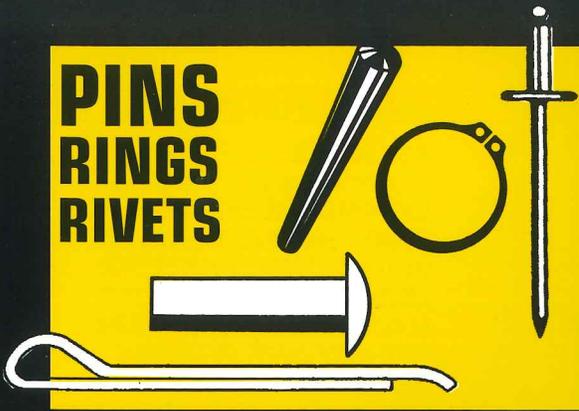
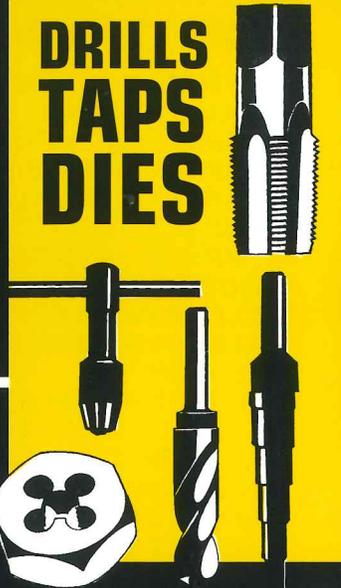


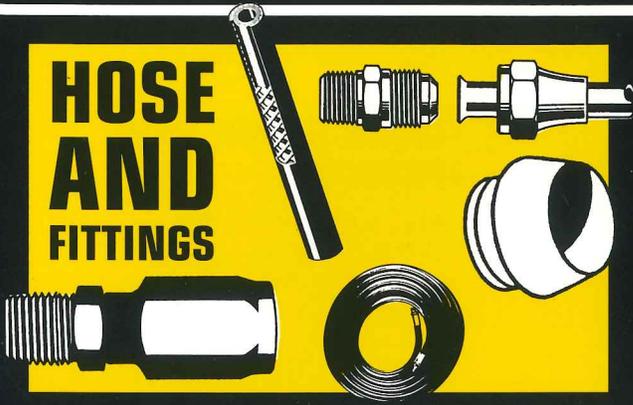
**PINS  
RINGS  
RIVETS**



**DRILLS  
TAPS  
DIES**



**HOSE  
AND  
FITTINGS**



**SHOP  
SUPPLIES**



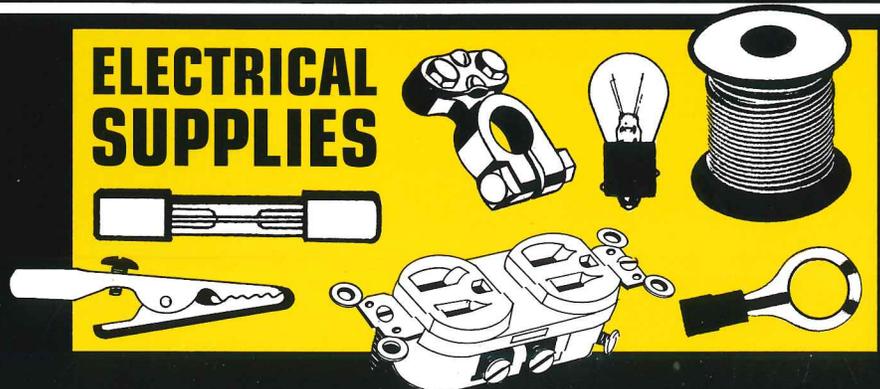
**ASSORTMENTS**



**SCREWS  
NUTS  
BOLTS  
WASHERS**



**ELECTRICAL  
SUPPLIES**



# **FOSTER AND COMPANY, INC.**

## **MAINTENANCE SUPPLIES**

### **WAREHOUSES**

15 WING DRIVE  
CEDAR KNOLLS, NJ 07927  
973.267.4100/800.526.0630  
FAX: 973.267.9842  
E-MAIL: [info@fostercomfg.com](mailto:info@fostercomfg.com)  
WEB SITE: [www.fostercomfg.com](http://www.fostercomfg.com)

## Fractional Sizes

One central location for your drills  
3 Drawer heavy duty steel cabinet  
Insures that you always have the size you need

1/16 to 1/2"

Contains: 59 Heavy Duty Power Bits

Regular Price **\$577.83**

Sale Price **\$497.43**

Part No. **0042063**



## Master Index

Letter Drills                    A to Z  
Wire Gauges                    1 to 60  
Fractional sizes                1/16 to 1/2 by 64ths  
Contains: 115 Power Bits

Regular Price **\$ 793.65**

Sale Price **\$ 650.09**

Part Number **0042115**



## Wire Gauge (Number) Sizes

#1 to #60

Contains 60 Drills

Regular Price **\$220.66**

Sale Price **\$ 181.07**

Part Number **0041160**



## Fractional Sizes

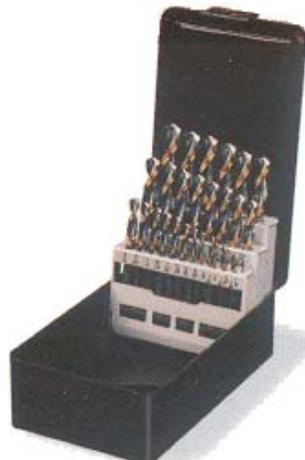
1/16" to 1/2" By 64THS

Contains 29 Drills

Regular Price **\$ 268.01**

Sale Price **\$ 228.83**

Part No. **0046129**



## Letter Drills

A to Z

Contains 26 Drills

Regular Price **\$ 296.22**

Sale Price **\$ 242.92**

Part Number **0041126**





## The Perfect Tool for All Your Drilling Needs



**Foster & Company's** new **Posi-Grip** mechanics length **PowerBits** increase your productivity by eliminating slippage and reducing work. Stoppage for drill or battery changes. The special **3-flat shank** provides a positive grip in cordless, keyless and conventional power tools. The **135 degree self-centering split point** gives your faster penetration, and the **reduced length** provides a more rigid, break resistant tool.

### Fractional Sizes

One central location for your drills  
3 Drawer heavy duty steel cabinet  
Insures that you always have the size you need

1/16 to 1/2"

Contains: 59 Heavy Duty Posi-Grip / Power Bits

Regular Price **\$ 550.31**

Sale Price **\$469.27**

Part No. 0042065



**1/16 to 11/64" Standard Power Bits**

**3/16" to 1/2" Posi-Grip Power Bits**

**FOSTER & COMPANY, INC. CHEM-POWER MFG. DIV**

15 Wing Drive, Cedar Knolls, NJ 07927 Phone 800-526-0630

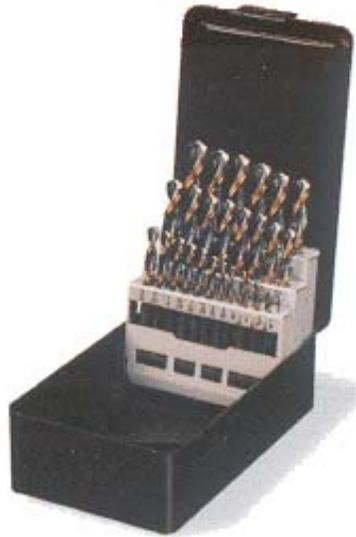
## Fractional Sizes

1/64" to 1/4" by 64THS  
**Contains 13 Drills**

Regular Price **\$62.53**

Sale Price **\$50.65**

Part Number **0046113**



## Fractional Sizes

1/64" to 1/2" by 32NDS  
**Contains 15 Drills**

Regular Price **\$ 153.31**

Sale Price **\$128.09**

Part Number **0046115**



## 1/2" Reduced Shank Power Bits

Holds 8 popular sizes  
 9/16 to 1" by 16ths

Regular Price **\$516.08**

Sale Price **\$ 422.88**

Part Number **0041112**

## Wire Gauge Sizes

[ NUMBER DRILLS ]

#61 to #80

Contains 20 Drills

Regular Price **\$67.87**

Sale Price **\$ 56.18**

Part Number 0041120

## The Perfect Tool for All Your Drilling Needs



Foster & Company's new **Posi-grip** mechanics length **PowerBits** increase your productivity by eliminating slippage and reducing work stoppage for drill or battery changes. The special **3-flat shank** provides a positive grip in cordless, keyless and conventional power tools. The **135° self-centering split point** gives you faster penetration, and the **reduced length** provides a more rigid, break-resistant tool.

### Fractional Sizes

29 pc 1/16 to 1/2 x 64ths

Part Number **0046131 3/8 reduced shank**

Regular Price **\$ 266.52**

Sale Price **\$218.61**



# Powerful Solutions

to Machine and Hand Tapping

*When you need a high performance tap for the most demanding applications.*

## Engineered for Power

Designed for efficient, close tolerance tapping.

\*Industrial grade molybdenum steel for longer life and greater abrasion resistance

\*Precision-ground cutting surfaces for precise thread production

\*Unique bronze surface treatment for easier tapping and reduced chip welding

## A Size and Style for Every Application



versatile GH sizes that cover a wide variety of applications.

Standard taps in taper, plug and bottoming chamfers

Spiral point (gun) taps

Taper pipe taps

## Performance Matched with Power Bits

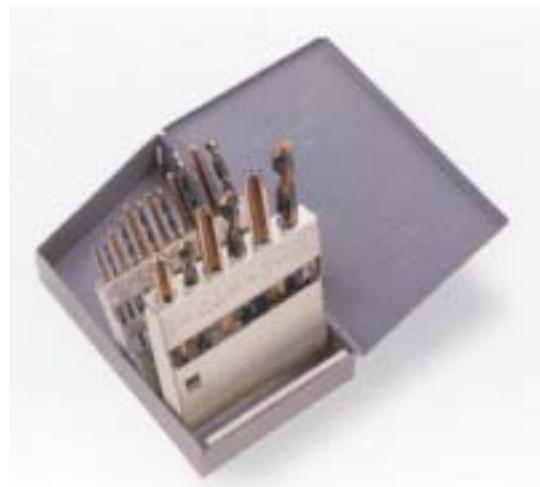
### Combination Power Bit and Gun Tap Set

Organizes 9 taps with correct PowerBit. Holds 1 of each

Regular Price **\$ 217.62** Sale Price **\$ 214.36**

Part Number 0105441 18 pc USS Set 6/32 to 1/2-13

Part Number 0105440 16 pc SAE Set 10/24 to 1/2-20





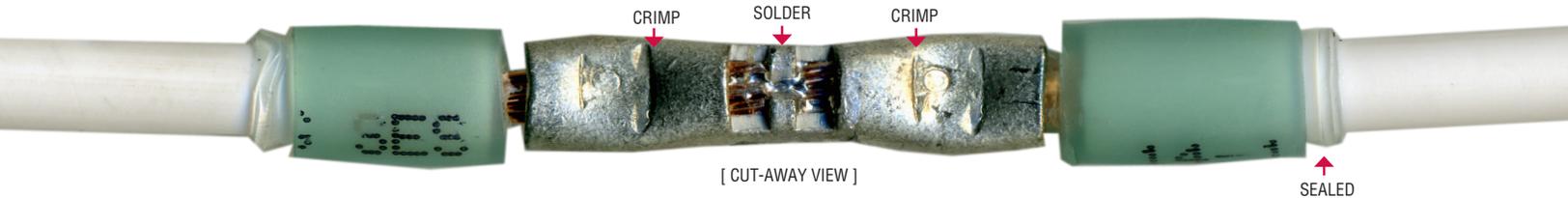
**STOP WIRE CORROSION**



**MAKE PERMANENT REPAIRS**



# MULTI-LINK SEALED CRIMP & SOLDER BUTT CONNECTORS



**80% STRONGER THAN VINYL CONNECTORS**



**KIT CONTAINS**

PART #	DESCRIPTION	QTY
0039429	RED, 22-18 AWG	20
0039430	BLUE, 16-14 AWG	20
0039431	YELLOW, 12-10 AWG	15
0031905	<b>FREE TORCH INCLUDED!</b>	



0039429

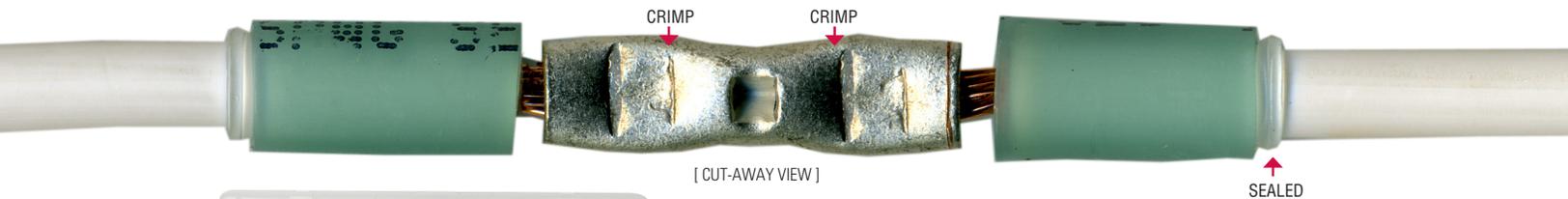


0039430



0039431

# KRIMP-N-SEAL SEALED CRIMP BUTT CONNECTORS



**50% STRONGER THAN VINYL CONNECTORS**



**KIT CONTAINS**

PART #	DESCRIPTION	QTY
0039406	RED, 22-18 AWG	25
0039414	BLUE, 16-14 AWG	25
0039422	YELLOW, 12-10 AWG	15
0031905	<b>FREE TORCH INCLUDED!</b>	



0039406



0039414



0039422

## ***Don't let your shop fall to pieces.....***

*Reduce inventory and down time.....*

*Find the parts you need when you need them....*

- **Get organized with a free 4 drawer rack and**
- **any 3 of the listed assortments**



**only \$493.11**

**Part No 0930498**



### **Machine Screws**

Pan Phillips 2930103  
Flat Phillips 1930178

### **Wood Screws**

Flat Slotted 2930007  
Flat Phillips 2930014



### **Sheet Metal Screws**

Pan Phillips 2930106  
Pan Slotted 2930102  
Flat Phillips 1930155  
Flat Slotted 1930028  
HxWasher 2930413  
Tek Screw 2930150

### **Stainless Steel**

Sheet Metal Screws  
Pan Phillips 1930322  
Pan Slotted 1930321

Gr 5 Hex Capscrews	2930078
Gr 8 Hex Capscrews	2930076
8MM Bolts/Nuts/Washers	1930135
Socket Set Screws	0930001
O'Rings	2930094
CotterPins	0930032
SpringRoll Pins	0930074
E-Clips	0930087
Grease Fittings	0930025
Clevis Hair Pin	1930107



# Masonite Screw Assortments

## Self-tapping concrete screws

Available in flat head and slotted hex head



Only **\$173.33** each

Part Number 1930216



Only **\$173.33** each

Part Number 1930217



*For a limited time.....*

*purchase both Masonite*

*Concrete Screw Assortments*

*and receive an installation kit*

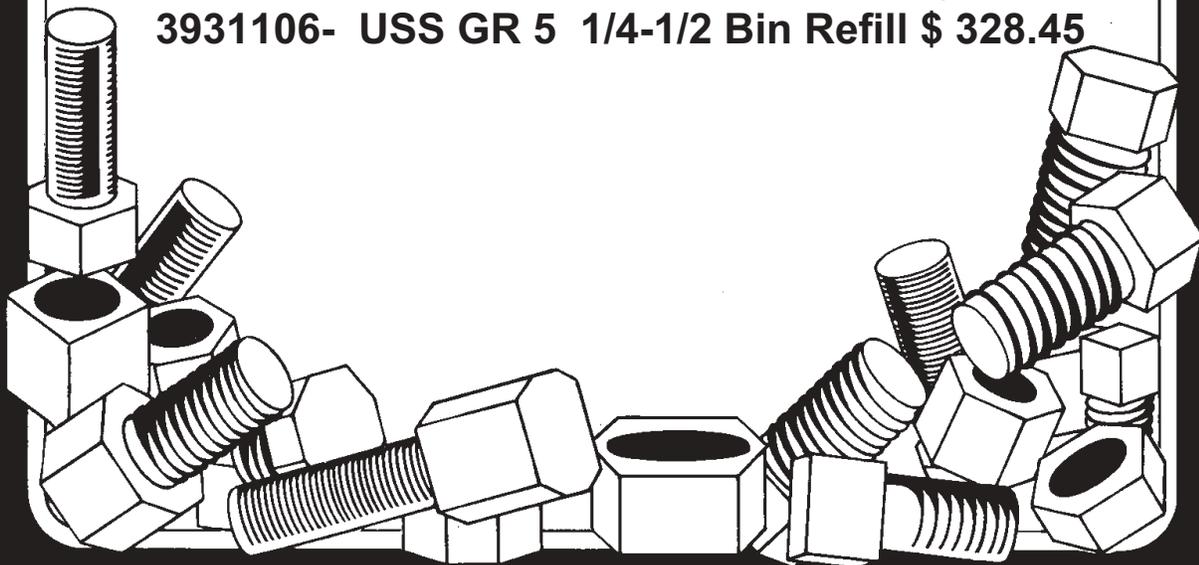
*absolutely FREE!\**

Part Number 0401201



**USS Bin Refill for GR 5 or GR 8 Fasteners  
2,590 Pieces**

**3931101- USS GR 8 1/4-1/2 Bin Refill \$393.62**  
**3931106- USS GR 5 1/4-1/2 Bin Refill \$ 328.45**





## Coll-O-Crimp Packages

**Coll-O-Crimp press and tooling package**  
**Includes one of each of the following:**

- Coll-O-Crimp Press - 25 ton
- Spacer Ring (black)
- Spacer Ring (silver)
- Pusher
- Hose assembly with fittings
- Die Ring - 1/4 thru 1-1/4
- U-Series Collet in the following sizes: 1/4", 3/8", 1/2", 3/4", and 1"

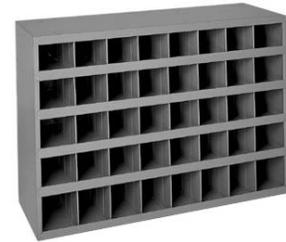


Part No	Description	Sale Price
1734000	Coll-O-Crimp Package- Electric Pump	<b>\$5,448*</b>
1734100	Coll-O-Crimp Package- Air/Hyd Pump	<b>\$4,152*</b>

## Hi-Pressure Collo-Crimp Assortment



Includes male pipe, SAE 37 JIC male pipe, inverted male pipe swivel, male pipe swivel, SAE 37 JIC female swivel 90, SAE 45 female swivel and inverted male pipe swivel fittings in a heavy duty, 40 compartment bin. Part # 0930241

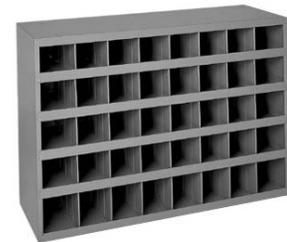


**Only \$1,320.00**

## Collo-Crimp For-Seal Assortment



Includes male rigid, female swivel, 45° female swivel and 90° female swivel fittings in a heavy duty, 40 compartment bin. Part # 0930244



**Only \$1,141.93**

## High Pressure Hose Assortment (no bin)

Includes 5 rolls each of 1/4", 3/8", 1/2", 3/4" and 1" high pressure hose. Part # 0930242



**Only \$1,139.23**

\*Coll-O-Crimp machine must be purchased with at least one assortment



## Portable Coll-O-Crimp Packages

Portable Coll-O-Crimp packages include one each of the following:

- Portable Coll-O-Crimp Press
- U-series Collets for 1/4", 3/8" & 1/2" wire Hose
- Black Spacer Ring

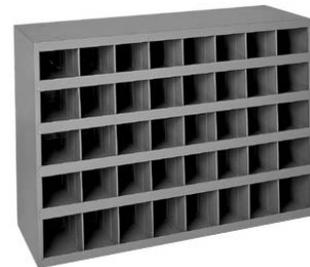


Part No	Description	Whd No	Sale Price
1734600	Portable Coll-O-Crimp - Hand Pump	T-464	<b>\$3,300</b>
1734610	Portable Coll-O-Crimp - Air/ Hyd Pump	T-466	<b>\$3,801</b>

## Hi-Pressure Collo-Crimp Assortment



Includes male pipe, SAE 37 JIC male pipe, inverted male pipe swivel, male pipe swivel, SAE 37 JIC female swivel 90 and SAE 45 female swivel fittings in a heavy duty, 40 compartment bin. Part # 0930241

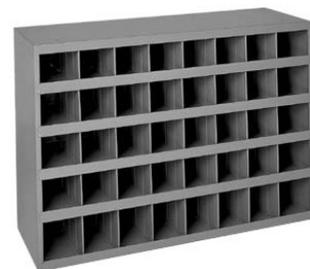


**Only \$1,320.00**

## Collo-Crimp For-Seal Assortment



Includes male rigid, female swivel, 45° female swivel and 90° female swivel fittings in a heavy duty, 40 compartment bin. Part # 0930244



**Only \$1,141.93**

## High Pressure Hose Assortment (no bin)

Includes 5 25FT rolls each of 1/4", 3/8", 1/2", 3/4" and 1" high pressure hose. Part # 0930242



**Only \$1,139.23**

\*Coll-O-Crimp machine must be purchased with at least one assortment



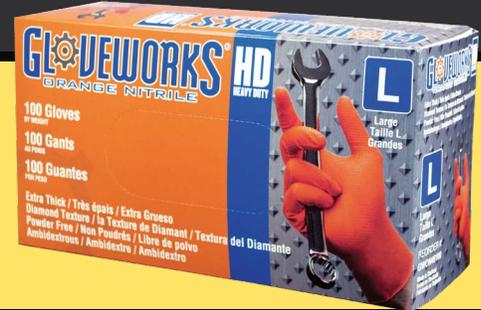
# Foster and Company



## Gloveworks® HD Orange Nitrile Gloves

Gloveworks HD Orange Nitrile provides high visibility and superior durability with a raised diamond texture or an excellent grip, wet or dry. Better performance, better protection, better safety.

- |                    |                    |         |         |    |
|--------------------|--------------------|---------|---------|----|
| • Industrial Grade | • Diamond Textured | 5146105 | 100/BX  | L  |
| • Orange           | • Chlorinated      | 5146106 | 100/BX  | XL |
| • Powder Free      | • Latex Free       | 5146195 | 1000/CS | L  |
| • 8 Mil            |                    | 5146196 | 1000/CS | XL |



PREMIUM HD

## Gloveworks® HD Black Nitrile Gloves

Gloveworks HD Black Nitrile combines an aggressive diamond texture with 60% more surface area for maximum grip and enhanced dexterity for an unbeatable combination. Strong enough to take on the tough jobs, but nimble enough for everyday tasks.

- |                    |                    |         |         |    |
|--------------------|--------------------|---------|---------|----|
| • Industrial Grade | • Diamond Textured | 5145905 | 100/BX  | L  |
| • Black            | • Chlorinated      | 5145906 | 100/BX  | XL |
| • Powder Free      | • Latex Free       | 5145995 | 1000/CS | L  |
| • 6 Mil            |                    | 5145996 | 1000/CS | XL |



PREMIUM HD

## GlovePlus® Black Nitrile Gloves

50% thicker than standard nitrile gloves, GlovePlus black nitrile hides dirt, grease, and grime for a professional look. It's tougher, stronger, and lasts longer.

- |                    |                            |         |         |     |
|--------------------|----------------------------|---------|---------|-----|
| • Industrial Grade | • Textured/Micro-roughened | 5145104 | 100/BX  | MED |
| • Black            | • Polymer Coated           | 5145105 | 100/BX  | L   |
| • Powder Free      | • Latex Free               | 5145106 | 100/BX  | XL  |
| • 5 Mil            |                            | 5145194 | 1000/CS | MED |
|                    |                            | 5145195 | 1000/CS | L   |
|                    |                            | 5145196 | 1000/CS | XL  |



PREMIUM

Call and place your order today!

# 973-267-4100

Email: [refoster@fostercomfg.com](mailto:refoster@fostercomfg.com) | Website: [www.fostercomfg.com](http://www.fostercomfg.com) | Address: 15 Wing Drive, Cedar Knolls, NJ 07927

# MOVE TO THE GREEN SERIES!



ALL NATURAL  
**Turbo**  
 INDUSTRIAL  
**Scrub**  
 HAND CLEANER

Fortified with skin conditioners  
 and biodegradable scrubbers



Lifetime Dispenser Guarantee



## ALL NATURAL INDUSTRIAL HAND CLEANER

CONTAINS THE ANTIBACTERIAL  
 INGREDIENT "PCMX"



<u>Part Number</u>	<u>Description</u>	<u>Contents</u>
8320645	Turbo Scrub	4 x 3.55 Liters per case
8320641	Turbo Scrub	Starter 1 x 3.55 Liter & 1 Dispenser
8150749	Turbo Scrub	Dispenser 1 Dispenser
8320675	Turbo Scrub	Tubes 12 x 18 oz per case

- Label & Box Produced Using 100% Post Consumable Material.
- Bottle Contains 30% Recycled Material.
- Dispenser Contains 35% Recycled Material.
- Non-Solvent Formula Eliminates Drying and Cracking.
- Contains Superior Skin Emollients & Skin Conditioners.
- No 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.
- No Phosphates



15 WING DRIVE  
 CEDAR KNOLLS, NJ 07927  
 (800) 526-0630  
[www.fostercomfg.com](http://www.fostercomfg.com)

# EXPERIENCE THE GREEN CLEAN!



## *Power Wipes*

Hand and Surface Cleaning Wipes

- Multi-Purpose Hand Cleaning/Surface Towel  
Two Sided:  
Abrasive Side for Tough Jobs  
Smooth Side for Delicate Jobs
- Fortified with New Generation Cleaning Agents  
Unmatched Skin Conditioners



**Foster And Company, INC.**  
**Chem-Power MFG. DIV.**  
**[www.fostercomfg.com](http://www.fostercomfg.com)**  
**(800) 526-0630**

# Pro-Series® Wipers

# PRO-TOWEL®

# HEAVY DUTY

## Strong, high performance reusable cloth-like towels

- Heavy-duty for the most demanding tasks
- Top of the line rag and shop towel replacement
- Highly absorbent and wipes surfaces dry
- Low-linting
- Solvent resistant

### PART # DESCRIPTION

**1490006** 12" x 12", 475 ct jumbo roll

**1490009** 12" x 17", 160 towels/Two-Pak™ double dispenser



PART NO: 1490009



PART NO : 1490006

PART NO:1490007 Floor stand sold separately



## **POWER WIPES**

### **HAND & SURFACE CLEANING WIPES**

#### **Industrial Strength, Pre-moistened Towel**

#### **DESCRIPTION**

A multi-purpose, pre-moistened towel formulated to remove grease, oil, dirt, tar & asphalt, brake dust, water-based inks and grime from hands and a variety of non-porous surfaces without the use of water. Waterless, disposable towels are perfect for use anywhere, anytime. There are 70, 9"x12" dual textured towels per canister.

#### **FEATURES**

Take them anywhere you go to clean hands, tools, machinery, equipment, pipes, and non/porous/non-absorbent surfaces. The towel will remove the toughest soils, such as tar and asphalt, oil grease, and brake dust without irritating or drying out your skin. The towels unique absorbency allows deep cleaning by absorbing the soil off the surface. Towels can be discarded after use.

#### **APPLICATIONS**

Use on nonporous/nonabsorbent surfaces to include: all metal surfaces, sealed wood, equipment, vinyl, and ceramic tile. We recommend testing plastics, rubber, and latex paint in inconspicuous areas before use. Extremely useful in construction, transportation, utility maintenance, marine, oil drilling fields, maintenance vehicle repair, machining operating areas, airports, and warehouses.



#### **SPECIFICATIONS**

Towel Size and Color.....9"x12" orange	Fragrance.....Citrus
Flash Point.....Combustible solid	D.O.T. Shipping Label.....None

#### **PACKAGING**

Part Number 8140998 70 Towels per canister  
Part Number 8140997 70 Towels per canister - 6 canisters per case

**Foster And Company, INC.**  
**Chem-Power MFG. DIV.**  
**[www.fostercomfg.com](http://www.fostercomfg.com)**  
**(800) 526-0630**

## SHAKE WELL BEFORE USING

### FEATURES

**Saf T Solv** is effective as an automotive safety solvent degreaser to remove dirt, grease and grime from engines and mechanical parts. Can be used on electric motors (even while running), ignition systems, generators, pumps, fans, relays, etc. Just spray on, let set for a minute, then wipe off or rinse with a second spray. An excellent replacement in applications where 1,1,1 Trichloroethane has traditionally been used.

### DIRECTIONS FOR USE NOT FOR USE ON PLASTIC

1. Shake well before using.
2. Spray entire area to be cleaned or degreased.
3. Allow several minutes for solvent to work on heavily encrusted areas. Use a brush for agitation.
4. Rinse off with a repeat application.

### COMPOSITIONAL INFORMATION

Contains Tetrachloroethylene (CAS#127-18-4), Carbon Dioxide (CAS#124-38-9).

### PRECAUTIONARY STATEMENT

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Avoid release to the environment. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. IF exposed or concerned: Get medical advice/attention. Collect spillage. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**WARNING:** This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.



**Read Safety Data Sheet before using.  
KEEP OUT OF REACH OF CHILDREN.  
NOT FOR RETAIL SALE. INDUSTRIAL USE ONLY.  
NOT AVAILABLE FOR SALE IN CALIFORNIA.**

MANUFACTURED FOR:

**FOSTER & CO.**

15 WING DRIVE  
CEDAR KNOLLS, NJ 07927  
(800) 526-0630

[www.fostercomfg.com](http://www.fostercomfg.com)

Made in U.S.A.

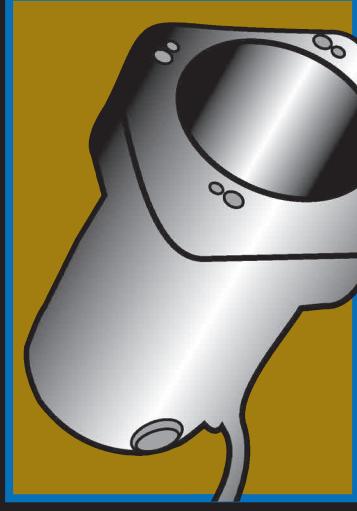
Part No. 0190036

**FOSTER**  
SERVICE ■ QUALITY ■ RELIABILITY

# Saf T Solv

## Safety Solvent

**Non-Flammable Spray, Non-Conductive  
Cleans & Dries Quickly, Leaves No Residue**



**WARNING: PRESSURIZED CONTAINER: MAY BURST IF HEATED. SUSPECTED OF CAUSING CANCER. CAUSES SKIN IRRITATION. TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.**

**Net Wt. 18 oz. (1 lb. 2 oz.) (510 grams)**

## SHAKE WELL BEFORE USING FEATURES

- Dries wet electrical and ignition systems.
- Excellent light all-purpose lubricant.
- Penetrates and loosens frozen nuts and bolts.
- Prevents rust, when sprayed on metal surfaces.
- Makes assembly and disassembly of machinery easier.

## DIRECTIONS FOR USE

1. Shake well before using.
2. Spray liberal amount on area to be treated.
3. Reapply as needed.

## COMPOSITIONAL INFORMATION

Contains Tetrachloroethylene (CAS#127-18-4), Mineral Oil, Petroleum Distillates, Solvent-Dewaxed Heavy Paraffinic (CAS#64742-65-0), Ethylene Glycol Monobutyl Ether (CAS#111-76-2), Carbon Dioxide (CAS#124-38-9).

## PRECAUTIONARY STATEMENT

If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Avoid release to the environment. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash thoroughly after handling. Do not pierce or burn, even after use. IF exposed or concerned: Get medical advice/attention. Collect spillage. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Dispose of contents and container in accordance with all local, regional, national and international regulations.

**WARNING:** This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**Read Safety Data Sheet before using.  
KEEP OUT OF REACH OF CHILDREN.**

**NOT FOR RETAIL SALE.  
INDUSTRIAL USE ONLY.**

**NOT AVAILABLE FOR SALE IN THE STATE OF CALIFORNIA.**

MANUFACTURED FOR:

**CHEM-POWER**

15 WING DRIVE  
CEDAR KNOLLS, NJ 07927  
(800) 526-0630

www.fostercomfg.com

Made in U.S.A.

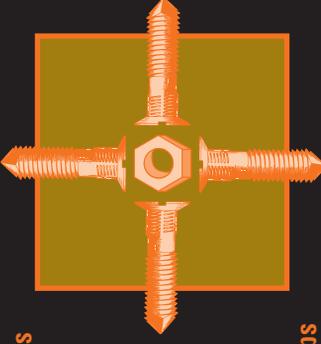
Part No. 0190426

**FOSTER**  
SERVICE • QUALITY • RELIABILITY

# PENEX

## NON-FLAMMABLE PENETRANT

### 4 in 1 Lubricant and Moisture Displacer



**Non Flammable, Penetrates  
Rust, Displaces Moisture,  
Lubricates, Prevents  
Corrosion**

#### FOR USE ON:

**Wet Electrical Systems,  
Frozen Nuts and Bolts,  
Mechanical Linkages,  
Squeaking Metal Parts, Stops  
Tools and Dies from Rusting**

**WARNING: PRESSURIZED CONTAINER: MAY  
BURST IF HEATED. SUSPECTED OF CAUSING CAN-  
CER. CAUSES SKIN IRRITATION. TOXIC TO AQUAT-  
IC LIFE WITH LONG LASTING EFFECTS.**

**Net Wt. 15 oz. (425 grams)**

*This product is an active bacteria odor eliminator especially designed for easy application on carpets and upholstery to eliminate odors that are organic in nature. This product will effectively counteract pet and body odors. It can also be used in kennels, bathrooms, trash receptacles and kitchen areas. The unique inverted valve provides easy application.*

**DIRECTIONS FOR USE:** Prior to use on carpet and upholstery, spray in an inconspicuous spot to ensure textile is unaffected. After cleaning carpet and while textile is still damp, spray entire area to be treated liberally. Allow to dry. On hard surfaces such as around urinals, in kennels, trash receptacles, porta-toilets and in kitchens, clean area thoroughly. Spray affected area liberally with product and allow to dry.

**MODO DE EMPLEO:** Antes de usar en alfombras o tapicería, rocíe en un lugar desapercibido para asegurar que el material no sea afectado. Después de limpiar la alfombra y mientras está mojada, rocíe libremente el área completa. Permita que se seque. En superficies duras como en urinarios, perreras, botes de basura, baños portátiles y cocinas, lave el área muy bien. Rocíe el área afectada libremente con producto y permita que se seque.

**WARNING:** Flammable Aerosol. Contains gas under pressure; may explode if heated. Keep away from heat, sparks, open flames, and hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place.



**ADVERTENCIA:** Aerosol Inflamable. Contiene gas a presión; Puede explotar si se calienta. Mantenga lejos de calor, chispas, llamas abiertas, y superficies calientes. -No fumar. No pulverice en llamas abiertas u otra fuente de ignición. Envase presurizado; No perforar ni quemar, incluso después de usar. Proteja de la luz solar. No exponga a temperaturas que excedan 50°C/122°F. Almacene en un lugar bien-ventilada.

**CONTAINS (CAS#):** Water (7732-18-5), Propane/n-Butane (68476-86-8).

HEALTH	0
FLAMMABILITY	1
REACTIVITY	0
PERSONAL	A



Manufactured For  
**FOSTER & COMPANY**

15 Wing Drive • Cedar Knolls, NJ 07927  
(973) 267-4100

Part No. 0192296  
Made in U.S.A.



# ENZY-FRESH

**Active Bacteria  
Odor Eliminator**  
Eliminador de Olores con Bacteria Activa

*Removes All Odors That Are  
Organic in Nature From Carpets,  
Upholstery & Many Other Surfaces*

**WARNING/ADVERTENCIA:**  
FLAMMABLE AEROSOL. CONTAINS GAS  
UNDER PRESSURE; MAY EXPLODE IF HEATED.  
AEROSOL INFLAMABLE. CONTIENE GAS A PRESIÓN;  
PUEDE EXPLOTAR SI SE CALIENTA.

**NET WT. 18 OZ. (510 g)**

## Hawaiian Breeze

**A super concentrated deodorant cleaner, odor controller and air freshener all in one!!**

**HAWAIIAN BREEZE** is a super concentrated deodorant cleaner, odor controller, and air freshener **all** in one! **HAWAIIAN BREEZE** uses a micro emulsion technology to release premium perfumes that leave behind a wonderful fragrance. Safe and easy-to-use, non-toxic and non-staining, you'll love **HAWAIIAN BREEZE**!

### DIRECTIONS

**Space Spray:** Use **HAWAIIAN BREEZE** straight and spray in a wide trigger spray pattern setting towards the center of the room. Contact Spray: Use **HAWAIIAN BREEZE** straight and spray in a wide trigger spray pattern directly on the source of the malodor.

**Mop Additive Solution:** Use **HAWAIIAN BREEZE** at a dilution of 2 oz. to 8 oz. per gallon.

**Extraction Additive:** Use **HAWAIIAN BREEZE** at a dilution of 2 oz. to 8 oz. per gallon.

**Carpet and Upholstery Spray:** Use **HAWAIIAN BREEZE** at a dilution of 2 oz. to 8 oz. per quart for general use.

### GREAT FOR THESE APPLICATIONS

Mop Solution Additive	Carpet Extraction	Drip System Solution
Space Spray	Shampoo Additive	Garbage Cans & Trucks
Dumpsters	Kennels	Sewage Plants
Lift Stations	Trash Chutes	Elevator Shafts
Vehicle Interiors	Rendering Plants	School Buses
A/C Filters	Hotel Rooms	Sewer Gas Deactivator
	Drying Beds	

**CONTAINS:** 2-propanol, (CAS No) 67-63-0; sodium xylenesulfonate, (CAS No) 1300-72-7



FORMULA NO 8142388



### WARNING

Causes Serious Eye Damage



### Precautions

Wash hands thoroughly after handling. Wear eye protection and protective gloves.

**In case of fire:** Use ABC-powder to extinguish. Store in well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Suitable extinguishing media: Foam, dry powder, Carbon dioxide, water spray, sand.

### FIRST AID

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. (Show label where possible.)

**Inhalation:** Allow victim to breath fresh air. Allow victim to rest.

**Skin Contact:** Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention/advice, ingestion: Rinse mouth. DO NOT induce vomiting. Obtain emergency medical attention.

### Precautions for Safe Handling

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

**For Emergencies, Call 1-800-255-3924**

**PART # 8142388 CASE OF 12 QTS.**

# Citro Fresh

Dumpster odor eliminator

## Freshens dumpsters

Our patented odor neutralizer is combined with natural citronella oils that freshen any dumpster with a fresh and clean citrus fragrance. Granules absorb liquids that may cause malodors.

## Repels insects

Repel flying insects from your dumpster thanks to natural citronella oils. No more flies or insects contaminating your dumpster areas.

## Versatile

Works great in dumpster areas, trash cans, and anywhere needing immediate freshening. Great for restaurants, rest stops, gas stations, and many more areas.

## Environmentally Friendly

Formulated with a biodegradable cellulose base and natural oils, so it's safe and cares for the environment. Citro Fresh is a DEET-free product.



**PART # 8170608 CASE OF 12/12OZ**

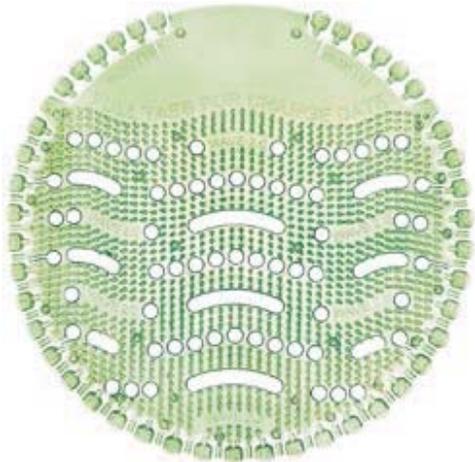
**PART # 8170606 1 PAIL**

# Deodorizers

## Wave 2.0

### Urinal Deodorizer

*The Wave 2.0 combines the patented technology of a 30 day urinal air freshener/deodorizer, with the best splash elimination available.*



- Eliminates odors - *Releases billions of optimized bacteria that consume mal-odors in the urinal. Contains more than twice the actives as 'look-a-like' screens.*
- Super-long protrusions eliminate urine splash, and saves clean up time -
- Reminds you when to change it - *Simply pull off the date tabs to remind you when to change it.*
- Saves money because it is stronger and lasts longer
- Recommended by the #1 Manufacturer of Waterless Urinals - Falcon Waterfree Technologies.
- Complies with VOC requirements in all 50 states, North America and Europe. 100% recyclable.

Part Number	Fragrance	Fragrance Intensity
8141002	Cotton Blossom	mildest
8141003	Citrus	mild
8141004	Mango	moderate
8141005	Ocean Mist	strong
8141006	Honeysuckle	strongest

# Odors Eliminated, Zero Chemicals.

**Formulated for Tough Odors.  
Safe, Non-Toxic, Hypo-allergenic**

Eliminates foul odors including:

- body odor
- cigarette odors
- cigar odors
- pet odors
- cooking odors
- urine odors
- mildew
- mold

Safe for use on:

- clothing
- footwear
- hats & helmets
- bedding
- furniture
- all fabrics
- carpeting
- upholstery

**ReFresh**  
**ODOR ELIMINATOR**  
Clothing and Footwear  
Furniture • Bedding  
Vehicles • Wheelchairs  
Bathrooms  
Hypo-Allergenic • Non-Toxic

Net Contents 32 FL OZS. (946 ML)

**How It Works:**  
ReFresh is a powerful natural odor eliminator that works by breaking down and neutralizing foul odors without alcohol or toxic chemicals. ReFresh is not a masking agent or perfume but rather neutralizes odors permanently. Safe organic compounds formed during the elimination of odors simply oxidize and evaporate, leaving behind a fresh, clean, natural scent without perfumes or fragrances.

**Directions:** Spray about 6" to 8" from surface and allow to dry. ReFresh must contact the source of odors to eliminate them completely.

**Contents:** Formulated from natural ingredients which include plant extracts.

ReFresh is safe for use around people and pets and safe for all surfaces. For sensitive areas always test on small, hidden area first. Floors may be slippery until dry.

**Common Sense Caution:** Keep Away from Children. Do Not Spray Near Face or Eyes. Surfaces Such as Flooring May Be Slippery Until Dry.

Foster Part Number: 8380148

Foster and Company, Inc.  
15 Wing Drive Cedar Knolls, NJ 07927  
info@fostercomfg.com  
800.526.0630

## Use with Confidence

Using 21st century nanotechnology, *ReFresh* permanently eliminates odors by encapsulating the malodor molecule within the *ReFresh* molecule. For use when permanent odor elimination is necessary without harm to people, service animals, equipment and surfaces.

Simply spray *ReFresh* directly on the source of bad odors and eliminate them without harmful chemicals.

*ReFresh* neutralizes odors on all surfaces on contact and will not harm fabrics or material.

## Benefits

- No Chemicals
- No Enzymes or Alcohol
- No Masking Agents or Perfumes
- Hypoallergenic - pH Neutral
- Safe for all surfaces and fabrics

## Thousands of Uses

Break out gear, protective vests and body armor, boots, helmets, uniforms, gloves, auto upholstery, all footwear, clothing, carpeting, bathrooms, first aid areas and locker rooms.

# Dumpster FRESH

## ODOR ELIMINATOR



Foster and Company, Inc.  
15 Wing Drive Cedar Knolls, NJ 07927  
info@fostercomfg.com  
800.526.0630

**Dumpster Fresh** eliminates odors caused by decomposing waste on contact.

Dilute 3 ounces of **Dumpster Fresh** into 1 gallon of clean tap water. One gallon of **Dumpster Fresh** concentrate make approximately 43 usable gallons.

Simply spray to wet waste and surrounding surfaces to eliminate the foul garbage odor.

**Dumpster Fresh** is non-toxic, non-corrosive and safe for people and the environment.

### Benefits

- Economical 42:1 Dilution
  - Eliminates Odors on Contact
  - Non-Toxic - Non-Hazardous
  - Biodegradable - Non-Polluting
  - No Petroleum Products - No VOCs
  - Stimulates microbial activity
  - Neutralizes Hydrogen Sulfide
  - Safe for all containers and surfaces
- 
- Packaged in Gallon Jugs 4/case
  - Available in 5 gallon and 55 gallon

Foster and Company PN 8380407



- Dumpsters
- Garbage Cans



- Garbage Trucks
- Transfer Stations



- Compactors
- Indoor Bins



- Landfills
- LFF-250 is a 250:1 Formula.

# Oil Gobbler

Absorbent  
BIO-REMEDIAL • ENZYMATIC

PART NUMBER  
8170556



## Product Overview

*Oil Gobbler* introduces a new era in the absorption & disposal of hydrocarbon contaminants in the work place. This product merges the technologies of a highly efficient absorbent with safe & effective microbes utilizing the exciting technique of Bio-Remediation.

When used as directed, *Oil Gobbler* can eliminate the need for costly, special and highly inefficient disposal of all hydrocarbons on solid surfaces. The high absorbency of this product makes it the ideal product to absorb oil, diesel fuel, gasoline, kerosene, etc. and then literally “eat” the contamination with its bio-remedial properties. It will completely absorb on contact and will not leach. The surface will be completely dry, free of the contaminant, and skid resistant. As an added benefit there is a significant reduction of hydrocarbon odor. Because of the pharmaceutical grade of this absorbent & the completely harmless microbes that are used, *Oil Gobbler* can be used in most commercial & industrial environments including food processing & packaging areas.

## How To Use This Product

*Oil Gobbler* can be used to absorb & bio-remediate all petroleum hydrocarbons.

Use the following instructions as a general guideline for this product.

1. If for use on a fresh spill, use just enough *Oil Gobbler* on the spill perimeter to create a barrier around the spill.
2. Apply *Oil Gobbler* liberally to the spill itself so it covers the spill surface in an excess amount.
3. When the oil has been absorbed by the powder (it turns dark gray) you have two options
  - A. You can prevent the spill from staining the surface by spraying the *Oil Gobbler* with water, agitating the material with a brush or broom and leave the material in place overnight or...
  - B. Gather or sweep up the powder and place it in a spare bucket and reuse at a later time. *Oil Gobbler* may be reused until it will no longer absorb. Once the material is saturated, place it in a bucket or drum with water. Agitate it and let the microbes do their work. After they've eaten the oil (usually most of it is gone in 48 hours), you can dispose of the material in the trash or throw it on the lawn; it will act like mulch.
4. *Oil Gobbler* will leave the surface free from contamination, skid resistant and safe to work or walk on.

## Where To Use This Product

While *Oil Gobbler* can be used in all phases of manufacturing, commercial and industrial operations, the following is a partial list of the many uses of this product. Please contact if you have any questions about its usage:

- Driveways
- Loading Docks
- Manufacturing Floors
- Fueling areas
- Lubrication Areas
- Machine Shops
- Garages
- Warehouses
- Hydraulic Line Breaks
- Lubricant Pipeline Breaks
- Equipment Failures
- Elevator Pits
- Oil Storage Areas
- Chemical Storage Area
- Auto & Truck Wash Areas
- Blow Pits
- Maintenance Areas
- General House-Keeping
- Vehicle Parking Area
- Pumping Stations
- Concrete Walls
- Brick & Gravel Areas
- Vehicle Maintenance Areas

## Technical Information

*Oil Gobbler* is an active mixture of hydrocarbon-oxidizing, naturally occurring, single-celled micro-organisms with a pharmaceutical grade absorbent. It is specially formulated to be safe, environmentally enhancing and effective.

### PHYSICAL PROPERTIES:

Appearance: Grey  
Powder Odor: Odorless  
Boiling Point: N/A  
Soluble in Water: Insoluble  
pH Powder: 7.2  
pH With Water: 6.9 to 7.5  
Evaporation Rate: N/A

**PRODUCT EFFECTIVENESS:** The effectiveness of this product and the “speed” at which it works is determined by certain factors. In general these factors are as follows:

**TEMPERATURE:** The warmer the temperature, the faster this product will work. (see above)

**AGE OF THE STAIN OR SPILL:** The older the stain or spill, the longer it takes to work.

**TYPE OF HYDROCARBON:** Some hydrocarbons take longer than others.

It has been our experience that the absorption action of this product begins immediately. The bio-remedial process will begin almost immediately, after the introduction of water, but may take a longer period of time to complete depending on the above factors.



# Try and Buy Chemical Special

No need to buy full cases to try  
ChemPower, industry leading products

**Dawn to Dusk**  
Heavy Duty Liquid  
Deodorant

**Devour**  
Biological Spot Remover  
& Odor Digester

**Zorb-All**  
Nonbutyl  
Cleaner/Degreaser

**No Streak**  
Glass Cleaner

**Coil Kleen**  
A/C Coil Cleaner

**Safari Odor**  
Counteractant

**Ozyme II**  
Live Bacterial  
Enzymes

**Nock Out**  
Gel-Type Bowl Cleaner  
(acid)

**Nock Out NA**  
Gel-Type Bowl Cleaner  
(non-acid)

**Removit**  
Spot Remover &  
Traffic Lane Pre-Spray

**All in One**  
Heavy Duty Solvent  
Based Cleaner

**Hydro-Solv**  
All Purpose  
Cleaner/Degreaser

**TNT Non-Acid**  
Tub & Tile Cleaner

**Dust Magnet**  
Dust Control

**Chem Quick**  
Tile and Grout Cleaner

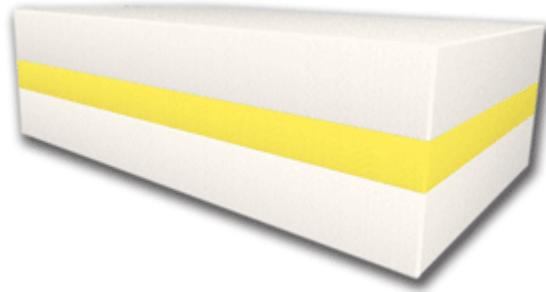
**Odor Rx**  
Water Soluble  
Deodorant

Mix a case of any  
12 quarts or 4 gallons  
for only

**\$149.55**

Part # 8140986 4 gallons  
Part # 8140996 12 quarts

# THE WONDER PAD



## Areas of Use

- Eliminates stubborn stains on walls, wallpaper, doors, floorboards, tile, wood flooring, countertops, work surfaces, lockers, signs, dry-erase boards, copy machines, vinyl, glass, plastic trim, leather, hard furniture, outdoor furniture, shower doors, car wheels, stainless cookware, computer monitors and hardware, church pews, sneakers and more.

## Features & Benefits

- Contains no chemicals. Use only water.
- Especially effective on permanent marker, crayon, ink, graffiti, lipstick, scuff marks, fingerprints, luggage marks, tea, soap scum, coffee, and wine stains.
- Shines chrome, brass, copper, and stainless steel.

## Instructions

- Wet the sponge completely and gently squeeze out excess water. Do not wring. Scrub with the appropriate pressure until the stain is removed.
- Follow with a dry cloth to remove damp areas and achieve optimal results.
- Rinse the sponge with clean water to clear dirt residue. Squeeze dry and Store.
- Dispose when white melamine cleaning surface is completely gone. Note: Test on a small area before applying to entire surface. Do not swallow or eat. Keep away from infants and children. Caution when applying to painted or finished surfaces as dulling may result.

**PART NUMBER: 8171001 30/CS**





## Assortments

Adhesives	1-23
Anchors	1-10
Battery Lugs/slugs	1-18
Bits (Phillips/ Slotted)	1-23
Bolts	1-9, 10, 24, 25
Bins (Assortment Bins/Trays)	1-2, 3
Body Bolts	1-16
Brass and Hydr Fittings	1-20, 21, 22, 26
Chain Links	1-16
Circuit Breakers	1-19
Drain Plugs/Gaskets	1-16
Drawers (Assortment Trays)	1-2
Drywall Screws	1-4
Electrical Terminals, Bulbs, Fuses	1-17, 18, 19
Files	1-23
Grease Fittings	1-15
Grommets	1-18
Heat Shrink Tubing	1-19
Hose Clamp	1-27
Loom Clips/Clamps	1-19
Machine Screws	1-4
Malleable Pipe Fittings	1-16, 26
Masonite Screws	1-7
Nuts	1-12, 13
Nutserts	1-15, 16
Nylon Nuts	1-16
O-Rings	1-16
Pins (Cotter, Spring, Clevis)	1-14, 15
Rack (Wire & Hose)	1-3, 27
Recipricating Blades	1-23
Retaining Rings (Int/Ext, E)	1-15
Roloc Discs	1-23
Self Drilling Screws (TEK)	1-6
Set Screws	1-11
Sheet Metal Screws	1-5, 6
Socket Head Shoulder Screws	1-10
Socket Head Screws	1-10, 11, 24
Springs	1-16
Stove Bolts	1-10
Tamperproof Screws	1-8
Tire Repair	1-23
Washers	1-12, 13
Weatherpak Terminals	1-17
Welding Rod	1-23, 27
Wire	1-27
Wire Nuts	1-17
Wire Rope Sleeves/Clamps	1-16
Wire Ties	1-19
Wood Screws	1-7
Woodruff Keys	1-14
X-mas Tree Clips	1-16

# DRAWERS AND RACK



## Drawers - Large Compartment

- All Drawers are 18" wide x 3" high x 12" deep

Product Number	Number of Compartments		Product Number	Number of Compartments	
0770026	6 Horizontal		0770021	21	
0770027	6 Vertical				
0770030	12		0770001	24	
0770029	16		0770032	32	
0770022	20		0770031	Adjustable	

## 4 Drawer Rack

Part Number	Dimensions	
0770002	20" wide x 15" high x 15-3/4" deep	
0770020	Stand For 4 Drawer Rack 22" deep	

## 40 Compartment Bin

Product Number	Description	Dimensions	
0770006	40 Compartment Bin	33-3/4" wide x 22-1/4" high x 8-1/2" deep	
0770014	Bin and Rack Stand	35-1/4" wide x 6" high x 12-1/2" deep	

## Welding Rod Bin

Product Number	Dimensions	
0770051	Each compartment is: 18-3/8" deep x 4" high x 5-1/4" wide	

## Wire & Hose Rack

Product Number	Description	
0770015	Dimensions: 26-1/8" wide x 37-1/8" high x 6" deep	

## Threaded Rod Rack

Product Number	Description	
0770050	Eighteen, 2-1/16" diameter openings	

## 18 Drawer Unit

Product Number	Description	
0770003	Dimensions: 33-3/4" wide x 12-7/8" high x 11-3/4" deep	

# ASSORTMENTS



## Machine Screw Assortments

Part Number	Description	Comp.	Pieces	Contents	
1930178	Flat Head Phillips	24	1500	Screws: 4-40 x 1/4 to 12-24 x 1 Nuts: 4-40 to 12-24	
2930178	Starter	24	600		
3930178	Refill		1500		
1930320	Flat Head Phillips Stainless	24	585	Screws: 6-32 x 1/2 to 1/4 x 2 Nuts: 6-32 to 1/4-20	
3930320	Refill		585		
1930318	Oval Head Phillips Stainless	24	585	Screws: 6-32 x 1/2 to 1/4 x 2 Nuts: 6-32 to 1/4-20	
1930105	Flat Head Slotted	24	1500	Screws: 4-40 x 1/4 to 12-24 x 1 Nuts: 4-40 to 12-24	
2930105	Starter	24	600		
3930105	Refill		1500		
1930132	Pan Head Phillips Metric	24	600	Screws: 3 x 6 to 10 x 30mm Nuts: 3 to 10mm	
3930132	Refill		600		
1930103	Pan Head Phillips	24	1500	Screws: 4-40 x 1/4 to 12-24 x 1 Nuts: 4-40 to 12-24	
2930103	Starter	24	600		
3930103	Refill		1500		
1930104	Round Head Slotted	24	1500	Screws: 4-40 x 1/4 to 12-24 x 1 Nuts: 4-40 to 12-24	
2930104	Starter	24	600		
3930104	Refill		1500		
1930153	Round Head Slotted Brass	24	600	Screws: 4-40 x 1/4 to 12-24 x 1 Nuts: 4-40 to 12-24	
3930153	Refill		600		
1930317	Round Head Slotted Stainless	24	585	Screws: 6-32 x 1/2 to 1/4 x 1-1/4 Nuts: 6-32 to 1/4-20	
3930317	Refill		585		
1930131	Round Head Slotted 18-8 Stainless	32	625	Screws: 6-32 x 1/4 to 1/4 x 1-1/2 Nuts: 6-32 to 1/4-20	
3930131	Refill		625		
1930319	Round Head Phillips Stainless	24	585	Screws: 6-32 x 1/4 to 1/4 x 1-1/4 Nuts: 6-32 to 1/4-20	
3930319	Refill		585		
1930152	Fillister Head Slotted	24	600	Screws: 6-32 x 3/8 to 1/4 x 1-1/2 Nuts: 6-32 to 1/4-20	
3930152	Refill		600		

## Drywall Screw Assortments

Part Number	Description	Comp.	Pieces	Contents	
1930005	Bugle Head Phillips	16	1350	Screws: 6 x 1 to 8 x 3	



## Sheet Metal Screw Assortments

Part Number	Description	Comp.	Pieces	Contents	
1930102 2930102 3930102	Pan Head Slotted Starter Refill	24 24	1200 600 1200	6 x 1/4 to 14 x 1-1/2	
1930106 2930106 3930106	Pan Head Phillips Starter Refill	24 24	1200 600 1200	6 x 1/2 to 14 x 2	
1930155 3930155	Flat Head Slotted Refill	24	500 500	6 x 1/2 to 14 x 2	
0930028 2930028 3930028	Flat Head Slotted Starter Refill	24 24	800 400 800	6 x 1/2 to 14 x 1-1/2	
1930108	Philips Oval Head	24	1050	6 x 1/2 to 14 x 3/4	
1930324 3930324	Oval Head Slotted 18-8 Stainless Refill	16	400 400	Screws: 6 x 1/2 to 14 x 1-1/2 Cup Washers: 6, 8, 10, 14	
1930120	Oval Head Slotted Stainless Steel	16	475	Screws: 6 x 1/2 to 14 x 1-1/2	
1930323 3930323	Oval Head Phillips 18-8 Stainless Refill	16	400 400	Screws: 6 x 1/2 to 14 x 1-1/2 Cup Washers: 6, 8, 10, 14	
1930321 3930321	Pan Head Slotted 18-8 Stainless Refill	16	400 400	Screws: 6 x 1/2 to 14 x 1-1/2 Cup Washers: 6, 8, 10, 14	
1930121 3930121	Pan Head Slotted Stainless Refill	16	450 450	Screws: 6 x 1/2 to 14 x 1-1/2	
1930322 3930322	Pan Head Phillips 18-8 Stainless Refill	16	400 400	Screws: 6 x 1/2 to 14 x 1-1/2 Cup Washers: 6, 8, 10, 14	



## Sheet Metal Screw Assortments

Part Number	Description	Comp	Pieces	Contents	
1930151	Hex Head Slotted Self-Piercing	12	1001	6 x 3/8 to 10 x 3/4 Magnetic Chuck	
1930413	Hex Washer Head Slotted	24	1200	6 x 1/2 to 14 x 2	

## Self Drilling Screw Assortments

Part Number	Description	Comp	Pieces	Contents	
1930147	Pan Head Phillips	20	850	6 x 1/2 to 14 x 2	
1930148	Flat Head Phillips	24	1000	6 x 1/2 to 14 x 1-1/2	
1930149	Hex Head	24	1000	6 x 1/2 to 14 x 2	
3930149	Refill		1000		
1930157	Hex Head	16	503	8 x 1/2 to 14 x 1-1/2 And magnetic drivers	
2930157	Starter	16	227		
3930157	Refill		503		
1930150	Pan Head Phillips and Hex Head	24	953	Pan Head: 8 x 1/2 to 10 x 1 Hex Head: 8 x 1/2 to 14 x 2	
2930150	Starter	24	575		
3930150	Refill		953		
1930355	Hex Head Stainless	24	1000	6 x 1/2 to 14 x 2	



## Self Threading Type F Hex Screw Assortment

1930109	Self Threading Hex Type F	12	227	1/4 x 1/2 to 3/8 x 1-1/2 #10 and #12-14 Hex Drivers	
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## Wood Screw Assortments

Part Number	Description	Comp.	Pieces	Contents	
0930014	Flat Head Phillips	24	825	6 x 1/2 to 6 x 1-1/2 8 x 1/2 to 8 x 2	
2930014	Starter	24	418	10 x 3/4 to 10 x 2 12 x 3/4 to 12 x 2	
3930014	Refill		825	14 x 1 to 14 x 2	
0930007	Flat Head Slotted	24	800	6 x 1/2 to 6 x 1-1/2 8 x 1/2 to 8 x 2	
2930007	Starter	24	400	10 x 3/4 to 10 x 2 12 x 3/4 to 12 x 2	
3930007	Refill		800	14 x 1 to 14 x 2	

## Masonite Screws

Part Number	Description	Comp.	Pieces	Contents	
1930216	Flat Head Phillips	12	250	3/16 x 1-1/4 to 3/16 x 2-3/4 1/4 x 1-1/4 to 1/4 x 4	
3930216	Refill		250		
1930217	Hex Head Phillips	12	250	3/16 x 1-1/4 to 3/16 x 2-3/4 1/4 x 1-1/4 to 1/4 x 4	
3930217	Refill		250		



## Tamperproof Screws

Part Number	Description	Comp.	Pieces	Contents	
1930192	Round Head Wood-Metal	24	825	6 x 1/2 to 6 x 1 8 x 1/2 to 8 x 1-1/2 10 x 1/2 to 10 x 2	
3930192	Refill		825	#6, #8, #10 Sockets	
1930416	Button Head MS Pin in Hex	24	350	6-32 x 1/4 to 1/4 x 2	
1930417	Button Head MS Flat Head MS Button Head SMS Pin in Hex	24	440	Button Head & Flat Head MS: 6-32 x 1/2 to 1/4-20 x 1 Button Head SMS: 8 x 1/2 to 10 x 1	
1930418	Flat Head MS Pin in Hex	24	350	6-32 x 3/8 to 1/4 x 2	

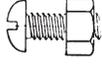
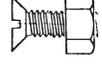


## Bolt Assortments

Part Number	Description	Comp.	Pieces	Contents			
0930076	Hex Bolts, Nuts & Washers USS Grade 8	24	1230	Bolts: 1/4 x 3/4 to 1/2 x 2-1/2 Nuts, Flat Washers, Lock Washers: 1/4, 5/16, 3/8, 1/2			
2930076	Starter	24	510				
3930076	Refill		1230				
0930077	Hex Bolts, Nuts & Washers SAE Grade 8	24	1230				
2930077	Starter	24	510				
3930077	Refill	24	1230				
0930078	Hex Bolts, Nuts & Washers USS Grade 5	24	1230				
2930078	Starter	24	510				
3930078	Refill		1230				
0930079	Hex Bolts, Nuts & Washers SAE Grade 5	24	1230	Bolts: 6 x 12 to 6 x 70mm Hex Nuts, Nylocks, Flat Washers, Lock Washers: 6mm			
2930079	Starter	24	510				
3930079	Refill		1230				
1930134	Hex Bolts, Nuts & Washers Metric 8.8	16	560			Bolts: 8 x 12 to 8 x 70mm Hex Nuts, Nylocks, Flat Washers, Lock Washers: 8mm	
3930134	Refill		560				
1930135	Hex Bolts, Nuts & Washers Metric 8.8	16	405			Bolts: 10 x 16 to 10 x 70mm Hex Nuts, Nylocks, Flat Washers, Lock Washers: 10mm	
3930135	Refill		405				
1930136	Hex Bolts, Nuts & Washers Metric 8.8	16	250			Bolts: 12 x 20 to 12 x 90mm Hex Nuts, Flat Washers, Lock Washers: 12mm	
3930136	Refill		250				
1930137	Hex Bolts, Nuts & Washers Metric 8.8	12	180	Bolts: 4 x 12 to 5 x 30 Hex Nuts, Nylocks, Flat Washers, Lock Washers			
3930137	Refill		180				
1930138	Hex Bolts, Nuts & Washers Metric 8.8	16	375	6 x 12 to 12 x 60mm Hex Nuts, Flat Washers: 6-12mm			
0930155	Hex Bolts, Nuts & Washers Metric 8.8	24	415				
0930268	Hex Bolts, Nuts & Washers Metric 8.8 Fine	24	325	8 x 20 to 14 x 60 Hex Nuts: 8-14mm			
0930269	Hex Bolts & Nuts Metric 8.8 Fine	24	260				
0930154	Hex Bolts & Nuts Metric 10.9	24	500	Bolts: 6 x 12 to 12 x 60mm Nuts: 6, 8, 10, 12mm			
3930154	Refill		500				



## Bolt Assortments

Part Number	Description	Comp.	Pieces	Contents	
0930156	Hex Bolts Metric 10.9	24	280	6 x 12 to 12 x 60mm	
1930119	Hex Bolts, Nuts & Washers 18-8 Stainless	24	555	Bolts: 1/4 x 3/4 to 1/2 x 2 Nuts, Flat Washers, Lock Washers: 1/4, 5/16, 3/8, 1/2	
1930316	Hex Bolts, Nuts & Washers 316 Stainless	24	510	Bolts: 1/4 x 3/4 to 1/2 x 2-1/2 Nuts, Flat Washers, Lock Washers: 1/4, 5/16, 3/8, 1/2	
3930316	Refill		510		
0930500	USS Tap Bolts	24	220	1/4-20 x 1-1/4 to 1/2-13 x 3	
1930024	Round Head Stove Bolts	24	550	Bolts: 10-24 x 1/2 x 5/16-18 x 2 Nuts: 10-24, 1/4-20, 5/16-18	
3930024	Refill		550		
1930025	Flat Head Stove Bolts	24	550	Bolts: 10-24 x 1/2 x 5/16-18 x 2 Nuts: 10-24, 1/4-20, 5/16-18	
1930511	Socket Shoulder Screws	24	85	10/24 x 1 to 3/8-16 x 2	

## Anchor Assortments

Part Number	Description	Comp	Pieces	Contents	
0930160	Hollow Wall Anchors Metal	24	166	Short: 1/8, 3/16 and 1/4 Long: 1/8, 3/16 and 1/4	
3930160	Refill		166		
1930123	Hollow Wall Anchors	16	255	Assorted styles including self-drilling	
3930123	Refill		255		
1930174	Mungo Nylon Anchors	16	295	Universal Plug, Nylon Plug, Hammer Screw, EZ Toggle and Jet Plug	
3930174	Refill		295		
1930419	Drywall Anchors	16	345	Assorted metal and nylon	



## Socket Head Bolts

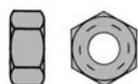
Part Number	Description	Comp.	Pieces	Contents	
1930125	Socket Head - Alloy	24	600	6-32 x 1/2 to 6-32 x 1 8-32 x 1/2 to 8-32 x 1 10-24 x 1/2 to 10-24 x 2	
3930125	Refill		600	1/4-20 x 1/2 to 1/4-20 x 2 5/16-18 x 3/4 to 5/16-18 x 2 3/8-16 x 1 to 3/8-16 x 2-1/2	
1930133	Socket Head Metric 12.9	24	400	4 x 10 to 4 x 20mm 5 x 10 to 5 x 20mm 6 x 10 to 6 x 20mm	
3930133	Refill		400	8 x 12 to 8 x 25mm 10 x 16 to 10 x 30mm 12 x 25 to 12 x 50mm	
1930034	Flat Socket Head - Alloy	24	525	10-24 x 1/2 to 10-24 x 3/4 1/4-20 x 1/2 to 1/4-20 x 2 5/16-18 x 3/4 to 5/16-18 x 2 3/8-16 x 3/4 to 3/8-16 x 2-1/2 1/2 x 3/4 x 1/2 x 2	

## Socket Head Set Screws

Part Number	Description	Comp	Pieces	Contents	
0930001	Socket Head Set Screws	12	300	10-24 x 1/4	
3930001	Refill		300	1/4-20 x 5/16 to 1/4-20 x 3/8 5/16-18 x 5/16 to 5/16-18 x 1/2 3/8-16 x 1/2 to 3/8-16 x 3/4 7/16-14 x 1/2 to 7/16-14 x 3/4 1/2-13 x 1/2	
1930213	Socket Head Set Screws Alloy	24	600	6-32 x 3/16 to 6-32 x 1/2 8-32 x 1/4 to 8-32 x 3/4 10-24 x 1/4 to 10-24 x 3/4	
3930213	Refill		600	10-32 x 1/4 to 10-32 x 3/4 1/4-20 x 1/4 to 1/4-20 x 3/4 5/16-18 x 3/8 to 5/16-18 x 3/4	
1930049	Socket Set Screws USS	16	120	3/8-18 x 3/8 to 3/8-18 x 1-1/5 1/2-13 x 1/2 to 1/2-13 x 1 5/8-11 x 3/4 to 5/8-11 x 1	



## Nuts

Part Number	Description	Comp	Pieces	Contents	
0930010 3930010	Hex Nuts USS Grade 8 Refill	12	455	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1"	
0930011 3930011	Hex Nuts SAE Grade 8 Refill				
0930021 3930021	Hex Nuts USS Grade 5 Refill				
0930022 3930022	Hex Nuts SAE Grade 5 Refill				
0930034 3930034	Nuts, Flat Washers & Lock Washers Grade 5 Refill	24	1000	1/4, 5/16, 3/8, 7/16, 1/2	
0930035 3930035	Nuts, Flat Washers & Lock Washers Grade 8 Refill				
0930062 3930062	Machine Screw Nuts Refill	24	1150 1150	Nylock, Keps, Hex & Wing Nuts: 6-32, 8-32, 10-32, 10-24, 1/4-20	
1930145 3930145	Nuts and Washers Metric Grade 8.8 Refill	24	525 525	Hex Nuts, Flat Washers and Lock Washers: 4, 5, 6, 7, 8, 10 and 12mm	
0930157	Nuts and Washers Metric Grade 8.8		975		
1930146 3930146	Nuts and Washers Metric Grade 10.9 Refill	24	635 635	Hex Nuts, Lock Nuts, Flat Washers and Lock Washers: 6, 8, 10, 12, 14, 16mm	



## Nuts

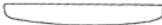
Part Number	Description	Comp	Pieces	Contents	
1930160	Castle Nuts SAE	12	130	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1"	
0930122	Nylon Insert Lock Nuts	24	350	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4"	
3930122	Refill		350	USS and SAE	
0930123	USS Nylon Lock /Nuts	12	340	8/32 to 1"-8	
0930124	SAE Nylon Lock Nuts	12	340	8-32 to 1"-12	
0930125	Gr8 USS Nylon Lock Nuts	16	250	1/4-20 to 1"-8	
1930158	Stover Lock Nuts	24	360	USS and SAE: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	
3930158	Refill		360		

## Washers

Part Number	Description	Comp.	Pieces	Contents	
0930002	Machine Screw Washers	16	1600	Internal, External, Lock and Flat Washers: #6, #8, #10 and 1/4	
3930002	Refill		1600		
0930030	Flat Washers USS Grade 5	12	430	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1"	
3930030	Refill	12	430		
0930031	Flat Washers SAE Grade 5	12	430		
3930031	Refill	12	430		
0930008	Flat Washers USS Grade 8	12	430		
3930008	Refill	12	430		
0930009	Flat Washers SAE Grade 8	12	440	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1"	
3930009	Refill	12	440		
0930033	Split Lock Washers Grade 5	12	920	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1"	
3930033	Refill		920		
0930012	Split Lock Washers Alloy	12	1000		
3930012	Refill		1000		



## Miscellaneous Fastener Assortments

Part Number	Description	Comp	Pieces	Contents	
0930003	Clevis Pins	16	110	Universal: 1/4 x 2 to 1/2 x 2 Standard: 1/4 x 1 to 7/16 x 1-1/2	
3930003	Refill		110		
0930004	Expansion Plugs	12	145	Shallow Cup: 5/8 to 1-13/16 Standard Cup: 1-7/32 to 1-31/32	
3930004	Refill		145		
0930005	Woodruff Keys	24	355	3/32 x 1/2 to 5/16 x 1-1/2	
3930005	Refill		355		
0930032	Cotter Pins	16	1425	3/64 x 3/4 to 3/16 x 2	
3930032	Refill		1425		
1930215	Cotter Pins	24	3125	1/16 x 3/4 to 1/4 x 2-1/2	
2930215	Starter	24	1025		
3930215	Refill		3125		
1930345	Cotter Pins Stainless	24	1050	1/16 x 3/4 to 1/4 x 2-1/2	
0930074	Roll Pins	16	775	1/16 x 1/2 to 1/4 x 1-1/4	
3930074	Refill		775		
1930211	Roll Pins	24	775	1/16 x 1/2 to 1/2 x 2-1/2	
2930211	Starter	24	395		
3930211	Refill		775		
1930164	Taper Pins - Steel	24	450	2/0 x 1-1/2 to 6 x 3	
3930164	Refill		450		



## Miscellaneous Fastener Assortments

Part Number	Description	Comp	Pieces	Contents	
0930081	Blind Rivets	7	751	Rivets: 1/8 x 1/8 to 3/16 x 1/2	
3930081	Refill		751	Rivet Gun	
0930086	Multi-Grip Rivets	7	751	1/8 to 3/16	
2930086	Starter	7	750		
3930086	Refill		751		
1930167	Rivets - Automotive	20	510	Most popular nylon, window regulator and miscellaneous rivets	
0930114	Nutserts	9	206	Thinsheet Nutserts: 6-32, 8-32, 10-24, 10-32, 1/4-20	
3930114	Refill		206	Ribbed Nutserts: 10-24, 10-32, 1/4-20 Nutsert Gun w/ Mandrels	
0930118	Grease Fittings	12	90	Straight: 6, 8 and 10mm	
3930118	Metric Refill		90	45 Degree: 6, 8 and 10mm 90 Degree: 6, 8 and 10mm	
0930025	Grease Fittings	12	102	1/8 and 1/4 straight, 30°, 45°, 67°, 90° and extra long	
3930025	SAE Refill		102		
1930139	Grease Fittings	24	116	Straight, 45°, 90°: 6, 8 and 10mm Straight, 30°, 45°, 67°, 90° : 1/8, 3/16, 1/4, 5/16	
1930107	Clevis Hairpins	12	220	1/16 x 15/16 to 5/16 x 3-5/16	
3930107	Refill		220		
1930214	Retaining Rings	24	840	Internal: 5/16 to 1-1/4	
2930214	Internal and External Starter	24	400	External: 1/4 to 1-1/4	
3930214	Refill		840		
0930087	Retaining Rings	12	600	3/32 to 3/4	
3930087	E-Type Refill		600		



## Miscellaneous Fastener Assortments

Part Number	Description	Comp	Pieces	Contents	
0930094	O-Rings - Buna	24	600	1/8 x 1/4 to 1-5/16 x 1-9/16	
2930094	Starter	24	480		
3930094	Refill		600		
1930196	Roller Chain Connecting and Offset Links	12	60	Spring Clip Link, Cottered Link, Offset Link, and Roller Link #40, #50, #60 and #80	
3930196	Refill		60		
1930404	Drain Plugs & Gaskets	24	145	Single oversize, double oversize, 12mm, 14mm, 16mm, 18mm, 20mm, 1/2-20	
1930270	Extension Springs	Adjust	65	13 of the most popular sizes	
1930144	Nylon Nuts	16	775	Most popular Nylon Nuts for Domestic and Japanese cars	
1930165	Body Bolts and Nuts	20	625	Most popular Body Bolts and Nuts	
1930166	Xmas Tree Clips	21	690	Most popular Xmas Tree Clips	
1930115	Ribbed Nutserts	Adjust	146	Tool 6/32, 8/32, 10/24, 10/32, 1/4-20, 5/16-18 & 3/8-16	
0930178	Wire Rope Sleeves & Clamps	12	80	Sleeves, Clamps and Thimbles	
0930245	Maleable Pipe Fittings	24	90	Plugs, Bushings, Couplings, Close Nipples, Caps & Reducing Couplings 1/8, 1/4, 3/8, 1/2	



## Electrical Assortments - Terminals and Caps

Part Number	Description	Comp	Pieces	Contents	
0930059 3930059	Uninsulated Hi-Temp Terminals Refill	16	800 800	Rings, Forks, Quick Disconnects and Butts	
0930150	Nylon Terminals 8, 6 and 4 Gauge	16	120	Rings and Butts	
1930101 2930101 3930101	Nylon Terminals Starter Refill	24 24	580 385 580	Rings, Bullets, Butts, Forks, Quick Disconnects and Scotch Lock Red, Blue, Yellow	
1930140 3930140	Nylon Terminals 22-18 Gauge Refill	16	675 675	Rings, Forks, Hook, Butt and Fully Insulated Quick Disconnects Red	
1930141 3930141	Nylon Terminals 16-14 Gauge Refill	24	935 935	Rings, Forks, Hook, Butt, Bullets, 3-Way, Scotch Lock and Quick Disconnects Blue	
1930429	Nylon Terminals 12-10 Gauge	24	440	Rings, Forks, Hook, Butt, 3-Way, and Quick Disconnects Yellow	
1930340 3930340	ElektraLink Terminals Heat Shrink Solder Refill	24	240 240	Rings, Forks, Quick Disconnects and Butts Red, Blue, Yellow	
1930341 3930341	Krimp and Seal Terminals Heat Shrink Crimp Refill	24	240 240	Rings, Forks, Quick Disconnects and Butts Red, Blue, Yellow	
1930172	Weatherpack Connectors	21	145	1, 2, 3, 4, 5 & 6 cavity, male and female. Plugs, seals, connectors and tool.	
1930143 3930143	Wire Nuts Refill	12	221 221	3 Styles plus AC Sensor	

# ASSORTMENTS



## Electrical Assortments - Battery

Part Number	Description	Comp	Pieces	Contents	
1930118	Battery Lugs and Connectors	16	140	6 gauge to 3/0 gauge Lugs and Butts	
2930118	Starter	16	78		
1930330	Battery Solder Slugs	12	141	4 gauge to 4/0 gauge And Flux	
2930330	Starter	12	61		
3930330	Refill		141		
1930400	Battery Terminals	14	70	4, 1 and 2/0 gauge Terminals, Lugs, Solder Slugs and Shrink Tubing	
2930400	Starter	14	36		
3930400	Refill		70		
1930401	Battery Terminals	12	66	2/0 gauge Terminals, Lugs, Solder Slugs and Shrink Tubing	
3930401	Refill		66		
0930095	Glass Fuses	24	525	SFE: 4 thru 20 AGA: 1, 5 AGC: 1 thru 30 SFE: 30 GBC: 8 AGX: 20	
2930095	Starter	24	210		
3930095	Refill		525		
0930120	Plug-In Fuses	24	140	ATC: 3-30 amp Mini: 3-30 amp 1/4" Male Tab	
3930120	Refill		140		
1930212	Fuses	24	332	Glass SFE, AGA and AGC ATC and Fuseholders	
2930212	Starter	24	172		
3930212	Refill		332		
1930402	Maxi Fuses	12	23	20, 30, 40, 50, 60, 70 & 80 amp	
0930119	ATC-Fuses & Accessories	16	65	3amp to 30amp, Fuse Block and In-line accessories	
3930119	Refill		65		
1930222	ATM GLO FUSES	12	80	3amp to 30amp	
3930222	Refill		80		
1930223	ATC-GLO FUSES	12	80		
3930223	Refill		80		
1930224	ATC/ATM GLO FUSES	16	160	3amp to 30amp	
3930224	Refill		160		
1930500	Grommets	16		Various Sizes	



## Electrical Assortments - Misc

Part Number	Description	Comp	Pieces	Contents	
1930197	Circuit Breakers	16	30	Snap-in, Tong, Tab, Post and Post Bracket	
3930197	Refill		30		
1930130	Miniature Bulbs	12	60	53, 57, 67, 194, 1034, 1073, 1141, 1156, 1157, 1895	
3930130	Refill		60		
0930161	Heat Shrink Tubing Sealform	6	24	3/16 to 3/4 Micro Jet Torch	
3930161	Refill		24		
1930204	Heat Shrink Tubing Heavy Wall w/ Sealant	6	11	5/16, 3/4, 1 and 1-1/2	
3930204	Refill		11		
0930163	Solder and Torch	6	7	EZ Solder - Silver EZ Solder - Copper EZ Solder - Aluminum Silver Solder and Micro Torch	
3930163	Refill		7		
1930200	Wire Ties - Clear	6	150	4, 6, 8, 12 and 15	
3930200	Refill				
1930201	Wire Ties - Black	6	150	4, 6, 8, 12 and 15	
3930201	Refill				
1930343	Loom Clips and Clamps	16	118	3 Styles 1/4, 3/8, 1/2, 5/8, 3/4, 1", 1-1/4 Small, Medium and Large Clips	
1930225	22-18 RED Krimp-N-Seal	12	105	Rings, Spade, Bullets, Quick Disconnects, Butts	  
1930226	16-14 Blue Krimp-N-Seal	16	140	Rings, Spade, Bullets, Quick Disconnects, Butts	
1930227	12-10 Yellow Krimp-N-Seal	12	95	Rings, Spade, Quick Disconnects, Butts	
1930344	Multilink Terminals	24	140	Red, Blue, Yellow Rings, Spades, Quick Disconnects, Butts	
3930344	Refill		140		



## Brass and Hydraulic Fitting Assortments

Part Number	Description	Comp	Pieces	Contents	
0930013	Inverted Flare Brass Fittings	12	165	Unions, Male Elbows, Male Connectors and Inverted Nuts 3/16, 1/4, 5/16	
0930238	Barb Tite Fittings	18	72	SAE Female Swivel, Inverted Female, Inverted Male Swivel, Hose Mender, Male Pipe, SAE Male Rigid	
3930236	Low Pressure Refill		72		
1930128	Mini Barb Fittings	24	84	Male Hose Barbs, Female Hose Barbs, Male Hose Elbows, Hose Menders 1/8, 1/4, 5/16 3/8	
1930127	Pushlok Barb Fittings	24	38	Male Pipe, Hose Mender, SAE Swivel Nut, Inverted Rigid Female, Inverted Male Swivel 1/4, 3/8, 1/2	
3930127	Low Pressure Refill		38		
1930110	Push-To-Connect Fittings	24	48	Union, Male Connector, Male Elbow, Female Connector	
3930110	Refill		48		
1930173	Hydraulic Crimp Fittings	11	30	Male Pipe Rigid, SAE 37 Female Swivel, Collets 1/4, 3/8 and 1/2	
3930173	High Pressure Refill		30		
1930175	Collet Air Brake Fittings	16	110	Ferrule, Nut, Union, Male Elbow, Male Connector 1/8, 5/32, 1/4	
1930182	Brass Compression Tube Fittings	24	237	Sleeve, Nut, Elbow, Union, Male Connector 1/8, 3/16, 1/4, 5/16, 3/8	
3930182	Refill		237		
1930420	JIC 37° Plugs & Caps	12	65	Caps & Plugs: 1/4 - 1"	
1930421	FOR-SEAL Plugs & Caps	12	65	Caps & Plugs 1/4 - 1"	



## Brass and Hydraulic Fitting Assortments

Part Number	Description	Comp	Pieces	Contents	
1930185 3930185	SAE 45° Flare Brass Fittings Refill	24	88	Flare Nut, Union, Male Connector, Male Elbow 3/16, 1/4, 5/16, 3/8, 1/2	
1930180 3930180	SAE 45° Flare Brass Fittings Refill	24	102	Flare Nut, Union, Connector, Elbow 3/16, 1/4, 5/16, 3/8, 1/2	
1930187	Brass Pipe Adapters	24	114	Bushing, Adapter, Reducing Coupler, Cap, Hex Plug 1/8, 1/4, 3/8, 1/2	
1930188	Brass Pipe Nipples	12	60	Hex: 1/8, 1/4, 3/8, 1/2 Close: 1/8, 1/4, 3/8, 1/2 Reducing: 1/4-1/8, 3/8-1/4, 3/8-1/8, 1/2-3/8	
1930189	Brass Pipe Nipples -Long	16	72	1/8 x 1-1/2 to 1/2 x 3	
1930190	Brass Pipe Fittings	20	53	Elbow, Street Elbow, 45 Elbow, Cross, Tee 1/8, 1/4, 3/8, 1/2	
0930015 3930015	Brass Pipe Fittings Refill	24	92	Hex Plug, Close Nipple, Union, Bushing, Pipe Tee and Street Elbows 1/8, 1/4, 3/8, 1/2	
1930198	Reducing Couplers and Bushings	12	71	1/4x1/8 to 3/4x1/2 Bushings 1/4x1/8 to 1/2x3/8 Reducing Couplers	
1930505	Garden Hose Repair Fittings	12	41	5/8&3/4 Male Hose Barbs, Female Swivels, Plastic Washers & Male Hose Barb Unions	



## Fitting Assortments - Air Brake

Part Number	Description	Comp	Pieces	Contents	
0930083 3930083	Air Brake Fittings For Copper Tubing Refill	24	119 119	Sleeve, Nut, Union, Connector and Elbow 1/4, 3/8, 1/2	
1930194 3930194	NTA Air Brake Fittings For Nylon Tubing Refill	24	191 191	Insert, Sleeve, Nut, Union, Male Connector, Male Elbow 1/4, 3/8, 1/2	
1930411 3930411	NTA Air Brake Fittings For Nylon Tubing Refill	24	124 124	Sleeve, Nut, Union, Male Connector, 90 Male Elbow, Insert 1/8, 1/4, 3/8, 1/2	
1930409	Air Brake Hose Fittings	16	34	Connector Assembly, Sleeve, Coupling Nut, Connector w/Adapter, Adapter, Hose Mender 3/8, 1/2	
1930410	Air Brake Hose Fittings	16	42	Sleeve, Coupling Nut, Coupling Body, Female Connector, Adapter, Hose Mender, Nut/Spring Guard 3/8, 1/2	
1930415	DOT LF3000 Air Brake Fittings	24	69	Union, Male Connector, Elbow, Male 90 Elbow 5/32, 1/4, 3/8, 1/2	
1930412 3930412	DOT LF3000 Air Brake For Nylon Tubing Refill	16	62 62	Male Connector, Male Elbow, Union 1/8, 1/4, 3/8, 1/2	
1930206 3930206	DOT LF3000 Instant Air Brake Fittings Refill	20	68 68	Union, Union Tee, Male Connector, Union Elbow, Release Button, Male Elbow 3/8 and 1/2	
1930208 3930208	DOT LF3000 Instant Air Brake Fittings Refill	24	71 71	Union, Union Tee, Male Connector, Union Elbow, Release Button, Male Elbow 1/4, 3/8 and 1/2	



## Miscellaneous Assortments

Part Number	Description	Comp	Pieces	Contents	
1930202	Machinist Files & Handles	6	10	Flat Bastard: 6 and 10" Half Round: 12"	
3930202	Refill		10	Round Bastard: 10" Triangular Bastard: 8"	
1930203	Saw Files	6	10	Mill Bastard: 8 and 10" Slim Taper: 10"	
3930203	Refill		10	Round Chain Saw: 8" Extra Slim Taper: 8"	
1930218	Adhesives and Sealants	8	8	Threadlocker: Red, Blue, Green	
3930218	Refill		8	Metal Adhesive, Plastic Adhesive, Rubber Adhesive, Instant Gel, Pipe Sealant	
1930219	Hex Insert Bit & Power Driver 1/4"	24	27	Phillips: #1, #2, #3 Phillips Powerbit: #1, #2, #3	
3930219	Refill		27	Slotted: 4 sizes	
1930403	Combined Drill-n-Tap	6	6	8-32, 10-32, 10-24, 1/4-20, 5/16-18, 3/8-16	
1930073	Reciprocating Saw Blades for Metalwork	6	40	4" x 14 tpi to 4" x 18 tpi 6" x 8-12 tpi to 6" x 24 tpi 9" x 8-12 tpi to 9" x 14 tpi	
1930074	Reciprocating Saw Blades for Multi Purpose	6	35	4" 6" 9" 12" Bi-Metal, Demolition, Plastic and Wood cutting and Ceramics	
0930158	Welding and Brazing Rods	6	6	Assortment of 1/8 welding rod & 3/32 brazing rod	
1930501	Swing Safety Coupler	12	32	1/4, 3/8 & 1/2 Couplers/Nipples	
2930501	Starter	12	27		
1930502	Swing Safety Coupler	12	29	1/4 & 3/8 Couplers/Nipples Caps & Covers	
1930503	ROLOC Discs	12	48	2" & 3" Mandrels, C.R.U.D.	
2930503	Starter	12	46	Coarse, Medium, Fine	
1930504	ROLOC Discs	12	47	2" & 3" Mandrels	
2930504	Starter	12	45	Coarse, Medium & Fine Discs	
1930517	Tire Repair	12	122	T-Handle Probe, Plugs, Patches, Valves, Valve Caps, Valve Cores & Cement	

# ASSORTMENTS



## Fastener Starter Assortments

Part Number	Description	Comp	Pieces	Contents					
0930110 3930110	Hex Bolts, Nuts & Washers USS Grade 8 Refill	80 (2 x 40)	2,820	Bolts: 1/4 x 1/2 to 1/4 x 2 5/16 x 3/4 to 5/16 x 2-1/2 3/8 x 3/4 to 3/8 x 2-1/2 7/16 x 1 to 7/16 x 3 1/2 x 1 to 1/2 x 3 5/8 x 1-1/2 to 5/8 x 4 3/4 x 2 to 3/4 x 5 Nuts, Flat Washers, Lock Washers: 1/4 to 3/4"					
0930111 3930111	Hex Bolts, Nuts & Washers SAE Grade 8 Refill								
0930108 3930108	Hex Bolts, Nuts & Washers USS Grade 5 Refill								
0930109 3930109	Hex Bolts, Nuts & Washers SAE Grade 5 Refill								
0930101 0930102 0930106 0930107	Hex Bolts, Nuts & Washers USS Grade 8 Hex Bolts, Nuts & Washers SAE Grade 8 Hex Bolts, Nuts & Washers USS Grade 5 Hex Bolts, Nuts & Washers SAE Grade 5	40	2,590	Bolts: 1/4 x 1/2 to 1/4 x 2 5/16 x 3/4 to 5/16 x 2-1/2 3/8 x 3/4 to 3/8 x 2-1/2 7/16 x 1 to 7/16 x 3 1/2 x 1 to 1/2 x 3 Nuts, Flat Washers, Lock Washers: 1/4 to 1/2					
0930112	Hex Bolts, Nuts & Washers USS Grade 5					80 (2 x 40)	1,185	Bolts: 1/4 x 1/2 to 1/4 x 2-1/2 5/16 x 1/2 to 5/16 x 2-1/2 3/8 x 3/4 to 3/8 x 3 1/2 x 1 to 1/2 x 4 5/8 x 1-1/2 to 5/8 x 4 3/4 x 2 to 3/4 x 4 Nuts, Flat Washers, Lock Washers: 1/4 to 3/4	
0930051	Alloy Socket Head Cap Screw					40	1060	6/32x1/4 to 1/2x3	
0930130 0930132 0930131 0930133	Gr 5 USS Nuts, Flat Washers & Lock Washers Gr 5 SAE Nuts, Flat Washers & Lock Washers Gr 8 USS Nuts, Flat Washers & Lock Washers Gr 8 SAE Nuts, Flat Washers & Lock Washers					40	1560	1/4-1"	



## Fastener Starter Assortments

Part Number	Description	Comp	Pieces	Contents	
0930070	Hex Bolts, Nuts & Washers Metric 8.8	80 (2 x 40)	1,195	Bolts: 6 x 12 to 6 x 45mm 8 x 16 to 8 x 50mm 10 x 20 to 10 x 60mm 12 x 20 to 12 x 60mm 14 x 30 to 14 x 60mm 16 x 35 to 16 x 70mm Nuts, Flat Washers, Lock Washers: 6 to 16mm	  
3930070	Refill				
0930071	Hex Bolts, Nuts & Washers Metric 10.9	40	1,345	Bolts: 6 x 12 to 6 x 30mm 8 x 16 to 8 x 40mm 10 x 20 to 10 x 50mm 12 x 25 to 12 x 50mm 16 x 30 to 16 x 70mm Nuts, Flat Washers, Lock Washers: 6 to 16mm	  
3930071	Refill				
0930069	Hex Bolts, Nuts & Washers Metric 8.8	40	875	Bolts: 8 x 20 to 8 x 50mm 10 x 20 to 10 x 50mm (fine) 10 x 20 to 10 x 50mm (jis) 12 x 20 to 12 x 50mm (fine) 12 x 20 to 12 x 50mm (jis) Nuts, Flat Washers, Lock Washers: 8 to 12mm	  
0930072	Hex Bolts, Nuts & Washers Metric 10.9				
3930069	Refill	40	875	Bolts: 1/4 x 1/2 to 1/4 x 2 5/16 x 3/4 to 5/16 x 2-1/2 3/8 x 3/4 to 3/8 x 2-1/2 1/2 x 1 to 1/2 x 3 Nuts, Flat Washers, Lock Washers: 1/4 to 1/2	  
0930072	Refill				
0930270	Hex Bolts, Nuts & Washers Metric 8.8 Fine Thread	40	965	Bolts: 1/4 x 1 to 1/4 x 6 5/16 x 1 to 5/16 x 6 3/8 x 1 to 3/8 x 6 1/2 x 1-1/2 to 1/2 x 6 Nuts, Washers: 1/4 to 1/2	
3930270	Refill				
0930067	Hex Bolts, Nuts & Washers 18-8 Stainless	40	900	Bolts: 1/4 x 1 to 1/4 x 6 5/16 x 1 to 5/16 x 6 3/8 x 1 to 3/8 x 6 1/2 x 1-1/2 to 1/2 x 6 Nuts, Washers: 1/4 to 1/2	
3930067	Refill				
1930315	Hex Bolts, Nuts & Washers 316 Stainless	40	900	Bolts: 1/4 x 1 to 1/4 x 6 5/16 x 1 to 5/16 x 6 3/8 x 1 to 3/8 x 6 1/2 x 1-1/2 to 1/2 x 6 Nuts, Washers: 1/4 to 1/2	
3930315	Refill				
0930042	Carriage Bolts, Nuts and Washers Grade 2	40	900	Bolts: 1/4 x 1 to 1/4 x 6 5/16 x 1 to 5/16 x 6 3/8 x 1 to 3/8 x 6 1/2 x 1-1/2 to 1/2 x 6 Nuts, Washers: 1/4 to 1/2	
3930042	Refill				



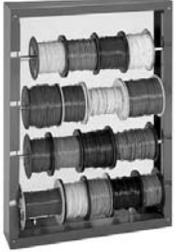
## Fitting Starter Assortments

Part Number	Description	Comp.	Pieces	Contents	
0930018 3930018	Malleable Iron Pipe Fittings Refill	40	195 195	Bushing, Tee, 90 Elbow, Reducer, 90 Street, 45 Street, Coupling, Plug, Nipple 1/8, 1/4, 3/8, 1/2, 3/4	
0930239 3930239	Fleet Hose and Fittings Medium Pressure DOT Approved Refill	40	72 72	Male Pipe, Inverted Male Swivel, SAE/JIC Female Swivel, Nut, Air Brake Male Conn, Sleeve, Spring Guard, Mender Union 3/16, 1/4, 5/16, 13/32, 3/8, 1/2	
0930241	Collo-Crimp Fittings High Pressure DOT Approved 1/4, 3/8, 1/2, 3/4	40	84	Male Pipe, SAE 37 JIC Male Pipe, Inverted Male Pipe Swivel, Male Pipe Swivel, SAE 37 JIC Female Swivel 90, SAE 45 Female Swivel, Inverted Male Pipe Swivel	
0930243	JIC Adapters	40	152	Plugs, Caps, Unions, Elbows, Male Connectors, Swivel Adaters, Straight Thread O-Ring 1/8, 1/4, 3/8, 1/2, 5/8, 3/4	
0930244	Collo-Crimp Fittings High Pressure For-Seal	40	44	Male Rigid, Female Swivel, 45 Female Swivel, 90 Female Swivel 1/4, 3/8, 1/2, 5/8	
0930018 3930018	Malleable Iron Pipe Fittings Refill	40	195 195	Bushings, Tees, Elbows, Re- ducers, Couplings, Plugs, Nipples 1/8, 1/4, 3/8, 1/2, 3/4	

## Hose Clamp Assortment

Part Number	Description	Comp	Pieces	Contents	
0930117	Hose Clamps Stainless Steel	11	100	10 Sizes #5 to #48	
3930117	Refill		100		

## Wire Assortment

Part Number	Description	Comp	Pieces	Contents	
0930090	Primary Wire Plastic Covered	4 Rods	12	16 Ga: Red, Black, White 14 Ga: Red, White, Black, Green 12 Ga: Red, White Black 10 Ga: Red, Black	
3930090	Refill				
0930091	Crosslink Primary Wire Hypalon Covered				
3930091	Refill				

## Welding Rod Assortment

Part Number	Description	Comp	Contents	
1930600	Assortment of electrodes that will handle all types and grades of steel and steel alloys, high carbon steels, medium steels, manganese, all sensitive and hard to weld steels and all combinations of dissimilar steels plus stainless steels and all grades of cast iron.	6	3/32 Mild Steel - 5 lb. 1/8 Mild Steel - 5 lb. 3/32 Cast Iron - 1 lb. 3/32 High Strength Steel - 2.5 lb. 1/8 High Strength Steel - 2.5 lb. 3/32 Stainless Steel - 2.5 lb.	

