
- Waterproof: XP-X7 Rating
- Impact and chemical resistant
- Powered by 3 AAA batteries, included (reorder with P/N 29204)

P/N 66315



Features/Specifications

- **Lumens:**
  - High spotlight-100 **/** Low spotlight-60
  - High floodlight-90 **/** Low floodlight-50
  - Dual-light-115
- **Run-time:**
  - High spotlight-5 hrs **/** Low spotlight-13.5 hrs,
  - High floodlight-4.25 hrs **/** Low floodlight-13.75 hrs
  - Dual-light-3.5 hrs

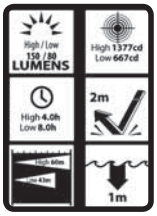
- **Beam distance:** 77 meters
- **Water rating:** IP-X7
- **Drop rating:** 2 meters
- **Width:** 2.6"
- **Height:** 2.1"
- **Depth:** 1.8"
- **Weight:** 3.3 oz.

MULTI-FUNCTION HEADLAMP

Dual Brightness Spotlight, White/Red/Green Floodlight & Dual-light

- CREE® LED technology – 50,000+ hours LED life
- Top mounted dual switches provide: high/low-brightness spotlight and white/red/green floodlight
- Dual-light (spotlight & white floodlight mode at same time) for maximum versatility
- Colored floodlight for night-vision preservation
- Spotlight – 150/80 lumens / White Floodlight – 100 lumens / Red Floodlight – 9 lumens Green Floodlight – 18 lumens / Dual-light – 180 lumens
- Multi-position adjustable ratchet tilt head design with non-slip elastic head strap
- Focused spotlight beam for distance illumination
- Unfocused wide-beam floodlight for close-up illumination
- Engineered polymer housing (impact and chemical resistant)
- Waterproof: XP-X7 Rating
- Powered by 3 AAA batteries, included (reorder with P/N 29204)

P/N 66323



Features/Specifications

- **Lumens:**
  - High spotlight-150 **/** Low spotlight-80
  - White floodlight-100
  - Red floodlight-9
  - Green floodlight-18
  - Dual-light-180
- **Run-time:**
  - High spotlight-4 hrs **/** Low spotlight-8 hrs,
  - White floodlight-4 hrs **/** Red floodlight-25 hrs
  - Green floodlight-22.5 hrs **/** Dual-light-3 hrs

- **Beam distance:** 60 meters
- **Water rating:** IP-X7
- **Drop rating:** 2 meters
- **Width:** 2.6"
- **Height:** 2.1"
- **Depth:** 1.8"
- **Weight:** 3.3 oz.

LED LIGHTING SOLUTIONS

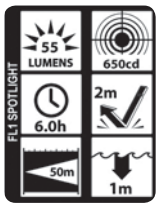
LED HEADLAMPS / LED FLASHLIGHTS

HEADLAMP – WATERPROOF

- Spotlight – Floodlight – Dual-light
- Water proof IP-X7
- Small in size, big in light output
- Perfect hands-free lighting solution
- Wear on head or mount on hard-hat
- Premium super bright white LEDs
- Single LED Deep Reflector Spotlight with CREE® LED Technology
- 12 LED Floodlight
- Spotlight - 50,000 hour life
- Floodlight - 35,000 hour life
- Impact & chemical resistant
- Single switch light control
- Adjustable ratchet tilt head lamp
- Non-slip elastic band
- 3 AAA batteries included

Features/Specifications
- **Spotlight:** 55 lumens
- **Floodlight:** 40 lumens
- **Dual-light:** 80 lumens
- **Run-time:**
  - Spotlight: 6 hours
  - Floodlight: 8 hours
  - Dual-light: 5 hours
- **Width:** 2.44"
- **Height:** 1.75"
- **Depth:** 1.88"
- **Weight:** 3.7 oz.

P/N 66329



MULTI-FUNCTION LED FLASH/FLOODLIGHT

- Flashlight – Floodlight – Dual-Light
- Single body switch
- Flashlight with CREE® LED technology – 50,000 + hours LED life
- Floodlight with premium LED technology – 35,000 + hours LED life
- Momentary or constant-on flashlight
- Sharp focused beam flashlight
- Wide-beam unfocused floodlight
- Engineered polymer housing
- Non-slip grip – Comfortable oval shape
- Soft touch finish
- Water resistant
- Impact and chemical resistant
- 2 AAA premium alkaline batteries included

- **Lumens:**
  - Flashlight - 60
  - Floodlight - 25
  - Dual-light - 50
- **Run-time:**
  - Flashlight - 4 hrs
  - Floodlight - 4 hrs
  - Dual-light - 3 hrs
- **Beam distance:** 50 meters
- **Water rating:** IP-X6 water resistant
- **Drop rating:** 2 meters
- **Length:** 4.7"
- **Width:** 1.1" x 0.8"
- **Weight:** 2.2 oz.

P/N 66322

LED LIGHTING SOLUTIONS

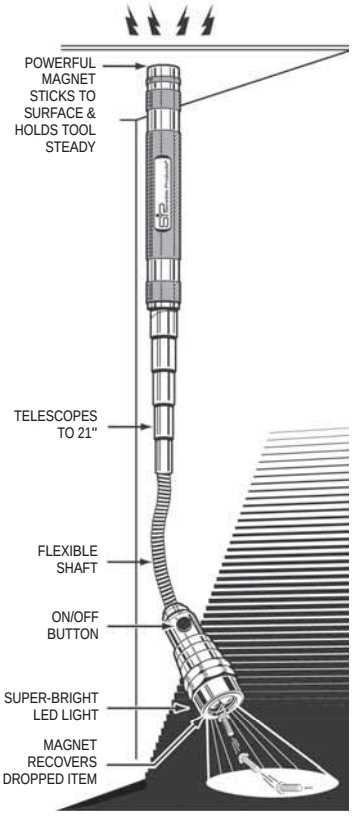
LED FLASHLIGHTS

EXTENDABLE MAGNETIC LED FLASHLIGHT

- Metal casing
- Weight: 3.5 ounces
- Magnet at light is for powerful retrieval
- Magnet on grip acts as a third hand
- 3 super-bright LEDs
- Extends from 6.5" to 21"
- Flexible shaft to access hard-to-reach places
- A pick-up tool and a flashlight
- Uses four LR44 1.5V batteries (included)
- Replacement batteries - 4 pack (P/N 29206)
- Utility holster with metal belt clip (P/N 70005)
- Magnetic inspection mirror (P/N 66349M)

Magnetic inspection mirror shown on flashlight.

P/N 66349

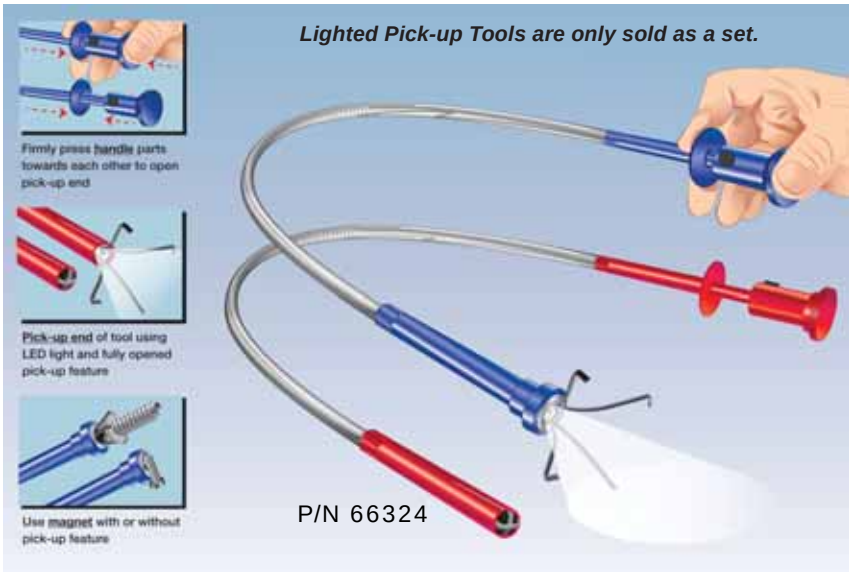


LIGHTED PICK-UP TOOLS

P/N 66324 - A SET OF 2 FLEXIBLE, LIGHTED PICK-UP TOOLS WITH DURABLE STORAGE CASE

Makes it fast and easy to find and retrieve the small object that always falls through your fingers! See and reach into awkward spaces where only the lighted pick-up tool can fit.

- The Blue Lighted Pick-up Tool is magnetic and works well when picking up metal objects.
- The Red Lighted Pick-up Tool is not magnetic and is great when a magnet would be a drawback.
- Both are flexible and made to fit into cramped spaces as well as reach around obstacles.
- Handy LED light with easy On/Off button.
- Approximately 24 inches long.
- Both tools use 3 LR-44 batteries (included). Reorder with P/N 29206 (4-pack).