# FASTENERS



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# FASTENERS



## Cap Screw and Bolt Thread Chart

(Actual size)

**USS**

**SAE**

<p><b>1"</b> <b>4</b> DIA.</p> 	<p><b>COARSE</b> 20 THREADS AN INCH</p>	 <p><b>FINE</b> 28 THREADS AN</p>
<p><b>5"</b> <b>16</b> DIA.</p> 	<p><b>COARSE</b> 18 THREADS AN INCH</p>	 <p><b>FINE</b> 24 THREADS AN</p>
<p><b>3"</b> <b>8</b> DIA.</p> 	<p><b>COARSE</b> 16 THREADS AN INCH</p>	 <p><b>FINE</b> 24 THREADS AN</p>
<p><b>7"</b> <b>16</b> DIA.</p> 	<p><b>COARSE</b> 14 THREADS AN INCH</p>	 <p><b>FINE</b> 20 THREADS AN</p>
<p><b>1"</b> <b>2</b> DIA.</p> 	<p><b>COARSE</b> 13 THREADS AN INCH</p>	 <p><b>FINE</b> 20 THREADS AN</p>
<p><b>5"</b> <b>8</b> DIA.</p> 	<p><b>COARSE</b> 11 THREADS AN INCH</p>	 <p><b>FINE</b> 18 THREADS AN</p>

## Cap Screw and Bolt Thread Chart

(Actual size)

### USS

### SAE

<p><b>3"</b> 4 DIA.</p> 	<p><b>COARSE</b> 10 THREADS AN INCH</p>	 <p><b>FINE</b> 18 THREADS AN INCH</p>
<p><b>7"</b> 8 DIA.</p> 	<p><b>COARSE</b> 9 THREADS AN INCH</p>	 <p><b>FINE</b> 14 THREADS AN INCH</p>
<p><b>1"</b> DIA.</p> 	<p><b>COARSE</b> 8 THREADS AN INCH</p>	 <p><b>FINE</b> 14 THREADS AN INCH</p>
<p><b>1/4"</b> DIA.</p> 	<p><b>COARSE</b> 7 THREADS AN INCH</p>	 <p><b>FINE</b> 12 THREADS AN INCH</p>

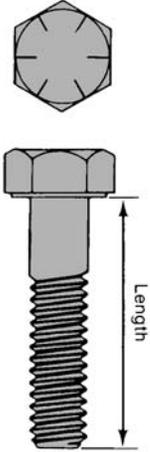
# FASTENERS



## USS Hex Cap Screws-Grade 8

- Manufactured in accordance with SAE J429 Grade 8
- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi, Proof load: 120,000 psi
- Rockwell hardness: C33 to C39
- Manufactured in U.S.A. & Canada
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13
1/2	0710401	0710501	0710601		
3/4	0710403	0710503	0710603	0710703	0710803
1	0710405	0710505	0710605	0710705	0710805
1-1/4	0710406	0710506	0710606	0710706	0710806
1-1/2	0710407	0710507	0710607	0710707	0710807
1-3/4	0710408	0710508	0710608	0710708	0710808
2	0710409	0710509	0710609	0710709	0710809
2-1/4	0710410	0710510	0710610	0710710	0710810
2-1/2	0710411	0710511	0710611	0710711	0710811
2-3/4	0710412	0710512	0710612	0710712	0710812
3	0710413	0710513	0710613	0710713	0710813
3-1/2	0710415	0710515	0710615	0710715	0710815
4	0710417	0710517	0710617	0710717	0710817
4-1/2	0710418	0710518	0710618	0710718	0710818
5	0710419	0710519	0710619	0710719	0710819
5-1/2	0710420	0710520	0710620	0710720	0710820
6	0710421	0710521	0710621	0710721	0710821
Wrench Size	7/16	1/2	9/16	11/16	3/4



## USS Alloy Hex Nuts-Grade 8

Size	Part No	Wrench Size
1/4-20	1040004	7/16
5/16-18	1040005	1/2
3/8-16	1040006	9/16
7/16-14	1040007	11/16
1/2-13	1040008	3/4



## Alloy Washers-Grade 8

Size	 USS Flat Washer Part No.	 Lock Washer Part No.	 SAE Flat Washer Part No.	 SAE Thick Washer Part No.
1/4	1110004	1130004	1120004	1150004
5/16	1110005	1130005	1120005	1150005
3/8	1110006	1130006	1120006	1150006
7/16	1110007	1130007	1120007	1150007
1/2	1110008	1130008	1120008	1150008

## USS Hex Cap Screws-Grade 8

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- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi, Proof load: 120,000 psi
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- Manufactured in U.S.A. & Canada
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	9/16-12	5/8-11	3/4-10	7/8-9	1"-8
1/2					
3/4					
1	0710905				
1-1/4	0710906				
1-1/2	0710907	0711007	0711207		
1-3/4	0710908	0711008	0711208		
2	0710909	0711009	0711209	0711409	0711609
2-1/4	0710910	0711010	0711210	0711410	0711610
2-1/2	0710911	0711011	0711211	0711411	0711611
2-3/4	0710912	0711012	0711212	0711412	0711612
3	0710913	0711013	0711213	0711413	0711613
3-1/2	0710915	0711015	0711215	0711415	0711615
4	0710917	0711017	0711217	0711417	0711617
4-1/2	0710918	0711018	0711218	0711418	0711618
5	0710919	0711019	0711219	0711419	0711619
5-1/2	0710920	0711020	0711220	0711420	0711620
6	0710921	0711021	0711221	0711421	0711621
8		0711025	0711225	0711425	0711625
9		0711027		0711427	0711627
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2

## USS Alloy Hex Nuts-Grade 8

Size	9/16-12	5/8-11	3/4-10	7/8-9	1-8
Part No	1040009	1040010	1040012	1040014	1040016
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2

## Alloy Washers-Grade 8

Size	 USS Flat Washer Part No.	 Lock Washer Part No.	 SAE Flat Washer Part No.	 SAE Thick Washer Part No.
9/16	1110009	1130009	1120009	1150009
5/8	1110010	1130010	1120010	1150010
3/4	1110012	1130012	1120012	1150012
7/8	1110014	1130014	1120014	1150014
1	1110016	1130016	1120016	1150016

# FASTENERS



## Large Diameter USS Hex Cap Screws-Grade 8

- Manufactured in accordance with SAE J429 Grade 8
- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi
- Proof load: 120,000 psi
- Rockwell hardness: C33 to C39
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion
- Manufactured in USA & Canada

Size	1-1/8-7	1-1/4-7	1-1/2-6	
1-1/2				
1-3/4				
2				
2-1/4				
2-1/2				
2-3/4				
3	0711813			
3-1/2	0711815			
4	0711817	0712017	0712417	
4-1/2	0711818	0712018	0712418	
5	0711819	0712019	0712419	
5-1/2	0711820	0712020	0712420	
6	0711821	0712021	0712421	
Wrench Size	1-11/16	1-7/8	2-1/4	

## USS Alloy Hex Nuts-Grade 8

Size	1-1/8-7	1-1/4-7	1-1/2-6	
Part No	1040018	1040020	1040024	
Wrench Size	1-11/16	1-7/8	2-1/4	

## USS Alloy Flat Washers-Grade 8

Size	1-1/8	1-1/4	1-1/2	
Part No	1110018	1110020	1110024	
Inside Dia.	1-1/4	1-3/8	1-5/8	
Outside Dia.	2-3/4	3	3-1/2	

## Alloy Lock Washers- Grade 8

Size	1-1/8	1-1/4	1-1/2	
Part No	1130018	1130020	1130024	
Inside Dia.	1-1/4	1-3/8	1-5/8	
Outside Dia.	2-3/4	3	3-1/2	

## SAE Hex Cap Screws-Grade 8

- Manufactured in accordance with SAE J429 Grade 8
- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi, Proof load: 120,000 psi
- Rockwell hardness: C33 to C39
- Manufactured in USA & Canada
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20
1/2	0720401	0720501	0720601		
3/4	0720403	0720503	0720603	0720703	0720803
1	0720405	0720505	0720605	0720705	0720805
1-1/4	0720406	0720506	0720606	0720706	0720806
1-1/2	0720407	0720507	0720607	0720707	0720807
1-3/4	0720408	0720508	0720608	0720708	0720808
2	0720409	0720509	0720609	0720709	0720809
2-1/4	0720410	0720510	0720610	0720710	0720810
2-1/2	0720411	0720511	0720611	0720711	0720811
2-3/4	0720412	0720512	0720612	0720712	0720812
3	0720413	0720513	0720613	0720713	0720813
3-1/2	0720415	0720515	0720615	0720715	0720815
4	0720417	0720517	0720617	0720717	0720817
4-1/2	0720418	0720518	0720618	0720718	0720818
5	0720419	0720519	0720619	0720719	0720819
5-1/2	0720420	0720520	0720620	0720720	0720820
6	0720421	0720521	0720621	0720721	0720821
Wrench Size	7/16	1/2	9/16	11/16	3/4

## SAE Alloy Hex Nuts - Grade 8

Size	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20
Part No	1050004	1050005	1050006	1050007	1050008
Wrench Size	7/16	1/2	9/16	11/16	3/4

## Alloy Washers - Grade 8

				
Size	SAE Flat Washer Part No.	Lock Washer Part No.	USS Flat Washer Part No.	SAE Thick Washer Part No.
1/4	1120004	1130004	1110004	1150004
5/16	1120005	1130005	1110005	1150005
3/8	1120006	1130006	1110006	1150006
7/16	1120007	1130007	1110007	1150007
1/2	1120008	1130008	1110008	1150008

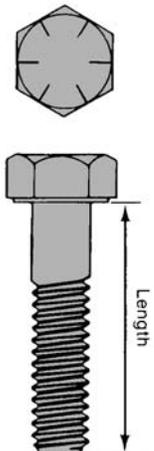
# FASTENERS



## SAE Hex Cap Screws-Grade 8

- Manufactured in accordance with SAE J429 Grade 8
- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi, Proof load: 120,000 psi
- Rockwell hardness: C33 to C39
- Manufactured in USA & Canada
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	9/16-18	5/8-18	3/4-16	7/8-14	1"-12
1/2					
3/4					
1	0720905				
1-1/4	0720906				
1-1/2	0720907	0721007	0721207		
1-3/4	0720908	0721008	0721208		
2	0720909	0721009	0721209	0721409	0721609
2-1/4	0720910	0721010	0721210	0721410	0721610
2-1/2	0720911	0721011	0721211	0721411	0721611
2-3/4	0720912	0721012	0721212	0721412	0721612
3	0720913	0721013	0721213	0721413	0721613
3-1/2	0720915	0721015	0721215	0721415	0721615
4	0720917	0721017	0721217	0721417	0721617
4-1/2	0720918	0721018	0721218	0721418	0721618
5	0720919	0721019	0721219	0721419	0721619
5-1/2	0720920	0721020	0721220	0721420	0721620
6	0720921	0721021	0721221	0721421	0721621
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2



## SAE Alloy Hex Nuts - Grade 8

Size	9/16-18	5/8-18	3/4-16	7/8-14	1-12
Part No	1050009	1050010	1050012	1050014	1050016
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2



## SAE Alloy Flat Washers - Grade 8

Size	 SAE Flat Washer Part No.	 Lock Washer Part No.	 USS Flat Washer Part No.	 SAE Thick Washer Part No.
9/16	1120009	1130009	1110009	1150009
5/8	1120010	1130010	1110010	1150010
3/4	1120012	1130012	1110012	1150012
7/8	1120014	1130014	1110014	1150014
1	1120016	1130016	1110016	1150016

## Large Diameter Hex Cap Screws-Grade 8

- Manufactured in accordance with SAE J429 Grade 8
- Made from alloy steel, oil quenched and tempered
- Minimum tensile strength: 150,000 psi
- Proof load: 120,000 psi
- Rockwell hardness: C33 to C39
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion
- Manufactured in USA & Canada

Size	1-1/8-12	1-1/4-12	1-1/2-12
1-1/2			
1-3/4			
2			
2-1/4			
2-1/2			
2-3/4			
3	0721813		
3-1/2	0721815		
4	0721817	0722017	0722417
4-1/2	0721818	0722018	0722418
5	0721819	0722019	0722419
5-1/2	0721820	0722020	0722420
6	0721821	0722021	0722421
Wrench Size	1-11/16	1-7/8	2-1/4

## SAE Alloy Hex Nuts - Grade 8

Size	1-1/8-12	1-1/4-12	1-1/2-12
Part No	1050018	1050020	1050024
Wrench Size	1-11/16	1-7/8	2-1/4

## SAE Alloy Flat Washers - Grade 8

Size	1-1/8	1-1/4	1-1/2
Part No	1120018	1120020	1120024
Inside Dia.	1-1/4	1-3/8	1-5/8
Outside Dia.	2-3/4	3	3-1/2

## Alloy Lock Washers- Grade 8

Size	1-1/8	1-1/4	1-1/2
Part No	1130018	1130020	1130024
Inside Dia.	1-1/4	1-3/8	1-5/8
Outside Dia.	2-3/4	3	3-1/2

## USS Hex Cap Screws-Grade 5

- Manufactured in accordance with SAE J429 Grade 5
- Made from medium carbon steel, oil quenched and tempered
- Tensile strength: 1/4" to 1" diameter 120,000 psi; over 1" 105,000 psi
- Proof load: 1/4" to 1" diameter 85,000 psi; over 1" 74,000 psi
- Rockwell hardness: 1/4" to 1" diameter C25 to C34; over 1" C19-C30
- Manufactured in U.S.A. & Canada
- Plating: Clear Zinc Chromate for resistance to rust & corrosion

Size	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13
1/2	0010401	0010501	0010601		
3/4	0010403	0010503	0010603	0010703	0010803
1	0010405	0010505	0010605	0010705	0010805
1-1/4	0010406	0010506	0010606	0010706	0010806
1-1/2	0010407	0010507	0010607	0010707	0010807
1-3/4	0010408	0010508	0010608	0010708	0010808
2	0010409	0010509	0010609	0010709	0010809
2-1/4	0010410	0010510	0010610	0010710	0010810
2-1/2	0010411	0010511	0010611	0010711	0010811
2-3/4	0010412	0010512	0010612	0010712	0010812
3	0010413	0010513	0010613	0010713	0010813
3-1/2	0010415	0010515	0010615	0010715	0010815
4	0010417	0010517	0010617	0010717	0010817
4-1/2	0010418	0010518	0010618	0010718	0010818
5	0010419	0010519	0010619	0010719	0010819
5-1/2	0010420	0010520	0010620	0010720	0010820
6	0010421	0010521	0010621	0010721	0010821
Wrench Size	7/16	1/2	9/16	11/16	3/4

## USS Finished Hex Nuts-Grade 5

Size	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13
Part No	1060004	1060005	1060006	1060007	1060008
Wrench Size	7/16	1/2	9/16	11/16	3/4

## Washers - Grade 5

Size	 USS Flat Washer Part No.	 Lock Washer Part No.	 SAE Flat Washer Part No.	 Fender Washer Part No.
1/4	1020004	1030004	1010004	0150004
5/16	1020005	1030005	1010005	0150005
3/8	1020006	1030006	1010006	0150006
7/16	1020007	1030007	1010007	-
1/2	1020008	1030008	1010008	0150008

## USS Hex Cap Screws-Grade 5

- Manufactured in accordance with SAE J429 Grade 5
- Made from medium carbon steel, oil quenched and tempered
- Tensile strength: 1/4" to 1" diameter 120,000 psi; over 1" 105,000 psi
- Proof load: 1/4" to 1" diameter 85,000 psi; over 1" 74,000 psi
- Rockwell hardness: 1/4" to 1" diameter C25 to C34; over 1" C19-C30
- Manufactured in U.S.A. & Canada
- Plating: Clear Zinc Chromate for resistance to rust & corrosion

Size	9/16-12	5/8-11	3/4-10	7/8-9	1"-8
1/2					
3/4					
1	0010905				
1-1/4	0010906				
1-1/2	0010907	0011007	0011207		
1-3/4	0010908	0011008	0011208		
2	0010909	0011009	0011209	0011409	0011609
2-1/4	0010910	0011010	0011210	0011410	0011610
2-1/2	0010911	0011011	0011211	0011411	0011611
2-3/4	0010912	0011012	0011212	0011412	0011612
3	0010913	0011013	0011213	0011413	0011613
3-1/2	0010915	0011015	0011215	0011415	0011615
4	0010917	0011017	0011217	0011417	0011617
4-1/2	0010918	0011018	0011218	0011418	0011618
5	0010919	0011019	0011219	0011419	0011619
5-1/2	0010920	0011020	0011220	0011420	0011620
6	0010921	0011021	0011221	0011421	0011621
Wrench Size	7/8	15/16	1-1/8	-5/16	1-1/2

## USS Finished Hex Nuts-Grade 5

Size	9/16-12	5/8-11	3/4-10	7/8-9	1-8
Part No	1060009	1060010	1060012	1060014	1060016
Wrench Size	7/8	15/16	1-1/8	-5/16	1-1/2

## Washers - Grade 5

			
Size	USS Flat Washer Part No.	Lock Washer Part No.	SAE Flat Washer Part No.
9/16	1020009	1030009	1010009
5/8	1020010	1030010	1010010
3/4	1020012	1030012	1010012
7/8	1020014	1030014	1010014
1	1020016	1030016	1010016

## SAE Hex Cap Screws-Grade 5

- Manufactured in accordance with SAE J429 Grade 5
- Made from medium carbon steel, oil quenched and tempered
- Tensile strength: 1/4" to 1" diameter 120,000 psi; over 1" 105,000 psi
- Proof load: 1/4" to 1" diameter 85,000 psi; over 1" 74,000 psi
- Rockwell hardness: 1/4" to 1" diameter C25 to C34; over 1" C19-C30
- Manufactured in U.S.A. & Canada
- Plating: Clear Zinc Chromate for resistance to rust & corrosion

Size	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20
1/2	0020401	0020501	0020601		
3/4	0020403	0020503	0020603	0020703	0020803
1	0020405	0020505	0020605	0020705	0020805
1-1/4	0020406	0020506	0020606	0020706	0020806
1-1/2	0020407	0020507	0020607	0020707	0020807
1-3/4	0020408	0020508	0020608	0020708	0020808
2	0020409	0020509	0020609	0020709	0020809
2-1/4	0020410	0020510	0020610	0020710	0020810
2-1/2	0020411	0020511	0020611	0020711	0020811
2-3/4	0020412	0020512	0020612	0020712	0020812
3	0020413	0020513	0020613	0020713	0020813
3-1/2	0020415	0020515	0020615	0020715	0020815
4	0020417	0020517	0020617	0020717	0020817
4-1/2	0020418	0020518	0020618	0020718	0020818
5	0020419	0020519	0020619	0020719	0020819
5-1/2	0020420	0020520	0020620	0020720	0020820
6	0020421	0020521	0020621	0020721	0020821
Wrench Size	7/16	1/2	9/16	11/16	3/4

## SAE Finished Hex Nuts-Grade 5

Size	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20
Part No	1070004	1070005	1070006	1070007	1070008
Wrench Size	7/16	1/2	9/16	11/16	3/4

## Washers - Grade 5

				
Size	SAE Flat Washer Part No.	Lock Washer Part No.	USS Flat Washer Part No.	Fender Washer Part No.
1/4	1010004	1030004	1020004	0150004
5/16	1010005	1030005	1020005	0150005
3/8	1010006	1030006	1020006	0150006
7/16	1010007	1030007	1020007	-
1/2	1010008	1030008	1020008	0150008

## SAE Hex Cap Screws-Grade 5

- Manufactured in accordance with SAE J429 Grade 5
- Made from medium carbon steel, oil quenched and tempered
- Tensile strength: 1/4" to 1" diameter 120,000 psi; over 1" 105,000 psi
- Proof load: 1/4" to 1" diameter 85,000 psi; over 1" 74,000 psi
- Rockwell hardness: 1/4" to 1" diameter C25 to C34; over 1" C19-C30
- Manufactured in U.S.A. & Canada
- Plating: Clear Zinc Chromate for resistance to rust & corrosion

Size	9/16-18	5/8-18	3/4-16	7/8-14	1"-12
1/2					
3/4					
1	0020905				
1-1/4	0020906				
1-1/2	0020907	0021007	0021207		
1-3/4	0020908	0021008	0021208		
2	0020909	0021009	0021209	0021409	0021609
2-1/4	0020910	0021010	0021210	0021410	0021610
2-1/2	0020911	0021011	0021211	0021411	0021611
2-3/4	0020912	0021012	0021212	0021412	0021612
3	0020913	0021013	0021213	0021413	0021613
3-1/2	0020915	0021015	0021215	0021415	0021615
4	0020917	0021017	0021217	0021417	0021617
4-1/2	0020918	0021018	0021218	0021418	0021618
5	0020919	0021019	0021219	0021419	0021619
5-1/2	0020920	0021020	0021220	0021420	0021620
6	0020921	0021021	0021221	0021421	0021621
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2

## SAE Finished Hex Nuts-Grade 5

Size	9/16-18	5/8-18	3/4-16	7/8-14	1-12
Part No	1070009	1070010	1070012	1070014	1070016
Wrench Size	7/8	15/16	1-1/8	1-5/16	1-1/2

## Washers - Grade 5

			
Size	SAE Flat Washer Part No.	Lock Washer Part No.	USS Flat Washer Part No.
9/16	1010009	1030009	1020009
5/8	1010010	1030010	1020010
3/4	1010012	1030012	1020012
7/8	1010014	1030014	1020014
1	1010016	1030016	1020016

# FASTENERS



## Carriage Bolts - Grade 2

- USS fully threaded zinc plated

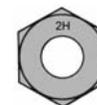
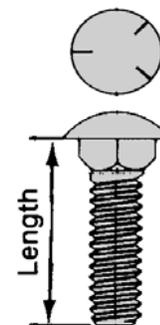
Size	3/16	1/4	5/16	3/8	1/2	5/8
1/2	0420301					
3/4	0420303	0420403	0420503			
1	0420305	0420405	0420505	0420605		
1-1/4	0420306	0420406	0420506	0420606		
1-1/2	0420307	0420407	0420507	0420607	0420807	0421007
1-3/4		0420408	0420508	0420608	0420808	0421008
2	0420309	0420409	0420509	0420609	0420809	0421009
2-1/2	0420311	0420411	0420511	0420611	0420811	0421011
3	0420313	0420413	0420513	0420613	0420813	0421013
3-1/2		0420415	0420515	0420615	0420815	0421015
4		0420417	0420517	0420617	0420817	0421017
4-1/2		0420418	0420518	0420618	0420818	0421018
5		0420419	0420519	0420619	0420819	0421019
5-1/2		0420420	0420520	0420620	0420820	0421020
6		0420421	0420521	0420621	0420821	0421021
<b>Use Finished Hex Nuts -Grade 5</b>						
Size	3/16-24	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11
Part No	0630010	1060005	1060006	1060008	1060008	1060010
Wrench Size		7/16	1/2	9/16	3/4	15/16



## Shaker Screen Bolts - Grade 5

- 1035 steel - heat treated
- Conforms to ANSI B18.5
- Marked with 3 radial lines to identify as Grade 5
- USS fully threaded, black oil finish

Size	1/2	5/8	3/4
1-1/2	0430807	0431007	0431207
1-3/4	0430808	0431008	0431208
2	0430809	0431009	0431209
2-1/2	0430811	0431011	0431211
3	0430813	0431013	0431213
3-1/2	0430815	0431015	0431215
4	0430817	0431017	0431217
4-1/2	0430818	0431018	0431218
5	0430819	0431019	0431219
5-1/2	0430820	0431020	0431220
6	0430821	0431021	0431221
<b>Use GR 5 Heavy Hex Nut</b>			
Part No	0120080	0120100	0120120



## Shaker Screen Bolts - Grade 8

- USS fully threaded, black oil finish

Size	1/2	5/8	3/4
1-3/4	1400808		
2	1400809	1401009	
2-1/2	1400811	1401011	
3	1400813	1401013	1401213
3-1/2	1400815	1401015	1401215
4		1401017	1401217
4-1/2		1401018	1401218
5		1401019	
Nut Part No	0120080	0120100	0120120

## Elevator Bolts

Square Neck No 1 Flat countersunk head

Size	1/4	5/16	3/8
1	0290405	0290505	
1-1/4	0290406		
1-1/2	0290407	0290507	0290607
2	0290408	0290509	0290609
2-1/2		0290511	0290611

## Step Bolts

Square Neck No. 2 Oval Head

Size	1/4	5/16	3/8
1	0360405	0360505	
1-1/4		0360506	
1-1/2	0360407	0360507	0360607
2	0360408	0360509	0360609
2-1/2		0360511	0360611

## Tap Bolts-Grade 2 USS

- Fully threaded
- Used in light duty, low stress application

Size	1/4	5/16	3/8	1/2
1-1/4	5000406	5000506		
1-1/2	5000407	5000507	5000607	5000807
2	5000409	5000509	5000609	5000809
2-1/2	5000411	5000511	5000611	5000811
3	5000413	5000513	5000613	5000813
3-1/2	5000415	5000515	5000615	5000815
4	5000417	5000517	5000617	5000817

# FASTENERS

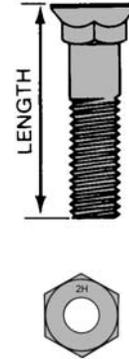


## Flat Head Plow Bolts

Gr 5 - No. 3 Head - UNC-2A

- 1038 High Carbon Steel
- Flat Head, Countersunk Square shoulder

Size	3/8	7/16	1/2
1	0450605		
1-1/4	0450606	0450706	0450806
1-1/2	0450607	0450707	0450807
1-3/4	0450608	0450708	
2	0450609	0450709	0450809
2-1/4	0450610		
2-1/2			0450811
<b>Use GR 5 Heavy Full Hex Nuts</b>			
Size	3/8	7/16	1/2
Part No	0120060	0120070	0120080



## Dome Head Plow Bolts

Gr 8 - No. 3 Head - UNC-2A

- Alloy Steel, Dome Countersunk Head, Square Shoulder

Size	5/8	3/4	7/8	1"
2	0451009			
2-1/4	0451010	0451210		
2-1/2	0451011	0451211	0451411	
3	0451013	0451213	0451413	0451613
3-1/2		0451215	0451415	0451615
4		0451217		0451617
4-1/2		0451218		
5		0451219		
<b>Use GR 5 Heavy Full Hex Nuts</b>				
Size	5/8	3/4	7/8	1"
Part No	0120100	0120120	0120140	0120160



## Hex Flange Bolts - Grade 8

- Specifically designed for frame bolting applications

Size	3/8-16	1/2-13	5/8-11	3/4-10
1	0300605			
1-1/2	0300607	0300807	0301007	
2		0300809	0301009	0301209
2-1/2		0300811	0301011	0301211
3			0301013	0301213
<b>Locking Hex Flange Nuts - Grade 8</b>				
Size	3/8-16	1/2-13	5/8-11	3/4-10
Part No	0310006	0310008	0310010	0310012



## Alloy Hex Nuts-Grade 8

- For use with SAE J 429 Grade 8 Cap Screws
- Meets Specification J-995, Class UN-2B threads
- Fully chamfered for positive wrenching
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Thread Size	USS Part No	Thread Size	SAE Part No	Wrench Size
1/4-20	1040004	1/4-28	1050004	7/16
5/16-18	1040005	5/16-24	1050005	1/2
3/8-16	1040006	3/8-24	1050006	9/16
7/16-14	1040007	7/16-20	1050007	11/16
1/2-13	1040008	1/2-20	1050008	3/4
9/16-12	1040009	9/16-18	1050009	7/8
5/8-11	1040010	5/8-18	1050010	15/16
3/4-10	1040012	3/4-16	1050012	1-1/8
7/8-9	1040014	7/8-14	1050014	1-5/16
1-8	1040016	1-14	1050016	1-1/2
1-1/8-7	1040018	1-1/8-12	1050018	1-11/16
1-1/4-7	1040020	1-1/4-12	1050020	1-7/8
1-1/2-6	1040024	1-1/2-12	1050024	2-1/4



## Finished Hex Nuts-Grade 5

- For use with SAE J 429 Grade 5 Cap Screws, Meets Specification J-995
- Class UN-2B threads
- Fully chamfered for positive wrenching
- Plating: Clear Zinc Dichromate for resistance to rust & corrosion

Thread Size	USS Part No	Thread Size	SAE Part No	Wrench Size
1/4-20	1060004	1/4-28	1070004	7/16
5/16-18	1060005	5/16-24	1070005	1/2
3/8-16	1060006	3/8-24	1070006	9/16
7/16-14	1060007	7/16-20	1070007	11/16
1/2-13	1060008	1/2-20	1070008	3/4
9/16-12	1060009	9/16-18	1070009	7/8
5/8-11	1060010	5/8-18	1070010	15/16
3/4-10	1060012	3/4-16	1070012	1-1/8
7/8-9	1060014	7/8-14	1070014	1-5/16
1-8	1060016	1-14	1070016	1-1/2
1-1/8-7	1060018	1-1/8-12	1070018	1-11/16
1-1/4-7	1060020	1-1/4-12	1070020	1-7/8
1-1/2-6	1060024	1-1/2-12	1070024	2-1/4



## GR 5 Heavy Hex Nuts

- Meets ASTM - 194-2H specifications
- Heat treated to withstand temperatures to 1100°F
- Designed for use with A193 B-7 studs and rod



### USS-Coarse Thread

Size	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13	9/16-12	5/8-11	3/4-10	7/8-9	1-8
Part No	0120040	0120050	0120060	0120070	0120080	0120090	0120100	0120120	0120140	0120160

## Prevailing Torque Locknuts- Stover Type

- One piece all metal design -for use with Grade 8 Cap Screws and B-7 Studs
- Proof Stress 150,000 PSI withstands severe vibration and shock
- Meets or exceeds IFI & ANSI specifications for class 'C '
- Reusable- retains locking torque up to 5 reuses

Thread Size	USS Part No	Thread Size	SAE Part No	Wrench Size
1/4-20	1160004	1/4-28	1170004	7/16
5/16-18	1160005	5/16-24	1170005	1/2
3/8-16	1160006	3/8-24	1170006	9/16
7/16-14	1160007	7/16-20	1170007	11/16
1/2-13	1160008	1/2-20	1170008	3/4
9/16-12	1160009	9/16-18	1170009	7/8
5/8-11	1160010	5/8-18	1170010	15/16
3/4-10	1160012	3/4-16	1170012	1-1/8
7/8-9	1160014	7/8-14	1170014	1-5/16
1-8	1160016	1-14	1170016	1-1/2



## Grade 8 Nylon Insert Lock Nuts

- Locks uniformly over entire range of bolt thread
- Reusable many times will not damage bolt threads
- Positive locking action resists vibration

Thread Size	USS Part No	Wrench Size
1/4-20	0098040	7/16
5/16-18	0098050	1/2
3/8-16	0098060	9/16
7/16-14	0098070	11/16
1/2-13	0098080	3/4
9/16-12	0098090	7/8
5/8-11	0098100	15/16
3/4-10	0098120	1-1/8
7/8-9	0098140	1-5/16
1-8	0098160	1-1/2



## Flange Lock Nuts - USS

- Designed for use with Grade 8 flange frame bolts A193 B-7 studs grade 2

Size	Part No
3/8-16	0310006
1/2-13	0310008
5/8-11	0310010
3/4-10	0310012



## Keps Nuts

- Free spinning lock washer attached, positive locking, speedy assembly
- For use with machine screws

Size	Part No
6-32	0090400
8-32	0090401
10-32	0090403
10-24	0090402
1/4-20	0090404



## Nylon Insert Lock Nuts

- Locks uniformly over entire range of bolt thread
- Reusable many times will not damage bolt threads
- Positive locking action resists vibration

Thread Size	USS Part No	Thread Size	SAE Part No	Wrench Size
6/32	0090001			
8/32	0090002			
10/24	0090030	10/32	0090003	
12/24	0091224			
1/4-20	0090040	1/4-28	0090004	7/16
5/16-18	0090050	5/16-24	0090005	1/2
3/8-16	0090060	3/8-24	0090006	9/16
7/16-14	0090070	7/16-20	0090007	11/16
1/2-13	0090080	1/2-20	0090008	3/4
9/16-12	0090090	9/16-18	0090009	7/8
5/8-11	0090100	5/8-18	0090010	15/16
3/4-10	0090120	3/4-16	0090012	1-1/8
7/8-9	0090140	7/8-14	0090014	1-5/16
1-8	0090160	1-14	0090016	1-1/2



## Serrated Flange Nuts

- For use with machine screws
- Grade 2

Size	Part No
6-32	0090206
8-32	0090208
10-32	0090211
10-24	0090210
12-24	0090212
1/4-20	0090214
5/16-18	0090215
3/8-16	0090216



# FASTENERS



## Hi- Nuts - SAE

- Meets SAE J-482A specifications
- Hardened for higher torque and tensile strength
- Designed for use with spring center bolts and U-bolts

Size	Part No
3/8-24	0130006
7/16-20	0130007
1/2-20	0130008
9/16-18	0130009
5/8-18	0130010
3/4-16	0130012
7/8-14	0130014
1-12	0130016



## Castle Nuts- SAE

- Machine chamfered corners and clean cut slots
- Hardened for higher torque and tensile strength
- Designed for use anywhere locking pins are used

Size	Part No
1/4-28	0080004
5/16-24	0080005
3/8-24	0080006
7/16-20	0080007
1/2-20	0080008
9/16-18	0080009
5/8-18	0080010
3/4-16	0080012
7/8-14	0080014
1-12	0080016



## Jam Nuts

- Meets Specification J-995
- Class UN-2B threads
- Fully chamfered for positive wrenching

Thread Size	USS Part No	Thread Size	SAE Part No	Wrench Size
1/4-20	0140040	1/4-28	0140004	7/16
5/16-18	0140050	5/16-24	0140005	1/2
3/8-16	0140060	3/8-24	0140006	9/16
7/16-14	0140070	7/16-20	0140007	11/16
1/2-13	0140080	1/2-20	0140008	3/4
9/16-12	0140090	9/16-18	0140009	7/8
5/8-11	0140100	5/8-18	0140010	15/16
3/4-10	0140120	3/4-16	0140012	1-1/8
7/8-9	0140140	7/8-14	0140014	1-5/16
1-8	0140160	1-14	0140016	1-1/2



## Wing Nuts - USS

- Forged steel for extra strength and holding power
- 100% stronger than die cast

Size	6-32	8-32	10-24	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13	
Part No	1340011	1340021	1340031	1340041	1340051	1340061	1340071	1340081	

## Acorn Nuts

- Dome cover gives neat appearance & prevents snagging
- Burr free

Size	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13	
USS Part No	1330004	1330005	1330006	1330007	1330008	
Size	1/4-28	5/16-24	3/8-24	7/16-20	1/2-20	
SAE Part No	1330040	1330050	1330060	1330070	1330080	

# FASTENERS



## SAE Flat Washers



3/16



1/4



5/16



3/8



7/16



1/2



9/16



5/8



3/4



7/8



1"

## USS Flat Washers



3/16



1/4



5/16



3/8



7/16



1/2



9/16



5/8



3/4



7/8



1"

## Alloy Flat Washers-Grade 8

- Designed for use with Grade 8 Cap Screw
- Prevents fastener failure due to improper seating on irregular surfaces
- Thru hardened to C 38-45 for maximum strength; will not “bend” or “dish”
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	USS Part No	Inside Dia.	Outside Dia.	SAE Part No.	Inside Dia.	Outside Dia.
1/4	1110004	5/16	3/4	1120004	9/32	5/8
5/16	1110005	3/8	7/8	1120005	11/32	11/16
3/8	1110006	7/16	1	1120006	13/32	13/16
7/16	1110007	1/2	1-1/4	1120007	15/32	59/64
1/2	1110008	9/16	1-3/8	1120008	17/32	1-1/16
9/16	1110009	5/8	1-1/2	1120009	19/32	1-3/16
5/8	1110010	11/16	1-3/4	1120010	21/32	1-5/16
3/4	1110012	13/16	2	1120012	13/16	1-1/2
7/8	1110014	15/16	2-1/4	1120014	15/16	1-3/4
1	1110016	1-1/16	2-1/2	1120016	1-1/16	2
1-1/8	1110018	1-1/4	2-3/4	1120018	1-3/16	2-1/4
1-1/4	1110020	1-3/8	3	1120020	1-5/16	2-1/2
1-1/2	1110024	1-5/8	3-1/2	1120024	1-9/16	3



## Alloy Heavy Duty Extra Thick SAE Flat Washers-Grade 8

- Designed for use with Grade 8 Cap Screws
- Prevents fastener failure due to improper seating on irregular surfaces
- Thru hardened for maximum strength; eliminates the chance of “belling, splitting or dishing out
- Plating: Yellow Zinc Dichromate for resistance to rust & corrosion

Size	Part No.	Inside Dia	Outside Dia.	Thickness
1/4	1150004	9/32	5/8	.086
5/16	1150005	11/32	11/16	.086
3/8	1150006	13/32	13/16	.108
7/16	1150007	15/32	15/16	.108
1/2	1150008	17/32	1-1/16	.199
9/16	1150009	19/32	1-3/16	.199
5/8	1150010	21/32	1-5/16	.250
3/4	1150012	13/16	1-1/2	.250
7/8	1150014	15/16	1-3/4	.250
1	1150016	1-1/16	2	.250



## Flat Washers- Grade 5

- Designed for use with Grade 5 Cap Screw, Meets or exceeds ASTM F 844
- Prevents fastener failure due to improper seating on irregular surfaces
- Distributes load over a large area to minimize “dishing”
- Plating: Clear Zinc Dichromate for resistance to rust & corrosion

Size	USS Part No	Inside Dia.	Outside Dia.	SAE Part No.	Inside Dia.	Outside Dia.
1/4	1020004	5/16	3/4	1010004	9/32	5/8
5/16	1020005	3/8	7/8	1010005	11/32	11/16
3/8	1020006	7/16	1	1010006	13/32	13/16
7/16	1020007	1/2	1-1/4	1010007	15/32	15/16
1/2	1020008	9/16	1-3/8	1010008	17/32	1-1/16
9/16	1020009	5/8	1-1/2	1010009	19/32	1-3/16
5/8	1020010	11/16	1-3/4	1010010	21/32	1-5/16
3/4	1020012	13/16	2	1010012	13/16	1-1/2
7/8	1020014	15/16	2-1/4	1010014	15/16	1-3/4
1	1020016	1-1/16	2-1/2	1010016	1-1/16	2
1-1/8	1020018	1-1/4	2-3/4	1010018	1-1/4	2-3/4
1-1/4	1020020	1-3/8	3	1010020	1-3/8	3
1-1/2	1020024	1-5/8	3-1/2	1010024	1-5/8	3-1/2



## Fender Washers

- Designed for applications requiring large bearing surfaces
- Thin gauge steel, extra large outside diameter

Size	Part No.	Outside Dia.
3/16	0150003	1"
1/4	0150009	1"
1/4	0150004	1-1/4
1/4	0150010	1-1/2
5/16	0150011	1-1/4
5/16	0150005	1-1/2
3/8	0150012	1-1/4
3/8	0150006	1-1/2
1/2	0150008	2



## Extra Thick Fender Washers

Size	Part No.	Outside Dia.
1/4	0150013	1"
1/4	0150014	1-1/2
5/16	0150015	1-1/4
5/16	0150016	1-3/4
3/8	0150017	1-1/4
3/8	0150018	1-3/4
1/2	0150019	2"



## Alloy Lock Washers- Grade 8

- Designed for use with Grade 8 Cap Screw
- Meets or exceeds ASTM specifications
- Prevents fastener failure due to cracking, braking, warping or loss of tension
- Yellow Dyko plating resists rust and corrosion

Size	Part No	Inside Dia.	Outside Dia.
1/4	1130004	5/16	3/4
5/16	1130005	3/8	7/8
3/8	1130006	7/16	1
7/16	1130007	1/2	1-1/4
1/2	1130008	9/16	1-3/8
9/16	1130009	5/8	1-1/2
5/8	1130010	11/16	1-3/4
3/4	1130012	13/16	2
7/8	1130014	15/16	2-1/4
1	1130016	1-1/16	2-1/2
1-1/8	1130018	1-1/4	2-3/4
1-1/4	1130020	1-3/8	3
1-1/2	1130024	1-5/8	3-1/2



## Regular Split Lock Washers

- Designed for use with Grade 5 Cap Screw
- Prevents fastener failure due to cracking, braking, warping or loss of tension

Size	Part No	Inside Dia.	Outside Dia.
1/4	1030004	5/16	3/4
5/16	1030005	3/8	7/8
3/8	1030006	7/16	1
7/16	1030007	1/2	1-1/4
1/2	1030008	9/16	1-3/8
9/16	1030009	5/8	1-1/2
5/8	1030010	11/16	1-3/4
3/4	1030012	13/16	2
7/8	1030014	15/16	2-1/4
1	1030016	1-1/16	2-1/2
1-1/8	1030018	1-1/4	2-3/4
1-1/4	1030020	1-3/8	3
1-1/2	1030024	1-5/8	3-1/2



## Internal & External Lock Washer

- Made of carbon steel for strength and flexibility
- Locking teeth firmly hold assemblies to bearing surface
- Ideal for fastening application subject to shock, vibration or temperature variation



Size	 Internal Part Number	 External Part Number	 Internal/External Part Number
# 6	0170001	0170106	
# 8	0170002	0170020	
# 10	0170003	0170030	
1/4	0170004	0170040	
5/16	0170005	0170050	0171316
3/8	0170006	0170060	0171417
7/16	0170007	0170070	0171518
1/2	0170008	0170080	
5/8	0170010		
3/4	0170012		

## Copper Washers

- Superior corrosion resistance
- Excellent electrical conductivity
- Designed for use as a gasket to seal fastener threads or as a bushing between terminations or under fastener heads

USS Washers			SAE Washers			
Size	Part No	Outside Dia	Size	Part No	Outside Dia	
1/4	0200040	5/8	1/4	0200004	7/16	
5/16	0200050	11/16	5/16	0200005	1/2	
3/8	0200060	3/4	3/8	0200006	9/16	
7/16	0200070	13/16	7/16	0200007	5/8	
1/2	0200080	7/8	1/2	0200008	11/16	

## Cylinder Stud Washers

Size	Part No	Outside Dia	Thickness	
3/8	0180006	13/16	5/32	
7/16	0180007	7/8	5/32	
1/2	0180008	1	5/32	

## Countersunk Finishing Washers

Size	Part No	
# 6	0110006	
# 8	0110008	
# 10	0110010	
# 14	0110014	

## Alloy Steel Socket Head Cap Screws - USS Coarse

- Alloy steel - 180,000 PSI
- Black with oil dipped finish
- ASA 1960 series specifications
- Conforms to ANSI B18.3



Size	4/40	6/32	8/32	10/24	1/4-20	5/16-18	3/8-16	7/16-14	1/2-13	5/8-11	3/4-10
1/4	0510011	0510028	0510035								
3/8	0510012	0510029	0510036	0510044	0510054						
1/2	0510013	0510030	0510037	0510045	0510055	0510069	0510084				
3/4	0510014	0510032	0510039	0510047	0510057	0510071	0510086	0510104	0510120		
1	0510015	0510034	0510041	0510049	0510059	0510073	0510088	0510106	0510122	0510141	
1-1/4			0510042	0510050	0510060	0510074	0510089	0510107	0510123	0510142	0510160
1-1/2			0510043	0510051	0510061	0510075	0510090	0510108	0510124	0510143	0510161
1-3/4				0510052	0510062	0510076	0510091	0510109	0510125	0510144	0510162
2				0510053	0510063	0510077	0510092	0510110	0510126	0510145	0510163
2-1/4					0510064	0510078	0510093		0510127	0510146	0510164
2-1/2					0510065	0510079	0510094	0510112	0510128	0510147	0510165
2-3/4					0510066	0510080	0510095		0510129		
3					0510067	0510081	0510096		0510130	0510149	0510167
Key	3/32	7/64	9/64	5/32	3/16	1/4	5/16	3/8	3/8	1/2	5/8

## Alloy Steel Socket Head Cap Screws - SAE Fine

Size	10/32	1/4-28	5/16-24	3/8-24	1/2-20
3/8	5100044	5100054			
1/2	5100045	5100055	5100069	5100084	
3/4	5100047	5100057	5100071	5100086	
1	5100049	5100059	5100073	5100088	5100122
1-1/4	5100050	5100060	5100074	5100089	5100123
1-1/2	5100051	5100061	5100075	5100090	5100124
1-3/4	5100052	5100062	5100076	5100091	5100125
2	5100053	5100063	5100077	5100092	5100126
2-1/4		5100064	5100078	5100093	5100127
2-1/2		5100065		5100094	5100128
3				5100096	5100130
Key	5/32	3/16	1/4	5/16	3/8



## High Collar Lock Washers

- O.D. of the Lock Washer is the same O.D. as the head of Socket Cap Screw

Size	Part No
# 4	0220004
# 6	0220006
# 8	0220008
# 10	0220010
1/4	0220040
5/16	0220050
3/8	0220060
7/16	0220070
1/2	0220080
5/8	0220100
3/4	0220120



## Alloy Flat Head Socket Cap Screws

ASTM F-835

Class 3A Threads

- Designed for flush fastening of plates, strips, mouldings and other thin section parts
- Uniform 82° countersink under head for maximum side wall contact
- Alloy steel RC 38-45 , 190,000 psi tensile

### Coarse Thread

Size	4/40	6/32	8/32	10/24	
1/4	0340041	0340061			
3/8	0340042	0340062	0340082		
1/2	0340043	0340063	0340083	0340301	
3/4	0340044	0340064	0340084	0340303	
1			0340085	0340305	
1-1/4				0340306	
1-1/2				0340307	
Key	1/16	5/64	3/32	1/8	

Size	1/4-20	5/16-18	3/8-16	1/2-13	
1/2	0340401	0340501	0340601		
3/4	0340403	0340503	0340603	0340803	
1	0340405	0340505	0340605	0340805	
1-1/4	0340406	0340506	0340606	0340806	
1-1/2	0340407	0340507	0340607	0340807	
2	0340409	0340509	0340609	0340809	
2-1/2		0340511	0340611	0340811	
3				0340813	
4				0340817	
Key	5/32	3/16	7/32	5/16	

### Fine Thread

Size	1/4-28	5/16-24	3/8-24	1/2-20	
1/2	0350401	0350501	0350601		
3/4	0350403	0350503	0350603	0350803	
1	0350405	0350505	0350605	0350805	
1-1/4	0350406	0350506	0350606	0350806	
1-1/2	0350407	0350507	0350607	0350807	
2				0350809	
Key	5/32	3/16	7/32	5/16	

## Button Head Socket Cap Screw - USS Coarse

- Ideal for safe low profile fastening of metal parts too thin for countersinking
- Alloy steel - Rockwell 36-43
- Conforms to ANSI B18.3
- Black with oil dipped finish

Size	4/40	6/32	8/32	10/24	10/32	1/4-20	5/16-18	3/8-16	
1/4	0530404	0530604	0530804	0531004	0531104				
3/8	0530406	0530606	0530806	0531006	0531106	0531406			
1/2	0530408	0530608	0530808	0531008	0531108	0531408	0531508		
5/8		0530610	0530810	0531010	0531110	0531410	0531510		
3/4			0530812	0531012	0531112	0531412	0531512	0531612	
1				0531016	0531116	0531416	0531516	0531616	
1-1/4								0531620	
Key	1/16	5/64	3/32	1/8	1/8	5/32	3/16	7/32	

## Socket Head Shoulder Screws

ANSI/ASME B18.3 1982 Thread Class 3A

- Use anywhere stripper bolts are used as part of a die spring assembly or anywhere a fastener must pass through a sleeve or bushing to thread

Shoulder Length	Shoulder Diameter				
	1/4	5/16	3/8	1/2	5/8
3/8	5111406	5111506	5111606		
1/2	5111408	5111508	5111608	5111808	
5/8	5111410	5111510	5111610	5111810	
3/4	5111412	5111511	5111612	5111812	
1	5111416	5111516	5111616	5111816	
1-1/4	5111420	5111520	5111620	5111820	5112020
1-1/2	5111424	5111524	5111624	5111824	5112024
1-3/4		5111528	5111628	5111828	5112028
2		5111532	5111632	5111832	5112032
2-1/2			5111640		5112040
3			5111648		5112048
3-1/2					5112056
4					5112064
Thread Dia.	10-24	1/4-20	5/16-18	3/8-16	1/2-13
Length	3/8	7/16	1/2	5/8	3/4
Key	1/8	5/32	3/16	1/4	5/16



## Socket Set Screws

Cup Point - UNC Coarse Thread ASTM F-912

- Designed to stay tight longer even under severe shock and vibration
- Cup point gives smooth even penetration for maximum holding power against side thrust and torsion
- Precision Heat Treated Alloy Steel
- Fully Formed Class 3A Threads

Size	4/40	6/32	8/32	10/24	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11
3/16	0490002	0490014	0490023		0490054				
1/4	0490003	0490015	0490024	0490033	0490055				
5/16					0490056	0490065			
3/8	0490005	0490017	0490026	0490035	0490057	0490066	0490075		
1/2	0490007	0490019	0490028	0490037	0490059	0490068	0490077	0490093	
5/8	0490008	0490020	0490029	0490038	0490060	0490069	0490078	0490094	
3/4		0490021	0490030	0490039	0490061	0490070	0490079	0490095	0490098
1		0490022	0490031	0490041	0490062	0490071	0490080	0490097	0490099
1-1/4					0490063	0490072	0490081		
1-1/2					0490064	0490073	0490082		
Key	.050	1/16	5/64	3/32	1/8	5/32	3/16	1/4	5/16



## Socket Set Screws

Cup Point - UNF Fine Thread ASTM F-912

Size	10/32	1/4-28	5/16-24	3/8-24
1/4	0490044	0490155		
5/16			0490165	
3/8	0490046	0490157	0490166	0490175
1/2	0490048	0490159	0490168	0490176
3/4	0490050			0490179
Key	3/32	1/8	5/32	3/16



## Hex Keys

- High grade alloy steel
- Heat treated to obtain optimum strength

Key Size	Short Arm Key	Long Arm Key	T-Handle 6" Molded	Key Application	
				Socket Set	Socket Cap
5/64	0490201	0490210		#8	#3, #4
3/32	0490202	0490220	0490302	#10	#5, #6
1/8	0490203	0490230	0490303	1/4	#8
5/32	0490204	0490240	0490304	5/16	#10
3/16	0490205	0490250	0490305	3/8	1/4
7/32	0490206	0490260	0490306	7/16	5/16
1/4	0490207	0490270	0490307	1/2	3/8
5/16	0490208	0490280	0490308	5/8	7/16
3/8	0490209	0490290	0490309	3/4	1/2



## Long Arm Hex Keys

- Long Arm Hex Keys In A Molded Plastic Case.
- Keeps Keys In Order For Quick Identification

Part No	Type	Sizes
0490200	Fractional	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8
0496200	Metric	1.5, 2, 2.5, 3, 4, 5, 6, 8, 10



## Hex Key Sets

Part No	Type	Sizes
0490100	Fractional	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16
0496100	Metric	2, 2.5, 3, 4, 5, 6, 8



## Molded T-handle Hex Keys

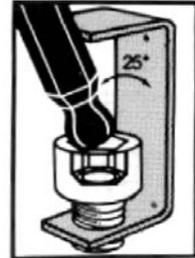
Part No	Type	Sizes
0490300	Fractional	3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8
0493300	Metric	2, 2.5, 3, 4, 5, 6, 8, 10



## Ball Driver L-Wrenches

- Faster, easier maintenance and assembly
- Angle entry to 25° works in hard to reach areas, reduces stripping problems by allowing full depth entry
- Ergonomic design allows natural hand and wrist rotation, reduces user fatigue
- Industrial quality hardened blades

Key Size	Part Number		Key Application	
	Long Arm	T-handle	Socket Set	Socket Cap
5/64	0492201	0492210	#8	#3,#4
3/32	0492202	0492220	#10	#5,#6
1/8	0492203	0492230	1/4	#8
5/32	0492204	0492240	5/16	#10
3/16	0492205	0492250	3/8	1/4
7/32	0492206	0492260	7/16	5/16
1/4	0492207	0492270	1/2	3/8
5/16	0492208	0492280	5/8	7/16
3/8	0492209	0492290	3/4	1/2



## Long Arm Ball Drivers In A Molded Plastic Case

Part No.	Sizes
0492200	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8



## Ball Driver Set

Part No	Sizes
0492100	3/16, 7/32, 1/4, 5/16, 3/8



## Molded T-handle Hex Keys

Part No	Sizes
0492300	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8



## Steel Machine Screws

- Made from hardened quality steel, plated to resist rust and corrosion
- Deep twist resistant slots, clean sharp Class 2A threads

						
Size	Phillips Pan	Phillips Flat	Phillips Oval	Slotted Round*	Slotted Flat*	Slotted Fillister
4/40 x 1/4	0620404	0550404	0600404	0580404	0590404	0610404
4/40 x 3/8	0620406	0550406	0600406	0580406	0590406	0610406
4/40 x 1/2	0620408	0550408	0600408	0580408	0590408	
4/40 x 3/4	0620412	0550412	0600412	0580412	0590412	
4/40 x 1	0620416	0550416	0600416	0580416	0590416	
6/32 x 1/4	0620604	0550604	0600604	0580604	0590604	
6/32 x 3/8	0620606	0550606	0600606	0580606	0590606	0610606
6/32 x 1/2	0620608	0550608	0600608	0580608	0590608	0610608
6/32 x 5/8	0620610	0550610	0600610	0580610	0590610	
6/32 x 3/4	0620612	0550612	0600612	0580612	0590612	
6/32 x 1	0620616	0550616	0600616	0580616	0590616	0610616
6/32 x 1-1/4	0620620	0550620	0600620	0580620	0590620	
6/32 x 1-1/2	0620624	0550624	0600624	0580624	0590624	
6/32 x 2	0620632	0550632	0600632	0580632	0590632	
6/32 x 2-1/2					0590640	
8/32 x 1/4	0620804	0550804	0600804	0580804	0590804	0610804
8/32 x 3/8	0620806	0550806	0600806	0580806	0590806	0610806
8/32 x 1/2	0620808	0550808	0600808	0580808	0590808	0610808
8/32 x 5/8	0620810	0550810	0600810	0580810	0590810	0610810
8/32 x 3/4	0620812	0550812	0600812	0580812	0590812	0610812
8/32 x 1	0620816	0550816	0600816	0580816	0590816	0610816
8/32 x 1-1/4	0620820	0550820	0600820	0580820	0590820	0610820
8/32 x 1-1/2	0620824	0550824	0600824	0580824	0590824	0610824
8/32 x 2	0620832	0550832	0600832	0580832	0590832	
8/32 x 2-1/2				0580840	0590840	
8/32 x 3				0580848	0590848	
10/24 x 1/4			0601004	0581004	0591004	
10/24 x 3/8	0621006	0551006	0601006	0581006	0591006	0611006
10/24 x 1/2	0621008	0551008	0601008	0581008	0591008	0611008
10/24 x 5/8	0621010	0551010		0581010	0591010	0611010
10/24 x 3/4	0621012	0551012	0601012	0581012	0591012	0611012
10/24 x 1	0621016	0551016	0601016	0581016	0591016	0611016
10/24 x 1-1/4	0621020	0551020	0601020	0581020	0591020	0611020
10/24 x 1-1/2	0621024	0551024	0601024	0581024	0591024	
10/24 x 1-3/4	0621028	0551028	0601028	0581028	0591028	0611028
10/24 x 2	0621032	0551032	0601032	0581032	0591032	
10/24 x 2-1/2	0621040	0551040		0581040	0591040	
10/24 x 3				0581048	0591048	
10/24 x 4				0581064	0591064	
10/24 x 5				0581080		

\*Slotted to be replaced with combo heads. If slotted is required, please note.

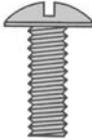
## Steel Machine Screws

- Made from hardened quality steel, plated to resist rust and corrosion
- Deep twist resistant slots, clean sharp Class 2A threads

						
Size	Phillips Pan	Phillips Flat	Phillips Oval	Slotted Round*	Slotted Flat*	Slotted Fillister
10/32 x 1/4			0601104	0581104	0591104	
10/32 x 3/8	0621106	0551106	0601106	0581106	0591106	
10/32 x 1/2	0621108	0551108	0601108	0581108	0591108	0611108
10/32 x 5/8	0621110	0551110	0601110	0581110	0591110	0611110
10/32 x 3/4	0621112	0551112	0601112	0581112	0591112	0611112
10/32 x 1	0621116	0551116	0601116	0581116	0591116	0611116
10/32 x 1-1/4	0621120	0551120	0601120	0581120	0591120	0611120
10/32 x 1-1/2	0621124	0551124	0601124	0581124	0591124	0611124
10/32 x 1-3/4	0621128	0551128	0601128	0581128	0591128	
10/32 x 2	0621132	0551132	0601132	0581132	0591132	
10/32 x 2-1/2				0581140	0591140	
10/32 x 3				0581148	0591148	
12/24 x 1/2	0621208	0551208	0601208	0581208	0591208	
12/24 x 3/4	0621212	0551212	0601212	0581212	0591212	
12/24 x 1	0621216	0551216	0601216	0581216	0591216	
12/24 x 1-1/4	0621220		0601220	0581220	0591220	
12/24 x 1-1/2	0621224	0551224	0601224	0581224	0591224	
12/24 x 1-3/4				0581228	0591228	
12/24 x 2				0581232	0591232	
1/4x 1/2	0621408	0551408	0601408	0581408	0591408	0611408
1/4 x 5/8	0621410	0551410	0601410	0581410	0591410	0611410
1/4 x 3/4	0621412	0551412	0601412	0581412	0591412	0611412
1/4 x 1	0621416	0551416	0601416	0581416	0591416	0611416
1/4 x 1-1/4	0621420	0551420	0601420	0581420	0591420	
1/4 x 1-1/2	0621424	0551424	0601424	0581424	0591424	0611424
1/4 x 1-3/4	0621428	0551428	0601428	0581428	0591428	
1/4 x 2	0621432	0551432	0601432	0581432	0591432	
1/4 x 2-1/2			0601440	0581440	0591440	
1/4 x 3			0601448	0581448	0591448	
1/4 x 3-1/2				0581454		
1/4 x 4				0581456	0591456	

\*Slotted to be replaced with combo heads. If slotted is required, please note.

## Steel Machine Screw Truss Head Slotted

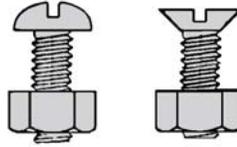
Size	Part Number	
10/24 x 1/2	0570101	
10/24 x 3/4	0570102	
10/24 x 1	0570103	
1/4-20 x 1/2	0570104	
1/4-20 x 5/8	0570105	
1/4-20 x 3/4	0570106	
1/4-20 x 1	0570107	

# FASTENERS



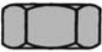
## Stove Bolts

- Supplied without nuts
- Zinc plated to resist rust & corrosion

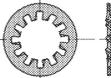
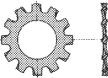


Size	Round Head				Flat Head			
	3/16 (10-24)	1/4	5/16	3/8	3/16 (10-24)	1/4	5/16	3/8
1/2	0240301	0240401	0240501		0250301	0250401	0250501	
3/4	0240303	0240403	0240503		0250303	0250403	0250503	
1	0240305	0240405	0240505	0240605	0250305	0250405	0250505	0250605
1-1/4	0240306	0240406	0240506		0250306	0250406	0250506	
1-1/2	0240307	0240407	0240507	0240607	0250307	0250407	0250507	0250607
1-3/4	0240308	0240408	0240508		0250308	0250408	0250508	
2	0240309	0240409	0240509	0240609	0250309	0250409	0250509	0250609
2-1/2	0240311	0240411	0240511	0240611	0250311	0250411	0250511	0250611
3	0240313	0240413	0240513	0240613		0250413	0250513	0250613

## Machine Screw Nuts

Size	 Hex	 Keps	 Nylon Lock	 Wing
4/40	0630004			
6/32	0630006	0090400	0090001	1340011
8/32	0630008	0090401	0090002	1340021
10/24	0630010	0090402	0090030	1340031
1032	0630011	0090403	0090003	
12/24	0630012		0091214	
1/4-20	0630014	0090404	0090040	1340041

## Machine Screw Washers

Size	 Split	 Internal	 External	 Flat
# 6	1030001	0170001	0170106	1010001
# 8	1030002	0170002	0170020	1010002
# 10	1030003	0170003	0170030	1010003
#12	1031224			1011224
1/4	1030004	0170004	0170040	1010004

## Steel Sheet Metal Screws

- Made from hardened quality steel threaded to the head
- Sharp Type A starter points
- Twist resistant slots and burr free threads
- Zinc plated to resist rust and corrosion

								
Dia.	Length	Phillips Pan Head	Phillips Flat Head	Phillips Oval Head	Slotted Hex Washer	Slotted Pan Head*	Slotted Flat Head*	Slotted Oval Head
# 4	1/4	0051101				0051001		
# 4	3/8	0051102	0053102			0051002	0053002	
# 4	1/2	0051103	0053103			0051003	0053003	
# 6	1/4	0051104	0053104			0051004		0052004
# 6	3/8	0051105	0053105	0052105	0054005	0051005		0052005
# 6	1/2	0051106	0053106	0052106	0054006	0051006	0053006	0052006
# 6	5/8	0051107	0053107	0052107		0051007	0053007	0052007
# 6	3/4	0051108	0053108	0052108	0054008	0051008	0053008	0052008
# 6	7/8	0051109	0053109			0051009		
# 6	1	0051110	0053110	0052110	0054010	0051010	0053010	0052010
# 6	1-1/4	0051111	0053111	0052111	0054011	0051011		
# 6	1-1/2	0051163	0053112	0052112	0054012	0051063		
# 6	1-3/4	0051164				0051064		
# 6	2	0051165				0051065		
# 8	1/4	0051112				0051012		
# 8	3/8	0051113			0054013	0051013		
# 8	1/2	0051114	0053114	0052114	0054014	0051014	0053014	0052014
# 8	5/8	0051115	0053115	0052115	0054015	0051015	0053015	0052015
# 8	3/4	0051116	0053116	0052116	0054016	0051016	0053016	0052016
# 8	7/8	0051117				0051017		
# 8	1	0051118	0053118	0052118	0054018	0051018	0053018	0052018
# 8	1-1/4	0051119	0053119	0052119	0054019	0051019	0053019	0052019
# 8	1-1/2	0051120	0053120	0052120	0054020	0051020	0053020	0052020
# 8	1-3/4	0051121				0051021		
# 8	2	0051122			0054021	0051022		
# 8	2-1/2				0054022			
# 8	3				0054023			

\*Slotted to be replaced with combo heads. If slotted is required, please note.

# FASTENERS



## Steel Sheet Metal Screws

- Made from hardened quality steel threaded to the head
- Sharp Type A starter points
- Twist resistant slots and burr free threads
- Zinc plated to resist rust and corrosion

								
Dia.	Length	Phillips Pan Head	Phillips Flat Head	Phillips Oval Head	Slotted Hex Washer	Slotted Pan Head*	Slotted Flat Head*	Slotted Oval Head
# 10	3/8	0051123				0051023		
# 10	1/2	0051124	0053124	0052124	0054024	0051024	0053024	0052024
# 10	5/8	0051125	0053125	0052125	0054025	0051025	0053025	0052025
# 10	3/4	0051126	0053126	0052126	0054026	0051026	0053026	0052026
# 10	7/8	0051127				0051027		
# 10	1	0051128	0053128	0052128	0054028	0051028	0053028	0052028
# 10	1-1/4	0051129	0053129	0052129	0054029	0051029	0053029	0052029
# 10	1-1/2	0051130	0053130	0052130	0054030	0051030	0053030	0052030
# 10	1-3/4	0051131	0053131	0052131		0051031	0053031	
# 10	2	0051158	0053158	0052158	0054031	0051058	0053058	
# 10	2-1/2	0051159	0053159		0054058	0051059		
# 10	3	0051166	0053166		0054059			
# 12	1/2	0051132			0054032	0051032		
# 12	5/8	0051133				0051033		
# 12	3/4	0051134	0053134	0052134	0054034	0051034	0053034	0052034
# 12	7/8	0051135				0051035		
# 12	1	0051136	0053136	0052136	0054036	0051036	0053036	0052036
# 12	1-1/4	0051137	0053137	0052137	0054037	0051037	0053037	0052037
# 12	1-1/2	0051138	0053138	0052138	0054038	0051038	0053038	
# 12	1-3/4	0051139	0053139			0051039	0053039	
# 12	2	0051160	0053160	0052160		0051060		
# 12	2-1/2	0051161				0051061		
# 12	3	0051167				0051067		
# 14	1/2	0051140			0054040	0051040		
# 14	5/8	0051141			0054041	0051041		
# 14	3/4	0051142	0053143		0054042	0051042	0053043	
# 14	7/8	0051143				0051043		
# 14	1	0051144	0053144		0054044	0051044	0053044	
# 14	1-1/4	0051145	0053145		0054045	0051045	0053045	
# 14	1-1/2	0051146	0053146		0054046	0051046	0053046	
# 14	1-3/4	0051147				0051047		
# 14	2	0051148	0053148		0054048	0051048	0053048	
# 14	2-1/2	0051162	0053149			0051062		
# 14	3	0051168				0051068		

\*Slotted to be replaced with combo heads. If slotted is required, please note.

## Self Drilling Screws

- Drills, taps, and fastens in one operation
- Hardened steel point- like a twist drill eliminates need to drill holes separately
- Fasten metal to metal, wood, synthetics
- Zinc plated to resist rust and corrosion
- Drill should operate between 2,200 and 3,000 rpm for most applications

Pan Head Phillips						
Size	# 6	# 8	# 10	# 12	# 14	
1/2	1551106	1551114	1551124			
5/8	1551107	1551115	1551125			
3/4	1551108	1551116	1551126	1551132	1551137	
1	1551110	1551118	1551128	1551133	1551138	
1-1/4		1551119	1551127	1551136	1551139	
1-1/2		1551120	1551129	1551134	1551140	
2		1551121	1551130			
Flat Head Phillips						
1/2	1553006	1553015	1553024			
5/8	1553007		1553025			
3/4	1553008	1553016	1553026	1553035	1553042	
1	1553010	1553018	1553028	1553036	1553043	
1-1/4		1553019	1553027		1553044	
1-1/2		1553020	1553029	1553038	1553045	
2		1553021	1553030	1553039		
Hex Washer Head						
1/2	1554006	1554015	1554024			
5/8	1554007	1554021	1554025	1554041		
3/4	1554008	1554016	1554026	1554040	1554042	
1	1554010	1554018	1554028	1554036	1554044	
1-1/4	1554011	1554017	1554030	1554037	1554045	
1-1/2	1554012	1554019	1554035	1554038	1554046	
2		1554020	1554034	1554039	1554048	
Hex Driver Size		1/4	5/16	5/16	3/8	
Max Thickness	.090	7/64	11/64	7/32	1/4	

# FASTENERS



## Modified Truss Head Self Drilling Screws

Size	Part Number
#8 x 1/2	1551208
#8 x 3/4	1551212
#8 x 1	1551216
#8 x 1-1/4	1551220



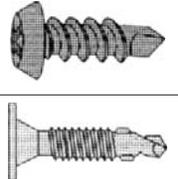
## Phillips Wafer Head Self Drilling Screws

Size	Part Number
10-24 x 3/4	1551012
10-24 x 1	1551016
10-24 x 1-1/4	1551020



## Special Pan & Wafer Phillips Head Self Drilling Screws

Size	Part Number
7 x 7/16	1551006
10-24 x 1-7/16 (w/reamer wings)	1551028



## Slotted Hex Washer Head Self- Piercing Screws

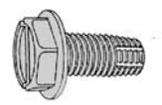
- Unique hardened needle point eliminates pre-drilling or punching in light gauge materials up to 16 gauge.
- Sharp crested thread prevents over-enlarging hole
- Zinc plated to resist rust and corrosion

Size	# 6	# 7	# 8	# 10
3/8	0056005			
1/2		0056011	0056014	0056024
3/4			0056016	0056026
Hex Driver Size	1/4	1/4	1/4	5/16
Magnetic Chuck No	0766000	0766000	0766000	0766001



## Slotted Hex Washer Head Type "F"

Size	1/4	5/16	3/8
1/2	0052841		
3/4	0052842	0052852	0052862
1	0052844	0052854	0052864
1-1/2	0052846		0052866
Hex Driver Size	3/8	7/16	5/16
Magnetic Chuck No	0766002		0766001



## Drywall Screws

- Countersinks in drywall without crushing or tearing paper facing
- Provides flat smooth surface for easy finishing
- Black phosphate finish for corrosion resistance
- Deep phillips recess allows for maximum bit penetration

## Phillips Bugle Head-Fine Thread

Size	# 6	# 8
1	0050608	
1-1/8	0050609	
1-1/4	0050610	
1-5/8	0050613	
2	0050616	
2-1/4	0050618	
2-1/2		0050820
2-3/4		0050822
3		0050824



## Phillips Bugle Head-Coarse Thread

Size	# 6	# 8
1	0056208	
1-1/4	0056209	
1-5/8	0056213	
2	0056216	
2-1/4	0056218	
2-1/2		0058220
3		0058224



## Phillips Bugle Head-Self Drilling Point

Size	# 6	# 7	# 8
1	0056108	0057108	
1-1/8	0056109		
1-1/4	0056110	0057110	
1-5/8	0056113	0057113	
1-7/8	0056114	0057114	
2-3/8			0058119
2-5/8			0058121
3			0058124



## Deck Screws - Square Drive

- Mechanical galvanized

Size	# 6	# 8
1-5/8	0058621	
2	0058624	
2-1/2		0058826
3		0058830



## Wood Screws

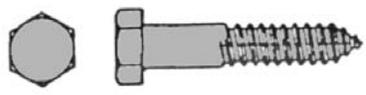
- Sharp gimlet point for easy starting
- Zinc plated to resist rust and corrosion

Size	 Flat Head Phillips	 Square Head	 Flat Head Slotted
# 6 x 1/2	0823106		0823006
# 6 x 3/4	0823108	0820606	0823008
# 6 x 1	0823110	0820608	0823010
# 6 x 1-1/4		0820610	
# 6 x 1-1/2	0823111	0820612	0823011
# 8 x 1/2	0823114		0823014
# 8 x 3/4	0823116	0820806	0823016
# 8 x 1	0823118	0820808	0823018
# 8 x 1-1/4	0823119	0820810	0823019
# 8 x 1-1/2	0823120	0820812	0823020
# 8 x 1-3/4	0823121		
# 8 x 2	0823122	0820816	0823022
# 8 x 2-1/2	0823123		
# 8 x 3	0823124		
# 10 x 1/2	0823125		0823025
# 10 x 3/4	0823126	0821006	0823026
# 10 x 1	0823128	0821008	0823028
# 10 x 1-1/4	0823129	0821010	
# 10 x 1-1/2	0823130	0821012	0823030
# 10 x 1-3/4	0823131		0823031
# 10 x 2	0823132	0821016	0823032
# 10 x 2-1/2	0823133		
# 10 x 3	0823170		
# 12 x 3/4	0823134		0823034
# 12 x 1	0823136		0823036
# 12 x 1-1/4	0823137		0823037
# 12 x 1-1/2	0823138		0823038
# 12 x 1-3/4	0823139		
# 12 x 2	0823163		0823063
# 12 x 2-1/2	0823165		
# 12 x 3	0823166		
# 14 x 1	0823144		0823044
# 14 x 1-1/4	0823145		
# 14 x 1-1/2	0823146		
# 14 x 1-3/4	0823147		0823047
# 14 x 2	0823148		0823048
# 14 x 2-1/2	0823150		
# 14 x 3	0823151		
#14 x 4	0823152		

## Hex Lag Screws

- Hex head for easier wrenching,
- Sharp gimlet point for easy starting

Size	1/4	5/16	3/8	1/2
1	0740405			
1-1/4	0740406			
1-1/2	0740407	0740507	0740607	0740807
2	0740409	0740509	0740609	0740809
2-1/2	0740411	0740511	0740611	0740811
3	0740413	0740513	0740613	0740813
3-1/2	0740415	0740515	0740615	0740815
4	0740417	0740517	0740617	0740817
4-1/2		0740518	0740618	0740818
5		0740519	0740619	0740819
6			0740621	0740821



## Trailer Floor Screws- Type F

Size	 Torx	 Phillips	 Slotted
1/4-20 x 1-1/2			0053246
1/4-20 x 2	0057253	0057248	0053248
1/4-20 x 2-1/2	0057254	0057250	0053250
1/4-20 x 3	0057255		0053251
1/4-20 x 3-1/2	0057256		

## Screwdrivers With Ergonomic Cushion Grip

- Hex blade, high alloy chrome-vanadium-molybdenum steel, hardened, chrome plated
- Hex bolster for additional torque
- Wiha-Chromtop finish on tips.
- Wiha-SoftFinish handle, multi-component

### Phillips

Part No	Size	Shaft Length
0760205	1	3" / 80mm
0760206	2	4" / 100mm
0760207	3	6" / 150mm



### Slotted

Part No	Size	Shaft Length
0760208	5.5 / 7/32	4" / 100mm
0760209	6.5 / 1/4	5" / 125mm
0760210	7.0 / 9/32	5" / 125mm
0760211	8.0 / 5/16	6" / 150mm
0760212	10.0 / 3/8	7" / 175mm



## Screwdriver Set

Part No	Description
0760213	Includes: Slotted 7/32, 9/32, 5/16 Phillips 1 and 2



## Magnatizer / Demagnatizer

Powerful Permanent Industrial Magnets  
Instantly Magnetize or Demagnetize Small  
Tools and Steel Parts  
Material: Shatter-resistant ABS Enclosure

Part Number: 5140440



## ElecPlus-Screwdrivers

Part No	Tip Size	Blade Length
0763114	5/32	4"
0763115	7/32	5"
0763116	1/4	6"
0763117	5/16	7"



Part No	Tip Size	Blade Length
0763512	#1	3"
0763513	#2	4"



- Individually insulated blade and handle provide a double level of protection with all parts being inseparable.
- Large, ergonomically designed triangular handle with a unique, soft grip surface for higher torque and greater resistance to slipping.
- Blades are made of high alloy special steel with a bur-nished finish, for maximum strength.
- Handles and insulation are made of a highly shock proof cadmium free plastic.
- Individually examined and tested in water using 10,000 volts to ensure safety. Guaranteed safe to 1,000 volts.
- Examination also made under the new, more severe DIN EN 60900 and low temperature impact tested at minus 40°C.



Part No	Description
0761586	6 piece set: Slotted: 5/32 x 4, 7/32 x 5, 1/4 x 6, 5/16 x 7, Phillips : #1 x 3, #2 x 4

## Magnetic Bit Holders

Part No	Overall Length	Shank Body Dia
0762000	2-31/32	1/4 Hex



## Magnetic Hex Screw Setters

Part No	Overall Length	Hex Opening	Screw Diameter
0766000	2-9/16"	1/4	6 - 8
0766001	2-9/16"	5/16	10 - 12
0766002	2-9/16"	3/8	1/4



## Quick Chuck

- Converts a standard chuck into a quick change attachment
- Accommodates all 1/4 " hex shank insert bits.
- One handed bit changes; sleeve stays back while inserting bit

Part No	Description
5150500	Fits 3/8" and 1/2" drills



## Phillips Insert Bits

Part No	Overall Length	Shank Body Dia	Point Size	Fits Screw Size
0761001	1"	1/4 Hex	1	2-3-4
0761002	1"	1/4 Hex	2	5-6-7-8-10
0761003	1"	1/4 Hex	3	12-14
0761016	1"	5/16 Hex Impact	2	5-6-7-8-10
0761017	1"	5/16 Hex Impact	3	12-14



ACR®: The interlocking ribs of the ACR® anti-cam-out system provide higher torque. Components in the system are interchangeable with standard Phillips components.

## Phillips Power Drive Bits

Part No	Overall Length	Shank Body Dia	Point Size	Fits Screw Size
0761004	1-15/16"	1/4 Hex	1	2-3-4
0761005	1-15/16"	1/4 Hex	2	5-6-7-8-10
0761006	1-15/16"	1/4 Hex	3	12-14
0761007	6"	1/4 Hex	1	2-3-4
0761008	6"	1/4 Hex	2	5-6-7-8-10
0761009	6"	1/4 Hex	3	12-14



## Double End Bits

Part Number	Overall Length	Shank Body Dia	Fits Screw Size
0761010	2-1/2"	1/4 Hex	#1/6-8
0761011	2-1/2"	1/4 Hex	#2/8-10
0761014	2-1/2"	1/4 Hex	#2/#2



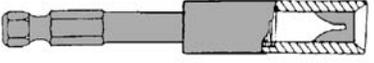
## Slotted Insert Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0762001	1"	1/4 Hex	4F - 5R
0762002	1"	1/4 Hex	6F - 8R
0762003	1"	1/4 Hex	8F - 10R
0762004	1"	1/4 Hex	10F - 12R



## Slotted Power Drive Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0763001	3-3/4"	1/4 Hex	4F - 5R
0763002	3-3/4"	1/4 Hex	6F - 8R
0763003	3-3/4"	1/4 Hex	8F - 10R
0763004	3-3/4"	1/4 Hex	10F - 12R



## Torx Insert Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0763310	1"	1/4 Hex	T10
0763315	1"	1/4 Hex	T15
0763320	1"	1/4 Hex	T20
0763325	1"	1/4 Hex	T25
0763327	1"	1/4 Hex	T27
0763330	1"	1/4 Hex	T30



## Torx Power Bit Selector

Part No	Includes
0760030	Magnetic 1/4" Bit Holder and the Following 10 Torx Plus Bits: IP7, IP8, IP9, IP10, IP15, IP20, IP25, IP27, IP30, IP40



## Power Nutsetter

- Fits electric drills, cordless tools, and 1/4" hand drivers
- For use with hex screws
- Non-magnetic

Part Number
0760460
<p>10-Piece Power Nut Setter Set includes 10 SAE nut setters made of durable Chrome-Vanadium steel. Each nut setter has a universal 1/4" hex shank design and includes a bit holder for all pieces. Sizes include 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16" and 1/2".</p> <p>Made of chrome-vanadium steel for durability                      Universal 1/4" hex shank design                      Standard 6-point hex design                      Sizes marked on each nut setter</p>



## Security Bit Kit

- 31piece set in Heavy Duty plastic case

Part Number	Bit Type	Length	Sizes
0762100	Torx Security	1"	TR7, TR8, TR9, TR10, TR15, TR20, TR25, TR27, TR30, TR40
	Socket Security	1"	TR3/32, TR7/64, TR1/8, TR9/64 TR5/32, TR3/16, TR7/32, TR1/4
	Spanner Bits	1"	4, 6, 8, 10
	Phillips Security	1"	2, 3
	Square Bits	1"	1, 2
	Phillips Bit	1"	1
	Slotted Bit	1"	8
	Socket Adapter	1"	for 1/4" Square Drive sockets
	Magnetic Bit Holder	1-3/4"	for 1/4" Hex Shank Insert Bits



## Pin in Hex Security Insert Bits

Part No	Size
1630006	3/32
1630008	1/8
1630010	5/32
1630012	3/16



## Button Head Socket Security Screws

### 18-8 Stainless Steel

Size	6/32	8/32	10/24	10/32	1/4-20
1/4	1630604		1631004	1631104	
1/2	1630608	1630808	1631008	1631108	1631408
3/4	1630612	1630812	1631012	1631112	1631412
1	1630616	1630816	1631016	1631116	1631416
1-1/4				1631120	1631420
1-1/2		1630824	1631024	1631124	1631424
2				1631132	1631432
Driver Size	1/8	1/8	5/32	5/32	5/32



## Flat Head Socket Security Screws

### 18-8 Stainless Steel

Size	6/32	8/32	10/24	10/32	12/24	1/4-20
3/8	1650606	1650806				
1/2	1650608	1650808	1651008	1651108	1651208	1651408
3/4	1650612	1650812	1651012	1651112		1651412
1	1650616	1650816	1651016	1651116		1651416
1-1/4						1651420
1-1/2		1650824	1651024	1651124		1651424
2				1651132		1651432
Driver Size	1/8	1/8	5/32	5/32	5/32	5/32



## Button Head Sheet Metal Security Screws

### 18-8 Stainless Steel

Size	#8	#10
1/2	1640808	1641008
3/4	1640812	1641012
1	1640816	1641016
Driver Size	1/8	5/32



## Security Multi Driver

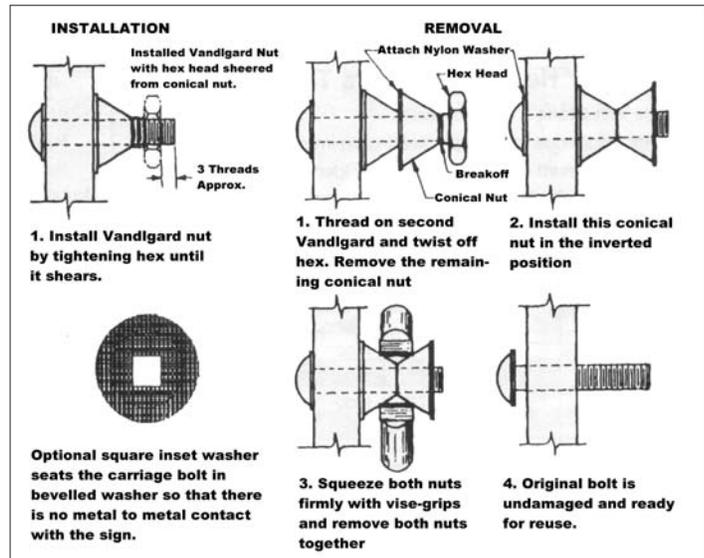
- Extra long 3" nosepiece with 16, 3" double end security bits in the handle and a 1/4" nut driver in the nose peice.

Part Number	Includes
5150444	Spanner 4,6,8,10 Torx Security 10,15,20,25 Hex Security 1/8,9/64,5/32,3/16 Robert's Security 1,2 Slotted 7/32 Phillips #2



## Vandgard Nuts

- Universal security nut that protects highway signs
- Can be used on wood, metal, and cement posts
- Uses standard wrenches for installation
- Controlled clamping action ,prevents damage to the sign surface
- Non-ferrous material protects against rust & discoloration



Size	1/4-20	5/16-18	3/8-16
Part No.	1610004	1610005	1610006
Material	Aluminum	Zinc	Aluminum
Break off Torque	60-80 In/Lb.	40-60 In/Lb.	200-240 In/Lb.
Square Inset Nylon Washer		1610015	
Nylon Backup Washer		1610115	

## Tamper Proof Screws

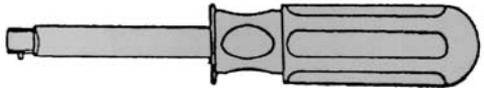
- Stop vandalism and theft

Size	Round Head Machine Screws	Round Head Wood Metal Screws
6 x 3/8	1590606	
6 x 1/2	1590608	1600608
6 x 3/4	1590612	1600612
6 x 1		1600616
8 x 3/8	1590806	
8 x 1/2	1590808	1600808
8 x 3/4	1590812	1600812
8 x 1	1590816	1600816
8 x 1-1/4	1590820	
8 x 1-1/2		1600824
10 x 1/2	1591008	1601008
10 x 3/4	1591012	1601012
10 x 1	1591016	1601016
10 x 1-1/2	1591024	1601024
14 x 3/4	1591412	
14 x 1	1591416	
14 x 1-1/2	1591424	
14 x 2	1591432	

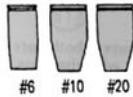


## Drivers & Sockets

Part No.	Description
1600003	1/4 Square Drive Handle for #6 -#10 sockets
1600006	3/8 Square Drive Handle for #20 socket
1600004	Power Drive Socket Adapter



Part No	Screw Size	Socket No.
1600001	#6-#8	#6
1600002	#10	#10
1600005	1/4-20 Nut	#20



## Tamper Proof Nuts

Size	Part No
10/24	1590010
1/4-20	1590014



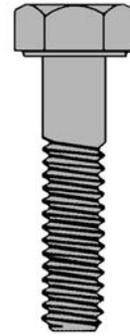
# STAINLESS STEEL



## USS Hex Cap Screw - 316 Stainless Steel

- Manufactured in accordance with ASTM A-276 (Type 316) specifications
- Non-magnetic stainless steel for superior corrosion resistance
- Minimum tensile strength: 90,000 psi
- Superior performance at high temperatures
- Rockwell hardness: B85
- FDA approved for use in food & drug industries

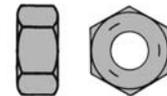
Size	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
1/2	3160401	3160501				
3/4	3160403	3160503	3160603	3160803		
1	3160405	3160505	3160605	3160805	3161005	
1-1/4	3160406	3160506	3160606	3160806	3161006	
1-1/2	3160407	3160507	3160607	3160807	3161007	3161207
1-3/4	3160408	3160508	3160608	3160808	3161008	3161208
2	3160409	3160509	3160609	3160809	3161009	3161209
2-1/2	3160411	3160511	3160611	3160811	3161011	3161211
3	3160413	3160513	3160613	3160813	3161013	3161213
3-1/2	3160415	3160515	3160615	3160815	3161015	3161215
4	3160417	3160517	3160617	3160817	3161017	3161217



## USS Finished Hex Nuts-316 Stainless Steel

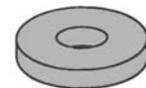
- For use with 316 Stainless Cap Screws
- Made from non-magnetic Type 316 stainless steel
- Minimum proof load: 100,000 psi

Size	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
Part No	3160004	3160005	3160006	3160008	3160010	3160012
Wrench Size	7/16	1/2	9/16	3/4	15/16	1-1/8



## Flat Washers- 316 Stainless Steel

Size	Part No.	O.D.
1/4	3160204	11/16
5/16	3160205	7/8
3/8	3160206	1
1/2	3160208	1-1/4
5/8	3160210	1-1/2
3/4	3160212	1-3/4



## Lock Washers- 316 Stainless Steel

- Offset split design for maximum spring locking force
- Stainless steel stands up to acids, rust and corrosion

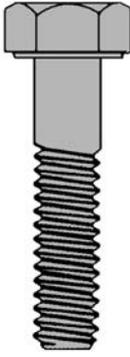
Size	1/4	5/16	3/8	1/2	5/8	3/4
Part No	3160040	3160050	3160060	3160080	3160110	3160120



## USS Hex Cap Screws- 18-8 Stainless Steel

- Manufactured in accordance with ASTM F593 Group 1 specifications
- Ideal for use in corrosive environments
- Minimum tensile strength: 100,000 psi
- Rockwell hardness: B 95- C-32

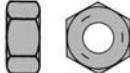
Size	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
1/2	3180401	3180501				
3/4	3180403	3180503	3180603	3180803		
1	3180405	3180505	3180605	3180805	3181005	
1-1/4	3180406	3180506	3180606	3180806		
1-1/2	3180407	3180507	3180607	3180807	3181007	3181207
1-3/4	3180408	3180508	3180608	3180808	3181008	
2	3180409	3180509	3180609	3180809	3181009	3181209
2-1/2	3180411	3180511	3180611	3180811	3181011	3181211
3	3180413	3180513	3180613	3180813	3181013	3181213
3-1/2	3180415	3180515	3180615	3180815	3181015	3181215
4	3180417	3180517	3180617	3180817	3181017	3181217



## USS Finished Hex Nuts - 18-8 Stainless Steel

- For use with 18-8 Stainless Cap Screws
- Minimum proof load: 100,000 psi

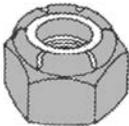
Size	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
Part No	3181104	3181105	3181106	3181108	3181110	3181112
Wrench Size	7/16	1/2	9/16	3/4	15/16	1-1/8



## USS Nylon Lock Nuts - 18-8 Stainless Steel

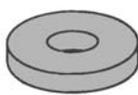
- For use with 18-8 Stainless Cap Screws
- Ideal for high temperature, and corrosive environments
- Minimum proof load: 100,000 psi

Size	6-32	8-32	10-24	10-32	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
Part No	3189006	3189008	3189010	3189011	3180904	3180905	3180906	3180908	3180910	3180912
Wrench Size	1/4	5/16	3/8	11/32	7/16	1/2	9/16	3/4	15/16	1-1/8



## Flat Washers- 18-8 Stainless Steel

Size	Part No.	Outside Dia.
1/4	3182104	11/16
5/16	3182105	7/8
3/8	3182106	1
1/2	3182108	1-1/4
5/8	3182110	1-1/2
3/4	3182112	1-3/4



## Lock Washer - 18-8 Stainless Steel

Size	1/4	5/16	3/8	1/2	5/8	3/4
Part No	3182204	3182205	3182206	3182208	3182210	3182212



# STAINLESS STEEL



## Machine Screws - 18-8 Stainless Steel

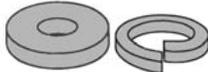
- Full formed Class 2A threads for easy assembly
- Resists salt water corrosion

Size	 Phillips Pan Head	 Phillips Flat Head	 Phillips Oval Head	 Slotted Round Head
6/32 x 1/4	3190604	3200604	3220604	3170604
6/32 x 1/2	3190608	3200608	3220608	3170608
6/32 x 3/4	3190612	3200612	3220612	3170612
6/32 x 1	3190616	3200616	3220616	3170616
8/32 x 1/2	3190808	3200808	3220808	3170808
8/32 x 3/4	3190812	3200812	3220812	3170812
8/32 x 1	3190816	3200816	3220816	3170816
8/32 x 1-1/2	3190824	3200824	3220824	3170824
10/24 x 1/2	3191008	3201008	3221008	3171008
10/24 x 3/4	3191012	3201012	3221012	3171012
10/24 x 1	3191016	3201016	3221016	3171016
10/24 x 1-1/4	3191020	3201020	3221020	3171020
10/24 x 1-1/2	3191024	3201024	3221024	3171024
10/24 x 2	3191032	3201032	3221032	3171032
10/32 x 1/2	3191108	3201108	3221108	3171108
10/32 x 3/4	3191112	3201112	3221112	3171112
10/32 x 1	3191116	3201116	3221116	3171116
10/32 x 1-1/4	3191120	3201120	3221120	3171120
10/32 x 1-1/2	3191124	3201124	3221124	3171124
10/32 x 2	3191132	3201132	3221132	3171132
1/4x 1/2	3191408	3201408	3221408	3171408
1/4 x 3/4	3191412	3201412	3221412	3171412
1/4 x 1	3191416	3201416	3221416	3171416
1/4 x 1-1/4	3191420	3201420	3221420	3171420
1/4 x 1-1/2	3191424	3201424	3221424	3171424
1/4 x 2	3191432	3201432	3221432	3171432
1/4 x 2-1/2	3191440	3201440	3221440	3171440
1/4 x 3	3191448	3201448	3221448	3171448

## Machine Screw Nuts - 18-8 Stainless Steel

Size	Part No.	
6/32	3186306	
8/32	3186308	
10/24	3186310	
10/32	3186311	
1/4-20	3186314	

## Machine Screw Washers - 18-8 Stainless Steel

Size	# 6	# 8	# 10	1/4	
Flat Washer	3182160	3182180	3182100	3182104	
Lock Washer	3182201	3182202	3182203	3182204	

## Sheet Metal Screws - 18-8 Stainless Steel

- Resists salt, water, corrosion
- Deep twist resistant slots, sharp hardened points and threads

Size	 Pan Head Phillips	 Oval Head Phillips	 Oval Head Slotted	 Pan Head Slotted
# 6 x 1/2	3173106	3172106	3172006	3173006
# 6 x 3/4	3173108	3172108	3172008	3173008
# 6 x 1	3173110	3172110	3172010	3173010
# 8 x 1/2	3173114	3172114	3172014	3173014
# 8 x 3/4	3173116	3172116	3172016	3173016
# 8 x 1	3173118	3172118	3172018	3173018
# 8 x 1-1/2	3173120	3172120	3172020	3173020
# 10 x 1/2	3173124	3172124	3172024	3173024
# 10 x 3/4	3173126	3172126	3172026	3173026
# 10 x 1	3173128	3172128	3172028	3173028
# 10 x 1-1/2	3173130	3172130	3172030	3173030
# 10 x 2	3173136	3172136	3172036	3173036
# 14 x 3/4	3173142	3172142	3172042	3173042
# 14 x 1	3173144	3172144	3172044	3173044
# 14 x 1-1/2	3173146	3172146	3172046	3173046
#14 x 2	3173150	3172150	3172050	3173050

## Hex Washer Head Self Drilling Screw - 410 Stainless Steel

	#6	#8	#10	#12	#14	
1/2	3554006	3554015	3554024			
5/8			3554025			
3/4	3554008	3554016	3554026		3554042	
1	3554010	3554018	3554028	3554036	3554044	
1-1/4		3554019	3554030	3554037		
1-1/2		3554020	3554035	3554038	3554046	
2		3554021	3554034		3554048	
Hex Driver Size		1/4	5/16	5/16	3/8	
Max Thickness	.090	7/64	11/64	7/32	1/4	

## Pan Head Self Drilling Screw - 410 Stainless Steel

	#6	#8	#10	#12	#14	
1/2	3564006	3564015	3564024			
5/8			3564025			
3/4	3564008	3564016	3564026		3564042	
1	3564010	3564018	3564028	3564036	3564044	
1-1/4		3564019	3564030	3564037		
1-1/2		3564020	3564035	3564038	3564046	
2		3564021	3564034		3564048	
Max Thickness	.090	7/64	11/64	7/32	1/4	

# STAINLESS STEEL



## Cotter Pins - Stainless Steel

Part Number	Size
3410403	1/16 x 3/4
3410405	1/16 x 1
3410407	1/16 x 1-1/2
3410409	1/16 x 2
3410603	3/32 x 3/4
3410605	3/32 x 1
3410607	3/32 x 1-1/2
3410609	3/32 x 2
3410803	1/8 x 3/4
3410805	1/8 x 1
3410806	1/8 x 1-1/4
3410807	1/8 x 1-1/2
3410809	1/8 x 2
3410811	1/8 x 2-1/2
3411007	5/32 x 1-1/2
3411008	5/32 x 1-3/4
3411009	5/32 x 2
3411011	5/32 x 2-1/2
3411207	3/16 x 1-1/2
3411209	3/16 x 2
3411211	3/16 x 2-1/2
3411607	1/4 x 1-1/2
3411609	1/4 x 2
3411611	1/4 x 2-1/2



## STAINLESS STEEL COTTER PIN ASSORTMENT

Part No	Description	Comp	Pieces	Contents
1930345	SS Cotter Pins	24	1050	1/16 x 3/4 to 1/4 x 2-1/2



## Machine Screws - Brass

- Manufactured of high quality brass, non-magnetic, rust and corrosion resistant
- Deep twist resistant slots eliminate screwdriver slippage
- Class 2A threads

Size	 Slotted Round	 Slotted Flat	Size	 Slotted Round	 Slotted Flat
4/40 x 1/2	0650408		10/24 x 1-1/4	0651020	0661020
4/40 x 3/4	0650412		10/24 x 1-1/2	0651024	0661024
4/40 x 1	0650416		10/24 x 2	0651032	0661032
6/32 x 1/4	0650604		10/32 x 1/2	0651108	0661108
6/32 x 3/8	0650606	0660606	10/32 x 3/4	0651112	0661112
6/32 x 1/2	0650608	0660608	10/32 x 1	0651116	0661116
6/32 x 3/4	0650612	0660612	10/32 x 1-1/4	0651120	0661120
6/32 x 1	0650616	0660616	10/32 x 1-1/2	0651124	0661124
6/32 x 1-1/4		0660620	10/32 x 2	0651132	0661132
6/32 x 1-1/2	0650624		12/24 x 1/2	0651208	
6/32 x 2	0650632		12/24 x 3/4	0651212	
8/32 x 1/4	0650804		12/24 x 1	0651216	
8/32 x 3/8	0650806		12/24 x 1-1/2	0651224	
8/32 x 1/2	0650808	0660808	12/24 x 2	0651232	
8/32 x 3/4	0650812	0660812	1/4 x 1/2	0651408	
8/32 x 1	0650816	0660816	1/4 x 3/4	0651412	0661412
8/32 x 1-1/4	0650820		1/4 x 1	0651416	0661416
8/32 x 1-1/2	0650824		1/4 x 1-1/4	0651420	0661420
10/24 x 1/2	0651008	0661008	1/4 x 1-1/2	0651424	0661424
10/24 x 3/4	0651012	0661012	1/4 x 2	0651432	0661432
10/24 x 1	0651016	0661016	1/4 x 2-1/2		0661440

## Machine Screw Nuts - Brass

Size	4-40	6-32	8-32	10-24	10-32	12-24	1/4	
Part No	0640004	0640006	0640008	0640010	0640011	0640012	0640014	

## USS Hex Nuts - Brass

Size	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	
Part No	1370040	1370050	1370060	1370070	1370080	1370090	1370100	1370120	

## Machine Screw Washers - Brass

Size	# 6	# 8	# 10	# 12	1/4	
Flat Washer	0640060	0640018	0640110	0640112	0640114	
Lock Washer	0640160	0640180	0640210	0640212	0640214	

## Metric Hex Cap Screws - 10.9

- Manufactured from medium carbon alloy steel, quenched and tempered
- Minimum tensile strength: 150,000 psi
- Rockwell hardness: C36-C40

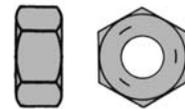
Size (approx.)	M6	M8	M10	M12	M14	M16	M18	M20	
Thread Pitch	1.00	1.25	1.50	1.75	2.00	2.00	2.5	2.5	
12	1/2	1680612							
16	5/8	1680616	1680816						
20	3/4	1680620	1680820	1681020	1681220				
25	1	1680625	1680825	1681025	1681225				
30	2-3/16	1680630	1680830	1681030	1681230	1681430			
35	2-3/8	1680635	1680835	1681035	1681235	1681435	1681635		
40	2-9/16	1680640	1680840	1681040	1681240	1681440	1681640	1681840	
45	2-3/4	1680645	1680845	1681045	1681245		1681645		
50	2	1680650	1680850	1681050	1681250	1681450	1681650	1681850	1682050
60	2-3/8		1680860	1681060	1681260	1681460	1681660	1681860	1682060
70	2-3/4		1680870	1681070	1681270	1681470	1681670	1681870	1682070
80	3-3/16			1681080		1681480	1681680	1681880	1682080
90	3-1/2				1681290	1681490	1681690	1681890	1682090
100	4				1681299		1681699	1681899	1682099



## Metric Hex Nuts - Class 10.9

- For use with Class 10.9 Cap Screws
  - Fully chamfered for positive wrenching
- Coarse Thread

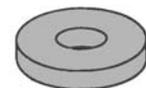
Size	M6	M8	M10	M12	M14	M16	M18	M20	
Pitch	1.00	1.25	1.50	1.75	2.00	2.00	2.50	2.50	
Part No	1680061	1680081	1680100	1680120	1680140	1680160	1680180	1680200	
Wrench Size	10mm	13mm	17mm	19mm	22mm	24mm		30mm	



## Metric Flat Washers-Class 10

- Smooth load-bearing surface provides even load distribution

Size	Part No.	Inside Dia	Outside Dia	
M6	1680062	6.4	12.5	
M8	1680082	8.4	17.0	
M10	1680102	10.5	21.0	
M12	1680122	13.0	24.0	
M14	1680142	15.0	28.0	
M16	1680162	17.0	30.0	
M18	1680182	19.0	34.0	
M20	1680222	21.0	37.0	



## Metric Alloy Lock Washers

- Made of carbon steel for strength and flexibility

Size	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20
Part No	0680003	0680004	0680005	0680006	0680008	0680010	0680012	0680014	0680016	0680018	0680020



## Metric Hex Cap Screws - 8.8

- Minimum tensile strength: 116,000 psi
- Rockwell hardness: C24-C28

Size (approx.)		M4	M5	M6	M7	M8	M10
Thread Pitch		.70	.80	1.00	1.00	1.25	1.50
12	1/2	0680412		0680612		0680812	
16	5/8	0680416	0680516	0680616	0680916	0680816	0681016
20	3/4	0680420	0680520	0680620	0680920	0680820	0681020
25	1		0680525	0680625	0680925	0680825	0681025
30	2-3/16		0680530	0680630	0680930	0680830	0681030
35	2-3/8			0680635		0680835	0681035
40	2-9/16			0680640	0680940	0680840	0681040
45	2-3/4			0680645		0680845	0681045
50	2			0680650	0680950	0680850	0681050
55	2-3/16					0680855	0681055
60	2-3/8			0680660		0680860	0681060
65	2-9/16			0680665		0680865	0681065
70	2-3/4			0680670		0680870	0681070
80	3-3/16					0680880	0681080
90	3-1/2						

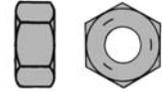


Size (approx.)		M12	M14	M16	M18	M20
Thread Pitch		1.75	2.00	2.00	2.50	2.50
20	3/4	0681220	0681420			
25	1	0681225	0681425	0681625		
30	2-3/16	0681230	0681430	0681630		
40	2-9/16	0681240	0681440	0681640	0681840	0682040
50	2	0681250	0681450	0681650	0681850	0682050
60	2-3/8	0681260	0681460	0681660	0681860	0682060
70	2-3/4	0681270	0681470	0681670	0681870	0682070
80	3-3/16	0681280	0681480	0681680	0681880	0682080
90	3-1/2	0681290	0681490	0681690	0681890	0682090
100	4			0681699	0681899	0682099



## Metric Hex Nuts - Class 8.8

- For use with Class 8.8 Cap Screws
- Fully chamfered for positive wrenching

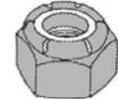


### Coarse Thread

Size	M3	M4	M5	M6	M7	M8	M10	M12	M14	M16	M18	M20
Pitch	.50	.70	.80	1.00	1.00	1.25	1.50	1.75	2.00	2.00	2.5	2.50
Part No	0680031	0680041	0680051	0680061	0680071	0680081	0680100	0680120	0680141	0680160	0680180	0680200
Wrench Size		7mm	8mm	10mm	11mm	13mm	17mm	19mm	22mm	24mm	27mm	30mm

## Metric Nylon Lock Nuts

- Locks uniformly over entire range of bolt thread
- Reusable many times will not damage bolt threads
- Positive locking action resists vibration

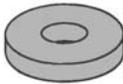
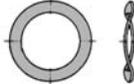


### Coarse Thread

Size	M3	M4	M5	M6	M8	M10	M12	M14	M16
Pitch	.50	.70	.80	1.00	1.25	1.50	1.75	2.00	2.00
Part No	0680531	0680541	0680551	0680561	0680581	0685100	0685120	0685141	0685160
Wrench Size		7mm	8mm	10mm	13mm	17mm	19mm	22mm	24mm

## Metric Washers - Class 8.8

- Smooth load-bearing surface provides even load distribution
- Lock washers are ideal for fastening applications subject to vibration

Size	 Flat Washer Part No.	 Lock Washer Part No.	 Spring Washer Part No.	Inside Dia
M3	0680032	0680003	0680130	3.2
M4	0680042	0680004	0680134	4.3
M5	0680052	0680005	0680135	5.3
M6	0680062	0680006	0680136	6.4
M7	0680072	0680007		7.4
M8	0680082	0680008	0680138	8.4
M10	0680102	0680010	0680139	10.5
M12	0680122	0680012	0680140	13.0
M14	0680142	0680014		15.0
M16	0680162	0680016	0681160	17.0
M18	0680182	0680018	0681180	19.0
M20	0682200	0680020	0681200	21.0

## Metric Hex Cap Screws - 8.8 Fine Thread

- Minimum tensile strength: 116,000 psi
- Rockwell hardness: C24-C28

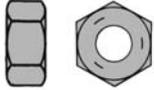
Size (approx.)	M8	M10	M12	M14	M16
Thread Pitch	1.00	1.25	1.50	1.50	1.50
16 5/8	2680816				
20 3/4	2680820	2681020			
25 1	2680825	2681025	2681225		
30 2-3/16	2680830	2681030	2681230	2681430	
35 2-3/8	2680835	2681035	2681235	2681435	2681635
40 2-9/16	2680840	2681040	2681240	2681440	2681640
45 2-3/4	2680845	2681045	2681245		2681645
50 2	2680850	2681050	2681250	2681450	2681650
60 2-3/8		2681060	2681260	2681460	2681660
70 2-3/4					2681670



## Metric Hex Nuts - Class 8.8 Fine Thread

- For use with Class 8.8 Cap Screws
- Fully chamfered for positive wrenching

Size	M8	M10	M12	M14	M16
Pitch	1.00	1.25	1.50	1.50	1.50
Part No	2680081	2680100	2680120	2680140	2680160
Wrench Size	13mm	17mm	19mm	22mm	24mm



## Metric J.I.S Small Head Cap Screws - Class 8.8

Size (approx.)	M8	M10	M12
Thread Pitch	1.25	1.25	1.25
16 5/8	4680816		
20 3/4	4680820	4681020	4681220
25 1	4680825	4681025	4681225
30 2-3/16	4680830	4681030	4681230
35 2-3/8	4680835	4681035	4681235
40 2-9/16	4680840	4681040	4681240
45 2-3/4		4681045	
50 2	4680850	4681050	4681250
60 2-3/8		4681060	
70 2-3/4		4681070	



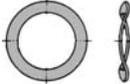
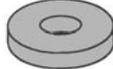
## Metric Machine Screws

Size	 Phillips Pan Head	 Phillips Flat Head	 Phillips Oval Head
M3 X 6	0680202	0683202	0680421
M3 X 8	0680203	0683203	0680422
M3 X 10	0680204	0683204	0680423
M4 X 6	0680223	0683223	0680428
M4 X 8	0680224	0683224	0680429
M4 X 10	0680225	0683225	0680430
M4 X 12	0680226	0683226	0680431
M4 X 16	0680227	0683227	0680432
M4 X 20	0680229	0683229	0680434
M4 X 25	0680230	0683230	0680435
M5 X 8	0680239	0683239	0680439
M5 X 10	0680240	0683240	0680440
M5 X 12	0680241	0683241	0680441
M5 X 16	0680242	0683242	0680442
M5 X 20	0680244	0683244	0680444
M5 X 25	0680246	0683246	0680445
M5 X 30	0680248	0683248	0680446
M5 X 40			0680448
M6 X 10	0680255	0683255	0680451
M6 X 12	0680256	0683256	0680452
M6 X 16	0680257	0683257	0680453
M6 X 20	0680259	0683259	0680454
M6 X 25	0680261	0683261	0680455
M6 X 30	0680263	0683263	0680456
M6 X 40			0680458
M8 X 16	0680272	0683272	0680462
M8 X 20	0680274	0683274	0680463
M8 X 25	0680276	0683276	0680464
M8 X 30	0680278	0683278	0680465
M8 X 40	0680280		0680467
M10 X 16	0680287	0683287	
M10 X 20	0680289	0683289	
M10 X 25	0680291	0683291	
M10 X 30	0680293	0683293	
M10 X 40	0680295		

## Metric Machine Screw Nuts

Size	Pitch	Part No	
M3	0.50	0680301	
M4	0.70	0680041	
M5	0.80	0680051	
M6	1.00	0680061	
M8	1.25	0680081	
M10	1.50	0680100	

## Metric Machine Screw Washers

Size	Pitch	 Part No.	 Part No.	 Part No.
M3	0.50	0680130	0680032	0680003
M4	0.70	0680134	0680042	0680004
M5	0.80	0680135	0680052	0680005
M6	1.00	0680136	0680062	0680006
M7	1.00		0680072	0680007
M8	1.25	0680138	0680082	0680008
M10	1.50	0680139	0680102	0680010

## Metric Socket Cap Screws Grade 12.9

- Special 12.9 Heat Treated alloy steel
- Minimum 170,000 psi Tensile Strength
- Black Oxide finish
- Full finished deep sockets for greater wrenching leverage

### Coarse Thread

Size (approx.)	M4	M5	M6	M8	M10	M12	
Thread Pitch	0.7	0.8	1.0	1.25	1.50	1.75	
12 1/2	0680301		0680321	0680331			
16 5/8		0680312	0680322	0680332	0680342		
20 3/4	0680303	0680313	0680323	0680333	0680343		
25 1	0680304	0680314	0680324	0680334	0680344	0680354	
30 2-3/16		0680315	0680325	0680335	0680345	0680355	
40 2-9/16			0680326	0680336	0680346	0680356	
45 2-3/4							
50 2			0680327	0680338	0680347	0680357	
Hex Key Size	M3	M4	M5	M6	M8	M10	

## Metric Socket Set Screws Grade 12.9 - Din 916

### Cup Point - UNC Coarse Thread ASTM F-912

- Designed to stay tight longer even under severe shock and vibration
- Cup point gives smooth even penetration for maximum holding power against side thrust and torsion

Size (approx.)	M4	M5	M6	M8	M10	M12	
Thread Pitch	0.7	0.8	1.0	1.25	1.50	1.75	
6 1/4	0680710	0680718	0680731				
8 5/16	0680711		0680732	0680742			
10 3/8	0680712	0680721	0680733	0680743			
12 1/2	0680713	0680722	0680734	0680744	0680753	0680764	
16 5/8	0680715	0680724	0680737	0680746	0680756	0680767	
20 3/4	0680716		0680738	0680747	0680757	0680768	
25 1			0680739	0680748	0680758	0680769	
30 2-3/16			0680741	0680749	0680759	0680770	
40 2-9/16				0680751	0680761	0680772	
50 2					0680763	0680774	
Hex Key Size	M2	M2.5	M3	M4	M5	M6	

# FASTENERS



## Threaded Rod

- 1018 Low Carbon Steel-easy to bend
- Full continuous cut threads
- Zinc plated to resist rust and corrosion



Size	Length	USS-Coarse Thread Part No	SAE-Fine Thread Part No
6/32	36"	0850001	
8/32	36"	0850002	
10/24	36"	0850003	
1/4	36"	0850004	0850017
5/16	36"	0850005	0850018
3/8	36"	0850006	0850019
7/16	36"	0850007	0850020
1/2	36"	0850008	0850021
5/8	36"	0850010	0850022
3/4	36"	0850012	0850023
7/8	36"	0850014	0850024
1"	36"	0850016	0850025



Threaded Rod Assortments

Low Carbon Rods  
Part No- 0930085

B-7 Rods  
Part No- 1930085

## B-7 Alloy Threaded Rod

For Gr 8 applications

USS -Coarse Thread

Size	Length	Part No
1/4	36"	0857104
5/16	36"	0857105
3/8	36"	0857106
7/16	36"	0857107
1/2	36"	0857108
5/8	36"	0857110
3/4	36"	0857112
7/8	36"	0857114
1"	36"	0857116



## Coupling Nuts

Thread Size	Length	Part No.
1/4-20	7/8	0850026
5/16-18	1-1/8	0850027
3/8-16	1-3/4	0850028
1/2-13	1-3/4	0850029
5/8-11	2-1/8	0850030
3/4-10	2-1/4	0850031
7/8-9	2-1/2	0850032
1-8	2-3/4	0850033



## Woodruff Keys

- 1035 Carbon Steel heat treated for strength
- Smooth burr free edges, black oil finish
- For repair work on vehicles, axles, shafts, and trailers

Width	Diameter	Industry No	Part No.
3/32	1/2	2	0810002
1/8	1/2	3	0810003
3/32	5/8	4	0810004
1/8	5/8	5	0810005
5/32	5/8	6	0810006
5/32	3/4	8	0810007
3/16	3/4	9	0810009
5/32	7/8	10	0810010
3/16	7/8	11	0810011
1/4	7/8	A	0810012
3/16	1		0810013
1/4	1	15	0810015
1/4	1-1/8	18	0810018
5/16	1-1/4		0810019
5/16	1-1/2		0810020



## Key Stock

- Manufactured to tolerances of +/- .001 from finest grade carbon steel
- Parallel faces assure perfect fit
- Zinc plated to resist rust and corrosion

Size	Length	Part No.
1/8 x 1/8	12"	0850100
3/16 x 3/16	12"	0850101
1/4 x 1/4	12"	0850102
5/16 x 5/16	12"	0850103
3/8 x 3/8	12"	0850104
7/16 x 7/16	12"	0850105
1/2 x 1/2	12"	0850106
5/8 x 5/8	12"	0850107
3/4 x 3/4	12"	0850108
7/8 x 7/8	12"	0850109
1 x 1	12"	0850110



## Key Stock Assortment

Part No.	Contains:	
0850111	1/8	12 pcs
	3/16	12 pcs
	1/4	12 pcs
	5/16	9 pcs
	3/8	9 pcs
	7/16	4 pcs
	1/2	4 pcs



# FASTENERS



## Steel Cotter Pins

- Precision parallel shanks
- Offset ends for easy locking
- Finest high strength steel
- Zinc plated to resist rust and corrosion



Size	1/32	3/64	1/16	5/64	3/32	7/64	1/8
1/2	0410201		0410401	0410501			0410801
3/4	0410203	0410303	0410403		0410603		0410803
1	0410205	0410305	0410405	0410505	0410605	0410705	0410805
1-1/4			0410406		0410606		0410806
1-1/2			0410407		0410607	0410707	0410807
1-3/4			0410408		0410608		0410808
2			0410409	0410509	0410609	0410709	0410809
2-1/2					0410611		0410811
3					0410613		0410813

Size	5/32	3/16	1/4	5/16	3/8	1/2
1		0411205				
1-1/2	0411007	0411207	0411607			
1-3/4	0411008					
2	0411009	0411209	0411609	0412009	0412409	
2-1/2	0411011	0411211	0411611	0412011	0412411	
3	0411013	0411213	0411613		0412413	0413213
3-1/2	0411015	0411215	0411615	0412015	0412415	0413215
4	0411017	0411217	0411617	0412017	0412417	0413217
5				0412019	0412419	0413219
6					0412421	0413221

## Spring Roll Pins

- Self locking spring action provides continuous holding power
- Heat treated for high strength
- Chamfered ends for fast installation
- Specially tempered high carbon spring steel for greater holding power



Size	1/16	5/64	3/32	1/8	5/32	3/16	1/4	5/16	3/8	7/16	1/2
1/2	1390401	1390501	1390601	1390801		1391201					
5/8	1390402	1390502	1390602	1390802	1391002	1391202	1391602				
3/4	1390403		1390603	1390803	1391003	1391203	1391603	1392003			
1		1390505	1390605	1390805	1391005	1391205	1391605	1392005			
1-1/4			1390606	1390806		1391206	1391606	1392006			
1-1/2			1390607	1390807	1391007	1391207	1391607	1392007	1392407	1392807	1393207
1-3/4							1391608	1392008			
2							1391609	1392009	1392409	1392809	1393209
2-1/2							1391611	1392011	1392411	1392811	1393211
3									1392415	1392815	1393215

## Taper Pins

- Precision machined from steel barstock
- Ideal for precision alignment of gears and sprocket to shafts

Size	Large End Dia.	Length	Part No
2/0	.141	1-1/2	0860001
2/0	.141	2	0860002
0	.156	1	0860003
1	.172	1	0860004
1	.172	1-3/4	0860005
2	.193	1-1/4	0860006
2	.193	2	0860007
3	.219	1-1/2	0860008
3	.219	2	0860009
4	.250	1-1/2	0860010
4	.250	2	0860011
4	.250	2-1/2	0860012
5	.289	1-3/4	0860013
5	.289	2	0860014
5	.289	2-1/4	0860015
6	.341	2	0860016
6	.341	2-1/2	0860017
6	.341	3	0860018



## Single Hole Clevis Pins

- Constructed of polished carbon steel
- Meets SAE specifications

Diameter	Length to end	Length to center of hole	Part No.
3/16	1-1/4	1-5/32	0750040
1/4	1	29/32	0750041
1/4	1-1/8	1	0750042
5/16	1	7/8	0750051
5/16	1-1/8	1	0750052
5/16	1-1/4	1-1/8	0750053
5/16	1-3/8	1-1/4	0750054
5/16	1-1/2	1-3/8	0750055
5/16	1-5/8	1-1/2	0750056
5/16	1-3/4	1-5/8	0750057
3/8	1	7/8	0750061
3/8	1-1/8	1	0750062
3/8	1-1/4	1-1/8	0750063
3/8	1-1/2	1-3/8	0750065
3/8	1-5/8	1-1/2	0750066
3/8	1-3/4	1-5/8	0750067
7/16	1-1/4	1-3/32	0750071
7/16	1-1/2	1-11/32	0750072
1/2	1-1/2	1-11/32	0750082
1/2	1-3/4	1-19/32	0750083
1/2	2	1-27/32	0750084



## Universal Clevis Pins

- Quick replacement pin, use to replace bolts, cotter pins,
- Series of holes makes this pin adaptable to varying lengths
- Can be cut off at any length

Diameter	Length to end	Part No.
1/4	2	0750004
5/16	2	0750005
3/8	2	0750006
7/16	2	0750007
1/2	2	0750008



## Bow-Tie Locking Cotter Pin

The ultimate cotter pin design...

- Works like a Hair Pin Cotter, but locks!
- Works in any hole location!
- Increases safety, reduces liability!
- Vibration Proof
- More Secure
- No Tools Needed
- Easy On & Off
- Retrofits Most Cotters
- Revolutionary locking cotter makes other cotters obsolete in application after application!

Part No	Fits Shaft Size	Min Hole Dia
0410072	1/4 to 5/16	3/32
0410091	5/16 to 3/8	7/64 - 1/8
0410120	7/16 to 1/2	9/64 - 5/32



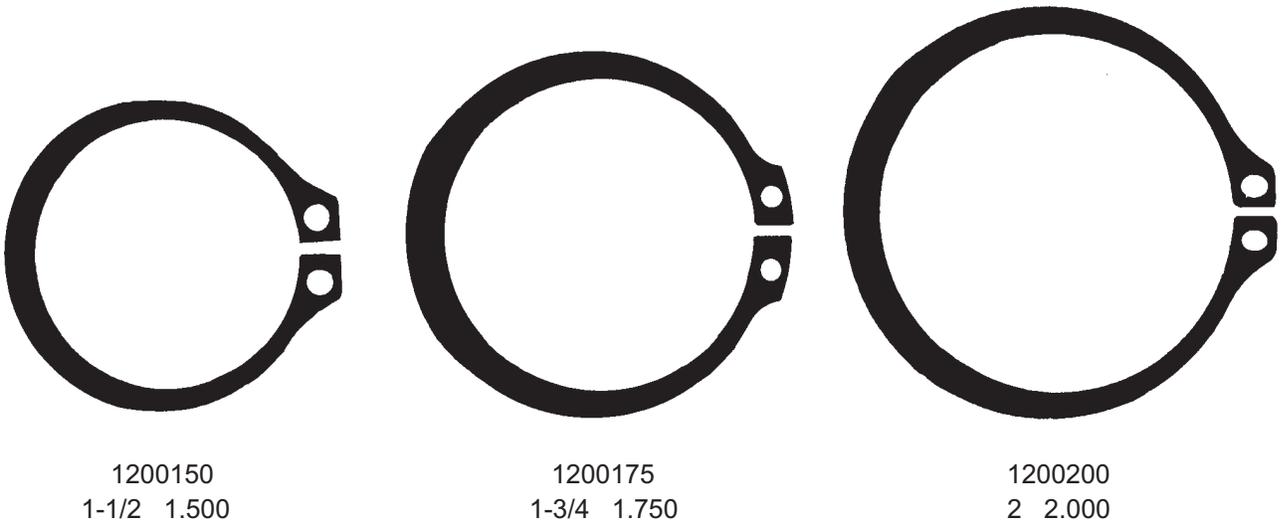
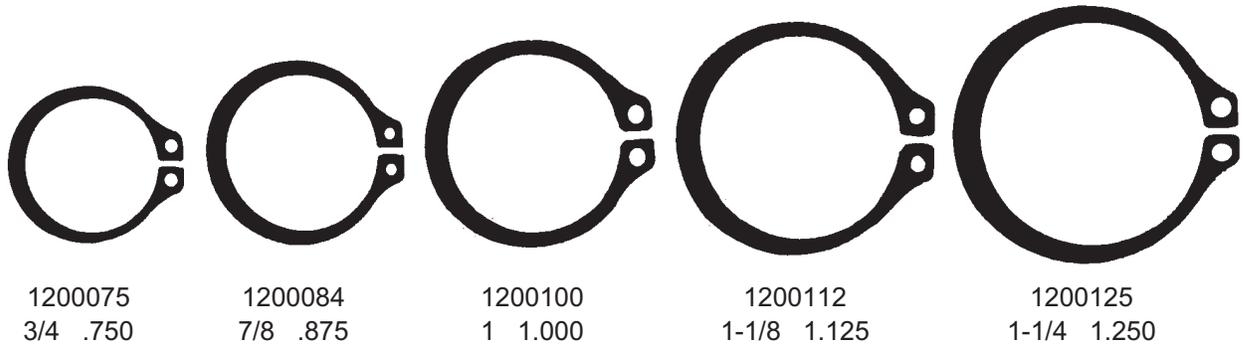
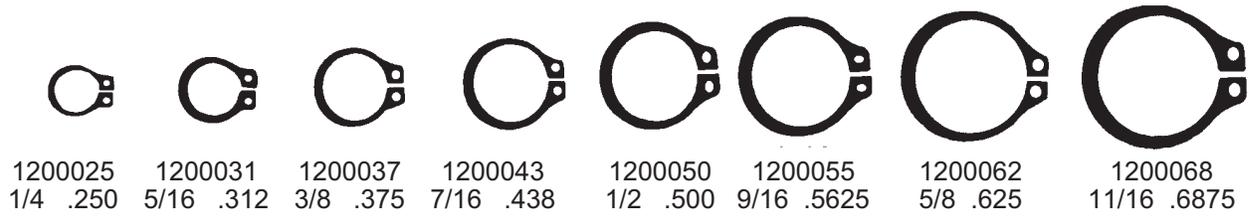
The new Bow-Tie Locking Cotter Pin works like a Hair Pin cotter, but locks itself on! A simple but definite action releases the cotter, though it cannot be accidentally knocked or vibrated off. It can be used regardless of the hole position, and replaces other traditional cotter pins in a variety of applications. It is re-usable, speeds assembly time, reduces liability and offers secure fastening with ease of removal.

The Bow-Tie Locking cotter snaps into a locked position by either pushing or pulling it into the hole. If positioned in a hole near the end of a shaft, the cotter stays locked even if flipped over the end and to the other side of the shaft.

The distance it protrudes from the shaft is the same as with a standard Hair Pin Cotter. The curved cotter leg provides 3 contact points with the hole, keeping the cotter snug. Made from MB spring wire with an attractive zinc plated finish.

## Retaining Rings - External

- Specially heat treated to resist breakage and distortion



## Retaining Rings - Internal



121-31  
5/16 .312



121-37  
3/8 .375



121-43  
7/16 .438



121-50  
1/2 .500



121-56  
9/16 .5625



121-62  
5/8 .625



121-68  
11/16 .6875



121-75  
3/4 .750



121-87  
7/8 .875



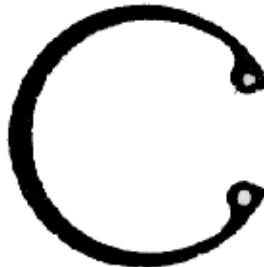
121-100  
1 1.000



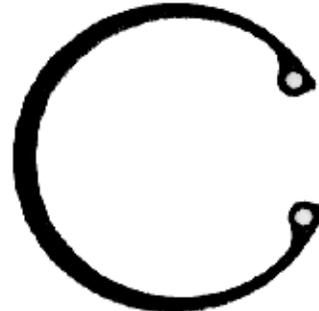
121-106  
1-1/16 1.0625



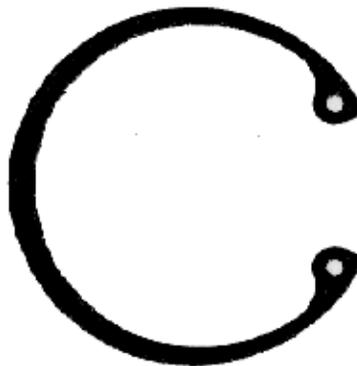
121-112  
1-1/8 1.125



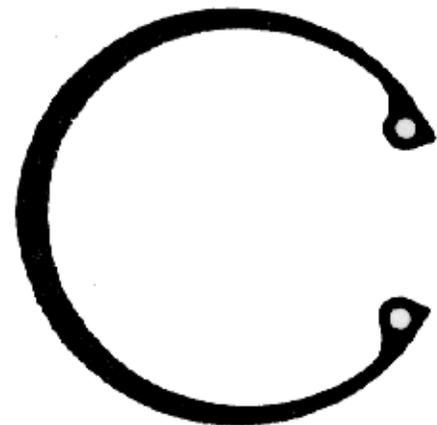
121-125  
1-1/4 1.250



121-150  
1-1/2 1.500



121-175  
1-3/4 1.750



121-200  
2 2.000

## E-Type Retaining Rings



122-75  
3/4"



122-62  
5/8"



122-50  
1/2"



122-43  
7/16"



122-37  
3/8"



122-31  
5/16"



122-25  
1/4"



122-21  
7/32"



122-18  
3/16"



122-15  
5/32"



122-12  
1/8"



122-09  
3/32"

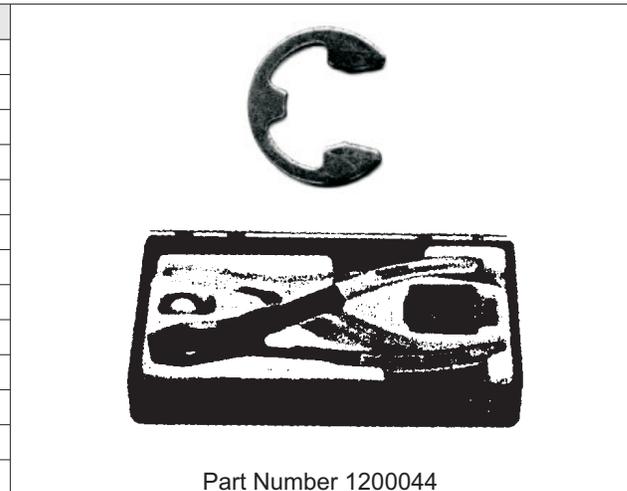
# FASTENERS



## External “E” Type Retaining Clips

- Heat treated to resist breakage and distortion

Shaft Dia.	Groove Dia.	Thickness	Part No
3/32	.074	.015	1220009
7/64	.087	.015	1220011
1/8	.095	.015	1220012
5/32	.116	.025	1220015
3/16	.147	.025	1220018
7/32	.188	.025	1220021
1/4	.210	.025	1220025
5/16	.250	.025	1220031
3/8	.303	.035	1220037
7/16	.343	.035	1220043
1/2	.396	.042	1220050
5/8	.485	.042	1220062
3/4	.580	.050	1220075



## Basic Internal Type Retaining Clips



## Basic External Type Retaining Clips



Housing Dia	Groove Dia.	Thickness	Part No
5/16	.330	.018	1210031
3/8	.387	.025	1210037
7/16	.461	.025	1210043
1/2	.500	.035	1210050
9/16	.596	.035	1210056
5/8	.665	.035	1210062
11/16	.732	.035	1210068
3/4	.796	.035	1210075
7/8	.931	.042	1210087
1	1.066	.042	1210100
1-1/16	1.130	.050	1210106
1-1/8	1.197	.050	1210112
1-1/4	1.330	.050	1210125
1-1/2	1.594	.050	1210150
1-3/4	1.858	.062	1210175
2	2.122	.062	1210200

Housing Dia	Groove Dia.	Thickness	Part No
1/4	.230	.025	1200025
5/16	.290	.018	1200031
3/8	.352	.025	1200037
7/16	.412	.025	1200043
1/2	.468	.035	1200050
9/16	.530	.035	1200056
5/8	.588	.035	1200062
11/16	.646	.042	1200068
3/4	.704	.042	1200075
7/8	.821	.042	1200084
1	.940	.042	1200100
1-1/8	1.059	.050	1200112
1-1/4	1.176	.050	1200125
1-1/2	1.406	.050	1200150
1-3/4	1.650	.062	1200175
2	1.886	.062	1200200

## Helical Thread Inserts

- Repair stripped or damaged threads in any material aluminum, magnesium, cast iron, cold rolled steel, plastic, and wood
- Create new threads the same diameter as the original in minutes
- Helical coils are diamond shaped 18-8 stainless steel wire that creates corrosion resistant threads stronger than the original

Insert Size	Insert Part No.	Drill Size	Tap Part No.	Insert Tool Part No.
10/24	1521024	13/64	0109010	1520100
10/32	1521032	13/64	0109011	1520110
1/4-20	1521420	17/64	0109014	1520140
1/4-28	1521428	17/64	0109040	1520141
5/16-18	1521518	21/64	0109015	1520150
5/16-24	1521524	21/64	0109050	1520151
3/8-16	1521616	25/64	0109016	1520160
3/8-24	1521624	25/64	0109060	1520161
7/16-14	1521714	29/64	0109017	1520170
7/16-20	1521720	29/64	0109070	1520171
1/2-13	1521813	17/32	0109018	1520180
1/2-20	1521820	33/64	0109080	1520181



All insert lengths are 1-1/2 times the diameter of the insert

## Master Kits

Part No	Description
1520001	Setting tools-taps-inserts: 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13
1520002	Setting tools-taps-inserts: 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20
1520003	Setting tools-taps-inserts: 1/4-20, 5/16-18, 3/8-16
1520004	Setting tools-taps-inserts: 1/4-28, 5/16-24, 3/8-24



## Master Kits - Metric

1520006	Setting tools-taps-inserts: M8x1.25, M10 x 1.50, M12 x 1.75
1520007	Spark Plug Kit for M12 x 1.25
1520008	Spark Plug Kit for M14 x 1.25



# THREAD REPAIR



## Single Size Heli-coil Installation Kits

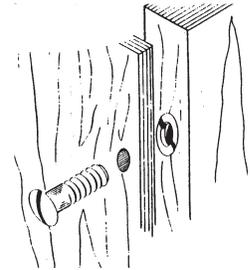
- Each kit contains: tap, inserting tool, Supply of inserts

Insert Size	Part No.
10/24	1520310
10/32	1520311
1/4-20	1520340
1/4-28	1520341
5/16-18	1520350
5/16-24	1520351
3/8-16	1520360
3/8-24	1520361
7/16-14	1520370
7/16-20	1520371
1/2-13	1520380
1/2-20	1520381



## Woodserts

- For use in applications requiring disassembly where thread stripping might occur
- No special tools required
- External threads provide superior holding power in hard and soft wood, particle board and all wood products



Internal Thread Size	Part No.	External Thread Size	Outside Diameter	Length	Drill Diameter
6/32	1610632	18	21/64	3/8	1/4
8/32	1610832	18	21/64	3/8	1/4
10/24	1611024	16	29/64	1/2	3/8
12/24	1611224	16	29/64	1/2	3/8
1/4-20	1611420	16	29/64	1/2	3/8
5/16-18	1611518	14	19/32	5/8	1/2
3/8-16	1611616	14	19/32	5/8	1/2



## Klik Rivet-Nuts

- Can be used in a wide range of applications and are designed to provide a very efficient and cost-effective method of placing permanent threads in thin materials.
- Installed from one side, rivet nuts are perfect for use in metal, fiberglass and rigid plastic previously too thin for tapped threads.
- Provide a neat appearance and once in place, the internal threads are ready for a screw or bolt.
- Rivet nuts provide permanent, captive threads that do not allow loosening under vibration and will not rotate when attached to the mating material.
- Large diameter heads can be used in soft materials which inherently offer little, if any thread strength.
- The flathead design provides the most bearing surface for higher torque applications. The larger flange extends above the material in which it is installed and provides a built-in spacer.

## Klik Rivet-Nut - Ribbed

- Ribbed rivet-nut provides increased torque strength over conventional style, 360° knurled expansion after setting, vibration resistance and large flanged head which increases push out strength.
- Available in steel with yellow zinc dichromate finish



Size	Part No	Body Length	Head Dia	Head Height	Body Dia. Max	Grip Range		Hole Size Required
						Min	Max	
6/32	1520206	.433	.392	.028	.264	.020	.080	17/64
8/32	1520208	.433	.392	.028	.264	.020	.080	17/64
10/24	1520210	.488	.417	.028	.295	.020	.130	19/64
10/32	1520211	.488	.417	.028	.295	.020	.130	19/64
1/4-20	1520214	.590	.500	.028	.390	.027	.165	25/64

## Klik Rivet-Nuts - Flat Head



Size	Part No	Body Length	Head Dia	Head Height	Body Dia. Max	Grip Range		Hole Size		Drill Size
						Min	Max	Min	Max	
6/32	1522206	.438	.325	.032	.189	.010	.075	.189	.193	#12
8/32	1522208	.438	.357	.032	.221	.010	.075	.221	.226	#2
10/24	1522210	.531	.406	.038	.250	.010	.080	.250	.254	1/4
10/32	1522211	.531	.406	.038	.250	.010	.080	.250	.254	1/4
1/4-20	1522214	.625	.475	.058	.332	.020	.080	.332	.338	Q

## Rivet Nut Installation Tool

- Forged Heat treated steel upper handle, precision die cast body of high strength aluminum alloy.
- Patented fulcrum pin design
- Installs Steel Rivet Nuts up to 1/4" and all sizes of Aluminum Rivet Nuts

Part No	Size
1522000	Rivet Nut Installation Tool (Includes 10-24 Mandrel and nosepiece)
1522006	6/32 Nosepiece & mandrel
1522008	8/32 Nosepiece & mandrel
1522010	10/24 Nosepiece & mandrel
1521011	10/32 Nosepiece & mandrel
1522014	1/4-20 Mandrel only
1522015	1/4-28 Mandrel only

## Multi-Grip Rivets

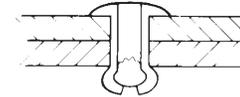
- One length fits all thicknesses within grip range
- Sealed stem for waterproof, dustproof applications
- Superior pull-up action reduces loose assemblies under adverse conditions
- Low profile guarantees finished appearance on both sides of assembly
- Expands to its own head diameter, for use in wide tolerance holes



## Low Profile Button Head

Diameter	Grip Range	Head Diameter	Drill Size	Alum / Steel Part Number
1/8	1/32 to 3/16	13/64	#29	0390205
1/8	3/16 to 3/8	13/64	#29	0390206
5/32	3/64 to 1/4	1/4	#19	0390207
5/32	1/4 to 1/2	1/4	#19	0390215
3/16	1/16 to 1/4	11/32	#8	0390208
3/16	1/4 to 1/2	11/32	#8	0390209
3/16	1/2 to 3/4	11/32	#8	0390216

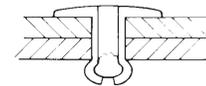
### 4. HEAD STYLES



**BUTTONHEAD RIVETS** are the most popular for industrial applications. The low profile head diameter is twice the rivet body diameter, providing adequate bearing for nearly all applications.

## Large Flange

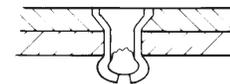
Diameter	Grip Range	Head Diameter	Drill Size	Alum / Steel Part Number
1/8	1/32 to 3/16	21/64	#29	0390210
1/8	1/8 to 5/16	21/64	#29	0390211
3/16	1/4 to 1/2	5/8	#8	0390212
3/16	1/2 to 25/32	5/8	#8	0390213



**LARGE FLANGE RIVETS** provide greater bearing surface for fastening soft and brittle facing materials such as plywood and plastics including neoprene, vinyl, etc.

## 120° Countersunk

Diameter	Grip Range	Head Diameter	Drill Size	Alum/ Steel Part Number
1/8	3/32 to 1/4	13/64	#29	0390214



**120° COUNTERSUNK RIVETS** are for application where a flush appearance is required.

## Hand Rivet Gun

- Precision cast body of high strength aluminum alloy, heat treated carbon steel upper handle
- Nosepiece screws into steel insert designed to offset excessive torque.

Part No	Description
0390900	Hand Rivet Gun Includes nosepieces for 3/32, 1/8, 5/32, and 3/16 rivets



## Blind Rivets

- Fasten metal to metal, wood and plastics to metal, all materials to fiberglass, and most other materials
- Quickly set by one person from one side of assembly

## Standard Flange Rivets

Diameter	Grip Range	Alum Rivet Alum Mandrel	Alum Rivet Steel Mandrel	Steel Rivet Steel Mandrel	Drill Size
1/8	to 1/8	0390803	0390303	0390103	# 30
1/8	3/16 to 1/4	0390805	0390305	0390105	# 30
1/8	5/16 to 3/8	0390807	0390307	0390107	# 30
1/8	3/8 to 1/2		0390308	0390108	# 30
5/32	to 1/8	0390808	0390309	0390110	# 20
5/32	1/8 to 1/4	0390809	0390311	0390111	# 20
5/32	1/4 to 3/8	0390810	0390312	0390112	# 20
3/16	to 1/8	0390812	0390313	0390113	# 11
3/16	1/8 to 1/4	0390813	0390314	0390114	# 11
3/16	1/4 to 3/8	0390814	0390315	0390115	# 11
3/16	3/8 to 1/2	0390815	0390316	0390116	# 11
3/16	1/2 to 5/8	0390816	0390317	0390117	# 11
1/4	1/4 to 3/8		0390320	0390120	F
1/4	3/8 to 1/2		0390321		F



## Large Flange Rivets

Diameter	Grip Range	Alum Rivet Alum Mandrel	Alum Rivet Steel Mandrel	Steel Rivet Steel Mandrel	Drill Size
1/8	to 1/8			0390400	# 30
3/16	to 3/8	0390817	0390401		# 11
3/16	3/8 to 1/2		0390402		# 11
3/16	1/2 to 5/8		0390403		# 11



## Closed End Rivets

Diameter	Grip Range	Alum Rivet	Steel Mandrel	Drill Size
1/8	to 1/8	0390601		# 30
1/8	1/8 to 1/4	0390603		# 30
5/32	to 1/8	0390605		# 20
5/32	1/8 to 3/16	0390606		# 20
3/16	to 1/8	0390608		# 11
3/16	1/8 to 1/4	0390609		# 11
3/16	1/4 to 3/8	0390610		# 11



# CHAIN & HOOKS



## Proof Coil Chain Grade 28

- Proof coil chain is suitable for use as towing chain, logging ,fencing, trailer safety chain, boat anchors, security barriers or other general purposes where chain of high tensile strength is not required.
- This grade of chain is not to be used for sling chains or lifting chains and is not suitable for use with pocket wheels such as on chain hoists.

Trade Size Inches	Working Load Limit (Lbs)	Part Number	
1/4	1250	0780364	
5/16	1900	0780365	
3/8	2650	0780366	

## Transport Chain Grade 70

- Transport chain has a high strength to weight ratio which makes it ideally suited to the transportation industry for use in load binding and towing.
- The specifications to which Transport Chain is manufactured are in compliance with D.O.T. regulations.
- Transport Chain is electrically welded, heat treated, and marked at regular intervals.

Trade Size Inches	Working Load Limit (Lbs)	Part Number	
5/16	4700	0780765	
3/8	6600	0780766	

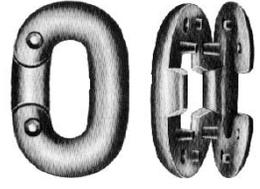


Actual Size Drawings  
 Caution: Not to be used for over head lifting.

## Connecting Links

- Formed by fitting the body rivets of one half into the openings of the other half and fastened by peening.
- Greater strength can be achieved by welding rivets.
- Use next larger size for joining chain.

Trade Size (Inches)	Working Load Limit (Lbs)	Part Number
1/4	1125	0780048
3/8	2325	0780049
7/16	3125	0780050
1/2	4125	0780051



Caution: Do not use with high test chain, alloy, or Transport Chain

## Double Clevis

- Forged and heat treated for use with Proof Coil and High Test Chain.
- Chain links can be joined easily in field or workshop.
- Select attachments with working load limits equal to that of chain.

Trade Size (Inches)	Working Load Limit (Lbs)	Part Number
1/4 and 5/16	3900	0780500
3/8	5400	0780501



Caution: Do not use with Alloy, or Transport Chain

## Cold Shuts

- Used to join chain or attach hooks
- Weld after closing for additional strength.
- Observe working load limits, use next larger size for joining chain.

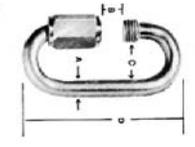
Trade Size (Inches)	Working Load Limit (Lbs)	Part Number
1/4	750	0780035
3/8	1900	0780036
7/16	2650	0780037
1/2	3500	0780038
5/8	4500	0780039



## Quick Links

- Fast easy connections for permanent or temporary applications with proof coil chain.
- Zinc Plated to resist rust and corrosion

Trade Size (Inches)	Working Load Limit (Lbs.)	Part Number
1/4	880	0780200
5/16	1760	0780201
3/8	2220	0780202



Caution: Do not use with high test, alloy, or Transport Chain

# CHAIN & HOOKS



## Clevis Grab Hooks

- Drop forged and heat treated for use with proof coil or high test chain.
- Easily attached in field or workshop.
- No connecting links required.
- Select attachments with working load limits equal to that of chain.

Trade Size Inches	Working Load Limit Lbs	Part Number
1/4	2600	0780017
5/16	3900	0780018
3/8	5400	0780019
7/16	7200	0780020
1/2	9200	0780021



Caution: Not to be used with Alloy Chain

## Clevis Slip Hooks

- Drop forged and heat treated for use with proof coil or high test chain.
- Easily attached in field or workshop.
- No connecting links required.
- Select attachments with working load limits equal to that of chain.

Trade Size Inches	Working Load Limit Lbs	Part Number
5/16	3900	0780022
3/8	5400	0780023
1/2	9200	0780025



Caution: Not to be used with Alloy Chain

## Eye Type Grab Hooks

- Drop forged and heat treated for use with proof coil or high test chain.
- Select attachments with working load limits equal to that of chain.

Trade Size Inches	Working Load Limit Lbs	Part Number
5/16	3900	0780026
3/8	5400	0780027
7/16*		0780028
1/2	9200	0780029



Caution: Not to be used with Alloy Chain \*Hi Test

## Anchor Shackle

- Drop forged C-1038 steel heat treated alloy pins
- Used to attach accessories to proof coil chain.

Trade Size Inches	Working Load Limit Lbs	Pin Size	Part Number
1/4	1000	5/16	0780082
5/16	1500	3/8	0780083
3/8	2000	7/16	0780084
1/2	4000	5/8	0780085
5/8	6500	3/4	0780105



Caution: Not to be used with alloy chain or Transport Chain

## Eye Type Slip Hooks

- Drop forged and heat treated for use with proof coil or high test chain.
- Select attachments with working load limits equal to that of chain.

Trade Size Inches	Working Load Limit Lbs	Part Number
5/16	3900	0780031
3/8	5400	0780032
7/16*		0780033
1/2	9200	0780034

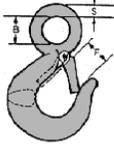


Caution: Not to be used with alloy chain or Transport Chain

\*Hi Test

## Alloy Steel Hoist Hooks

Trade Size Number	Dimensions			Work Load Tons	Part Number
	S	B	F		
22	3/8	15/16	7/8	1	0780822
24	1/2	1-1/8	1-1/32	2	0780824
25	9/16	1-1/4	1-1/8	3	0780825
27	11/16	1-9/16	1-9/16	4-1/2	0780827



## Tie Down Chains - High Test

- Polished high strength steel chain with grab hooks

Part Number	Trade Size	Weight (lbs)	W.L.L.
0780767	3/8" x 20'	33	5400



## Drop Forged Eye Bolts

- Drop forged carbon steel, galvanized after threading
- 1030 Steel heat treated
- Rated capacity drastically reduced when loading at any angle

Part Number	Size	Thread Length	Eye		Safe Work Load
			I.D.	O.D.	
0780600	1/4x2	1-1/2	1/2	1	500 lbs.
0780601	1/4x4	2-1/2	1/2	1	500 lbs.
0780602	5/16x2-1/4	1-1/2	5/8	1-1/4	800 lbs.
0780603	5/16x4-1/4	2-1/2	5/8	1-1/4	800 lbs.
0780604	3/8x2-1/2	1-1/2	3/4	1-1/2	1200 lbs.
0780605	3/8x4-1/2	2-1/2	3/4	1-1/2	1200 lbs.
0780606	3/8x6	2-1/2	3/4	1-1/2	1200 lbs.
0780607	1/2x3-1/4	1-1/2	1	2	2200 lbs.
0780608	1/2x6	1-1/2	1	2	2200 lbs.
0780609	5/8x4	2	1-1/4	2-1/2	3500 lbs.
0780610	5/8x6	3	1-1/4	2-1/2	3500 lbs.
0780611	3/4x4-1/2	2	1-1/2	3	5200 lbs.
0780612	3/4x6	3	1-1/2	3	5200 lbs.



## Turned Eye Bolts

- Lag Screw threaded Turned Eye Bolts.
- Lag screw threads are rolled to fit standard anchors and shields.
- Gimlet point.

Part Number	Shank Diameter and Length	Eye Dimensions (Inches)		Weight per 100 Lbs.
0780065	1/4 X 2	1/2 I.D.	7/8 O.D.	4.25
0780066	5/16 X 2-1/4	5/8 I.D.	1-1/8 O.D.	6.25
0780067	3/8 X 2-1/2	3/4 I.D.	1-3/8 O.D.	18.75
0780068	1/2 X 3-1/4	1 I.D.	1-3/4 O.D.	37.5
0780069	5/8 X 4	1-1/4 I.D.	2-1/4 O.D.	68.75



## Turnbuckles

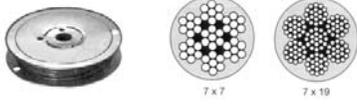
- Drop forged C-1035 Steel
- Galvanized coating
- Meet Federal specification FF-T-791B Type 1 Form 1

Part Number	Dia Take Up Length	Safe Working Load	Type
0780400	1/4x4	400 lbs	Hook & Eye
0780401	5/16x4-1/2	700 lbs	Hook & Eye
0780402	3/8x6	1000 lbs	Hook & Eye
0780403	1/2x6	1500 lbs	Hook & Eye
0780404	1/2x9	1500 lbs	Hook & Eye
0780405	5/8x6	2250 lbs	Hook & Eye
0780406	3/4x6	3000 lbs	Hook & Eye
0780407	1/4x4	500 lbs	Eye & Eye
0780408	5/16x4-1/2	700 lbs	Eye & Eye
0780409	3/8x6	1000 lbs	Eye & Eye
0780410	1/2x6	1500 lbs	Eye & Eye
0780411	1/2x9	1500 lbs	Eye & Eye
0780412	5/8x6	2250 lbs	Eye & Eye
0780413	3/4x6	3000 lbs	Eye & Eye



## Galvanized Cable - Clear Vinyl Coated

Part Number	Cable Diameter	Coated To (inches)	Construction	Work Load Limit (lbs)	Length
0780900	1/16	3/32	7 x 7	96	250' spool
0780901	3/32	1/8	7 x 7	184	250' spool
0780902	1/8	3/16	7 x 19	400	250' spool
0780903	3/16	1/4	7 x 19	740	250' spool



## Oval Sleeves - Aluminum

Size Cable	Part Number
1/16	0780911
3/32	0780912
1/8	0780913
5/32	0780914
3/16	0780915



## Combo Swager

Part Number	Description
0780910	For 3/32, 1/8, 5/32 and 3/16 Oval and Stop Sleeves 1/16 and 5/64 Oval Sleeves Only 24" Long Weight: 8lbs



# CHAIN & HOOKS



## Wire Rope Thimbles

- Accurate formed cable channel, and loop
- Carbon steel, galvanized finish

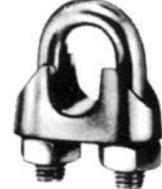
Wire Rope Size	Part Number
1/4	0780040
3/8	0780041
7/16	0780042
1/2	0780043



## Wire Rope Clips

- High grade malleable iron base wire rope clip with steel U-bolt and hex nuts assembled.
- Meets Federal Specification FF-C-450 Type 1 Class 2

Wire Rope Size	Part Number	Recommend Spacing	Min No of Clips
1/8	0780002	3/4	3
1/4	0780004	1-1/8	3
5/16	0780005	1-1/2	3
3/8	0780006	1-7/8	3
7/16	0780007	2-1/4	4
1/2	0780008	2-5/8	4



Should be used in light duty applications

## Double End Bolt Snap

Mall Iron Zinc Plated

Part Number	Size	Working Load (lbs)
0780009	3/8 x 4 1/2	90



## Universal Snap Link

Part Number	Model	Wt./C
0780060	U - 3/16	4
0780061	U - 1/4	7
0780062	U - 9/32	11
0780063	U - 5/16	16



## Swivel Eye Bolt Snap

Part Number	Model	Wt./C
0780064	SBS - 34	10



## Rubber Tie Down Straps

- Weather and abrasion resistant rubber straps with reinforced ends.
- Strong plated metal 2-1/2" S-hooks at each end

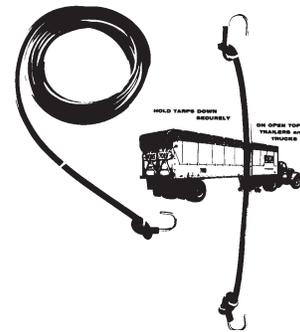
Part No	Length	Span Range
0790001	10"	15" to 20"
0790002	15"	20" to 30"
0790003	21"	30" to 40"
0790004	31"	40" to 50"



## Rubber Tarp Rope

- Cut the length needed fasten on hooks
- Always have the proper length for the job

Part No.	Size
0790005	7/16 x 125 feet



## Galvanized Hooks

Part No
0790006



## S-Hooks

- Low carbon steel
- Plated to resist rust and corrosion
- Equal eye openings

Part No.	Wire Size	O.A.L.	Inside Dia.
0780712	.070	3/4	1/4
0780716	.105	1	5/16
0780720	.117	1-1/4	3/8
0780728	.186	1-3/4	1/2
0780734	.220	2-1/8	5/8
0780740	.250	2-1/2	3/4



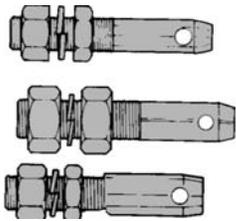
# CHAIN & HOOKS



## Adjustable Lift Arm Pins

- Forged from high carbon steel
- Zinc plated to resist rust and corrosion

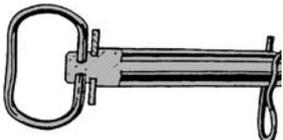
Part No	Pin Diameter	Thread Diameter	Overall Length
1620008	7/8	7/8-14	5-5/16
1620009	1-1/8	1-1/8	6-1/4
1620010	1-1/8	7/8-14	5-3/16



## Hitch Pins

- One piece bodies forged from high strength steel; zinc plated to resist rust and corrosion
- Easy grip pull ring

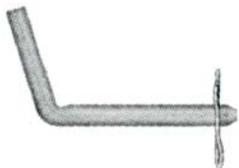
Part No	Diameter	Usable Length
1620012	1/2	3-1/2
1620011	5/8	4-1/2
1620001	5/8	6-1/4
1620002	3/4	6-1/4
1620003	7/8	6-1/4
1620004	1	6-1/4



## Bent Hitch Pins

- Fits lawn tractors and snow plows
- Zinc plated, high carbon steel pin and includes zinc plated clip

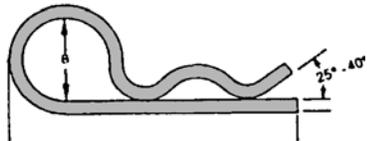
Part No	Diameter	Usable Length
1620015	1/2	3
1620016	5/8	3



## Snap Lock Pins

- Insert straight side through hole bent side provides spring retention
- Heat treated spring steel, plated to resist rust and corrosion

Part No	Overall Length	Fits Pin Diameter	Wire Size
0750100	1-5/16	1/8- 3/16	1/16
0750101	1-5/8	1/4- 3/8	3/32
0750102	2-1/2	1/4- 7/16	3/32
0750103	1-3/4	3/8- 1/2	1/8
0750104	2-9/16	3/8- 3/4	1/8
0750105	2-5/16	5/8- 1"	5/32
0750106	3-1/4	1"- 1-1/2"	3/16
0750107	4	7/8- 1-1/4	1/4
0750108	3-15/16	3/4- 1-1/4	5/16



## Linch Pins

- Forged for maximum strength 50,000 psi yield strength
- Self locking ring keeps pin held securely in place; easy to grip for quick removal
- Plated to resist rust and corrosion

Part No	Pin Diameter	Usable Length
1620005	3/16	1-1/2
1620013	1/4	1-1/2
1620006	5/16	1-1/2
1620007	7/16	1-1/2
1620014	7/16	Long

## Snapper Pins

- Heavy Duty pins have spring loaded fasteners.
- Ideal for quick disconnection of equipment
- Pins are made of plated steel

Size	Length	Part No.
1/4	2-1/2	0750030
5/16	2-1/2	0750031
3/8	2-1/2	0750032

# CHAIN & HOOKS



## Single Strand Roller Chain

- Unique bushing construction and prelubrication results in less initial adjustment and minimum elongation. Out wears other premium brands.



Industry Chain No.	Pitch	Width	Roller Dia.	Roller Length	Cottered Part No.	Riveted Part No
35	3/8"	3/16"	.200	10 Ft.		5161035
40	1/2"	5/16"	.312	10 Ft.		5161040
41	1/2"	1/4"	.306	10 Ft.		5161041
50	5/8"	3/8"	.400	10 Ft.	5162050	5161050
60	3/4"	1/2"	.469	10 Ft.	5162060	5161060
80	1"	5/8"	.625	10 Ft.	5162080	5161080

## Connecting Links

- Connecting links are used to assemble chains with an even number of links.

Industry Chain No	Cottered Part No	Spring Clip Part No
35		5163035
40		5163040
41		5163041
50		5163050
60	5163060	
80	5163080	

## Roller Links

- Used to replace damaged links

Industry Chain No	Part No
35	5165035
40	5165040
41	5165041
50	5165050
60	5165060
80	5165080

## Offset Links

- Used to assemble chain with an odd number of links, joining a roller link to connecting link.
- Has removable pin.

Industry Chain No	Part No
35	5164035
40	5164040
41	5164041
50	5164050
60	5164060
80	5164080

## Dry Wall Driller

One piece self drilling anchor for mounting to gypsum wallboard

- Self piercing plug point cuts neatly through wallboard eliminates pre-drilling
- Installs with a #2 phillips screwdriver
- Deep threads provide strong engagement in 3/8", 1/2", and 5/8" wallboard
- Bore dust pockets capture and compress dust to ensure proper alignment.
- Can be used with a # 8 or #10 sheet metal screw

Part No	Anchor Size	Material	Performance Values		
			Wall Thickness	Pullout	Shear
0400250	#8x1-1/4	Zinc	3/8"	60#	150#
0400253	#6x7/8	Zinc	1/2"	62#	124#
0400254	#6x7/8	Nylon	5/8"	72#	196#
0400252	#8x1-1/4	Nylon			

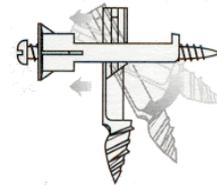


## Dry Wall Driller Toggle

One piece self- drilling toggle bolt anchor for hollow wall anchoring

- Combines the advantages of the Jet Plug anchor with the added strength of toggle bolt anchoring
- No-pre-drilling required
- Installs with a #2 phillips screwdriver
- Made of corrosion resistant zinc alloy

Part No.	Size
0400251	#8x2



EZ Toggle replaces 1/8 and 3/16 toggle bolts

## Dry Wall Driller Picture Hook

- No drill, No Screw

Part No	Size	Material	Service Type
0400255	#6	Zinc	Light Duty
0400256	#8	Zinc	Heavy Duty



## Spring Toggle Bolts

- Automatic spring action toggles can be used in hollow walls, plaster, hollow tile, wood, metal, concrete block
- Tensionized spring prevents loosening from vibration or shock

Part No	Bolt Size	Bolt Type	Drill Size	Holding Power
0400401	1/8 x 3	Truss Phillips/Slot	3/8	64LB
0400402	1/8 x 4	Truss Phillips/Slot	3/8	64LB
0400410	3/16 x 2	Round Phillips/Slot	5/8	180LB
0400403	3/16 x 3	Round Phillips/Slot	5/8	180LB
0400404	3/16 x 4	Round Phillips/Slot	5/8	180LB
0400411	3/16 x 5	Round Phillips/Slot	5/8	180LB
0400412	3/16 x 6	Round Phillips/Slot	5/8	180LB
0400405	1/4-20 x 3	Round Phillips/Slot	5/8	180LB
0400406	1/4-20 x 4	Round Phillips/Slot	3/4	400LB
0400407	1/4-20 x 6	Round Phillips/Slot	3/4	400LB
0400408	3/8-16 x 4	Round Phillips/Slot	1	600LB
0400409	3/8-16 x 6	Round Phillips/Slot	1	600LB



## Spring Toggle Heads

- Heavy duty, zinc plated, size stamped on wing

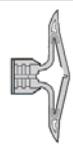
Part No	Screw Size	Hole Size	Tensile
0400145	1/8	3/8	240
0400147	3/16	5/8	430
0400148	1/4	3/4	900
0400149	5/16	7/8	1030
0400150	3/8	1	1090



## Nylon Poly Toggle

- Designed for use in hollow walls, sheet rock, wallboard with #6-#12 screws
- Sharp ribs on wings prevent pull out and spinning during installation locks toggle in place when set
- Poly Toggle remains in place for subsequent use after the screw has been removed

Part No	Drill Size	Grip Range	Usage Size
0400601	1/4	1/8 - 5/16	Hollow Door- Light Duty
0400602	1/4	5/16 - 7/16	3/8 Drywall-Light Duty
0400604	3/8	7/16 - 9/16	3/8 Drywall-Medium Duty
0400603	3/8	9/16 - 11/16	5/8 Drywall-Medium Duty



## Sure-Grip Drive Type Anchors

- No predrilling place anchor against wall and drive in with hammer
- Screw and fixture removable without disturbing the anchor

Part No	Size	Overall Length	Wall Thickness
0400324	1/8 Short	1-1/4	1/8 - 1/2
0400325	1/8 Short	1-11/16	5/8- 7/8



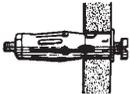
## Sure-Grip Hollow Wall Anchors

- Designed to be used in shallow materials such as wallboard ,plaster, paneling, hollow block
- Prongs on the underside of head grip wallboard preventing rotation
- Permits pre-installation of fasteners into hole
- Screw and fixture removable without disturbing the anchor
- Can be installed with a screwdriver or hollow wall anchor setter

Part No	Size	Overall Length	Wall Thickness	Drill Size
0400610	1/8 Short	1-1/4	1/8 - 1/2	5/16
0400611	1/8 Long	1-11/16	5/8- 7/8	5/16
0400613	3/16 Short	2-9/16	1/8 - 5/8	3/8
0400614	3/16 Long	2-9/16	5/8 - 1-3/16	3/8
0400616	1/4 Short	2-9/16	1/8 - 5/8	7/16
0400617	1/4 Long	2-9/16	5/8 - 1-3/8	7/16

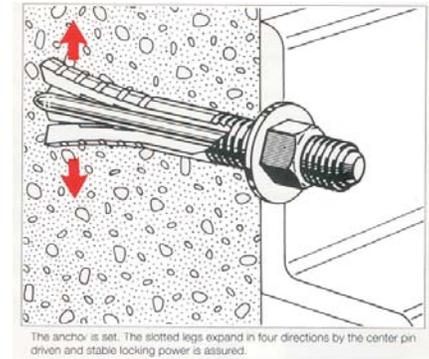
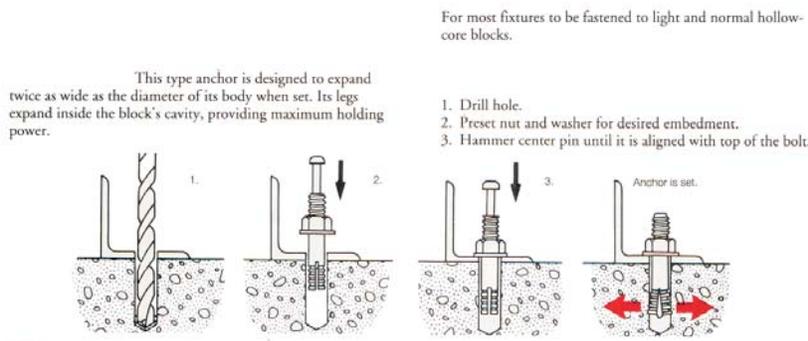


## Sure-Grip Hollow Wall Setter

<p>Part No 0400619</p>	<p style="text-align: center;"><b>USE ON ALL SURFACE TYPES:</b></p> <p style="text-align: center;">Wallboard, plywood, hardboard, sheetrock, asbestos, cement plasterboard, thin veneer and brick.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p><b>1.</b> Push fastener into predrilled hole.</p> </div> <div style="text-align: center;">  <p><b>2.</b> Slip Wall Setter jaw over screwhead.</p> </div> <div style="text-align: center;">  <p><b>3.</b> Then simply squeeze the handle until the fastener is fully collapsed.</p> </div> </div> <div style="text-align: right; margin-top: 20px;"> <p><b>HOLLOW WALL ANCHOR SETTER</b></p> <p><i>Install hollow wall fasteners in seconds... with little effort...</i></p> <ul style="list-style-type: none"> <li>* SIMPLE SLIP IN FIT</li> <li>* OFFSET HEAD FOR USE IN CORNERS</li> <li>* NO ADJUSTMENTS NECESSARY</li> <li>* QUICK-POSITIVE SET WITH ALL BRANDS AND SIZES</li> <li>* ONE HAND INSTALLATION</li> <li>* CUSHION GRIP HANDLES</li> </ul> </div>
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## Quik-Set Anchor

- Easy to install, just drill hole preset nut and washer for desired embedment, and hammer the center pin flush with the top of the bolt
- Depth of hole is not critical, no depth gauge required
- No templates required the diameter of the hole is the same as the anchor
- Out performs wedge, sleeve and drop in anchors in dynamic load situations.
- Meets ASTM 307 specifications, tensile strength of 60,000 psi minimum
- Applications: Outlet boxes, baseboard heating, bracing and shelving, stadium seats, grain bins, parking meters, steel buildings, livestock equipment, wall hangers, wood plates, belt mounting machine locations.



Part Number	Anchor Size	Thread Length	Drill Size	Minimum Embedment	Maximum Thickness	Tension (lb)	Shear (lb)
0402045	1/4 x 1-3/4	5/8	1/4	1-1/4	3/8	220	380
0402060	1/4 x 2-3/8	3/4	1/4	1-1/4	1"	220	380
0402550	5/16 x 2	3/4	5/16	1-1/2	5/16	605	615
0402570	5/16 x 2-3/4	1"	5/16	1-1/2	11/16	605	615
0403060	3/8 x 2-3/8	1"	3/8	1-3/4	5/8	720	595
0403090	3/8 x 3-1/2	1-1/8	3/8	1-3/4	1-3/8	720	595
0404070	1/2 x 2-3/4	1"	1/2	2-1/4	3/4	1090	1245
0404090	1/2 x 3-1/2	2"	1/2	2-1/4	2"	1090	1245
0405100	5/8 x 4	1-5/8	5/8	1-3/8	2-3/4	1635	2150
0405150	5/8 x 6	2"	5/8	2.5/8	2-3/4	1635	2150

## Toggle Anchor Bolt

- Full bodied Bolt Design- better holding values than a toggle bolt
- No oversize drilling to accommodate toggle wings
- Works in steel, wood, hollow masonry and drywall
- Applications: Hanging shelves, brackets, signs, and fixtures

Part Number	Anchor Size	Thread Length	Drill Size
0402145	1/4 x 1-3/4	1	5/16
0402164	1/4 x 2-1/2	1-3/4	5/16
0402183	1/4 x 3-1/4	2-3/8	5/16
0402564	5/16 x 2-1/2	1-5/8	5/16
0403183	3/8 x 3-1/4	2-1/4	3/8
0403195	3/8 x 3-3/4	2-3/4	3/8
0403115	3/8 x 4-1/2	3-1/2	3/8



## Parawedge Anchor

- Used for heavy duty fastening applications where high pullout values are required.
- The anchor and hole diameter are the same.
- Used in structural applications including, fastening sheet metal steel aluminum angles or wood to concrete. Pipe-hanging, tilt-ups, bridges, elevator equipment, conveyors and highway construction, installing machinery, hand rails, dock bumpers, and storage racks.