LED LIGHTING SOLUTIONS

LED FLASHLIGHTS

MAGNETIC STICK LIGHT

- 7 super-bright LEDs - 75 lumens output
- Powerful magnet for flush, secure attachment
- Extra strong magnet in handle provides an extra hand as well as handy pick-up tool
- Has a pocket clip that moves 0°-180° to flood in light at every angle
- Produces a floodlight effect as well as directional
- Water resistant and rugged
- Runs more than 10 hours
- Uses 3 AAA batteries (included)
- Replacement batteries (P/N 29204)

POWERFUL!
POCKET-SIZED FLOODLIGHT

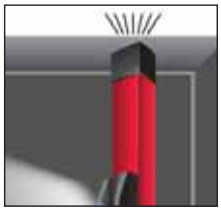
P/N 66328

Pocket clip rotates 0°-180°.

Magnetically attach to a vertical surface!

Magnetically attach to a horizontal surface!

Magnetically attach to vertical surface!



DESCRIPTION		PART
Magnetic Stick Light	A	66328
Replacement Lithium Batteries, AAA	G	29204

CLAMP LIGHT

- Spotlight – Flashlight – Floodlight – Dual-light
- 35,000 hour LED life
- 1 Spotlight LED
- 12 Floodlight LEDs
- Multi-function locking clamp
  - Stands by itself
  - Secures to round objects and flat objects
- Light reaches out in all directions
  - Light swivels 360°
  - Light tilts 180° +
- Impact & moisture resistant safety orange light housing
- Engineered polymer clamp base
- Premium AAA batteries included

Features/Specifications
- **Spotlight:** 65 lumens
- **Floodlight:** 24 lumens
- **Dual-Light:** 89 lumens
- Detachable light with magnetic base
- 2 beam Flashlight
- Run-time: Up to 18 hours

HANDS FREE!

P/N 66359

Self Standing

2 Beam Flashlight

Round Stock

Square Stock

Detachable Light with Magnetic Base

DESCRIPTION		PART
Clamp Light	A	66359

WIPE AND TOWELS

HIGH CAPACITY – ALL SURFACE CLEANING WIPES

FACILITY WIPES

Facility Wipes
Designed to clean and deodorize any surface, anywhere. They are excellent for quick and easy cleaning of equipment, furniture and facilities. Wipe down surface with fresh towel and throw towel away when finished. Good for cleaning metal, glass, tiles and ceramic.

Features and Benefits
- 800 wipes per roll
- Cleans and deodorizes surfaces on contact
- Fast and easy to use towel, one step cleaning
- Wall mounted dispenser allows convenient individual use

P/N 28235

Use With Center-Pull Dispenser (P/N 1789)
- Single-sheet release requires only one hand to tear off
- Made of tough impact resistant materials
- One of the most vandal-proof, break resistant, chemical and flame resistant products
- For heavy use applications

Applications
- Athletic clubs • Schools • Hospitals • Nursing homes • Restaurants • Health clubs • Offices

P/N 1789

DESCRIPTION		PART
Facility Wipes (800 Wipes Per Roll - 8" x 10")	A	28235
Center-Pull Dispenser	A	1789

WIPE AND TOWELS

HIGH CAPACITY – HAND TOWELS

CENTERFEED HAND TOWELS

Centerfeed Hand Towels
- 600 towels per roll
- Offers one-at-a-time service, and reduces waste
- High capacity, reduces labor and refills
- Few, or no moving parts, nothing to jam or break
- High absorbency, means less towels used
- Touch only dispensing towel reduces cross contamination
- Made from 100% recycled fiber
- Provides environmental benefits

100% Recycled

EcoLogo℠ Certified Towel, Tissue and Napkin Products

P/N 28237

Centerfeed Dispenser (P/N 1788)
- Simplify and complement any environment, providing a clean, hygienic appearance
- Our new design ensures easy and intuitive maintenance, refilling and use
- High capacity cabinets are ideal for high traffic environments
- No cross contamination from levers or cranks
- The portion control feature dispenses one towel every time
- Cabinets are simple and reliable offering low maintenance costs

Applications
- Auto shops
- Work benches
- Maintenance areas
- Offices
- Plumbing sites
- Marinas
- Break rooms
- Kitchens
- Construction sites
- Printing areas
- Painting areas
- Manufacturing

P/N 1788

DESCRIPTION		PART
Hand Towels (600 Towels Per Roll)	A	28237
Centerfeed Dispenser	A	1788

WIPE AND TOWELS

HIGH-POWERED CLEANING AND PORTABLE

SHOP WIPES (HIGH-POWERED VERSATILE CLEANER)

Designed for use in industrial and manufacturing settings, each towel is pre-moistened with a powerful cleaning formula capable of cleaning hard-working hands, as well as non-porous surfaces. Made from an abrasive, yet non-scratching fabric that helps lift away heavy deposits of grime and dirt off hands and surfaces as well as leaving behind a fresh citrus scent. Scrub surfaces with abrasive side of towel until the dirt is loosened, then use the smooth side to wipe surfaces clean and discard.

P/N 28236

Features and Benefits
- 400 wipes per roll
- High powered multipurpose cleaner
- Effective against tar, paint, wax, grease, adhesives and ink
- Abrasive, yet non-scratching fabric aids in cleaning
- Natural oils and emollients, safe for hands & skin

Use With Center-Pull Dispenser
- Offers single-sheet release
- Requires only one hand to tear off
- Made of tough impact resistant materials
- One of the most vandal-proof, break resistant, chemical and flame resistant products
- For heavy use applications

P/N 1789

Applications
- Auto shops • Work benches • Maintenance areas • Offices • Plumbing sites • Marinas
- Break rooms & kitchens • Construction sites • Printing & painting areas • Manufacturing

DESCRIPTION		PART
Shop Wipes (400 Wipes Per Roll - 8" x 12")	A	28236
Center-Pull Dispenser	A	1789

TOWELS IN A TUB

Chromate Advanced Shop Wipes with Bucket Dispenser
- Removable lid for easy on-off quick access.
- Pop top is resealable, angled and connected to water channels for maximum protection.
- Handle designed for easy portability and added convenience.
- Dispensing disk designed for single towel dispensing to reduce pilferage and lower cost-in-use.
- Plastic container is durable to protect against dry or wet chemicals.
- Stackable packaging design allows for more efficient packing and storage.

Chromate Advanced Shop Wipes Refill
- Best all purpose with cloth like softness
- Absorbs large spills and leaks
- Janitorial maintenance wiping
- Patient hygiene
- Line wiping and cleaning
- Absorbs oil and water
- Works on grease and grime
- Industrial cleaning and maintenance
- Can be used on hands and face
- 200 wipes

- **Sheet Size: 9.9" x 13.1"**
- **Tub Size: 10" x 8.5" x 9"**

DESCRIPTION		PART
Towels In A Tub with Dispenser	A	28216
Towels In A Tub – Refill	A	28217

RED LION™ CHEMICALS

CHEMICALS

SNOW & ICE MELTER

Red Lion™ Snow & Ice Melter granulars is a blend of 100% active ingredients (calcium chloride blend). This unique formula has the added benefit of all materials working together in a synergistic fashion to effectively melt snow and ice. Red Lion™ Snow & Ice Melter can be used on asphalt, concrete, granite, tile, brick, bluestone, natural flagging, pavers and pave stone.

Features

- **Pink color** to improve smooth and consistent coverage, especially during low visibility conditions
- Will not harm lawns, trees, or shrubs when used as directed
- Contains dust control and anti-caking agents
- Melts to -25°F
- Does not contain any rock salt
- Easy to apply by hand or spreader
- Safe for use in the State of California

Used by professionals for

- Commercial buildings • Residential buildings • Campuses
- Hospitals • Municipal buildings • Businesses

Applications

- Parking lots • Driveways • Sidewalks • Steps • Porches • Patios

DESCRIPTION		PART
Snow & Ice Melter, 50 lb. box	A	74608
Snow & Ice Melter, Pallet (48 boxes)	A	74608P

ICE & FROST REMOVER

Red Lion™ Ice & Frost Remover is specifically formulated to quickly dissolve ice, frost and snow deposits. Melts ice, frost and snow instantly. Use on automobiles, trucks, buses, and maintenance equipment.

Features

- Fast acting, water rinseable
- Helps prevent freezing when applied in advance
- Eliminates scraping and potential damage to glass
- Thaws frozen locks
- Works in any temperature

Applications

- Windows • Headlights • Windshields • Locks • Tires • Tail lights • Hinges • Sidewalks • Steps

DESCRIPTION		PART
Ice & Frost Remover – 13 oz.	A	74488

RED LION™ CHEMICALS

ECO-FRIENDLY CHEMICALS

CLEANERS

These Red Lion™ Eco-Friendly "Green" Chemicals meet Green Seal™ Environmental Standards for industrial and institutional cleaners and floor-care products.

In our continuing effort to offer the most environmentally preferable and effective products, we would like to introduce our Red Lion™ Eco-Friendly “Green” line of chemicals.

The products are designed to meet “Green Product” industry criteria. The standards encompass environmental impact, health effects as well as product performance. They are Environmentally Preferable Products that are formulated to perform well yet have no harmful effects on our environment or to the person using the product. We are proud to announce that Eco-Friendly Multi-Purpose Cleaner, Eco-Friendly Glass Cleaner, Eco-Friendly Tub & Tile Cleaner, Eco-Friendly Peroxide Cleaner, Eco-Friendly Zinc-Free Seal & Finish and Eco-Friendly Floor Stripper all meet specific Green Seal™ Environmental Standards.

There are laws already in place or are pending that will require the use of environmentally sensitive products in N.Y. State Buildings, N.Y.C. Municipal Buildings and all schools in N.Y. State. Although New York has taken the lead in this area, other states are sure to follow.

Perfect for use in schools, office buildings, apartment buildings, hospitals, nursing homes and other institutions where environmentally preferred products are desired.

Eco-Friendly Multi-Purpose Cleaner

A highly concentrated, multi-purpose cleaner formulated to be a H.D. Cleaner, Spray and Wipe Cleaner and a Neutral Floor Cleaner depending upon dilution. This product meets the requirements of the GS-37 Green Seal™ Standard. Provides top-tier performance for cleaning floors, walls, chrome, stainless steel, table tops, vinyl, sealed wood and many other surfaces not harmed by water.

- **Spray/wipe Cleaner:** 1:128 dilution
  1 gallon dilutes with water to make up to 512 quart bottles
- **Heavy-duty Cleaner/Degreaser:** 1:32 dilution
  1 gallon dilutes with water to make up to 128 quart bottles
- **Neutral Floor Cleaner:** 1:256 dilution
  Low suds, so it’s great for auto-scrubbers as well as mop buckets.

P/N 74067 (1 gal. Container)
P/N 74068 (5 gal. Pail)
P/N 74069 (55 gal. Drum)

Eco-Friendly Glass & Window Cleaner

A highly concentrated, glass, window and multi-purpose cleaner. It is designed to meet the requirements of GS-37, the Green Seal™ Standard for Glass Cleaner. Eco-Friendly Glass & Window Cleaner has been formulated with completely biodegradable surfactants and other naturally derived ingredients. This non-toxic glass, window and multi-purpose cleaner provides top-tier performance. It is alcohol-free, ammonia-free, non-streaking and fast drying.

- **Glass & Window Cleaner:** 1:64 dilution
  1 gallon dilutes with water to make 256 quart bottles

P/N 74070 (1 gal. Container)
P/N 74071 (5 gal. Pail)
P/N 74072 (55 gal. Drum)

RED LION™ CHEMICALS

ECO-FRIENDLY CHEMICALS

CLEANERS

These Red Lion™ Eco-Friendly "Green" Chemicals meet Green Seal™ Environmental Standards for industrial and institutional cleaners and floor-care products.

Eco-Friendly Tub & Tile Cleaner

A highly concentrated, non-corrosive, non-fuming, tub & tile cleaner. This product meets the requirements of the GS-37 Green Seal™ Standard. It is formulated with a low pH organic salt capable of replacing a wide range of traditional acids. Provides top-tier performance for cleaning tubs, tile, grout, walls, toilet bowls, urinals, shower stalls and other bathroom surfaces.

P/N 74073 (1 gal. Container)
P/N 74074 (5 gal. Pail)
P/N 74075 (55 gal. Drum)

Eco-Friendly Peroxide Cleaner

A highly concentrated, multi-purpose cleaner providing top-tier performance as a Glass Cleaner, Multi-Purpose Cleaner and a Restroom Cleaner depending upon dilution. Eco-Friendly Peroxide Cleaner meets the requirements of the GS-37 Green Seal™ Standard. It has a pleasant orange scent.

- **Spray/Wipe Cleaner:** 1:128 dilution • 1 gallon dilutes with water to make up to 512 quart bottles
- **Multi-purpose Cleaner:** 1:64 dilution • 1 gallon dilutes with water to make up to 256 quart bottles
- **Restroom Cleaner:** 1:16 dilution • 1 gallon dilutes with water to make 64 quart bottles

P/N 74076 (1 gal. Container)

Eco-Friendly Floor Stripper

A concentrated, highly effective, fast acting, low odor, floor finish and wax remover – environmentally benign but still strong enough to remove floor finishes and wax seals without the use of a floor machine. Eco-Friendly Floor Stripper meets the GS-40 Green Seal™ Standard for Floor Stripper, based on its reduced human and aquatic toxicity and reduced smog production potential. Using state-of-the-art chemistry, it provides top-tier performance without the potentially harmful effects of 2-butoxyethanol, ammonia, nonylphenol surfactants, dye or fragrance. A highly effective fast acting product with low odor.

P/N 74080 (1 gal. Container)
P/N 74081 (5 gal. Pail)
P/N 74082 (55 gal. Drum)

Eco-Friendly Zinc-Free Seal & Finish

A highly effective, low V.O.C., zinc free floor seal and finish. Eco-Friendly Zinc-Free Seal & Finish represents a new generation of floor care products. It exhibits a deep, wet-look gloss and it can be incorporated into any floor maintenance program. It meets the GS-40 Green Seal™ Standard for Floor Finish. Eco-Friendly Zinc-Free Seal & Finish contains no heavy metals, formaldehyde, ammonia or nonylphenol surfactants. High levels of zinc have been found to be toxic to aquatic life.

P/N 74077 (1 gal. Container)
P/N 74078 (5 gal. Pail)
P/N 74079 (55 gal. Drum)

Red Lion™ Blend Mate Wall Dispensers

Directions For Use

1. Hang cabinet on wall using mounting screws provided, making sure water hose will reach water source.
2. Connect black 6' water hose to upper right side of dispenser cabinet and water source.
3. Using key(s) provided, unlock cabinet.
4. Remove cap from gallon bottle of concentrate and place inside dispenser cabinet, inserting draw tube into bottle.
5. Close and lock cabinet.
6. Following direction label on front of dispenser, turn toggle switch to desired dilution strength. Insert clear plastic fill tube into spray bottle or mop bucket and push appropriate button to activate flow.

Use Blend Mate Wall Dispensers and 32 oz. Spray Bottles With The Following:

Eco-Friendly Multi-Purpose Cleaner

Meets the requirements of the GS-37 Green Seal™ Standard. Provides top-tier performance for cleaning floors, walls, chrome, stainless steel, table tops, vinyl, sealed wood and many other surfaces not harmed by water.

P/N 74067 (1 gal. Container)

Eco-Friendly Glass & Window Cleaner

Designed to meet the requirements of GS-37, the Green Seal™ Standard for Glass Cleaner. Eco-Friendly Glass & Window Cleaner has been formulated with completely biodegradable surfactants and other naturally derived ingredients. This non-toxic glass, window and multi-purpose cleaner provides top-tier performance. It is alcohol-free, ammonia-free, non-streaking and fast drying.

P/N 74070 (1 gal. Container)

Eco-Friendly Tub & Tile Cleaner

A highly concentrated, non-corrosive, non-fuming, tub & tile cleaner. This product meets the requirements of the GS-37 Green Seal™ Standard. It is formulated with a low pH organic salt capable of replacing a wide range of traditional acids. Provides top-tier performance for cleaning tubs, tile, grout, walls, toilet bowls, urinals, shower stalls and other bathroom surfaces.

P/N 74073 (1 gal. Container)

Eco-Friendly Peroxide Cleaner

A highly concentrated, multi-purpose cleaner providing top-tier performance as a Glass Cleaner, Multi-Purpose Cleaner and a Restroom Cleaner depending upon dilution. Eco-Friendly Peroxide Cleaner meets the requirements of the GS-37 Green Seal™ Standard. It has a pleasant orange scent.

P/N 74076 (1 gal. Container)

ECO-FRIENDLY CHEMICALS

DISPENSING EQUIPMENT FOR CLEANERS

Red Lion™ Blend Mate Wall Dispensers

A mounted dispenser for automatic dilution/metering of Eco-Friendly cleaners into secondary containers (32 oz. bottle or bucket fill) in ready to use form.

P/N 1822 – Peroxide Cleaner Wall Dispenser
P/N 1824 – Multi-Purpose Cleaner Wall Dispenser
P/N 1826 – Glass & Window Cleaner Wall Dispenser
P/N 1828 – Tub & Tile Cleaner Wall Dispenser

Uses

Convenient wall mount in janitors closets, housekeeping/maintenance rooms, etc.

Features

- Gray high density plastic cabinet
- Installation Materials Included: Mounting hardware, water inlet hose, 2 locking keys, appropriate metering tips installed by the factory according to product used.
- Cabinet Size: 22" high x 6-1/2" wide x 7-3/4" deep. Up to 4 cabinets can be linked together with a single cold water source.