Part Number	Size	Thread Length	Minimum Embedment
0403440	1/4 x 1-3/4	3/4	1-1/8
0403446	1/4 x 2-1/4	1-1/4	1-1/8
0403570	3/8 x 2-3/4	1-1/2	1-1/2
0403575	3/8 x 3-3/4	2-1/2	1-1/2
0403630	1/2 x 3-3/4	2-1/4	2-1/4
0403648	1/2 x 5-1/2	3-1/4	2-1/4
0403733	5/8 x 4-1/2	2-1/2	2-3/4
0403778	3/4 x 5-1/2	3-1/4	3-1/4

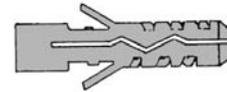


PERFORMANCE									
		Concrete Strength							
		2250 PSI		3000 PSI		4000 PSI		5000 PSI	
Anchor Dia.	Embedment Depth (D)	Ultimate Pullout (lbs)	Ultimate Shear (lbs)						
1/4"	1-1/8 min	2459	1500	2710	1742	3059	2493	3407	3245
	2"	-	-	3304	1829	3766	2618	4228	3407
	2-3/4"	-	-	3898	1916	4473	2743	5048	3569
3/8"	1-5/8 min	2987	2776	3534	3086	4264	5913	4994	8740
	3"	-	-	4119	3240	5090	6209	6061	9177
	4-1/4"	-	-	4704	3395	5916	6505	7129	9614
1/2"	2-1/4 min	6298	6298	6836	6232	7704	10234	8572	14236
	4-1/8"	-	-	7704	6543	8897	10746	10089	14947
	6"	-	-	8572	6855	10089	11257	11607	15659
5/8"	2-7/8 min	6965	7724	8007	8233	10307	13005	12608	17776
	5"	-	-	9238	8645	12130	13655	15022	18665
	7"	-	-	10470	9056	13953	14305	17435	19554
3/4"	3-3/8 min	10114	11157	11338	12138	15405	16728	19472	21317
	5-3/4"	-	-	15309	12745	19460	17564	23610	22383
	8"	-	-	19280	13351	23514	18400	27748	23448
7/8"	4"	-	-	-	-	18750	-	-	
1"	4-1/2"	-	-	-	-	23000	-	-	-
1-1/4"	5-1/2"	-	-	-	-	35000	-	-	-

## Mungo Nylon Plug

- Designed for use in: aerated concrete, hollow brick, sandstone, concrete.
- Manufactured from Cadmium free nylon, highly resistant to weather, environmentally friendly
- Will work with all common screws: wood screws, drywall screws, lag screws, machine screws
- Easy to insert, will not rotate during installation, will not crack off, or expand while being knocked-in
- Engineered for: HVAC contractors, electricians, carpenters, ceiling installers, sign contractors, plumbers, roofers, interior finishers, mechanical contractors

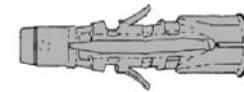
Part No	Plug & Drill Dia	Plug Length	Screw Size
0401603	3/16	1	#5 - #8
0401604	1/4	1-1/2	#8 - #12
0401605	5/16	1-1/2	#12 - 1/4
0401606	3/8	2	1/4 - 5/16
0401608	1/2	2-3/8	5/16 - 3/8



## Mungo Universal Plug

- The new Mungo Plug is designed for use in all types of building substrates: plaster, aerated concrete, hollow brick, plasterboard, wood, and stone.
- Manufactured from Polyimide 6 Nylon, highly resistant to weather, aging, and wide range of chemicals
- Load values achieved using Mungo plugs exceed those with metal lag shields & plastic anchors by 33-110%
- Knot formation of plug - gives positive bearing in hollow materials
- Break off flange- allows for through mount installations
- Considerably reduces stocking costs for various other anchors
- Ideal for use with coarse thread screws
- Engineered for: builders, electricians, plumbers, shelving contractors, bathroom fixture installers, int finishers

Part No	Plug & Drill Dia	Length	Screw Size
0401806	1/4	1-3/4	#6 - #8
0401808	5/16	2	#10 - #12
0401810	3/8	2-3/8	1/4 - 5/16



Material Plug Dia	Concrete 3500 psi	Standard Stone	Aerated Concrete	Gyp/Rock	Plaster
1/4	563	430	315	203	338
5/16	1013	788	450	225	383
3/8	1463	1080	563	270	563

## Super Nylon Anchor

- Designed for medium and light duty fastening
- When screw is inserted, serrated tabs on neck of the anchor expand out to provide anti rotational stability
- Ribbed body splits perpendicular to the tabs producing 4 way expansion for dependable fixing and extra holding power

Part No	Size	Screw Size	Min Screw Length	Drill Size	Color
0400298	3/16 x 7/8	4-6	1-1/8	3/16	Yellow
0400300	3/16 x 1	8-10	1-1/4	3/16	White
0400301	1/4 x 1-1/4	10-12	1-1/4	1/4	Blue
0400299	5/16 x 1-1/2	14 - 5/16	1-3/4	5/16	Green



## Vinyl Plug Style Anchor

- Designed for light duty fastening
- Straight fluted plug anchor expands to fill hole as wood screw or sheet metal screw is driven in

Part No	Anchor Length	Screw Size	Drill Size	Color
0400326	1"	4-6	3/16	White
0400327	1-1/4	8-12	1/4	Green
0400328	1-1/2	10-12	5/16	Blue



## Lead Screw Anchors

- Designed for light duty fastening in concrete, masonry, brick or block
- Use with wood, sheet metal or wood screws
- Exterior ribs grip the sides of the hole for positive anchoring

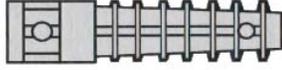
Part No	Length	Screw Size	Drill Size
0400420	3/4	6-8	1/4
0400421	1	6-8	1/4
0400422	1-1/2	6-8	1/4
0400423	1	10-14	5/16
0400424	1-1/2	10-14	5/16
0400425	1	5/16-3/8	3/8
0400426	1-1/2	5/16-3/8	3/8



## Lag Shields

- Designed for light to medium duty anchoring in concrete, mortar joints, masonry and brick
- Manufactured of high quality zinc alloy, resists rust
- Reinforced rings give extra strength will not flatten out
- Short shields for hard masonry, Long shields for soft masonry

Part No	Anchor Size	Anchor Length	Hole Size	Style	Pull Out (lbs)
0400310	1/4	1	1/2	Short	500
0400311	5/16	1-1/4	1/2	Short	800
0400312	3/8	1-3/4	5/8	Short	1200
0400313	1/2	2	3/4	Short	2000
0400314	1/4	1-1/2	1/2	Long	600
0400315	5/16	1-3/4	1/2	Long	1200
0400316	3/8	2-1/2	5/8	Long	2000
0400317	1/2	3	3/4	Long	3000



## Split Drive Hammer In Anchor

- Designed for heavy duty permanent installations in concrete, hard masonry and stone
- Made of high grade steel, when hammered in to predrilled hole the two halves exert immense outward force on the inner walls of the hole

Part No	Size	Hole Size	Min Embedment	Head Style	Pull Out (lbs)
0400730	3/16 x 2	3/16	7/8	Flat	1280
0400731	3/16 x 2-1/2	3/16	7/8	Flat	1280
0400732	3/16 x 3	3/16	7/8	Flat	1280
0400733	1/4 x 2	1/4	1-1/8	Flat	2000
0400734	1/4 x 2-1/2	1/4	1-1/8	Flat	2000
0400735	1/4 x 3	1/4	1-1/8	Flat	2000
0400736	1/4 x 3-1/2	1/4	1-1/8	Flat	2000
0400737	1/4 x 4	1/4	1-1/8	Flat	2000
0400742	1/4 x 1-1/2	1/4	1-1/8	Round	2000
0400743	1/4 x 2	1/4	1-1/8	Round	2000
0400744	1/4 x 2-1/2	1/4	1-1/8	Round	2000



## Hammer Drive Anchors

- Designed for medium and light duty applications in concrete, brick, block or stone
- No other fastener needed made of high grade EDZ3 zinc alloy with zinc plated steel pins
- Mushroom heads are relatively tamperproof

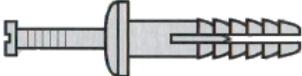
Part No	Anchor Size	Drill Size	Min Embedment	Pull Out (lbs)
0400720	3/16 x 7/8	3/16	5/8	400
0400721	1/4 x 1	1/4	3/4	800
0400722	1/4 x 1-1/4	1/4	3/4	800
0400723	1/4 x 1-1/2	1/4	3/4	800
0400724	1/4 x 2	1/4	3/4	800



## Nylon Hammer In Anchors

- Designed for light duty fastening in masonry, block, slate, marble, tile, sheet metal, wood
- Zinc plated steel nail is partially threaded and slotted for easy removal once anchor is installed
- Vibration And Shock Proof
- 3 Head Styles Cover All Maintenance applications

Part No	Size	Head Style	Pull Out 3000 psi Concrete
0400701	3/16 x 1	Mushroom	250
0400702	3/16 x 1-1/2	Mushroom	250
0400703	1/4 x 1	Mushroom	270
0400704	1/4 x 1-1/2	Mushroom	300
0400705	1/4 x 2	Mushroom	320
0400707	3/16 x 1-1/2	Flat	250
0400708	1/4 x 1	Flat	270



## Masonite Screws

- Designed for medium and light duty installations in concrete, masonry, brick, and block
- No prespotting no other anchor required
- Special steel screws with high-low thread design cut into concrete and form threads
- Easily removed and can be re-used

Part No	Size	Head Style	Work Thickness	Drill Size
0401006	3/16 x 1-1/4	Flat	1/4	5/32
0401008	3/16 x 1-3/4	Flat	3/4	5/32
0401010	3/16 x 2-1/4	Flat	1-1/4	5/32
0401012	3/16 x 2-3/4	Flat	1-3/4	5/32
0401406	1/4 x 1-1/4	Flat	1/4	3/16
0401408	1/4 x 1-3/4	Flat	3/4	3/16
0401410	1/4 x 2-1/4	Flat	1-1/4	3/16
0401412	1/4 x 2-3/4	Flat	1-3/4	3/16
0401414	1/4 x 3-1/4	Flat	2-1/4	3/16
0401415	1/4 x 4	Flat	3	3/16



Part No	Size	Head Style	Work Thickness	Drill Size
0401106	3/16 x 1-1/4	Hex	1/4	5/32
0401108	3/16 x 1-3/4	Hex	3/4	5/32
0401110	3/16 x 2-1/4	Hex	1-1/4	5/32
0401112	3/16 x 2-3/4	Hex	1-3/4	5/32
0401506	1/4 x 1-1/4	Hex	1/4	3/16
0401508	1/4 x 1-3/4	Hex	3/4	3/16
0401510	1/4 x 2-1/4	Hex	1-1/4	3/16
0401512	1/4 x 2-3/4	Hex	1-3/4	3/16
0401514	1/4 x 3-1/4	Hex	2-1/4	3/16
0401515	1/4 x 4	Hex	3	3/16



## Masonite Drill Bits

High quality carbide tip

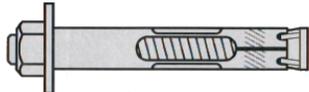
Part No	Size	 <p>Use Special Masonite Drill Bits Only Minimum Embedment 1"</p>
0401205	5/32 x 3-1/2	
0401206	5/32 x 4-1/2	
0401207	3/16 x 3-1/2	
0401208	3/16 x 4-1/2	
0401209	3/16 x 5-1/2	

## Masonite Installation Kit

Part No	Includes	
0401201	0401202 1/4" Magnetic Hex Driver For Hex Head Screws 0401203 5/16" Magnetic Hex Driver For Hex Head Screws 0401204 Magnetic Driver For #2 And #3 Phillips Bits #2 Phillips Bit For 3/16 Screws #3 Phillips Bit For 1/4 Screws Masonry Drill Holder, Sleeve Assembly Kit Hex Key, Plastic Box	

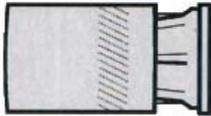
## Hex Nut Steel Sleeve Anchor Bolt

- Designed for medium to heavy duty anchoring in brick, cinder block, thin wall marble, and concrete
- Anchor and hole size are same diameter
- One piece assembly no other fastener needed

Part No	Size	Bolt Diameter	Min Hole Depth	
0400302	5/16 x 1-1/2	1/4	1"	
0400303	5/16 x 2-1/2	1/4	1"	
0400304	3/8 x 1-7/8	5/16	1-1/4	
0400305	3/8 x 3	5/16	1-1/4	
0400306	1/2 x 2-1/4	3/8	1-1/2	
0400307	1/2 x 2-3/4	3/8	1-1/2	

## Machine Screw Anchors

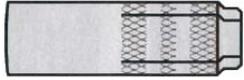
- Designed for medium to light duty anchoring to concrete, brick, stone
- Features a lead ring and zinc alloy cone
- Fixtures are removable
- Requires installation tool

Part No	Anchor Size	Hole Size	Min. Hole Depth	Pull Out 3500 psi Concrete	Shear 3500 psi Concrete	
0400125	6/32	5/16	1/2	460	590	
0400126	8/32	5/16	1/2	790	700	
0400127	10/24	3/8	5/8	970	1190	
0400129	1/4-20	1/2	7/8	2200	2100	
0400130	5/16-18	5/8	1	3100	2400	
0400131	3/8-16	3/4	1-1/4	5500	4300	
0400133	1/2-13	7/8	1-1/2	6310	5000	

## Drop In Anchor

- Designed for medium to heavy duty applications in concrete and stone
- Flush friction fit as anchor expands and mates with concrete wall
- Zinc plated for corrosion resistance
- Requires anchor installation tool

Part No	Anchor Size	Hole Size	Thread Depth	Tensile	Shear
0400901	3/8 x 1-9/16	1/2	5/8	6040	7117
0400902	1/2 x 2	5/8	3/4	7920	9583
0400903	5/8 x 2-1/2	3/4	7/8	14,480	15,533
0400904	3/4 x 3-1/8	7/8	1		



## Anchor Installation Tool

- Assures proper setting without thread damage

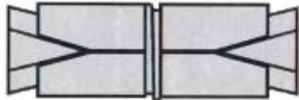
Part No	Screw Size
0400226	8/32
0400227	10/24
0400229	1/4-20
0400230	5/16/18
0400231	3/8-16
0400233	1/2-13



## Double Machine Bolt Anchor

- Designed to secure heavy loads subject to vibration in solid masonry use with machine screws.
- Made of high grade rust proof zinc alloy
- Expands the entire length of the anchor

Part No	Bolt Size	Anchor Length	Drill Size	Pull Out 3700 psi Concrete	Shear 3700 psi Concrete
0400318	1/4	1-1/8	1/2	1990	2650
0400319	5/16	1-5/8	5/8	2250	3570
0400320	3/8	2	3/4	4010	4340
0400321	1/2	2-1/2	7/8	4880	8790
0400322	5/8	2-3/4	1	6200	13,300
0400323	3/4	4	1-1/4	9650	15,760



# ANCHORS



## Triple Grip Nylon Anchor- Pac

- Can be used in Drywall or Masonry
- Features new 3 way screw (phillips, square & slot drive)
- 4 points of expansion

Part No	Contains	
0400257	#6 Biege Anchors (100) Screws (100) Carbide Tipped Drill (1)	

Part No	Contains:	
0400258	#8 Grey Anchors (100) Screws (100) Carbide Tipped Drill (1)	

Part No	Contains:	
0400259	#10 Blue Anchors (70) Screws (70) Carbide Tipped Drill (1)	

Part No	Contains	
0400261	#12 Green Anchors (40) Screws (40) Carbide Tipped Drill (1)	

## Wall Driller Anchor- Pac

- One step drywall anchor
- No pre-drilling required

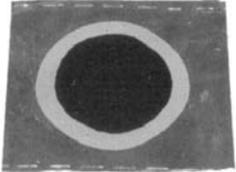
Part No	Contains:	
0400260	#6 Short(25) & #8 Long (25) Zinc Wall Drillers with Screws (50)	

## Tire Patches

Part Number	Type	Size	
5170137	Small Round	2-1/4"	
5170139	Medium Round	3-1/4"	

## Foil Back Repair Units

- Used for repairing tubes and tires where fabric reinforcement is not required
- Features a foil backing that keeps the repair fresh

Part Number	Type	Size	
5170401	Round	1-1/2"	
5170403	Round	2-1/8"	

## Perma-Strip Patch Kit

- An excellent kit for off-road tires such as ATV's and farm tires

Part Number	Description	
5170178	Contains 50 repair strips, universal cement, an open eye needle and a probe	

## Dealer Kit

- Box keeps tools organized, with reclosable lid

Part Number	Description	
5170189	Contains T-handle tools, 1/4 pint of universal cement and two boxes of radial repairs	

# TIRE REPAIR



## Universal Cement

- Non-flammable

Part Number	Size	
5170086	8 fl. Oz. (1/2 pint)	

## Cam-Cure Heavy Duty Cement

- Non-flammable
- For use on heavy duty applications
- Must be Cam Cure Repair Units to insure a permanent bond

Part Number	Size	
5170087	8 fl. Oz. (1/2 pint)	

## Liquid Buffer Cleaner

- Non-flammable
- Used to clean rubber so patches will adhere properly
- Use prior to all power buffing
- Quart can with squirt top

Part Number	Size	
5170092		

## Tire Talc

- Prevents tube from sticking to tire during installation

Part Number	Size	
5170250	1 lb. Shaker can	

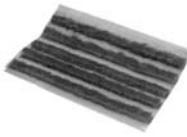
## Perma Strip Patch

- For bias ply and non-steel belted radial tire repairs

Part Number	Size	Quantity	
5170179	1/4" x 2"	Box of 50	

## Radial Inserts

- For most auto and light truck radial tire emergency repairs

Part Number	Size	Quantity	
5170184	4"	Box of 20	

## String Repairs

- For bias ply and tubeless tire emergency repairs

Part Number	Size	Quantity	
5170206	7"	Box of 50	

## String Type Repairs - Heavy Duty

- For bias ply and radial tire nail hole emergency repair

Part Number	Size	Quantity	
5170207	7-1/2"	Box of 50	

## Steel Belted Radial Inserts

- For radial tire emergency repair

Part Number	Size	Quantity	
5170280	4"	Box of 60	

# TIRE REPAIR



## Tire Valves

Part Number	Type	Hole Diameter	Length	
5170413	413	.453	1-1/4	
5170415	415	.625	1-1/4	

## Valve Caps

Part Number	Description	
5170505	Plastic Valve Cap	
5170600	Metal Valve Cap with screwdriver top for removing and inserting valve cores	
5170772	Metal Valve Cap Dome shaped	

## Valve Core

- Compatible with existing USA and E.T.R.T.O. housing standards as well as ISO standards

Part Number	Size	
5170790	.206"-36	

## Muffler Clamps

- Clamp and Saddle are made from heavy gauge steel
- U-bolts have USS thread and are supplied with heavy duty nuts

Part Number	U-Bolt Size	Thread Size
0890100	1-1/2	5/16
0890101	1-5/8	5/16
0890102	1-3/4	5/16
0890103	1-7/8	5/16
0890104	2	5/16
0890105	2-1/4	5/16
0890106	2-1/2	5/16
0890108	3	3/8



## Universal Tail Pipe Hanger

- Easy to install metal strap may be bent by hand
- Strap and rubber shim may be twisted and turned for best angle

Part Number	Size
0890114	1-1/2 to 2" O.D. Pipes



## The Twister Tail Pipe Hanger

- Rotates 360°, solves any installation problems you can come up against
- Heavy duty construction, can be used with heavy duty or standard muffler clamps
- Universal for automotive, truck, bus, and RV applications
- Quick and easy to install

Part Number	Size
0890120	1-1/4" Wide x 10" Long



## Mechanics Wire

- Soft annealed, black wire

Part Number	Wire Gauge	Length	
0030903	16	480' (5 lb)	
0030904	18	831' (5 lb)	

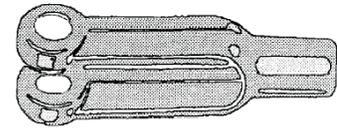
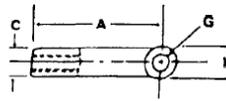
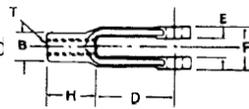
## Ball Joint Assemblies

- Male and Female Thread
- Automotive use- General Purpose

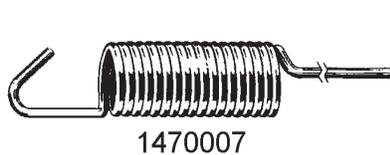
Part Number	Thread Size	
0960104	10-32	
0960105	1/4-28	
0960106	5/16-24	
0960107	3/8-24	

## Brake Yokes

- Adjustable Drop-forged
- Plain finish



Part Number	Thread Size	A	B	C	D	E	F	G	H
0960004	1/4-28	2	7/16	7/16	1-1/4	9/32	5/8	1/4	3/4
0960005	5/16-24	2-1/4	1/2	1/2	1-7/16	11/32	3/4	5/16	13/16
0960006	3/8-24	2-1/2	5/8	5/8	1-5/8	7/16	7/8	3/8	7/8
0960007	7/16-20	2-7/8	23/32	23/32	1-7/8	1/2	1	7/16	1
0960008	1/2-20	3	13/16	13/16	1-7/8	9/16	1-1/8	1/2	1-1/4



## Universal Springs

- Zinc

Part Number	Overall Length	Coil Length	O.D.	Wire Size
1470005	11-1/2	1-7/8	13/32	1/32
1470006	4-3/8	2-1/2	1/2	1/16
1470007	8-1/2	1-7/8	3/4	3/32
1470008	1-13/16	1-1/2	3/8	1/32
1470009	18-1/2	2	13/16	3/32
1470010	17-1/2	3-1/2	3/4	1/16
1470011	8-1/4	2	7/16	1/16
1470012	5-3/4	2-3/8	25/32	3/64

## Extension Springs

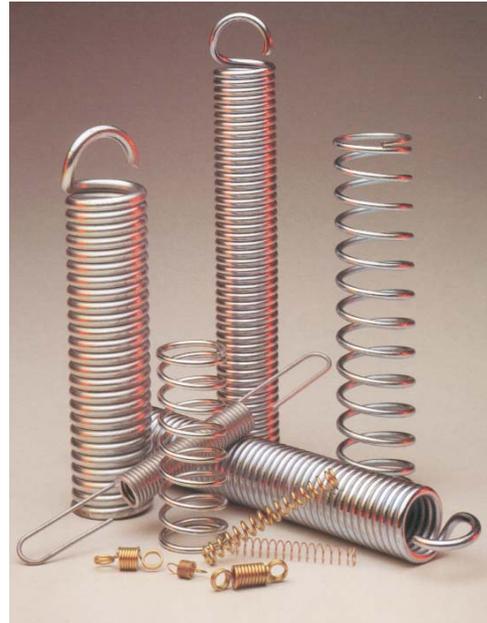
Part Number	Type	O.D.	Overall Length	Coil Length	Wire Size
1470001	2	.375	5.75	4.250	17
1470002	2	.312	6.125	4.750	19
1470004	2	.500	6.000	4.000	16

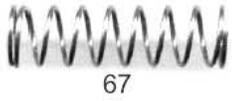
**Type 2  
(Double Loop On Ends)**

Additional sizes and types available on special order.

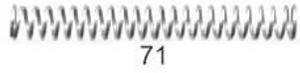
## Universal Springs

Part Number	Description	Type	O.D.	Length
1480001	#1	Extension	5/32	1-7/8
1480015	#15	Torsion	1/2	-
1480020	#20	Compression	7/32	1-5/8
1480027	#27	Extension	1/2	3-5/8
1480029	#29	Extension	7/16	3-11/16
1480040	#40	Extension	21/32	5-3/8
1480045	#45	Compression	3/4	3-3/8
1480046	#46	Extension	21/32	4-7/8
1480047	#47	Compression	7/8	3-7/16
1480057	#57	Compression	3/4	3
1480067	#67	Compression	21/64	1-1/8
1480070	#70	Extension	5/16	2-1/8
1480071	#71	Compression	3/16	1-1/2
1480072	#72	Compression	1/4	1-7/8
1480073	#73	Extension	7/16	1-15/16
1480076	#76	Compression	5/16	2
1480078	#78	Extension	5/16	1-11/16
1480079	#79	Compression	3/8	1-15/16
1480081	#81	Extension	3/16	1-11/16
1480082	#82	Compression	1/2	1-3/4
1480087	#87	Compression	15/64	1-3/4
1480089	#89	Compression	5/8	2
1480093	#93	Extension	1/4	2-5/16
1480097	#97	Extension	3/8	2-3/16
1480100	#100	Extension	15/32	2-1/4
1480200	#200	Torsion	1/4	-
1480210	#210	Extension	3/4	5-1/2
1480250	Spring Assortment Includes #1, #15, #20, #27, #29, #40, #45, #46, #47, #57, #67, #70, #71, #72, #73, #76, #78, #79, #81, #82, #87, #89, #93, #100, #200, #210			





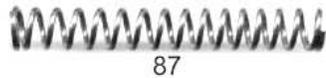
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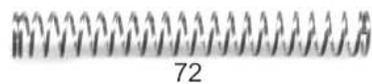
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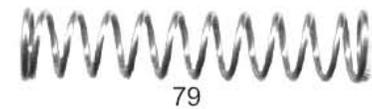
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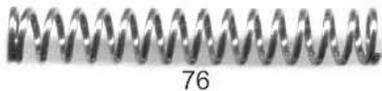
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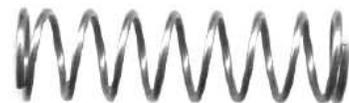
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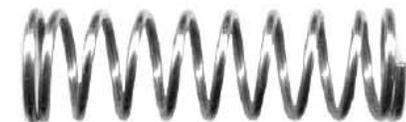
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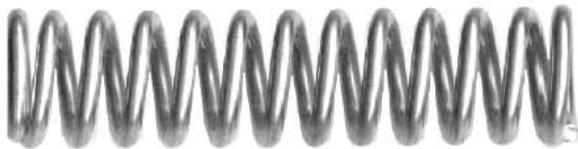
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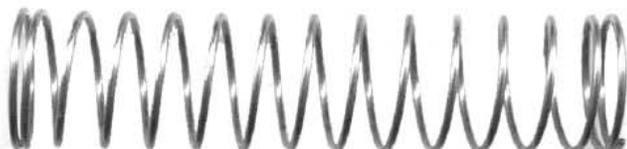
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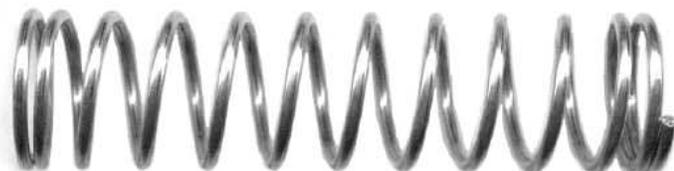
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57



45



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210



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27



93



97



1



70



100



73



78



81

## WINDSHIELD WIPERS ClearPlus Signature Series



Clear**Plus Signature Series** is a superior quality wiper blade designed for robust, long-lasting performance. The superstructure in this blade is made with 1.2 mm galvanized steel. All metal-to-metal joints and the main pin are secured with copper rivets to provide durability and rust protection. Stainless steel flexors use JS304 grade material and the wiping element is compression molded using dual elastomers (natural and synthetic) to balance the quality of wipe and durability.

Part Number	Description
9011610	16" PREMIUM BLADE
9011710	17" PREMIUM BLADE
9011810	18" PREMIUM BLADE
9011910	19" PREMIUM BLADE
9012010	20" PREMIUM BLADE
9012011	21" PREMIUM BLADE
9012210	22" PREMIUM BLADE
9012410	24" PREMIUM BLADE
9012610	26" PREMIUM BLADE

## 25K - Wheel Weight Installation Tool

- This passenger car wheel weight installation tool is the industry standard.
- Plastic-coated handles provide a better grip.

PART NUMBER 5170001



## 50K - Wheel Weight Installation Tool

- European design with “Clip Claw” crowbar, punch designed handles, and heavier hammer head.
- Forged vanadium steel for more durability.

PART NUMBER 5170002



## “P” Series Wheel Weights

- For use on standard passenger car 13" -15" steel wheels.
- Note: Use our “TN” series for late-model light trucks with steel wheels
- Zinc-Coated Clip-On

Part Number	Size
5170025	P025Z
5170050	P050Z
5170075	P075Z
5170100	P100Z
5170125	P125Z
5170150	P150Z
5170175	P175Z
5170200	P200Z
5170225	P225Z
5170250	P250Z
5170275	P275Z
5170300	P300Z
5170350	P350Z
5170400	P400Z
5170450	P450Z
5170500	P500Z
5170550	P550Z
5170600	P600Z



## “AWN” Series Wheel Weights

- The “AWN” series is used on most domestic vehicles with alloy rims prior to 1985
- This series is used on a wide array of cars from Buick to Geo
- Zinc-Coated Clip-On

Part Number	Size
5171025	AW025Z
5171050	AW050Z
5171075	AW075Z
5171100	AW100Z
5171125	AW125Z
5171150	AW150Z
5171175	AW175Z
5171200	AW200Z
5171275	AW275Z
5171300	AW300Z



## “MCN” Series Wheel Weights

- The “MCN” series is used on most domestic vehicles with alloy rims
- This series is used on many cars from AMC/Eagle to Subaru
- Zinc-Coated Clip-On

Part Number	Size
5174025	MC025Z
5174050	MC050Z
5174075	MC075Z
5174100	MC100Z
5174125	MC125Z
5174150	MC150Z
5174175	MC175Z
5174200	MC200Z
5174225	MC225Z
5174250	MC250Z
5174275	MC275Z
5174300	MC300Z
5174325	MC325Z
5174350	MC350Z
5174375	MC375Z
5174400	MC400Z



## “EN” Series Wheel Weights

- The “EN” series is designed for Acura, Audi, Honda, Mercedes Benz, and Volkswagen alloy wheels
- Zinc-Coated Clip-On

Part Number	Size
5175010	EN010Z
5175015	EN015Z
5175020	EN020Z
5175030	EN030Z
5175035	EN035Z
5175040	EN040Z
5175045	EN045Z
5175050	EN050Z



## “FN” Series Wheel Weights

- The “FN” series is designed for the thinner flange alloy wheels being used on many Japanese vehicles
- Zinc-Coated Clip-On

Part Number	Size
5176005	FN005Z
5176010	FN010Z
5176015	FN015Z
5176020	FN020Z
5176025	FN025Z
5176030	FN030Z
5176035	FN035Z
5176040	FN040Z
5176045	FN045Z
5176050	FN050Z
5176055	FN055Z
5176060	FN060Z
5176065	FN065Z
5176075	FN075Z



## “IAW” Series Wheel Weights

- This “IAW” series is used on many import car alloy wheels.
- They replace most two-piece alloy wheel weight designs commonly found on vehicles manufactured in steel wheels
- Zinc-Coated Clip-On

Part Number	Size
5179010	IAW010Z
5179015	IAW015Z
5179020	IAW020Z
5179025	IAW025Z
5179030	IAW030Z
5179035	IAW035Z



## “TN” Series Wheel Weights

- Used on 1988 and newer domestic light trucks with decorative and larger thickness steel wheels
- Also used on 1997 and newer Ford F150, Ford Expedition, and Lincoln Navigator alloy wheels
- Zinc-Coated Clip-On

Part Number	Size
5177025	T025Z
5177050	T050Z
5177075	T075Z
5177100	T100Z
5177125	T125Z
5177150	T150Z
5177175	T175Z
5177200	T200Z
5177225	T225Z
5177250	T250Z
5177275	T275Z
5177300	T300Z
5177325	T325Z
5177350	T350Z
5177375	T375Z
5177400	T400Z



## “CUZ” Series Zinc Coated Wheel Weights

- For 1999 or newer Mercedes, or universal applications on custom wheels without flanges
- Pre-taped contoured adhesive wheel weights

Part Number	Size
5173005	CU005Z
5173010	CU010Z
5173015	CU015Z
5173020	CU020Z
5173025	CU025Z
5173030	CU030Z
5173035	CU035Z
5173040	CU040Z
5173045	CU045Z
5173050	CU050Z
5173055	CU055Z
5173060	CU060Z
5173065	CU065Z



## Wheel Weight Assortments



Part Number	Type	Contents
5178001	“AWN”	.25oz to 2.5oz. 120pcs. 10 of each weight in plastic tray
5178004	“MCN”	.25oz. To 2.5oz 120pcs. 10 of each weight in plastic tray
5178005	“EN”	.10oz. To .55oz. 120pcs. 10 of each weight in plastic tray
5178006	“FN”	.10oz. To .55oz. 120pcs. 10 of each weight in plastic tray
5178007	“TN”	.25oz. To 2.5oz 120pcs. 10 of each weight in plastic tray
5178009	“IAW”	.10oz. To .55oz. 120pcs. 10 of each weight in plastic tray
5178012	“LH”	.25oz. To 2.5oz 120pcs. 10 of each weight in plastic tray

## RTV Gasket Maker

Part No	Description	Uses	
8210080	Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker (3.35 oz)	For dealership warranty requirements, ensures extended drive train warranty compliance. Fast-curing formula. Sensor safe, low odor, non-corrosive. Meets performance specs of OE silicone gaskets. Retains high flexibility and oil resistance properties through use of an adhesion system	
8210040	Ultra Grey Rigid High-Torque RTV Silicone Gasket Maker (3.5 oz)	Designed for high-torque and high-vibration applications like those common in import engines. This premium RTV gasket maker exceeds manufacturers' performance requirements. Noncorrosive and low-odor. Maximum vibration resistance with outstanding resistance to oils, cooling and shop fluids. Won't leak.	
8210060	High-Temp Red RTV Silicone Gasket Maker (3 oz)	Formulated for hi-temp applications or heavy-duty use (such as towing, etc.). Replaces almost any cut gasket by making reliable formed-in-place gaskets that resist cracking, shrinking and migrating caused by thermal cycling. Coats precut gaskets to increase reliability. Handles temperatures ranging from -65°F to 650°F intermittent and resists auto and shop fluids.	
8210070	Blue Sensor-Safe RTV Silicone Gasket Maker (3 oz)	Will not foul oxygen sensors. Replaces almost any cut gasket. Makes reliable formed-in-place gaskets that resist cracking, shrinking and migrating. Coats precut gaskets to increase reliability. Handles temperatures ranging from -65F to 500F intermittent and resists auto and shop fluids.	
8210050	Clear RTV Silicone Adhesive Sealant (3 oz)	This general-purpose clear RTV sealant is designed for indoor and outdoor use. It seals, bonds, repairs, mends and secures glass, metal, plastics, fabric, vinyl and weather-stripping and vinyl tops. The sealant also protects and repairs electrical wiring and may be applied to horizontal or vertical surfaces. The sealant is waterproof and flexible and can handle temperatures ranging from -75F to 400F. The sealant resists oil, water, weather, vibration and grease	



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## Thin High Speed Cut-off Wheels -Type 1

- For use on circular saws, and chop type cut-off machines
- Fiberglass reinforced resin-bonded aluminum oxide grain
- Easily cuts through tubes, pipes, sheet metal; all ferrous & non-ferrous metal

Part No	Application	Size	Hole	Max RPM
0840019		3 x 1/32	3/8	20,370
0840009		3 x 1/16	3/8	25,000
0840010		4 x 1/16	3/8	19,000
0840022		4 x 1/32	3/8	15,300
0840003		7 x 1/8	Diamond	8,500



Part No	Description
0840001	Wheel Mandrel Set for 4" diameter wheels or smaller 1/4" shank adapter 1/4" screw, 1/4" screw with 3/8" shoulder



## Type 1 High Speed Cut-off Wheels

### For Stationary Cut-Off Saws - Metal

- Aluminum Oxide Grain Resinoid reinforced
- Designed for low ( 2-3 ) horsepower machines
- Fast cutting, good for tough jobs like hydraulic hose
- Maintains high level of cutting efficiency
- Use on ferrous metals

Part No	Application	Size	Hole	Max RPM
0840012		12 x 1/8	1"	5,100
0840013		14 x 3/32	1"	4,400



## Type 1 High Speed Cut-off Wheel

### For Portable Saws - Concrete

- General purpose wheel for use on concrete block, masonry
- Bonded with heat resistant phenolic resins

Part No	Application	Size	Hole	Max RPM
0840015		12 x 1/8	1"	5,100
0840016		14 x 1/8	1"	4,400



## Cutting Wheels A60S

- Long life cutting for all general purpose applications
- Specially formulated for fast, burr-free cutting
- Special bond and aluminum oxide grain for long life
- Use to cut steel, pipe, rebar, channel iron, and angle iron

Part Numbers		Size			Max RPM
Type 1	Type 27	A Dia.	B Width	C Bore	
0840028	0840031	4	.045	5/8	19,000
0840023	0840032	4-1/2	.045	7/8	13,300



## Saitech .045

- Extra long life on stainless steel
- Exclusively formulated for ultimate performance
- Manufactured with patented 3M Cubitron grain
- Combines ultra fast cutting with extremely long life
- Smooth, fast, burr-free cutting
- Will not burn or discolor stainless steel

Part Numbers		Size			Max RPM
Type 1	Type 27	A Dia.	B Width	C Bore	
0840029	0840033	4	.045	5/8	19,900
0840024	0840034	4-1/2	.045	7/8	13,300
0840027		6	.045	7/8	10,200



## A46N

- No loading on aluminum and other soft metals
- First thin cutting wheel in the industry designed for aluminum
- Soft bond for aggressive cutting
- Specially formulated to resist loading
- Use to cut aluminum, brass, copper and other soft, non-ferrous metals

Part Numbers		Size			Max RPM
Type 1	Type 27	A Dia.	B Width	C Bore	
0840026	0840035	4	.045	5/8	19,000
0840030	0840036	4-1/2	.045	7/8	13,300



## Type 1 & Type 27 Reusable 5/8-11 Adapter

Part Number 0840025



## Portable Saw Blades

### Ductile - General Purpose

- Combination aluminum oxide and silicon carbide formulation
- For ductile pipe (very hard steel casing enclosing a cement lining), water mains, etc.
- Combination metal/concrete, cast iron, hard metals, concrete coated steel, etc.



Part Number	Size			Max RPM
	A Dia.	B Width	C Bore	
0840037	12	1/8	1	6,300
0840038	14	1/8	1	5,400



## Vitrified Bench Grinder Wheels

### Aluminum Oxide

- Designed for general purpose tool sharpening

Part No	Diameter	Thickness	Arbor Hole	Grade	Max RPM
0840063	6"	3/4"	1"	Fine	3600
0840064	6"	3/4"	1"	Medium	3600
0840065	6"	3/4"	1"	Coarse	3600
0840066	6"	1"	1"	Fine	3600
0840067	6"	1"	1"	Medium	3600
0840068	6"	1"	1"	Coarse	3600
0840050	7"	1"	1"	Medium	3000
0840051	7"	1"	1"	Coarse	3000
0840052	8"	1"	1"	Medium	2600
0840053	8"	1"	1"	Coarse	2600
0840054	10"	1"	1"	Medium	2100
0840055	10"	1"	1"	Coarse	2100

Bushings supplied reduce arbor hole to 3/4, 5/8, or 1/2



## Abrasive Flap Wheels

### Mounted

- Convenient wheel for 1/4 " drills
- Allows for access to hard to reach areas

Part No	Dia Inches	Face Width	Mount	Grit	Max RPM
0840040	3"	1"	1/4"	180	20,000
0840041	3"	1"	1/4"	120	20,000
0840042	3"	1"	1/4"	80	20,000
0840043	2"	1"	1/4"	180	23,000
0840044	2"	1"	1/4"	120	23,000
0840045	2"	1"	1/4"	80	23,000



## Abrasive Flap Wheels

### Unmounted

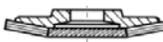
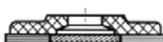
- High density wheels provide uniform finish
- Excellent for use on contoured parts
- Can be used on bench grinders, portable tools

Part No	Dia Inches	Face Width	Arbor Hole	Grit	Max RPM
0840046	6"	1"	1"	80	6,000
0840047	6"	1"	1"	60	6,000



## Abrasive Flap Wheels

- Zirconium grain
- For general purpose stock removal and finishing
- Fiberglass backing; allows for lighter, quieter operation
- Will not splinter or smear on the workpiece

Part Number	Type	Description	Size		Grit
			Dia.	Arbor	
0840814	 Conical Shape	Ideal for working with large surfaces or complex shapes. Working angle is built in.	4-1/2	7/8	40
0840815					50
0840816					60
0840818					80
0840820					120
0840824					 Flat Shape
0840825	50				
0840826	60				
0840828	80				
0840830	120				



## Grinding Wheels

### Reinforced Depressed Center

#### Type 28 Saucer

- Allows wheel to be held on angles closer to work plane
- Best for portable snagging and heavy weld grinding
- Design prevents the spindle from hitting the work piece

Part No	Application	Diameter	Thickness	Hub Size	Max RPM	
0840005	<p>TYPE 28—SAUCER HUBBED</p>	7"	1/4	5/8-11	8,500	
0840006		9"	1/4	5/8-11	6,500	

## Grinding Wheels

### Type 27 Flat, Reinforced Depressed Center

- Aluminum oxide grain; excellent on low grade stainless
- Fast stock removal
- Use on all ferrous metals

Part No	Application	Diameter	Thickness	Size	Max RPM	
0840011	<p>TYPE 27—FLAT HUBBED</p>	4-1/2"	1/4	5/8-11 Hub	13,280	
0840007		7"	1/4	5/8-11 Hub	8,500	
0840008		9"	1/4	5/8-11 Hub	6,500	
0840059		4"	1/4	5/8	13,500	
0840002		4-1/2"	3/16	7/8	13,300	
0840017		4-1/2"	1/4	7/8	13,300	
0840018		5"	1/4	7/8	12,200	

## Type 1 & Type 27 Reusable 5/8-11 Adapter

### Part Number 0840025



## SYNTHETIC RESINOID TECHNOLOGY

### TYPE 27 DEPRESSED CENTER WHEELS

The Pearl SRT Depressed Center Wheel is **proven to be one of the best performing grinding wheels on the market**. It has been engineered for **long life and superior performance**. Pearl's revolutionary SRT grain makes this grinding wheel **last longer** than the competition, **while providing significantly faster grinding performance**.

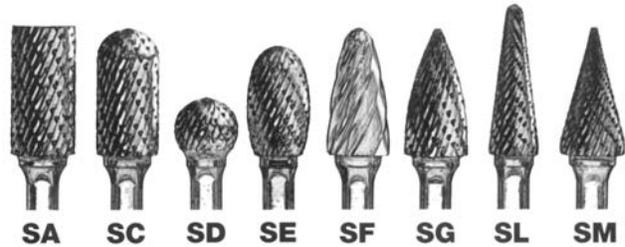
PART #	Description	Max RPM	
0848845	4-1/2 x 1/4 x 7/8	13,300	
0848846	4-1/2 x 1/4 x 5/8-11	13,300	
0848847	7 x 1/4 x 7/8	8,500	
0848848	7 x 1/4 x 5/8-11	8,500	

# ABRASIVES



## Tungsten Carbide Burs

- Tungsten Carbide construction for long life and durability
- Bur spirals are produced by computer controlled diamond wheels producing the very sharpest uniform cutting edges
- Automated equipment produces a very concentric, balanced tool assuring vibration-free operation



## Double Cut (Alternate Cut)

- Most popular bur in ferrous applications
- Designed with left and right spirals for finer finishing
- Produces finer chips and slivers for greater tool control

Part Number	Size			Shank Diameter
	Type	Diameter	Length	
0848000	SA1	1/4	5/8	1/4
0848002	SA5	1/2	1	1/4
0848005	SC1	1/4	5/8	1/4
0848007	SC5	1/2	1	1/4
0848012	SD5	1/2	7/16	1/4
0848016	SE5	1/2	7/8	1/4
0848026	SL3	3/8	1-1/16	1/4
0848027	SL4	1/2	5/8	1/4



## Non-Ferrous (Aluminum Cut)

- Ideal bur for non-ferrous and softer material use
- Open design for aggressive, non-loading applications
- Also excellent for use on hard rubber and plastics

Part Number	Size			Shank Diameter
	Type	Diameter	Length	
0848051	SA5NF	1/2	1	1/4
0848053	SF3NF	3/8	3/4	1/4



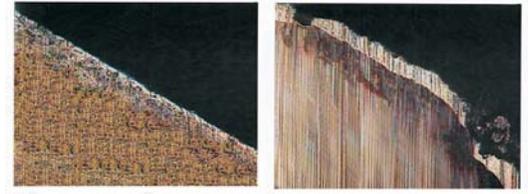
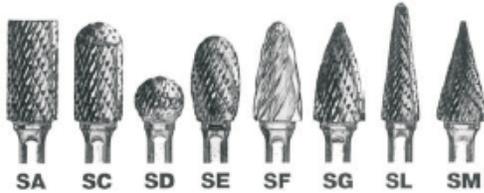
## Stand For Carbide Burs

Part Number	Description
0770084	<ul style="list-style-type: none"> <li>• Holds up to 24, 1/4" shank burs</li> <li>• Mounts on wall or drill press for easy accessibility</li> <li>• Dimensions: 5-5/8 x 2-5/8 x 1-1/2 (WDH)</li> </ul>

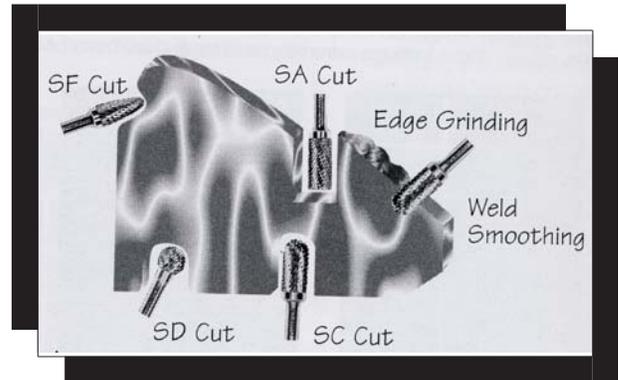


## Solid Carbide Titanium Nitride Coated Burs

- One of the most versatile metal working tools used by virtually every industry.
- Manufactured in the USA from C2 tungsten carbide and completely machine ground for consistently high performance.
- Double cut flutes for efficient machining of cast iron, steels, titanium, brass, bronze and copper.
- Double cut flutes provide better user control for more accurate deburring chips are reduced to small easily disposed particles.
- TiN coating provides additional surface lubricity and longevity.



Part Number	Type	Size	Length	Shank Diameter
0848105	SA5	1/2	1	1/4
0848133	SC3	3/8	3/4	1/4
0848135	SC5	1/2	1	1/4
0848145	SD5	1/2	7/16	1/4
0848163	SF3	3/8	3/4	1/4
0848165	SF5	1/2	1	1/4
0848173	SG3	1/2	3/4	1/4
0848174	SL4	1/2	1-1/8	1/4



Part Number	Set Includes:
0840140	SA5, SC3, SC5, SD5, SF3, SF5, SG3, SL4

## Aluminum Oxide Paper Sheets

### Open Coat

- All purpose for dry sanding by hand or machine
- Resists loading when stripping paint off wood
- Works well for shaping and finishing plastic fillers
- Removes scratches and burrs on metal

Part No	Grit	Size	Sheets per Sleeve
0840223	120C	9 x 11	100
0840225	80D	9 x 11	100
0840227	50D	9 x 11	100



## Silicon Carbide Sheets

### Wet or dry

- Tear-resistant flexible backing
- For sanding between primer coats and finish coat
- Fine feather-edging and surface sanding

Part No	Grit	Size	Sheets per Sleeve
0840201	600A	9 x 11	100
0840203	400A	9 x 11	100
0840205	320A	9 x 11	100
0840206	220A	9 x 11	100



## Aluminum Oxide

### Cloth Sheets

- Strong flexible cloth backing
- Deburring, clean-up and polishing of metal surfaces

Part No	Grit	Size	Sheets per Sleeve
0840235	120	9 x 11	100
0840237	80	9 x 11	100



## Synthetic Abrasive Pads

### Non-Woven

- Non-loading open mesh design remains flexible
- Use wet or dry will not rust or shred
- Use on metal surfaces, wood, or ceramic materials

Part No	Size	Color	Grade - Use
0840087	6" x 9"	Maroon	Fine Surface Preparation
0840088	6" x 9"	Black	Heavy Duty Stripping & Deburring
0840089	6" x 9"	Green	General Purpose Hand Scouring

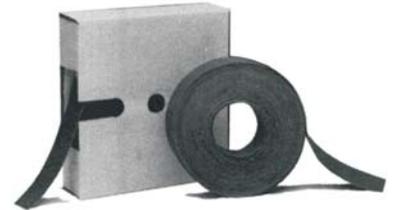


## Screen-bak Durite

### Waterproof Rolls

- Can be used wet or dry
- Prevents loading - both sides useable
- Nylon mesh impregnated with silicon carbide abrasive
- Out performs heavy duty abrasives and emery cloth

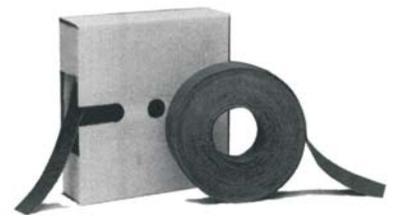
Part No	Width	Length	Grit
0840070	1-1/2"	25 Yds	180
0840072	1-1/2"	25 Yds	120
0840074	4"	25 Yds	120



## Silicon Carbide Waterproof Screenshot

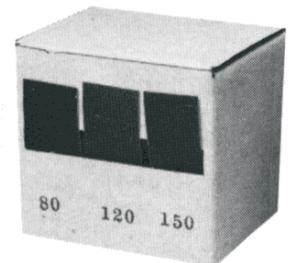
- Sharp silicon carbide grain coating on both sides
- Strong open mesh nylon fabric
- More aggressive than standard shop rolls

Part No	Width	Length	Grit
0840326	1-1/2"	10 Yds	80
0840327	1-1/2"	10 Yds	120
0840328	1-1/2"	10 Yds	180



## Silicon Carbide Screenshot Assortment

Part No	Description
0840325	<ul style="list-style-type: none"> <li>• 3 Grits</li> <li>• One easy to use dispenser box</li> </ul>



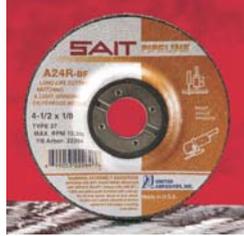
# ABRASIVES



## Type 27 Specialty Cutting & Light Grinding Wheel

- Aluminum oxide grain
- Use on ferrous metal pipe

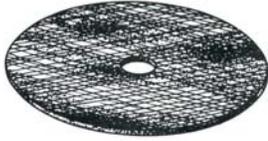
Part No	Application	Diameter	Width	Size	Max RPM
0840760		4-1/2"	1/8	7/8	13,300
0840761		7"	1/8	5/8-11 Hubbed	8,500



## Aluminum Oxide Resin Fiber Discs-Closed Coat

- Heavy duty vulcanized fiber backing
- Especially designed for grinding down welds
- Also good for rounding edges and seams, deburring smoothing and refinishing imperfections on ferrous & non-ferrous materials

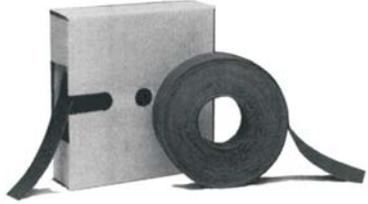
Part No	Application	Diameter	Hole	Grit	Disks / Box
0840310		7"	7/8"	50	25
0840311		7"	7/8"	36	25
0840312		7"	7/8"	24	25
0840151		4-1/2"	7/8"	50	25



## E-Z Cut Aluminum Oxide Cloth

- Soft flexible backing conforms to work piece
- Sharp long lasting aluminum oxide abrasive
- For removal of rust, deburring, general sanding polishing and cleaning of metals

Part No	Width	Length	Grit
0840077	1-1/2"	50 Yds	320J
0840079	1-1/2"	50 Yds	240J
0840081	1-1/2"	50 Yds	180J
0840082	1-1/2"	50 Yds	150J
0840083	1-1/2"	50 Yds	120J
0840084	1-1/2"	50 Yds	100J
0840085	1-1/2"	50 Yds	80J
0840086	1-1/2"	50 Yds	60X



## Shoe Handle Wire Scratch Brushes

- Top quality hard maple or beech blocks
- Filled with the most durable quality
- General purpose cleaning

Part No	Handle Size	Brush Size	Trim Size	Type Material
0840020	10" x 1-1/8"	4" x 16 Rows	1-3/16"	Oil Tempered Steel



## Bent Handle Wire Scratch Brushes

Part No	Handle Size	Brush Size	Trim Size	Type Material
0840021	14" x 1-1/8"	4" x 18 Rows	1-3/16"	Oil Tempered Steel
0840759	Small	3" x 7 Rows		302 Stainless Steel
0840762	Small	3" x 7 Rows		Brass with Wood Handle
0840763	Small	3" x 7 Rows		Brass With Plastic Handle



## Solid Polypropylene Brush

- Indestructible - solvent resistant
- One piece construction
- Shed proof - no loose filaments

Part No	Overall Length	Bristle Length	Size
1560001	9-1/2"	2-7/8"	#8



## Acid Brushes

- Quality horse hair bristles
- Machine crimped and trimmed

Part No	Width	Length
0840501	3/8"	6"
0840502	7/16"	6-1/16"
0840503	9/16"	6-1/8"



## Tube Brushes

Part No	Dia.	Grit	Trim Length	Overall Length
0840504	1/2"	80	2"	5"
0840505	1"	80	2-1/2"	5-1/2"
0840506	1-1/4"	80	2-1/2"	5-1/2"
0840507	5/8"	120	2"	5"
0840508	1"	120	2-1/2"	5-1/2"

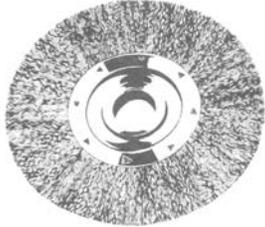


## Crimped Wire Wheel Brushes

### Heavy-Duty

- Perfectly balanced
- Best quality high carbon scratch brush wire
- Specially designed for burr removal, smoothing welds, removal of rust & paint.

Part No	Diameter	Arbor Hole	Face Thickness	Max RPM	Wire Size
0840101	3"	1/2" -5/8"	3/8	5,000	.0118 Coarse
0840102	4"	1/2" -5/8"	7/16	6,000	.0118 Coarse
0840014	6"	1/2" -5/8"	1"	4,500	.0060 Fine
0840100	6"	1/2" -5/8"	1"	4,500	.0140 Coarse
0840103	8"	5/8"	3/4"	3,500	.012 Medium

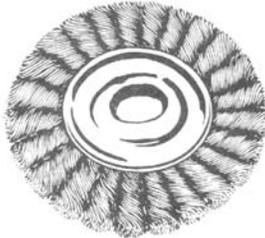


## Knotted Wire Wheel Brushes

### Heavy-Duty

- Highest quality tempered steel wire
- For removal of rust, scale, weld spatter
- Surface roughing or heavy cleaning operations

Part No	Diameter	Arbor Hole	Face Thickness	Max RPM	Wire Size	Trim Length
0840119	3"	3/8" - 1/2"	3/8"	20,000	.014 Coarse	11/16"
0840120	6"	1/2" - 5/8"	1/2"	6,000	.020 Medium	1-1/2"
0840121	6"	1/2" - 5/8"	1/2"	8,000	.014 Coarse	1-1/2"



## Crimped Wire Cup Brushes

- For use with air or electric portable tools
- Use for removal of paint and fast cleaning of large areas

Part No	Diameter	Arbor Hole	Max RPM	Wire Size
0840150	2-3/4"	1/2"	6,000	Coarse
0840155	1-3/4"	1/4" Spindle	5,000	Extra Coarse



## End Brushes

- For use on portable power tools
- 1/4" diameter shanks
- Excellent for cleaning & finishing recessed areas or pipes

Part No	Diameter	Wire	Length	Max RPM	Type
0840701	1"	.020	2-5/8	20,000	Knot
0840702	1"	.020	2-5/8	20,000	Crimped
0840703	2"	.014	1-1/4	25,000	Crimped
0840705	2-1/2"	.014	1-3/4	20,000	Circular Flare
0840704	3"	.014	1-1/4	25000	Crimped



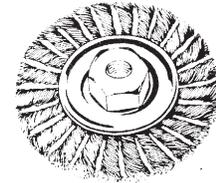
## Knot Wire Wheels

### for Small Grinders

- Stringer bead twist excellent on welds, flux removal where a narrow face is required
- Regular twist covers more surface area in a single pass



Part No	Diameter	Wire	Arbor	Type	Max RPM
0840426	4"	.014	5/8-11	Regular	20,000
0840440	4"	.020	5/8-11	Stringer	20,000

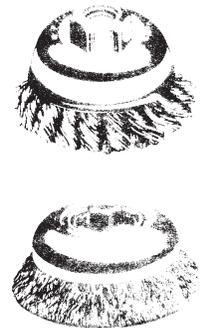


## Cup Brushes

### for Small Grinders

- Knot-type provides maximum impact for aggressive cutting and cleaning action
- Crimped-wire design provides a continuous brushing action and a relatively fine finish

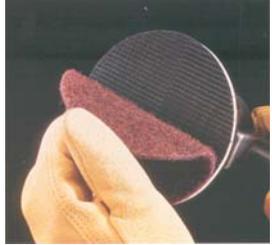
Part No	Diameter	Wire	Arbor	Type	Max RPM
0840414	2-3/4"	.014	5/8-11	Knot	12,500
0840407	4"	.020	5/8-11	Knot	8,500
0840553	6"	.020	5/8-11	Crimp	6,600



## 3M Surface Conditioning Discs - Hook & Loop

- Uniquely blended mineral
- Tough “E” weight backing
- Fast-cutting, longer lasting
- HOOKIT attachment system allows easy application to and removal from the disc pad
- Excellent for stripping paint or sanding plastic filler

Part Number	Diameter	Grade	Discs Per Box
0840750	5"	Brown	25
0840643	5"	Maroon	25
0840751	7"	Brown	25
0840645	7"	Maroon	25



## 3M HOOKIT Disc Pad

- Specifically made to use with the HOOKIT Discs
- Pad face securely holds the discs yet allows for easy change and reattachment of discs
- Lightweight, shock-resistant and well-balanced
- Tough, durable plastic hub and a conformable foam body

Part Number	Arbor Size	Disc Size
0840915	5/8-11 Female	5"
0840917	5/8-11 Female	7"



## 3M ROLOC Grinding Discs - Fibre & Cloth Backed

- Handy quick change tool for disc grinding which fits any standard 1/4" drill or air tool
- Quick 1/2 turn on, 1/2 turn off speeds disc changing and cuts down time
- Color coded

Part Number	Diameter	Grit	Button Color	Discs Per Box
0840628	2"	24	Green Corps	25
0840629	2"	36	Black	25
0840433	2"	60	Orange	25
0840661	2"	80	Yellow	25
0840630	3"	24	Green Corps	25
0840631	3"	36	Black	25
0840633	3"	60	Orange	25
0840634	3"	80	Yellow	25
0840690	4"	36	Black	25
0840692	4"	60	Orange	25
0840693	4"	80	Yellow	25



## SCOTCH-BRITE ROLOC Surface Conditioning Discs

- Quick 1/2 turn on, 1/2 turn off ROLOC Disc fastening system
- Used to quickly remove cut cork or paper gaskets and form-in-place gasketing materials prior to the assembling of power train components.

Part Number	Size/Grade	Color	Discs Per Box
0840528	2" Coarse	Brown	25
0840527	2" Medium	Maroon	25
0840523	2" Fine	Blue	25
0840532	3" Coarse	Brown	25
0840531	3" Medium	Maroon	25
0840530	3" Fine	Blue	25
0840954	4" Coarse	Brown	25



## 3M ROLOC Disc Pad Assembly

- Hard rubber back-up pad. Provides firm support for ROLOC Discs.
- Pad assemblies come complete with a 2" steel shaft and adaptor.

Part Number	Diameter	Hardness	Shaft
0840096	2"	Hard	1/4"
0840095	2"	Medium	1/4"
0840091	3"	Hard	1/4"
0840092	3"	Medium	1/4"
0840179	4"	Medium	1/4"



## SCOTCH-BRITE ROLOC Coatings Removal Utility Disc (C.R.U.D.) - Black

- Quick 1/2 turn on, 1/2 turn off ROLOC Disc fastening system
- Tough, open virtually non-loading web makes surface preparation fast and easy.
- Great for removal of undercoatings, stone guards, seam sealers and rust.
- Works well under hood webs in truck beds, door jambs, under carriage and wheel wells.
- Useful in tire shop to remove oxidation from rims.
- Used for removal of rust from brake assemblies.

Part Number	Size	Discs Per Box
0840350	3"	10



## Scotch-Brite™ Clean and Strip XT Disc TN Quick Change

- Durable rigid and long lasting
- Aggressive open-web disc is ideal for removing rust and paint

Part Number	Size
0840351	4-1/2 x 5/8-11

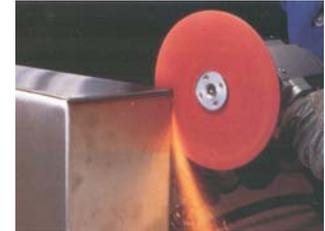


## Abrasives

### 3M Fibre Discs

- All-purpose grinding discs for door skinning, grinding MIG welds or any kind of metal grinding
- High-performance grinding discs
- Long-lasting and fast-cutting

Part Number	Size	Grade	Discs Per Box
0840975	5" x 7/8"	36	20
0840976	5" x 7/8"	50	20
0840967	7" x 7/8"	36	20
0840968	7" x 7/8"	50	20



### 3M Disc Pad Hubs & Face Plates

- Light weight, excellent balance, low profile for better grinding
- Full size plates give support to disk edge and are tapered to fit the disc shape

Part Number	Type	Hardness	Color	Disc Size
0845207	Face Plate	Medium	Gray	5" Dia.
0845193	Face Plate	Medium	Gray	7" Dia.



Part Number	Type	Size
0845205	Hub	2-1/2 x 5/8-11 Use w/ all size discs
0845190	Hub	4-1/2 x 5/8-11 Use w/ 7" dia.
0845620	Disc Retainer Nut	5/8-11 Female Thread x 1/2 length

### 3M ROLOC Bristle Discs

Part Number	Size	Color
0840057	2"	Green/Coarse
0840058	3"	Green/Coarse



## Mini Flap Disc

Use with 1/4" Hex Power Shank Disc Holder

- Flap disc technology with the convenience and versatility of quick change discs.
- Combines grinding & finishing in one step.
- "Mini" size allows access to tight areas.
- Flap disc design extends life while providing a constantly "fresh" cutting surface and cooler operation.
- High quality zirconium is effective on materials from mild steel to exotic titanium alloys, composites and plastics.
- Excellent for polishing and finishing, grinding, chamfering, deburring, and much more.

Part No	Dia Inches	Mount	Grit
0842040	2"	Roloc	40
0842060	2"	Roloc	60
0842080	2"	Roloc	80
0842100	2"	Roloc	120
0843040	3"	Roloc	40
0843060	3"	Roloc	60
0843080	3"	Roloc	80
0843100	3"	Roloc	120



## SIGMA GREEN

36 GRIT Type 27 Designed for Extremely Fast Grinding

- 50% faster cutting than aluminum oxide
- 20% cooler cutting
- No discoloring and warpage of stainless steel
- Better finish
- Reduced operator fatigue



Smoother and quieter grinding action with more control

Part Number	Size	RPM
0847745	4-1/2, 7/8	13,000
0847746	4-1/2, 5/8-11	12,200
0847747	7, 7/8	8,500
0847748	7, 5/8-11	8,500

## Type 1 & Type 27 Reusable 5/8-11 Adapter

Part Number 0840025



## Zicrom-Steel

### Steel reinforced maintenance and repair Compound

- Easy to use just twist off desired amount
- Hand knead to a uniform color
- Hardening begins within 2 minutes
- Cures steel hard within 15 minutes of mixing
- Zicrom- Steel can be drilled, filed, machined, tapped, sanded or painted within 1 hour.

#### Physical Properties:

Compression Strength .....18,000psi  
 Tensile Strength ..... 6,000psi  
 Shear Strength ..... 700psi  
 Hardness(Shore D) ..... 85  
 Maximum Use Temperature ..... 300f

#### Electrical Properties:

Dielectric Strength .....400 Volts/Mill @ 0.12<sup>5</sup>m  
 Volume Resistivity .....5 X 10<sup>15</sup> Ohm-Cm

Product Number	Applications	Uses	
5140203	<ul style="list-style-type: none"> <li>• Seals water and chemical tanks</li> <li>• Patches ducts</li> <li>• Eliminates leaks at unions</li> <li>• Repairs small cracks in castings</li> <li>• Fills oversized bolt holes</li> <li>• Stops most leaks in pipes</li> </ul>	Steel, Copper, Cast Iron, Stainless Steel, Galvanized, Pipe, Brass, Chrome, Aluminum, Concrete, Brick, Plastics, Ceramics, PVC	

## Quik-wood

Restore, rebuild, and repair all kinds of wood

- Hardens in 30 minutes with no shrinkage or pulling away
- Quikwood can be molded into any shape, it becomes part of the wood but many times stronger
- Quikwood can be drilled, tapped, sawed, nailed, carved, machined, sanded, stained, and painted within 30 minutes
- Quikwood is non-toxic, and will not cure until molded

Product Number	Uses	
5140207	<ul style="list-style-type: none"> <li>• Repairing stripped screw holes, refastening hinges.</li> <li>• Repairing damaged furniture, moldings, paneling, doors, window frames.</li> <li>• Rebuilding, fabricating and reshaping wood parts</li> <li>• Excellent wood to metal, wood to wood, wood to ceramic, or wood to glass adhesive.</li> </ul>	

## Quik-copper

Copper Reinforced Epoxy Putty

- Bonds to damp, wet and slow leaking surfaces
- Seals leaks in pipes, elbows, joints, traps, drains, water tanks, and water heaters permanently in minutes.
- Safe for potable water contains no solvents.
- Hardens within 5-10 minutes of mixing to form a copper like substance.
- Will not shrink or pull away

Product Number	Specifications	
5140208	Working Life (minutes).....4-7 Dielectric Strength.....300 volt/mil Hardness, Shore D (full cure 24 hr)..65-75 Tensile Shear Strength.....600-800 Compressive Strength.....12,000 PSI	

## Insta-Crete

InstaCrete Epoxy Putty Stick is a hand-kneadable, fast-setting polymer compound for permanent repairs to concrete and masonry. It also bonds to metals, wood, glass and many plastics. It comes in a handy “Tootsie-roll®” form with the curing agent encapsulated in the contrasting color base material.

- Patch chipped concrete floors, curbing and steps.
- Seal basement leaks.
- Rebuild chipped cemetery headstones.
- Anchor bolts, screws, railings, workbench or machine legs.
- Repair, rebuild decorative concrete trim moldings, statues, birdbaths, and other concrete lawn ornaments.
- Seal tie-rod holes.

Product Number	Specifications	
5140205	Working Life (minutes).....4-7 Dielectric Strength.....300 volt/mil Hardness, Shore D (full cure 24 hr)..80 Tensile Shear Strength.....700lbs Compressive Strength.....8,000 PSI	

## Quik-Aluminum Aluminum Reinforced Epoxy Putty

- Non-rusting hand-kneadable putty repairs anything made of aluminum in one minute
- Industrial strength product cures tough and hard
- Fills cracks and holes
- Can be drilled, sawed, sanded, filed, tapped, machined or painted.

Product Number	Applications	
5140209	<ul style="list-style-type: none"> <li>• Mends air conditioning units, machine parts and wheels</li> <li>• Repairs gutters, storm doors, windows, and aluminum siding and panels.</li> </ul>	

## Aqua-Mend Wet Surface / Underwater Epoxy Putty

- Can be painted over.
- Ideal adhesive for fiberglass tape

Product Number	Applications	
5140210	Plugs and fills cracks, gouges, leaks, dry rot holes in wooden boat hulls, fittings, pipes, pools, tanks, tubes, battery cases, ding patches on fiberglass decks and hulls, gutter repairs, etc.	

## Quik - Fix Clear Fast-curing Adhesive

- 1 oz. Syringe
- Cures In 5 minutes
- Temperature: 250°F
- Double barreled syringe assures accurate proportioning
- Unaffected by - gasoline - grease-oil
- Not recommended for constant exposure to water
- DO NOT USE ON POLYETHYLENE

Product Number	Applications	Physical Properties	
5140206	Wood - Fiberglass - Metals - Glass - Ceramics - Most Plastics	Compressive Strength...9,000 Psi Tensile Strength.....6,800 Psi Shear Strength..... 2,840 Psi Working Life.....3 Minutes Cure Time..... 5 Minutes Pull Cure.....60 Minutes	

## Pipegrip™ Pipe Sealant with Teflon

Part Number	Description	
5140204	<ul style="list-style-type: none"> <li>• High performance anaerobic sealant</li> <li>• Lubricates threads, prevents leaks</li> <li>• Will not tear or shred like tapes</li> <li>• Seals instantly to average pipe working pressure</li> <li>• Helps prevent vibration loosening and galling</li> <li>• Excellent chemical resistance</li> <li>• Will seal systems handling most chemicals</li> <li>• Easily disassembled with ordinary hand tools</li> <li>• Temperature range -65° F to + 400° F</li> <li>• Hydraulic fittings - brass fittings - air couplers -</li> </ul>	

## Vibra-TITE Clear Instant Superglue Adhesive

Single component Industrial Quality Instant Adhesive

Part Number	Description	
0803000	<ul style="list-style-type: none"> <li>• Single-part clear adhesives</li> <li>• Rapidly polymerizes at room temperature and develops strength extremely fast.</li> <li>• Exact drop placement non-migrating</li> <li>• Suitable for most substrates</li> </ul>	

## Cyanoacrylate Adhesives

Part No	Type	Size	Application	
0800085	Methyl Grade	1 oz.	<ul style="list-style-type: none"> <li>• Bonds metals and/or rubber</li> <li>• Sets in 30 seconds</li> </ul>	
0800077	Ethyl Grade	1 oz.	<ul style="list-style-type: none"> <li>• Bonds plastics</li> <li>• Sets in 20 seconds</li> </ul>	
0802000	Starter Kit	Qty 2	<ul style="list-style-type: none"> <li>• Contains 1 each of the Cyanoacrylate Adhesives</li> </ul>	

# ADHESIVES



## Threadlockers

Part No	Type	Size	Application	
0801350	Blue Threadlock Medium Strength	10 ML	<ul style="list-style-type: none"> <li>General purpose adhesive for nuts bolts screws</li> <li>Typical uses include locking nuts or bolts from 1/4" to 3/4" (6-20mm) in diameter.</li> <li>Disassembly possible</li> </ul>	
0801550	Red Threadlock High Strength	10 ML	<ul style="list-style-type: none"> <li>Locks threads on studs and fasteners up to 1" dia.</li> <li>Recommended for applications involving heavy vibration</li> <li>It resists attack from most fuels, lubricants and most industrial gases.</li> <li>For permanent assembly</li> </ul>	
0801710	Green Adhesive Sealant	10 ML	<ul style="list-style-type: none"> <li>Locks and retains preassembled parts</li> <li>Permits adjustments of parts before application</li> <li>Seals pin hole leaks on welded soldered or brazed assemblies</li> </ul>	
0801000	Starter Kit	3 x 10ml	<ul style="list-style-type: none"> <li>Contains 1 each of all 3 Threadlock Adhesives</li> </ul>	
0802535	Blue Threadlock Gel Medium Strength	35 ML	<ul style="list-style-type: none"> <li>The dependability of Vibra-Tite in a Gel No Mess! No Waste! No-drip</li> <li>Recommended for threaded components under 1" in diameter</li> <li>Disassembly possible</li> </ul>	
0803535	Red Threadlock Gel High Strength	35 ml	<ul style="list-style-type: none"> <li>The dependability of Vibra-Tite in a Gel No Mess! No Waste! No-drip</li> <li>Thread locking adhesive for all types of metal, threaded fasteners.</li> <li>Cures rapidly on plated, oily metal surfaces or inactive surfaces.</li> </ul>	
0805000	Bench Adhesive Kit	<p>Set Includes:</p> <p>1 0801550 (10ml.) High Strength Red Threadlocker for permanent threaded assemblies. (1) 0801350 (10ml.) Medium Strength Blue Threadlocker is a general purpose product. (1) 0801710 (10ml.) High Strength Retaining Compound is a single part, high viscosity, high strength anaerobic resin used for bonding rigid assemblies of all types.</p>		

## Q-Bond Repair Kit

- Ultra-strong adhesive and reinforcing powders.
- Repairs almost anything!
- Rock solid in 10 seconds!
- Q-Bond repairs are able to be grinded, filed, sanded and even painted!
- Q-BOND can be used just as an adhesive or with the reinforcing powders that will help to repair almost anything.



Part Number: **08090003**

The Q-BOND kit includes two (2) bottles Q-BOND adhesive (0.35oz/10ml); one (1) bottle black reinforcing powder for plastics; one (1) bottle grey reinforcing powder for metals.

## E-6000 Industrial Adhesive

- A high-performance elastomeric adhesive that exhibits exceptional bonding to a broad range of materials including: metals, glass, plastic, composites, tile, cement, rubber, leather, wood and vinyl.
- A waterproof adhesive that remains flexible. It's paintable and nonflammable.
- Better than silicones, acrylics and rubber cements because it sticks to more surfaces with more strength and durability.
- Exceptional flexibility-bonds items subject to vibration
- Abrasion resistant-use on high wear surfaces; excellent resistance to acids and caustics

Part No	Size	Color
5146000	3.7 oz Tube	Clear
5146001	10.2 oz Cartridge	Clear



Brick, ceramic, mar-ble, tile  
(porous)



Canvas, fabric, leather, vinyl  
(porous)



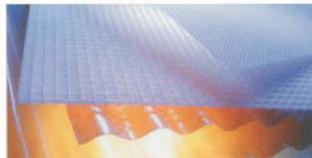
Concrete  
(porous)



Glass, fiberglass  
(non-porous)



Aluminum, brass, iron, steel  
(non-porous)



Acrylic, polycarbonate, PVC  
(non-porous)



Rubber (Neoprene, SBR)  
(porous)



Wood, composite board  
(porous)

# LUBRICANTS



## Zicrom Anti-Seize and Sealing Compound

- A pure metallic compound suspended in a high temperature synthetic lubricant, free of any graphite, copper, drying agents or foreign materials
- Non-poisonous, non-oxidizing, non-corroding and non-hardening
- Can be applied by using a soft brush or by dipping
- Temp range: -350°F to 2,987°F. Effective even to the melting point of the surrounding metals.
- Approved for air, oils, gases, steam and hydraulic fluids
- Positive sealing to 100,000 psi.
- Non-contaminating to flow lines; won't "ball up" or "flake" to plug orifices as do other sealers
- Stops thread rusting, acid etch, corrosion and inhibits electrolysis.
- Excellent when used with aluminum, stainless steel or dissimilar metals
- UL approved and meets MIL and QPL specifications



Part Number	Description	
1410100	1 lb. Can w/ brush top	

## Copper Klad

### Protective Coating and Sealing Compound

- Protects connectors and terminals against corrosion and seals connections against water, oils and corrosive gases.
- Prevents seizing of threaded fasteners
- Easy brush-on application; will not clog like aerosol cans

Part Number	Description	
1410300	8 oz. Can w/ brush top	

## Nickel Anti-Seize

- Anti-Seize Compound Nickel Lubricant ideal for extreme temperature copper free base.
- Resistant to harsh chemical environments
- Excellent for stainless steel and other metal fittings

Part Number	Description	
1410400	16 oz. Can w/ brush top	

## Powerful Solutions

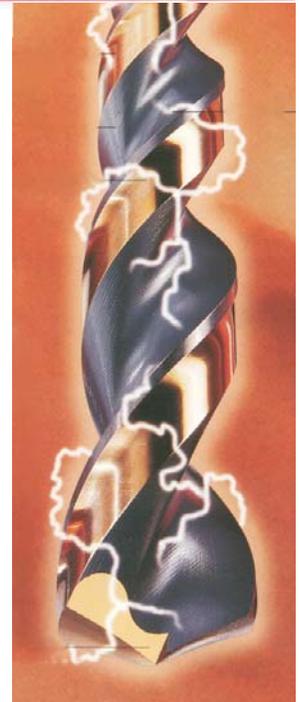
### to Hand-Held Drilling

When you need a high performance drill for your most demanding applications, Foster & Company has the solution. Our high performance **PowerBit** drills, unique design and black and bronze oxide finish, powers through the most difficult-to-drill applications.

#### Engineered for Power

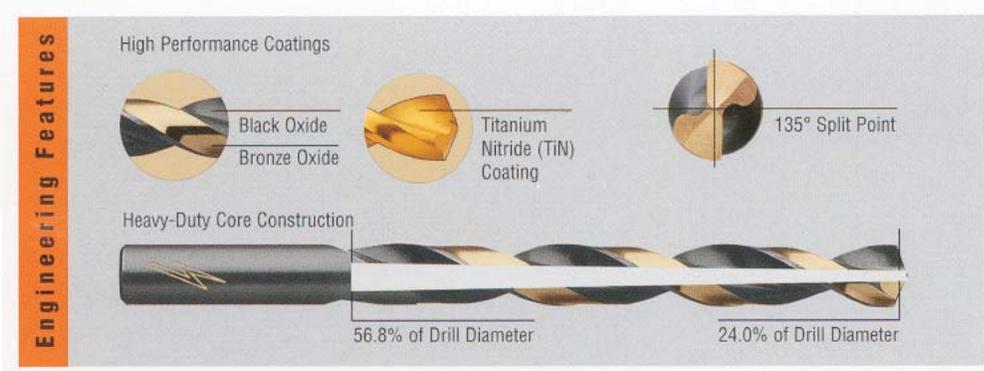
PowerBits powerful combination of performance features:

- Friction-reducing black and bronze oxide surface treatments for higher drilling speeds.
- Unique spiral design improves chip ejection and coolant flow to point.
- Heavy-duty core for increased strength and reduced breakage.
- Premium industrial grade high speed steel and heavy duty construction for increased strength, longer life and closer tolerances.
- 135° self-centering split point prevents “walking” and provides quick penetration



#### A Size and Style for Every Application

PowerBits are offered in a wide range of fractional, wire, letter and metric sizes; in jobber and stub lengths; with straight and reduced shanks; and in a variety of set configurations.



- Jobber Length • Stub Length • 3/8" Reduced Shank • 1/2" Reduced Shank
- 6" & 12" Extended Length • Double Ended Stub • Metal Indexes



# DRILLS, TAPS & DIES

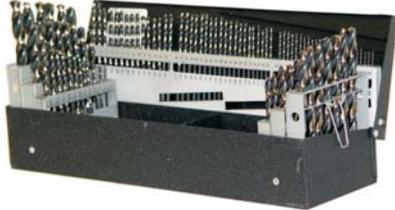


## Fractional Size Drills

- One central location for your drills
- 3 Drawer heavy duty steel cabinet insures that you always have the size you need

Product Number	Contents	
0042063	59 Heavy Duty Power Bits 1/16 to 1/2"	

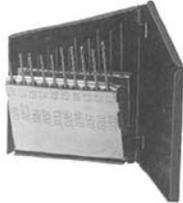
## Fractional Size Drills

Product Number	Qty	Description	
0042115	115 Drills	Letter Drills A to Z Wire Gauge 1 to 60 1/16 to 1/2 x 64ths	
0046129	29 Drills	1/16" to 1/2" by 64th's	
0046115	15 Drills	1/16" to 1/2" by 32nd's	
0046113	13 Drills	1/16" to 1/4" by 64th's	

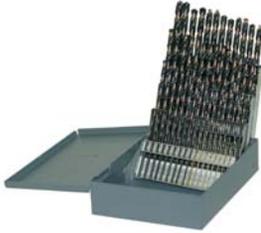
## Letter Size Drills

Product Number	Qty	Description	
0041126	26 Drills	A to Z	

## Wire Gauge Sizes

Product Number	Qty	Description	
0041120	20 Drills	#61 to #80	

## Wire Gauge Sizes

Product Number	Qty	Description	
0041160	60 Drills	#1 to #60	

## Metric Sizes

Product Number	Qty	Description	
0046825	25 Drills	1 -13mm .5mm increments	

## 1/2" Reduced Shank Power Bits

Product Number	Qty	Description	
0041112	8 Drills	9/16 to 1" by 16ths	

# DRILLS, TAPS & DIES



## 3/8" Reduced Shank Posi-Grip Power Bits

Foster & Company's new Posi-grip mechanics length PowerBits increase your productivity by eliminating slip-page and reducing work stoppage for drill or battery changes. The special 3-flat shank provides a positive grip in cordless, keyless and conventional power tools. The 135° self-centering split point gives you faster penetration, and the reduced length provides a more rigid, break-resistant tool.

Product Number	Qty	Description
0046131	29 Drills	1/16 to 1/2 By 64ths 3/8 reduced shank

## Drill Selection Chart For Taps

Size Pitch	Drill Size	Decimal Equivalent Of Drill (inches)	Theoretical % of Thread	Probable % of Thread
4-40	44	.0860	80	74
	2.20mm	.0866	78	72
	43	.0890	71	65
6-32	2.30mm	.0906	66	60
	37	.1040	84	78
	36	.1065	78	72
6-40	7/64	.1095	70	64
	35	.1100	69	63
	34	.1110	67	60
	34	.1110	83	75
	33	.1130	77	69
8-32	2.90mm	.1142	73	65
	32	.1160	68	60
	3.40mm	.1339	74	67
8-36	29	.1360	69	62
	29	.1360	78	70
10-24	3.50mm	.1378	72	65
	27	.1440	85	79
	3.70mm	.1457	82	76
	26	.1470	79	74
	25	.1495	75	69
10-32	24	.1520	70	64
	5/32	.1563	83	75
	22	.1570	81	73
	21	.1590	76	68
12-24	11/64	.1719	82	75
	17	.1730	79	73
	16	.1770	72	66
12-28	16	.1770	84	77
	15	.1800	78	70
	4.60mm	.1811	75	67
1/4-20	14	.1820	73	66
	9	.1960	83	77
	8	.1990	79	73
	7	.2010	75	70
1/4-28	13/64	.2031	72	66
	5.40mm	.2126	81	72
	3	.2130	80	72
5/16-18	F	.2570	77	72
	6.60mm	.2598	73	68
	G	.2610	71	66
5/16-24	H	.2660	86	78
	6.80mm	.2677	83	75
	I	.2720	75	67
3/8-16	7.80mm	.3071	84	78
	7.90 mm	.3110	79	73
	5/16	.3125	77	72
	O	.3160	73	68
3/8-24	21/64	.3281	87	79
	8.40mm	.3307	82	74
	Q	.3320	79	71
7/16-14	8.50mm	.3346	75	67
	T	.3580	86	81
	23/64	.3594	84	79
	9.20mm	.3622	81	76
	9.30mm	.3661	77	72
7/16-20	U	.3680	75	70
	9.40mm	.3701	73	68
	W	.3860	79	72
1/2-13	25/64	.3906	72	65
	10.50mm	.4134	87	82
1/2-20	27/64	.4219	78	73
	29/64	.4531	72	65
9/16-12	15/32	.4688	87	82
	31/64	.4844	72	68
9/16-18	1/2	.5000	87	80
	5/8-11	.5313	79	75
5/8-18	9/16	.5625	87	80
	3/4-10	.6406	84	80
3/4-16	21/32	.6563	72	68
	11/16	.6875	77	71
	17.50mm	.6890	75	69
7/8-9	49/64	.7656	76	72
	7/8-14	.7969	84	79
1"-8	55/64	.8594	87	83
	7/8	.8750	77	73
1"-12	29/32	.9063	87	81
	59/64	.9219	72	67
1"-14	59/64	.9219	84	78
	1-1/8-7	.9688	84	81
1-1/8-12	63/64	.9844	76	72
	1-1/32	1.0313	87	80
	1-1/4-7	1.0938	84	*
1-1/4-12	1-7/64	1.1094	76	*
	1-11/64	1.1719	72	*
	1-3/8-6	1.2031	79	*
1-3/8-12	1-7/32	1.2188	72	*
	1-19/64	1.2969	72	*
	1-1/2-6	1.3281	79	*
1-1/2-12	1-21/64	1.3281	79	*
	1-11/32	1.3438	72	*
1-1/2-16	1-27/64	1.4219	72	*

\* Reaming recommended

## Heavy Duty Power Bits

Designed for both maintenance and production drilling.

The engineered design of the **POWER BIT** reduces breakage and allows for more penetration force.

The wide open spiral flute design ejects chips quickly, to remove the heat of the cut, improving tool and battery life, while reducing wear on the drill.

Part No	Drill Size	Decimal Size	Overall Length	Flute Length
0040604	1/16	.0625	1-7/8	7/8
0040605	5/64	.0781	2	1
0040606	3/32	.0938	2-1/4	1-1/4
0040607	7/64	.1094	2-5/8	1-1/2
0040608	1/8	.1250	2-3/4	1-5/8
0040609	9/64	.1406	2-7/8	1-3/4
0040610	5/32	.1562	3-1/8	2
0040611	11/64	.1719	3-1/4	2-1/8
0040612	3/16	.1875	3-1/2	2-5/16
0040613	13/64	.2031	3-5/8	2-7/16
0040614	7/32	.2188	3-3/4	2-1/2
0040615	15/64	.2344	3-7/8	2-5/8
0040616	1/4	.2500	4	2-3/4
0040617	17/64	.2656	4-1/8	2-7/8
0040618	9/32	.2812	4-1/4	2-15/16
0040619	19/64	.2969	4-3/8	3-1/16
0040620	5/16	.3125	4-1/2	3-3/16
0040621	21/64	.3281	4-5/8	3-5/16
0040622	11/32	.3438	4-3/4	3-7/16
0040623	23/64	.3594	4-7/8	3-1/2
0040624	3/8	.3750	5	3-5/8
0040625	25/64	.3906	5-1/8	3-3/4
0040626	13/32	.4062	5-1/4	3-7/8
0040627	27/64	.4219	5-3/8	3-15/16
0040628	7/16	.4375	5-1/2	4-1/16
0040629	29/64	.4531	5-5/8	4-3/16
0040630	15/32	.4688	5-3/4	4-5/16
0040631	31/64	.4844	5-7/8	4-3/8
0040632	1/2	.5000	6	4-1/2



# DRILLS, TAPS & DIES



## Posi-Grip Power Bits

- 135° self centering split point gives you faster penetration, the reduced length provides a more rigidity and break resistance.
- Special 3-flat shank design eliminates slippage and provides a positive grip in cordless, keyless and conventional power tools.
- Heavy web construction for greater breakage resistance and chip clearance.
- Ideal for drilling work hardening grades of stainless steel & other tough metals with high Rockwell hardness.
- M7 industrial steel withstands high temperatures, maintains sharpness.

Part No	Size	Flute Length	Overall Length
0040812	3/16	1-7/8	3
0040813	13/64	1-15/16	3-1/8
0040814	7/32	2	3-1/4
0040815	15/64	2-1/16	3-3/8
0040816	1/4	2	3-1/2
0040817	17/64	2-1/8	3-5/8
0040818	9/32	2-1/4	3-3/4
0040819	19/64	2-3/8	3-7/8
0040820	5/16	2-1/2	4
0040821	21/64	2-9/16	4-1/16
0040822	11/32	2-5/8	4-1/8
0040823	23/64	2-11/16	4-3/16
0040824	3/8	2-11/16	4-1/4
0040825	25/64	2-3/4	4-5/16
0040826	13/32	2-13/16	4-3/8
0040827*	27/64	2-7/8	4-7/16
0040828*	7/16	2-15/16	4-1/2
0040829*	29/64	3	4-5/8
0040830*	15/32	3-1/8	4-3/4
0040831*	31/64	3-1/4	4-7/8
0040832*	1/2	3-3/8	5



\*Reduced Shank

## Heavy Duty Metric Power Bits

- 135° Split Point for quick penetration and reduced walking
- Premium grade M-7 industrial steel for longer life and heat resistance
- Unique flute design for superior material removal
- Excellent for use in iron alloy steel stainless steel and wood

Part No	Drill Size mm	Overall Length mm	Flute Length mm
0040301	1.00	41	17
0040302	1.50	48	22
0040303	2.00	51	25
0040304	2.50	60	35
0040305	3.00	70	41
0040306	3.50	73	44
0040307	4.00	83	54
0040308	4.50	86	56
0040309	5.00	92	62
0040310	5.50	95	64
0040311	6.00	102	70
0040312	6.50	105	73
0040313	7.00	105	73
0040314	7.50	111	78
0040315	8.00	114	81
0040316	8.50	121	87
0040317	9.00	124	89
0040318	9.50	127	92
0040319	10.00	130	95
0040320	10.50	133	98
0040321	11.00	140	103
0040322	11.50	143	106
0040323	12.00	149	111
0040324	12.50	152	114
0040325	13.00	152	114



# DRILLS, TAPS & DIES



## Tri-chromalloy Drill Bits

- 135° self-centering split point, self starting eliminates need to center punch
- Heavy duty web construction allows rapid chip removal , drill more holes with less effort, prevents excessive breakage
- Special high speed alloy steel take more abuse, outlasts ordinary drill bits in stainless and alloy materials
- Tough surface treatment increases wear resistance of the drill, reduces friction, for cooler operation, and reduces torque requirements for less wear on drill motors.