Available Types

Eco-Friendly Glass & Window Cleaner:
- 1 button
- 32 oz. bottle
- pre-set dilution

Eco-Friendly Multi Purpose Cleaner:
- 2 button
- 32 oz. bottle & bucket fill
- 3 dilution selector

Eco-Friendly Tub & Tile Cleaner:
- 2 button
- 32 oz. bottle & bucket fill
- 3 dilution selector

Eco-Friendly Peroxide Cleaner:
- 2 button
- 32 oz. bottle & bucket fill
- 2 dilution selector

Multi Purpose Cleaner Dispenser

Glass & Window Cleaner Dispenser

Tub & Tile Cleaner Dispenser

Peroxide Cleaner Dispenser

RED LION™ CHEMICALS

ECO-FRIENDLY CHEMICALS

CLEANERS/DEGREASERS

Red Lion™ Safe-T-Line™ products are are less hazardous to the user and less damaging to the environment, while still providing all the quality and performance essential for those tough, demanding industrial applications. They are safer for the user and the environment because it does not contain harmful CFC's, chlorinated solvents, toluene or butyl. It is extremely low in V.O.C.'s and carries a level 1 NFPA 30B fire code rating (the safest storage rating for aerosol products).

***NO* CFCs (Chlorofluorocarbons)** – *Chemicals linked to ozone depletion.*

***NO* Chlorinated Solvents** – *Also linked to ozone depletion. Certain chlorinated solvents are suspected carcinogens.*

***NO* Perchloroethylene, Toluene or Butyl** – *Suspected carcinogens.*

***OZONE-SAFE* Propellant** – *Propellant has no harmful effect on ozone.*

***LOW* VOC's (Volatile Organic Compounds)** – *Carbon-containing (organic) compounds created from sources such as automobile exhaust, power plants, paints, etc. VOC's can form ground level ozone, a major component of smog.*

***NFPA 30B Level 1* Fire Code Rating** – *The National Fire Protection Association's best rating for the safe storage of aerosols.*

Engine Degreaser

P/N 74183 – 15 oz.

(High pressure spray, water rinsing)

This natural citrus cleaner/degreaser is a powerful engine degreasing formula. It cleans and degreases oil, dirt, grease, tar and adhesives.

Features:
- Superior formulation cuts through stubborn grease and oil
- High pressure spray
- Water rinsing
- Non-chlorinated
- Easy to use

Applications:
- For use on automotive engines, aluminum, stainless steel, tire whitewalls and garage floors

H.D. Citrus Cleaner/Degreaser

P/N 74145 – 18 oz.

(Powerful citrus base, biodegradable cleaner)

H.D. Citrus Cleaner is a highly concentrated cleaner and degreaser with its powerful foaming action actually lifts dirt and grease off surfaces so it can be easily wiped clean with a cloth.

Features:
- Natural citrus solvent
- Powerful foaming action
- Removes grease, oil and dirt from most surfaces
- Deodorizes with fresh citrus scent
- Biodegradable

Applications:
- For use on porcelain, formica, tiles, enamel surfaces, vinyl tops, floor mats, sinks, tubs, appliances, tools and equipment, oil and tar stains, printing presses and white wall tires

RED LION™ CHEMICALS

ECO-FRIENDLY CHEMICALS

LUBRICANT

Red Lion™ Eco-Friendly Cutting Oil "Green Aerosol" is toxin-free, petroleum distillate-free, VOC compliant, and contains no ozone depleters. Manufactured from environmentally safe, naturally derived materials and packaged in recyclable containers that are made from partially recycled steel.

What are bio-enzymatic products?
Many cleaners and industrial products contain toxins and chemicals which can cause harmful effects on the environment and human health.

Bio-enzymatic products contain strains of safe, naturally occurring bacteria and enzymes that are very efficient at breaking down and digesting organic materials and eliminating soil and odor, and do not create pollution. Instead of using man-made chemicals that use energy to produce and deplete natural resources, to clean and deodorize, Chromate uses nature's approach.

What are renewable resources products?
These products are formulated from ingredients derived from renewable agricultural sources,including citrus and soy, and are excellent alternatives to products made from traditional petroleum-based or synthetic components.

Renewable resource ingredients are constantly replenished by nature and help promote sound environmental stewardship since they don't harm the environment or expose the user to dangerous chemicals.

What are the benefits of using aerosols?
Aerosols can produce results unavailable from any other application method by controlling the particle's size, spray pattern, volume and concentration. This combination ensures that the proper amount and concentration of the product is delivered exactly where it's needed.

Additionally, aerosols are packed in sealed containers, making them spill-proof, unlike liquid products. They reduce waste because precise amounts of the product are delivered to an exact area. You can aim and spray exactly where you want to, with maximum effectiveness. Products stay fresh because no air can get in the can, giving them a long shelf-life.

Eco-Friendly Cutting Oil

A multi-purpose, low odor cutting oil formulated from all natural ingredients for light-to-medium duty applications. Keeps work pieces cooler and generates less smoke than petroluem-based cutting oils.

Suitable For:
- Cutting, Tapping, Threading, Sawing, Grinding

NO CFCS

Features:
- Reduces heat distortion and tool burning, resulting in increased productivity
- Readily biodegrades
- Non-staining on all metals
- Specially designed for field and portable operations

P/N 74084 – Net wt. 11 oz.

RED LION™ CHEMICALS

ECO-FRIENDLY CHEMICALS

BIO-LUBE "LUBRICANT/PENETRANT"

A high performance penetrant and lubricating oil for general purpose use. Formulated with the best optimized USA-grown natural seed oils and select additives, it surpasses the lubricity and performance of conventional lubricants. Loosens rusty bolts, quiets squeaky hinges and moving parts. For general purpose cutting, grinding and drilling metals, milling, tapping, and reaming.

Features

- Multipurpose lubricant and penetrant
- Loosens rusty bolts
- Quiets squeaky hinges and moving parts
- Deters water and protects from rust and corrosion
- General purpose cutting, grinding and drilling metals, milling, tapping, and reaming

Benefits

- Made from renewable USA-grown crop-based vegetable oils, better for your health
- Biobased
- Biodegradable
- Reduces foreign oil dependence
- Multiple applications – Reduces product inventory
- Superior lubricity improves productivity
- Cooler operating and less smoke – Higher operating speeds
- Safe for all metals
- Will help your business comply with ISO-14000
- Does not contain chlorine
- High flash and fire points

DESCRIPTION		PART
Bio-Lube Spray Bottle, 2 oz.	J	74266
Bio-Lube Spray Bottle, 8 oz.	F	74267

RED LION™ CHEMICALS

FOR COLOR CODING APPLICATIONS

PAINTS AND COATINGS

P/N 74190 – Red
P/N 74194 – Yellow
P/N 74196 – Green
(All OSHA Paints 15.25 oz.)

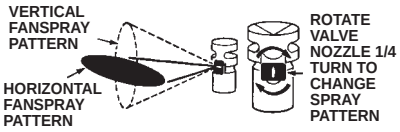
OSHA Color Industrial Enamel Paints

(Extremely tough, corrosion resistant, fast drying, acrylic enamel paints)

Provide maximum coverage for marking and color coding pipe lines, electrical equipment, safety equipment, emergency equipment, conduit, tools, motors, ducting and sheet metal. The tough protective coating resists corrosion, chipping and peeling and our unique SprayPro™ nozzle makes application easy in both horizontal and vertical positions.

Features:

- One coat coverage
- Protects against rust and corrosion
- Use on metal and wood
- Leaves a durable, protective finish
- Dries fast
- SprayPro™ nozzle



Color Coding Applications:

Even though the Occupational Safety and Health Administration (OSHA) has eliminated the specific color definitions and detailed requirements for Safety Color Coding, the following suggested color scheme has been utilized and accepted throughout the industry. The marking of physical hazards should never take the place of eliminating those hazards when possible, and proper employee training in the recognition of these colors and their respective warnings is imperative.

- **RED** is used to mark fire protection equipment such as alarm boxes, extinguishers, fire blankets and doors, hose connections, hydrants and sprinkler piping. It can also be used on emergency stop bars on hazardous machinery or stop buttons and electrical switches.

- **YELLOW** is used to color code dangerous materials such as flammable liquids, poisonous gases, corrosive liquids (acids and alkalis) and steam, water or air at high temperatures and/or pressures. It can also be used to highlight handrails.

- **GREEN** is used to color code relatively safe materials such as drinking water, service water, brine, syrups or glycols. It can also be used to mark the location of First Aid equipment such as kits, dispensary, stretchers and safety showers.

RED LION™ CHEMICALS

FOR OUTDOOR SAFETY APPLICATIONS

STRIPING AND MARKING PAINTS

(Dependable performance in a wide range of marking applications)

These Striping and Marking Paints are formulated to address today's environmental concerns while providing efficient and dependable performance in a wide range of marking applications. From utilities and construction to recreational and maintenance applications, we offer a striping product suited to your needs.

- **GOLF COURSE MARKER** – a **16 oz.** water-base marker for use on golf courses and other porous applications. Formulated not to harm grass, this marker is not water-soluble and will not wash away during rain or irrigation. This marker comes with the "Converta-Cap", a specially designed protective cover that does not need to be removed before using.
- **ATHLETIC FIELD MARKER** – A specially formulated **20 oz.** water-base paint that will not harm grass and is not water soluble for maximum durability.
- **INVERTED TIP MARKER** – A heavy-duty, **20-oz.** water-base industrial marker. The no-clog, fast drying formula is available in a full range of construction and APWA colors. This marker also comes with the "Converta-Cap". This provides the user with a convenient marking tool without the worry of accidentally spraying. The new spray tip provides crisp lines up to 4" wide and approximately 250 feet in length.
- **TRAFFIC MARKER** – A **20-oz.** water-base paint formulated with high pigment solids ideally suited for a wide range of applications including concrete, blacktop, gravel or dirt. Not affected by water.

Applications:

ATHLETIC MARKER PRODUCTS

For grass and turf applications
- Recreational school fields
- Rental yards
- Golf courses
- Nurseries
- Paving contractors
- Landscaping
- Home landscaping layouts

TRAFFIC MARKER PRODUCTS

For asphalt and concrete applications
- School Parking Lots and Playgrounds
- Apartment complexes
- Churches
- Rental yards
- Golf courses
- Paving contractors
- Water/Sewer lines
- Hotels
- Public works municipal projects

For applicator tools, see next page.

GOLF COURSE MARKER
- Inverted-Straight Nozzle – 16 oz.
  P/N 74050 – White
  P/N 74051 – Red

ATHLETIC FIELD MARKER
- "T" Type Nozzle – 20 oz.
  P/N 74052 – White
  P/N 74053 – Orange

INVERTED TIP MARKER
- Inverted-Straight Nozzle – 20 oz.
  P/N 74004 – Purple
  P/N 74054 – White
  P/N 74055 – Flourescent Red
  P/N 74056 – Flourescent Orange
  P/N 74057 – Precaution Blue
  P/N 74058 – Alert Orange
  P/N 74059 – Safety Red
  P/N 74060 – Flourescent Green
  P/N 74061 – Flourescent Hot Pink
  P/N 74062 – Utility Yellow

TRAFFIC MARKER
- T-Type Nozzle – 20 oz.
  P/N 74063 – White
  P/N 74064 – Yellow
  P/N 74065 – Red
  P/N 74066 – Handicap Blue

RED LION™ CHEMICALS

FOR OUTDOOR SAFETY APPLICATIONS

STRIPING AND MARKING PAINTS – APPLICATORS

Traffic Marking Machine

P/N 1810

Designed exclusively for Traffic Striping Marker Paints. Applies clean, crisp even stripes or marks from 2” to 4”. Use on porous surfaces ranging from asphalt to concrete.

Marking Wand

P/N 1812

Easy loading. Machine is ready to use and requires no accessories. 33” overall extension and light touch makes marking simple and accurate. Nickel zinc plating makes it durable and corrosion resistant. Great for golf courses, utilities, surveyors, contractors and more.

Athletic Marking Machine

P/N 1811

Designed with larger wheels and to be used exclusively with Athletic Field Striping Paints only. Ready to use and requires no accessories. Allows applications of lines up to 2" to 4" on athletic fields or other turf surfaces.

Traffic Marking Applicator

P/N 1809

Designed for heavy-duty paint application where a wider stripe is required. For use on concrete, asphalt and athletic fields. Easy loading, with light touch control that makes marking simple and accurate.

Use with all 20 oz. Traffic or Athletic Marker Paints only.

RED LION™ CHEMICALS

SPECIALIZED SAFETY COATINGS

PAINTS AND COATINGS

Non-Conductive Paint

P/N 74029 – 16 oz.

(Maintains Non-conductivity Coating Integrity)

Features:
- Glossy white
- Single coat hiding power
- Resists:
  - Fading
  - Chipping
  - Peeling
  - Cracking
  - Corrosion
- High opacity
- Great durability
- Lead-free formulation

Applications:
- Bucket trucks
- Buckets
- Utility bodies
- Utility contractors
- Power companies
- Fire departments
- Scaffolding coating
- Tops of ladders & hooks
- Power boxes

Rust-Away II Rust Converter

P/N 74701 – 15 oz.

(Converts rust to a tough protective coating)

Features:
- Specially formulated to convert rusted metal surfaces to a tough, black protective coating.
- No priming or sanding and won't crack, chip or peel
- Forms an airtight protective seal
- Stops rust dead in its tracks
- Weather and chemical resistant
- Paintable

Applications:
- Protects transformers, coils, tools, fixtures, brackets, equipment, heavy machinery, chain link fences and hundreds of other applications.

Rust-Away™ Rust Conversion Coating

P/N 74157 – 32 oz.
P/N 74555 – 1 gal.

(Flexible latex coating – chemically converts rust)

Features:
- Chemically converts rust to a long lasting weather and chemical resistant coating
- This water-based formulation is easily applied like paint and stops rust dead in its tracks
- The flexible latex acrylic coating is specially formulated for rusted metal surfaces
- No priming or sanding and won't crack, chip or peel
- Forms an airtight seal
- Flexible latex coating lasts for years

Applications:
- Protects transformers, coils, tools, fixtures, brackets, equipment, heavy machinery, chain link fences and hundreds of other applications.
- Bonds to metal, wood, concrete and plastics without primers.

SPILL CONTAINMENT

BASIC AND OIL ONLY

SORBENT PADS, ROLLS AND BOOM

Fine Fiber Meltblown Pads and Rolls

- Top and bottom layers of fine fiber are built of densely-woven, small-diameter strands of fiber to increase surface area, enabling the mat to grip the floor and secure it for safe walking
- A 3-ply construction with a layer of melt blown polypropylene ultrasonically sandwiched between two fine fiber layers makes this mat virtually indestructible to foot traffic
- Polypropylene fibers creates a high-loft inner layer

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28310*	Medium Weight Pads, Gray	15" x 19"	21 Gallons	100/Box	13 lbs.
28311	Double Weight Roll, Gray	30" x 150'	50 Gallons	1 Roll	29 lbs.
28312	Single Weight Roll, Gray	30" x 300'	50 Gallons	1 Roll	30 lbs.

Bonded Meltblown Pads and Rolls – For Oil Only

- Twin bonded layers of melt blown polypropylene creates high surface area
- The mat sucks up liquid quickly and keeps its shape when fully saturated
- Twin layered random assembly of large diameter melt blown polypropylene fibers creates a high loft inner layer
- Ultrasonic weld points fuse the layers of melt blown polypropylene fibers together

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28313	Double Weight Pads, White	15" x 19"	30 Gallons/Bale	100/Bale	15 lbs.
28314	Double Weight Roll, White	30" x 150'	56 Gallons/Roll	1 Roll	29 lbs.
28315	Single Weight Roll, White	30" x 300'	59 Gallons/Roll	1 Roll	30 lbs.

Standard Meltblown Pads – For Oil Only

- Loose stacked-weave construction increases surface area on spill
- Starts absorbing on contact
- Fibers are left in their natural hydrophobic state
- Hydrophobic fibers repel water (and float) while only absorbing oils and other hydrocarbons

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28316*	Double Weight Pads, White	15" x 19"	34 Gallons/Bale	100/Bale	15 lbs.
28317*	Medium Weight Pads, White	15" x 19"	27 Gallons/Bale	100/Bale	12 lbs.
28318	Single Weight Pads, White	15" x 19"	36 Gallons/Bale	200/Bale	16 lbs.

Booms – For Oil Only

- Strong mesh outer skin encases a poly sock sleeve filled with highly sorbent polypropylene
- Filler won't shed and booms won't sink, even when saturated with oil
- Built in connectors link booms together

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28319	Lint-Free Absorbent Boom, White	5" x 10'	35 Gallons/Bale	4 Booms/Bale	24 lbs.

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

OIL ONLY, UNIVERSAL AND HAZMAT

SORBENT SOCKS AND SPILL KITS

Sorbent Socks – For Oil-Only

- Ideal for surrounding spilled fluids to keep them from spreading
- Easy and convenient to put into place
- Conforms to the base of leaky machines
- Fits snugly to absorb leaking fluids before they spread to walk areas and become slippery hazards

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28320	Oil-Only Absorbent Sock, White	3" x 4'	30 Gallons/Case	30 Socks/Case	35 lbs.
28321	Oil-Only Absorbent Sock, White	3" x 8'	30 Gallons/Case	15 Socks/Case	35 lbs.