Part No	Drill Size	Decimal Size	Overall Length	Flute Length
0040504	1/16	.0625	1-7/8	7/8
0040505	5/64	.0781	2	1
0040506	3/32	.0938	2-1/4	1-1/4
0040507	7/64	.1094	2-5/8	1-1/2
0040508	1/8	.1250	2-3/4	1-5/8
0040509	9/64	.1406	2-7/8	1-3/4
0040510	5/32	.1562	3-1/8	2
0040511	11/64	.1719	3-1/4	2-1/8
0040512	3/16	.1875	3-1/2	2-5/16
0040513	13/64	.2031	3-5/8	2-7/16
0040514	7/32	.2188	3-3/4	2-1/2
0040515	15/64	.2344	3-7/8	2-5/8
0040516	1/4	.2500	4	2-3/4
0040517	17/64	.2656	4-1/8	2-7/8
0040518	9/32	.2812	4-1/4	2-15/16
0040519	19/64	.2969	4-3/8	3-1/16
0040520	5/16	.3125	4-1/2	3-3/16
0040521	21/64	.3281	4-5/8	3-5/16
0040522	11/32	.3438	4-3/4	3-7/16
0040523	23/64	.3594	4-7/8	3-1/2
0040524	3/8	.3750	5	3-5/8
0040525	25/64	.3906	5-1/8	3-3/4
0040526	13/32	.4062	5-1/4	3-7/8
0040527	27/64	.4219	5-3/8	3-15/16
0040528	7/16	.4375	5-1/2	4-1/16
0040529	29/64	.4531	5-5/8	4-3/16
0040530	15/32	.4688	5-3/4	4-5/16
0040531	31/64	.4884	5-7/8	4-3/8
0040532	1/2	.5000	6	4-1/2



## Wire Gauge Drills



- 135° Split Point for quick penetration and reduced walking
- Premium grade M-7 industrial steel for longer life and heat resistance
- Unique flute design for superior material removal
- Excellent for use in iron alloy steel stainless steel and wood

Part Number	Drill Size	Decimal Equivalent	Overall Length	Flute Length	Part Number	Drill Size	Decimal Equivalent	Overall Length	Flute Length
0040701	1	.2280	3-7/8	2-5/8	0040731	31	.1200	2-3/4	1-5/8
0040702	2	.2210	3-7/8	2-5/8	0040732	32	.1160	2-3/4	1-5/8
0040703	3	.2130	3-3/4	2-1/2	0040733	33	.1130	2-5/8	1-1/2
0040704	4	.2090	3-3/4	2-1/2	0040734	34	.1110	2-5/8	1-1/2
0040705	5	.2055	3-3/4	2-1/2	0040735	35	.1100	2-5/8	1-1/2
0040706	6	.2040	3-3/4	2-1/2	0040736	36	.1065	2-1/2	1-7/16
0040707	7	.2010	3-5/8	2-7/16	0040737	37	.1040	2-1/2	1-7/16
0040708	8	.1990	3-5/8	2-7/16	0040738	38	.1015	2-1/2	1-7/16
0040709	9	.1960	3-5/8	2-7/16	0040739	39	.0995	2-3/8	1-3/8
0040710	10	.1935	3-5/8	2-7/16	0040740	40	.0980	2-3/8	1-3/8
0040711	11	.1910	3-1/2	2-5/16	0040741	41	.0960	2-3/8	1-3/8
0040712	12	.1890	3-1/2	2-5/16	0040742	42	.0935	2-1/4	1-1/4
0040713	13	.1850	3-1/2	2-5/16	0040743	43	.0890	2-1/4	1-1/4
0040714	14	.1820	3-3/8	2-3/16	0040744	44	.0860	2-1/8	1-1/8
0040715	15	.1800	3-3/8	2-3/16	0040745	45	.0820	2-1/8	1-1/8
0040716	16	.1770	3-3/8	2-3/16	0040746	46	.0810	2-1/8	1-1/8
0040717	17	.1730	3-3/8	2-3/16	0040747	47	.0785	2	1
0040718	18	.1695	3-1/4	2-1/8	0040748	48	.0760	2	1
0040719	19	.1660	3-1/4	2-1/8	0040749	49	.0730	2	1
0040720	20	.1610	3-1/4	2-1/8	0040750	50	.0700	2	1
0040721	21	.1590	3-1/4	2-1/8	0040751	51	.0670	2	1
0040722	22	.1570	3-1/8	2	0040752	52	.0635	1-7/8	7/8
0040723	23	.1540	3-1/8	2	0040753	53	.0595	1-7/8	7/8
0040724	24	.1520	3-1/8	2	0040754	54	.0550	1-7/8	7/8
0040725	25	.1495	3	1-7/8	0040755	55	.0520	1-7/8	7/8
0040726	26	.1470	3	1-7/8	0040756	56	.0465	1-3/4	3/4
0040727	27	.1440	3	1-7/8	0040757	57	.0430	1-3/4	3/4
0040728	28	.1405	2-7/8	1-3/4	0040758	58	.0420	1-5/8	11/16
0040729	29	.1360	2-7/8	1-3/4	0040759	59	.0410	1-5/8	11/16
0040730	30	.1285	2-3/4	1-5/8					

## Letter Drills

- 135° Split Point for quick penetration and reduced walking
- Premium grade M-7 industrial steel for longer life and heat resistance
- Unique flute design for superior material removal
- Excellent for use in iron alloy steel stainless steel and wood

Part No	Drill Size	Decimal Equiv	Overall Length	Flute Length
0040001	A	.234	3-7/8	2-5/8
0040002	B	.238	4	2-3/4
0040003	C	.242	4	2-3/4
0040004	D	.246	4	2-3/4
0040005	E	.250	4	2-3/4
0040006	F	.257	4-1/8	2-3/4
0040007	G	.261	4-1/8	2-3/4
0040008	H	.266	4-1/8	2-7/8
0040009	I	.272	4-1/8	2-7/8
0040010	J	.277	4-1/8	2-7/8
0040011	K	.281	4-1/4	2-7/8
0040012	L	.290	4-1/4	2-15/16
0040013	M	.295	4-3/8	2-15/16
0040014	N	.302	4-3/8	3-1/16
0040015	O	.316	4-1/2	3-1/16
0040016	P	.323	4-5/8	3-3/16
0040017	Q	.332	4-3/4	3-5/16
0040018	R	.339	4-3/4	3-7/16
0040019	S	.348	4-7/8	3-7/16
0040020	T	.358	4-7/8	3-1/2
0040021	U	.368	5	3-1/2
0040022	V	.377	5	3-5/8
0040023	W	.386	5-1/8	3-5/8
0040024	X	.397	5-1/8	3-3/4
0040025	Y	.404	5-1/4	3-3/4
0040026	Z	.413	5-1/4	3-7/8



## Aircraft Extension Extra Long Drills 12" Overall Length

- High speed steel for extra reach and deep drilling applications
- Black oxide surface treatment for greater wear resistance
- 135° split point starts cutting immediately

Part No	Size	Flute Length
0040908	1/8	1-5/8
0040909	9/64	1-3/4
0040910	5/32	2
0040911	11/64	2-1/8
0040912	3/16	2-5/16
0040913	13/64	2-7/16
0040914	7/32	2-1/2
0040915	15/64	2-5/8
0040916	1/4	2-3/4
0040917	17/64	2-7/8
0040918	9/32	2-15/16
0040919	19/64	3-1/16
0040920	5/16	3-3/16
0040921	21/64	3-5/16
0040922	11/32	3-7/16
0040923	23/64	3-1/2
0040924	3/8	3-5/8
0040925	25/64	3-3/4
0040926	13/32	3-7/8
0040927	27/64	3-15/16
0040928	7/16	4-1/16
0040929	29/64	4-3/16
0040930	15/32	4-5/16
0040931	31/64	4-3/8
0040932	1/2	4-1/2



# DRILLS, TAPS & DIES



## Double End Drills

### 135° Split Point High Speed Steel

- Engineered for drilling sheet metal up to 1/4" thick .
- High temperature black oxide surface treatment.
- Both ends fit perfectly into chuck jaws without damage.
- Extra point reduces downtime
- Stubby length reduces breakage

Part No	Drill Size	Decimal Equivalent	Overall Length
0042601	7/64	.1094	1-7/8
0042602	1/8	.1250	2
0042603	9/64	.1406	2
0042604	5/32	.1562	2-1/16
0042605	3/16	.1875	2-3/16
0042606	7/32	.2188	2-3/8
0042607	1/4	.2500	2-1/2
0042608	#11	.1910	2-1/4
0042609	#20	.1610	2-1/8
0042610	#30	.1286	2



## Stubby Length Drills

### 135° Split Point High Speed Steel

- Heavy duty construction ideal for use by heating,
- Air conditioning, auto body shops and sheet metal workers
- Stubby length increases rigidity and reduces breakage
- Surface treated for longer life

Part No	Drill Size	Overall Length
0040104	1/16	1-5/8
0040105	5/64	1-11/16
0040106	3/32	1-3/4
0040107	7/64	1-13/16
0040108	1/8	1-7/8
0040109	9/64	1-15/16
0040110	5/32	2-1/16
0040111	11/64	2-18
0040112	3/16	2-3/16
0040113	13/64	2-1/4
0040114	7/32	2-3/8
0040115	15/64	2-7/16
0040116	1/4	2-1/2



## Left Hand Drill Bits COBALT 135° Split Point

Part No	Drill Size	Spiral Flute Extractor Size	Straight Flute Extractor Size
0042705	5/64 **	#1 **	
0042707	7/64 **	#2 **	
0042708	1/8		#1
0042710	5/32 **	#3 **	
0042712	3/16		#2
0042715	15/64		#3
0042716	1/4 **	#4 **	#4
0042717	17/64 **	#5 **	#5
0042720	5/16		
0042724	3/8		
0042700	10 Pc Left hand Cobalt Drill & Extractor Set in Metal Index ** included in set		



## Kromalloy Reamer

- Specially designed to produce new holes or enlarge existing holes
- Tough alloy steel increases tool life reduces breakage
- Tool guard collar protects tool and drill after penetration eliminates accidents associated with frame drilling
- Use heavy duty 1/2 or larger drill for best results

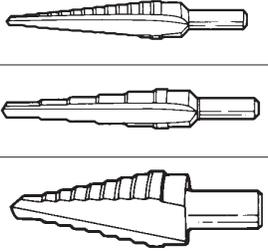
Part No	Diameter	Length	Shank	Body Length
0042800	1/2	5-7/8	1/2	4
0042801	5/8	6-1/4	1/2	4-1/2
0042802	3/4	6-3/4	1/2	5



## Unibit Step Drill

- One bit drills up to 13 hole sizes
- Requires no center punch, automatic deburring action
- For repetitive drilling of holes in steel, copper, brass, aluminum, plastic and woods.
- Industrial grade high speed molybdenum steel

Part No	# of Holes	Range	Step Thickness	Shank Size
0042501	13	1/8 to 1/2 - 1/32 increments	1/8	1/4
0042502	6	3/16 to 1/2 - 1/16 increments	3/8	1/4
0042503	9	1/4 to 3/4 - 1/16 Increments	1/8	3/8
0042504	28	3 Piece Set		



# DRILLS, TAPS & DIES



## Heavy Duty Power Bits

### 1/2 Inch Reduced Shank

- Heavy web construction for greater breakage resistance and chip clearance.
- Increases the capacity of your 1/2 inch drill up to 1-1/2 diameter
- High temperature black oxide surface finish

Part No	Size	Length
0041232	1/2	6"
0041234	17/32	6"
0041236	9/16	6"
0041237	37/64	6"
0041238	19/32	6"
0041239	39/64	6"
0041240	5/8	6"
0041242	21/32	6"
0041244	11/16	6"
0041246	23/32	6"
0041247	17/64	6"
0041248	3/4	6"
0041250	25/32	6"
0041252	13/16	6"
0041253	53/64	6"
0041254	27/32	6"
0041255	55/64	6"
0041256	7/8	6"
0041258	29/32	6"
0041262	31/32	6"
0041264	1	6"
0041268	1-1/16	6"
0041272	1-1/8	6"
0041276	1-3/16	6"
0041280	1-1/4	6"



## SDS-Plus Carbide Hammer Bits

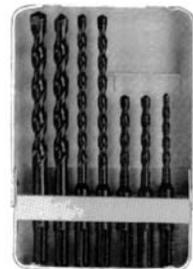
- For drilling in concrete, brick, stone and other masonry materials
- Tips of tough tungsten carbide, brazed into place, for durability and long life
- Special fluting designed to drill 15% faster than the average drill
- Undercut double fluting speeds debris evacuation to reduce heat and extend drill life
- Annealed Shafts help prevent breakage

Part Number	Diameter	Usable Length	Overall Length
0042204	1/4	4	6
0042205	5/16	4	6
0042206	3/8	4	6
0042207	7/16	4	6
0042208	1/2	4	6
0042209	9/16	4	6
0042210	5/8	6	8
0042212	3/4	6	8
0042214	7/8	6	8
0042216	1	8	10



## SDS Plus Kit

Part Number	Contains
0042202	3/16 x4, 1/4 x4, 1/4 x6, 5/16 x 6, 3/8x6, 1/2 x 6 7-Piece kit in a sturdy metal case



## Concrete Screw Anchor Drills SDS- Hex

- Special 130° angle tungsten carbide tips are totally embedded in both sides of the steel body and held rigidly in place with copper-silver brazing.
- Patented super-U double flute for fast efficient dust removal.
- Steel body is made of annealed, shot peened chrome-nickel-molybdenum steel alloy to prevent premature fatigue failures
- Designed for concrete screw anchors such as Masonite-Tapcon etc.

Part Number	Diameter	Usable Length	Overall Length
0042230	5/32	3	6
0042231	5/32	4	7
0042232	3/16	3	6
0042233	3/16	4	7



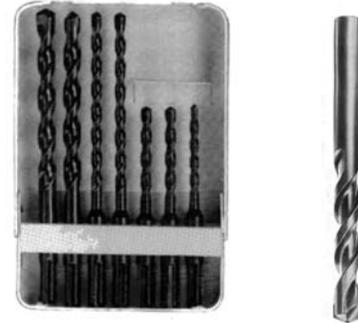
# DRILLS, TAPS & DIES



## Heavy Duty Straight Shank Hammer Drill Bits

- Special tungsten carbide tips with negative tip angle to prevent chipping, are copper-silver brazed to steel body.
- Patented super-U double flute for fast efficient dust removal.
- Steel body is made of annealed, shot peened chrome-nickel-molybdenum steel alloy to prevent premature fatigue failures

Part No	Drill Diameter	Overall Length	Shank Diameter
0042221	3/16	3-3/8	3/16
0042222	3/16	6	3/16
0042223	1/4	4	1/4
0042224	1/4	6	1/4
0042227	5/16	6	1/4
0042225	3/8	6	3/8
0042226	1/2	6	3/8
0042228	7 piece set		



## Rotary Carbide-tipped Masonry Drills

- Slow helix design for easy chip removal, drilling concrete, block, brick
- Tips of tough tungsten carbide brazed into place, black oxide surface treated

Part No	Size	Shank	Length
0042000	1/8	1/8	3
0042001	3/16	3/16	4
0042002	1/4	1/4	6
0042003	5/16	5/16	4
0042004	3/8	1/4	4
0042005	7/16	1/4	6
0042006	1/2	1/4	6



## Countersinks Titanium Coated

- Titanium Nitrate coating provides extra long life; lasts up to 6 times longer than high speed steel
- High lubricity surface permits 75% smoother cutting with less drag and heat build-up
- faster cutting with less pressure required; Surface hardness in excess of 80 Rockwell C.
- 5-flute design with 82° point smooth chamfering
- Countersink, Chamfer and debur any machinable material - steel, iron, soft metal, plastic or wood

Part Number	Diameter	Shank Size
3110008	1/2	1/4
3110010	5/8	1/4
3110012	3/4	1/4



## Black Max™ Wood Spade Bits

- Cuts 3 times faster, lasts 7 times longer than regular spade bits
- Black Max™ spade bits feature a black quench coating that increases wear resistance
- A 15-degree chisel edge design is more positively angled to dig into wood, drilling holes faster than standard spade bits
- All bits are 6" / 150 mm long and feature a 1/4" quick change hex shank with power groove

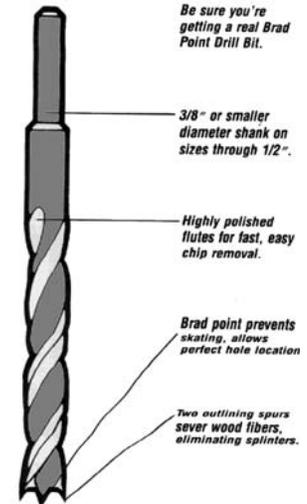
Part No	Size	Shank	Length
0042306	3/8	1/4 hex	6"
0042308	1/2	1/4 hex	6"
0042310	5/8	1/4 hex	6"
0042312	3/4	1/4 hex	6"
0042314	7/8	1/4 hex	6"
0042316	1	1/4 hex	6"
0042300	6 Pc Set 3/8 to 1"		



## Brad Point Wood Bits

- Designed for smooth, precise cuts.
- Produces a virtually flat-bottomed hole.
- For use in most portable drills, and drill presses.

Part No	Size	Flute Length	Overall Length
0042385	1/8	3-1/8"	4-3/8"
0042387	3/16	3-1/8"	4-3/8"
0042389	1/4	3-1/8"	4-3/8"
0042392	5/16	3-1/8"	4-3/8"
0042393	3/8	3-1/8"	4-3/8"
0042394	7/16	3-1/8"	4-3/8"
0042395	1/2	3-1/8"	4-3/8"
0042400	5 pc set 1/4, 5/16, 3/8, 7/16, & 1/2" in plastic case		

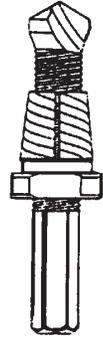


# DRILLS, TAPS & DIES



## Drill- Out Extractor

- Unique two piece design combines a drill and an extractor in one tool that removes broken bolts and studs in a fraction of the time
- Eliminates tool changes.....you always have the correct size drill and extractor on hand
- The drill body is made of precision ground, heat treated high speed steel
- The collet is produced from hot die steel
- The self centering drill point, helps cut through the broken bolt even if the break is jagged
- Requires a reversible power drill



### Fast Time-saving Operation (Always use protective eye wear when drilling)

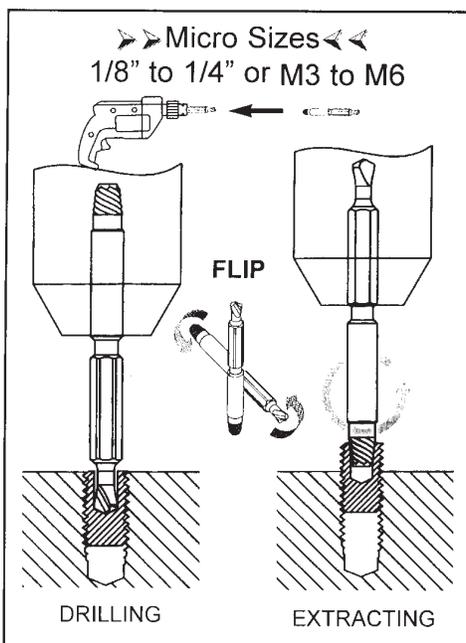
1. Place the drill-out tool into an electric drill and set for reverse operation. Move the collet up to the chuck and begin drilling to a depth of 1/2". Stop before you reach the front of the collet.

2. Move the collet down towards the tip so that 2 to 4 threads are showing. Place the tool into the newly drilled hole, bring the drill up to speed and plunge it into the hole. The collet will automatically engage and extract the broken bolt.

Part No	Description
0764000	4 Piece Kit- 1/4, 5/16, 3/8, & 1/2
0765000	7 Piece Kit #6, #8, #10, 1/4, 5/16, 3/8, & 1/2
0764004	1/4
0764005	5/16
0764006	3/8

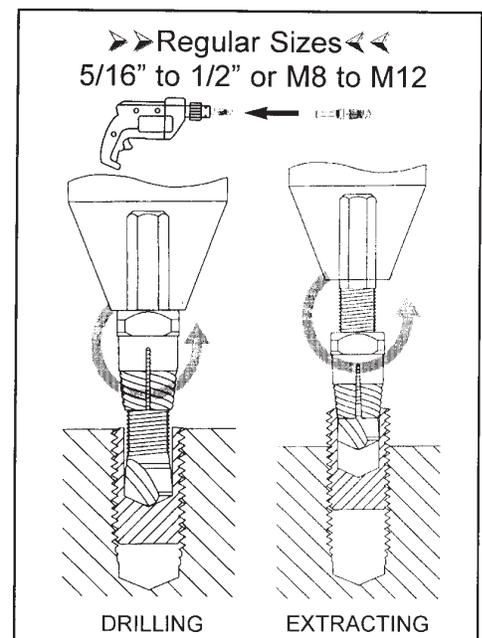


\*Will also extract Metric screws, bolts, & studs



## HOW:

- 1 Insert **DRILL-OUT®** into drill set for **REVERSE**.
- 2 Drills into broken bolt on center.
- 3 Extracts using the **POWER** of the drill.



## Straight Flute Screw Extractors

- Removes broken screws, pipes, bolts, studs, without damage to threads
- Tapered flute will not expand piece being removed
- Drill size permanently marked on shank
- Meets government spec: GGG-E-936C

Part No	Bolt Size	Extractor No	Hole Depth	Drill Size
0760101	1/4 - 5/16	1	3/8	1/8
0760102	3/8	2	1/2	3/16
0760103	7/16	3	1/2	5/16
0760104	1/2 - 9/16	4	1/2	5/16
0760105	5/8	5	5/8	3/8
0760100	5 Piece Set #1 to #5			



## Spiral Flute Screw Extractors

- Left Hand spiral taper flute
- Eliminates re-drilling and re-tapping for larger screw
- Correct drill size stamped on the extractor

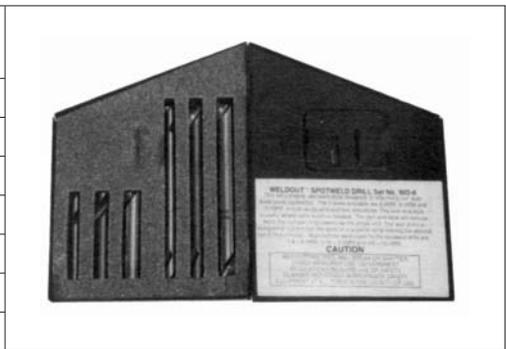
Part No	Bolt Size	Extractor No	Drill Size
0760001	3/32 to 5/32	1	5/64
0760002	5/32 to 7/32	2	7/64
0760003	7/32 to 9/32	3	5/32
0760004	9/32 to 3/8	4	1/4
0760005	3/8 to 5/8	5	17/64
0760006	5/8 to 7/8	6	13/32
0760007	7/8 to 1-1/8	7	17/32
0760008	1-1/8 to 1-3/8	8	13/16
0760009	1-3/8 up	9	1-1/16
0760016	10 Piece Set #1 to #5 with matching drill in plastic case		



## Spot Weld Drills

- Super Cobalt High Speed Steel
- Heavy Duty Spur Point, designed to cut through weld on one panel while leaving second panel free of holes

Part Number	Diameter	Approx Spot Weld Size	Number Per Pack
0042904	6.5mm	1/4	5
0042905	8.0 mm	5/16	5
0042906	10.0mm	3/8	5
0042914	6.5mm (double ended)	1/4	5
0042915	8.0mm (double ended)	5/16	5
0042916	10.0mm (double ended)	3/8	5
0042900	6 Piece Set (1 of each size - single and double ended)		



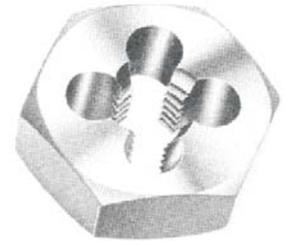


## to Machine and Hand Tapping

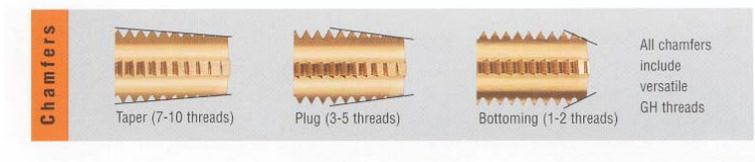
When you need a high performance tap for the most demanding applications.

### Engineered for Power Designed for efficient, close tolerance tapping

- Industrial grade molybdenum steel for longer life and greater abrasion resistance
- Precision-ground cutting surfaces for precise thread production
- Unique bronze surface treatment for easier tapping and reduced chip welding



### A Size and Style for Every Application



A comprehensive range of sizes and chamfers, all with versatile GH sizes that cover a wide variety of applications.

- Standard taps in taper, plug and bottoming chamfers
- Spiral point (gun) taps
- Taper pipe taps

### Combination Power Bit & Gun Tap Set Performance Matched with Power Bits

- Organizes 9 taps with correct PowerBit. Holds 1 of each

Part No	Contents	
0105441	18 pieces  Tap Sizes: 6/32, 8/32, 10/24, 10/32, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13,  Drill Sizes: 7, F, 5/16, U, 27/64, 36, 29, 25, 21	

## Spiral Point (Gun) Taps

- Specially designed flute angle shoots chips out ahead of tap to avoid clogging and breaking
- Recommended for use in through holes and blind holes that have room to accumulate chips
- Bronze Oxide surface treatment for easier tapping, higher speeds and greater abrasion resistance
- Precision ground cutting surfaces for precise thread production

Size	# of Flutes	Overall Length	Plug Number	Drill Number
1/4-20	2	2-1/2	0100004	0040707
5/16-18	2	2-23/32	0100005	0040006
3/8-16	3	2-15/16	0100006	0040520
7/16-14	3	3-5/32	0100007	00400021
1/2-13	3	3-3/8	0100008	0040527
1/4-28	2	2-1/2	0100040	0040703
5/16-24	2	2-23/32	0100050	0040009
3/8-24	3	2-15/16	0100060	0040017
7/16-20	3	3-5/32	0100070	0040023
1/2-20	3	3-3/8	0100080	0040529



## Spiral Point Machine Screw (Gun) Taps

### Plug Style

Size	# of Flutes	Overall Length	Plug Number	Drill Number
4/40	2	1-7/8	0103004	0040744
6/32	2	2	0103006	0040736
8/32	2	2-1/8	0103008	0040727
10/24	2	2-3/8	0103010	0040725
10/32	3	2-3/8	0103011	0040721
12/24	3	2-3/8	0103012	0040717

## Taper Pipe Taps

- Bronze oxide surface treatment for easier tapping, higher speeds and greater abrasion resistance
- Precision ground cutting surfaces for precise tread production
- For tapping pipe fittings or couplings

Size	# of Flutes	Overall Length	Plug Number	Drill No
1/8-27	4	2-1/8	0105002	0040018
1/4-19	4	2-7/16	0105004	0040528
3/8-18	4	2-9/16	0105006	0041237
1/2-14	4	3-1/8	0105008	0041245
3/4-14	5	3-1/4	0105012	0041259
1-11-1/2	5	3-3/4	0105016	0041274



# DRILLS, TAPS & DIES



## High Performance Taps

### Taper, Plug, and Bottoming Taps

- The most versatile tap for hand or machine tapping in tough applications
- Bronze oxide surface treatment for easier tapping, higher speeds and greater abrasion resistance
- Manufactured from special high speed steel for extra durability

Size	# of Flutes	Overall Length	Plug Number	Taper Number	Bottom Number	Drill Number
1/4-20	4	2-1/2	0101004	0100904	0100804	0040707
5/16-18	4	2-21/32	0101005	0100905	0100805	0040006
3/8-16	4	2-15/16	0101006	0100906	0100806	0040520
7/16-14	4	3-5/32	0101007	0100907	0100807	0040021
1/2-13	4	3-3/8	0101008	0100908	0100808	0040527
9/16-12	4	3-19/32	0101009	0100909	0100809	0040531
5/8-11	4	3-13/16	0101010	0100910	0100810	0041234
3/4-10	4	4-1/4	0101012	0100912	0100812	0041242
7/8-9	4	4-11/16	0101014	0100914	0100814	0041249
1"-8	4	5-1/8	0101016	0100916	0100816	0041256



Size	# of Flutes	Overall Length	Plug Number	Taper Number	Bottom Number	Drill Number
1/4-28	4	2-1/2	0102004	0101904	0101804	0040703
5/16-24	4	2-21/32	0102005	0101905	0101805	0040009
3/8-24	4	2-15/16	0102006	0101906	0101806	0040017
7/16-20	4	3-5/32	0102007	0101907	0101807	0040023
1/2-20	4	3-3/8	0102008	0101908	0101808	0040529
9/16-18	4	3-19/32	0102009	0101909	0101809	0041233
5/8-18	4	3-13/16	0102010	0101910	0101810	0041237
3/4-16	4	4-1/4	0102012	0101912	0101812	0041244
7/8-14	4	4-11/16	0102014	0101914	0101814	0041252
1"-12	4	5-1/8	0102016	0101916	0101816	0041259




**Taper**  
8 to 10 threads  
chamfered - for easy  
thread starting in tough  
materials



**Plug**  
3 to 5 threads  
chamfered - general use  
when tapping to bottom  
of hole is not critical.  
This is the most widely  
used type of tap.



**Bottoming**  
1-1/2 threads  
chamfered - use after  
threads have been  
started for tapping to  
bottom of hole

## High Performance Metric Hand Taps

Size	Pitch	Plug Number	Taper Number	Bottom Number	Drill Number
3	.5	0100303	0100503	0100403	0040740
4	.7	0100304	0100504	0100404	0040506
5	.8	0100305	0100505	0100405	0040511
6	1.0	0100306	0100506	0100406	0040513
7	1.0	0100307	0100507	0100407	0040515
8	1.25	0100308	0100508	0100408	0040517
8	1.0	0100309	0100509	0100409	0040517
10	1.25	0100310	0100510	0100410	0040019
10	1.5	0100311	0100511	0100411	0040522
12	1.5	0100312	0100512	0100412	0040526
12	1.75	0100313	0100513	0100413	0040527



## Combined Drill-N-Tap

- Drill and tap in a single, one-step operation.
- Hi-Molybdenum tool steel ensures longer tool life.
- Combination drill and taps are ideally suited for on-site tapping in construction, maintenance and repair, assembly, production environments.
- The self-centering helical point provides excellent drilling precision and accuracy.
- Designed for through-Hole Tapping

Tap Size	Threads per in.	Thread Length	Drill Length	Overall Length	Part Number
6	32	11/16	5/16	2	0102906
8	32	7/16	5/16	2-9/16	0102908
10	24	5/8	3/8	2-7/8	0102910
10	32	5/8	3/8	2-7/8	0102911
1/4	20	11/16	1/2	3-3/8	0102914
5/16	18	13/16	5/8	3-3/4	0102915
3/8	16	7/8	3/4	4-3/16	0102916



\* Note: Additional sizes available special order. Allow 7 days for delivery.

## Combined Drill-N-Tap Assortment

Part No	Description	Comp	Pieces	Contents
0107399	Combined Drill-n-Tap		7	8-32, 10 -24, 1/4-20, 5/16-18, 3/8 -16, 7/16 -14, 1/2 -13



# DRILLS, TAPS & DIES



## Carbon Steel Tap Sets

- Includes one each taper, plug, bottoming tap of the same size

Size	Overall Length	Part No	Use Drill No
1/4-20	2-1/2	0100104	0040707
5/16-18	2-23/32	0100105	0040006
3/8-16	2-15/16	0100106	0040620
7/16-14	3-5/32	0100107	0040021
1/2-13	3-3/8	0100108	0040627
9/16-12	3-19/32	0100109	0040631
5/8-11	3-13/16	0100110	0041234
3/4-10	4-1/4	0100112	0041242
7/8-9	4-11/16	0100114	0041249
1"-8	5-1/8	0100116	0041256
1/4-28	2-1/2	0100204	0040707
5/16-24	2-23/32	0100205	0040009
3/8-24	2-15/16	0100206	0040017
7/16-20	3-5/32	0100207	0040023
1/2-20	3-19/32	0100208	0040629
9/16-18	3-19/32	0100209	0041233
5/8-18	3-13/16	0100210	0041237
3/4-16	4-1/4	0100212	0041244
7/8-14	4-11/16	0100214	0041252
1"-12	5-1/8	0100216	0041259



**Taper**

8 to 10 threads  
Chamfered  
For easy thread starting in tough materials



**Plug**

3 to 5 threads  
Chamfered  
For general use when tapping to bottom of hole is not critical.  
This is the most widely used type of tap.

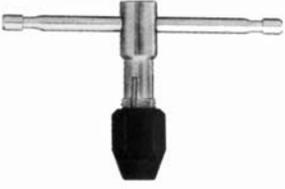


**Bottoming**

1-1/2 threads  
Chamfered  
For use after threads have been started for tapping to bottom of hole

## T- Handle Tap Wrench

Part No	Fits Tap Size
0106000	4/40 to 1/4"
0106001	1/4" to 1/2"



## Tap & Reamer Wrench

Part No	Range
0106006	4/40 to 1/2"



## Round Adjustable Split Dies

### Carbon Steel

- Heat treated to resist breakage and thread wear
- Marked with starting side and size
- Precise threads are accurately formed

Size	USS Part No	Size	SAE Part No	Die OD
1/4-20	0107004	1/4-28	0108004	1"
5/16-18	0107005	5/16-24	0108005	1"
3/8-16	0107006	3/8-24	0108006	1"
7/16-14	0107007	7/16-20	0108007	1"
1/2-13	0107008	1/2-20	0108008	1"
9/16-12	0107009	9/16-18	0108009	1-1/2"
5/8-11	0107010	5/8-18	0108010	1-1/2"
3/4-10	0107012	3/4-16	0108012	1-1/2"
7/8-9	0107014	7/8-14	0108014	1-1/2"
1-8	0107016	1-12	0108016	1-1/2"



## Hex Rethreading Dies

### Carbon Steel

- Solid hexagon dies are designed to chase damaged threads, nicks and burrs without undercutting good threads

Size	USS Part No	Size	SAE Part No
1/4-20	0101204	1/4-28	0101304
5/16-18	0101205	5/16-24	0101305
3/8-16	0101206	3/8-24	0101306
7/16-14	0101207	7/16-20	0101307
1/2-13	0101208	1/2-20	0101308
9/16-12	0101209	9/16-18	0101309
5/8-11	0101210	5/8-18	0101310
3/4-10	0101212	3/4-16	0101312
7/8-9	0101214	7/8-14	0101314
1-8	0101216	1-12	0101316



# DRILLS, TAPS & DIES



## Metric Hex Dies

Carbon Steel

Part Number	Size	Pitch
0100603	3MM	.5
0100604	4MM	.7
0100605	5MM	.8
0100606	6MM	1.0
0100607	7MM	1.0
0100608	8MM	1.25
0100609	8MM	1.0
0100610	10MM	1.25
0100611	10MM	1.50
0100612	12MM	1.50
0100613	12MM	1.75



1" O.D.

## Die Stocks

For 1" o.d. adjustable round split dies

Part Number	Type
0106004	Hex
0106003	Round



## Tap & Die Sets

Fractional Size Set - 12 pieces

Part Number	Includes
0105442	Set Contains [1] Each : Gun Plug Taps    1" O.D. Dies 1/4-20            1/4-20 5/16-18          5/16-18 3/8-16            3/8-16 7/16-14          7/16-14 1/2-13            1/2-13 T-Handle Tap Wrench Die Stock 1" O.D.



## Tap & Drill Organizer

From 6/32 to 1/2 both USS and SAE thread and corresponding drill size.

Part Number	Includes 1 Each Of:	
	Tap	Drill
0105443	6-32	#36
	8-32	#29
	10-24	#25
	10-32	#21
	1/4-20	# 7
	1/4-28	# 3
	5/16-18	F
	5/16-24	I
	3/8-16	5/16
	3/8-24	Q
	7/16-14	U
	7/16-20	25/64
	1/2-13	27/64
	1/2-20	29/64
0770042	Organizer Only	

Holds minimum of 1 dozen of each size



## Tap/Drill Index

- Organizes 9 taps with the correct drill bit holds 1 each of sizes:

USS Index		SAE Index	
Tap	Drill	Tap	Drill
6-32	#36	*6-40	#33
8-32	#29	*8-36	#29
10-24	#25	10-24	#25
10-32	#21	10-32	#21
1/4-20	# 7	1/4-28	# 3
5/16-18	F	5/16-24	I
3/8-16	5/16	3/8-24	Q
7/16-14	U	7/16-20	25/64
1/2-13	27/64	1/2-20	29/64
0770041	USS Index Only		
0770043	SAE Index Only		
0105441	USS Index As Listed Above		
0105440	SAE Index As Listed Above		



\* note: not included in index

# DRILLS, TAPS & DIES



## Tap & Die Sets

Fractional & Machine Screw Sizes  
39 Piece set Carbon Steel

Part Number	Includes 1 Each Of:	
	Plug Tap	1" O.D. Die
0105445	4-40	4-40
	6-32	6-32
	8-32	8-32
	10-24	10-24
	10-32	10-32
	12-24	12-24
	1/8-27	1/8-27
	1/4-20	1/4-20
	1/4-28	1/4-28
	5/16-18	5/16-18
	5/16-24	5/16-24
	3/8-16	3/8-16
	3/8-24	3/8-24
	7/16-14	7/16-14
	7/16-20	7/16-20
	1/2-13	1/2-13
	1/2-20	1/2-20



**T-Handle Tap Wrench  
4/40 To 1/4  
Long Handle  
Adjustable Tap Wrench  
Die Stock 1" O.D.  
Screw Driver  
Pitch Gauge**

## Tap & Die Sets

Metric sizes - 3mm to 12mm  
40 pieces Carbon Steel

Part Number	Plug Taps	Pitch	1" O.D. Dies	Pitch
0105446	3MM	.6	3MM	.6
	4MM	.7	4MM	.7
	4MM	.75	4MM	.75
	5MM	.8	5MM	.8
	5MM	.9	5MM	.9
	6MM	1.0	6MM	1.0
	7MM	1.0	7MM	1.0
	8MM	1.0	8MM	1.0
	8MM	1.25	8MM	1.25
	9MM	1.0	9MM	1.0
	9MM	1.25	9MM	1.25
	10MM	1.25	10MM	1.25
	10MM	1.5	10MM	1.5
	11MM	1.5	11MM	1.5
	12MM	1.5	12MM	1.5
	12MM	1.75	12MM	1.75



**T-Handle Tap Wrench  
3mm To 12mm  
Long Handle  
Adjustable Tap Wrench  
Die Stock 1" O.D.  
Screw Driver  
Pitch Gauge**

## Flat Bastard

- Used for rapid removal of metal
- Double cut on both sides, single cut on both edges
- Edges and surfaces taper toward the point for easier access to angles and corners

Part No	Length	Handle No
0690051	6	0690106
0690052	8	0690109
0690053	10	0690113



## Half Round Bastard

- Used primarily for concave and convex surfaces, removing weld flash, rounding out holes, removing burrs
- Double cut file with edges and surfaces tapered toward the point

Part No	Length	Handle No
0690060	10	0690109
0690061	12	0690113
0690062	14	0690113



## Mill Bastard -Two flat edges

- General purpose file used for sharpening tools useful where smoothness is important,
- Single cut surfaces are parallel both cut edges are tapered toward the point

Part No	Length	Handle No
0690001	8	0690106
0690002	10	0690109
0690003	12	0690109



## Multi-Metal Flat

- Use for rapid removal of metals, special chipbreaker teeth reduce clogging
- Surfaces single cut, one edge single cut surfaces taper toward the point edges parallel

Part No	Length	Handle No
0690020	8	0690109
0690021	10	0690109
0690022	12	0690113



## Round Bastard

- Designed to enlarge circular holes or founded grooves
- Ideal for filing a radius on an angle weld or for mouldings
- Surfaces taper toward the point, adaptable to various size holes

Part No	Diameter	Length	Handle No
0690070	3/16	8	0690110
0690071	7/32	10	0690110
0690072	5/16	12	0690110



## Three Square

- Used to clean out square corners, and file internal angle
- Double cut with 60 degree angles between sides
- Triangular in cross section, tapers toward point

Part No	Length	Handle No
0690011	8	0690110



## Taper Saw File

- Used for sharpening saws with teeth at 60 degree angles
- Primarily circular saws, narrow band cross cut and buck saws
- Triangular in shape taper to point
- Edges cut for filing gullets between saw teeth

Part No	Type	Length	Handle No
0690030	Slim	8	0690110
0690086	X-Slim	8	0690104



## Round Chain Saw Files

- Specially designed to allow for sharpening roundhooded chain saw teeth
- Single cut for fast removal of material

Part No	Dia	Length	Handle No
0690083	3/16	8	0690110
0690084	7/32	8	0690110
0690085	1/4	8	0690110



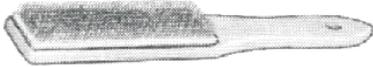
## Ergonomic File Handles

Handle Part No	Use on File No.
0690104	069010, 0690086
0690105	0690050
0690106	0690001, 0690040, 0690051
0690109	0690002, 0690003, 0690020, 0690021, 0690041, 0690052, 0690060
0690110	0690011, 0690012, 0690030, 0690031, 0690070, 0690072
0690113	0690004, 0690022, 0690042, 0690043, 0690053, 0690054, 0690061, 0690062



## File Cleaner

Part Number	Description
0690089	<ul style="list-style-type: none"> <li>• One side bristles the other is a card of wire</li> <li>• Easy to use with convenient handle</li> </ul>



## Roll up File Assortment

Part Number	Description
0691478	<ul style="list-style-type: none"> <li>• Set of 5 8" files with handles. Supplied in a plastic roll-up wallet with tie.</li> <li>• Contains one file each of: hand bastard, hand second square bastard, half round bastard &amp; round bastard</li> </ul>



## RotoBrute CT3 Carbide Tipped Hole Cutters

The solution for drilling holes in sheet metal up to 1/8" thick.

- Deliver "more holes per charge" in battery-powered drills
- Cut thin materials, including stainless steel, quickly and smoothly
- 1/4" Hex Shank for use in QCD (quick-change driver)
- Thin wall construction and three carbide tips for fast cutting and reduced drag
- Ejects the slug saving time
- Up to 150 holes with each cutter in stainless steel

Part No	Description	
3730201	CT3-SET-1 includes 5/8, 3/4, 7/8, 1 and QCD in metal case	
3730202	ELEC-KIT includes MSD-HEX-13 (Titanium Nitride Multi Step Bit 1/4-1-1/8-Inch with 1/4-Inch Hex Shank) and CT3 cutter sizes 7/8, 1-1/8, 1-3/8 and QCD in metal case	
3730203	QCD Quick-Change Driver for 1/4 and 3/8 hex shank tools	
3730204	CT3-PILOT	
3730205	CT3-SCREW	
3730206	CT3-SPRING	
3730207	CT3-5/8	
3730208	CT3-11/16	
3730209	CT3-3/4	
3730210	CT3-13/16	
3730211	CT3-7/8	
3730212	CT3-15/16	
3730213	CT3-1	
3730214	CT3-1-1/16	
3730215	CT3-1-1/8	
3730216	CT3-1-3/16	
3730217	CT3-1-1/4	
3730218	CT3-1-5/16	
3730219	CT3-1-3/8	

## RotoBrute CT-5 Carbide Tipped hole Cutters

The cutting tool for ferrous and non-ferrous materials up to 3/16 thick

- New design for longer life and faster cutting
- Perfect portable tool for the professional electrician, plumber, mechanic and contractor
- For cutting steel plate, iron, aluminum, copper, cast iron, stainless steel, fiberglass and plastics
- 9/16 to 2-5/8 have 3/8" shank, 2-3/4 to 5" have 1/2" shank
- 60% Faster Cutting, Up to 100 holes

Part No	Description	
3730301	CT5-SET-1 7/8, 1-1/8, 1-3/8, 1-3/4 and 2" in metal case	
3730302	CT5P-CONDUIT-1 7 Piece Electrical Conduit Set: 7/8, 1-1/8, 1-3/8, 1-3/4 and 2" in plastic case	
3730303	CT5-PILOT	
3730304	CT5-SCREW	
3730305	CT5-SPRING	
3730306	CT5-PILOT-TCT for abrasive materials	
3730307	CT5-9/16	
3730308	CT5-5/8	
3730309	CT5-11/16	
3730310	CT5-3/4	
3730311	CT5-13/16	
3730312	CT5-7/8	
3730313	CT5-15/16	
3730314	CT5-1	
3730315	CT5-1-1/16	
3730316	CT5-1-1/8	
3730317	CT5-1-3/16	
3730318	CT5-1-1/4	
3730319	CT5-1-3/8	
3730320	CT5-1-1/2	
3730321	CT5-1-3/4	
3730322	CT5-2	
3730323	CT5-2-1/4	
3730324	CT5-2-1/2	
3430325	CT5-2-3/4	
3430326	CT5-3	
Other fractional sizes are available from 1-7/32 to 5" Call for Pricing and Availability		

## RotoBrute CT 7 Carbide Tipped Hole Cutters

The best cutting tool for drilling holes up to 1" thick ferrous and non-ferrous materials.

- Technical Details
- Special tungsten carbide teeth with one piece construction
- Removeable ejector spring, replaceable pilot pin and comes with safety collar stop with a maximum cutting depth of 3/16"
- Maximum cutting depth of 1"
- Cuts thick steel plate and pipe, ductile, iron, aluminum, copper, cast iron, stainless steel, FRP(fiberglass) hardboard and plastics (PVC & Conduit)
- Triple Edge Cutting System: RotoBrute hole saws feature two sets of three cutting blades each with different geometries. This unique system balances the cutting forces enabling rapid, smooth drilling with better control.

Part Number	Size	Shank Dia.
3730040	5/8	10mm
3730044	11/16	10mm
3730048	3/4	10mm
3730052	13/16	10mm
3730056	7/8	10mm
3730060	15/16	10mm
3730064	1	10mm
3730068	1-1/16	10mm
3730072	1-1/8	10mm
3730076	1-3/16	10mm
3730080	1-1/4	10mm
3730084	1-5/16	10mm
3730088	1-3/8	10mm
3730092	1-7/16	10mm
3730096	1-1/2	10mm
3730100	1-9/16	10mm
3730104	1-5/8	10mm
3730108	1-11/16	10mm
3730112	1-3/4	10mm
3730116	1-13/16	10 & 13mm
3730120	1-7/8	10 & 13mm
3730124	1-15/16	10 & 13mm
3730128	2	10 & 13mm
3730001	5/8, 3/4, 7/8, 1" Set in Steel Box	  
3730002	11/16, 13/16, 1-3/8, 1-3/4 Set in Steel Box	
3730003	7/8, 1-1/8, 1-3/8, 1-3/4, 2" Set in Steel Box	
3730004	Replacement Pilot Drill	
3730005	Replacement Set Screw	
3730006	Replacement Spring	

## RotoBrute CT 9 Carbide Tipped Hole Cutters for up to 2" Depth

For drilling thick materials available via Special Order ask your Sales Representative for more details.

## Bute-Lube Cutting Wax

- Multi Purpose Wax, Safe, Effective & Easy to Use.
- **Brute-Lube Wax** is specially formulated to extend tool performance, reduce chip welding and to cling to your cutting tools for a continuous shield against friction and heat, reducing tool costs and workpiece scrap. **Brute-Lube Wax** provides a precision finish with closer tolerances on finished work. It is especially effective on stainless steel, aluminum and exotic alloys. Highly recommended for use with drills, taps, CT 3, CT 5, CT 7 and CT 9 Carbide Cutters, Houghen Cutters and hole saws.



Part Number	Description
5140023	2 oz jar

## Zero Flute Countersinks

- High speed 82° pilotless zero flute tool offers superior quality, unique design and outstanding performance, for excellent workpiece finishes.
- Free cutting for ease of use.
- single cutting edge for fast stock removal
- chatterproof for a micro smooth finish
- Easily resharpened with a small mounted point for extra long life
- Designed for use in a wide variety of materials, including metal, plastics and wood.



Part Number	Screw Size	Shank Diameter	Overall Length	Body Diameter
3100004	4, 5	1/4	1-1/2	1-17/16
3100006	6	1/4	1-1/2	19/64
3100008	8	1/4	1-5/8	11/32
3100010	10	1/4	1-5/8	25/64
3100014	1/4	1/4	1-7/8	9/16
3100100	5 PC ZERO FLUTE COUNTERSINK SET			

## Reciprocating Sawblades

**Quick, Accurate and Safe Cutting**

**Through Virtually Any Material**

Foster offers a range of reciprocating saw blades that are up to every cutting task.

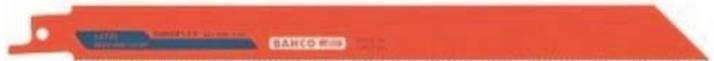
## Bi-Metal Reciprocating Blades

*Precision ground teeth give you unbeatable cutting power, along with greater control, speed and precision*

Foster bi-metal blades are the perfect combination of strength and flexibility. Blades feature powerful teeth of hardened, hi speed steel which are electron beam welded onto a spring steel backing.

Part No	Blade Length	Blade Thickness	Teeth per inch
0730726	4"	.050	6
0730714	4"	.035	14
0730718	4"	.035	18
0730612	6"	.035	8/12
0730610	6"	.035	10
0730614	6"	.035	14
0730618	6"	.035	18
0730624	6"	.035	24
0730810	9"	.050	8/12
0730814	9"	.035	14
0730918	9"	.035	18
0731215	12"	.035	14
0731218	12"	.035	18

For straight and quick cutting of metal, plastic, laminates and wood with nails.



## BOSCH Demolition Reciprocating Blades



- Bi-metal .05" extra thick kerf
- Taper back for easier starts
- Variable gullet depth 5 degree tilt angle for faster cuts
- Color-coded dark blue
- Quantity per package: 5/Pk

Part Number	Blade Length	Blade Thickness	Teeth per inch
0730601	6"	.062	8/10
0730602	9"	.062	8/10
0730604	ASSORTMENT PACK 10 Blades ( 5 of each )		

## Car Body Saw Reciprocating Blades

- Car-body saw blades for pneumatic or electric reciprocating body shop saws.
- Mainly used in automotive bodyshops.



Part Number	Blade Length	Teeth Per Inch	Material Thickness	
0730607		3.625	18	Over 0.20
0730608		3.625	24	0.08 to 0.20
0730609		3.625	32	Up to 0.08

## Bi-Metal Demolition And Heavy Duty Reciprocating Blades

Extra heavy duty DSL blades for building and demolition work and UST blades for cutting of metal tubing and other demanding work.

### Bi-Metal Blade 3840 SL



For all-round cutting of metal, plastic, laminates and wood with nails.



Part No	Blade Length	Blade Thickness	Teeth per inch
0730606	6"	.050	5/8
0730916	9"	.050	6
0730707	12"	.050	6

### Bi-Metal Blade 3840 DSL



Extra heavy-duty bi-metal blades with coarse teeth for building and demolition work. Blade thickness is increased 0.62" (1.6mm) for greater strength; makes this blade ideal for cutting any building material, even heavy wood with large-dimension nails



5-PACK

Part No	Blade Length	Blade Thickness	Teeth per inch
0730804	6"	.062	5/8
0730805	9"	.062	5/8
0730806	12"	.062	5/8

### Bi-Metal Blade 3840 SC



For contour sawing of metal, plastic, laminates and wood with nails.



Part No	Blade Length	Blade Thickness	Teeth per inch
0730706	6"	.050	4/6
0730720	4"	.035	10
0730728	4"	.035	18

## Wood Cutting Reciprocating Blades

*Blades with special teeth for general wood cutting. The teeth allow faster cross cutting and ripping compared to traditional blades. Blade coating minimizes friction to further increase cutting speed and ease.*



Blade with special teeth for all-round wood cutting.

### Wood Cutting Blade 3842

Part No	Blade Length	Blade Thickness	Teeth per inch
0730816	6"	.04	7
0730817	9"	.04	7
0730818	12"	.04	7



Blade with carbide tipped teeth for cutting bricks, porous concrete, fiberglass, plastic laminates, cement board, plywood, cast aluminum, rubber and hardwoods

### Carbide Tipped Blade 3846

Part No	Blade Length	Blade Thickness	Teeth per inch
0730730	6"	.035	6
0730731	9"	.035	6



Blade with carbide grit cutting edge, designed for precision cutting of extremely hard materials; glass, glazed tiles, ceramics, fiberglass, cast iron, clay pipe, stone, bricks, plaster and marble.

### Carbide Grit Blade 3846

Part No	Blade Length	Blade Thickness
0730504	4"	.035

# SAWS & BLADES



## Bi-metal Hacksaw Blades

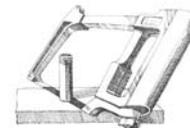
- High speed steel electron-beam welded cutting edge
- Tough alloy spring steel back
- Cutting edge stays sharper longer
- Normal twisting and impact will not shatter blade

Part Number	Length	Teeth per inch
0730159	12"	18
0730160	12"	24
0730161	12"	32



## High Tension Hacksaw Frame

- Tough rectangular tube stores 9 extra blades
- Die cast aluminum handle and end piece
- Blade can be locked in at 55° angle for use as a jab saw
- Fits easily into most tool boxes less than 16" long



Blade can be set at a 55° angle for flush cuts

Part Number
0730156



## Heavy Duty Hacksaw Frame

- Ergonomically designed with very high blade tension for straight, accurate and exact kerfs
- Centered blade for correct balance and spring tensioned blade loading mechanism for quick blade changes
- Alternative 55° blade mounting for flush cutting

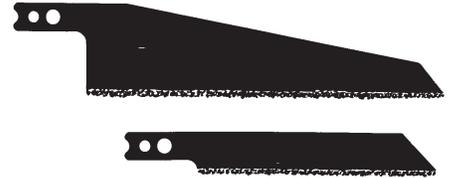
Part Number
0730153



## Grit Edge Saw Blades

- No teeth to dull or break, eliminates binding and snagging
- Tough alloy steel won't snap under stress
- Tungsten carbide outlives ordinary blades
- Cuts on both up and down stroke for 50% tighter radius cuts
- Sanding effect reduces finishing operations

Part No	Type	Shank	Length	Grit
0730501	Saber	1/4 Universal	2-7/8	Fine
0730502	Saber	1/4 Universal	2-7/8	Medium
0730503	Saber	1/4 Universal	2-7/8	Coarse
0730504	Reciprocating	1/2 Universal	4 IN	Coarse
0730505	Reciprocating	1/2 Universal	6 IN	Coarse



## Grit Edge Hacksaw Blade

- Tungsten carbide particles bonded to heat treated blade
- Cuts wire cable, mufflers, chain, masonry, glass,
- Ceramic, stainless steel and hydraulic hose
- 12" blade fits any standard hacksaw frame

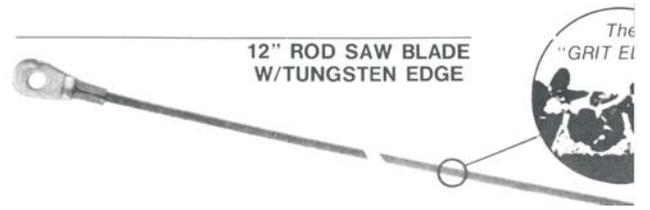
Part Number
0732000



## Grit Edge Rod Saw

- Unique alloy steel wire coated with carbide grit
- Cuts hardened tool steel, glass, and ceramic tile
- Works in any direction
- Fits standard 12" hacksaw frame

Part Number
0732001



# SAWS & BLADES



## Sandvik Bi-metal Jig Saw Blades

- High speed molybdenum steel teeth electron beam-welded for extreme hardness along the tooth edge.
- Flexible shatter-proof body; Special heat treating allows saws to withstand hard use without shattering or separation of the cutting edge.

Part No	Size	TPI	Application	
0730506	3-5/8"	6	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 3/4 - 2" Thick	
0730508	3-5/8"	8	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 3/4" - 2" Thick	
0730510	3"	10	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 3/4 - 2" Thick	
0730514	3"	14	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 3/8-3/4" Thick	
0730518	3"	18	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 1/8-3/8" Thick	
0730524	3"	24	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 0-1/8" Thick	
0730525	3"	18	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 1/8-3/8" Thick	
0730526	4"	10	All purpose for Ferrous And Non-ferrous Metals Plastics, Laminates, Wood, Gypsum, 3/4-2" Thick	

## Holesaws Designed For Professional Use

Foster holesaws set a new standard in precision, quality, durability and versatility. So no matter what you're cutting through, we have the holesaws and arbors to tackle the job, time after time.

Every aspect of a Foster holesaw is engineered to improve a worker's productivity and craftsmanship from the design of the cutting edges to the technologies used to produce the holesaws. Foster holesaws fit all standard portable drills and drill presses.

### Bi-Metal Hole Saws

- Create clean, accurate holes in most machinable materials.
- High speed cutting edge is electron beam welded to tough alloy back
- Knockout holes allow easy core removal
- Diameters from 9/16" to 6"
- Cutting depth for all diameters is 1-1/2"



## Bi-Metal Holesaws

A bi-metal blade that combines a flexible, shatter resistant spring steel back with high speed steel cutting edge that provides faster, more durable cutting power.

With the latest generation of bi-metal holesaws, we take the technology even further. The cutting edge (with 4 to 6 teeth per inch) is electron beam-welded to a tough alloy back, and then the teeth are precision ground to further increase cutting efficiency. The result is a hole saw that can cut clean, accurate holes in virtually any machinable material. Knockout holes allow easy core removal.



### Bi-Metal Holesaw 3830

Part Number	Diameter
0730412	3/4
0730414	7/8
0730416	1
0730418	1-1/8
0730420	1-1/4
0730422	1-3/8
0730424	1-1/2
0730428	1-3/4
0730432	2
0730434	2-1/8
0730436	2-1/4
0730440	2-1/2
0730448	3

### Arbors

Part Number	Shank Diameter	Chuck Size	Fits Hole Saw
0730404	1/4 round	1/4 to 3/8	3/4" to 1-1/2"
0730407	7/16 hex	1/2	1-1/2" to 6"

### Pilot Drills

Part Number	Size	Fits Arbor
0730401	1/4	7/16 Hex
0730402	1/4	1/4 Round

## Hole Saw Kits

### Maintenance Hole Saw Kit

Part Number	Includes	
0730451	One each 3/4, 7/8, 1-1/8, 1-3/8, 1-1/2, 1-3/4, 2, 2-1/4, 2-1/2 hole saws. One 1/4 round arbor Two 7/16 hex arbors, One 12" extension	

### Plumber's Hole Saw Kit

Part Number	Includes	
0730452	One each 3/4, 7/8, 1-1/8, 1-1/2, 1-3/4, 2-1/4 hole saws. One 1/4 round arbor One 7/16 hex pin drive arbor, One 1/4 pilot drill One 12" extension.	

### Electrician's Hole Saw Kit

Part Number	Includes	
0730453	One each 7/8, 1-1/8, 1-3/8, 1-3/4, 2, 2-1/2 hole saws. One 1/4 round arbor One 7/16 hex arbor One 7/16 hex pin drive arbor One 1/4 pilot drill, one 12" extension	

### Carbide Tipped Hole Saw Kit

Part Number	Includes	
0730454	One each 3/4, 7/8, 1-1/8, 1-3/8, 1-1/2, 1-3/4, 2, 2-1/4, 2-1/2 hole saws. One 1/4 round arbor Two arbors Pilot Drills	

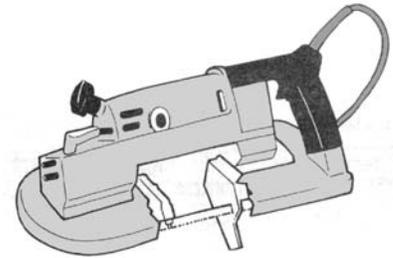
# SAWS & BLADES



## Portable Band Saw Blades

- High speed steel cutting edge electron-beam welded to an alloy steel back
- Ideal combination of full tooth hardness and back flexibility for longer blade life

Part No	Length	Material	TPI	Style	Width	Thickness
0730901	3'8-7/8"	Bi-metal	10	Raker	1/2"	.020
0730902	3'8-7/8"	Bi-metal	14	Raker	1/2"	.020
0730903	3'8-7/8"	Bi-metal	18	Raker	1/2"	.020
0730904	3'8-7/8"	Bi-metal	24	Raker	1/2"	.020
0730905	4'5-3/4"	Bi-metal	14	Raker	1/2"	.020
0730906	4'5-3/4"	Bi-metal	18	Raker	1/2"	.020



## Power Hacksaw Blades - Bimetal

- Fully hardened high speed teeth
- Electron beam welded to high carbon alloy back
- Safety shatter resistant



Part No	Length	Material	TPI	Width	Thickness
0731210	12"	Bi-metal	10	1"	.050
0731214	12"	Bi-metal	14	1"	.050
0731414	14"	Bi-metal	14	1"	.050
0731410	14"	Bi-metal	10	1-1/4"	.062
0731406	14"	Bi-metal	6	1-1/4"	.062



## Titanium Circular Saw Blades

- Specifically designed for Portable Electric Circular Saws.
- Thin kerf design provides minimal weight and blade resistance
- Titanium carbide teeth that provide exceptional hardness and edge retention
- J-shaped expansion slots control heat around the perimeter while reducing noise
- Up To 3 Times Sharper Than Conventional Carbide Teeth
- Clear anti-friction coating minimizes binding and pitch buildup
- Application: Fast rip / crosscut
- Max RPM 7900

Part No	Grind	Diameter	Bore	TPI	Kerf	Hook Angle	
0730218	ATB	7-1/4"	5/8 Rd	18	.081	20°	
0730220	ATB	7-1/4"	5/8 Rd	24	.081	20°	

## Titanium Miter Saw Blades

- Specifically designed for Miter, Compound Miter, Sliding Compound Miter and Radial Arm Saws.
- 'Dyanite' Carbide teeth that are constructed of a unique blend of tungsten carbide and boron to ensure the teeth hold a sharp edge that lasts five times longer than standard carbide.
- A fully hardened blade adds stability and eliminates distortion and bending.
- Designed for cutting nonferrous metals such as aluminum, copper, brass and lead.
- May also be used for general purpose crosscutting and trimming in all hard woods, double-faced laminates, plastics and veneers.
- Anti-friction coating significantly reduces friction and heat build-up during cutting
- Application: Crosscut
- Max RPM 4700

Part No	Grind	Diameter	Bore	TPI	Kerf	Hook Angle	
0730240	TRI	10"	5/8 Rd	60	.100	12°	

## Titanium Table Saw Blades

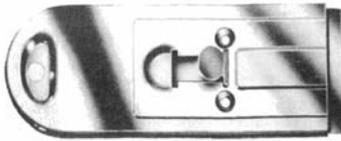
- Thin kerf design provides minimal weight and blade resistance
- Titanium carbide teeth that provide exceptional hardness and edge retention
- J-shaped expansion slots control heat around the perimeter while reducing noise
- Clear anti-friction coating minimizes binding and pitch buildup
- Application: Rip / crosscut
- Max RPM 6000

Part No	Grind	Diameter	Bore	TPI	Kerf	Hook Angle	
0730234	ATB	10"	5/8 Rd	40	.098	13°	

# SAWS & BLADES

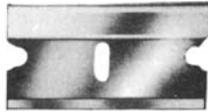


## Razor Blade Scraper

Part No	
0737001	

## Single Edge Razors

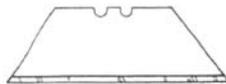
- 100 Blade Box

Part No	
0737000	

## Safety Lock Utility Knife

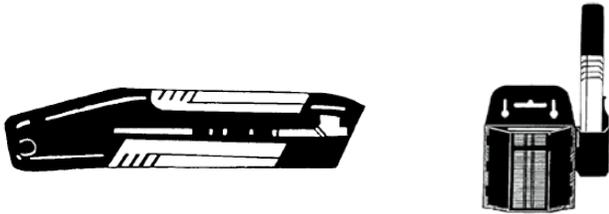
Part No	
0737002	

## Utility Knife Blades

Part No	
0737003	

## Quick Load Utility Knife

- Patented magnetic blade slide engages a single blade from a stack in the handle. New blade can be loaded and locked in less than 3 seconds.... No need to search for a screwdriver to unscrew the handle ever again!!
- The all metal knife is held together by pins and a unique body sleeve, which pulls off easily to reload the chamber or break down the knife for cleaning. No springs or screw to worry about.
- Blade chamber stores up to 10 USB-HY blades. Blade can be fully retracted and locked.
- Can be front loaded by extracting blade from the knife front, reversing it to its unused point and reinserting.

Part Number	Description	
0737004	All metal Quick Load Knife with 3 blades	
0737005	100 USB-HY Blades in hanging dispenser	

## Safety Razor Folding Utility Knife

- Folds to Pocket Size
- Quick Easy Blade Change
- Comes with 6 Blades
- Extra Blades in gaurd dispenser
- PART NUMBER 0737007



## Shop Wipes

- Low lint and solvent resistant
- Soft cloth-like feel
- Wipes dry
- For a wide variety of applications including; production and maintenance, fleet maintenance, heavy manufacturing, machine shops, chemicals, oil and gas, automotive and more.



Part No	Size
1490003	BLU CREPE 600/CS
1490004	BLU WIPE 150/BOX
1490005	BLU CREPE 240/CS
1490006	ROLL WHITE 750FT
1490007	750FT DISPENSER



## Pro-Towel

Strong, high performance reusable cloth-like towels

- Heavy-duty for the most demanding tasks
  - Top of the line rag and shop towel replacement
  - Highly absorbent and wipes surfaces dry
  - Low-linting
  - Solvent resistant
- 1490009 12" x 17", 160 towels  
Two-Pak double dispenser



## Power Wipes

- Premoistened citrus cleaner waterless dual textured towels
- Industrial strength
- Cuts through tar, grease, wax, ink, lubricants and adhesives
- Safe for skin
- Ideal for maintenance, plumbing, transportation, printing, manufacturing, construction and industrial applications.

Part No	Size
8140997	(70) 9 x 12 towels per canister 6 canisters per case
8140998	(70) 9 x 12 towels per canister



## Absorbent Pads - Oil Only

Part Number	Description	
8170546	<ul style="list-style-type: none"> <li>• Double weight 17" x 19", 100/bale</li> <li>• Soaks up hydraulic oil, diesel fuel or any petroleum-based fluid</li> <li>• Can be used indoors or out because it won't absorb water</li> <li>• Sonic bonds provide added strength unlike the competitions unbonded product</li> </ul>	

## Skimming Socks - Oil Only

Part Number	Description	
8170536	<ul style="list-style-type: none"> <li>• Applications include ditches, streams, retention ponds and waterways</li> <li>• Will not absorb water</li> <li>• 100% polypropylene; will not deteriorate</li> <li>• Metal clips allow fastening together for multiple sock applications</li> <li>• Convenient loops on each end allow retrieval ropes to be attached</li> </ul>	

## Skimming Pillows - Oil Only

Part Number	Description	
8170526	<ul style="list-style-type: none"> <li>• Used to soak up oil from sumps, small ditches, skim tramp oil from coolant tanks.</li> <li>• Flat style; 17" x 17"</li> </ul>	

## Emergency Spill Kit

Part Number	Description	
8380500	Emergency Spill Kit	

## Industrial First Aid Kit

- OSHA approved kit in deluxe wall mountable white metal cabinet
- Kit measures 10-1/2 x 7-1/8 x 2"

Product Number	50 Plastic Strips
5140002	2 Gauze Bandages 1" x 10 yds
	1 Gauze Bandage 2" x 10 yds.
	1 Gauze Bandage 3" x 6 yds.
	1 Gauze Bandage 2" x 6 yds
	10 Gauze pads 2" x 2"
	1 Adhesive Tape 1/2" x 2-1/2 yds
	2 Adhesive Tapes 1" x 2-1/2 yds
	6 Gauze pads 3" x 3"
	2 Ammonia Inhalants
	4 Antiseptic Towelettes
	1 Tweezer
	1 Scissors
	Bayer Aspirin
	First Aid Cream
	1 First Aid Booklet
	1 Absorbent Cotton 1 oz.
1 Absorbent Cotton 1/4 oz	



## Emergency Clean-up Personal Protection Kit

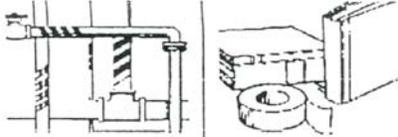
- Provides sanitary clean-up of potentially infectious blood and body fluid spills.
- SAFE - Reduces the Risk of HBV and HIV Infection.
- QUICK - 100:1 Pick Up Ratio - Instantly Gels and Contains Spills for Fast and Easy Disposal.
- NON-BLEACHING - Will Not Affect Floor Finishes or Stain Carpeting.
- CONVENIENT - All Inclusive for Pickup, Disinfection, Deodorization and Disposal.

Part Number	Description
8157353	A Complete Clean-up And Deodorant Kit Which Complies With OSHA's Standard For Occupational Exposure To Blood borne Pathogens



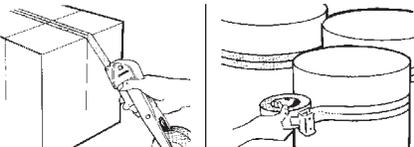
## Canvas Repair Tape

- Olive Drab Finish
- Extremely strong and adhesive
- Waterproof and weatherproof

Part No	Width	Length	Use	
1530004	3"	60 yds	For repairs to canvas, bus seats, waterproofing car doors and trim panels	

## Glass Strapping Tape

- Tough durable tear proof
- More tensile strength than steel 320 psi

Part No	Width	Length	Use	
1530020	3/4"	60 yds	For all types of packaging applications	
1530021	1-1/2"	60 yds		

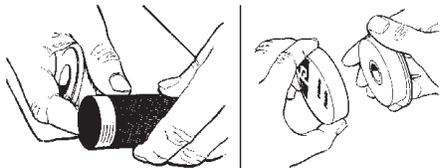
## Masking Tape

- Good adhesion properties and moisture resistant
- Economical paper tape

Part No	Width	Length	Use	
1530005	3/4"	60 yds	For light duty packaging, paint masking, general sealing, holding and reinforcing applications	
1530006	2"	60 yds		

## Teflon Thread Sealant Tape

- Seals high pressure fittings with film of Teflon.
- Impervious to acids, oils and solvents

Part No	Width	Length	Use	
1530007	1/2"	260"	For sealing high and low pressure fittings	
1530009	3/4"	260"		

## Vinyl Electrical Tape

Part Number	Size	Description	
0030911	3/4" x 66'	<ul style="list-style-type: none"> <li>Resistant to water, oils and corrosive chemicals</li> <li>Pressure sensitive...grips fast, sticks tight</li> <li>7 mils thick, high dielectric strength: 1000 volts min</li> </ul>	

## Vinyl Color Coding Tape

- Resistant to water, oils and corrosive chemicals
- Pressure sensitive...grips fast, sticks tight
- 7 mils thick, high dielectric strength: 1000 volts min

Part Number	Size	Color	Part Number	Size	Color	
0039001	3/4" x 66'	Blue	0039006	3/4" x 66'	Red	
0039002	3/4" x 66'	Brown	0039007	3/4" x 66'	Violet	
0039003	3/4" x 66'	Gray	0039008	3/4" x 66'	White	
0039004	3/4" x 66'	Green	0039009	3/4" x 66'	Yellow	
0039005	3/4" x 66'	Orange	0039010	9 Rolls Assorted Colors		

## Super 33+ Vinyl Electrical Tape

Part Number	Size	Description	
0030933	3/4" x 44' (10/box)	<ul style="list-style-type: none"> <li>Premium grade vinyl, 7 mils thick, stickier, stretchier and highly conformable, flame retardant, hot and cold weather resistant</li> <li>Resists UV rays, abrasion, moisture, acids and corrosive chemicals</li> <li>High dielectric strength: 600 volts. Cable splices and wire splices up to 1kV</li> <li>Meets ASTM D-3005 Type 1, UL 510, HHI-595C and CSA C22.2</li> </ul>	
0030934	3/4" x 66' (10/box)		

## CAUTION Barricade Tape

Part Number	Size	Description	
1530807	3"x1000ftx2mil	<ul style="list-style-type: none"> <li>Yellow with black print</li> <li>CAUTION</li> <li>CAUTION</li> <li>CAUTION</li> <li>Because you can't tell an idiot often enough...</li> </ul>	

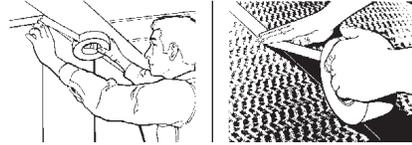
# TAPES



## Waterproof Multi-purpose Duct Tape

- Polyethylene/cloth tape
- High tensile and tear strengths
- Extremely tacky adhesive backing

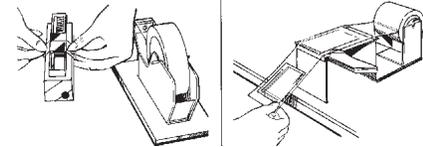
Part No	Width	Length	Color	Use
1530001	2"	60 yds	Gray	For sealing and seaming duct work in heating, ventilation, and air conditioning systems. Also can be used on rugs, tarpaulins or for protecting, bundling, and sealing
1530002	4"	60 yds	Gray	
1530003	2"	60 yds	Black	



## Polypropylene Tape

- Extra strong
- Super strong adhesive backing

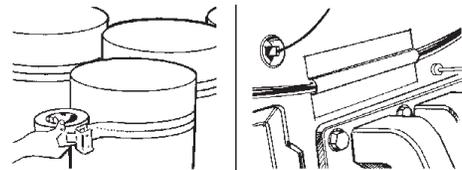
Part No	Width	Length	Color	Use
1530011	4"	72 yds	Clear	For covering shipping or descriptive labels, wrapping cartons, to keep dissimilar metals from rubbing
1530010	2"	55 yds	Tan	



## Aluminum Foil Tape

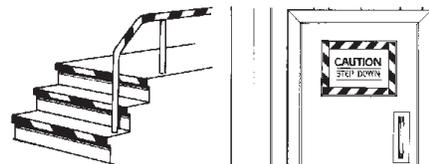
- Aluminum foil with adhesive backing
- Waterproof and weather proof

Part No	Width	Length	Use
1530008	2"	60 yds	For repairing sheet metal panels of trailers



## Safety Marker Tape

Part No	Width	Color	Length	Use
1530806	2"	Black/ Yellow	60 yds	For marking high visibility areas Meets OSHA specifications



## Safety Track-Indoor Outdoor

- Tough durable, adhesive-backed grit surface provides longlasting protection even when exposed to heavy traffic, water or grease.
- Excellent conformability to irregular surfaces.

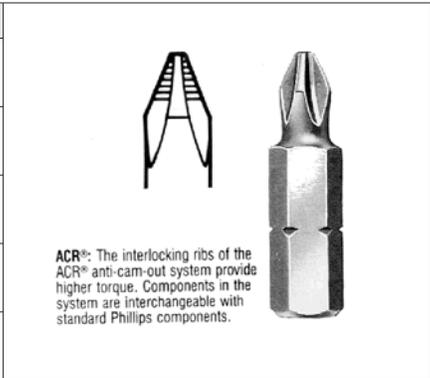
Part No.	Size	Color	Use
1531002	2 x 60 ft Roll	Black	Recreational areas, playgrounds, pool areas, campers, stairways, work areas, machine shops, hazardous floor areas, industrial equipment, trucks, trailers.
1531004	4 x 60 ft Roll	Black	
1531006	6 x 60 ft Roll	Black	





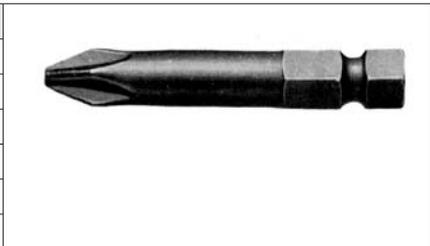
### Phillips Insert Bits

Part No	Overall Length	Shank Body Dia	Point Size	Fits Screw Size
0761001	1"	1/4 Hex	1	2-3-4
0761002	1"	1/4 Hex	2	5-6-7-8-10
0761003	1"	1/4 Hex	3	12-14
0761016	1"	5/16 Hex Impact	2	5-6-7-8-10
0761017	1"	5/16 Hex Impact	3	12-14



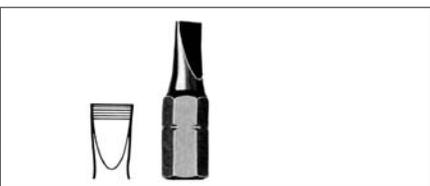
### Phillips Power Drive Bits

Part No	Overall Length	Shank Body Dia	Point Size	Fits Screw Size
0761004	1-15/16"	1/4 Hex	1	2-3-4
0761005	1-15/16"	1/4 Hex	2	5-6-7-8-10
0761006	1-15/16"	1/4 Hex	3	12-14
0761007	6"	1/4 Hex	1	2-3-4
0761008	6"	1/4 Hex	2	5-6-7-8-10
0761009	6"	1/4 Hex	3	12-14



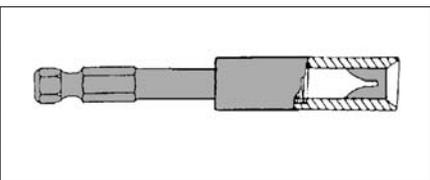
### Slotted Insert Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0762001	1"	1/4 Hex	4F - 5R
0762002	1"	1/4 Hex	6F - 8R
0762003	1"	1/4 Hex	8F - 10R
0762004	1"	1/4 Hex	10F - 12R



### Slotted Power Drive Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0763001	3-3/4"	1/4 Hex	4F - 5R
0763002	3-3/4"	1/4 Hex	6F - 8R
0763003	3-3/4"	1/4 Hex	8F - 10R
0763004	3-3/4"	1/4 Hex	10F - 12R



### Torx Insert Bits

Part No	Overall Length	Shank Body Dia	Fits Screw Size
0763310	1"	1/4 Hex	T10
0763315	1"	1/4 Hex	T15
0763320	1"	1/4 Hex	T20
0763325	1"	1/4 Hex	T25
0763327	1"	1/4 Hex	T27
0763330	1"	1/4 Hex	T30



## Double End Bits

Part Number	Overall Length	Shank Body Dia	Fits Screw Size
0761010	2-1/2"	1/4 Hex	#1/6-8
0761011	2-1/2"	1/4 Hex	#2/8-10
0761012	2-1/2"	1/4 Hex	#3/10-12
0761013	2-1/2"	1/4 Hex	#1/#1
0761014	2-1/2"	1/4 Hex	#2/#2
0761015	2-1/2"	1/4 Hex	#3/#3



## Magnetic Bit Holders

Part No	Overall Length	Shank Body Dia
0762000	2-31/32	1/4 Hex



## Magnetic Hex Screw Setters

Part No	Overall Length	Hex Opening	Screw Diameter
0766000	2-9/16"	1/4	6 - 8
0766001	2-9/16"	5/16	10 - 12
0766002	2-9/16"	3/8	1/4



## Quick Chuck

- Converts a standard chuck into a quick change attachment
- Accommodates all 1/4 " hex shank insert bits.

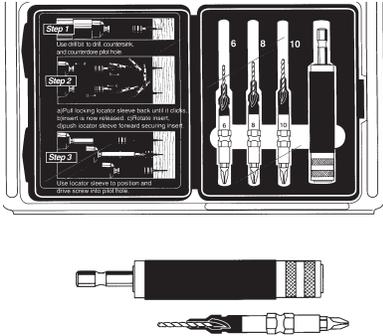
Part No	Description
5150500	Fits 3/8" and 1/2" drills



## Pilot/Driver Screw Driving System

Introducing one tool that does both jobs. The Pilot/Driver drills, countersinks, and counterbores pilot hole then locates and drives the wood screw, all in 3 easy steps.

Part No	Description
5150301	4 Piece Pilot Driver Set



## Hex Keys

- High grade alloy steel
- Heat treated to obtain optimum strength

Key Size	Short Arm Key	Long Arm Key	T-Handle 6" Molded	Key Application	
				Socket Set	Socket Cap
5/64	0490201	0490210		#8	#3, #4
3/32	0490202	0490220	0490302	#10	#5, #6
1/8	0490203	0490230	0490303	1/4	#8
5/32	0490204	0490240	0490304	5/16	#10
3/16	0490205	0490250	0490305	3/8	1/4
7/32	0490206	0490260	0490306	7/16	5/16
1/4	0490207	0490270	0490307	1/2	3/8
5/16	0490208	0490280	0490308	5/8	7/16
3/8	0490209	0490290	0490309	3/4	1/2



## Long Arm Hex Keys

- Long Arm Hex Keys In A Molded Plastic Case.
- Keeps Keys In Order For Quick Identification

Part No	Type	Sizes
0490200	Fractional	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8
0496200	Metric	1.5, 2, 2.5, 3, 4, 5, 6, 8, 10



## Hex Key Sets

Part No	Type	Sizes
0490100	Fractional	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16
0496100	Metric	2, 2.5, 3, 4, 5, 6, 8



## Molded T-handle Hex Keys

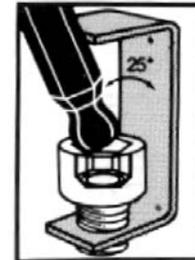
Part No	Type	Sizes
0490300	Fractional	3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8
0493300	Metric	2, 2.5, 3, 4, 5, 6, 8, 10



## Ball Driver L-Wrenches

- Faster, easier maintenance and assembly
- Angle entry to 25° works in hard to reach areas, reduces “stripping” problems by allowing full depth entry
- Ergonomic design allows natural hand and wrist rotation, reduces user fatigue
- Industrial quality hardened blades

Key Size	Part Number		Key Application	
	Long Arm	T-handle	Socket Set	Socket Cap
5/64	0492201	0492210	#8	#3,#4
3/32	0492202	0492220	#10	#5,#6
1/8	0492203	0492230	1/4	#8
5/32	0492204	0492240	5/16	#10
3/16	0492205	0492250	3/8	1/4
7/32	0492206	0492260	7/16	5/16
1/4	0492207	0492270	1/2	3/8
5/16	0492208	0492280	5/8	7/16
3/8	0492209	0492290	3/4	1/2



## Long Arm Ball Drivers In A Molded Plastic Case

Part No.	Sizes
0492200	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8



## Ball Driver Set

Part No	Sizes
0492100	5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4



## Molded T-handle Hex Keys

Part No	Sizes
0492300	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 1/4, 5/16, 3/8



## Security Bit Kit

- 31piece set in Heavy Duty plastic case

Part Number	Bit Type	Length	Sizes
0762100	Torx Security	1"	TR7, TR8, TR9, TR10, TR15, TR20 TR25, TR27, TR30, TR40
	Socket Security	1"	TR3/32, TR7/64, TR1/8, TR9/64, TR5/32, TR3/16, TR7/32, TR1/4
	Spanner Bits	1"	4, 6, 8, 10
	Phillips Security	1"	2, 3
	Square Bits	1"	1, 2
	Phillips Bit	1"	1
	Slotted Bit	1"	8
	Socket Adapter	1"	for 1/4" Square Drive sockets
	Magnetic Bit Holder	1-3/4"	for 1/4" Hex Shank Insert Bits



## Security Multi-Driver

- Extra long 3" nosepiece with 16, 3" double ended bits security bits in the handle and a 1/4" nut driver in the nosepiece.

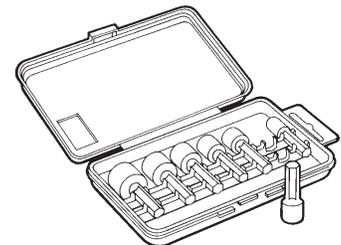
Part Number	Includes
5150444	Spanner 4, 6, 8, 10 Torx Security 10, 15, 20, 25 Hex Security 1/8", 9/64", 5/32", 3/16" Roberts Security 1, 2 Slotted 7/32" Phillips 2



## Power Nutsetter

- Fits electric drills, cordless tools, and 1/4" hand drivers
- For use with hex screws
- Non-magnetic

Part Number
0760460



7-Pc. Power Nutsetter, Non-Magnetic

## Multimaster

### 15 Function Tool

- Rust resistant stainless steel construction
- Ergonomic Handle design
- Easy opening, washer spaced blades with patented safety lock feature
- Nylon belt pouch

Part Number	Includes	
5150016	Pliers, Beveled Wire Cutter, Gripper, Coarse and fine sided File, Wave Edge Sheepfoot blade, Metric/Standard Ruler, Saw Blade, Clip Blade, 2-1/4" Screwdriver Bits (2 Phillips, 2 Slotted) Universal Can/ Bottle Opener.	

## HEX PRO SETS

Part Number	Description	Set Includes	
0496300	5pc SAE Set	3/16, 7/32, 1/4, 5/16, 3/8	
0496400	6pc Metric Set	3M, 4M, 5M, 6M, 8M, 10M	
0496500	6pc Torx Set	T25, T27, T30, T40, T45, T50	

## Belt Clip Insert Bit Set

- Convenient to carry. Always have the right bit on hand.
- Set includes insert bit holder for electric drills & an assortment of the most popular 1/4" shank insert bits.

Part Number	Description	Contents	
0762200	32pc Standard Bit Set	Phillips 0, 1, 2, PR2, 3 Torx 10, 15, 20, 25, 27, 30, 40 Slotted 3-4, 4-5, 6-8, 8-10, 10-12 Hexagon 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 Square 1, 2, 3 Sk 1/4 x 1/4 Insert Bit Holder	
0762300	32pc Security Bit Set	Pin in Head Phillips P2H, P3H Pin in Torx 5, 6, 7, 8, 9, 10, 15, 20, 25, 27, 30, 40 Pin in Hexagon 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 Spanner 4, 6, 8, 10, 12, 14 Sk 1/4 x 1/4 Insert Bit Holder	

## Self Adjusting Stripper & Crimper

Part Number	Description	
0031909	<ul style="list-style-type: none"> <li>Automatically strips wire insulation</li> <li>Wire range 22 to 10 AWG</li> <li>Crimps insulated terminals from 22-10ga</li> <li>Wire cutter blades cut wire sharp and smooth</li> </ul>	

## Terminal Crimping Tool

Part Number	Description	
0031908	<ul style="list-style-type: none"> <li>Made of heat treated alloy steel</li> <li>Cushioned vinyl grip handles</li> <li>crimping dies for 22-10 AWG terminals</li> <li>Wire stripping for 22-10 AWG</li> <li>Crimping station and wire cutters are located at the top of the tool</li> <li>Cut-off dies for mild steel and non-ferrous screws</li> </ul>	

## Stripping and Cutting Tool

Part Number	Description	
5150250	<ul style="list-style-type: none"> <li>Cuts with one end, strips with the other</li> <li>Self-adjusts to wire sizes 24 to 14 AWG</li> <li>For use on multiple strand wires</li> </ul>	

## Circuit Alert Voltage-Sensing Crimper/Stripper

- 3 Popular tools in one
- Strips 10-18 AWG solid or stranded
- Bolt cutting station cuts and rethreads bolts
- Stainless Steel nick-resistant blades provides maximum corrosion resistance
- The Circuit Alert Voltage Sensing Wire Stripper/Crimper allows you to Strip and loop cable, crimp terminals and cut and rethread bolts.



**PART NUMBER 0031902**

## Redesigned Ratcheting Pipe Wrench

With unique swivel head and ratcheting jaw

- Unique 360° swivel head allow full leverage in tight spots
- Oversize jaws automatically set to fit the work piece
- Patented power jaw design increases the grip on as you increase the torque force
- Constructed on heavy gauge, industrial quality chrome vanadium steel, warranted for life.

Part Number	Description	
5153110	10" Ratcheting Pipe Wrench	
5153114	14" Ratcheting Pipe Wrench	

## Combination Adjustable Wrench/Pipe Wrench

- Converts from an adjustable pipe wrench to an ordinary wrench with a few simple adjustments
- Ergonomic handle incorporates a slip-free surface

Part Number	Description	
5150002	10" Combination Pipe Wrench	<p>Thermoplastic handle provides extra comfortable slip free grip</p> <p>Adjustment screw has wide grooves and coarse knurls for easy, smooth adjustment</p> <p>Measurement scale allows opening to be preset for fastener size</p> <p>Reversible jaws for use on fasteners and pipes</p>
5150003	12" Combination Pipe Wrench	

## Ratcheting Combination Wrenches

- Mirror finished chrome vanadium steel construction exceeds all applicable ANSI specifications for strength.
- Open end jaw surfaces are parallel to within  $\pm 0.0015"$  for better contact with fastener surfaces and higher torque transfer.
- Narrow cross-section design on box and open ends allows access to tighter work spaces, making wrench more versatile.
- This wrench works in places even deep sockets won't reach. It's perfect for positioning and tightening bolts on threaded rods.
- Ratchet feature turns fasteners with just a  $5^\circ$  swing vs.  $30^\circ$  needed for standard wrenches. Turns fasteners fast with its quick back and forth motion.
- The box end ring gear has 72 extra-fine teeth, precision machined and specially heat-treated for exceptional strength.
- Flip wrench has a full  $180^\circ$  pivoting head that makes it possible to align the ratcheting end perfectly with a fastener from virtually any angle.
- Patented. Exceeds all applicable ANSI Specifications for strength.



## Ratcheting Combination Wrench Sets

Part Number	Description	
5150107	SAE Ratcheting Combination Wrenches 7 Piece Set	
5150117	Metric Ratcheting Combination Wrenches 7 Piece Set	

## Flip Style Ratcheting Combination Wrench Sets

Part Number	Description	
5150108	SAE Flip Ratcheting Combination Wrenches 7 Piece Set	
5150109	Metric Flip Ratcheting Combination Wrenches 7 Piece Set	

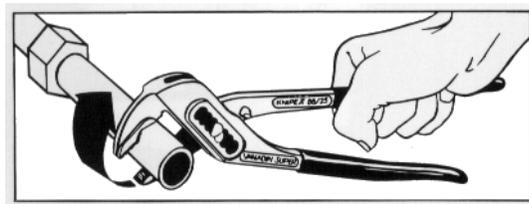
## KNIPEX Alligator Pliers

### Ergonomic Design

- Water pump and locking pliers plus pipe wrench in one tool
- box joint construction
- self-gripping on pipes and nuts
- unique jaw design shaped to eliminate nut-burring
- special hardened teeth (approx. 60 HRC)
- the guard prevents operators' fingers from being pinched
- optimum lever action
- 7-position adjustment
- Material: chrome vanadium electric steel, oil-hardened



Part No	Length	Working Capacities	
		For Pipes (Dia.)	For Nuts (Across Flats)
5158810	10"	1/8" to 1-1/4"	1/4" to 1-3/8"
5158812	12"	1/8" to 1-1/4"	3/8" to 1-7/8"

## KNIPEX Cobra Pliers

### ERGONOMIC DESIGN

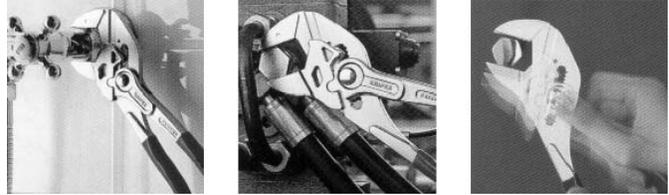
- Water pump and locking pliers plus pipe wrench in one tool.
- Positive locking push-button mechanism which adds benefits of an adjustable wrench.
- Self grip jaws - operated with one-handed downward pressure
- Box joint construction, push button action for fast and firm adjustment directly on the workpiece
- Selected jaw opening is positively ensured with 11-position adjustment
- the guard prevents operators' fingers from being pinched
- unique jaw design shaped to eliminate nut-burring
- hardness of gripping teeth (approx. 60 HRC)

Part No	Length	Working Capacities	
		For Pipes (Dia.)	For Nuts (Across Flats)
5158710	10"	1/8" to 1-1/4"	1/4" to 1-3/8"
5158712	12"	1/8" to 1-1/4"	3/8" to 1-7/8"



## Plier Wrenches

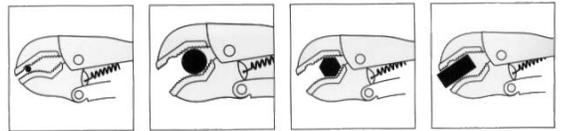
- **KNIPEX** Plier Wrench has been designed to save more time than any other plier
- cam action provides enormous leverage
- jaws capacity 1 3/8" / 1 5/8" for 7" / 10" models
- smooth box joint construction for greater strength
- 13 position push button ensures perfect fit on all workpiece sizes
- superior tool for gripping, holding and bending
- smooth parallel jaws avoid damage to plated and soft fittings
- unique cam action ratcheting system for easy and incredibly fast operation
- instant adjusting memory button retains jaw opening for repetitive work
- self-locking, ergonomic design features lever ratio greater than 10-1 for strong gripping power



Part No	Length	Clamping Width Inches	
5158603	10"	0 to 1-3/8"	

## Quick Release-Locking Pliers

- superior Quick Release Lever for single handed operation
- forged Chrome vanadium steel jaws
- multigripping jaw design for maximum versatility of sizes and shapes



Part No	Length	Clamping Width Inches	
5154114	10"	0 to 1-3/8"	

## Ultra High Leverage Combination Piers

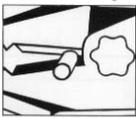
- **KNIPEX** high leverage, eccentric joint
- additional serrated round jaws for gripping small work pieces
- designed to cut piano wire and other solid wire with 50% less effort
- long cutting edges for thicker cables
- long-lasting under the toughest conditions
- cutting edges separately induction-hardened (64 HRC)
- Material: special tool steel, oil-hardened and tempered, heavy insulated handles 1000V

Part No	Length	Cutting Capacities		
		Cable	Med-Hardwire	Hard wire
5152029	9"	1/2	1/8	5/64

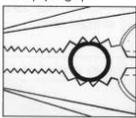


\* ERGONOMIC DESIGN

50 % easier cutting



with pipe grip



## KNIPEX Ultra High Leverage Diagonal Cutters

- cutting edges induction hardened (64 HRC) and factory tested
- fixed, forged on axle rivet
- designed for effortless cutting of piano, hard and soft wire
- polished head and plastic coated handles

Part No.	Length	Cutting Capacities		
		Soft Wire	Hard wire	Piano wire
5157408	8"	7/32	1/8	3/32



## KNIPEX Long Needle Nose with Cutter

- flat-round jaws
- gripping surfaces serrated
- designed to cut hard and soft wire
- Material: special tool steel, oil hardened

Part No	Length
5152611	8"



## ElecPlus-Screwdrivers

Part No	Tip Size	Blade Length
0763114	5/32	4"
0763115	7/32	5"
0763116	1/4	6"
0763117	5/16	7"



Part No	Tip Size	Blade Length
0763512	#1	3"
0763513	#2	4"



- Individually insulated blade and handle provide a double level of protection with all parts being inseparable.
- Large, ergonomically designed triangular handle with a unique, soft grip surface for higher torque and greater resistance to slipping.
- Blades are made of high alloy special steel with a bur-nished finish, for maximum strength.
- Handles and insulation are made of a highly shock proof cadmium free plastic.
- Individually examined and tested in water using 10,000 volts to, ensure safety. Guaranteed safe to 1,000 volts.
- Examination also made under the new, more severe DIN EN 60900 and low temperature impact tested at minus 40°C .

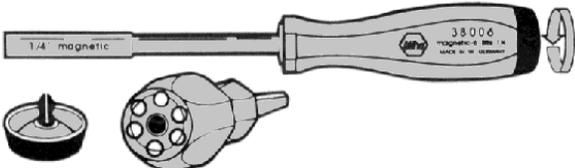


Part No	Description
0761586	6 piece set: Slotted: 5/32 x 4, 7/32 x 5, 1/4 x 6, 5/16 x 7, Phillips : #1 x 3, #2 x 4

## Magnetic Insulated 1/4" Bit Holder Screwdriver

- Insulated chrome-vanadium steel shaft, stainless steel bit holder, with impact resistant red cellulose acetate power handle .
- Rotatable bit holder and snap lock cap, includes: [3] Phillips, and [3] Slotted Bits

Part No
0760380



## Screwdrivers With Ergonomic Cushion Grip

- Hex blade, high alloy chrome-vanadium-molybdenum steel, hardened, chrome plated
- Hex bolster for additional torque
- Wiha-Chromtop finish on tips.
- Wiha-SoftFinish handle, multi-component

### Phillips

Part No	Size	Shaft Length
0760205	1	3" / 80mm
0760206	2	4" / 100mm
0760207	3	6" / 150mm



### Slotted

Part No	Size	Shaft Length
0760208	7/32	4" / 100mm
0760209	1/4	5" / 125mm
0760210	9/32	5" / 125mm
0760211	5/16	6" / 150mm
0760212	3/8	7" / 175mm



## Screwdriver Set

Part No	Description
0760213	Includes: Slotted 7/32, 9/32 and 5/16 Phillips 1 and 2



## 21pc Gear Ratchet Combination SAE & Metric Socket Set

Part Number	Description
5150022	Set Includes: Gear Ratchet Handle (7) SAE Vortex Sockets (3/8, 7/16, 1/2, 9/16, 5/8, 11/16 & 3/4) (10) Metric Vortex Sockets (10mm, 11mm, 12mm, 13mm, 14mm, 15mm, 16mm, 17mm, 18mm & 19mm) 1/4" dr. Gear Ratchet adapter Vortex™ Pass-thru 3" extension Chrome vanadium steel Fully Hardened



## Nut Drivers With Ergonomic Cushion Grip

- Blade chrome-vanadium-molybdenum steel, hardened
- Deep drawn 1" socket
- Hex bolster for additional torque
- Wiha SoftFinish handle, multi component, cushion grips

### Metric Sizes

Part Number	Size (mm)	Shaft Length (mm)
0760214	5.0	125
0760215	6.0	125
0760216	8.0	125
0760217	10.0	125
0760218	11.0	125
0760219	5 Piece Set (Includes above sizes)	



### Inch Sizes

Part Number	Size	Shaft Length (Inches)
0760220	3/16	5.0
0760221	1/4	5.0
0760222	5/16	5.0
0760223	3/8	5.0
0760224	7/16	5.0
0760225	1/2	5.0
0760226	6 Piece Set (includes above sizes)	



## 26 in One Industrial Ultra Driver



Part Number **0767792**

Quick access, the right bit for the job. Comfortable Cushion Grip Ergonomic Handle Spring driven pop up cartridge for fast bit selection High Performance Quick Release Locking Bit Holder

Tip Sizes Included: TORX: T8, T9, T10, T15, T20, T25, T27, T30 Phillips: #1, #2, Slotted: 4.0, 6.0 Metric Hex: 2.0, 2.5, 3.0, 4.0, 5.0, 6.0mm Inch Hex 3/32, 7/64, 1/8", 9/64, 5/32, 3/16, 7/32, 1/4"

## Heavy Duty Tape Measure

Part Number	Description
5150111	50 feet



## MBX - Remove-All System

For fast effective surface preparation Light weight 2.4 lbs, easy to control  
 Runs at 3,500 rpms , will not stall or stop on sharp objects, bolts, rivets.  
 Safety guard, protects eyes and hands. No heat / no toxic fumes  
 Thin 11mm band, gets into hard to reach areas, 90° angles and sharp edges. No clogging of wire brush



Part Number	Description	
5151000	Pneumatic Tool with 11mm Adapter, 11mm coarse belt, 11mm medium belt 11mm fine belt	

Part Number	Description	
5151100	Pneumatic Tool with 11mm Adapter, 11mm coarse belt, 11mm medium belt 11mm fine belt, 23mm Adapter, Rubber Eraser Wheel	

Part Number	Description	
5151101	Pneumatic Tool with 11mm Adapter, 11mm coarse belt, 11mm medium belt. 11mm fine belt, 23mm Adapter, Rubber Eraser Wheel, 23mm coarse belt 23mm medium belt, 23mm fine belt	

Part Number	Description	
5151200	Electric Tool with 23mm Adapter Rubber Eraser Wheel	

### APPLICATION CHART:

#### COARSE BELTS (BLACK)

Coarse (black) belt --> Removal of undercoating, stone guard, seam sealer  
 --> Cleaning of spot welds

Coarse bristles chisel debris from surface and give a sand blast effect  
 No grinding means no heat creation, no smoke, no fumes

All other products grind and produce heat

#### MEDIUM BELTS (BEIGE)

Medium (beige) belt --> Removal of rust and corrosion

Removal of rust - Bristle tips chisel into rust pits.

Not necessary to grind metal down to reach the pits.

On thin metal gives the surface a sand blast effect

Also available in stainless steel (blue) for working on aluminum alloys

#### FINE BELTS (GREEN)

Fine (green) belt --> Removal of paint

--> Cleaning of gaskets

Especially designed to use over sharp edges, holes, nuts, bolts, raised objects

Also available in stainless steel (blue) for working on aluminum alloys

#### RUBBER ERASER

Rubber Eraser Wheel --> Removal of decals, pin strips, 2 sided moulding tape

Air cushion created by centrifugal force during rotation prevents vibration, produces less heat, eliminates jumping, increases durability and efficiency.

Turns at 3,500 rpm.

Part No	Description	Characteristics	Application Range	
5151121	23mm, Coarse Black	High-performance nylon band fabric, u-shaped anchored, spring-steel wires with flared tips, ground & hardened	Removal of undercoating and sealing compounds, paint removal. Particularly suitable for areas with weld seams, contours and edges, sand blast effect	
5151111	11mm, Coarse Black		Same as 23mm design, but especially for hard to reach areas, 90° angles	
5151122	23mm, Medium Beige	High-performance nylon band fabric, u-shaped anchored, spring-steel wires with flared tips, ground & hardened	High performance rust removal brush with excellent cleaning sand blast effect	
5151112	11mm, Medium Beige		Same as 23mm design but especially in edges and hard to reach areas	
5151123	23mm, Fine Green	High-performance nylon band fabric, u-shaped anchored, spring-steel wires with flared tips, ground & hardened	Rust removal and cleaning work, removal of seals & gaskets on grey cast iron, <b>not for aluminum and aluminum die castings</b>	
5151113	11mm, Fine Green		Paint removal, especially in contour and edge areas as well as removal of protective coatings in the folding range of repair sheets, for hard to reach areas 90° angles	
5151135	Stainless 23mm, Medium Beige	High-performance nylon band fabric, u-shaped anchored, spring-steel wires with flared tips, ground & hardened	Removal of paint and corrosion on aluminum bodies and superstructures, particularly in the riveting area for truck bodies, adapts very well to contours, sand blast effect	
5151134	Stainless 11mm, Medium Beige		Same as 23mm design, but especially for hard to reach areas, 90° angles	
5151132	Stainless 23mm, Fine Blue	High-performance nylon band fabric, u-shaped anchored, spring-steel wires with flared tips, ground & hardened	Removal of paint and corrosion on aluminum bodies and superstructures, particularly in the riveting area for truck bodies, adapts very well to contours	
5151131	Stainless 11mm, Fine Blue		Same as 23mm design, but especially for hard to reach areas, 90° angles	
5151133	Rubber Eraser	Vinyl	To remove vinyl decals, DOT tape, glue from metal surfaces, fibreglass, plate glass, wood, aluminum and OEM paint finishes. Do not use on polyethylene, polypropylene, acrylic, Lexan or plexiglass	
5151124	23mm Adapter		For use with 23mm belts and Rubber Eraser	

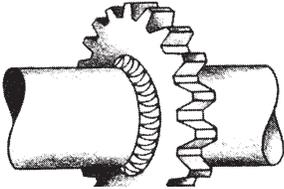
## Welding Rods

### Universal All Position Mild Steel Electrode

Simplifies all welding applications involving mild steel and provides the maintenance welder with a tremendous degree of versatility.

- Instant strike and restrike
- Low smoke volume
- Fast freeze slag characteristics ensures fully positional operability
- High amperage capability for deep penetration when welding through rust, paint, grease and dirt
- Outstanding on thick to thin members
- Deposits on galvanized steels with little or no burning of the surrounding galvanized coating.
- Leaves no porosity
- May be used at the lowest possible amperage to prevent burn through on thin gauge sheet metal.
- Tensile strength: 83,000 psi.; Elongation: 25%
- AC-DC reverse polarity

Part Number	Size	Recommended Amp
6020003	3/32	50-70
6020004	1/8	70-110
6020005	5/32	115-140



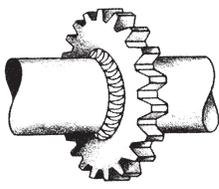
## Welding Rods

### Universal High Strength All Steel Electrode

Welds all types and grades of steel and steel alloys. So versatile, one electrode welds high carbon steels, medium to high alloy steels, heat treated steels, manganese, all sensitive and hard to weld steels, plus stainless steels. Due to exceptional strength and crack resistance, it is ideal for repairing tools, dies, spring steel and any dissimilar metal combinations, except for the aluminum and copper alloys. It is also recommended for repairing worn parts and as an underlay for hard facing. Also serves as a "STUD PULL" Electrode.

- AC-DC reverse polarity
- Crack-free non-porous deposits
- 128,000 psi tensile strength work hardens to 186,000 psi.
- No undercutting
- All position
- Welds on contact
- Withstands freezing temperatures
- General applications: forklifts, buckets, chain link furnaces, automotive springs, drive shafts, fifth wheels, brake drums, tools dies, grader and dozer blades, gears.

Part Number	Size	Recommended Amp
6050003	3/32	35-70
6050004	1/8	60-110
6050005	5/32	75-140

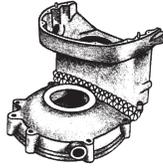


## Welding Rods

### Nickel - iron “Barium Free” electrode

- for joining dirty - contaminated cast irons and cast irons to steel
- Welds all grades and types of cast iron.
- AC-DC reverse polarity.
- Fully machinable.
- Ultimate in tensile strength; Tensile strength: 70,000 psi.
- Welding Positions Flat, Vertical up, Horizontal, Overhead.
- For all cast iron welding including meehanite, malleable iron, gray iron, ductile iron & steel or stainless to cast iron.
- Hardness: Rockwell B 88-90, Brinell 180, Vickers 189
- General Applications. Valve seats, engine blocks, cylinder heads, water pump housings, retractable wheels, transmission cases, starter housings, manifolds, flanges, conveyor parts, gear teeth, levers.

Part Number	Size	Recommended Amp
6000003	3/32	50-80
6000004	1/8	70-110
6000005	5/32	100-140

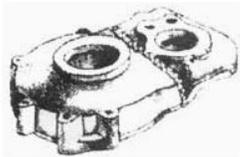


## Welding Rods

### Aluminum Arc Welding Electrode

- Exclusive self lifting slag
- For welding all grades and types of aluminum.
- For arc welding aluminums alloyed with copper, silicon, and magnesium.
- High corrosion resistance.
- Helps in making aluminum welds fast and easy.
- Tensile Strength: 34,000 psi.
- Weld Positions Flat, Horizontal
- DC Reverse Polarity only.
- Start by using the upper portion of the amperage range. Feed the electrode quickly and move fast maintaining a very close arc gap
- General Applications: Foundry defects, machining errors, food processing equipment, truck and trailer repairs, foreign car engine blocks, irrigation pipes, cracked housings and castings.

Part Number	Size	Recommended Amp
6010003	3/32	50-80
6010004	1/8	70-120
6010005	5/32	110-150



## Welding Rods

### Stainless Steel Electrode

Excellent all-position electrode for “all around” welding of 200, 300, 400 and 500 series stainless steels. Excellent for overlaying and joining low alloy steels where corrosion resistance is required, Material to be welded should be clean of all contaminants. Maintain a short arc and use stringer beads rather than a weave technique.

- Maintenance quality smooth running molybdenum bearing 316L-16 electrode
- Has good restrike characteristics with easier slag removal and less spatter.
- Extra low carbon content to resist pitting.
- Tensile Strength: 80,000 psi.
- Hardness: Brinell 209, Rockwell B96
- Elongation: 42%
- Welding Positions Flat, Horizontal, Vertical up, Overhead
- AC or DC Reverse Polarity.
- General Applications: Shaft buildup, stainless steel piping, heat exchangers, disposal mixers, food processing equipment, hospital equipment, food and brewery mixers and containers, cooling towers, flanges

Part Number	Size	Recommended Amp
6030003	3/32	55-75
6030004	1/8	75-110
6030005	5/32	90-140



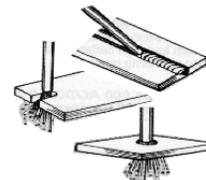
## Welding Rods

### Chamfering/Cutting electrode

Removes unwanted metal with standard AC or DC power sources. Does not require supplementary gas, compressed air or special electrode holders. Produces an intense, highly concentrated blowing action which virtually blasts molten metal and slag out of its path. Hold electrode at a 10o angle above workpiece. Initiate arc and move forward in a straight or back and forth motion. For cutting use a “sawing action” technique.

- Gouge, bevel or cut all metals including stainless steels, aluminums and copper. Excellent for the removal of stainless steel joints and overlays.
- No oxygen is required.
- Leaves a clean, scale free, carbon free surface.
- Welding Positions Flat, Vertical up, Vertical down, Horizontal, Overhead
- AC or DC Straight Polarity.
- General Applications: Veeing out cracks prior to welding, gouging out old or defective weld metal, removes frozen bushings, cuts stainless steel fast, pierces holes clear of broken bolts.

Part Number	Size	Recommended Amp
6040003	3/32	100-170
6040004	1/8	170-250
6040005	5/32	220-330



## Welding Rod

### Hardfacing Electrode

High Alloy Chromium Carbide Electrode producing excellent frictional or sliding metal to metal wear properties. Use a stringer or wide weave technique. Deposit a maximum of 2 to 3 passes to achieve full hardness.

- For protecting most iron base surfaces against severe abrasive wear and moderate impact.
- High hardness overlay.
- Fast, smooth, ripple-free deposits, easy slag removal
- Rockwell Hardness Rockwell C58-60 Vickers 670-700
- Welding Positions Flat, Horizontal (smaller diameters can be used out of position)
- AC- DC Straight or Reverse
- General Applications: Farm implements, asphalt and concrete mixer paddles, road ripper teeth, ditch digger teeth, conveyor screws, dredge pump impellers, dust fan blades, crushing and pulverizing tools, grader blades feed screws.

Part Number	Size	Recommended Amp	
6150004	1/8	110-140	
6150005	5/32	160-200	
6150006	3/16	210-270	

## Chip Hammer

Part Number	Description	
7000400	Cone and Chisel Style	

## Shield

Shield is a heat resistant putty-form material that can be used as a blanket or cover to protect parts from intense welding heat. Will not burn, crack melt or deform during welding. Withstands temperatures to 3000°

An easy to mold dual purpose compound that is used as a heat dam and insulator to protect metal and other material from the effects of heat. The dough like consistency makes it easy to mold around intricate parts. It will adhere to most surfaces making it ideal for use as a jiggling fixture or insulator for parts to be welded. Will not distort or shrink when heated. Can be used as a heat sink to absorb heat and avoid surface discoloration on heat sensitive parts. It can be used as a heat dam to prevent heat from traveling to areas that can be damaged by heat, such as O-rings, packing glands, glass and paint. Ideal to hold or position difficult to align parts. Keeps distortion down when welding on light gauge metals such as stainless steel.

Part Number	Size	
7040001	2 lb. container	

## Cool Jel Heat Barrier Spray

Cool Jel is a heat barrier spray that protects surfaces and components from heat damage such as piping, dry-wall, and shower valves. Cool Gel® is used for any soldering or brazing job!

- Safe, non-toxic, and harmless to the skin
- Will evaporate in 24-48 hours eliminating cleanup
- Unique gelling formula sticks to any surface without dripping or running off

Part Number	Size	
7001513	3 Quarts	

## Safety Goggles

Part Number	Description	
7000300	<ul style="list-style-type: none"> <li>• Suitable for brazing</li> <li>• Flip up heat treated dark green lens</li> <li>• Shade Rating 2.5</li> <li>• Full plastic Side Shields</li> <li>• Universal bridge provides maximum comfort for wearer</li> <li>• Caution: Not to be used for welding</li> </ul>	

## Helmets

- Made of Dupont Zytel Nylon
- Lightweight and compact to allow access to tight places.
- Includes filter, shade #10, cover, or safety plate

Part Number	Description	
7000100	Lift Front lens 2" x 4-1/2" (#10 shade) with a cover lens and safety plate	
7000101	Replacement 2" x 4-1/2" #10 Shade	
7000102	MAGNIFYING LENS MAGNAWELD F-1.50 2" X 4-1/4"	
7000200	Large fixed lens 4-1/2 x 5-1/4 (#10 shade) with cover lens	

## Safety Glasses

Part Number	Description	
5145013	<ul style="list-style-type: none"> <li>• Sleek lines with molded nose piece</li> <li>• Temple ends have a soft and rubberized jacket for wearer's comfort</li> <li>• Lightweight wrap around lens</li> </ul>	

## Clear Splash Resistant Goggle

Part Number	Description	
5145015	<p>Serious Protection, Built-In Confidence. Featuring a tried-and-true design and unique 3-90 Degree Venting System, Technician™ offers exceptional eye protection against liquid splash. Two-piece vents create a path of three 90 degree angles that significantly diminish the risk of a liquid splash getting to the worker's eye.</p> <p>Independently certified; meets ANSI Z87.1+</p>	

## Grinding Shield - Full Face

Product Number	Description	
7050001	<ul style="list-style-type: none"> <li>• Grey Lens</li> <li>• Lightweight grey design for maximum comfort</li> <li>• Tough, non-warping red polyethylene visor</li> <li>• Meets ANSI Z87.1</li> <li>• Not suitable for welding</li> </ul>	

## Sanding & Fiberglass Respirator - N95

Part Number	Description	
5145010	<ul style="list-style-type: none"> <li>• US Government approved: N95 (42CFR84) particulate respirator</li> <li>• Recommended for grinding, sanding, bagging, woodworking and foundry applications</li> </ul>	

## Particulate Welding Respirator - N98

Part Number	Description	
5145014	<p>Respirators are specifically designed for use in work applications where metal fumes may be present - welding, brazing, grinding, metal pouring, etc. Each filter has at least a 95% efficiency for protection against solid and liquid particles - excluding those containing oil. Welding respirators are disposable and available with a faceseal or the 3M™ Cool Flow™ Exhalation Valve. Also available with organic vapor relief. NIOSH* approved.* Nuisance level refers to concentrations not exceeding OSHA, PEL or other applicable exposure limits, whichever is lower.</p>	

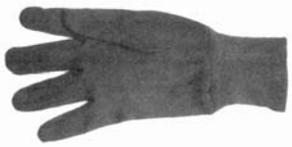
## Ear Plugs Soft Foam Insert

Part Number	Description	
5145011	<ul style="list-style-type: none"> <li>• Easily compressed, they hold a thin shape until inserted, then expand to give excellent sound protection.</li> <li>• Disposable</li> <li>• Noise Reduction Ratio (NRR): 29 dB</li> <li>• 200 sets per box</li> </ul>	
5145012	<ul style="list-style-type: none"> <li>• Soft braided cord adds convenience and prevents loss</li> <li>• Noise reduction rating (NRR): 29 dB</li> <li>• Bright orange color offers high visibility</li> <li>• 100 pair per box</li> </ul>	

## Leather Welding Gloves - Unlined

Part Number	Description	
7050002	<ul style="list-style-type: none"> <li>• Heavy duty and heat resistant</li> <li>• Protects against sparks, hot slag, and hot metal.</li> <li>• Canvas gauntlet gives added strength and protection.</li> <li>• 12-1/2 inches long</li> </ul>	

## Brown Jersey Gloves w/ Knit Wrist

Part Number	Description	
7050003	<ul style="list-style-type: none"> <li>• Good general purpose work glove</li> <li>• Mens large</li> </ul>	

## Leather Work Gloves

Part Number	Description	
7050004	<ul style="list-style-type: none"> <li>• Fabric, leather palm</li> <li>• Safety cuffs</li> <li>• Flannel lined cowhide palms, thumbs, tips and knuckle straps</li> <li>• Mens large</li> </ul>	

## Leather Work Gloves

Part Number	Description	
7050006	<ul style="list-style-type: none"> <li>• Pigskin</li> <li>• Unlined</li> <li>• Shirred elastic at wrist</li> <li>• Mens medium</li> </ul>	

## Disposable Latex Gloves

Part Number	Description	
5145000	Large Powdered 5 ml.	
5145001	X-Large Powdered 5 ml.	

## Blue Nitrile Gloves

Part Number	Description	
5145004	Medium 5 ml	
5145005	Large 5 ml	
5145006	X-Large 5 ml	
5145008	Large 8 ml	
5145009	X-Large 8 ml	

## Black Nitrile Gloves

Part Number	Description	
5145104	Medium Black	
5145105	Large Black	
5145106	X-Large Black	

## Brazing Rods

### High Strength Brazing Alloy

#### Ultra high purity nickel silver alloy featuring moisture sealed flux coating

Three times stronger than ordinary mild steels, and twice as strong as conventional brazing alloys. Ideal for joining and repairing any steel, including many high strength steels. Flows as freely as silver brazing alloys. The excellent capillary attraction forces the alloy into the tightest joints. High strength joining of steels using both the thin flow and bead form techniques

- Penetrates through any rust, paint, or dirt to produce a solid-porosity freebond.
- Tensile Strength: 102,000 psi.
- Bonding Temperature: 1583° - 1640° F (870° - 895°C)
- Hardness: Rockwell B 96 Brinell 210
- General Applications: Repairing broken drills, milling cutters and reamers. For brazing tungsten carbide tipped tools. For close fitting joints, such as tubing, framework and piping. Ideal for chrome moly tubing, tailpipes, oil pans, motor guards, carts, ramps.

Part Number	Size	Color Code
7010003	3/32	Red Flux Coating
7010004	1/8	Red Flux Coating



## All Purpose Brazing Alloy

### Triple deoxidized bronze brazing alloy with moisture sealed flux coating

Extraordinary bronze brazing alloy that performs extremely well on base metals that have always been considered "difficult" - cast iron, sheet metal, galvanized and copper alloys. The flux coating will penetrate through any rust, paint or dirt to produce a solid porosity freebond.

- Outstanding wetting action on steels, cast iron and coppers.
- Triple deoxidized to prevent fuming.
- All purpose formula - use on all ferrous and non-ferrous metals except white metals.
- Cast iron - its low bonding temperature, together with its alloy formation and powerful flux coating, allow it to "wet" the surface without overheating the base metal .
- Thin sheet metal the lower heat input reduces warpage, distortion and burn through .
- Tensile Strength: 71,000 psi.
- Bonding Temperature: 1583° - 1620°F (870° - 885°C)

Part Number	Size	Color Code
7020003	3/32	Blue Flux Coating
7020004	1/8	Blue Flux Coating



## MIG WIRE

Forged mild-steel solid wire on 1 lb., 2 lb. and 10 lb. spools. Provides the smooth clean surface needed for steady, efficient wire feed and features minimal spatter and easy slag removal.



Part Number	Size	Type	Description
7060001	1 lb Spool	.030/5356 Aluminum	<p>Description: 5356 Aluminum Alloy Mig Wire 5% Magnesium. Bright finish, flows freely at 1180 degrees Fahrenheit. Can be used for Mig or Tig welding. Argon gas shielding required. Applications: Diesel engine bases, truck frames, cargo tanks, Gun mount bases. 40,000 PSI tensile strength.</p>
7060002	1 lb Spool	.035/5356 Aluminum	
7060003	2 lb Spool	.030/308ER Stainless Steel	<p>Description: 308ER Stainless Steel Mig Wire. Welds type 301, 302, 304, 308, 321 &amp; 347 stainless steels. Applications: Food &amp; Beverage industry, maintenance and repair. Contains 20 % Chromium, 10 % Nickel. Argon or Argon/CO2 gas shielding required. 85,000 PSI Tensile strength.</p>
7060004	2 lb Spool	.030/Flux Cored, E71t-gs	<p>Description: Self shielded mild steel mig wire E71T-GS. Self shielding all position flux cored welding wire. Single pass applications. Excellent for use on thin metal. High travel speed. Low spatter. No shielding gas required. 70,000 PSI Tensile strength. Use DCEN straight polarity.</p>
7060005	10 lb Spool	.030/Flux Cored, E71t-gs	
7060006	2 lb Spool	.035/Flux Cored, E71t-gs	
7060007	10 lb Spool	.035/Flux Cored, E71t-gs	

# SOLDER



## Silver Bearing Solder

- 500% stronger than common solders
- High tensile strength 16,000 PSI Low temperature - 425°F
- Joins all ferrous and non ferrous metals (except white metals)
- Complies with pure food laws Does not contain lead, zinc, cadmium antimony or any metal which corrodes easily

Part Number	Size	
5140202	1/16 x 108"	

## Wire Solder

### 40% Tin 60% Lead Alloy

- Works at lower temperatures 360° to 460°F
- Makes more joints per roll
- Tensile strength to 4,800 PSI

Part Number	Size	Description	Application	
5140101	16 oz.	Acid Flux Core	Plumbing	
5140201	16 oz.	Rosin Flux Core	Electrical	

## Lead Free Solder - For Potable Water

Part Number	Size	Description	
5140301	8 oz.	1/8" Flo-Temp Lead-Free 95% Tin / 4.5% Copper / 5% Silver Solder	

## Soldering Paste Flux

- Eliminates surface tension
- Removes oxidation
- Use on: Brass/copper sweat fittings, galvanized/black iron pipe fittings, tin plated aluminum fittings

Part Number	Size	
5140004	2 oz.	
5140016	16 oz.	

## Micro- Jet Torch

- Piezo electronic self-starting ignition system with safety lock
- Wind proof flame and waterproof ignition system perfect for outdoor use
- Flame temperature to 2400°F
- Rechargeable butane lighter fuel cell
- Ideal for electronic, plumbing, automotive, soldering applications

Part Number	
0031904	

## Ultra-torch

- Butane -powered, portable soldering iron and flameless heat tool
- Self-igniting push button system
- Comes complete with soldering and heat tip, heat shrink attachment
- Operating capacity 4 hours max per gas filling
- Temperature range - when soldering (482- 932°F), when heat shrinking 1202°F

Part Number	
0032001	

## Micro-Torch

- Self-igniting push button system
- Flame control adjusts for longer broad flame or short pinpoint flame
- Flame temperature to 2400°F
- Rechargeable butane lighter fuel cell
- Ideal for electronic, plumbing, automotive, soldering applications

Part Number	
0031906	

## Surefire Propane Torch

- Highest quality portable torch available
- Instant self-igniting torch
- Flame control adjusts to meet any job
- uses regular propane or MAPP gas
- Highest heat output of any portable torch, over 3500°F flame
- 1/2 inch stainless steel burn tube
- Built in pressure regulator
- Ignites and burns upside down

Part Number	
0031907	

## Striker

- Single flint striker
- Cartridge holding flint locks exactly into position

Part Number	Description	
7000401	Striker	
7000402	Replacement Flints	



# THE SIMPLE WAY TO ADD A GRIP TO ANY TOOL OR HANDLE.

No gluing or heating required, Re-Grip uses strong, durable material to provide a safe and comfortable non-slip grip to any tool, handle, lever and more. With its special patented design, Re-Grip is easy for anyone to install. The elastic grip is held extended by an inner coil, forming a tube that fits over the handle. The user simply pulls a tab at the bottom to unwind the coil allowing the grip to shrink and compress securely to size.

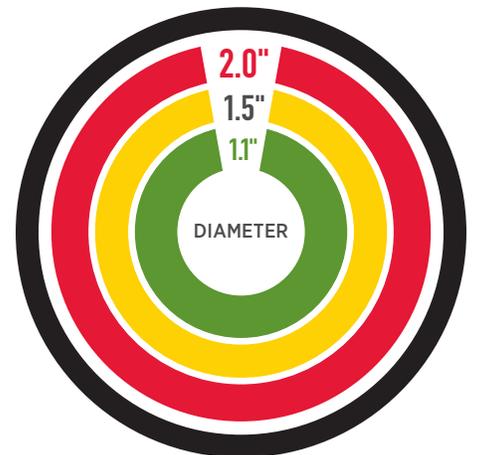
## SIMPLY SLIP, ZIP, RE-GRIP.



## AVAILABLE IN 3 SIZES

Re-Grip handles, which are all 7-inches in length (pre-stretched), are available in three different sizes. The range in diameters are easy to identify with color-coded inner coils. Simply select the Re-Grip with the smallest size diameter that will fit over your tool, handle or lever.

GRIP SIZE	PART NUMBER	MAX INCHES	MIN INCHES	FIT OVER CLEARANCE
<b>SMALL GRIP</b>	5140367	1.1" (28mm)	.68" (17mm)	1.3" (33mm)
<b>MEDIUM GRIP</b>	5140447	1.5" (38mm)	.79" (20mm)	1.6" (41mm)
<b>LARGE GRIP</b>	5140617	2.0" (51mm)	.98" (25mm)	2.3" (58mm)



FOSTER & COMPANY INC. CEDAR KNOLLS, NJ 800-526-0630



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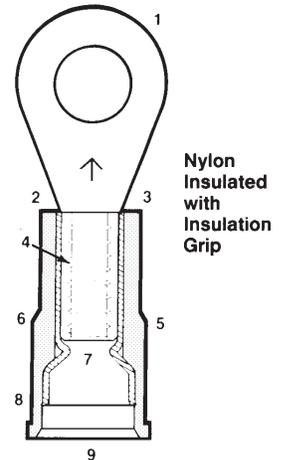
## Vibralloy Terminals

### The Ultimate In High Performance Design

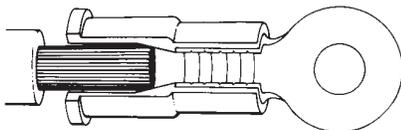
- A brass sleeve for optimum grip on insulation, strain relief and vibration protection.
- The sleeve is recessed for excellent flash-over protection.
- The terminal barrel features a non-slip ridge so tool slides to the end of terminal for proper crimp and better workmanship.
- Beveled leading edge for easy insulation entry.

#### Terminal construction features:

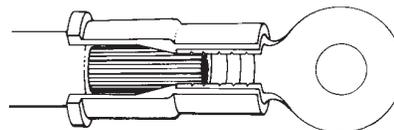
- One-piece, burr free construction for maximum electrical conductivity. Nectro-tin plating for maximum corrosion resistance. Annealed to relieve stress points and assure maximum installed strength.
- Barrel-to-pad transition designed to minimize flexing and bending.
- Open-end design permits visual inspection of wire location before and after crimping.
- Multiple "V" grooves in #22-4 AWG parts for maximum holding power and current flow.
- Injection Molded insulations provide the highest quality terminals in the industry. Molding insures consistent wall thickness for maximum reliability after crimping. Funnel Barrel construction for easier installation, no wire twisting necessary, eliminates strand hangups.



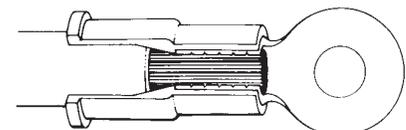
#### Funnel barrel feature provides excellent electrical and mechanical connection.



1. Funnel design guides wire into position



2. No wire strand hangup as wire is inserted. Fast, positive installation.



3. Wire in place ready for crimping.

## Correct crimping is important to assure a strong connection.

### Electrical Crimp

- Molding offers the crimp ridge and non-slip ridge. Crimp ridge designed for positive location of tool on terminal barrel which means fewer miscrimps. Insures good crimp contact and electrical conductivity.

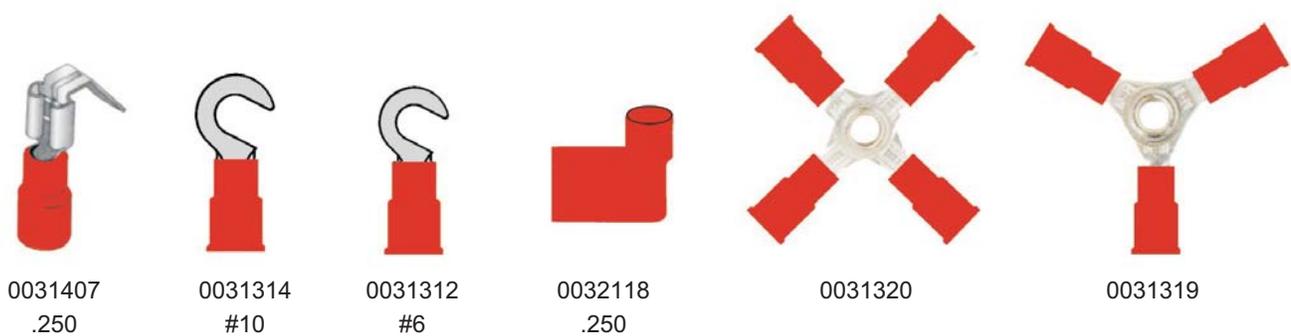
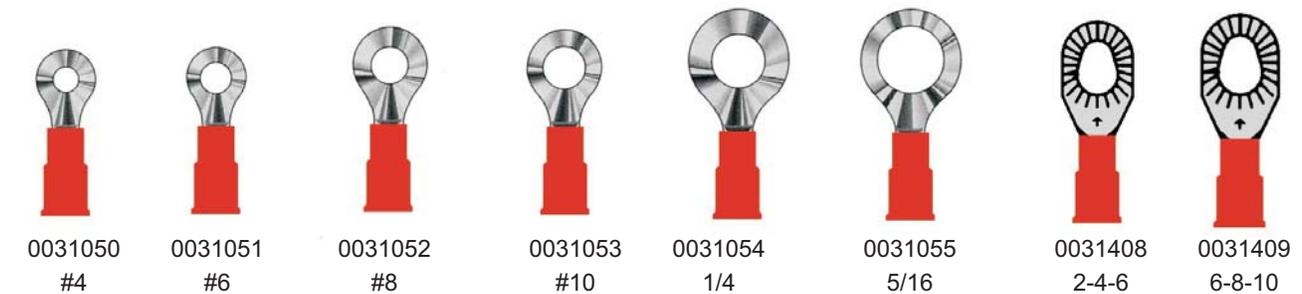
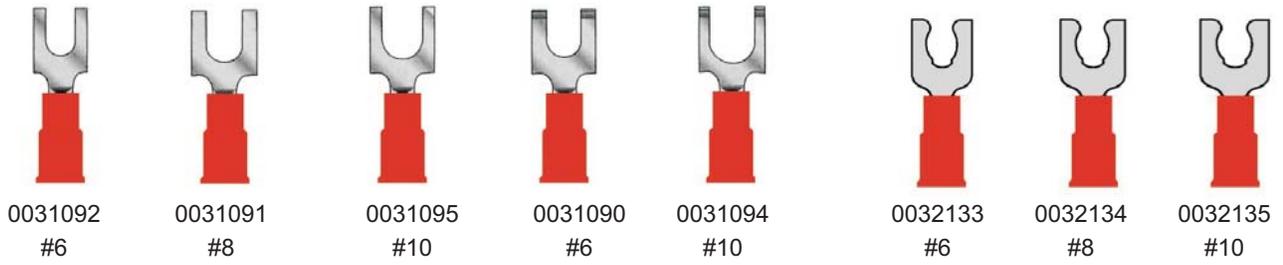
### Mechanical Crimp

- Nylon insulated butted seam with insulation grip used where insulated barrel and positive insulation grip are necessary or desirable.
- Terminal consists of butted seam part with flared, seamless brass sleeve securely attached and covered with flared, molded nylon sleeve.
- Wire insulation positions itself against funnel portion of brass sleeve.
- Crimping barrel and flared portion of sleeve provide excellent electrical contact plus mechanical stress relief at junction of insulation and barrel.
- Insulators are rated at a continuous operating temperature range from 40°F to 220°F (-40°C to 105°C).
- U.L. Listed and CSA Certified for 600 volt building wire and 1000 volt signs and fixtures.

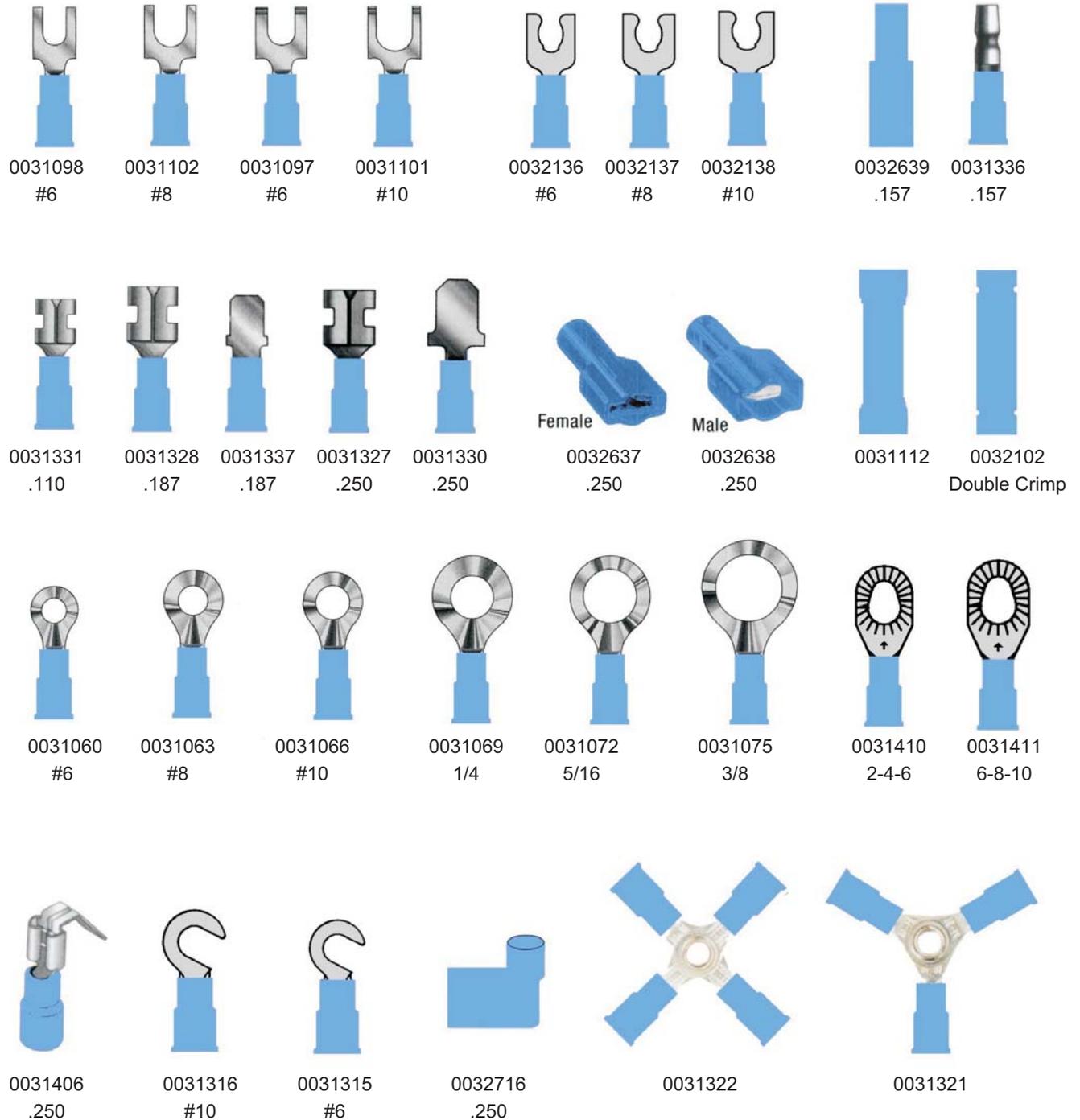
# TERMINALS



## 22-18 Gauge Wire Range (Red) - Nylon



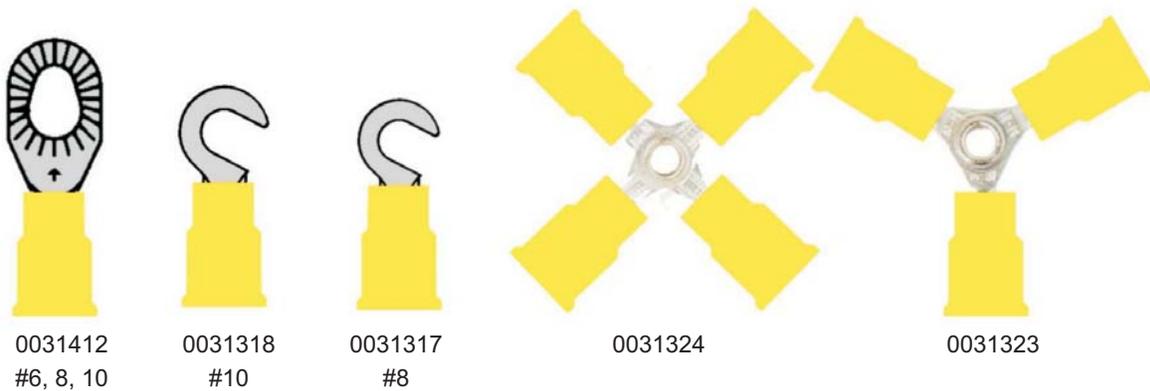
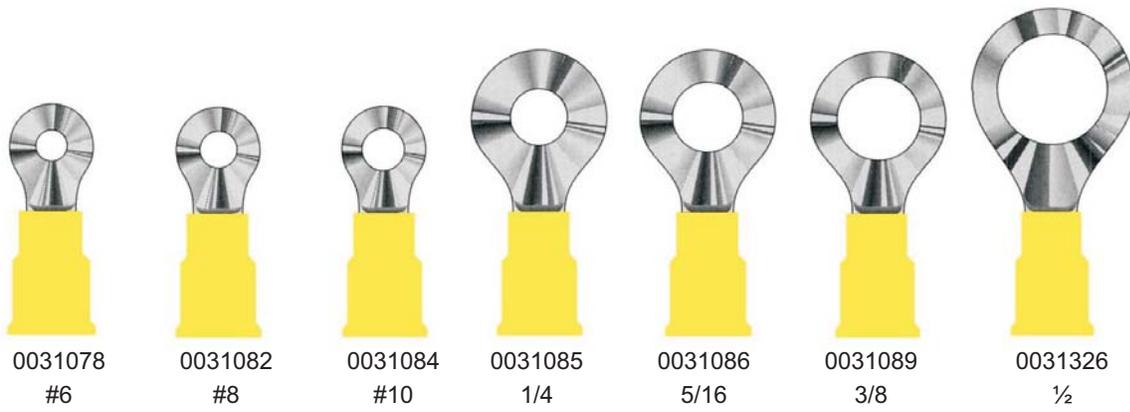
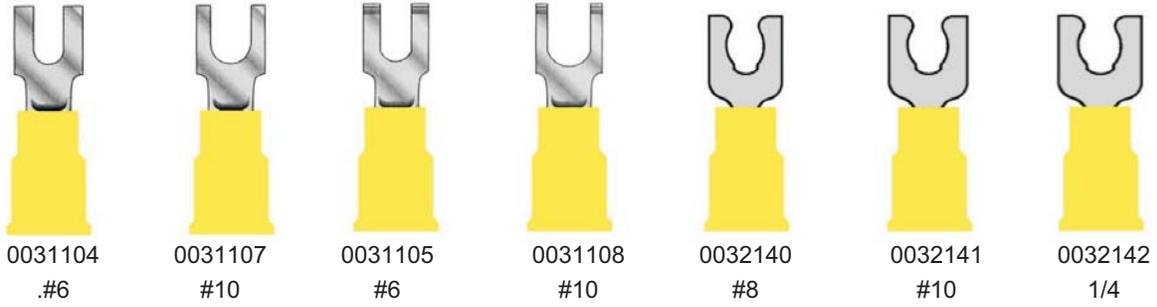
## 16-14 Gauge Wire Range (Blue) - Nylon



# TERMINALS



## 12-10 Gauge (yellow) - Nylon



## Ring Tongue Terminals

- Safest most reliable tongue type
- Can not be disconnected unless screw is completely removed

Color Code	Wire Range (awg)	Stud Size	Part Number
RED	22-18	4	0031050
	22-18	6	0031051
	22-18	8	0031052
	22-18	10	0031053
	22-18	1/4	0031054
	22-18	5/16	0031055
	22-18	3/8	0031056
BLUE	16-14	6	0031060
	16-14	8	0031063
	16-14	10	0031066
	16-14	1/4	0031069
	16-14	5/16	0031072
	16-14	3/8	0031075
YEL	12-10	6	0031078
	12-10	8	0031082
	12-10	10	0031084
	12-10	1/4	0031085
	12-10	5/16	0031086
	12-10	3/8	0031089
	12-10	7/16	0031325
	12-10	1/2	0031326



## Large Wire Ring Tongue Terminals

- Tough molded insulation
- Funnel entry barrel

Color Code	Wire Range (awg)	Stud Size	Part Number
RED	8	10	0031175
	8	1/4	0031176
	8	5/16	0031177
	8	3/8	0031178
	8	7/16	0031309
BLUE	6	10	0031179
	6	1/4	0031180
	6	5/16	0031181
	6	3/8	0031182
YEL	6	7/16	0031310
	4	1/4	0031183
	4	5/16	0031185
	4	7/16	0031311



## Heavy Duty Ring Tongues

- 25% Thicker for hi-vibration service
- Designed for off-the-road equipment and electric utilities

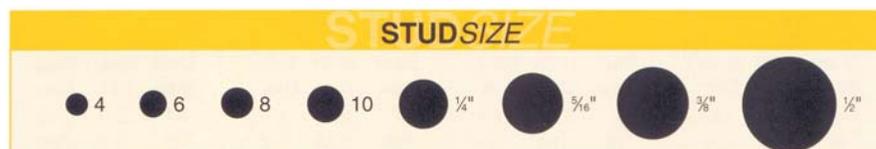
Color Code	Wire Range (awg)	Stud Size	Part Number
YEL	12-10	8	0032108
	12-10	10	0032110
	12-10	1/4	0032116
	12-10	3/8	0032124
	12-10	7/16	0032128
	12-10	1/2	0032132



## Multi Stud Ring Tongue Terminals

- Stock one terminal for 3 different stud sizes
- V-groove tongue prevents loosening due to vibration

Color Code	Wire Range (awg)	Stud Size	Part Number
RED	22-18	2-4-6	0031408
	22-18	6-8-10	0031409
BLUE	16-14	2-4-6	0031410
	16-14	6-8-10	0031411
YEL	12-10	6-8-10	0031412

# TERMINALS



## Hook Terminals

- Provides advantages of fork and ring type terminals
- Combined sideways and forward movement used to install or remove

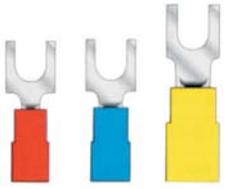
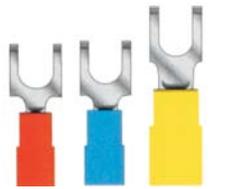
	Wire Range (awg)	Stud Size	Part Number	
RED	22-18	4-6	0031312	
	22-18	8-10	0031314	
BLUE	16-14	4-6	0031315	
	16-14	8-10	0031316	
YEL	12-10	4-6	0031317	

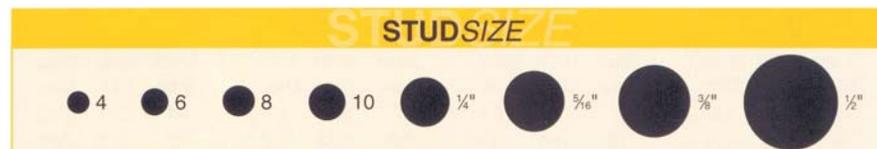
## Snap Spade Terminals

- Spring-like tongue snaps around screw locking the terminal in place
- Goes on like a fork stays on like a ring.

	Wire Range (awg)	Stud Size	Part Number	
RED	22-18	6	0032133	
	22-18	8	0032134	
	22-18	10	0032135	
BLUE	16-14	6	0032136	
	16-14	8	0032137	
	16-14	10	0032138	
	16-14	1/4	0032139	
YEL	12-10	8	0032140	
	12-10	10	0032141	
	12-10	1/4	0032142	

## Block Spade Terminals

	Wire Range (awg)	Stud Size	Block Spade Part No.	Flanged Spade Part No.	Block Spade	Flanged Spade
RED	22-18	4-6	0031092	0031090		
	22-18	8-10	0031095	0031094		
BLUE	16-14	4-6	0031098	0031097		
	16-14	8-10	0031102	0031101		
YEL	12-10	4-6	0031104	0031105		
	12-10	8-10	0031107	0031108		



## Quick Disconnects

- Designed for quick reliable slip-on interconnections
- Double Crimp Design with Insulation Grip prevents potential failure from stress, shock, and vibration
- Funnel Entry Design for easy wire insertion
- Tab locator lip for easier quicker assembly

	Wire Range (awg)	Male Tab Width	Type	Part Number
RED	22-18	.187	FEMALE	0031417
	22-18	.187	MALE	0031418
	22-18	.250	FEMALE	0031415
	22-18	.250	MALE	0031416
BLUE	16-14	.110	FEMALE	0031331
	16-14	.187	FEMALE	0031328
	16-14	.187	MALE	0031337
	16-14	.250	FEMALE	0031327
YEL	12-10	.250	FEMALE	0032624
	12-10	.250	MALE	0032640



## Nylon Fully Insulated Quick Disconnects

	Wire Range (awg)	Male Tab Width	Type	Part Number
RED	22-18	.250	FEMALE	0032641
	22-18	.250	MALE	0032642
BLUE	16-14	.250	FEMALE	0032637
	16-14	.250	MALE	0032638
YEL	12-10	.250	FEMALE	0032643
	12-10	.250	MALE	0032644



## Multi-stack Disconnect Terminals

Allows for a series of terminals to be joined together

	Wire Range (awg)	Male Tab Width	Part Number
RED	22-18	.250	0031407
BLUE	16-14	.250	0031406



## Fully Insulated Flag Right Angle Disconnect

	Wire Range (awg)	Male Tab Width	Type	Part Number
RED	22-18	.250	FEMALE	0032718
BLUE	16-14	.250	FEMALE	0032716
YEL	12-10	.250	FEMALE	0032712



## Butt Connectors

	Wire Range (AWG)	Nylon Part Number	
<b>RED</b>	22-18	0031111	 <p>** Changing over from Vinyl to Nylon on large size Butts If Nylon is required Please Note!</p>
<b>BLUE</b>	16-14	0031112	
<b>YELLOW</b>	12-10	0031113	
<b>RED</b>	8	0031186**	
<b>BLUE</b>	6	0031187**	
<b>YELLOW</b>	4	0031188**	

## Butt Connectors - Nylon Double Crimp

- Insulation grip provides increased pull out resistance
- Funnel entry design; extra long seamless barrel

	Wire Range (AWG)	Part Number	
<b>RED</b>	22-18	0032101	
<b>BLUE</b>	16-14	0032102	
<b>YELLOW</b>	12-10	0032103	

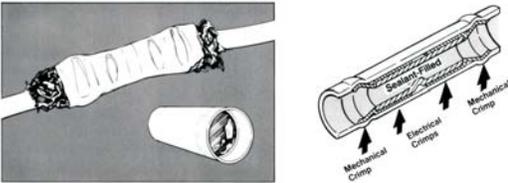
## Butt Connectors - Step Down

- Perfect solution when two wires need to be inserted in one end of a splice and a single wire in the other end

	Wire Range (AWG)	Part Number	
<b>BLUE W/ RED STRIPE</b>	16/14 to 22/18	0039501	
<b>YELLOW W/ BLUE STRIPE</b>	12/10 to 16/14	0039502	

## Moisture Resistant Butt Connector

- Premium quality nylon insulated connector with insulation grip - sealant filled; UL listed
- Protects exposed electrical connections from corrosive environments
- Excellent strain relief to resist the effects of vibration
- Will withstand high temperature power wash solutions; road chemicals, salt spray, fertilizer

	Wire Range (AWG)	Part Number	
<b>RED</b>	22-18	0037200	
<b>BLUE</b>	16-14	0037201	
<b>YELLOW</b>	12-10	0037202	

## 3-Way Connectors

	Wire Range (AWG)	Nylon Part Number	
<b>RED</b>	22-18	0031319	
<b>BLUE</b>	16-14	0031321	
<b>YEL</b>	12-10	0031323	

## 4-Way Connectors

	Wire Range (AWG)	Nylon Part Number	
<b>RED</b>	22-18	0031320	
<b>BLUE</b>	16-14	0031322	
<b>YEL</b>	12-10	0031324	

## Bullet Connectors and Snap Plugs

- Bullet connector that mates with a snap plug receptacle allowing for fast connecting and disconnecting

	Wire Range (AWG)	Snap Dia.	Nylon Part No.	Non-Insul Part No.	Type	
<b>BLUE</b>	16-14	.157	0031336	0030017	Universal Plug	
	16-14	.157	0032639		Universal Receptacle	
	16-14	.157	0031347		Universal Double Female Receptacle	
	16-14	.157	0032617		Universal Three Way Snap Plug Receptacle	
	16-14	.176	0031610	0030016	Ford Plug	

## Closed End Connectors

- Translucent nylon insulation
- Tin plated copper sleeve

Part Number	Gauge	
0030040	22-18	
0030041	16-10	

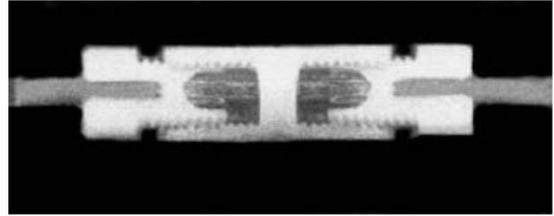
# TERMINALS



## POSI-LOCK CONNECTORS

### No more crimping or loose connections

- The Posi-Lock Connector can connect two or more wires anywhere with inly a pocket knife or wire stripper.
- One Posi-Lock Connector can handle a wire size range of 18 to 12 awg. Simply insert the bare wire ends into the Posi-Lock and hand tighten. Connection completed!
- Used in both O.E.M. And aftermarket applications, the Posi-Lock has a wire pull strength of 25 to 46lbs. And can be disconnected and reconnected over and over again.
- Molded of nylon type 6/6 with a tin plated brass insert and will not corrode.
- Up to 4 times stronger than crimp connectors.
- Temperature rating of up to 250°C or 482°F and is chemical resistant; can be used in engine compartments.
- Can handle multiple wire connections; the 8 to 10awg can handle 16 different wire connections.



Part Number	Type	Wire Size (Gauge)	
0031824	Butt Connector	18 to 24	
0031218	Butt Connector	14 to 16	
0031008	Butt Connector	10 to 12	
0036142	Y Connector	12 to 18	
0036152	In-Line Fuseholder (3/4 to 1-1/4)	12 to 18	
0036162	Weatherite Boot	12 to 18	

## Posi-Lock Assortment

Part Number	Contents	
0031000	26 Total Pieces 10 pieces 18-24 ga 12 pieces 14-16 ga 4 pieces 10-12 ga	<p>Seven compartment plastic box with locking latch</p>

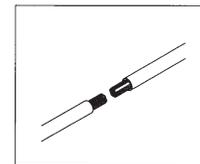
## Krimp-N-Seal Heat Shrink Connectors

- Corrosion resistant - adhesive lined heat shrink tubing provides resistance to water, salt, steam, and other contaminants.
- Improved mechanical performance - adhesive lined heat shrink tubing adheres to both the connector and the wire insulation providing improved pullout strength and strain relief
- Durable heat shrink tubing improves resistance to abrasion, scoring, and the effects of long term aging.

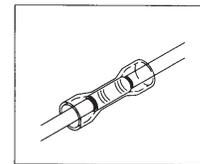
Part No	AWG	Style	Stud Size	Color
0039401	20-18	Ring	#6	Red
0039402	20-18	Ring	#8	
0039403	20-18	Ring	#10	
0039404	20-18	Ring	1/4	
0039405	20-18	Spade	#10	
0039406	20-18	Butt		
0039407	20-18	FemaleFIQD	.25	
0039408	20-18	Male FIQD	.25	
0039434	20-18	Bullet Plug	.157	
0039435	20-18	Bullet Recpt	.157	
Part No	AWG	Style	Stud Size	Color
0039409	16-14	Ring	#8	Blue
0039410	16-14	Ring	#10	
0039411	16-14	Ring	1/4	
0039428	16-14	Ring	5/16	
0039412	16-14	Ring	3/8	
0039413	16-14	Spade	#10	
0039414	16-14	Butt		
0039415	16-14	Female FIQD	.25	
0039416	16-14	Male FIQD	.25	
0039432	16-14	Bullet Plug	.157	
0039433	16-14	Bullet Recpt	.157	
0039436	16-14	Male QD	.250	
0039437	16-14	Female QD	.250	
Part No	AWG	Style	Stud Size	Color
0039417	12-10	Ring	#10	Yellow
0039418	12-10	Ring	1/4	
0039419	12-10	Ring	3/8	
0039420	12-10	Ring	1/2	
0039421	12-10	Spade	#10	
0039422	12-10	Butt		
0039423	12-10	Female FIQD	.25	
0039424	12-10	Male FIQD	.25	
Part No	AWG	Style	Color	
0039438	8 gauge	Butt	Pink	



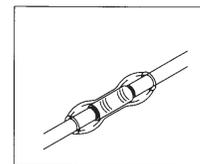
### Application Procedure



Strip wires to appropriate length as indicated on package label. (See package label.)



Insert wire into terminal and crimp with correct station of a recommended tool.



Apply heat with a recommended heat source.

Part Number	AWG	Style
0039425	16-14 to 20-18	Krimp-N-Seal Blue to Red Step Down
0039426	12-10 to 16-14	Krimp-N-Seal Yellow to Blue Step Down

## Elektralink Solder Heat Shrink Connectors

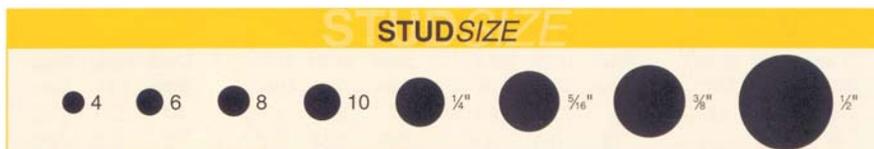
- Eliminate the three most common causes of electrical problems;
  - Corrosion due to exposure to moisture and solvents
  - Mechanical failure due to strain and vibration causing breakoff
  - Wires pulling loose from connectors due to improper crimping
- No crimping needed, just heat terminal until low melt solder flows for a strong vibration proof connection
- Color coded transparent adhesive lined tubing seals the connection, eliminates corrosion, bonds the terminal to the wire insulation for additional strain relief and pullout resistance.

Temperature Rating: -65<sup>o</sup> To 275<sup>o</sup>f  
 Dielectric Strength: 15kv  
 Insulation Resistance: 10<sup>14</sup> Megohms  
 Tubing Spec: Mil-I-23053/4, Class I Ams-3634  
 Solder Spec: Qq5571e, Mil-S-14256

Part No	AWG	Style	Stud Size	Color
0039301	20-18	Ring	#6	Red
0039302	20-18	Ring	#8	
0039303	20-18	Ring	#10	
0039304	20-18	Ring	1/4	
0039305	20-18	Spade	#10	
0039306	20-18	Butt		
0039307	20-18	Female QD	.25	
0039308	20-18	Male QD	.25	

Part No	AWG	Style	Stud Size	Color
0039309	16-14	Ring	#8	Blue
0039310	16-14	Ring	#10	
0039311	16-14	Ring	1/4	
0039312	16-14	Ring	3/8	
0039313	16-14	Spade	#10	
0039314	16-14	Butt		
0039315	16-14	Female QD	.25	
0039316	16-14	Male QD	.25	

Part No	AWG	Style	Stud Size	Color
0039317	12-10	Ring	#10	Yellow
0039318	12-10	Ring	1/4	
0039319	12-10	Ring	3/8	
0039320	12-10	Ring	1/2	
0039321	12-10	Spade	#10	
0039322	12-10	Butt		
0039323	12-10	Female QD	.25	
0039324	12-10	Male QD	.25	



## Hydralink In-Line

Join Two wires to One

- Tubing has an active adhesive that seals between multiple wires
- Color dash on tubing indicates the wire gauge for the connector
- Color stripes on the connector indicate which crimp die to use

Part No	Wire Gauge	Tubing Color	Style
0036720	24-22	Clear / White Dashes	One 24-22 wire to Two 24-22 wire
0036716	20-18	Clear / Red Dashes	One 20-18 wire to Two 20-18 wire
0036714	16-14	Clear / Blue Dashes	One 16-14 wire to Two 16-14 wire
0036710	12-10	Clear / Yellow Dashes	One 12-10 wire to Two 12-10 wire

## Hydralink Closed-End Connectors

Joins two to Four Wires

- Tubing has an active adhesive that seals multiple wires and eliminates wire pull-out
- Replaces wire nuts in environments where corrosion and/or vibration are a problem

Part No	Wire Range	Tubing Color
0036814	22-14	Clear/Blue Dashes
0036810	18-10	Clear with Yellow Dashes

## Hydralink Starter Assortment

Assortment of HydraLink In-Line and Closed-End Connectors

Part Number: 0036700



## Multilink Crimp/Solder Heat Shrink Connectors

- High quality, brazed seam crimp connector provides a secure mechanical connection
- Pre-fluxed, low temperature solder delivers superior current flow and tensile strength
- Translucent, adhesive-lined heat shrink tubing allows for visual inspection and provides a seal against corrosion
- Crimped, soldered and sealed connection meets or exceeds the most stringent OEM standards

Temperature Rating: -65° To 275°F  
 Tensile Strength: 2200 psi  
 Dielectric Strength: 1000 volts/mil  
 UL Voltage Rating: 600 volts

Part No	AWG	Style	Stud Size	Color
0039701	20-18	Ring	#6	Red
0039702	20-18	Ring	#8	
0039703	20-18	Ring	#10	
0039712	20-18	Spade	#10	
0039429	20-18	Butt		
0039715	20-18	Female QD	.25	
0039716	20-18	Male QD	.25	

Part No	AWG	Style	Stud Size	Color
0039704	16-14	Ring	#8	Blue
0039705	16-14	Ring	#10	
0039706	16-14	Ring	1/4	
0039707	16-14	Ring	3/8	
0039713	16-14	Spade	#10	
0039430	16-14	Butt		
0039717	16-14	Female QD	.25	
0039718	16-14	Male QD	.25	

Part No	AWG	Style	Stud Size	Color
0039708	12-10	Ring	#10	Yellow
0039709	12-10	Ring	1/4	
0039710	12-10	Ring	3/8	
0039711	12-10	Ring	1/2	
0039714	12-10	Spade	#10	
0039431	12-10	Butt		
0039719	12-10	Female QD	.25	
0039720	12-10	Male QD	.25	

- Flux coated to clean metal surfaces
- Premeasured solder to deliver the right amount

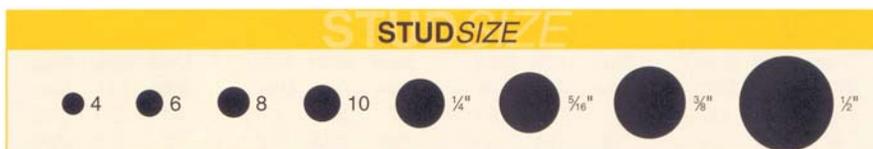
Low temp solder alloy for ease of installation

- Adhesive lined polyolefin to seal the connection
- Color coded with wire gauge imprint for easy size identification

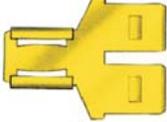
Translucent tubing to allow for visual inspection

- Zippered brazed seam for superior crimp performance
- Window for visual inspection
- Wire stop to prevent over- insertion

Serrated inner barrel for extra crimp strength



## Non Insulated Quick Connect Adapters

Part Number	Blade Width	Description	
0032632	.250	Converts One Power Block 1/4 Tab To Two Tabs	
0032631	.250	Converts One 1/4" Male Tab To Two Male Tabs	
0032633	.250	Power Block 1/4" Tab	
0031332	.250	Universal Plug To 1/4" Male Tab	
0031334	.250	Insulated Tab Receptacle For Connecting Two Female Quick Disconnects	

## Cross-lock Disconnects

- Self-mating parts

	Wire Gauge (AWG)	Tab Width	Part Number	
<b>RED</b>	22-18	.250	0033620	
<b>BLUE</b>	16-14	.250	0033610	
	Non-Insulated	.250	0030036	

## Male Quick Disconnect Tongue Adapters

Stud Size	Male Tab Width	Part Number	
6	.187	0032627	
6	.250	0032628	
10	.250	0032629	

# TERMINALS



## Uninsulated Ring Tongue

- High heat

Wire Range (awg)	Stud Size	Part Number
22-18	6	0030001
22-18	10	0030002
22-18	1/4	0030003
16-14	6	0030007
16-14	10	0030008
16-14	1/4	0030009
12-10	10	0030018
12-10	1/4	0030019
12-10	3/8	0030020



## Uninsulated Spade Terminal

- High heat

Wire Range (awg)	Stud Size	Part Number
16-14	10	0030012
12-10	10	0030022



## Uninsulated Butt Connector

- High heat

Wire Range (awg)	Part Number
22-18	0030004
16-14	0030013
12-10	0030023

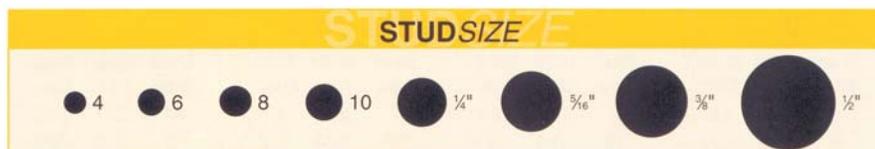


## Uninsulated Quick Slide

- High heat

Wire Range (awg)	Tab Size	Type	Part Number
16-14	.250	Female	0031350
16-14	.250	Male	0031351





## Weather Pack Connectors

- The weather pack is designed for the engine compartment of a vehicle. Use weather packs for automotive, marine, agricultural and other harsh environmental applications.
- Positive, snap-action locking. Secondary locking helps terminal retention and provides access to the terminals for service.
- Stops in all cavities to insure proper insertion of terminals.
- All connectors are indexed to prevent mis-mating.
- Nylon housing rated -40°C to 125°C.

Male Housing For Female Pins Part Number	Female Housing For Male Pins Part Number	Number of Contacts	
0039601	0039611	1-Way	
0039602	0039612	2-Way	
0039603	0039613	3-Way	
0039604	0039614	4-Way Flat	
0039606	0039616	6-Way Flat	

## Weather Pack Terminals

- Flex-pin and lap lock design give terminals a positive connection rated for a continuous current of 19 amps.
- Dual “tang” lock the terminal into the connector cavity.
- Cable seal crimp wings reduce strain on the cable core and assure proper positioning of the cable seal.
- All terminals are tin plated.

Part Number	Description	Gauge	
0039620	Female	20-18	
0039621	Female	16-14	
0039624	Female	12	
0039622	Male	20-18	
0039623	Male	16-14	
0039625	Male	12	

## Cavity Seals and Plugs

- Seals and plugs are made of self-lubricating silicone.
- Multiple “ribs” seal against dust, moisture, engine compartment fluids and chemicals.
- 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.

Part Number	Description	Color	
0039607	Cavity Seal - 12 gauge	blue	
0039609	Cavity Seal - 16-14	grey	
0039610	Cavity Seal - 20-18 gauge	green	
0039608	Cavity Plug	green	

## Weather Pack Tools

Part Number	Description	
0039626	Removal Tool	
0039627	Multi Gauge Crimper, 20-14 gauge	

## Weatherpack Terminal Assortment

Part No	Description	Comp	Pieces	Contents	
1930172	Weatherpack Connectors	21	145	1, 2, 3, 4, 5 & 6 cavity, male and female. Plugs, seals, connectors and tool.	

## Cool Seal Terminals

- Cool Seal is a heat-less, solderless terminal. It utilizes revolutionary anerobic sealant technology that installs in a fraction of the time of comparable heat seal connectors.
- Simply strip the wire and crimp, activating the sealant, to create an environmentally sealed connection.
- Seals out moisture. Nylon Insulation. 99.9% Copper Terminal
- Installation Guidelines: Strip wire ¼", Insert wire into the insulation and immerse bare copper end into the sealing gel. Rotate the wire sufficiently inside the insulation to insure the copper end of the wire is completely covered with the sealing gel. Insert into the connector until the wire insulation contacts splice/connector. Crimp with correct nest on crimp tool. No heat required. Fully cures in less than 24 hours.

Part Number	Wire Gauges/Color	
0039818	22-18 Red Butt	
0039814	16-14 Blue Butt	
0039810	12-10 Yellow Butt	

## Scotch Lok Self-Stripping Connectors

- Quickly connect two or three wires without prior stripping
- No special tools- crimp with common plier

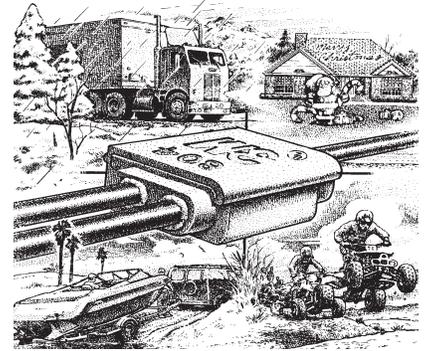
Part Number	AWG	Color	Rating	Mates With	Connection	
0037203	22-14	Blue Cap Grease Filled Scotchlok	UL- CSA 600V Max		Pigtail	
0033236	18-14	Blue Scotchlok	UL 600V Max		In-Line Splice	
0033234	18-14	Blue Grease Filled Scotchlok	UL 600V Max		In-Line Splice	
0033238	12-10	Yellow Scotchlok	UL 600V Max		In-Line Splice	
0033237	18-14	Black Scotchlok		16-14 Universal Bullet 0031710	Receptacle	
0033239	18-14	Blue T-Tap	UL & CSA	16-14 FI Male Quick Slide 0032638	Mid-span Tap	
0033240	22-18	Red T-Tap	UL & CSA	22-18 FI Male Quick Slide 0032642	Mid-span Tap	
0033241	12-10	Yellow T-Tap	UL & CSA	12-10 FI Male Quick Slide 0032644	Mid-span Tap	
0035500	18-14	Blue In-line Fuseholder	20 Amp Max	Fuse Blade Type (ATC)	In-line Fuse	

# TERMINALS



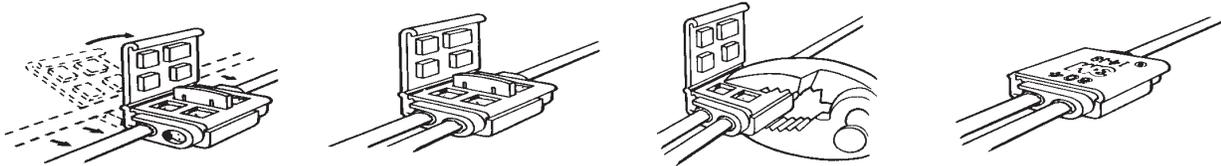
## Moisture-Resistant Tap Connector

- No cutting, stripping, or taping required
- Moisture-resistant gel protects wires from corrosive environments
- Special locking cap insures a protected connection over time
- Applications: making tap connections for trucks, cars, snowmobiles, motorcycles, boats, trailers off road equipment, and outdoor lighting and landscape lighting



Part No.	AWG	Color	Rating	Connection
0033234	18-14	Blue	UL 600V	In-line splice

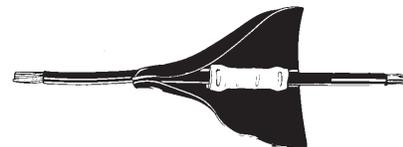
**Caution:** Turn off power before installing or removing connector. All electrical work should be done according to appropriate electrical codes.



## Moisture Sealant Patches

- Pre-cut patches apply quickly and easily
- Self-fusing rubber-based insulating mastic
- Moisture proofs connections
- Adds strain relief to splices
- Tough vinyl backing provides protection against abrasion and road grime
- INSTRUCTIONS: 1.Remove liner  
2. Position connector in center of pad  
3. Press the pad closed and squeeze ends to ensure complete seal.

Part No.	Size	Max Volts
0031432	2-1/2" X 2-1/2"	300/MIL
0031433	2-1/2" X 10'	300/MIL



## Silicone Dielectric Grease

Part Number	Size
5140212	6 oz.



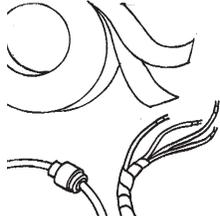
## Insul-wrap Fusion Repair Tape

- Heavy-duty self-fusing silicone tape cures within 24 hours at room temperature to form a permanent, one-piece insulator
- Special triangular guide line facilitates wrapping, cuts taping time
- Insul-wrap is not tacky and will not bond to other surfaces
- Wide Temperature Range -60° C TO 200°C
- Dielectric strength 400 VOLTS/MIL [20 MIL thickness]
- To use, remove plastic backing and wrap under tension following guide line.

Part Number	Size	Color	
1530022	1" X 30'	Orange	

## Insul-bond Rubber Electrical Tape

- High quality unvulcanized rubber compound suitable for insulation of joints in electrical wires and cables
- Can withstand 450% elongation before breakage occurs
- Dielectric strength 450 volts/MIL
- Tensile strength 325 psi
- UL Approved, meets SPEC. HH-T-111C, D-119-59T
- To use remove blue plastic liner and wrap under tension 50% with a overlap

Part Number	Size	Color	
1530023	3/4" X 22'	Grey	

## Self Fusing Tape

- Linerless rubber [EPR] insulating tape
- Provides immediate moisture seal and void free buildups
- Can be used for low and high voltage applications to 69kV

Part Number	Size	Color	
0031425	3/4" X 15'	Black	

## Vinyl Electrical Tape

Part Number	Size	Description
0030911	3/4" x 66'	<ul style="list-style-type: none"> <li>Resistant to water, oils and corrosive chemicals</li> <li>Pressure sensitive....grips fast, sticks tight</li> <li>7 mils thick, high dielectric strength: 1000 volts min</li> </ul>



## Vinyl Color Coding Tape

- Resistant to water, oils and corrosive chemicals
- Pressure sensitive....grips fast, sticks tight
- 7 mils thick, high dielectric strength: 1000 volts min

Part Number	Size	Color	Part Number	Size	Color
0039001	3/4" x 66'	Blue	0039006	3/4" x 66'	Red
0039002	3/4" x 66'	Brown	0039007	3/4" x 66'	Violet
0039003	3/4" x 66'	Gray	0039008	3/4" x 66'	White
0039004	3/4" x 66'	Green	0039009	3/4" x 66'	Yellow
0039005	3/4" x 66'	Orange	0039010	9 Rolls Assorted Colors	



## Super 33+ Vinyl Electrical Tape

Part Number	Size	Description
0030933	3/4" x 44' (10/box)	<ul style="list-style-type: none"> <li>Premium grade vinyl, 7 mils thick, stickier, stretchier and highly conformable, flame retardant, hot and cold weather resistant</li> <li>Resists UV rays, abrasion, moisture, acids and corrosive chemicals</li> <li>High dielectric strength: 600 volts. Cable splices and wire splices up to 1kV</li> <li>Meets ASTM D-3005 Type 1, UL 510, HHI-595C and CSA C22.2</li> </ul>
0030934	3/4" x 66' (10/box)	



## Starbrite Liquid Electrical Tape

Part Number	Size	Description
0032009	4 oz. Can with Brush in Cap	<ul style="list-style-type: none"> <li>Forms a protective, waterproof, UV resistant, dielectric coating</li> <li>Prevents corrosion on wires and terminals</li> <li>Patented, UL® tested, fast drying formula</li> <li>This product has thousand of uses around the home, boat, RV as well as industrial uses.</li> <li>Anytime you expose electric wires to harsh environments you need this product. Liquid Electrical Tape provides a totally sealed joint which is flexible and fire resistant.</li> <li>UV and water and most chemicals will not affect a joint sealed with Liquid Electrical Tape.</li> <li>Dries to touch in about 10 minutes and fully cures in 24 hours.</li> </ul>



## Heat Shrink Tubing - Color Coded

- Waterproof adhesive seal protects electrical connections from deterioration caused by hot oils, gasoline, dust, solvents, moisture, road salts, and most chemicals.
- Dual wall meltable liner.
- Easy to apply; heat splice with heat gun or blazer torch until tubing recovers and adhesive flows.