Sorbent Socks – Universal/Maintenance

- Ideal for surrounding spilled fluids to keep them from spreading
- Easy and convenient to put into place
- Conforms to the base of leaky machines
- Fits snugly to absorb leaking fluids before they spread to walk areas and become slippery hazards

Part No.	Description	Size	Sorbent Capacity	Packaging	Weight
28322	Universal Absorbent Sock, Gray	3" x 4'	30 Gallons/Case	30 Socks/Case	35 lbs.
28323	Universal Absorbent Sock, Gray	3" x 8'	30 Gallons/Case	15 Socks/Case	35 lbs.

Spill Kits – Oil Only, Universal & Hazmat

- Everything you need for a complete and thorough clean up of a large industrial spill
- Screw on lid makes a tight, secure seal ensuring a secure and leak free transport to a disposal site
- 65 gallon and 95 gallon spill kits are DOT approved

Part No.	Description	Type	Sorbent Capacity	Weight
28336	30 Gallon Drum Spill Kit, Blue	Oil-Only	18 Gallons	31 lbs.
28337	30 Gallon Drum Spill Kit, Blue	Universal	18 Gallons	31 lbs.
28338	30 Gallon Drum Spill Kit, Blue	Hazmat	18 Gallons	31 lbs.
28336REFILL	30 Gallon Drum Spill Kit Refill	Oil-Only	18 Gallons	17 lbs.
28337REFILL	30 Gallon Drum Spill Kit Refill	Universal	18 Gallons	17 lbs.
28338REFILL	30 Gallon Drum Spill Kit Refill	Hazmat	18 Gallons	17 lbs.
28333	55 Gallon Drum Spill Kit, Blue	Oil-Only	44 Gallons	55 lbs.
28334	55 Gallon Drum Spill Kit, Blue	Universal	44 Gallons	55 lbs.
28335	55 Gallon Drum Spill Kit, Blue	Hazmat	44 Gallons	55 lbs.
28333REFILL	55 Gallon Drum Spill Kit Refill	Oil-Only	44 Gallons	29 lbs.
28334REFILL	55 Gallon Drum Spill Kit Refill	Universal	44 Gallons	29 lbs.
28335REFILL	55 Gallon Drum Spill Kit Refill	Hazmat	44 Gallons	29 lbs.
28330	65 Gallon Overpack Spill Kit, Yellow	Oil-Only	46 Gallons	85 lbs.
28331	65 Gallon Overpack Spill Kit, Yellow	Universal	46 Gallons	85 lbs.
28332	65 Gallon Overpack Spill Kit, Yellow	Hazmat	46 Gallons	85 lbs.
28330REFILL	65 Gallon Overpack Spill Kit Refill	Oil-Only	46 Gallons	38 lbs.
28331REFILL	65 Gallon Overpack Spill Kit Refill	Universal	46 Gallons	38 lbs.
28332REFILL	65 Gallon Overpack Spill Kit Refill	Hazmat	46 Gallons	38 lbs.
28327	95 Gallon Overpack Spill Kit, Yellow	Oil-Only	73 Gallons	90 lbs.
28328	95 Gallon Overpack Spill Kit, Yellow	Universal	73 Gallons	90 lbs.
28329	95 Gallon Overpack Spill Kit, Yellow	Hazmat	73 Gallons	90 lbs.
28327REFILL	95 Gallon Overpack Spill Kit Refill	Oil-Only	73 Gallons	40 lbs.
28328REFILL	95 Gallon Overpack Spill Kit Refill	Universal	73 Gallons	40 lbs.
28329REFILL	95 Gallon Overpack Spill Kit Refill	Hazmat	73 Gallons	40 lbs.

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

OIL ONLY, UNIVERSAL, HAZMAT AND ACIDS/CAUSTICS

SPILL KITS

Spill Cart on Wheels – Oil Only, Universal & Hazmat

- Developed to contain spills over 100 gallons
- 4'' rubber casters allow for maximum mobility across a plant floor to quickly respond to a spill
- Refills are also available for large spill carts

Part No.	Description	Type	Sorbent Capacity	Weight
28324	Large Spill Kit On Wheels, White	Oil-Only	108 Gallons	170 lbs.
28325	Large Spill Kit On Wheels, White	Universal	108 Gallons	170 lbs.
28326	Large Spill Kit On Wheels, White	Hazmat	108 Gallons	170 lbs.
28324REFILL	Large Spill Kit On Wheels Refill	Oil-Only	108 Gallons	85 lbs.
28325REFILL	Large Spill Kit On Wheels Refill	Universal	108 Gallons	85 lbs.
28326REFILL	Large Spill Kit On Wheels Refill	Hazmat	108 Gallons	85 lbs.

Spill Kit in Zipper Poly Bag – Oil Only & Universal

- Use around the shop or in a vehicle
- Kit allows a worker or driver to act quickly when responding to a spill
- Compact enough to fit easily in a truck cab

Part No.	Description	Type	Sorbent Capacity	Weight
28339	Poly Bag Spill Kit – Clear Poly	Oil-Only	5 Gallons	6 lbs.
28340	Poly Bag Spill Kit – Clear Poly	Universal	5 Gallons	6 lbs.

Spill Kit for Acids/Caustics – 5 Gallons

- Ideally used in battery shops or any area prone to leaking caustics.
- Kit Contains:
  - (1) Pail
  - (1) Two lb. Shaker of Neutralizers
  - (5) Acid Absorbing Pads, 15'' x 19''
  - (2) Socks
  - (2) Disposable Bags with Ties
  - (1) Scoop
  - (1) Pair of Goggles
  - (1) Pair of Nitrile Gloves

Part No.	Description	Size	Type	Sorbent Capacity	Weight
28341	Acid Spill Kit	–	Acid/Caustics	5 Gallons	9 lbs.
28342	Acid Absorbing Pads	15'' x 19''	Acid/Caustics	5 Gallons	–

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

DRUM PALLETS

SPILL PALLETS

Spill Pallet – 1 Drum

• Great for safely storing a single 55 gallon drum

Part No.	Description	Pallet Size	Containment	Weight
28350	1 Drum Spill Pallet	26" L x 26" W x 6.5" H	15 Gallons	16 lbs.

Spill Pallet (Low Profile) – 2 Drum

• Store two 55 gallon drums without worrying about spills or leaks

Part No.	Description	Pallet Size	Containment	Weight
28351	2 Drum Spill Pallet	26.25" L x 51.5" W x 6.5" H	32 Gallons	32 lbs.
28356	Poly Ramp	45.5" L x 32" W x 8" H	–	32 lbs.

Spill Pallet (High Profile) – 2 Drum

SPCC COMPLIANT

• Store two 55 gallon drums without worrying about spills or leaks
• SPCC compliant, so you can be sure that your facility will remain clean and safe

Part No.	Description	Pallet Size	Containment	Weight
28352	2 Drum Spill Pallet	26.25" L x 51.5" W x 15" H	68 Gallons	54 lbs.

Spill Pallet (Low Profile) – 4 Drum

SPCC COMPLIANT

• Designed for facilities storing multiple drums on location
• SPCC compliant, so you can be sure that your facility will remain clean and safe

Part No.	Description	Pallet Size	Containment	Weight
28353	4 Drum Spill Pallet	51.5" L x 51.5" W x 10" H	62 Gallons	65 lbs.
28356	Poly Ramp	45.5" L x 32" W x 8" H	–	32 lbs.

Spill Pallet (In-Line) – 4 Drum

SPCC COMPLIANT

• Designed for facilities storing multiple drums on location
• SPCC compliant, so you can be sure that your facility will remain clean and safe

Part No.	Description	Pallet Size	Containment	Weight
28354	4 Drum Spill Pallet	106" L x 30.25" W x 6.75" H	63 Gallons	74 lbs.
28356	Poly Ramp	45.5" L x 32" W x 8" H	–	32 lbs.

Spill Pallet (High Profile) – 4 Drum

SPCC COMPLIANT

• Designed for facilities storing multiple drums on location
• SPCC compliant, so you can be sure that your facility will remain clean and safe

Part No.	Description	Pallet Size	Containment	Weight
28355	4 Drum Spill Pallet	26.25" L x 51.5" W x 15" H	98 Gallons	88 lbs.

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.
SPCC compliant: Drum pallet must contain 110% of the largest container on pallet.

SPILL CONTAINMENT

STORAGE AND GROUNDING WIRES

SAFETY CABINETS

45 gallon flammable

60 gallon flammable

30/45/60 Gallon Flammable Storage Cabinets

- Safely store combustible fluids that must be stored away from any open flames or electricity
- Store up to 60 gallons
- Available in manual or self close and with one or two shelves
- Bright yellow for visibility
- 2 Doors
- 1 Shelf models – 4 gal. / 30 gal. *(not shown)*
- 2 Shelf models – 45 gal. / 60 gal.

Part No.	Description	Cabinet Size	Capacity	Weight
28362	Storage Cabinet (Self Close) – 2 Shelf	31.25" L x 31.25" W x 65" H	60 Gallons	364 lbs.
28363	Storage Cabinet (Manual Close) – 2 Shelf	31.25" L x 31.25" W x 65" H	60 Gallons	364 lbs.
28364	Storage Cabinet (Manual Close) – 2 Shelf	43" L x 18" W x 65" H	45 Gallons	353 lbs.
28365	Storage Cabinet (Self Close) – 2 Shelf	43" L x 18" W x 65" H	45 Gallons	353 lbs.
28366	Storage Cabinet (Manual Close) – 1 Shelf	43" L x 18" W x 44" H	30 Gallons	257 lbs.
28367	Storage Cabinet (Manual Close) – 1 Shelf	17.5" L x 18" W x 22.5" H	4 Gallons	70 lbs.

40 gallon paint and ink

60 gallon paint and ink

40/60 Gallon Paint and Ink Storage Cabinets

- Safely store up to 60 gallons of paint or ink in these cabinets
- 3 shelf model – 40 gal.
- 5 shelf model – 60 gal.

Part No.	Description	Cabinet Size	Capacity	Weight
28360	Storage Cabinet (Manual Close) – 3 Shelf	43" L x 18" W x 44" H	40 Gallons	281 lbs.
28361	Storage Cabinet (Manual Close) – 5 Shelf	43" L x 18" W x 65" H	60 Gallons	389 lbs.

Grounding Wires for Storage Cabinets

- These wires provide maximum protection against any static electricity or sparks that may cause ignition of fuels, paints or inks
- Helps comply with Uniform Fire Code, Division VIII, Section 79.803
- Used to prevent sparking around flammable or combustible liquids, when used in combination with safety cabinets

Part No.	Description	Length	Weight
28368	Bonding Wires, Silver	3'	1 lb.

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SPILL CONTAINMENT

RAILROAD AND UNIVERSAL

SPECIALTY SPILL ABSORBENTS

Track Mat – Oil Only Railroad Containment Absorbent

- For preventing or controlling oil spills, leaks and drips
- 3-ply construction includes an oil only polypropylene core, surrounded by an impenetrable barrier film that prevents absorbed liquids from leaching out
- Has a UV resistant cover-stock, providing an outdoor life of 12 to 18 months
- Capable of absorbing nearly 3 gallons of oil or other petroleum products per square yard
- Originally designed for use between and on the outside of RR tracks
- Used by transportation companies, utilities, refineries, and steel mills

Part No.	Description	Size	Packaging
28226	Track Mat Inner Roll	59" W x 100' L	1
28227	Track Mat Outer Roll	19" W x 100' L	2

CAUTION: Cannot be used to absorb Hydrofluoric Acid (HF).

Chromagic – Universal Spill Absorbent

- One absorbent for multiple types of spills
- Non-toxic & Non-flammable
- Environmentally safe and friendly
- 15 times more absorbent than clay based products
- Lightweight – Up to 20 times lighter than clay based products
- Will save money on shipping, storing and disposal
- Instant clean up saves time
- Meets or exceeds all OSHA and EPA requirements
- Unlike kitty litter products that contain “Crystalline” Silica, Chromagic does not, under OSHA standards, qualify as a carcinogen, or as a substance causing silicosis, a lung disease
- Less accidents, It picks up oily sheen – Reduce Workers’ Compensation
- One pound of Chromagic can completely absorb one quart of motor oil; clay, earth, and sand products require 15 pounds of material
- Works on all animal, vegetable, mineral, petroleum based or semi-liquid spills
- Non-injurious to most surfaces including cement, asphalt, tile, and carpet

Part No.	Description	Size	Packaging
28234	Chromagic Spill Absorbent	0.15 cu. ft.	2

Quik-Zorb™ Spill Absorbent

P/N 74189 – 16 oz.

Features:

- Instantly "gels" all water-based chemical spills
- Instantly "gels" human and animal bodily fluids; including blood, urine and vomit
- Turns liquid biohazards into sweepable, flushable gel **/** Biodegradable – can be flushed
- Works on hard surfaces and carpet
- Absorbs over 100 times its weight, allowing quick and easy cleanup of spills
- Deodorizes with a fresh mint odor counteractant fragrance
- USDA approved
- V.O.C. compliant – contains no VOC's or ozone depleting chemicals

Applications:

- Industrial plants • Processing plants • Plumbing contractors • hospitals • Nursing homes
- Day care centers • Athletic clubs • Schools/Offices • School buses • Laboratories • Restaurants
- Shopping centers • Taverns • Airlines • Cruise liners • Public transportation • Ambulance services
- Taxi cabs/Watercraft • Pet stores • Kennels • Veterinarians • Jail cells • Waste haulers

SPILL CONTAINMENT

ONE-PIECE SECONDARY CONTAINMENT BERMS

SNAP UP BERMS, GROUND TARPS AND TRACK BELTS

One-piece secondary containment berm is easily deployed and set up by one or more people
- Deploys in minutes
- Drive in and use
- Snap-up leg supports; manufactured using high tensile patented, unbreakable, non-sparking co-polymer rods
- Leg supports snap into place creating strong dependable side walls
- Leg supports are permanently attached to containment berm

Features
- No difficult assembly
- No air needed
- Stores in a compact shippable size
- Resistant to corrosive solvents
- Long lasting
- Heavy durable fully fuel resistant to all EPA regulations for secondary containment
- High level UV standards

Ground Tarp
- 30 mils minimum reinforced fabric
- High abrasion resistance
- Puncture resistant
- Specially designed to be driven over
- Adds protection from rough sub grades
- Allows the berm systems to be deployed in almost any terrain

Track Belts
- Gives added protection for tire tracks onto and over containment berms and other areas in need of protection
- Heavy duty vinyl coated polyester core
- Rolls out ready to use

Part No.	Description	Liquid Capacity	For Size
9-STC-1010-12	Berm	750 Gallons	10' x 10' x 12"
9-STC-TB-3-10	Track Belt Set	–	10' x 10' x 12"
9-STC-GT-1010	Ground Tarp	–	10' x 10' x 12"
9-STC-1236-12	Berm	3,240 Gallons	12' x 36' x 12"
9-STC-TB-3-36	Track Belt Set	–	12' x 36' x 12"
9-STC-GT-1236	Ground Tarp	–	12' x 36' x 12"
9-STC-1260-12	Berm	5,400 Gallons	12' x 60' x 12"
9-STC-TB-3-60	Track Belt Set	–	12' x 60' x 12"
9-STC-GT-1260	Ground Tarp	–	12' x 60' x 12"
9-STC-1466-12	Berm	6,930 Gallons	14' x 66' x 12"
9-STC-TB-3-66	Track Belt Set	–	14' x 66' x 12"
9-STC-GT-1466	Ground Tarp	–	14' x 66' x 12"

* Stock item. For all other part numbers, please allow up to 10 days after receipt of order for delivery.

SAFETY ACCESSORIES

MISCELLANEOUS – SAFETY CENTER

MSDS SAFETY SHELF / MSDS BINDER / HAZARDOUS MATERIALS POSTERS

MSDS Safety Shelf

- Holds up to three binders
- Wall Mountable
- 3 pierced holes for chain attachments
- Exterior Dimensions:
  20" H x 37-1/2" W x 14" D
- Shipping weight: 32 lbs.

P/N 50024

P/N 85199

MSDS Binder

- 1-1/2" ring – yellow
- Made from .055 gauge polyethylene
- Durable, yet lightweight
- Bright yellow poly with black imprint provides high visibility
- Top quality 1-1/2" capacity 3-ring (metal), with opening and closing boosters
- Holds approximately 300 sheets of 20# bond – 8.5" x 11" paper

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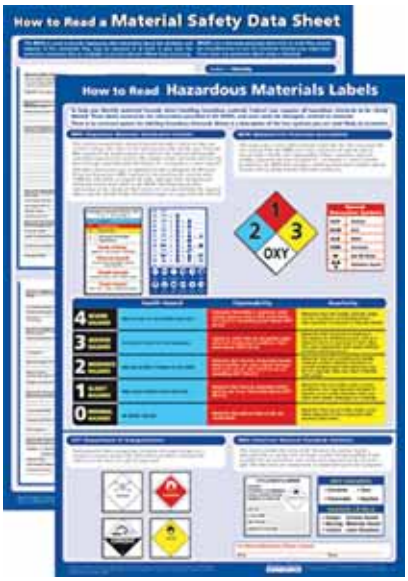
Hazardous Material Posters (2)

- Heavy duty laminated posters
- One poster instructs employees on how to read a MSDS
- The second poster instructs employees on how to read hazardous material labels
- Poster size: 18" W x 26" H



P/N 200147

P/N 17033

Get all of these great safety items in one shot with the Safety Center (P/N 17033). Or order each item separately using the individual part numbers.