Part No.	Wire Gauge	Color	Length
0031450	22-18	RED	6"
0031451	16-14	BLUE	6"
0031452	12-10	YELLOW	6"



## Sealform Heat Shrinkable Tubing

- Dual wall flame-retardant polyolefin, includes internal thermoplastic adhesive/sealant
- When heated tubing will shrink to 33% of supplied diameter (3:1) forcing melted adhesive to flow and seal the connection.
- Sealform provides excellent strain relief and is a superb insulator and environmental seal, resistant to salt water, automotive fluids and corrosive chemicals

Part Number	Expanded ID	Color	Suggested Wire Size Range (AWG)	Supplied Length
0031374	1/8	Brown	26 to 22	6"
0031375	3/16	Gray	20 to 12	6"
0031376	1/4	White	16 to 10	6"
0031377	3/8	Red	12 to 8	6"
0031378	1/2	Blue	8 to 4	6"
0031379	3/4	Yellow	2 to 1/0	6"



## Heat Shrink Tubing Thin Wall

- Multi- purpose polyolefin compound
- Resists wide range of chemicals, oils, sunlight, moisture
- 2 to 1 shrink ratio
- UL Approved standard 224 - mil-i-23053b/5
- Applications : insulation, wire marking, strain relief, bundling

Size	Expanded I.D.	Recovered I.D.	Length	PART NUMBER
1/8	1/8	1/16	25'	0031380
3/16	3/16	3/32	25'	0031381
1/4	1/4	1/8	25'	0031382
1/2	1/2	1/4	25'	0031383
3/4	3/4	3/8	25'	0031384
1	1"	1/2	25'	0031385



## Heat Shrink Tubing

### Heavy Wall With Sealant

- Tough cross linked polyolefin protects against abrasion and corrosion
- Provides superior strain relief and resistance to vibration
- Sealant is activated by heat [ 275of ] while the tubing is being shrunk
- High shrink ratio [ 3 to 1 ]
- UL Approved

Wire Range	Expanded I.D.	Recovered I.D.	Length	Color	Part Number
14-6 Ga	5/16	1/8	6"	Black	0031426
14-6 Ga	5/16	1/8	6"	Red	0032426
8-1 Ga	3/4	1/4	6"	Black	0031419
8-1 Ga	3/4	1/4	6"	Red	0032419
2-4/0	1	3/8	6"	Black	0031420
2-4/0	1	3/8	6"	Red	0032420
4/0-400	1-1/2	1/2	6"	Black	0031427



## Micro- Jet Torch

Part Number	Description
0031904	<ul style="list-style-type: none"> <li>• Piezo electronic self-starting ignition system with safety lock</li> <li>• Wind proof flame and waterproof ignition system perfect for outdoor use</li> <li>• Flame temperature to 2400°F</li> <li>• Rechargeable butane lighter fuel cell</li> <li>• Ideal for electronic, plumbing, automotive, soldering applications</li> </ul>



## Micro-Torch

- Self-igniting Push Button System
- Flame Control for longer broad flame or short pinpoint flame to 2400°
- Rechargeable butane lighter fluid cell
- Ideal for electronic, plumbing or automotive soldering applications
- PART NUMBER 0031906



## Heat Gun

Part Number	Description
0032000	<ul style="list-style-type: none"> <li>• Designed for electrical and electronic bench work</li> <li>• Use to shrink tubing, melt solder preforms, activate &amp; cure adhesives</li> <li>• Brushless shaded pole continuous duty motor</li> <li>• High impact plastic housing</li> <li>• 3-Wire grounded cord set</li> <li>• Draws only 4.5 AMPS maximum</li> </ul>



## Cross-link Polyethylene Primary Wire

- Single conductor, stranded copper wire with thickwall insulation
- For automotive use meets SAE J1128-TYPE SXL
- Thermoset insulation provides outstanding durability and abrasion resistance, withstands temperatures up to 350°F, without melting or fusing
- Resistant to moisture, grease, oil, acid and most solvents



WIRE GAUGE	LENGTH	BLACK	RED	WHITE	YELLOW	BLUE	GREEN	BROWN
18	100'	0030201	0030202	0030203		0030204	0030218	0030239
16	100'	0030228	0030229	0030231	0030226	0030227	0030216	0030240
14	100'	0030220	0030222	0030225	0030223	0030219	0030221	0030241
12	100'	0030234	0030235	0030236	0030232	0030233	0030212	0030242
10	100'	0030237	0030238	0030205		0030206	0030209	0030243

## General Purpose Primary Wire

- Single conductor annealed copper strands, thermoplastic insulated wire
- Meets SAE J1128-TYPE GPT
- Highly resistant to grease, oils, acids, and diesel fumes
- Insulation operates satisfactorily between -30° F and 250° F
- Smooth surface makes this wire easy to pull through loom or conduit



WIRE GAUGE	LENGTH	BLACK	RED	WHITE	YELLOW	BLUE	BROWN	GREEN
18	100'	0030129	0030131	0030111	0030112	0030128	0030113	0030130
16	100'	0030133	0030135	0030138	0030136	0030132	0030137	0030134
14	100'	0030140	0030142	0030145	0030143	0030139	0030144	0030141
12	100'	0030147	0030149	0030152	0030146	0030148	0030150	0030151
10	100'	0030109	0030155	0030157	0030153	0030154	0030156	0030158
8	100'	0030106	0030108					

WIRE GAUGE	LENGTH	BLACK	RED	WHITE	YELLOW	BLUE	BROWN	GREEN
14	1000'	0030168	0030170	0030173	0030171	0030167	0030172	0030169
16	1000'	0030160	0030162	0030165	0030163	0030159	0030164	0030161

## Flat Two Conductor Parallel Wire

- Two plastic primary wires laid parallel and covered with a heavy duty extruded oblong pvc gray jacket
- Recommended for trucks, buses, tractors, and light duty boats
- Resists acid, flame, oil, and moisture

Part Number	Conductor Gauge	Color
0030127	16/2	Black - White
0030125	14/2	Black - White
0030123	12/2	Black - White
0030121	10/2	Black - White



## Flat Ribbon

- Conductors are bonded together for easier installation and handling
- Manufactured with SAE J1128 TYPE GPT wire

Part Number	Conductor Gauge	Color
0030301	16/3	Black - White - Red
0030302	14/3	Black - White - Red
0030303	16/4	Brown - Red - White - Green
0030304	14/4	Brown - Red - White - Green

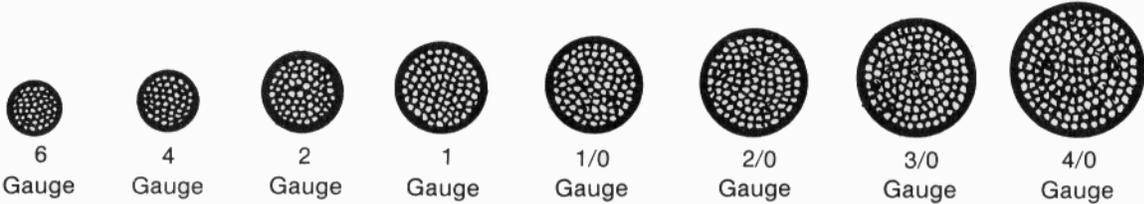


## Battery Cable

- Soft annealed stranded copper conductors
- Durable thermoplastic jacket keeps cable flexible at low temperatures
- Resists abrasion, ozone, oil, and road salts
- Meets all applicable requirements of SAE J-1127 TYPE SCT



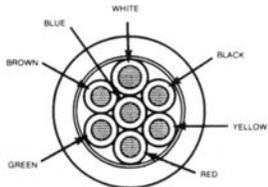
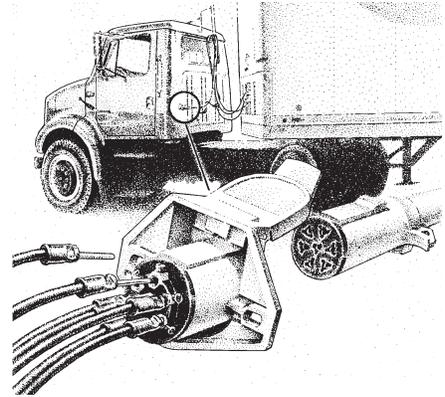
Black Part Number	Red Part Number	Gauge	Voltage	Application
0030530	0030535	#6	12	Golf Carts - Marine
0030529	0030534	#4	12	Automotive
0030523	0030522	#2	6/12	Automotive - Light Trucks
0030521	0030520	#1	6/12/24	Farm - School Bus - Trucks To 10 Ton
0030525	0030524	1/0	6/12/24	Med. Duty Trucks - Tractors - Construct Equip
0030526	0030531	2/0	6/12/24	Heavy Duty Trucks
0030527	0030532	3/0	6/12/24	Tractors
0030528	0030533	4/0	6/12/24	Construction Equipment



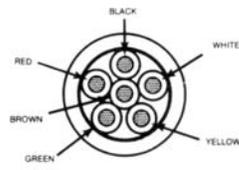
## Multiple Conductor Truck Trailer Cable

### ATA COLOR CODE FOR 7- CONDUCTOR CABLE

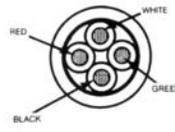
- white - ground return to towing vehicle
- black- icc required marker and clearance light
- yellow - left hand directional signal
- red - stoplights
- green - right hand directional signal
- brown - tail lamps, 3 bar marker lamps
- blue - auxiliary



Seven-Way Conductor



Six-Way Conductor

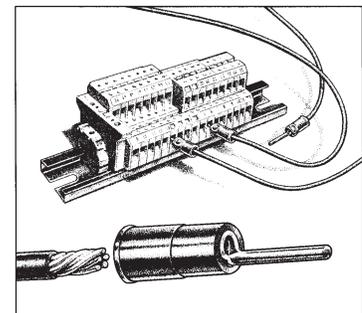


Four-Way Conductor

Part Number	Conductors	Wire Gauge
0030557	7	6-12 Gauge, 1-10 Gauge
0030559	6	14 Gauge
0030558	4	14 Gauge

### Pin Connectors

- Improves conductivity
- Eliminates crushed splayed wires
- Provides strain relief, resists vibration
- Funnel entry nylon-insulated with insulation grip
- Pin connectors provide excellent mechanical and electrical performance when secured under a set screw or pressure pad in terminal blocks



Part Number	Wire Range	Color
0036007	16-14	Blue
0036008	12-10	Yellow

# PLUGS/RECEPTACLES



## 7-Way Plug

- Meets or exceeds all ATA AND SAE (J560b) standards
- Wiring color codes are molded into the plug
- Floating pins for ease of alignment
- Jumbo finger pull grips and two hang up holes

Part Number	Description
0036014	Standard 7 Way Zinc Die-Cast
0036020	Plug Replacement Interior
0036022	Cable Guard



## 7-Way Socket

- Meets and exceeds all rigid anti-skid standards
- Self grounding
- Optimum slant mount and drain slot

Part Number	Description
0036016	Standard 7 Way Zinc Die-Cast
0036019	Replacement Socket Interior



## 6-Way Connectors

- 12-24 Volts, 35 Amp
- Compact socket design with exposed terminals
- High impact cyclolac interiors
- Zinc die-cast housing with integral finger grips

Part Number	Description
0036011	6 - Way Plug Zinc Die-Cast
0036012	Plug Replacement Interior
0036022	Cable Guard
0036010	6 - Way Socket Zinc Die-Cast
0036013	Replacement Socket Interior



## 4-Way Connectors

Part Number	Description
0036006	4 - Way Plug Zinc Die-Cast
0036003	Plug Replacement Interior
0036022	Cable Guard
0036005	4 - Way Socket Zinc Die-Cast
0036004	Replacement Socket Interior



## Battery Terminals & Lugs

- One piece cast copper construction
- All terminals are electroplated with tin twice industry standards
- 25 TO 40% higher yoke gives greater contact with battery post
- 5/16 battery bolts and shoulder nuts included with all clamps
- Uniform wall thickness
- Cable size and polarity are imprinted on terminals
- Tool die color printed on terminal to simplify identification

Part Number	Cable Size	Post Type	Color Code
0037100	6-4	Universal	Grey
0037103	2	Straight Pos	Green
0037104	2	Straight Neg	Green
0037101	1	Straight Pos	Pink
0037102	1	Straight Neg	Pink
0030420	1/0	Straight Pos	Black
0030431	1/0	Straight Neg	Black
0030490	2/0	Straight Pos	Orange
0030492	2/0	Straight Neg	Orange
0030491	3/0	Straight Pos	Purple
0030493	3/0	Straight Neg	Purple



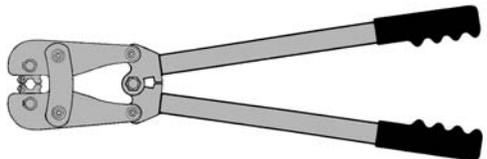
## Flag Barrel Terminals

Part Number	Cable Size	Post Type	Color Code
0030449	1/0	Flag Pos	Black
0030448	1/0	Flag Neg	Black
0030494	2/0	Flag Pos	Orange
0030496	2/0	Flag Neg	Orange
0030495	3/0	Flag Pos	Purple
0030497	3/0	Flag Neg	Purple



## Crimping Tool

PART NUMBER	Description
0030500	<ul style="list-style-type: none"> <li>• Heavy duty double compound action head crimps terminals 8 ga to 6/0</li> <li>• Easy rotating permanently attached crimping dies</li> <li>• Heavy duty aluminum handles with cushioned grips</li> </ul>



## Butt Connectors

- Fully annealed tin plated copper
- Seamless butt connectors have flared ends
- AWG wire gage identifications are stamped into barrel

Part Number	Cable Size	Color Code
0037010	6	Grey
0037011	4	Grey
0037012	2	Green
0037013	1	Pink
0030450	1/0	Black
0030451	2/0	Orange
0030452	3/0	Purple
0037017	4/0	Yellow



## Copper Lugs

- Fully annealed electrolytic copper construction
- Unique flared barrel design eliminates wire strand hang-ups
- (AWG) wire gage identifications are marked on barrels

Part Number	Cable Size	Stud Size
0037001	6-4	1/4
0037020	6-4	5/16
0037021	2	5/16
0037002	2	3/8
0037022	1	5/16
0037003	1	3/8
0037004	1/0	3/8
0037005	1/0	1/2
0037006	2/0	3/8
0037007	2/0	1/2
0037008	3/0	1/2
0037009	4/0	1/2



## Heavy Wall Lugs

- 100% copper, tin plated for corrosion resistance
- Color code, letter code and cable size stamped on every lug

Part Number	Cable Size	Stud Size	Color Code
0030432	6	1/4	Grey
0030433	6	5/16	Grey
0030434	6	3/8	Grey
0030435	4	1/4	Grey
0030436	4	5/16	Grey
0030437	4	3/8	Grey
0030441	1 & 2	5/16	Pink
0030439	1 & 2	3/8	Pink
0030443	1/0	5/16	Black
0030440	1/0	3/8	Black
0030442	2/0	3/8	Orange
0030498	2/0	1/2	Orange
0030444	3/0	3/8	Purple
0030499	3/0	1/2	Purple
0030503	4/0	1/2	Yellow



## Stud/Side Terminal Lugs

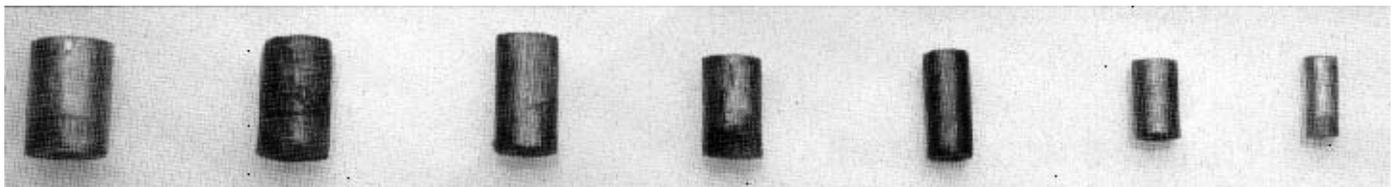
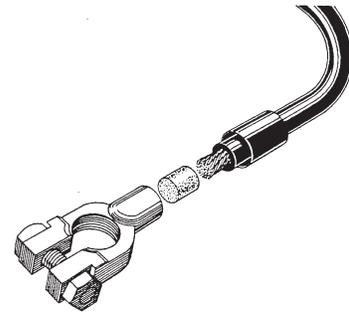
- Strong cast copper lugs
- Stackable for multiple battery hookups
- Anti-rotation design lock in 24 positions when stacked

Part Number	Cable Size	Stud Size	Color Code
0030415	1/0	3/8	Black
0030416	2/0	3/8	Orange
0030417	3/0	3/8	Purple
0030418	4/0	3/8	Yellow



## Battery Slugs

Part No	Slug Size	Color
0037030	4 gauge	grey
0037031	2 gauge	green
0037032	1 gauge	pink
0037033	1/0 gauge	black
0037034	2/0 gauge	orange
0037035	3/0 gauge	purple
0037036	4/0 gauge	yellow
0037037	Flux	2 ounce drop bottle



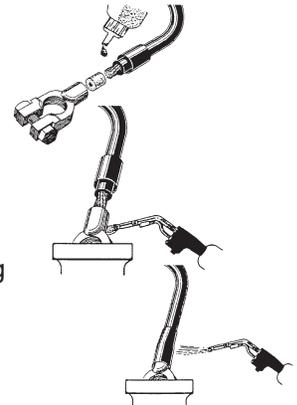
### INSTALLATION

Strip the proper size cable so that the exposed cable will reach all the way to the bottom of the battery terminal and the cable insulation fits snugly against the top.

Place the proper size solder slug into the terminal. Secure the battery terminal in a vise. Slide the proper size heat shrinkable tubing over the cable. apply several drops of Flux to the exposed cable. Insert the exposed cable into the terminal.

Ignite the propane torch, and heat the base of the battery terminal while applying gentle downward pressure on the cable. Allow the cable to slide into the terminal until the insulation is snug against the top of the terminal.

Slide the heat shrinkable tubing over the connection and apply in direct heat to the tubing.



## Economy Crimping Tool

Part Number	Description
0030501	<ul style="list-style-type: none"> <li>• Hammer type tool accepts 8 gage - 4/0 gage uninsulated terminals, butt connectors, battery terminals and lugs</li> <li>• Crimping guide is imprinted in anvil</li> <li>• Heavy duty steel construction</li> </ul>



## Copper Cable Cutter

Part Number	Description
0030502	<ul style="list-style-type: none"> <li>• Will cut up to 350 MCM copper stranded electrical cable</li> <li>• Durable machined steel blades</li> <li>• 13" long handles with rubber grips</li> </ul>



## Heavy Duty Lead Truck Battery Terminals

- Die cast from antimonial reinforced lead
- Straps, nuts, and bolts are zinc plated steel
- Clamps securely on cable

Part Number	Wire Size	Description	
0030870	1 - 4/0 GA	Straight	
0030871	2 - 4/0 GA	Right Angle	

## 3- Way Lead Truck Battery Terminal

- 3-way feature helps eliminate cable bends
- Lead construction with zinc plated steel bolts and nuts

Part Number	Wire Size	Description	
0030803	1 - 2/0 GA	Universal	

## Universal Emergency Lead Terminals

Part Number	Wire Size	Description	
0030804	6 - 2/0 GA	Top Post	
0030875	6 - 2/0 GA	Side Post	

## Marine Or Wing Nut Lead Terminal

Part Number	Post Size	
0030862	5/16	

## Military Low Profile Terminal

- Solid lead alloy with steel reinforced ring cast inside clamp
- All bolts and nuts lead plated
- Extra long 3/8" x 2-1/2" bolt connect with copper battery lugs

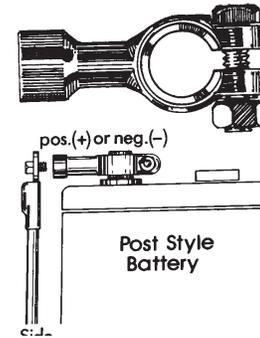
Part Number	Description	Military Spec	
0030876	Positive	MS75004-1	
0030877	Negative	MS75004-2	

# BATTERY



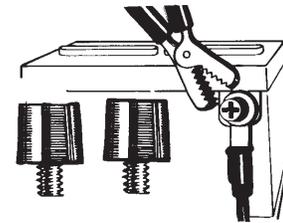
## Top Post To Side Mount Cable Adapter

Part Number	Type	Description
0030867	Positive	<ul style="list-style-type: none"> <li>Converts top post battery for use with side terminal cables</li> <li>All lead construction threaded for 3/8" side terminals</li> <li>Includes 5/16" hex nut and bolt</li> </ul>
0030869	Negative	



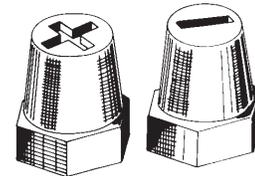
## Side Mount Post Adapters

Part Number	Description
0030872	<ul style="list-style-type: none"> <li>1 Positive/1 Negative</li> <li>Charging post adapters for side terminal battery</li> <li>Lead terminals with 3/8" plated steel stud</li> </ul>



## Stud To Post Conversion

Part Number	Description
0030898	<ul style="list-style-type: none"> <li>1 Positive/1 Negative</li> <li>Changes the existing 3/8" threaded stud to a standard SAE taper post</li> </ul>



## Metal Post And Terminal Cleaner

Part Number	Description
0030829	<ul style="list-style-type: none"> <li>Rust resistant stainless steel brush</li> <li>Includes protective brush cover</li> </ul>



## Anti-corrosion Felt Ring

Part Number	Color	Description
0030821	Red	<ul style="list-style-type: none"> <li>Chemically treated to give extra life to battery terminals</li> </ul>
003822	Black	



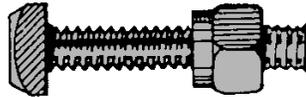
## Replacement Side Terminal Bolts

- Fully threaded, bright zinc plated steel bolt
- Recessed groove permits attachment of battery charger or jumper cables

Part Number	Description	
0030801	OEM Bolt	
0030802	Extended Knurled Bolt	

## Replacement Bolts / Nuts

- Fully threaded, plated to resist corrosion

Part Number	Description	
0030823	5/16 X 1-1/4 square head bolt & hex nut	
0030900	5/16 X 1-1/4 square head bolt & shoulder nut	

## Adapter Bolts and Nuts

- Precision machined from solid brass, includes zinc plated steel nut and washer
- Connects power accessories directly to battery

Part Number	Description	Size	
0030812	Adapter bolt, side terminal accessory post for double power lead	3/8-16 x 1" Accessory Stud: 5/16-18 x 1/2"	
0030813	Adapter nut, top terminal accessory post	5/16-18 x 15/16" Accessory Stud: 5/16-18 x 3/4"	

## J-Hook Hold Down Bolts

- Plated rods include new rubber bushings and wing nuts

Part Number	Dia.	Length	
0030908	5/16"	8"	
0030906	5/16"	10"	

## Tangle-free Battery Booster Cables

- Fine-stranded all -copper conductors with rubber jacket insure maximum flexibility at sub-zero temperatures.
- The twin line construction keeps cables tangle-free.
- Heavy duty cables provide quick sure starts.

Part No	Length	Gauge	Type	Clamp Amps	Clamp Type
0035999	16ft	6	Rubber	400	Slim Clamp
0036001	12ft	4	Rubber	500	Parrot -Jaw
0036002	20ft	4	Rubber	500	Parrot-Jaw
<b>Replacement Jaws</b>					
0036000	Fits 4 & 6Gauge			400	Vinyl Clad
0036009	Fits 2 & 4Gauge			500	Epoxy Coated



## Test Clips

- Cadmium plated steel
- Interlocking necks prevent jaw-offset
- Copper shunt gives spring complete protection

Part No	Amps	Jaw Opening	Spring
0030816	10	9/16	10 lb
0030818	50	1-3/8	33 lb



## Alligator Clips

- Cadmium plated steel
- Screw connection

Part No	Description
0030815	Uninsulated



Part No	Description
0030826	Red Insulator
0030827	Black Insulator



## Split Convuluted Tubing

- Flexible black polyethylene tubing holds wires in position and protects wires from abrasion and crushing
- Tubing is split for easy wire insertion
- Operating temperature -30<sup>o</sup> F TO 200<sup>o</sup> F

Part No	ID	Length
0030684	1/4	100 ' Coil
0030686	3/8	100 ' Coil
0030688	1/2	100 ' Coil
0030689	5/8	100 ' Coil
0030692	3/4	100 ' Coil
0030693	1"	100 ' Coil



## Wire And Cable Loom

- Flexible non-metallic asphalt impregnated
- Protects wire and cables from abrasion; protects, brake / oil / fuel lines, from hot exhaust manifolds
- Moisture and acid resistant SAE SPEC: J-562

Part No	ID	Length
0030683	3/16	100 ' Coil
0030685	5/16	100 ' Coil
0030687	7/16	100 ' Coil



## Nylon Spiral Wrap

- Bundles wires, cables, or hoses firmly in place
- Allows lead- outs at any point, wires can be re-routed after spiral wrap has been installed
- Resists abrasion, solvents, acid and alkalies

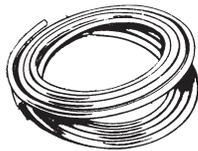
Part No	ID	Max Bundle Range	Spool Length
0031340	1/4	3/16 to 1"	100 ft
0031341	3/8	1/4 to 2"	100 ft
0031342	1/2	3/8 to 3"	100 ft



## Clear Plastic Tubing

- Flexible, not brittle in cold weather
- Complies with ICC regulation 193.28
- Resistant to weather and petrochemicals

Part No	ID	OD	Spool Length
1280041	3/16	1/4	100 ft
1280051	1/4	5/16	100 ft
1280061	1/4	3/8	100 ft
1280081	3/8	1/2	25 ft
1280101	1/2	5/8	25 ft



## Open Nylon Grommet

- Eliminates wire abrasion caused by metal panel cutouts

Part No	Mounting Hole Dia	Inside Diameter	Head Diameter	Overall Height	Panel Thickness
0038606	3/8	1/4	15/32	13/32	1/8
0038608	1/2	3/8	37/64	13/32	1/8
0038614	7/8	11/16	61/64	29/64	1/8



## Rubber Grommets

- Provide protection for primary wire and multiple conductor cables

Part Number	Inside Diameter	Groove Diameter	Outside Diameter	Overall Thickness	Groove Width
0038503	3/16	5/16	7/16	3/16	1/16
0038504	1/4	3/8	1/2	7/32	1/16
0038515	5/16	7/16	9/16	3/16	1/16
0038505	5/16	9/16	13/16	5/16	1/16
0038526	3/8	1/2	5/8	1/4	1/16
0038506	3/8	5/8	7/8	5/16	1/16
0038507	7/16	9/16	3/4	1/4	1/16
0038508	1/2	13/16	1-1/16	5/16	1/16
0038509	9/16	13/16	1-1/16	5/16	1/16
0038510	5/8	7/8	1-1/8	5/16	1/16
0038512	3/4	7/8	1-1/8	9/32	1/16
0038514	7/8	1-1/4	1-5/8	7/16	1/16
0038516	1	1-3/8	1-3/4	7/16	1/16



## Insulated Loom Clamps

- For electrical wire or cable retention, wire harness, brake, tubing and hydraulic lines
- Made of zinc plated steel for strength and corrosion resistance
- Removable plastic cushion protects against abrasion and provides electrical insulation
- Mounting hole is 17/64" for 1/4" screws or bolts

Part No	Closed ID	Mounting OD	
		Min.	Max
0030394	1/4	3/16	1/4
0030396	3/8	1/4	3/8
0030398	1/2	3/8	1/2
0033910	5/8	1/2	5/8
0033912	3/4	5/8	3/4
0033916	1	3/4	1
0033921	1-1/4	1-1/8	1-1/4



# CLAMPS



## Steel Insulated Closed Clamps - Coated with Black Vinyl



Small Hole Clamps			Large Hole Clamps		
Part Number	Clamp Diameter	Hole Diameter	Part Number	Clamp Diameter	Hole Diameter
0034901	3/16	9/32	0034910	1/4	13/32
0034902	1/4	9/32	0034911	5/16	13/32
0034903	5/16	9/32	0034912	3/8	13/32
0034904	3/8	9/32	0034913	1/2	13/32
0034905	1/2	9/32	0034914	5/8	13/32
0034906	5/8	9/32	0034915	3/4	13/32
0034907	3/4	9/32	0034916	7/8	13/32
0034908	7/8	9/32	0034917	1"	13/32
0034909	1"	9/32	0034918	1-1/4	13/32
			0034919	1-1/2	13/32
			0034920	1-3/4	13/32
			0034921	2"	13/32

## Vinyl-Coated Steel Clamps

- Made of unbreakable steel
- Heavy vinyl coating for resistance to corrosion
- 1/4" Standard hole size

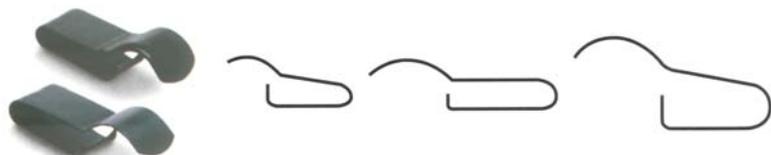
Part No	Closed ID	Mounting OD	
		Min.	Max
0033941	1/4	3/16	1/4
0033961	3/8	1/4	3/8
0033981	1/2	3/8	1/2
0033982	5/8	1/2	5/8



## Body Clips

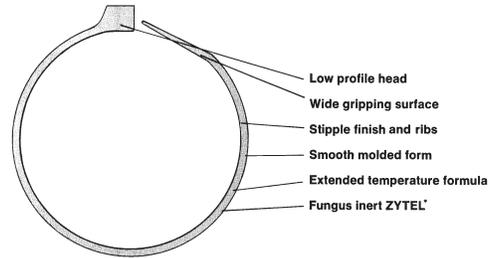
- Ideal for holding primary wire to truck frame
- Made from heat treated spring steel with a black corrosion resistant finish

Part No	Size
0031349	Small
0031348	Medium
0033758	Large



## Ty Rap Cable Ties

- Corrosion resistant stainless steel lock - maintains the right tension
- Infinitely adjustable design - always the right size
- Smooth molded body - no notches cut into the tie that can weaken the tie, won't cut into cable insulation
- Low profile head - looks good won't snag
- Easy to install - won't slip mechanic's grip
- Ribbed and stippled back - won't slip on bundle



## Miniature / Intermediate Cable Ties

Part Number Clear	Part Number Black	Length	Width	Bundle Diameter	Loop Tensile	
0031304	0031392	3.6"	.100	1/16-7/8"	30 lb.	
0031305	0031393	5.57"	.140	1/16-1-1/4"	30 lb	

## Standard Cable Ties

Part Number Clear	Part Number Black	Length	Width	Bundle Diameter	Loop Tensile	
0031386	0031394	7.34"	.184	1/16 - 1-3/4"	50 lb	
0031387	0031395	11.4"	.140	1/16 - 3"	50 lb	
0031388	0031396	14.3"	.184	1/16 - 4"	50 lb	

## Heavy Duty Ties

Part Number Clear	Part Number Black	Length	Width	Bundle Diameter	Loop Tensile	
0031303	0031397	14"	.270	3/16 - 3-1/2"	120 lb	
	0031364	18"	.270	1/4 - 5"	120 lb	

## Mounting Ties

Part Number Clear	Part Number Black	Length	Mounting Hole Dia	Width	Bundle Diameter	Loop Tensile	
0031307	0031398	7.75	#10	.184	1/16 - 1-3/4"	50 lb	
	0031306	14"	#10	.184	1/16 - 4"	50 lb	
0031391		14"	1/4	.184	3/16 - 3-3/12"	120 lb	

## Cable Tie Removal Tool with Wire Cutter & Stripper

Tool removes bundled cable ties easily. Patented tool ensures safe and comfortable operation. Safety guards slide behind the zip tie to ensure protection by preventing the sharp blades of the tie cutter from contacting and accidentally scraping the cable bundle. The pair of ergonomic cushion-grip handles are designed to fit the natural shape of the hand's contraction motion, while the auto-return spring handles reduce the effort required for operation, making the cable tie cutter comfortable and easy to use. Heat-treated alloy steel with a Rockwell hardness range of 53-58 Rc ensures a long life of cutting materials such as plastic, thin copper, and aluminum. Strips 12-22AWG wire.



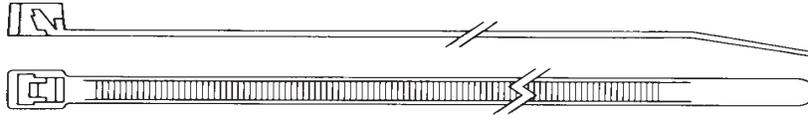
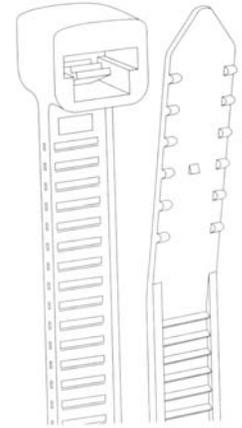
**Part Number : 0031923**

# WIRE TIES



## Ty-fast Self Locking Cable Ties

- The economical way to secure
- One-piece all nylon 6/6 construction
- Curved tip with finger grips for easier insertion and to assist in pulling cable ties tight
- Meets all applicable military specifications



### Miniature / Intermediate Cable Ties

Part Number	Length	Width	Color	Bundle Diameter	Loop Tensile
0031355	3.6"	.100	Clear	1/16 - 7/8"	18 lb.
0031356	5.57"	.140	Clear	1/16 - 1-1/4"	18 lb
0031365	3.6"	.100	Black	1/16 - 7/8"	18 lb
0031366	5.57"	.140	Black	1/16 - 1-1/4"	18 lb

### Standard Cable Ties

Part Number	Length	Width	Color	Bundle Diameter	Loop Tensile
0031357	7.34"	.184	Clear	1/16 - 1-3/4"	50 lb
0031358	11.4"	.140	Clear	1/16 - 3"	50 lb
0031359	14.3"	.184	Clear	1/16 - 4"	50 lb
0031367	7.34"	.184	Black	1/16 - 1-3/4"	50 lb
0031368	11.4"	.140	Black	1/16 - 3"	50 lb
0031369	14.3"	.184	Black	1/16 - 4"	50 lb

### Heavy Duty Ties

Part Number	Length	Width	Color	Bundle Diameter	Loop Tensile
0031371	14"	.300	Black	3/16 - 4-1/16"	120 lb
0031372	24"	.340	Black	3/16 - 7-3/16"	175 lb
0031373	36"	.340	Black	3/16 - 11"	175 lb

## Cable Tie Assortment Pack

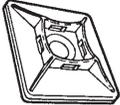
- Contains 3 of the most popular sizes; 3" (200), 7" (100) and 11" (100) ties
- Ties are made of 6/6 nylon for maximum strength and flexibility
- Notched for easy pre-tightening assembly
- Available in clear or UV resistant black
- Refillable compartments stay closed to prevent spillage



Part Number	Color
0031360	Clear
0031370	Black

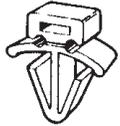
## Four Way Mounting Base

- Four way adhesive mounting base
- Use with standard intermediate and miniature cable ties
- May be screw mounted with # 8 screw

Part No	Size	Color	
0036290	1-1/8 x 1-1/8	Natural	

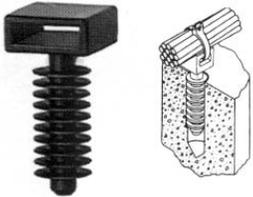
## Push-Mount Base

- Snaps into any standard 1/4" predrilled hole
- Stays in place if cable tie must be removed for rewiring
- Low profile for areas of limited space

Part No	Max Tie Size	Max Load	Panel Thickness	
0036293	.184	50 lbs.	7/64	

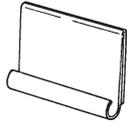
## Masonry and Brick Mounting Base

- Made of special impact resistant black nylon
- Not affected by ultraviolet light
- No adhesives or epoxy required

Part No	Max Tie Size	Hole in Masonry	
0036291	.500	3/8"	

## Adhesive Cable Clips

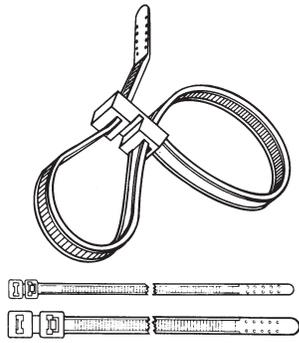
- Hold wire or cable in place backed with foam adhesive
- Supports cable vertically or horizontally

Part No	Max Cable OD	Clip Length	Color	
0036156	1/4	1"	Gray	
0036157	5/16	1-3/4"	Gray	
0036158	3/8	2"	Gray	

## Double Loop Cable Ties

- Two heads allow double looping
- Saves time and the cost of an extra tie

Part No	Length	Width	Max Bundle
0031389	15-1/4	3/16	2" x 2"
0031390	15-1/2	5/16	2" x 2"



## Releasable Ties

- Reusable one piece design
- Black nylon UV weather resistant

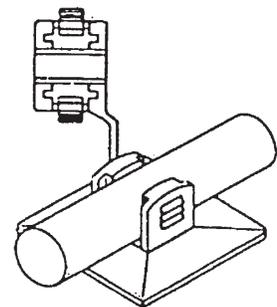
Part No	Length	Width	Tensile	Max Bundle
0031301	5-1/2	9/32	50 lb	1/4" x 1-1/2"
0031302	9-3/4	9/32	50 lb	1/4" x 1-1/2"



## One Piece Mounting Clamp

- Single piece design reduces installation time
- Top cover uses unique fully adjustable ratchet design
- Made of light weight nylon classified to UL 94V-2 flammability rating
- Combined screw or pressure sensitive adhesive mount ,uses #8 screw

Part No	Max Clamping Thickness	Min Clamping Thickness	Max Height
0036294	13/64"	29/64"	7/8



## Circuit Breakers

Amps	Part Number	Type	Reset	
10	5120025	Tong Style Glass Fuse Replacement	Automatic	
20	5120026			
30	5120027			
20	5120028	Plug-in Style ATO/ATC Replacement	Automatic	
30	5120029			
15	5120005	Post Style Standard	Automatic	
20	5120006			
30	5120007			
40	5120008			
20	5120030			
30	5120031	Post Style Horizontal Mounting Strip		
40	5120032			
10	5120009	Snap-In Glass Style Fuses	Automatic	
15	5120010			
20	5120011			
30	5120012			
10	0035801	Plug-in Style Mini Fuses	Automatic	
15	0035802			
20	0035803			
25	0035804			
10	0035805	Plug-in Style ATC Fuses	Automatic	
15	0035806			
20	0035807			
25	0035808			
30	0035809			
10	0035810	Plug-in Style Maxi Fuses	Automatic	
15	0035811			
20	0035812			
25	0035813			
30	0035814			

## Glo-lite Fuses

*Is the fuse good? Are you SURE? Not unless you remove it and look, or get the multi meter out. These fuses allow you to know at a glance, literally, if the fuse is good or if it's not . There's no mistakes or guess work, when the LED in the head of the fuse is lit up, that fuse no longer has a circuit through it.*



### *Day or Night when a fuse blows the Glo-lite*

Fuse indicates immediately which fuse needs replacing!



- Eliminates guesswork and testing
- makes trouble-shooting a snap, even in the dark!
- Ideal for troublesome circuits where fuses often blow.
- Easy identification of blown fuses in hard to reach locations.
- Built to exacting OEM specifications.
- Saves time and effort...locating a blown fuse can be very time consuming with over 100 fuses in newer vehicles
- No wasted time looking for additional blown fuses when you thought there was only one.
- Color-coded fuses instantly let you know the right amperage of the fuse to be replaced
- Replaces standard fuse styles, available in ATO/ATC, ATM Mini-Fuses
- NOTE: Make certain that the key is in the "on" position to verify that the fuse is blown.

Part No	Style	Amps	Color		Part No	Style	Amps	Color
0035303	ATM	3	Violet		0035403	ATC	3	Violet
0035305	ATM	5	Orange		0035405	ATC	5	Orange
0035307	ATM	7.5	Brown		0035407	ATC	7.5	Brown
0035310	ATM	10	Red		0035410	ATC	10	Red
0035315	ATM	15	Blue		0035415	ATC	15	Blue
0035320	ATM	20	Yellow		0035420	ATC	20	Yellow
0035325	ATM	25	White		0035425	ATC	25	White
0035330	ATM	30	Green		0035430	ATC	30	Green
1930222	ATM GLO-LITE ASSORTMENT (80 PCS)				1930223	ATC GLO-LITE ASSORTMENT (80 PCS)		
1930224	ATC/ATM GLO-LITE ASSORTMENT (160 PCS)							

## ATC / ATO Fuses

- Color coded for quick identification

Amps	Color	Part No.
3	Violet	0035027
4	Pink	0035028
5	Tan	0035029
7-1/2	Brown	0035030
10	Red	0035031
15	Blue	0035032
20	Yellow	0035022
25	Clear	0035025
30	Green	0035026
40	Orange	0035040



## Mini-Fuse

- Color coded for quick identification

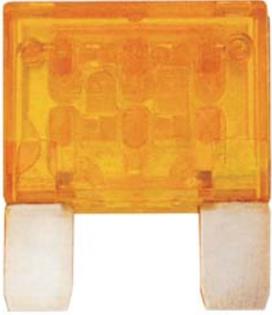
Amps	Color	Part No.
3	Violet	0035627
4	Pink	0035628
5	Tan	0035629
7-1/2	Brown	0035630
10	Red	0035631
15	Blue	0035632
20	Yellow	0035622
25	Clear	0035625
30	Green	0035626



## Maxi-Fuse

- Color coded for quick identification

Amps	Color	Part No.
20	Yellow	0035720
30	Green	0035730
40	Orange	0035740
50	Red	0035750
60	Lt Blue	0035760
70	Amber	0035770
80	Clear	0035780



## ATC / ATO Fuse Tap-in

Part Number	Size	Type	
0035505	1/4" Male Tab	ATC	
0035509	1/4" Male Tab	Mini	

## ATC/ATO Fuse Block

- Stackable with bolt holes for mounting to stationary object
- Black nylon construction, includes brass terminals

Part Number	Description	
0035506	4 Way Fuse Block	

## ATC/ATO Fuse Holders

- Holds blade type fuses from 3-30 AMP
- IN line mounting using lead wires

Part Number	Amps	Color	Lead Wire	
0035507	3-20	Yellow	16 GA	
0035508	3-30	Black	12 GA	

## ATC/ATO Fuse Holder

- Self- stripping design requires no wire stripping
- Installs with a common plier
- For use with 18-16-14 gauge wire

Part Number	Amps	Color	
0035500	3-20	Blue	

## ATC/ATO Fuse Holders

- Deluxe water tight body with water resistant cap.
- Manufactured with standard 6" GPT wire.

Part Number	Description	
0039642	16 gauge, 10 amp	
0039643	12 gauge, 30 amp	

## Mini Fuse Holder (For Mini Fuses)

- Perfect waterproof fuse holder designed for applications where moisture is a problem.
- Cap has positive snap action for tight fit

Part Number	Amps	Lead Wire	
0039640	30 amp, 32 volt max.	4", 12 gauge GPT wire	

## Maxi Fuse Holder

- Fire wall mounting hole permits 2 or more holders to be mounted together.
- Cover comes with a removable strap.

Part Number	Amps	Lead Wire	
0039641	20 to 60 amps	5", 6 gauge GPT Wire	

## Add- a- Circuit

- Plugs into an existing fuse holder
- Still protects original circuit, but provides an additional wire lead
- Comes with a butt connector installed to wire lead

10 Amp Maximum on new circuit

Part No	Type	
0035510	ATC/ATO ADD-A-CIRCUIT	
0035511	ATM-MINI FUSE ADD-A-CIRCUIT	

# FUSES



## Glass Fuses

AMP Amps	Part Number					
	AGC	SFE	AGA	AGW	AGX	GBC
1/2	0035041					
3/4	0035042					
1	0035009		0035007			
2	0035010					
3	0035011					
4	0035013	0035001				
5	0035014		0035008			
6		0035002				
7-1/2	0035033	0035003				
8						0035020
9		0035004				
10	0035015					
14		0035005				
15	0035016			0035034		
20	0035017	0035006		0035035	0035021	
25	0035018					
30	0035019	0035012				



SFE 30 (17/16")



SFE 20 (1 1/4")



SFE 14 (1 1/16")



SFE 9 (1")



SFE 7 1/2 (7/8")



SFE 6 (3/4")



SFE 4 (5/8")



AGX 2-30 (1")



AGW 1-35 (7/8")



AGC 1/2-40 (1 1/4")



AGA 1-30 (5/8")

## Glass Fuse Clip

- Makes instant connections in fuse block for add-on accessories, CB's, tape decks or radios
- Use in-line fuseholder to protect new accessory

Part Number	Description	
0032635	1/4 " Male Tab	

## In-Line Fuse Holders

- Nylon twist lock construction allows easy fuse removal and replacement
- For all AGC fuses to 30 amps and SFE-20

Part Number	Fuse Size	Mounting	Connection
0030722	Universal	In-line	#14 Lead Wire in Loop 15" Length
0035503	1/4 X 1-1/4"	In-line	#12 Lead Wire in Loop 12" Length



## Water Proof Fuse Holder

- One piece, molded thermoplastic
- High visibility yellow
- Fuse holder uses sizes 12 to 18 gauge [not included]

Part Number	Rating
0035502	Rated 30 Amps, 32volts



## Adjustable Fuse Holder

- Simple lead crimp assembly
- Fuse holder snap locks together for fuse sizes 1/4" diameter x 7/8", 1" , or 1-1/4" length
- Made of high visibility yellow nylon
- For use with 12 through 18 gauge wire [Not included ]

Part Number	Rating
0035501	Rated To 30 Amps, 32 Volts



## Dual Purpose Fuse Puller

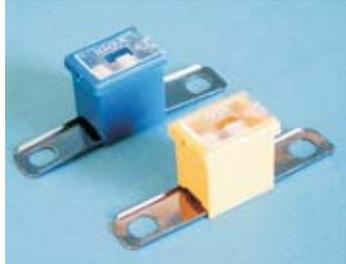
Part Number	Description
0035504	<ul style="list-style-type: none"> <li>• Pulls and installs both blade type fuses and glass type fuses</li> <li>• Durable single piece design</li> </ul>



## PAL Auto Link Fuses - Cartridge Fuses- FLB Series

- 13/16" bent male terminal
- Commonly found in many Japanese and domestic built vehicles
- Bolts directly into fuse blocks
- Voltage rating: 32V AC/DC

Part Number	Color	Amp
0035830	Pink	30
0035840	Green	40
0035850	Red	50
0035860	Yellow	60
0035870	Brown	70
0035880	Black	80
0035881	Blue	100
0035882	Grey	120



## PAL Auto Link Fuses - Cartridge Fuses- FLS Series

- Equipped with visual window to inspect for blown fuse
- Voltage rating: 32V AC/DC

Part Number	Color	Amp
0035883	Pink	30
0035884	Green	40



## PAL Auto Link Fuses - Cartridge Fuses- FLF Series

- Female Terminated Fusible Link
- Replaces commonly used fusible wire
- Voltage rating: 32V AC/DC

Part Number	Color	Amp
0035920	Blue	20
0035930	Pink	30
0035940	Green	40
0035950	Red	50
0035960	Yellow	60



## Heavy Duty Toggle Switches

- 6-24 Volt systems, 50 AMP
- Posi-touch 1" long bat handles chrome plated
- Mounting stem 15/32" diameter

Part Number	Function	Description	
5120017	On - Off S.P.S.T	2 Position / 2 Screw Terminals	
5120023	Mom On - Off - Mom On S.P.D.T.	3 Position / 3 Screw Terminals Switch Has Normal Off Position	
5120024	Fused 30 Amp On - Off S.P.S.T Permits Operating 2 Accessories	2 Position / 3 Male Blade Terminals 1/4" Wide	

## Regular Service Toggle Switches

- 6 - 24 VOLT SYSTEMS, 35 AMP
- U.L. listed at 20 AMP. 125V AC., 10 AMP 250V A.C.
- 15/32" diameter, 3/8" long mounting stem
- Knurled face nut, hex back nut

Part Number	Function	Description	
5120018	On - Off S.P.S.T	2 Position / 2 Screw Terminals	
5120020	On - Off - On S.P.D.T.	3 Position / 3 Screw Terminals	
5120019	On - On S.P.S.T	2 Position / 2 Screw Terminals	

# SWITCHES



## Push Pull Switches

Part Number	Function	Description	
5120001	Off - On S.P.S.T	<ul style="list-style-type: none"> <li>• 2 Position</li> <li>• Extra heavy duty</li> <li>• 6-28 Volt DC operation - 75 AMPS</li> <li>• Heavy duty die-cast body chrome plated knob</li> <li>• Mounting stem 5/8" long x 15/32" diameter</li> </ul>	
5120003	Off - On- On With 15 Amp Fuse	<ul style="list-style-type: none"> <li>• 3 Position</li> <li>• Fused - push pull switch with ivory plastic knob</li> <li>• 12 Volt operation</li> <li>• 1/2" long , 7/16" diameter, 5 terminals</li> </ul>	

## Auxiliary Switches

Part Number	Function	Description	
5120013	Off-Hi-Lo	<ul style="list-style-type: none"> <li>• Universal push-pull 3 position,</li> <li>• Heavy duty truck heater switch,</li> <li>• 12 Volt-5 AMPS</li> <li>• 2-speed 3 ohm resistor, 2 screw terminals, bakelite base</li> <li>• Mounting stem 7/16", 5/8" long, ivory plastic handle</li> </ul>	
5120022	Push Type Momentary-On Start Switch	<ul style="list-style-type: none"> <li>• Rated 60 Amps At 12v, 40 Amps At 24v</li> <li>• All silver contacts for superior conductivity</li> <li>• Housing rolled over insulator to seal out moisture, dust</li> <li>• Mounting stem 5/8" long, 5/8" dia. over all length 1-13/16</li> </ul>	

## Axle Switches

Part Number	Description	
5120015	<ul style="list-style-type: none"> <li>• Two speed heavy duty axle switch</li> <li>• 2 Position both on controls</li> <li>• High and low axle ranges</li> <li>• Die-cast body protected with rubber cover</li> <li>• 3 Female terminals to receive bullet terminals</li> <li>• Large red knob</li> </ul>	

## Automatic Terminal Block Switch

Part Number	Description	
5120016	<ul style="list-style-type: none"> <li>• Controls two speed electric axle shift</li> <li>• Fiber insulator base with o'ring assembled to studs</li> </ul>	

## Sectional Terminal Block

- Black nylon base six (6) 105° brass male tab terminals
- Sections snap together, no mounting channel required
- #8 or #10 fillister head mounting screw required every 10 blocks
- All tabs conform to NEMA standard DC2-1976 & UL 310
- Terminal block conforms to NEMA standard ICS 4-1977 and UL 1059

Part Number	Tab Size	Rated Voltage	Rated Current	
5120033	1/4"	300	40 AMPS	

## Heavy Duty Flashers

- Tested, approved, certified to comply with D.O.T. 108, and SAE specifications
- Variable load design for extra capacity for trailer towing
- Certified for 1 to 6 lamp loads
- Will flash 2 to 3 turn signal lamps - 2 to 6 hazard warning lamps
- Vane type construction requires less installation space

Part No	Description	
0035051	2 terminals 12 volts	
0035052	3 terminals 12 volts	

## Heavy Duty Electronic Flashers

- Average life 800 hours - 5,000,000 flashes - based on application and usage
- Load rating: 25 AMP, 1-10 LAMPS, 12 VOLT
- Time to 1st flash : less than 0.75 seconds
- Frequency: 60 to 120 flashes per minute
- Designed to conform to DOT 108, SAE, AAMVA and Title 13 California Highway Patrol
- Compact size for easier installation in tight spaces
- Brass terminals for improved corrosion resistance and better conductivity
- Heavier contacts for 15% longer life
- Heat resistant black thermoplastic base and tinted cover

Part No	Description	
0035053	2 Terminal, 12 Volt Flasher	
0035054	3 Terminal, 12 Volt Flasher	

## Industrial Grade Batteries

- Alkaline industrial grade batteries provide greater life and more power than zinc-carbon batteries
- Formulated to exceed the every day demands of tough industrial applications
- Quality construction guaranteed against leakage
- Longer storage life, dependable performance

Part No	Description
0039201	"D" Size Cell
0039202	"C" Size Cell
0039203	"AA" Size Cell
0039204	"AAA" Size Cell
0039206	9 Volt
0039207	6 Volt Heavy Duty



## Industrial Grade Flashlight

Part Number	Description
0039205	<ul style="list-style-type: none"> <li>• Deep ribbed tube for sure grip, resists grease oil, corrosion and rough handling, ring hanger</li> <li>• High impact plastic lens, spare bulb holder, switch guard, front and back end loading.</li> </ul>



# TELESCOPING FLASHLIGHT and PICKUP TOOL

**NOW WITH  
FLEX HEAD!**

← NOW WITH STRONG, 5 LB  
MAGNET ON END!



Part No : 5150570

Magnetic pickup tool also functions as a flashlight for illuminating hard to reach areas — crawl spaces, in and around furnaces and water heaters, and even under the hood!

Machined aluminum body has knurled surface for a safe grip and a hex head to keep it from rolling of your work table.

Three super bright LED lights burn up to 16 hours on four LR44 batteries (included).

Flashlight extends out to 20" and collapses to 7-1/2". High-power magnet end has 2 lbs. of pickup power. Flexible 2" long shaft gets into places few other pickup tools can.

## Self Adjusting Stripper & Crimper

Pat Number	Description	
0031909	<ul style="list-style-type: none"> <li>Automatically strips wire insulation</li> <li>Wire range 22 to 10 AWG</li> <li>Crimps insulated terminals from 22 -10ga</li> <li>Wire cutter blades cut wire sharp and smooth</li> </ul>	

## Terminal Crimping Tool

Part Number	Description	
0031908	<ul style="list-style-type: none"> <li>Made of heat treated alloy steel</li> <li>Cushioned vinyl grip handles</li> <li>Crimping dies for 22-10 AWG terminals</li> <li>Wire stripping stations for 22-10 AWG</li> <li>Crimping station and wire cutters are located at the top of the tool</li> <li>Cut-off dies for mild steel and non-ferrous screws</li> </ul>	

## Stripping and Cutting Tool

Part Number	Description	
5150250	<ul style="list-style-type: none"> <li>Cuts with one end, strips with the other</li> <li>Self-adjusts to wire sizes 24 to 14 AWG</li> <li>For use on multiple strand primary wires</li> </ul>	

## Circuit Alert Voltage-Sensing Crimper/Stripper

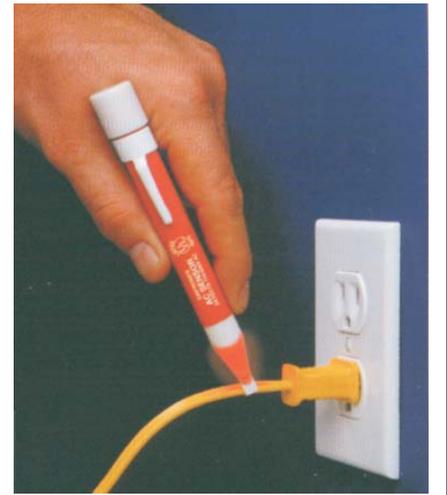
- 3 Popular tools in one
  - Crimps/Strips 10-18 AWG solid or stranded
  - Bolt cutting station cuts and rethreads bolts
- Stainless Steel nick-resistant blades provides maximum corrosion resistance The Circuit Alert Voltage Sensing Wire Stripper/Crimper allows you to Strip and loop cable, crimp terminals and cut and rethread bolts.
- PART NUMBER 0031902



## Ultimate AC Sensor

*Traces electrical circuits, prevents shock*

Part Number	Description
0031900	<ul style="list-style-type: none"> <li>• Detects 50-600 VOLTS A.C.</li> <li>• Probe glows cherry red in presence of A.C. voltage</li> <li>• Sounds audible beep if AC voltage is present</li> <li>• Senses electromagnetic field through insulation</li> <li>• No contact with conductor wire required</li> <li>• No ON / OFFswitch therefore it is always ready to use</li> <li>• Will not beep when it comes in contact with a static field</li> <li>• Energizer alkaline batteries included</li> <li>• UL listed</li> </ul>



## DC Voltage Detector

Part Number	Description
0031901	<ul style="list-style-type: none"> <li>• Detects 6-50 Volts DC current</li> <li>• If DC current is present, LED light will glow red and a buzzing sound will be emitted by the DC detector.</li> <li>• Pen sized unit easy to handle and store</li> <li>• Large clip fits both large and small ground connection points</li> <li>• Sharp rust proof stainless steel tip penetrates heavy wire easily</li> <li>• 20 gauge heavy duty heat resistant test lead wire</li> <li>• Ideal for Automotive, Marine, Telecommunications, Aviation, Farm Equipment, Industrial Controls, Heavy equipment, Trucks &amp; RV's and any other 6-50 Volt DC System</li> </ul>



## Scotchcode Wire Marker

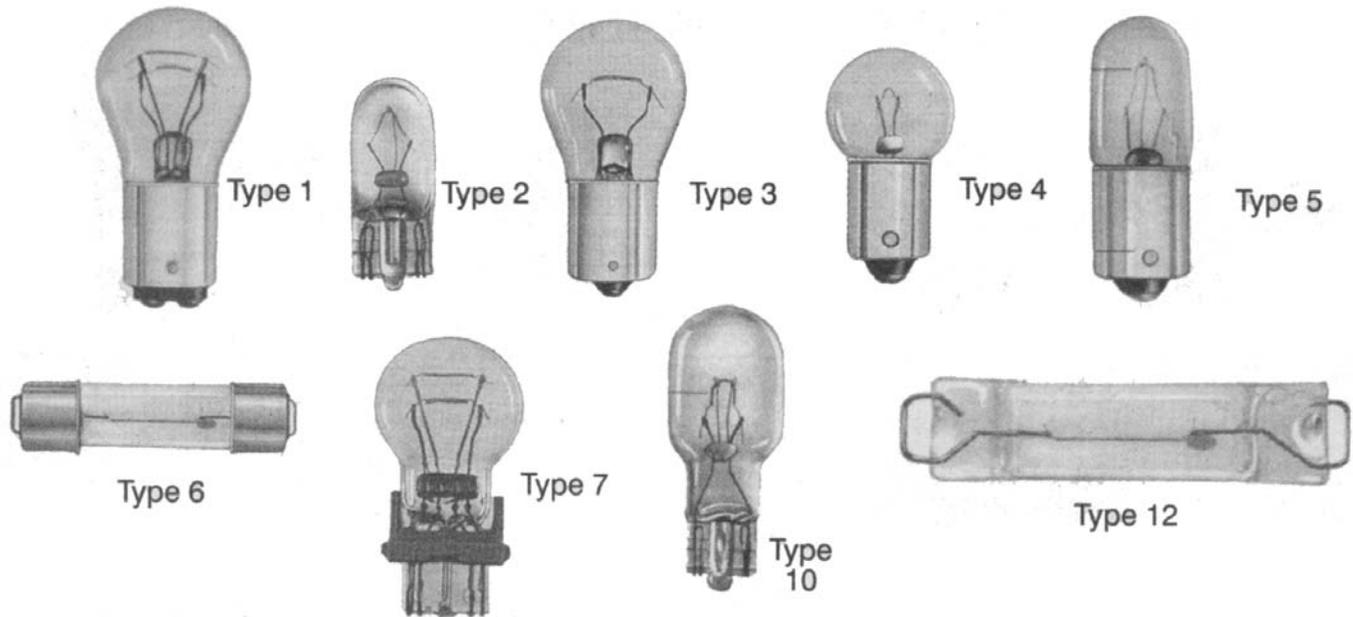
- Compact easy to use
- Convenient rolls - precise cutoff no waste
- Refillable

Part Number	Description	Marker Numbers
0039100	Unit With	#0-9
0039105	Refill	#0-4
0039109	Refill	#5-9



## Miniature Light Bulbs

- Specifically designed to meet the needs of fleet service
- 12 volt



Part Number	Industry Bulb No.	Figure No.	Candle Power
0035101	53	4	1
0035103	57	4	2
0035106	67	4	4
0035104	89	4	6
0035105	90	13	6
0035128	97	4	4
0035129	158	2	2
0035139	168	2	3
0035110	194	2	2
0035130	194A	2	-
0035111	198	1	32
0035112	199	3	32
0035113	211-2	6	12
0035114	293	4	2
0035140	561	12	12
0035141	906	2	6
0035142	912	10	12
0035143	921	10	21

Part Number	Industry Bulb No.	Figure No.	Candle Power
0035115	1003	3	15
0035116	1004	1	15
0035117	1034	1	32
0035118	1073	3	32
0035120	1141	3	21
0035121	1154	1	32
0035122	1156	3	32
0035123	1157	1	32
0035124	1157A	1	-
0035125	1176	1	32
0035138	1893	5	2
0035126	1895	4	2
0035131	2057	1	32
0035132	2057A	1	32
0035133	3057	7	32
0035134	3057NA	7	24
0035135	3156	7	32
0035136	3157	7	32
0035137	3157NA	7	24

## Halogen Bulbs

Part Number	Description	Bulb Shape / Base Type	
0035144	12.8V 65/45W	T-4 5/8 / Axial Prefocus (P29t)	
0035145	12.8V 65W	T-4 / Right Angle Prefocus (HB3)	
0035146	12.8V 55.0W ANGLE	T-4 / Right Angle Prefocus (HB4)	
0035147	12.8V 65/55W AXIAL	T-4 5/8 / Axial Prefocus (P29t)	

## Tuff-skin Safety Bulbs

- Shatterproof - silicone safety coating resists bulb breakage from thermal shock and impact when dropped
- Multiple filament supports - provides maximum vibration protection withstands power surges
- 4,000 hour average life
- Brass base - prevents socket corrosion
- 130 Volt rating, UL listed

Part No	Watts	Volts	
0035203	75	120	<p><b>Vibration and Shock-Resistant Design</b></p> <p>Five filament supports and two lead wires</p> <p>High grade tungsten filament</p> <p>Brass base</p>
0035204	100	120	

## Rough Service Bulbs

- Reinforced filament supports - provide resistance to shock and vibration
- 3,500 hours average life
- Brass base prevents socket corrosion
- 130 Volt rating, UL listed

Watts	Volts	Part No.	Unit	
50	120	0035200	12	<p><b>Ordinary Filament with Single Support</b></p> <p>Five filament supports and two lead wires</p> <p>High grade tungsten filament</p> <p>Brass base</p>
75	120	0035201	12	
100	120	0035202	12	

# WORK LIGHTS



## Stubby II Rough Service Fluorescent Work Light

- 13 watt rough service fluorescent bulb illuminates with over 75 watts of light
- clear outer tube with end light magnifier shines like a flashlight
- cool operation
- safe for use around flammable liquids
- high impact, shock resistant industrial design
- all weather, oil-resistant cord
- hangs safely from its adjustable steel hook or Magnetic Mount (Magnetic Mount sold separately)
- Made in the U.S.A.



Part Number	Description
5141300	Stubby II with 1' Cord
5141325	Stubby II with 25' Cord
5141340	Stubby II with 40' <b>REEL</b>
5141350	Stubby II with 50' Cord
5141395	Stubby II Head Kit ONLY
5141394	Magnetic Mount
5141393	13 Watt Rough Service Replacement Bulb

## Cordless 66 LED Dual Floodlight/Spotlight

- Features a 6 LED flashlight on the endcap & a large panel of 60 LEDs on the side.
- Floodlight will run for up to 6 hours on a full charged battery & the flashlight can run up to 24 hours.
- Recharge in 3 hours. Charge from 110V outlet or 12 volt auto outlet.

Part Number : **5142266**



## 60 LED Work Light, 25' Cord

- LED Work Light is a heavy-duty work light with a 25' cord.
- It has a magnetic hook and body, as well as mounting brackets for hands-free lighting.
- Equipped with 120 lumens of work light output, the LED's are cool to the touch and have a 35,000 hour life span. Chemical and moisture resistant, its heavy-duty cord is also abrasion resistant.

Part Number: **5142125**

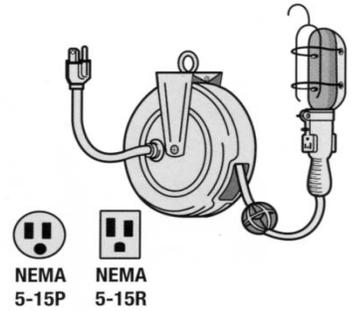


## Retractable Cord Reel Work Light

3 Conductor SVT, 300 volts grounding

- Complete with all hardware for easy wall or ceiling mounting in workshop or garage. Work light has safety grounded metal lamp guard and includes switch and side outlet.

Part No	Length	AWG	AMPS	WATTS	COLOR
5140583	20 Ft	18/3	7	875	Orange

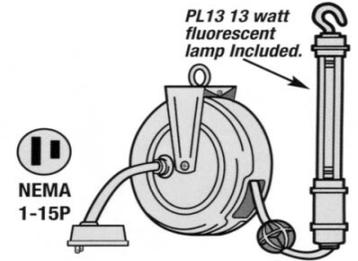


## Fluorescent Work light Retractable Reels

2 Conductor SVT

- Energy saving and cool burning with convenient plug-in ballast

Part No	Length	AWG	AMPS	WATTS	COLOR
5140584	20 Ft	18/2	7	875	Yellow



## Work Light Retrofit 500 Lumens

Twist on module that converts incandescent trouble light into a LED light  
30 high powered SMD LED's (500 Lumens)

Rubber bumper to protect unit

Folding hanging hook that fits into head

Covered by a 1-year warranty

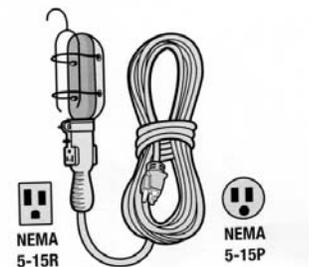
Part No	LEDS	LUMENS	COLOR		
5140379	30	500	Black		



## Metal Guard Work Lights

3 Conductor SJT, 300 volts grounding

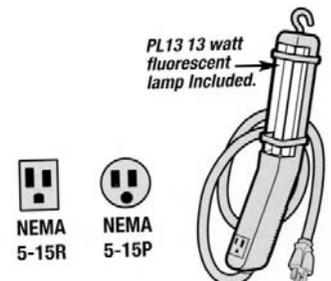
Part No	Length	AWG	AMPS	WATTS	COLOR
5140307	25 Ft	14/3	15	1875	Yellow
5140308	50 Ft	14/3	15	1875	Yellow



## Fluorescent Work Lights

3 Conductor SJT, grounded with switch and receptacle

Part No	Length	AWG	AMPS	WATTS	COLOR
5140310	15 Ft	18/3	10	1250	Black



# CORDS, PLUGS & SWITCHES

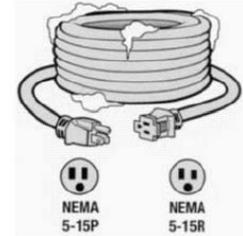


## All-Weather Extension Cords

3 Conductor SJEOW, 300 volts Grounding

Arctic Blue™ all weather TPE- Rubber Extension Cords are designed for use by contractors and industrial personnel, providing an all weather cord set made for outstanding performance at temperatures from -58 ° F to 221° F. One-third lighter than ordinary cords, Arctic Blue TPE-rubber cords provide superior resistance to sunlight, ozone, cracking oils and chemicals and are outstanding in resistance to abuse, rough handling and wear

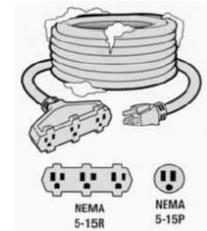
Part No	Length	AWG	Amps	Watts
0030570	25 ft	14/3	15	1875
0030571	50 ft	14/3	15	1875
0031229	2 ft	12/3	15	1875
0031225	25 ft	12/3	15	1875
0031250	50 ft	12/3	15	1875
0031299	100 ft	12/3	15	1875



## All-Weather Triple Tap

3 Conductor SJEOW, 300 Volts Grounding

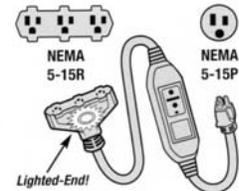
Part No	Length	AWG	Amps	Watts
0030574	25 ft	12/3	15	1875
0030573	50 ft	12/3	15	1875



## Shock Safe In-line G.F.C.I. Lighted-End Outdoor Cords

Molded-on and bonded vinyl plugs and connectors, in-line mechanical G.F.C.I. Centrally placed and test and reset buttons.

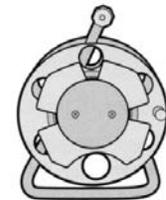
Part No	Length	AWG	AMPS	WATTS	COLOR
5140585	3 Ft	12/3	15	1875	Yellow



## Portable Cord Reel

Provides tangle-free portable storage for extension cords

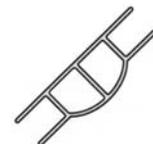
Part No	Color
5140580	Black



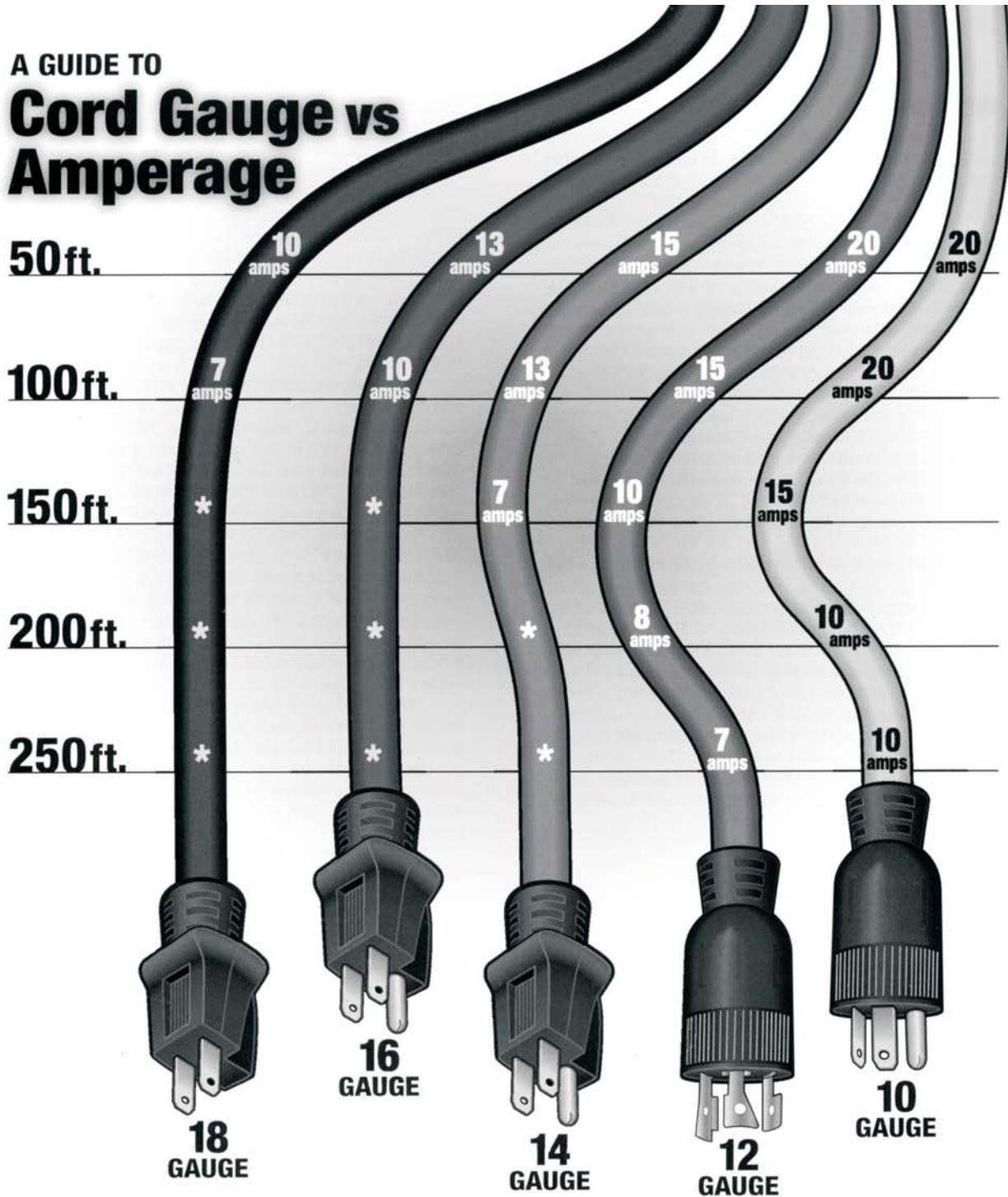
## Cord Winder

Provides tangle-free storage for extension cords in a compact heavy duty frame.

Part No	Color
5140581	Black



## A GUIDE TO Cord Gauge vs Amperage



TYPICAL USAGE GUIDE	MEDIUM DUTY		HEAVY DUTY		EXTRA HEAVY DUTY	
	Fans	Lawnmowers	Drills	Circular Saws	Generators	
	Small Appliances	Hedge Trimmers	Belt Sanders	Chain Saws	Recipro Saws	
	Stereos	Space Heaters	Routers	Worm Drives	Rotary Hammers	
	Household Tools	Jig Saws	Table Saws	Grinders	Compressors	

\*Not recommended for use at this length

# CORD, PLUGS & SWITCHES



## Outdoor Portable Power Cord

- Vinyl Jacketed 2 & 3 Conductor SJTW, 300 volts grounding
- Designed for heavy duty service, portable tools, small motor and power extensions.
- UL listed, OSHA acceptable

Part No	Length	AWG	VOLTS	COLOR
0030553	50 Ft	16/2	300	Black
0030540	50 Ft	16/3	300	Black
0030541	50 Ft	14/3	300	Black
0030542	50 Ft	12/3	600	Black

## Standard Duty Black Rubber Wiring Devices

Part No	NEMA No	Rating	Description	Cord Dia.
1540002	5-15R	15A - 125V	Connector U-Ground-Black	.25 - .60
1540001	5-15P	15A - 125V	Plug U-Ground-Black	.25 - .60

5-15R
5-15P

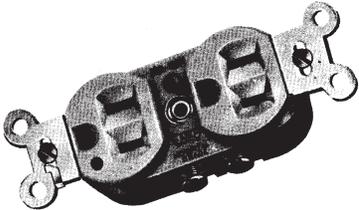
## Add-A-Cord Plug

Part No	Description
1540586	<ul style="list-style-type: none"> <li>• 3-prong grounded 3-way convenience plug</li> <li>• Heavy duty injection molded plug</li> <li>• Ideal product when circuits are scarce</li> <li>• Wide variety of uses</li> <li>• Easy to use</li> </ul>

## Hospital Grade High Abuse Grounding Receptacles

- All devices are UL listed, meet FED. SPEC - WC-596E
- Green dot on face, housing is constructed of high impact resistant lexan
- Unique one piece construction grounding strip
- Break off fins for easy two circuit conversion
- Large head brass terminal screws backed out and staked
- Use only copper or copper clad wire with these devices

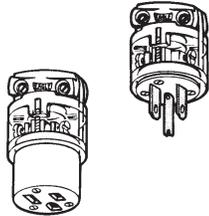
Part Number	Color	Description	Rating
1540017	Ivory	Duplex	15A-125V 5-15R
1540018	Red	Duplex Emergency	15A-125V 5-15R



## Hospital Grade Plugs & Connectors

- Compact design with clear lexan husk permits wiring connections to be seen
- Individual wire compartments with pressure terminal clamps for easy wiring
- NEMA number and rating on face
- I- beam cord clamps accommodate all wire sizes
- Speed screws for easy assembly

Part Number	Description	Rating
1540030	Plug	15A-125V NEMA 5-15P
1540031	Connector	15A-125V NEMA 5-15P
1540032	Plug	20A-125V NEMA5-20P



## Replacement Plugs & Connectors

- UL approved and C.S.A. approved, yellow nylon dead front construction completely shockproof

Part Number	Description	Rating
1540033	Plug	15A-125V 5-15P
1540034	Connector	15A-125V 5-15P



# CORD, PLUGS & SWITCHES



## Industrial Heavy Duty Grounding Toggles

- Supplied with both screw and E-Z wire pressure terminals for fast installation
- Large head screws staked and backed out take up to # 10 wire
- Back pressure terminals take #12 or #14 solid copper wire
- Steel strap riveted to 2 piece completely enclosed housing
- 15A, 120-277V AC, ½ HP-120V AC, 2HP -240V AC
- Use only copper or copper clad wire with these devices

Part Number	Color	Description	Rating
1540015	Brown	Single Pole	15A-120V-277V
1540016	Ivory	Single Pole	15A-120V-277V

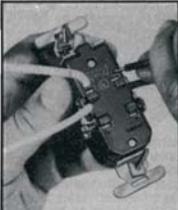


## Industrial Straight Blade Grounding Receptacle

- Supplied with both side screws and back E-Z wire pressure terminals
- E-Z wire terminals take #12 or #14 wire, side screw takes #10.
- All power contacts are double wipe
- Mounting strap goes through the receptacle body for extra strength
- 15A, 125 VOLT - NEMA 5-15R
- Use only copper or copper clad wire with these devices

Part Number	Color	Description	Rating
1540013	Brown	Duplex 2-Pole 3-Wire	15A-120V
1540014	Ivory	Duplex 2-Pole 3-Wire	15A-120V



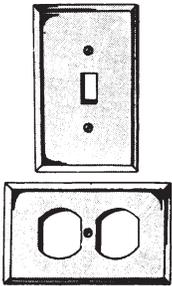


To release, press down in slot with screwdriver.

## Lexan Wall Plates

- High impact construction resists chipping, cracking will not conduct electricity

Part Number	Description	Color
1540022	Switch Plate	Brown
1540023	Switch Plate	Ivory
1540020	Receptacle Plate	Brown
1540021	Receptacle Plate	Ivory



## Ranger Wire Nuts

- Tough nylon construction
- Wing design makes assembly fast and easy
- UL listed under STANDARD 467 for use as grounding connectors
- Live spring action gives vibration resistant connections
- Deep skirt allows insulation to reach further into the connector

Part No	Color	22	20	18	16	14	12	10	8
0031400	Yellow	5-7	3-6	2-6	1-4	1-4	1-3	1	1
0031399	Red		4-10	2-10	2-7	1-6	1-5	1-3	1-2



## Scotchlok 2 Wire Connectors

- Grips quicker pulls on faster, for a solid secure connection every time.
- Unique spring design expands to accept a wide range of wire sizes.
- Large throat design and extended skirt allow just three sizes to cover the entire 600 volt wire range.
- The long skirt provides flexible protection for conductors but bends readily & conforms to take up less room
- Rounded wings make the connector easier to grip and provide maximum torque
- UL LISTED 600 Volts Max Building Wire 1000 Volts Max signs

Part Number	Color	Stranded Or Solid
0031460	Org/Blue	2 #22 - 2 #12
0031461	Red/Yel	2 #18 - 2 # 8
0031462	Blue/Gray	4 #14 - 5 #10



## Vinyl Scotchlok Wire Nuts

- Flexible compact fully insulated connection
- Torque fins for secure grip and fast installation
- Deep skirt allows insulation to reach further into the connector
- UL LISTED 600 Volts Max Building Wire 1000 Volts Max signs

Part Number	Color	AWG
0031401	Blue	12-6
0031402	Grey	14-8
0031403	Red	16-10
0031404	Yellow	18-12



# WIRE NUTS



## Twist Lock Wire Nuts

- Requires no pre-twisting
- UL & C.S.A. Listed

Part Number	Color	Stranded AWG	Volts
1540005	Grey	22-16	300
1540006	Blue	22-14	300
1540007	Orange	22-14	600
1540008	Yellow	18-10	600
1540009	Red	18-10	600



## Push-In Connectors

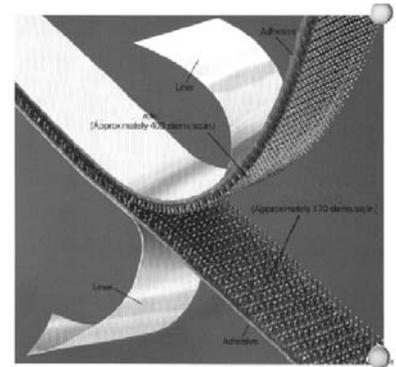
- Easy and fast to use, strip wire and push-in to connector
- Clear polycarbonate housings are color-coded for easy verification
- Stainless steel springs resist corrosion and restrict wire pull-out
- Twist left to right for wire removal
- Rated to 24 amps at 600V max in building wire and 1000V AC in lighting fixtures/luminaries
- Copper to copper connections only

Part Number	Color	Description	Wire Range
0037110	Red	2-Way Connector	22 to 12 AWG
0037120	Orange	3-Way Connector	22 to 12 AWG
0037130	Yellow	4-Way Connector	22 to 12 AWG
0037140	Black	8-Way Connector	22 to 12 AWG

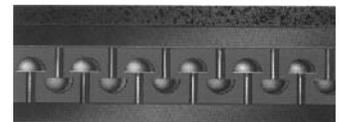


## Dual-Lok Recloseable Fasteners

- 5 times stronger than conventional Velcro type products
- Adhesive backing adheres instantly to most surfaces
- Press to close, peel or pull to open
- Replaces other mechanical fasteners such as clips, snaps, and small screws
- Fasteners do not require precise alignment
- Cycle life exceeds 1000 closures



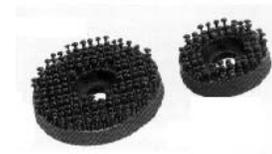
Part Number	Description	Color	Size	Disengagement Strength
0033560	Very high bond	Clear	2 Rolls 1" x 14.7 Ft	38 lb / sq in
0033541	General Purpose	Black	2 Rolls 1" x 14.7 Ft	50 lb / sq in



## Dual-lok Discs

- Can be attached with pop rivets or screws
- Recessed holes for mechanical attachment
- Will work in temperatures up to 200° F

Part Number	Description	Size
0033542	Black	13/16 Dia





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## Brass Push-to-Connect Fittings

DOT Approved

**Easy to operate...Simply push in the tubing until it can go no further.  
Holding and sealing is accomplished instantaneously.**

### Features

- Instantaneous connection and disconnection without the use of any special tools.
- Easy access to all fittings, tees and elbows swivel 360° for easy orientation of the tube direction.
- Gripping and sealing is accomplished using the outside wall of the tubing with no restriction of flow.
- Immediate and automatic positive seal of O-ring on the tubing in both static and dynamic applications.
- Average installation time 3 seconds.

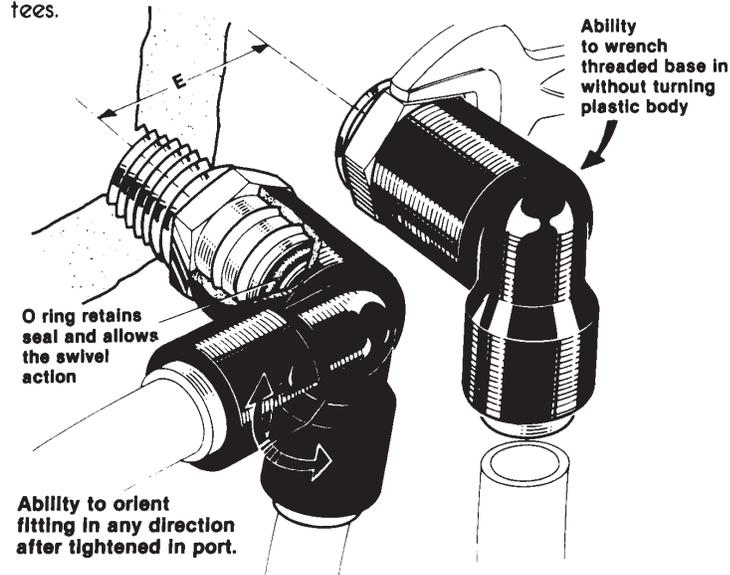
**Fittings can be used on different types of tubing.**

semi-rigid nylon tubing from 1/8 to 1/2"

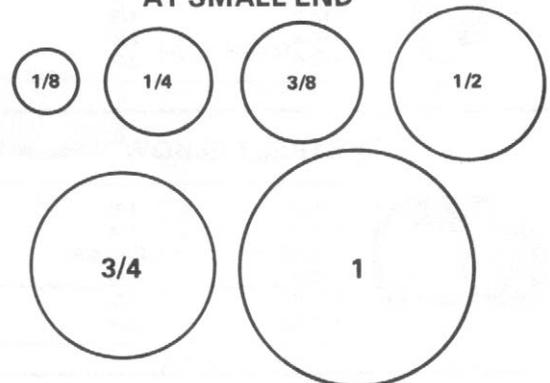
polyurethane tubing from 5/32 to 1/2"

polyethylene tubing from 1/8 to 1/2"

Orientation action of fitting allows for close mounting of elbows and tees.



### ACTUAL SIZE OF PIPE THREAD AT SMALL END



## APPLICATIONS - EASE OF INSTALLATION

### DOT

#### Auto/Truck/Bus

##### Cab

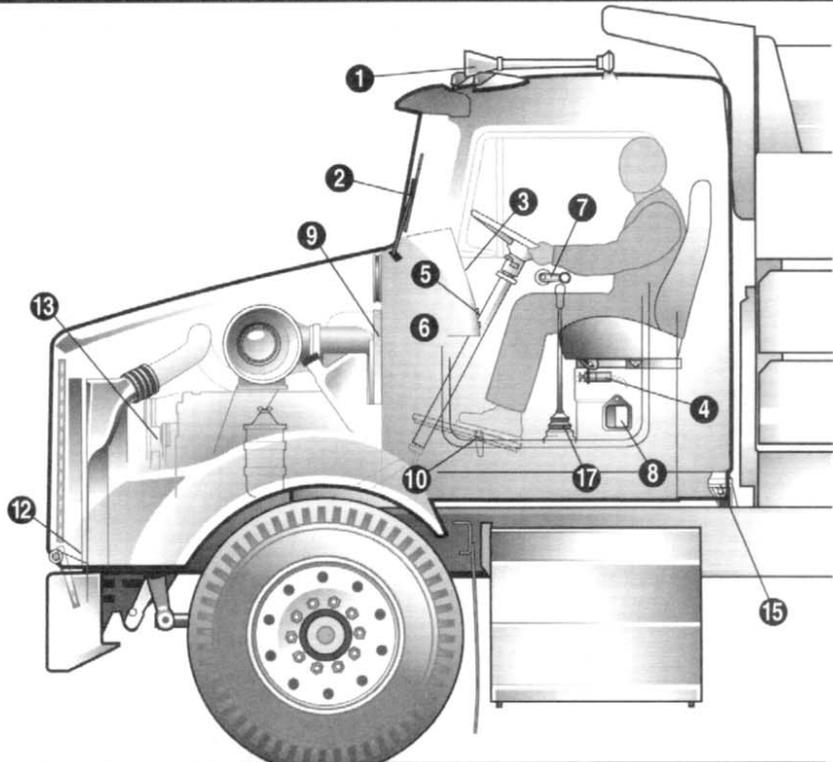
1. Air Horns/Valves
2. Wiper Motors/Controls
3. Instruments - Air Gauges
4. Air Seat Controls
5. Air Toggle Switches
6. Heaters/Air Conditioners
7. Air Window Lift/Controls
8. Air Door Locks
9. Air Manifolds
10. Air Throttle
11. Accessory Kits

##### Chassis

12. Shutter Stats/Cylinders
13. Fan Clutch - Air Op.
14. Air Slide 5th Wheels
15. Cab/Chassis Air Suspensions
16. Chassis Air Lines
17. Gearshift/Transmission
18. Air Manifolds - Chassis

##### Trailer

19. Chassis Air Lines
20. Air Operated Valves
21. Air Operated Cylinders
22. Air Suspensions
23. Air Manifolds



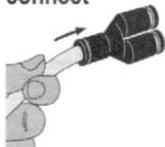
Excerpt from the National Highway Traffic Safety Administration Department of Transportation FMVSS 106.

FMVSS 106 Part 571: 5106-1 Paragraph 57.3.10

Legris fittings meet all applicable requirements of the D.O.T. FMVSS 106 specification. Our fittings are designed for use on all pneumatic circuits other than air brake assemblies between the frame and axle. Final determination as to the use of this product in its application is the responsibility of the users design engineering.

## TUBE CONNECTION

To connect



Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.

To disconnect



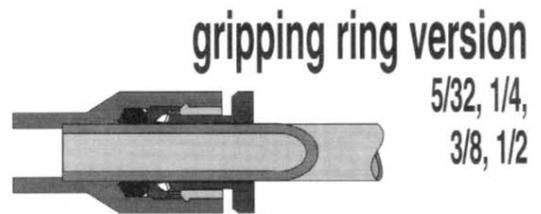
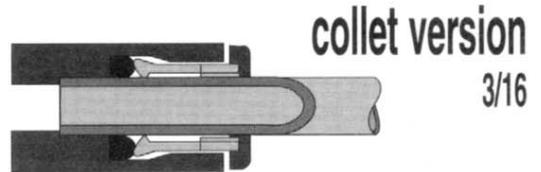
First depress the manual release button, then pull the tubing out of the fitting.

Type of fitting	Average time each connection (in Seconds)	Possible connections per hour
LF 3000	3 Sec.	1200
Typical compression	19 Sec.	180
Typical flare	49 Sec.	73

## LF 3000 INSTANT ASSISTED AIR BRAKE FITTING SYSTEM

# 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**  
 LF3000® seals both in static and dynamic applications
- Tube insert which reinforces the grip on the tubing OD.
- Cutaway of tubing showing the tubing and inserts ID in relationship to the fittings ID.
- Slotted collet or gripping ring mechanism lock the tubing into the fitting.
- Sleeve, the housing for the slotted collet whose inside configuration is beveled to match the outside configuration of the slotted collet. When pressure (or vacuum) is introduced into the system, the collet and tubing move slightly backward, the slotted collet is compressed and causes the sharp gripping ridges, machined into it, to bite into the tubing's OD. The greater the pressure, the stronger the grip.
- Threaded bases - available in 1/8" to 1/2" NPT.
- Optional colored release buttons or caps - replacement of one release button for another.



# DOT SPECIFICATIONS

### Time Savings:

- Tube fitting assembly time is substantially reduced. With LF 3000®, savings is, on an average, 80% of conventional compression fittings.
- The LF 3000® Instant Fitting System provides a 100% tubing lock. This feature eliminates the need for tightening.
- No special tools required for assembly.

### Swivel Feature:

- Elbows, "Y"s and tees can be swiveled 360°. This assembly feature is a great time saver in areas of poor accessibility and allows proper orientation of the fitting.

### Anti Kink Feature:

- The tubing will rotate 360° while being held in the fitting thus eliminating annoying and wasteful kinking.

### Temperature:

- DOT fittings accommodate low temperature applications

<b>3/16" size:</b>	Collet technology
• Working Pressure:	Maximum 250 psi
• Working Temperature:	Maximum 160°F
<b>5/32", 1/4", 3/8", 1/2" sizes:</b>	Gripping ring technology
• Working Pressure:	28Hg-275 PSI at ambient temperature
• Working Temperature:	-20°F + 225°F
<b>DOT Products</b>	
• Suitable Fluids:	Compressed air only. Lubricated or nonlubricated.
• Tubing	Tubing used should be that specified in SAE J844 (Oct.'80) Type A nylon non-reinforced for 3/16" and 1/4", and Type B reinforced 3/8" and 1/2" OD and which meets NHTSA FMVSS 106.
• Materials of Construction	All threaded bases are nickel-plated brass. Bodies are nylon 6/6 glass filled. Seals are low temperature BUNA-N. Buttons are polypropylene. To order products with: thread sealant, add '96' suffix to part # release button, add '74' suffix to part # both thread sealant and release button, add '76' suffix to part #
All DOT fittings are silicone free.	