Under Federal law, you may be required to have a Material Safety Data Sheet (MSDS) on file for every chemical used at your place of business.

Keep your Material Safety Data Sheets organized and readily accessible with our top quality MSDS Binders.

Employees who don't understand how to handle hazardous materials properly are a risk to themselves and others.

An overly technical MSDS and different labeling systems can add to the confusion. Help your workers understand all of the technical terms and label symbols so they can work safely.

TORQUE SPECS - CAP SCREWS

HEX HEAD (FT. LBS.)								HEX SOCKET (FT. LBS.)						
SIZE	CIC 200		GRADE 8		GRADE 5		WRENCH SIZE	SOCKET	HEX KEY SIZE	BUTTON	HEX KEY SIZE	FLAT	HEX KEY SIZE	SIZE
	HEX NUT	LOCKNUT	HEX NUT	LOCKNUT	HEX NUT	LOCKNUT								
1/4-20	10	8	7	6	5	4	7/16	17	3/16	125	5/32	140	5/32	**1/4-20**
1/4-28	12	8	9	6	6	4	7/16	19	3/16	125	5/32	140	5/32	**1/4-28**
5/16-18	20	17	15	12	10	9	1/2	35	1/4	200	3/16	245	3/16	**5/16-18**
5/16-24	22	17	17	12	12	9	1/2	38	1/4	200	3/16	245	3/16	**5/16-24**
3/8-16	36	30	26	22	19	15	9/16	62	5/16	360	7/32	400	7/32	**3/8-16**
3/8-24	41	30	30	22	21	15	9/16	70	5/16	360	7/32	400	7/32	**3/8-24**
7/16-14	58	48	42	35	30	25	11/16	100	3/8	—	1/4	600	1/4	**7/16-14**
7/16-20	65	48	47	35	33	25	11/16	109	3/8	—	1/4	600	1/4	**7/16-20**
1/2-13	87	74	64	53	45	38	7/8	150	3/8	1000	5/16	1200	5/16	**1/2-13**
1/2-20	100	74	72	53	51	38	7/8	172	3/8	1000	5/16	1200	5/16	**1/2-20**
9/16-12	125	106	92	77	66	54	13/16	—	—	—	—	—	—	**9/16-12**
9/16-18	140	106	102	77	72	54	13/16	—	—	—	—	—	—	**9/16-18**
5/8-11	175	147	127	106	90	75	15/16	283	1/2	1750	3/8	2000	3/8	**5/8-11**
5/8-18	200	147	144	106	100	75	15/16	317	1/2	1750	3/8	2000	3/8	**5/8-18**
3/4-10	310	260	226	188	160	133	1-1/8	500	5/8	—	1/2	4000	1/2	**3/4-10**
3/4-16	345	260	252	188	180	133	1-1/8	562	5/8	—	1/2	4000	1/2	**3/4-16**
7/8-9	500	415	364	303	260	197	1-5/16	688	3/4	—	9/16	6000	9/16	**7/8-9**
7/8-14	590	415	400	303	285	197	1-5/16	767	3/4	—	9/16	6000	9/16	**7/8-14**
1 - 8	750	620	545	455	390	295	1-1/2	1040	3/4	—	5/8	8500	5/8	**1 - 8**
1 - 14	810	620	597	455	435	295	1-1/2	1080	3/4	—	5/8	8500	5/8	**1 - 14**
1-1/8 - 7	1050	885	773	644	480	397	1-11/16	—	—	—	—	—	—	**1-1/8 - 7**
1-1/8 - 12	1170	885	866	644	540	397	1-11/16	—	—	—	—	—	—	**1-1/8 - 12**
1-1/4 - 7	1500	1250	1090	908	670	560	1-7/8	2080	7/8	—	—	—	—	**1-1/4 - 7**
1-1/4 - 12	1650	1250	1207	908	745	560	1-7/8	2310	7/8	—	—	—	—	**1-1/4 - 12**
1-3/8 - 6	1950	1640	1430	1190	880	734	2-1/16	—	—	—	—	—	—	**1-3/8 - 6**
1-3/8 - 12	2220	1640	1627	1190	1000	734	2-1/16	—	—	—	—	—	—	**1-3/8 - 12**
1-1/2 - 6	2600	2175	1897	1580	1170	975	2-1/4	3625	1	—	—	—	—	**1-1/2 - 6**
1-1/2 - 12	2900	2175	2134	1580	1320	975	2-1/4	4080	1	—	—	—	—	**1-1/2 - 12**

NOTES: *The above lubricated torque values are recommended assembly specifications for the various grades of Chromate fasteners with the following guidelines:*

1. *Torque values for hex head cap screws are for turning the nut while holding the head of the cap screw with a wrench. In applications where access to the nut is limited, increase the torque value by 20% for tightening by the cap screw head.*
2. *Lubricated torque values are based on using Chromate's RED LION Anti-Seize Compound (P/N's 74118 or 74407) to the threads prior to assembly.*

CAUTION: *The above data should only be used as a reference guide. The proper torque can only be determined by analyzing the design parameters which include temperature, plating, lubrication, etc. Short time tensile, creep and stress relaxation should be considered for applications where the temperature exceeds 400°F (204°C). Lower ductility, impact strength and fatigue life must be considered for screws subject to temperatures below -20°F (-29°C). All socket screw products are class 3A fit except size 1-1/4" and larger which are class 2A fit.*

TORQUE SPECS - METRIC CAP SCREWS

HEX HEAD (FT. LBS.)				HEX SOCKET (FT. LBS.)						
SIZE	10.9	8.8	WRENCH SIZE	SOCKET	HEX KEY SIZE	BUTTON	HEX KEY SIZE	FLAT	HEX KEY SIZE	SIZE
3mm x 0.5	1.3	0.9	5.5	1.7	2.5	0.9	2	1.4	2	**3mm x 0.5**
4mm x 0.7	3.0	2.1	7	4.0	3	2.1	2.5	2.5	2.5	**4mm x 0.7**
5mm x 0.8	6.0	4.2	8	8.2	4	4.4	3	5.1	3	**5mm x 0.8**
6mm x 1	10.3	7.3	10	14	5	7.4	4	8.9	4	**6mm x 1**
7mm x 1	17	12	11	—	—	—	—	—	—	**7mm x 1**
8mm x 1.25	25	18	13	33	6	18	5	21	5	**8mm x 1.25**
8mm x 1.00	25	18	13	—	—	—	—	—	—	**8mm x 1.00**
10mm x 1.5	49	35	16	66	8	35	6	41	6	**10mm x 1.5**
10mm x 1.25	50	36	16	—	—	—	—	—	—	**10mm x 1.25**
12mm x 1.75	86	61	18	112	10	62	8	73	8	**12mm x 1.75**
12mm x 1.25	92	64	18	—	—	—	—	—	—	**12mm x 1.25**
14mm x 2	136	97	21	180	12	98	10	115	10	**14mm x 2**
14mm x 1.5	143	103	21	—	—	—	—	—	—	**14mm x 1.5**
16mm x 2	210	147	24	280	14	153	10	181	10	**16mm x 2**
16mm x 1.5	217	154	24	—	—	—	—	—	—	**16mm x 1.5**
18mm x 2.5	287	202	27	398	14	—	—	254	12	**18mm x 2.5**
18mm x 1.5	313	224	27	—	—	—	—	—	—	**18mm x 1.5**
20mm x 2.5	405	287	30	559	17	—	—	295	12	**20mm x 2.5**
20mm x 1.5	442	313	30	—	—	—	—	—	—	**20mm x 1.5**
22mm x 2.5	549	390	32	754	17	—	—	481	14	**22mm x 2.5**
22mm x 1.5	590	420	32	—	—	—	—	—	—	**22mm x 1.5**
24mm x 3	708	497	36	967	19	—	—	609	14	**24mm x 3**
24mm x 2	737	531	36	—	—	—	—	—	—	**24mm x 2**
30mm x 3.5	1401	995	46	1883	22	—	—	—	—	**30mm x 3.5**

NOTES: *The above (non-lubricated) torque values are recommended assembly specifications for the various grades of Chromate fasteners with the following guidelines:*

1. *Torque values for hex head cap screws are for turning the nut while holding the head of the cap screw with a wrench. In applications where access to the nut is limited, increase the torque value by 20% for tightening by the cap screw head.*
2. *Torque values are for standard, non-lubricated Chromate products as delivered (plated, black oxide or plain finish).*

CAUTION: *The above data should only be used as a reference guide. The proper torque can only be determined by analyzing the design parameters which include temperature, plating, lubrication, etc. Short time tensile, creep and stress relaxation should be considered for applications where the temperature exceeds 400°F (204°C). Lower ductility, impact strength and fatigue life must be considered for screws subject to temperatures below -20°F (-29°C). All socket screw products are class 3A fit except size 1-1/4" and larger which are class 2A fit.*