# AIR BRAKE FITTINGS



## Brass Push to Connect- DOT

### Male Connector

Part No	Fits Tube O.D.	Pipe Thread
1101422	1/8	1/8
1101451	5/32	1/16
1101452	5/32	1/8
1101432	3/16	1/8
1101442	1/4	1/8
1101444	1/4	1/4
1101446	1/4	3/8
1101464	3/8	1/4
1101466	3/8	3/8
1101468	3/8	1/2
1101484	1/2	1/4
1101486	1/2	3/8
1101488	1/2	1/2
1101410	5/8	1/2



### Male Elbow

Part No	Fits Tube O.D.	Pipe Thread
1101822	1/8	1/8
1101802	5/32	1/8
1101812	3/16	1/8
1101842	1/4	1/8
1101844	1/4	1/4
1101846	1/4	3/8
1101864	3/8	1/4
1101866	3/8	3/8
1101868	3/8	1/2
1101884	1/2	1/4
1101886	1/2	3/8
1101888	1/2	1/2
1101810	5/8	1/2



### Union

Part No	Fits Tube O.D.
1101002	1/8
1101003	5/32
1101009	3/16
1101004	1/4
1101006	3/8
1101008	1/2
1101010	5/8



## Brass Push to Connect- DOT

### Union Tee

Part No	Fits Tube O.D.
1101102	1/8
1101104	1/4
1101106	3/8
1101108	1/2



### Union Elbow

Part No	Fits Tube O.D.
1101202	1/8
1101203	3/16
1101204	1/4
1101206	3/8
1101208	1/2
1101210	5/8



### Male Branch Tee

Part No	Fits Tube O.D.	Pipe Thread
1101722	1/8	1/8
1101742	1/4	1/8
1101744	1/4	1/4
1101764	3/8	1/4
1101766	3/8	3/8
1101768	3/8	1/2
1101784	1/2	1/4
1101786	1/2	3/8
1101788	1/2	1/2



### Male Run Tee

Part No	Fits Tube O.D.	Pipe Thread
1101622	1/8	1/8
1101642	1/4	1/8
1101644	1/4	1/4
1101664	3/8	1/4
1101666	3/8	3/8
1101668	3/8	1/2
1101684	1/2	1/4
1101686	1/2	3/8
1101688	1/2	1/2



# AIR BRAKE FITTINGS



## Brass Push to Connect- DOT

### Female Elbow

Part No	Fits Tube O.D.	Pipe Thread
1101942	1/4	1/8
1101944	1/4	1/4
1101964	3/8	1/4



### Female Branch Tee

Part No	Fits Tube O.D.	Pipe Thread
1101542	1/4	1/8
1101544	1/4	1/4
1101564	3/8	1/4
1101586	1/2	3/8



### Bulkhead Union

Part No	Fits Tube O.D.	Pipe Thread
1101304	1/4	
1101306	3/8	
1101308	1/2	
1102044	1/4	1/4
1102066	3/8	3/8
1102088	1/2	1/2



### 45° Swivel Male Elbow

Part Number	Tube O.D.	Male Pipe Thread	Whd. No.
1102142	1/4	1/8	1880x4
1102144	1/4	1/4	1880x4x4
1102164	3/8	1/4	1880x6
1102166	3/8	3/8	1880x6x6
1102184	1/2	1/4	1880x8x4
1102186	1/2	3/8	1880x8



## DOT Brass Push to Connect Assortments

Part No.	Description	Comp	Pieces	Contents	
1930415	DOT Push to Connect Air Brake Fittings	24	69	Union, Male Connector, Elbow, Male 90 Elbow	
1930412	DOT Push to Connect Air Brake Fittings	16	62	Male Connector, Male Elbow, Union	
1930206	DOT Push to Connect Air Brake Fittings	20	68	Union, Union Tee, Male Connector, Union Elbow, Release Button, Male Elbow 3/8 and 1/2	
1930208	DOT Push to Connect Air Brake Fittings	24	71	Union, Union Tee, Male Connector, Union Elbow, Release Button, Male Elbow 1/4, 3/8 and 1/2	

## Nylon Air Brake Tubing

- SAE approved for replacement of copper tubing in all Tractor Trailer applications except jumper lines from frame to axle, and tractor to trailer connection
- Applications-Wiper lines, air horn lines, fuel lines, pneumatic gauges, air regulator, axles, shift controls, air governor lines, primary air brake lines, air gauge lines

Part Number	Tube O.D.	Wall Thickness	Working Pressure	Minimum Burst	Min. Bend Radius	Whd Part No
1280002	1/8	.023	150 PSI	1000 PSI	3/8	NT10002
1280003	5/32	.032	150 PSI	1000 PSI	1"	NT10003
1280004	1/4	.040	150 PSI	1200 PSI	1"	NT10004
1280006	3/8	.062	150 PSI	1400 PSI	1.5"	NT10006
1280008	1/2	.062	150 PSI	950 PSI	2"	NT10008
1280010	5/8	.092	150 PSI	900 PSI	2.5"	NT10010
1280012	3/4	.092	150 PSI	800 PSI	3"	NT10012



# AIR BRAKE FITTINGS



## NTA-Nylon Tube Fittings

DOT Approved

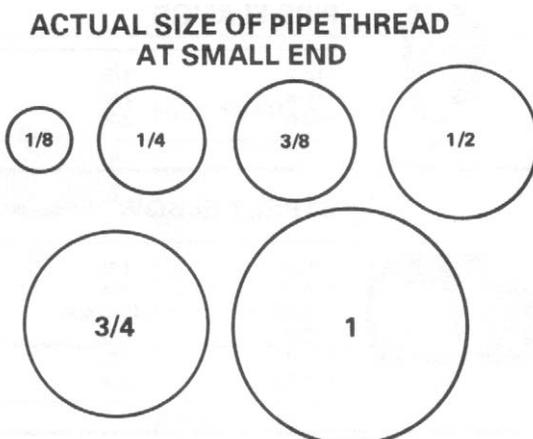
- Typical applications: Air brake systems, except where temperatures exceed +200<sup>0</sup> F, air control, and gauge lines
- Maximum pressure 150 PSI
- “DOT” or “AB” stamped on fitting for identification
- Used with nylon tubing (SAE J844 Type 3)
- Utilizes ribbed sleeve for compression and positive grip
- Fitting bodies may be used with copper tubing by replacing nut, sleeve and insert with long nut and spherical sleeve.

### Assembly Instructions

1. Cut tubing to length required.
2. Slide nut and sleeve on tubing. Threaded end of nut must face sleeve.
3. Insert tubing into fitting and push until tube bottoms.
4. Tighten nut as indicated in chart below.

Tube O.D.	Tighten Nut To
1/4	85 to 115 in. lbs
3/8	12 to 17 ft. lbs
1/2	25 to 33 ft lbs
5/8	26 to 35 ft. lbs
3/4	38 to 50 ft. lbs

Tube O.D.	<b>1/4</b>	<b>3/8</b>	<b>1/2</b>	<b>5/8</b>	<b>3/4</b>
Thread Size	<b>7/16-24</b>	<b>17/32-24</b>	<b>11/16-20</b>	<b>13/16-18</b>	<b>1-18</b>



## NTA-Nylon Tube Air Brake Fittings

### Sleeve

Part No	Fits Tube O.D.	Whd No
0061001	1/4	1460x4
0061002	3/8	1460x6
0061003	1/2	1460x8
0061004	5/8	1460x10
0061005	3/4	1460x12



### Insert

Part No	Fits Tube O.D.	Insert O.D.	Whd. No
1280603	1/4	3/16	1484x4
1280604	3/8	1/4	1484x6
1280606	1/2	3/8	1484x8
1280607	5/8	7/16	1484x10
1280608	3/4	1/2	1484x12



### Nut

Part No	Fits Tube O.D.	Whd No
0061006	1/4	1461x4
0061007	3/8	1461x6
0061008	1/2	1461x8
0061009	5/8	1461x10
0061010	3/4	1461x12



### Male Connector

Part No	Fits Tube O.D.	Pipe Thread	Whd. No.
0061110	1/8	1/8	1468x
0061032	1/4	1/8	1468x4
0061034	1/4	1/4	1468x4x4
0061035	3/8	1/8	1468x6x2
0061036	3/8	1/4	1468x6
0061038	3/8	3/8	1468x6x6
0061039	3/8	1/2	1468x6x8
0061040	1/2	3/8	1468x8
0061042	1/2	1/2	1468x8x8
0061044	5/8	1/2	1468x10
0061047	3/4	1/2	1468x12
0061048	3/4	3/4	1468x12x12



# AIR BRAKE FITTINGS



## NTA-Nylon Tube Air Brake Fittings

### Female Connector

Part No	Fits Tube O.D.	Pipe Thread	Whd No
0061027	3/8	1/4	1466x6
0061028	3/8	1/8	1466x6x2
0061029	3/8	3/8	1466x6x6
0061030	1/2	3/8	1466x8
0061031	1/2	1/2	1466x8x8



### Union

Part No.	Fits Tube O.D.,	Whd No.
0061011	1/4	1462x4
0061012	3/8	1462x6
0061013	1/2	1462x8
0061014	5/8	1462x10
0061015	3/4	1462x12



### Union Tee

Part No.	Fits Tube O.D.,	Whd. No
0061017	1/4	1464x4
0061018	3/8	1464x6
0061019	3/8x3/8x1/4	1464x6x6x4
0061020	3/8x3/8x1/2	1464x6x6x8
0061021	1/2	1464x8
0061023	1/2x1/2x3/8	1464x8x8x6



### Union Elbow

Part No.	Fits Tube O.D.,	Whd. No.
0061024	3/8	1465x6
0061025	1/2	1465x8
0061026	5/8	1465x10



### 90° Male Elbow

Part No.	Fits Tube O.D.,	Pipe Thread	Whd. No.
0061049	1/4	1/8	1469x4
0061050	1/4	1/4	1469x4x4
0061052	3/8	1/4	1469x6
0061056	3/8	3/8	1469x6x6
0061057	3/8	1/2	1469x6x8
0061058	1/2	3/8	1469x8
0061061	1/2	1/2	1469x8x8
0061062	5/8	1/2	1469x10
0061065	3/4	1/2	1469x12



## NTA-Nylon Tube Fittings

### 45° Male Elbow

Part No.	Fits Tube O.D.,	Pipe Thread	Whd. No.
0061093	1/4	1/8	1480x4
0061094	3/8	1/4	1480x6
0061095	3/8	3/8	1480x6x6
0061096	1/2	3/8	1480x8
0061097	1/2	1/4	1480x8x4
0061098	1/2	1/2	1480x8x8
0061099	5/8	1/2	1480x10



### 90° Female Elbow

Part No.	Fits Tube O.D.,	Pipe Thread	Whd No.
0061069	3/8	1/4	1470x6
0061070	3/8	3/8	1470x6x6
0061071	1/2	3/8	1470x8



### Male Run Tee

Part No.	Fits Tube O.D.,	Pipe Thread	Whd No.
0061072	1/4	1/8	1471x4
0061073	3/8	1/4	1471x6
0061074	3/8x1/4	1/4	1471x6x4x4
0061075	3/8	3/8	1471x6x6x6
0061076	1/2	3/8	1471x8



### Female Branch Tee

Part No.	Fits Tube O.D.,	Pipe Thread	Whd No.
0061091	1/2	1/4	1477x8x8x4



### Male Branch Tee

Part No.	Fits Tube O.D.,	Pipe Thread	Whd No.
0061079	1/4	1/4	1472x4x4x4
0061080	3/8	1/4	1472x6
0061081	3/8	1/8	1472x6x6x2
0061082	3/8	3/8	1472x6x6x6
0061083	1/2	3/8	1472x8
0061084	1/2x3/8	3/8	1472x8x6x6



# AIR BRAKE FITTINGS



## Adapter Tee

Part No.	Fits Tube O.D.,	Female Pipe	Male Pipe	Whd No.
0061100	3/8	1/4	1/4	1482x6x4x4
0061101	3/8	1/4	3/8	1482x6x4x6



## Service Tee

Part No.	Fits Tube O.D.,	Female Pipe	Male Pipe	Whd No.
0061103	3/8	3/8	1/4	1483x6x6x4



## Bulkhead Union

Part No.	Fits Tube O.D.,	Whd No.
0061086	1/4	1474x4
0061087	3/8	1474x6
0061088	1/2	1474x8
0051089	5/8	1474x10



## NTA Nylon Tube Fitting Assortments

Part Number	Description	Comp	Pieces	Contents
1930194	NTA Air Brake Fittings For Nylon Tubing	24	191	Insert, Sleeve, Nut, Union, Male Connector, Male Elbow
1930411	NTA Air Brake Fittings For Nylon Tubing	24	124	Sleeve, Nut, Union, Male Connector, 90 Male Elbow, Insert



## Nylon Air Brake Tubing

- SAE approved for replacement of copper tubing in all Tractor Trailer applications except jumper lines from frame to axle, and tractor to trailer connection
- Applications-Wiper lines, air horn lines, fuel lines, pneumatic gauges, air regulator, axles, shift controls, air governor lines, primary air brake lines, air gauge lines

Part Number	Tube O.D.	Wall Thickness	Working Pressure	Minimum Burst	Min. Bend Radius	Whd Part No
1280002	1/8	.023	150 PSI	1000 PSI	3/8	NT10002
1280003	5/32	.032	150 PSI	1000 PSI	1"	NT10003
1280004	1/4	.040	150 PSI	1200 PSI	1"	NT10004
1280006	3/8	.062	150 PSI	1400 PSI	1.5"	NT10006
1280008	1/2	.062	150 PSI	950 PSI	2"	NT10008
1280010	5/8	.092	150 PSI	900 PSI	2.5"	NT10010
1280012	3/4	.092	150 PSI	800 PSI	3"	NT10012



Nylon Tubing

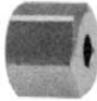
## Collet Air Brake Fittings

- Replacement fittings for Eaton and Fuller Components
- Excellent vibration resistance
- Applications for air control systems, instrumentation, air and lubrication lines

## Slotted Ferrule

Part No	Tube O.D.	
0062000	1/8	
0062001	5/32	
0062002	1/4	

## Nut

Part No	Tube O.D.	
0062003	1/8	
0062004	5/32	
0062005	1/4	

## Union

Part No	Tube O.D.	
0062006	1/8	
0062007	5/32	
0062008	1/4	

## Male Connector

Part No	Tube O.D.	Pipe O.D.	
0062009	1/8	1/16	
0062010	1/8	1/8	
0062011	5/32	1/16	
0062012	5/32	1/8	

## Male Elbow

Part No	Tube O.D.	Pipe O.D.	
0062013	1/8	1/16	
0062014	1/8	1/8	
0062015	5/32	1/8	

## Collet Air Brake Fitting Assortment

Part	Description	Comp	Pieces	Contents	
1930175	Collet Air Brake Fittings	16	110	Ferrule, Nut, Union, Male Elbow, Male Connector	

# TUBING

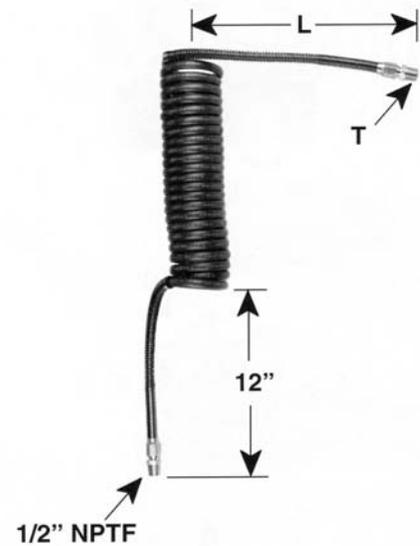


## Coiled Air Brake Tubing

- Meets D.O.T. specification for coiled nylon brake tubing and conforms to SAE tubing standard J844C type 3B
- Used between tractor and trailer
- Made of rugged long lasting nylon
- Assembly fitted with brass 1/2-14 male couplings complete with plated steel spring guards.

Part No	Fittings	Extended Hose Length	Assembly
0160812	1/2"	12 ft	1 Red, 1 Blue
0160815	1/2"	15 ft	1 Red, 1 Blue
0060597	1/2 x 3/8 Reducer		

To determine Maximum Working Length: Position the tractor and trailer in an extreme right or left turn position. Measure the distance to the nearest foot and order the next size available. For tractors that pull various types of trailers, length ordered should be based on the longest installation.



## Universal Gladhand Couplings

- Die cast aluminum body 1/2 female pipe thread
- Couples with emergency, service, and universal couplings

Part No	Description
0060070	Universal gladhand coupling
0060061	Single lip gladhand seal- old style
0060067	Double lip gladhand seal -new style
0060065	Double lip seal -Blue urethane
0060066	Double lip seal -Red urethane



## Nylon Air Brake Tubing

- SAE approved for replacement of copper tubing in all Tractor Trailer applications except jumper lines from frame to axle, and tractor to trailer connection
- Applications-Wiper lines, air horn lines, fuel lines, pneumatic gauges, air regulator, axles, shift controls, air governor lines, primary air brake lines, air gauge lines

Part Number	Tube O.D.	Wall Thickness	Working Pressure	Minimum Burst	Min. Bend Radius	Whd Part No
1280002	1/8	.023	150 PSI	1000 PSI	3/8	NT10002
1280003	5/32	.032	150 PSI	1000 PSI	1"	NT10003
1280004	1/4	.040	150 PSI	1200 PSI	1"	NT10004
1280006	3/8	.062	150 PSI	1400 PSI	1.5"	NT10006
1280008	1/2	.062	150 PSI	950 PSI	2"	NT10008
1280010	5/8	.092	150 PSI	900 PSI	2.5"	NT10010
1280012	3/4	.092	150 PSI	800 PSI	3"	NT10012

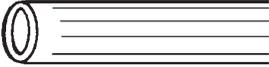


Nylon Tubing

## Polyvinyl Chloride Tubing

- Soft, pliable, plasticized PVC resin tubing for practically any low pressure laboratory, industrial, agricultural, instrumentation application.
- Easy to install. Use Poly-tite, Self-align, Prestolok, Legris, or Compression fittings with plastic sleeve.

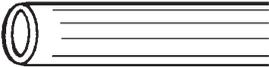
Tube O.D.	Approx I.D.	Burst Rating (psi)	Use Tube Insert	Part Number
1/4	1/8	200	1280020	1280041
5/16	3/16	165	1280023	1280051
3/8	1/4	165	1280024	1280061
1/2	3/8	135	1280026	1280081



## Polyethylene Tubing

- Natural (off white) flexible tubing has a wide range of uses. Breweries, Wineries, Vinegar Mills, Whiskey Distillers, Dairies, Cider Mills, Fruit And Vegetable Processing Plants, Chemical Plants, Vending Machines.
- Also used in instrumentation systems.
- Easy to install. Use Poly-tite, Self-align Prestolok, Legris, or Compression fittings with plastic sleeve.

Tube O.D.	Approx I.D.	Burst Rating (psi)	Use Tube Insert	Part Number
1/4	11/64	550	1280020	1280404
5/16	3/16	550	1280023	1280405
3/8	1/4	500	1280024	1280406
1/2	3/8	420	1280026	1280408



## Tube Cutter

Part Number	Description
1100001	Plastic pocket size tubing cutter till cut soft tubing up to 3/4" O.D.



## Compression Fittings

- Easy to assemble ( no flaring )
- Sealing Method: 3-piece Compression
- Temperature: -65<sup>0</sup> F To +250<sup>0</sup> F
- Meets specifications and standards of ASA, ASME, SAE, and MS (military standards).

Typical Application: Gasoline, oil, water, vacuum lines, air lines, and other low and medium pressure uses where excessive vibration or tube movement is not involved. Use long nut when greater vibration resistance is required. **NOT FOR USE in DOT applications!**

Used With: Copper, Aluminum or Plastic Tubing.  
Soft Plastic Tubing requires an internal tube support.

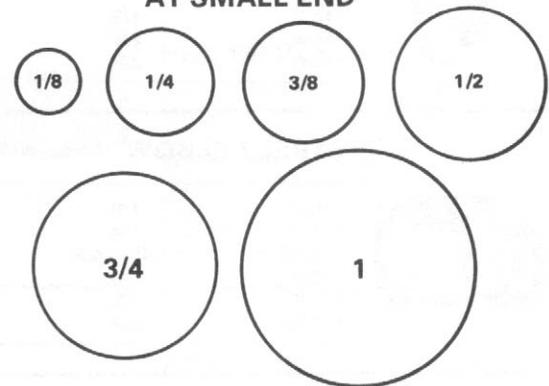
Pressure: Up to 2000 PSI depending on tube size

### Assembly Instructions:

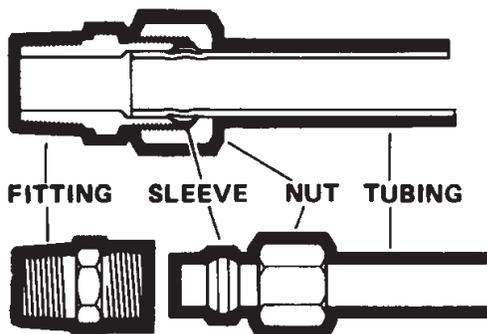
1. Slide nut and then sleeve on tubing. Threaded end of nut must face toward fitting.
2. Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
3. Lubricate threads and assemble nut to fitting body.
4. Tighten nut hand tight. From that point tighten with a wrench the number of turns indicated in the chart below.

Tube Size	Additional turns from hand tight
1/8 thru 1/4	1-1/4
5/16	1-3/4
3/8 thru 1	2-1/4

### ACTUAL SIZE OF PIPE THREAD AT SMALL END



Note: For soft plastic tubing- insert proper tube support into plastic tubing and proceed as in Step 1



Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
Thread size	5/16-24	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1-18	1-1/4-18

## Compression Fittings

### Sleeve

Part No	Fits Tube Size	Whd No
0060101	1/8	60x2
0060103	3/16	60x3
0060104	1/4	60x4
0060105	5/16	60x5
0060106	3/8	60x6
0060107	7/16	60x7
0060108	1/2	60x8
0060109	5/8	60x10



### In line Sleeve

Part No	Fits Tube Size	Whd No
0060010	1/8	601x2
0060030	3/16	601x3
0060040	1/4	601x4
0060050	5/16	601x5
0060060	3/8	601x6
0060071	7/16	601x7
0060080	1/2	601x8
0060090	5/8	601x10



### Tube Support

Part No	Fits Tube O.D.	Whd. No
0060001	1/4	2030x4
0060002	3/8	2030x6
0060003	1/2	2030x8
0060004	5/8	2030x10



### Nut

Part No	Fits Tube Size	Whd No
0060111	1/8	61x2
0060113	3/16	61x3
0060114	1/4	61x4
0060115	5/16	61x5
0060116	3/8	61x6
0060117	7/16	61x7
0060118	1/2	61x8
0060119	5/8	61x10



### Long Nut

Part No	Fits Tube Size	Whd No
0060123	3/16	1161x3
0060124	1/4	1161x4
0060125	5/16	1161x5
0060126	3/8	1161x6
0060128	1/2	1161x8
0060129	5/8	1161x10

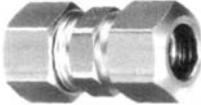


# COMPRESSION FITTINGS



## Union

Part No	Fits Tube Size	Whd No
0060132	1/8	62x2
0060133	3/16	62x3
0060134	1/4	62x4
0060135	5/16	62x5
0060136	3/8	62x6
0060138	1/2	62x8
0060139	5/8	62x10



## Union Tee

Part No	Fits Tube Size	Whd No
0060153	3/16	64x3
0060154	1/4	64x4
0060155	5/16	64x5
0060156	3/8	64x6
0060158	1/2	64x8



## Union Elbow

Part No	Fits Tube Size	Whd No
0060163	3/16	65x3
0060164	1/4	65x4
0060165	5/16	65x5
0060166	3/8	65x6
0060167	7/16	65x7
0060168	1/2	65x8
0060169	5/8	65x10



## Male Connector

Part No	Fits Tube Size	Pipe Size	Whd No
0060186	1/8	1/8	68x2
0060187	3/16	1/8	68x3
0060189	1/4	1/8	68x4
0060190	1/4	1/4	68x4x4
0060192	5/16	1/8	68x5
0060193	5/16	1/4	68x5x4
0060195	3/8	1/4	68x6
0060196	3/8	1/8	68x6x2
0060197	3/8	3/8	68x6x6
0060199	3/8	1/2	68x6x8
0060200	7/16	1/4	68x7
0060202	1/2	3/8	68x8
0060203	1/2	1/2	68x8x8
0060207	5/8	1/2	68x10
0060210	3/4	1/2	68x12
0060211	3/4	3/4	68x12x12



## Female Connector

Part No	Fits Tube Size	Pipe Size	Whd No
0060171	1/8	1/8	66x2
0060172	3/16	1/8	66x3
0060174	1/4	1/8	66x4
0060175	1/4	1/4	66x4x4
0060176	5/16	1/8	66x5
0060177	5/16	1/4	66x5x4
0060178	3/8	1/4	66x6
0060179	3/8	1/8	66x6x2
0060182	1/2	3/8	66x6x6
0060184	5/8	1/2	66x6x8



## Male Elbow

Part No	Fits Tube Size	Pipe Size	Whd No
0060212	1/8	1/8	69x2
0060213	3/16	1/8	69x3
0060215	1/4	1/8	69x4
0060216	1/4	1/4	69x4x4
0060218	5/16	1/8	69x5
0060219	5/16	1/4	69x5x4
0060221	3/8	1/4	69x6
0060222	3/8	1/8	69x6x2
0060223	3/8	3/8	69x6x6
0060224	3/8	1/2	69x6x8
0060225	7/16	1/4	69x7
0060226	1/2	3/8	69x8
0060227	1/2	1/2	69x8x8
0060228	1/2	1/4	69x8x4
0060229	5/8	1/2	69x10
0060231	3/4	1/2	69x12



## Female Elbow

Part No	Fits Tube Size	Pipe Size	Whd No
0060233	3/16	1/8	70x3
0060234	1/4	1/8	70x4
0060236	5/16	1/8	70x5
0060238	3/8	1/4	70x6
0060242	1/2	3/8	70x8



## Male Run Tee

Part No	Fits Tube Size	Pipe Size	Whd No
0060245	3/16	1/8	71x3
0060246	1/4	1/8	71x4
0060247	5/16	1/8	71x5
0060249	3/8	1/4	71x6
0060254	1/2	3/8	71x8



# COMPRESSION FITTINGS



## Male Branch Tee

Part No	Fits Tube Size	Pipe Size	Whd No
0060258	3/16	1/8	72x3
0060259	1/4	1/8	72x4
0060260	5/16	1/8	72x5
0060262	3/8	1/4	72x6
0060266	1/2	3/8	72x8



## Compression Fitting Assortment

Part No	Description	Comp	Pieces	Contents
1930182	Brass Compression Tube Fittings	24	237	Sleeve, Nut, Elbow, Union, Male Connector



## Brass SAE 45° Flare Fittings

- Low Cost and reusable
- Good resistance to vibration - use long nut when greater vibration resistance is needed.
- Temperature: -65° F to +250° F
- Meets specifications and standards of ASA, ASME, and SAE

Typical Applications: Hydraulic and Pneumatic systems, LP and Natural Gas, flammable liquids, instrumentation, refrigeration, power steering.

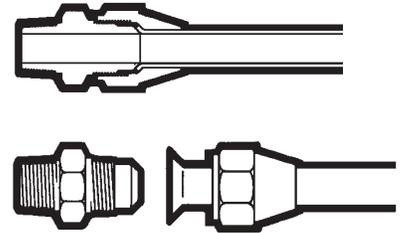
Identifying Characteristics: Nut has concaved turn behind the hex.

Use with: Copper, steel, aluminum, and Bundy tubing.

Pressure: Up to 2,000 psi depending on tube size

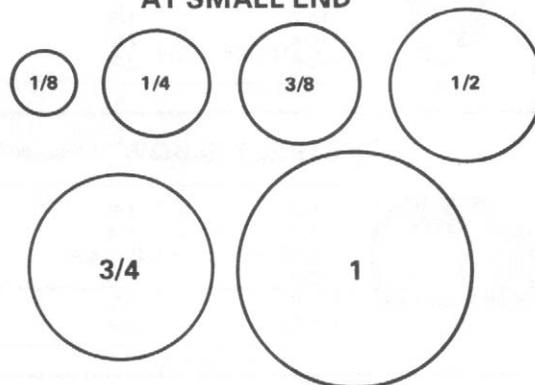
### Assembly Instructions:

1. Slide nut on tubing, threaded end of nut must face towards fitting.
2. Flare end of tubing with a 45° flaring tool.
  - a. Examine flare for excess thinning out.
  - b. On thin wall tubing use double flare to prevent pinch out.
3. Lubricate threads and assemble to fitting body.  
Tube nut should be tightened hand tight.
4. Tighten assembly with a wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.



Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Thread Size	5/16-24	3/8-24	7/16-20	1/2-20	5/8-18	11/16-16	3/4-16	7/8-14	1-1/16-14

### ACTUAL SIZE OF PIPE THREAD AT SMALL END



# FLARE FITTINGS



## Brass SAE 45° Flare Fittings

### Short Nut

Part No	Tube Size	Whd No
0060290	1/4	1110x4
0060291	5/16	1110x5
0060292	3/8	1110x6



### Long Nut

Part No	Tube Size	Whd No
0060280	3/16	41x3
0060281	1/4	41x4
0060282	5/16	41x5
0060283	3/8	41x6
0060285	1/2	41x8
0060286	5/8	41x10



### Union

Part No	Tube Size	Whd No
0060297	1/8	42x2
0060298	3/16	42x3
0060299	1/4	42x4
0060300	5/16	42x5
0060301	3/8	42x6
0060303	1/2	42x8
0060304	5/8	42x10
0060305	3/4	42x12



### 45° Male Elbow

Part No	Tube Size	Pipe Size	Whd No
0060425	1/4	1/8	54x4
0060426	5/16	1/8	54x5
0060427	3/8	1/4	54x6



### Union Elbow

Part No	Tube Size	Whd No
0060430	1/4	55x4
0060431	5/16	55x5
0060432	3/8	55x6
0060434	1/2	55x8



## Female Elbow

Part No	Tube Size	Pipe Size	Whd No
0060400	1/4	1/8	50x4
0060401	5/16	1/8	50x5
0060402	5/16	1/4	50x5x4
0060403	3/8	1/4	50x6
0060404	3/8	3/8	50x6x6



## Male Elbow

Part No	Tube Size	Pipe Size	Whd No
0060377	1/8	1/8	49x2
0060378	3/16	1/8	49x3
0060379	1/4	1/8	49x4
0060380	1/4	1/4	49x4x4
0060381	1/4	3/8	49x4x6
0060382	5/16	1/8	49x5
0060383	5/16	1/4	49x5x4
0060384	3/8	1/4	49x6
0060385	3/8	1/8	49x6x2
0060386	3/8	3/8	49x6x6
0060387	3/8	1/2	49x6x8
0060390	1/2	3/8	49x8
0060391	1/2	1/2	49x8x8
0060392	1/2	1/4	49x8x4
0060394	5/8	1/2	49x10
0060395	5/8	3/8	49x10x6
0060397	3/4	1/2	49x12
0060398	3/4	3/4	49x12x12



## Male Connector

Part No	Tube Size	Pipe Size	Whd No
0060351	1/8	1/8	48x2
0060352	3/16	1/8	48x3
0060354	1/4	1/8	48x4
0060355	1/4	1/4	48x4x4
0060358	5/16	1/8	48x5
0060359	5/16	1/4	48x5x4
0060361	3/8	1/4	48x6
0060362	3/8	1/8	48x6x2
0060363	3/8	3/8	48x6x6
0060364	3/8	1/2	48x6x8
0060368	1/2	3/8	48x8
0060369	1/2	1/2	48x8x8
0060370	1/2	1/4	48x8x4
0060372	5/8	1/2	48x10
0060375	3/4	1/2	48x12
0060376	3/4	3/4	48x12x12



# FLARE FITTINGS



## Female Connector

Part No	Tube Size	Pipe Size	Whd No
0060332	1/4	1/8	46x4
0060333	1/4	1/4	46x4x4
0060334	5/16	1/8	46x5
0060335	5/16	1/4	46x5x4
0060342	1/2	3/8	46x8
0060346	5/8	1/2	46x10



## Union Tee

Part No	Tube Size	Whd No
0060307	3/16	44x3
0060308	1/4	44x4
0060309	5/16	44x5
0060310	3/8	44x6
0060312	1/2	44x8
0060313	5/8	44x10



## Male Run Tee

Part No	Tube Size	Pipe Size	Whd No
0060413	1/4	1/8	51x3
0060415	5/16	1/8	51x5
0060417	3/8	1/4	51x6



## Male Branch Tee

Part No	Tube Size	Pipe Size	Whd No
0060316	3/16	1/8	45x3
0060317	1/4	1/8	45x4
0060319	5/16	1/8	45x5
0060321	3/8	1/4	45x6
0060325	1/2	3/8	45x8

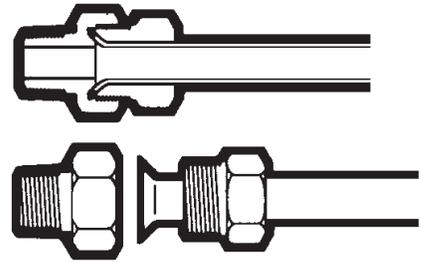


## Brass SAE 45° Flare Fitting Assortments

Part Number	Description	Comp	Pieces	Contents	
1930185	SAE 45° Flare Brass Fittings	24	88	Flare Nut, Union, Male Connector, Male Elbow	
1930180	SAE 45° Flare Brass Fittings	24	102	Flare Nut, Union, Connector, Elbow	

## Brass Inverted Flare Tube Fittings

- Low Cost and reusable
- Seats and threads are internal and protected
- Compact, excellent vibration resistance
- Temperature: -65° F to +250° F
- Meets specifications and standards of ASA, ASME, and SAE



Typical Applications: Hydraulic brake, power steering fuel lines transmission cooler lines, LP and Natural Gas.

Identifying Characteristics: Similar in shape to the threaded sleeve but with thicker nut,

Use with: Copper, steel, aluminum, and Bundy tubing.

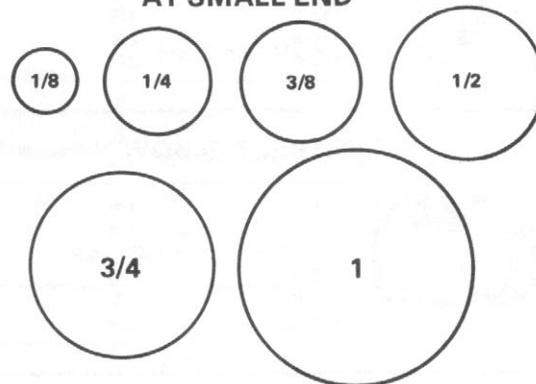
Pressure: Up to 2,000 psi depending on tube size

### Assembly Instructions:

1. Slide nut on tubing, Threaded end of nut must face towards fitting.
2. Flare end of tubing with a 45° flaring tool.
  - a. Examine flare for excess thinning out.
  - b. On thin wall tubing use double flare to prevent pinch out
3. Lubricate threads and assemble to fitting body.  
Tube nut should be tightened hand tight.
4. Tighten assembly with a wrench until a solid feeling is encountered. From that point, apply a one-sixth turn.

Tube O.D.	1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4
Thread Size	5/16-28	3/8-24	7/16-24	1/2-20	5/8-18	11/16-18	3/4-18	7/8-18	1-1/16-16

### ACTUAL SIZE OF PIPE THREAD AT SMALL END



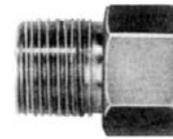
# INVERTED FLARE FITTINGS



## Brass Inverted Flare Fittings

### Male Connector

Part No	Tube Size	Pipe Size	Whd No
0060458	1/8	1/8	202x2
0060459	3/16	1/8	202x3
0060460	1/4	1/8	202x4
0060461	1/4	1/4	202x4x4
0060462	5/16	1/8	202x5
0060463	5/16	1/4	202x5x4
0060464	3/8	1/8	202x6x2
0060465	3/8	1/4	202x6
0060466	3/8	3/8	202x6x6
0060469	1/2	3/8	202x8
0060470	1/2	1/2	202x8x8



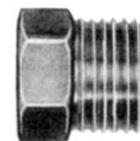
### 45° Elbow

Part No	Tube Size	Pipe Size	Whd No
0060494	3/16	1/8	352x3
0060495	1/4	1/8	352x4
0060496	5/16	1/8	352x5
0060498	3/8	1/4	352x6
0060499	1/2	3/8	352x8



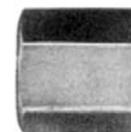
### Steel Nut

Part No	Tube Size	Whd No
0060448	1/8	105x2
0060449	3/16	105x3
0060450	1/4	105x4
0060451	5/16	105x5
0060452	3/8	105x6
0060454	1/2	105x8



### Union

Part No	Tube Size	Whd No
0060484	1/8	302x2
0060485	3/16	302x3
0060486	1/4	302x4
0060487	5/16	302x5
0060488	3/8	302x6
0060490	1/2	302x8



## Brass Inverted Flare Fittings

### Male Elbow

Part No	Tube Size	Pipe Size	Whd No
0060501	1/8	1/8	402x2
0060502	3/16	1/8	402x3
0060503	1/4	1/8	402x4
0060504	1/4	1/4	402x4x4
0060505	5/16	1/8	402x5
0060506	5/16	1/4	402x5x4
0060507	3/8	1/8	402x6x2
0060508	3/8	1/4	402x6
0060509	3/8	3/8	402x6x6
0060511	1/2	3/8	402x8
0060513	1/2	1/2	402x8x8



### Brass Inverted Flare Fitting Assortment

Part Number	Description	Comp	Pieces	Contents
0930013	Inverted Flare Brass Fittings	12	165	Unions, Male Elbows, Male Connectors and Inverted Nuts

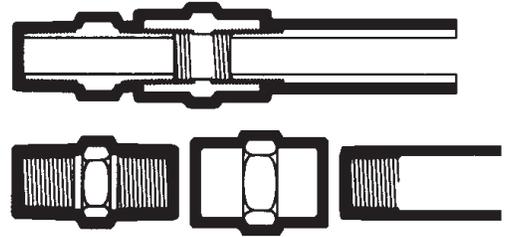


# PIPE FITTINGS



## Brass Pipe Fittings

- Dryseal Threads
- Sealing method: Tapered thread (NPTF)
- Temperature: -65° F to +250° F
- Meets specifications and standards of ASA, ASME, and SAE



Typical Applications: Fuels, refrigeration, instrumentation, and hydraulic systems.

Use with: Brass, bronze, and iron pipe.

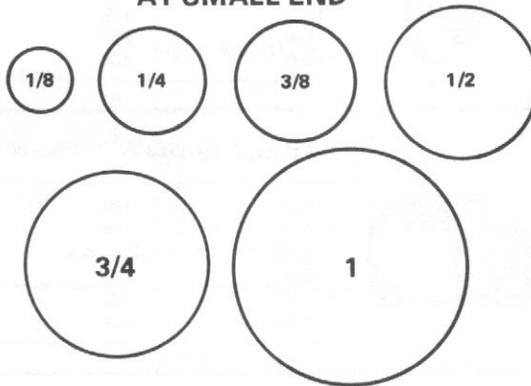
Pressure: Up to 1,200 psi operating pressure

Assembly Instructions:

1. Lubricate threads and tightened hand tight.
2. Tighten assembly with a wrench a minimum of 2-112 turns past hand tight.

Pipe Size	1/16	1/8	1/4	3/8	1/2	3/4
Thread Size	1/16-27	1/8-27	1/4-18	3/8-18	1/2-14	3/4-14

### ACTUAL SIZE OF PIPE THREAD AT SMALL END



## Brass Pipe Fittings

### Hex Plug

Part No	Pipe Size	Whd No
0060580	1/8	3152x2
0060581	1/4	3152x4
0060582	3/8	3152x6
0060583	1/2	3152x8
0060584	3/4	3152x12



### Bushing

Part No	Male Pipe Size	Female Pipe Size	Whd No
0060598	1/4	1/8	3220x4x2
0060599	3/8	1/8	3220x6x2
0060600	3/8	1/4	3220x6x4
0060601	1/2	1/8	3220x8x2
0060602	1/2	1/4	3220x8x4
0060603	1/2	3/8	3220x8x6
0060605	3/4	3/8	3220x12x6
0060606	3/4	1/2	3220x12x8



### Square Plug

Part No	Pipe Size	Whd No
0060575	1/8	3151x2
0060576	1/4	3151x4
0060577	3/8	3151x6
0060578	1/2	3151x8
0060579	3/4	3151x12



### Reducing Coupling

Part No	Pipe Size	Whd No
0060616	1/4 x 1/8	3300x4x2
0060617	3/8 x 1/8	3300x6x2
0060618	3/8 x 1/4	3300x6x4
0060619	1/2 x 3/8	3300x8x6



### Cap

Part No	Pipe Size	Whd No
0060540	1/8	3129x2
0060541	1/4	3129x4
0060542	3/8	3129x6
0060549	1/2	3129x8



## Coupling

Part No	Pipe Size	Whd No
0060611	1/8	3300x2
0060612	1/4	3300x4
0060613	3/8	3300x6
0060614	1/2	3300x8
0060615	3/4	3300x12



## Street Elbow

Part No	Pipe Size	Whd No
0060653	1/8	3400x2
0060654	1/4	3400x4
0060656	3/8	3400x6
0060657	1/2	3400x8
0060960	3/4	3400x12



## Tee

Part No	Pipe Size	Whd No
0060667	1/8	3700x2
0060668	1/4	3700x4
0060669	3/8	3700x6
0060670	1/2	3700x8
0060961	3/4	3700x12



## Cross

Part No	Pipe Size	Whd No
0060672	1/8	3950x2
0060673	1/4	3950x4
0060674	3/8	3950x6
0060675	1/2	3950x8



## 45° Street Elbow

Part No	Pipe Size	Whd No
0060649	1/8	3350x2
0060650	1/4	3350x4
0060651	3/8	3350x6
0060652	1/2	3350x8
0060962	3/4	3350x12



## Elbow

Part No	Pipe Size	Whd No
0060658	1/8	3500x2
0060659	1/4	3500x4
0060660	3/8	3500x6
0060661	1/2	3500x8
0060693	3/4	3500x12



## Long Nipple

Part No	Pipe Size	Length	Whd No
0060633	1/8	1-1/2	3327x2
0060634	1/4	1-1/2	3327x4
0060635	3/8	1-1/2	3327x6
0060636	1/2	1-1/2	3327x8
0060637	1/8	2	3328x2
0060638	1/4	2	3328x4
0060639	3/8	2	3328x6
0060640	1/2	2	3328x8
0060641	1/8	2-1/2	3329x2
0060642	1/4	2-1/2	3329x4
0060643	3/8	2-1/2	3329x6
0060644	1/2	2-1/2	3329x8
0060645	1/8	3	3330x2
0060646	1/4	3	3330x4
0060647	3/8	3	3330x6
0060648	1/2	3	3330x8



## Hex Nipple

Part No	Pipe Size	Whd No
0060620	1/8	3325x2
0060621	1/4	3325x4
0060623	3/8	3325x6
0060626	1/2	3325x8



## Reducing Nipple

Part No	Pipe Size	Whd No
0060622	1/4x1/8	3325x4x2
0060624	3/8x1/4	3325x6x4
0060625	3/8x1/8	3325x6x2
0060627	1/2x3/8	3325x8x6



# PIPE FITTINGS



## Close Nipple

Part No	Pipe Size	Whd No
0060628	1/8	3326x2
0060629	1/4	3326x4
0060630	3/8	3325x6
0060631	1/2	3326x8
0060632	3/4	3326x12



## Adapter

Part No	Pipe Female	Pipe Male	Whd No
0060590	1/8	1/8	3200x2
0060591	1/4	1/4	3200x4
0060592	1/4	1/8	3200x4x2
0060593	3/8	3/8	3200x6
0060595	3/8	1/4	3200x6x4
0060597	1/2	3/8	3200x8x6



## Union

Part No	Pipe Size	Whd No
0060608	1/4	3250x4



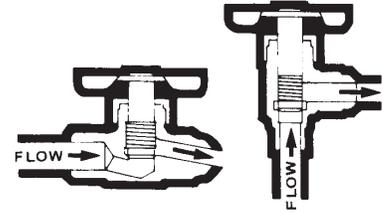
## Brass Pipe Fitting Assortments

Part No	Description	Comp	Pieces	Contents
1930187	Brass Pipe Adapters	24	114	Bushing, Adapter, Reducing Coupler, Cap, Hex Plug
1930188	Brass Pipe Nipples	12	60	Hex: 1/8, 1/4, 3/8, 1/2 Close: 1/8, 1/4, 3/8, 1/2 Reducing: 1/4-1/8, 3/8-1/4, 3/8-1/8, 1/2-3/8
1930189	Brass Pipe Nipples -Long	16	72	1/8 x 1-1/2 to 1/2 x 3
1930190	Brass Pipe Fittings	20	53	Elbow, Street Elbow, 45 Elbow, Cross, Tee
0930015	Brass Pipe Fittings	24	92	Hex Plug, Close Nipple, Union, Bushing, Pipe Tee and Street Elbows



## Needle Valves

- Metal to Metal seat
- Fine-thread screwdown, allows positive seating and precise adjustment to hold any amount of flow up to valve capacity.
- Valves are designed to withstand up to 150 PSI working pressure.
- Valves should always be installed with the pressure against the seat.



### Compression to Male Pipe Straight

Part No	Tube Size	Pipe Size	Whd No
0060714	3/16	1/8	6690
0060716	1/4	1/4	6750
0060717	5/16	1/8	660
0060718	5/16	1/4	6755
0060719	3/8	1/4	6760



### Compression to Male Pipe Angle

Part No	Tube Size	Pipe Size	Whd No
0060724	3/16	1/8	6845
0060725	1/4	1/8	555
0060726	1/4	1/4	6850
0060728	5/16	1/4	6855
0060729	3/8	1/4	6860



### Compression Both Ends

Part No	Tube Size	Whd No
0060720	3/16	6763
0060721	1/4	6765
0060722	5/16	6770
0060723	3/8	6775



### Flare to Male Pipe Straight

Part No	Tube Size	Pipe Size	Whd No
0060731	1/4	1/4	6700
0060732	5/16	1/8	630
0060734	3/8	1/4	700



### Flare- Both Ends

Part No	Tube Size	Whd No
0060735	1/4	6715
0060737	3/8	6725



# SHUTOFF COCKS



## Drain & Shutoff Cocks

### External Seat Drain

Part Number	Pipe Thread	Whd Number
0060708	1/8	6783
0060709	1/4	6788
0060710	3/8	



### Angle Bib Drain

Part Number	Pipe Thread	Whd Number
0060711	1/4	120
0060712	1/8	150



### Internal Seat Drain

Part Number	Pipe Thread	Whd Number
0060704	1/8	130
0060705	1/4	190
0060706	3/8	250



### Ground Plug Drain

Part Number	Pipe Thread	Whd Number
0060682	1/8	6891
0060683	1/4	6892
0060684	3/8	6893
0060685	1/2	-



## Ground Key Shut off Cocks

- Designed to withstand working pressures of 30 PSI
- Use for low pressure air, water, and fluids. Not intended for natural gas, LPG, nuclear or aircraft applications
- Use with copper, aluminum, steel, & plastic tubing where applicable

### Inverted Male Elbow

Part No	Tube Size	Pipe Size	Whd No
0060678	3/16	1/8	6875
0060679	1/4	1/8	730
0060680	5/16	1/8	775



### Double Female Thread

Part No	Pipe Size	Whd No
0060694	1/8	6800
0060695	1/4	6805



### Double Male Pipe Thread

Part No	Pipe Size	Whd No
0060692	1/8	6810
0060693	1/4	6815



### Compression to Male Pipe Straight

Part No	Tube Size	Pipe Size	Whd No
0060687	1/4	1/4	6754
0060689	5/16	1/4	6759
0060690	3/8	1/4	6764
0060691	3/8	3/8	6768



### Compression- Both Ends

Part No	Pipe Size	Whd No
0060698	1/4	6769
0060699	5/16	6774
0060700	3/8	6779



# SHUTOFF VALVES



## Drain & Shutoff Valves

Click washer assembly positively holds valve in desired position, and gives a pronounced “click” so that operator will definitely know when valve is fully open for desired tank.

### SAE Straightway

Part Number	Tube Size	Pipe Thread	Whd Number
0060741	1/4	1/8	537
0060744	3/8	1/4	703



### Male-Female Pipe

Part Number	Pipe Thread	Whd Number
0060764	1/8	6824
0060765	1/4	6829



### Double Male Pipe

Part Number	Pipe Thread	Whd Number
0060758	1/8	6803
0060759	1/4	6807



### SAE Union

Part Number	Pipe Thread	Whd Number
0060750	1/4	6719
0060751	5/16	6724
0060752	3/8	6729



### Double Female Pipe

Part Number	Pipe Thread	Whd Number
0060761	1/8	6804
0060762	1/4	6809



## Multiple Shut Off Valves

Part Number	Section Drawing	Description	Pipe Thread	Stem	Whd Number
0060900	A	4 Way Female	3/8	Short	6707
0060901	A	4 Way Female	3/8	Long	6708
0060902	B	3 Way Female	3/8	Short	6709
0060903	A	4 Way Female	1/4	Short	6747
0060904	A	4 Way Female	1/4	Long	6748
0060905	B	3 Way Female	1/4	Short	6749
0060906	Handle includes screw and washer				6746



## Brass Ball Valves

- Working pressure: 600 psi
- Full port
- Quarter turn for on-off

Part Number	Pipe Thread
0061592	1/8
0061594	1/4
0061596	3/8
0061598	1/2
0061599	3/4



# COPPER TUBING



## Automotive Copper Tubing

- Seamless, soft, bright, annealed
- Used for gas, oil, water, etc.
- Easy to work with.

Part Number	Tube O.D.	Wall Thickness	Std Pkg (feet)
0540002	1/8	.030	25
0540003	3/16	.030	25
0540004	1/4	.030	25
0540005	5/16	.032	25
0540006	3/8	.032	25
0540008	1/2	.032	25



## Air Brake Copper Tubing

- Heavy duty soft copper tubing
- Specifically for use in air brake systems for trucks and off the road vehicles

Part Number	Tube O.D.	Wall Thickness	Std Pkg (feet)
0540040	1/4	.035	50
0540050	5/16	.042	50
0540060	3/8	.049	50
0540080	1/2	.049	50
0540100	5/8	.049	50



## Tube Cutter

Part Number	Description
0730120	<ul style="list-style-type: none"> <li>• Cuts copper, brass, aluminum, steel and lead tubes from 1/8" to 1"</li> <li>• Body and vise made of Zamac Die Cast.</li> <li>• Hardened rollers make a perfect cut, leaving no chips or flattened tubing</li> <li>• Handy spring reamer blade attached.</li> </ul>
0730121	<ul style="list-style-type: none"> <li>• Mini Tube Cutter for copper, brass, aluminum, and plastic tubes from 1/8" to 5/8"</li> <li>• Handy for tight hard to reach places.</li> <li>• Hardened rollers make a perfect cut, leaving no chips or flattened tubing</li> </ul>



## Flaring Tool

Part Number	Description
0730155	<ul style="list-style-type: none"> <li>• Flares copper, brass, aluminum tubing, to make SAE flared joints, without cracking or splitting.</li> <li>• Will flare Tube O.D. from 1/4" to 5/8"</li> </ul>



## Hydraulic Grease Fittings

- Precision engineered to OEM specifications
- Ball Check valve for extended performance and reliability
- Full flow lubrication without restriction
- For cars, trucks, machinery, industrial equipment

### 1/8 NPT Male Pipe Thread

Part No.	1360609	1360669	1360611	1360688	1360612	1360613
Description	Straight	Straight	30°	45°	67-1/2°	90°
Length	5/8	1-1/4	11/16	1	27/32	13/16

### 1/4-28 Thread

Part No.	1360641	1360652	1360680	1360636	1360637	1360911
Description	Straight	Straight	Straight	45°	45°	90°
Length	33/64	11/16	15/16	1	7/8	47/64

### Drive Type

Part No.	1360633	1360743	1360608
Description	3/16 Straight	1/4 Straight	5/16 Straight
Length	9/16	39/64	37/64

### 1/4" NPT Male Pipe Thread

Part No.	1360627	1360629
Description	Straight	67-1/2°
Length	59/64	1-1/16

# GREASE FITTINGS



## Button Head Fittings

Part No.	 1360184	 1360186	 1360188
Description	Standard	Standard	Standard
Pipe Size	1/8	1/4	3/8

## Metric Grease Fittings

### 6 x 1.0 Metric Thread

Part No.	 1360801	 1360804	 1360807
Description	Straight	45°	90°

### M8 x 1.0 Metric Thread

Part No.	 1360802	 1360805	 1360808
Description	Straight	45°	90°

### M10 x 1.0 Metric Thread

Part No.	 1360803	 1360806	 1360809
Description	Straight	45°	90°

## Hydraulic Couplers

Part Number	Type	Description	
1360209	Standard	Will fit all makes of hydraulic type fittings 1/8 Female pipe thread nickel plated	
1360211	Standard	Double end replacement jaws interchangeable with all standard make couplers 3 to a set	
1360230	Midget	Snap on coupler designed to be used with all makes of hydraulic type fittings. For hand and powered grease guns. 1/8 female pipe thread	
1360231	Midget	Replacement Jaws for midget coupler	

## Button Head Couplers

Part No	Size	Type	
1360825	5/8	Standard	
1362030	7/16	Giant	

## Pressure Relief Grease Fittings

- Dual purpose relief or filler vent plugs open at the predetermined pressures shown below
- Use wherever you need control of oil and grease pressure, especially gear box housings, bearing kingpins, and universal joints

Part No	Pipe Size	Relief Pressure	
1360820	1/8 Male Pipe	1/4 to 1 LB.	
1360821	1/8 Male Pipe	1 to 5 LB.	
1360822	1/8 Male Pipe	7.5 to 15 LB.	
1360823	1/8 Male Pipe	45 to 80 LB.	
1360824	1/8 Male Pipe	400 to 650 LB.	
1361702	1/8 Female Pipe Adapter		

## Grease Gun Whip Hoses

- Extend the reach of your grease gun with flex guard whip hose.
- Use only with hand operated grease guns
- Each end has a 1/8 NPT male connection

Part No	Size	
8150027	12" Flex Hose	

# DRAIN PLUGS



## Drain Plugs

- Made of forged steel

Part Number	Thread Size	Type	Replaces	
0063010	1/2-20	Easy Start Tip		
0063011	1/2	Oversized	1/2-20 Standard	
0063012	1/2	Double Oversized	1/2 Oversized	
0063013	1/2-20	Oversized with center plug drain hole	1/2-20	
0063014	1/2	Double oversized with center plug drain hole	1/2 oversized	

## Drain Plug Gaskets

Part Number	Size	Type	
0063030	1/2	Fibre	
0063031	1/2 Oversize	Fibre	

## Metric Drain Plugs & Gaskets

Drain Plug Part Number	Drain Plug Size	Gasket Size	Nylon Gasket Part Number	Synthetic Gasket Part Number	
0063001	M12 X 1.25	M12	0063020		
0063002	M12 X 1.75	M12	0063021	0063032	
0063003	M14 X 1.5	M14	0063022	0063033	
0063004	M16 X 1.5	M16	0063023		
0063005	M18 X 1.5	M18	0063024		
0063006	M20 X 1.5	M20	0063025		

## O-Rings - Buna

- Specially compounded with high content Nitrile rubber; superior resistance to oil, gas, hydraulic fluids, etc.
- Free of excess flashing or foreign materials that result in weak spots, distortion and round out

Industry Number	Thickness	I.D.	O.D.	Part Number
006	1/16	1/8	1/4	1260001
007	1/16	5/32	9/32	1260002
008	1/16	3/16	5/16	1260003
009	1/16	7/32	11/32	1260004
010	1/16	1/4	3/8	1260005
011	1/16	5/16	7/16	1260006
012	1/16	3/8	1/2	1260007
110	3/32	3/8	9/16	1260008
111	3/32	7/16	5/8	1260009
112	3/32	1/2	11/16	1260010
113	3/32	9/16	3/4	1260011
114	3/32	5/8	13/16	1260012
115	3/32	11/16	7/8	1260013
116	3/32	3/4	15/16	1260014
210	1/8	3/4	1	1260015
211	1/8	13/16	1-1/16	1260016
212	1/8	7/8	1-1/8	1260017
213	1/8	15/16	1-3/16	1260018
214	1/8	1	1-1/4	1260019
215	1/8	1-1/16	1-5/16	1260020
216	1/8	1-1/8	1-3/8	1260021
217	1/8	1-3/16	1-7/16	1260022
218	1/8	1-1/4	1-1/2	1260023
219	1/8	1-5/16	1-9/16	1260024
220	1/8	1-3/8	1-5/8	1260025
221	1/8	1-7/16	1-11/16	1260026
222	1/8	1-1/2	1-3/4	1260027
326	3/16	1-5/8	2	1260029
327	3/16	1-3/4	2-1/8	1260030
328	3/16	1-7/8	2-1/4	1260031
329	3/16	2	2-3/8	1260032
330	3/16	2-1/8	2-1/2	1260033
331	3/16	2-1/4	2-5/8	1260034
332	3/16	2-3/8	2-3/4	1260035
333	3/16	2-1/2	2-7/8	1260036
334	3/16	2-5/8	3	1260037
335	3/16	2-3/4	3-1/8	1260038
336	3/16	2-7/8	3-1/4	1260039
337	3/16	3	3-3/8	1260040



## O-Ring Splicing Kit

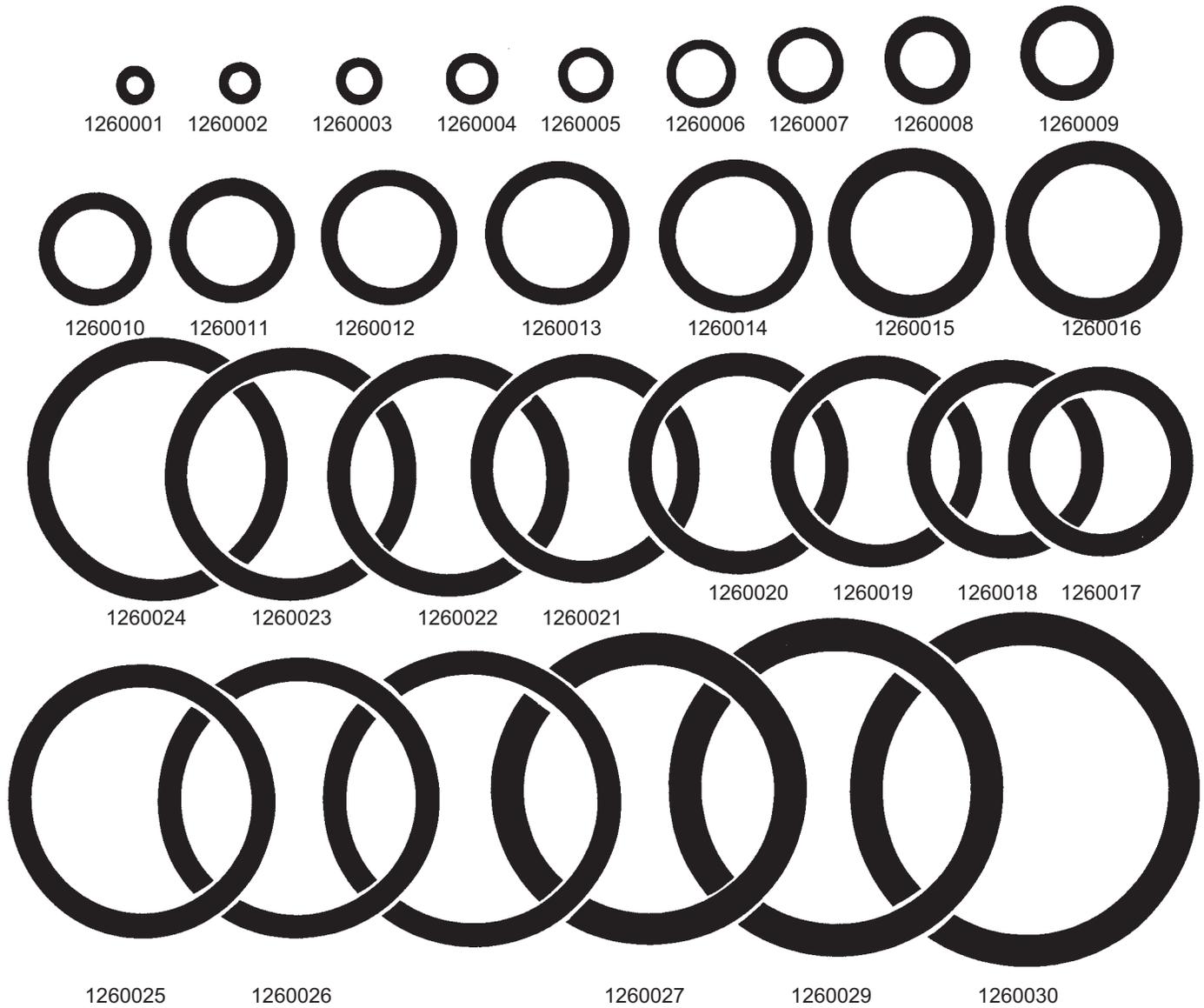
Part Number 1261000

Diameter	Length	Part Number
3/32	25'	1261003
1/8	25'	1261004
3/16	25'	1261006
1/4	25'	1261008
Adhesive	10 grams	0800011

# O-RINGS



## O-Ring Gauge



## Nitrile Air Conditioning “O” Rings

For Use With R12 & R134A Refrigerant

These “O” Rings are either green or black with an orange dot.

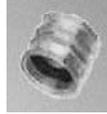
Part Number	I.D.	O.D.	Thickness	OEM No.
1260050	.290"	.432"	.071"	Ford: 391396
1260051	.375"	.500"	.063"	
1260052	.400"	.546"	.073"	Ford: 391397
1260053	.509"	.655"	.073"	Ford: 391304
1260054	.617"	.769"	.076"	Ford: 391305
1260055	.688"	.813"	.063"	
1260056	4.5mm	7.3mm	1.4mm	Nissan: 92472-N8200
1260057	6mm	9.6mm	1.8mm	Nissan 92470-N8200
1260058	6.5mm	9.5mm	1.5mm	Toyota: 9099-14044
1260059	6.6mm	10.2mm	1.8mm	Acura: 80873-ST7-000
1260060	7.7mm	11.3mm	1.8mm	Nissan: 92474-N8200
1260061	10.7mm	15.5mm	2.4mm	Acura: 80872-ST7-000 Nissan: 92475-W1000
1260062	10.8mm	14.4mm	1.8mm	Nissan: 92471-N8200
1260063	13.3mm	18.1mm	2.4mm	Acura: 80871-ST7-000
1260064	13.4mm	17.2mm	1.9mm	Toyota: 90099-14045
1260065	14mm	17.6mm	1.8mm	Nissan: 92473-N8200
1260066	14.8mm	19.6mm	2.4mm	Nissan: 92475-W2100
1260067	13/16"	1-1/16"	1/8"	

## Blue Neoprene Air Conditioning “O” Rings

Teflon Coated. For Use With R134A & R12 Refrigerant

Part Number	I.D.	O.D.	Thickness	Ind. Std.
1260080	1/4	7/16	3/32	108
1260081	5/16	7/16	1/16	011
1260082	3/8	1/2	1/16	012
1260083	3/8	9/16	3/32	110
1260084	7/16	9/16	1/1	013
1260085	1/2	5/8	1/16	014
1260086	1/2	11/16	3/32	112
1260087	9/16	11/16	1/16	015
1260088	9/16	3/4	3/32	113
1260089	5/8	3/4	1/16	016
1260090	5/8	13/16	3/31	114
1260091	11/16	13/16	1/16	017
1260092	11/16	7/8	3/32	115

## Garden Hose Repair Fittings

Part Number	Description	
0066510	5/8 Female Swivel W/Barb	
0066512	3/4 Female Swivel W/Barb	
0066610	5/8 Male Swivel Hose Barb Union	
0066612	3/4 Male Swivel Hose Barb Union	
0066710	5/8 Male Garden Hose Brass Barb	
0066712	3/4 Male Garden Hose Brass Barb	
0066600	Female Swivel Garden Hose Union	
0066601	Garden Hose Plastic Washers	

## Garden Hose Repair Fittings Assorment

Part Number	Description	Comp	Pieces	Contents	
1930505	Garden Hose Repair Fittings	12	41	5/8 & 3/4 Male & Female Swivel Barbs, Male & Female Swivel Unions, Female Swivel Unions and Plastic Washers	

## Crimson Shield Premium Thermal Insulated Heater Hose for Most Cars & Light Trucks

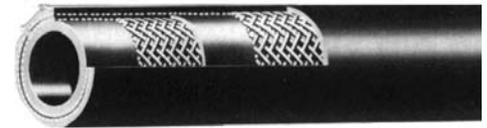
- Resists ozone, antifreeze, low & high temperature abrasion, swelling, softening and flaking
- Delivers more heat to heater than standard hose
- Special 100% EDPM compound used throughout
- Meets S.A.E. 20 R3 CLASS D2 SAE J2387



Part No	Description	Length	Packaging	Color
0160887	5/8" 4-Spiral Polyester	50 Feet	Coil in carton	Red
0160888	3/4" 4-Spiral Polyester	50 Feet	Coil in carton	Red

## Heavy Duty Heater Hose for Truck & Heavy Equipment Service

- Special EDPM rubber tube & cover compounds meet demanding service requirements to minimize replacement frequency.
- Extra strong high tensile reinforcement provides longer service life.
- Meets 20R3 Class R Grade 1A 150 PSI WP



Part No	Description	Length	Packaging	Color
0160889	5/8" 2 Spiral polyester	50 Feet	Coil in carton	Black
0160890	3/4" 2 Spiral polyester	50 Feet	Coil in carton	Black
0160891	1" 2 Spiral polyester	50 Feet	Coil in carton	Black

## HBD Silicone Heater Hose

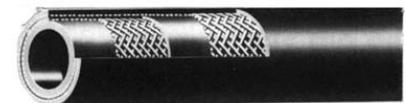
- Special heater hose for the most extreme heavy-duty truck and special equipment applications
- Resistance to oils, coolants, ozone, and cooling system additives
- Built to withstand temperature ranges of -65 to +350 degrees F. SAE20R3 HT Class A
- Reinforced with a polyester fiber to maintain a high burst strength and extend the service life



Part Number	Description	Length	Packaging	Color
0160892	1/2	25 Feet	Coil in carton	Blue
0160893	5/8	25 Feet	Coil in carton	Blue
0160894	3/4	25 Feet	Coil in carton	Blue

## Air Brake Hose Type - B

- Heavy duty neoprene cover resists deterioration from oil, grease and ozone.
- For use on truck and bus compressed air systems.
- Can be used with standard reusable air brake fittings.
- Meets S.A.E. J1402 manufactured to Commonwealth of Pennsylvania specifications.



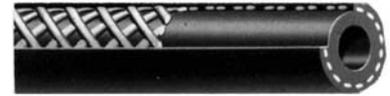
Part No	Description	Min Burst	Max Burst	Length	Packaging	Color
0160886	3/8" 2-Braid	125 lbs	900 lbs	50 Feet	Coil in carton	Black
0160885	1/2" 2-Braid	125 lbs	900 lbs	50 Feet	Coil in carton	Black

# HOSE/BARB FITTINGS



## Premium Fuel Line And Vapor Emission Hose

- High quality hypalon cover provides maximum heat resistance up to 257° F
- Suitable for use with leaded and unleaded gasoline, ethanol or methanol based gasohol, and diesel fuel.
- Meets or exceeds S.A.E.-J30R6,S.A.E.-J30R7, GM-6165M



Part No	Description	Length	Packaging
0160996	1/4" 2-Braid	25 Feet	Spool in carton
0160995	5/16" 2-Braid	25 Feet	Spool in carton
0160997	3/8" 2-Braid	25 Feet	Spool in carton

## Fuel Line Fittings

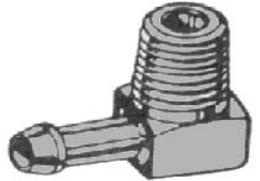
### Male Pipe

Part No	Hose I.D.	Pipe Size
0060910	1/4	1/8
0060911	1/4	1/4
0060912	5/16	1/8
0060913	3/8	1/8
0060914	3/8	1/4



### 90° Male Pipe Elbow

Part No	Hose I.D.	Pipe Size
0060915	1/4	1/8
0060916	5/16	1/8
0060917	5/16	1/4
0060918	3/8	1/8
0060919	3/8	1/4



### Solid Female Hose Barb

Part No	Hose I.D.	Pipe Thread
0060920	1/4	1/8
0060921	1/4	1/4
0060922	3/8	1/4
0060923	3/8	3/8
0060924	3/8	1/2



### Swivel Female Hose Barb Ball Seat

Part No	Hose I.D.	Pipe Thread
0060948	1/4	1/4
0060949	3/8	1/4
0060950	3/8	3/8



## Hose Mender

Part No	Hose I.D.
0060925	3/16
0060926	1/4
0060927	5/16
0060928	3/8
0060929	1/2
0060964	5/8
0060965	3/4



## Male Hose Barb

Part No	Hose I.D.	Pipe Thread
0060930	1/8	1/8
0060931	3/16	1/8
0060932	3/16	1/4
0060933	1/4	1/8
0060934	1/4	1/4
0060935	1/4	3/8
0060936	5/16	1/8
0060937	5/16	1/4
0060938	3/8	1/8
0060939	3/8	1/4
0060940	3/8	3/8
0060941	3/8	1/2
0060942	1/2	1/4
0060943	1/2	3/8
0060944	1/2	1/2
0060945	5/8	3/8
0060946	5/8	1/2
0060947	3/4	3/4



## Male 90° Elbow Hose Barb

Part No	Hose I.D.	Pipe Thread
0060951	1/4	1/8
0060952	1/4	1/4
0060953	3/8	1/4
0060954	3/8	3/8
0060955	3/8	1/2

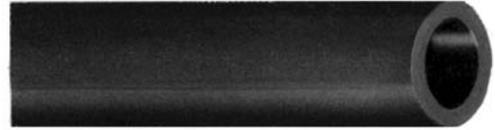


# VACUUM TUBING/TEES



## Windshield Washer / Vacuum Tubing

- Specially compounded not to deteriorate or split from heat and ozone under the hood.
- Excellent oil and grease resistance.
- Meets S.A.E. J200 BA710



Applications Include:

Windshield washers, Power Antennas, Defrosters,  
Headlight Vacuum Systems, Power Seats, Power Windows.

Part No	Tube Size	Nipple Size	Length	Packaging
0160992	7/64	1/8	50 Feet	Spool in carton
0160993	5/32	3/16	50 Feet	Spool in carton
0160994	7/32	1/4	50 Feet	Spool in carton

## Vacuum Tubing Connectors

High Density Polyethylene

### Union

Part No	Nipple Size	Tube I.D.	
0160206	1/8 x 1/8	7/64	
0160207	3/16 x 3/16	5/32	
0160208	1/4 x 1/4	7/32	

### Universal Breakaway Union

Part No	Nipple Size	Tube I.D.	
0160205	1/8 to 1/4	7/64 to 7/32	

### Tee

Part No	Nipple Size	Tube I.D.	
0160209	1/8 x 1/8 x 1/8	7/64	
0160210	3/16 x 3/16 x 3/16	5/32	
0160211	1/4 x 1/4 x 1/4	7/32	

### Universal Breakaway Tee

Part No	Nipple Size	Tube I.D.	
0160204	1/8 to 1/4	7/64 to 7/32	

## Hose Clamps - 100% Stainless Steel

- Easy to install uses either a wrench, nut driver or screwdriver
- Worm drive is activated by 5/16 slotted hex screw in the one piece interlocking housing; band is 9/16" wide
- 301 stainless steel housing and band, 410 stainless screw, for applications where corrosion is a problem
- One piece housing locks directly onto band

Industry Clamp Number	Fits Hose I.D.	Part Number	Industry Clamp Number	Fits Hose I.D.	Part Number
4		1091023			
5	3/16 - 1/4	1091000	36	1-3/4 - 2-1/4	1091010
6	1/4 - 3/8	1091001	40	2 - 2-1/2	1091012
8	5/16 - 1/2	1091002	48	2-1/2 - 3	1091013
10	3/8 - 5/8	1091003	52	3 - 3-1/4	1091014
12	5/8 - 3/4	1091004	56	3-1/4 - 3-1/2	1091015
16	3/4 - 1	1091005	72	4 - 4-1/2	1091018
20	1 - 1-1/4	1091006	88	5-1/4 - 6	1091019
24	1-1/4 - 1-1/2	1091007	104	6 - 6-1/2	1091020
28	1-1/4 - 1-3/4	1091008	152	8 - 10	1091021
32	1-1/2 - 2	1091009	188	10 - 12	1091022



## Hose Clamp Assortment

Part Number	Description
0930117	Contains 10 Most Popular Clamps Sizes 05 to 48 Clamp Range: 1/4" to 3"
1092000	Rack Only
1092200	Larger Sizes Hose Clamp Rack 5-Loop Accommodates clamps from 2 1/16 to 5" Rack Only



## Lined Hose Clamps - 300 Grade Stainless Steel

- Specially designed for use with silicone rubber and other soft hose applications
- The liner protects the hose surface and prevents it from extruding or shearing thru the band notches
- Worm drive is activated by 5/16 slotted hex screw in the one piece interlocking housing; band is 9/16" wide

Industry Clamp Number	Fits Hose I.D.	Part Number	Industry Clamp Number	Fits Hose I.D.	Part Number
8	1/2	3091008	32	1-1/2 - 1-7/8	3091032
10	5/8	3091010	36	1-5/8 - 2	3091036
12	3/4	3091012	40	2 - 2-1/4	3091040
16	7/8	3091016	44	2-1/4 - 2-1/2	3091044
20	1 - 1-1/8	3091020	48	2-1/2 - 2-3/4	3091048
24	1-1/8 - 1-3/8	3091024	52	2-3/4 - 3	3091052
28	1-1/4 - 1-5/8	3091028			



# CLAMPS



## Crimp Type Hose Clamps - Oetiker Crimp Clamps

For low pressure applications such as automotive, appliance, industrial machinery, etc.

- Easy to apply
- Simply slide on and clamp
- Clamps quickly and tight
- No gap areas to leak
- Low profile, Out of the way - Avoids cutting and abrasion.



Part Number	Size	Inches Closed-Open	mm Closed-Open
1092001	3/8	.350 - .414	8.9 - 10.5
1092002	7/16	.381 - .444	9.7 - 11.3
1092003	15/32	.394 - .486	10.4 - 12.3
1092004	1/2	.453 - .524	11.4 - 13.3
1092005	35/64	.472 - .551	11.9 - 14.0
1092006	9/16	.496 - .571	12.6 - 14.5
1092007	5/8	.543 - .618	13.8 - 15.7
1092008	11/16	.594 - .669	15.1 - 17.0
1092009	23/32	.618 - .728	15.7 - 18.5
1092010	3/4	.669 - .779	17.0 - 19.8
1092011	7/8	.779 - .890	19.8 - 22.6
1092012	1	.898 - 1.008	22.8 - 25.6
1092100	Crimp Type Hose Clamp Tool		

## Oetiker Crimp Type Clamp Assortment

Part Number	Description	Comp	Pieces	Contents
1931109	Oetiker Crimp Type Clamp Assortment	21	43	3/8 to 1" Oetiker Style Clamps and Crimp Type Hose Clamp Tool



## Reusable Air Brake Hose Fittings

- Automotive air brake systems

### Connector Assembly

Part Number	Hose ID	Pipe Thread
0061264	3/8	1/4
0061266	3/8	3/8
0061268	3/8	1/2
0061286	1/2	3/8
0061288	1/2	1/2



### Coupling Nut

Part Number	Hose ID
0061506	3/8
0061508	1/2



### Coupling Body

Part Number	Hose ID	Pipe Thread
0061564	3/8	1/4
0061566	3/8	3/8
0061568	3/8	1/2
0061586	1/2	3/8
0061588	1/2	1/2



### Connector With Adapter

Part Number	Hose ID	Pipe Thread
0061664	3/8	1/4
0061666	3/8	3/8
0061686	1/2	3/8



### Hose Mender Assembly

Part Number	Hose ID
0061306	3/8
0061308	1/2



# REUSABLE FITTINGS



## Adapter

Part Number	AB Swivel Thread	Pipe Thread
0061464	3/8	1/4
0061466	3/8	3/8



## Coupling Nut with Spring

Part Number	Hose ID
0061560	3/8



## Sleeve

Part Number	Hose ID
0061206	3/8
0061208	1/2



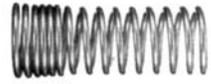
## Female Connector

Part Number	Hose ID	AB Swivel Thread
0061460	3/8	3/4-20
0061480	1/2	7/8-20



## Spring Guard

Part Number	Hose ID
0061360	3/8
0061380	1/2



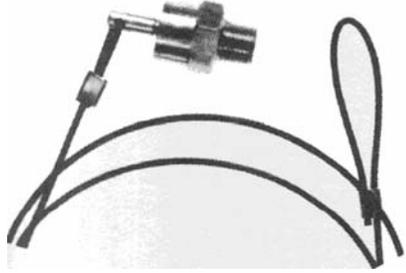
## Reusable Air Brake Hose Fitting Assortments

Part No	Description	Comp	Pieces	Contents
1930409	Air Brake Hose Fittings	16	34	Connector Assembly, Sleeve, Coupling Nut, Connector w/Adapter, Adapter, Hose Mender
1930410	Air Brake Hose Fittings	16	42	Sleeve, Coupling Nut, Coupling Body, Female Connector, Adapter, Hose Mender, Nut/Spring Guard

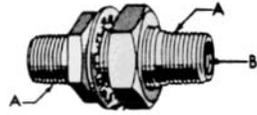
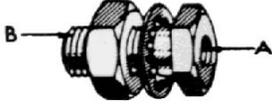



## Reusable Air Brake Hose Fittings

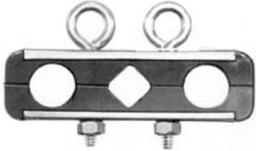
- Automatic Closing Drain Valve with remote control cable

Part Number	Pipe Thread	Cable Length	
0060078	1/4-18NPT-male	4 ft.	

## Bulkhead Couplings

Part Number	Pipe Thread		Length	
	A	B		
0060821	1/2	1/4	1-1/8	
0060822	1/2	1/4	1-1/2	
0060826	1/2	1/4	2-15/16	
0060883	1/2	1/4	3-15/16	
0060820	1/4	1/4	1-1/2	
0060870	1/4	1/4	15/16	

## Air Hose & Cable Clamps

Part Number	Description	
0031500	2 hole clamp with eye hooks	
0031501	3 hole clamp with eye hooks center hole will accommodate 6 & 7 way trailer cable	

# HOSE END KITS



## Hose End Kits for 3/8" ID Hose

Manufactured to DOT 106 Specifications

- Meets the requirements of DOT 106 and SAE J1402
- Swivel Ends reduce residual torque in hose for longer life
- No need to disconnect both ends to service the brake system
- Components in contact with the air are made of corrosion resistant brass and nylon to improve air system life

Description	Part No.	
Two end fittings 3/8 " NPTF	0061200	
Two end fittings 1/2 " NPTF	0061201	
One end fitting 3/8" NPTF One 1/4" NPTF Adapter One 1/2" NPTF Reducer One 3/8" x3/8" NPTF Coupler	0061203	
Spring Guard, 3-1/2 " length	0061202	

Kits Not Available for 1/2" I.D. Hose

## Installation Procedure

<p><b>Step 1.</b> Disassemble Kit.</p>	<p><b>Step 2.</b> Position hose end on SHELL (A) flush with groove (see arrows).</p>	<p><b>Step 3.</b> Insert FITTING (B) into groove and position SHELL (C) opposite SHELL (A).</p>
<p><b>Step 4.</b> With assembly in hand, squeeze forward ends of shells and push and twist RETAINING RING (D) over shells to its final position as shown by arrows.</p>	<p><b>Step 5.</b> 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. <b>NOTE:</b> Check final assembly visually to insure that hose has not shifted position during assembly.</p>	

## Nylon Coil Hose

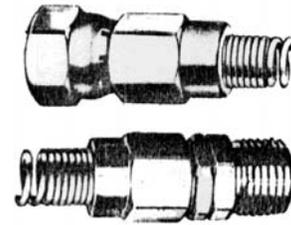
- Designed to withstand working pressures up to 200P.S.I.
- Tough, abrasion-resistant, lightweight, permanently coiled.
- Operates all types of portable mechanical hand air tools.

Part No	Hose I.D.	Length
1460040	1/4"	25 ft with ends
1460004	1/4"	50 ft no ends
1460060	3/8"	25 ft with ends
1460006	3/8"	50 ft no ends



## Nylon Coil Hose Ends

Part No	Hose I.D.	End Size	Description
1460041	1/4"	1/4 MPT	Live Male Pipe Swivel
1460042	1/4"	1/4 FPT	Female Pipe Swivel
1460061	3/8"	3/8 MPT	Live Male Pipe Swivel
1460062	3/8"	3/8 FPT	Female Pipe Swivel



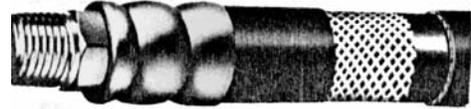
# SERVICE STATION



## Service Station Air Hose

- High tensile reinforcing for extended life at maximum working pressures.
- Cover resistant to abrasion weather and ozone deterioration.
- Designed for all types of commercial air applications.
- Tube designed to handle oil laden air, also suitable for agricultural spray applications.
- Supplied with male pipe fittings on both ends.

Part No	Hose I.D.	Hose O.D.	Working Pressure	Length	Packaging
0160425	1/4"	5/8"	250 lbs	25 feet	Coil in carton
0160450	1/4"	5/8"	250 lbs	50 feet	Coil in carton
0160625	3/8"	23/32"	200 lbs	25 feet	Coil in carton
0160650	3/8"	23/32"	200 lbs	50 feet	Coil in carton



## Tire Inflation Chucks

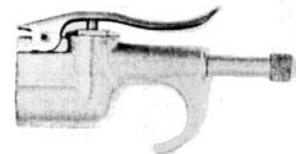
Part No	Description
0160201	1/4 FPT Ball Foot Chuck - Brass
0160202	1/4 FPT Ball Foot Chuck - Brass with locking clip
0160203	1/4 FPT Dual Foot Extension Chuck - nickel plated



## Standard Blow Guns

- Aluminum alloy body
- 1/4" NPT female inlet thread
- Full flow gun - meets OSHA requirement #100-1 when max pressure is below 30 psi.

Part No	Description
0230001	1/4 FPT Button Valve Gun
0230002	1/4 FPT Thumb Lever Gun



## Impact Tool Air Hose

- Quality EDPM tube and cover resist abrasion and provide maximum flexibility and performance from pneumatic equipment.
- Supplied with male fittings on both ends.

Part No	Hose I.D.	Hose O.D.	Construction	Packaging
0160825	1/2"	29/32"	2-Fiber Braids	25 feet Reel in carton
0160850	1/2"	29/32"	2-Fiber Braids	50 feet Reel in carton



## General Purpose Low Pressure Hose

- Typical Applications: air, oil, and water lines
- Inner tube: Neoprene
- Reinforcement: 1 Fiber Braid
- Temperature Range: 40° F to 212° F

### Fiber Cover

Part No	Hose I.D.	Hose O.D.	Max Working Pressure	Min. Burst Pressure	Whd Part No	Box Qty
0238208	1/2"	3/4"	350	1400	H10008	50 Feet
0238210	5/8"	29/32"	350	1400	H10010	50 Feet



### Black Neoprene Cover

Part No	Hose I.D.	Hose O.D.	Max Working Pressure	Min. Burst Pressure	Whd Part No	Box Qty
0238304	1/4"	1/2"	350	1400	H10104	50 Feet
0238306	3/8"	5/8"	350	1400	H10106	50 Feet
0238308	1/2"	3/4"	350	1400	H10108	50 Feet
0238310	5/8"	29/32"	350	1400	H10110	50 Feet
0238312	3/4"	1-1/32"	350	1400	H10112	50 Feet



### Gray Neoprene Cover

Part No	Hose I.D.	Hose O.D.	Max Working Pressure	Min. Burst Pressure	Whd Part No	Box Qty
0238004	1/4"	1/2"	250	1000	H20104	50 Feet
0238006	3/8"	5/8"	250	1000	H20106	50 Feet



## Low Pressure Field Attachable 100 “B” Series Hose Ends

### Hose Mender

Part No	Hose I.D.	Whd No
0230866	1/4	10004B-Y04
0230867	3/8	10006B-Y06
0230868	1/2	10008B-Y08



### Male Pipe

Part No	Hose I.D.	Pipe Size	Whd No
0230801	1/4	1/8	10004B-102
0230802	1/4	1/4	10004B-104
0230812	3/8	1/8	10006B-102
0230803	3/8	1/4	10006B-104
0230804	3/8	3/8	10006B-106
0230805	1/2	3/8	10008B-106
0230807	1/2	1/2	10008B-108
0230809	5/8	1/2	10010B-108
0230810	3/4	3/4	10012B-112





# FIELD ATTACHABLE

## Low Pressure Field Attachable 100 'B' Series Ends

for H-100 ,H101, H201 Hoses

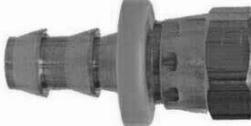
### SAE Male Rigid

Part No	Hose I.D.	Pipe Size	Whd No
0230814	1/4	1/4	10004B-304
0230815	1/4	5/16	10004B-305
0230816	3/8	3/8	10006B-306



### SAE Female Swivel

Part No	Hose I.D.	Tube Size	Whd No
0230826	1/4	1/4	10004B-404
0230827	1/4	5/16	10004B-605
0230871	3/8	5/16	10006B-405
0230828	3/8	3/8	10006B-406
0230829	1/2	1/2	10008B-408
0230830	5/8	5/8	10010B-410



### Rigid Inverted Female

Part No	Hose I.D.	Tube Size	Whd No
0230838	1/4	1/4	10004B-A04
0230872	1/4	5/16	10004B-A05
0230839	3/8	3/8	10006B-A06



### Inverted Swivel Male

Part No	Hose I.D.	Tube Size	Whd No
0230832	1/4	3/16	10004B-B03
0230833	1/4	1/4	10004B-B04
0230834	1/4	5/16	10004B-B05
0230835	3/8	3/8	10006B-B06



### Barb Tite Fitting Assortment

Part Number	Description	Comp	Pieces	Contents
0930238	Barb Tite Fittings Low Pressure	18 Compartment Drawer	72	SAE Female Swivel, Inverted Female, Inverted Male, Hose Mender, Male Pipe, SAE Male Rigid



# FIELD ATTACHABLE



## Medium Pressure H-213 High Temp Truck Hose

SAE J1402 Type A1, DOT A1

- Typical Application: General purpose high temperature truck hose for petroleum and water based hydraulic fluids and air applications.
- Inner tube: CPE
- Reinforcement: 1 Fiber Braid - 1 Steel Braid
- Cover: Fiber Braid, Black- 2 green Stripes 180° apart.
- Temperature Range: Air -40° F to +200° F, Fluids -50° F to +300° F



Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Min Bend Radius	Whd No	Box Qty
0232504	3/16	31/64	2000	8000	3/4"	H21304	50 feet
0232505	1/4	35/64	1500	6000	1"	H21305	50 feet
0232506	5/16	39/64	1500	6000	1-1/4"	H21306	50 feet
0232508	13/32	47/64	1250	5000	1-3/4"	H21308	50 feet
0232510	1/2	53/64	1000	4000	2-1/4"	H21310	50 feet
0232512	5/8	61/64	750	3000	2-3/4"	H21312	50 feet

## Field Attachable 213 'N' Series Ends

### Male Pipe

Part No	Hose I.D.	Pipe Thread	Whd No.
0232542	3/16	1/8-27	21304N-102
0232543	3/16	1/4-18	21304N-104
0232544	1/4	1/4-18	21305N-104
0232545	5/16	3/8-18	21306N-106
0232546	13/32	1/2-14	21308N-108
0232547	1/2	1/2-14	213010N-108
0232548	5/8	3/4-14	213012N-112



### SAE 45° Brass Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0232551	5/16	3/8	5/8-18**	21306N-406
0232552	5/8	3/4	1-1/16-14**	21312B-412

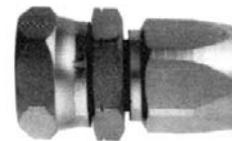
\*\* SAE 45° flare connection only



### SAE 37° (JIC) Steel Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0232553	3/16	1/4	7/16-20	21304N-604
0232554	1/4	5/16	1/2-20	21305N-605
0232555	5/16	3/8	9/16-18*	21306N-606
0232556	13/32	1/2	3/4-16	21308N-605
0232557	1/2	5/8	7/8-14	21310N-610
0232558	5/8	3/4	1-1/16-12*	21312N-612

\* JIC 37° flare connection only



## Medium Pressure H-069 General Purpose Truck Hose

SAE 100R5, SAE J1402, Type 2, Dot A2

- Premium quality hose designed for medium pressure hydraulic, air, oil, fuel or grease lines on Fork Lifts, Trucks, & Off Highway Vehicles
- Inner Tube: Nitrile
- Reinforcement: 1 Fiber Braid- 1 Steel Braid
- Cover: Fiber Braid
- Meets or exceeds D.O.T. All#, SAE J1402 Type II #, SAE 100R5
- Excellent for use with hot engine oil, air brake systems, power steering lines and other truck hydraulic application (except 7/8 in size)
- Temperature Range: -40° F to +300° F



Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Whd No	Box Qty
0232004	3/16	33/64	3000	12000	H06904	50 feet
0232005	1/4	37/64	3000	12000	H06905	50 feet
0232006	5/16	43/64	2250	9000	H06906	50 feet
0232008	13/32	49/64	2000	8000	H06908	50 feet
0232010	1/2	59/64	1750	7000	H06910	50 feet
0232012	5/8	1-5/64	1500	6000	H06912	50 feet
0232016	7/8	1-15/64	800	3200	H069016	50 feet

## Field Attachable 247 'N' Series Ends

### Male Pipe

Part No	Hose I.D.	Pipe Thread	Whd No.
0230100	3/16	1/8-27	24704N-102
0230101	3/16	1/4-18	24704N-104
0230103	1/4	1/4-18	24705N-104
0230104	5/16	1/4-18	24706N-104
0230112	5/16	3/8-18	24706N-106
0230105	13/32	3/8-18	24708N-106
0230106	13/32	1/2-14	24708N-108
0230107	1/2	1/2-14	24710N-108
0230108	5/8	3/4-14	24710N-112



### SAE 45° Male Pipe Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230153	5/16	3/8	5/8-13	24706N-306
0230155	1/2	5/8	7/8-14	24710N-310



### Inverted Male Swivel Straight Thread

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230205	3/16	1/4	7/16-24	24704N-B04
0230206	1/4	5/16	1/2-20	24705N-B05
0230208	5/16	3/8	5/8-18	24706



## Field Attachable 247 'N' Series Ends

### SAE 45° Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230143	5/16	3/8	9/16-18 *	24706N-406
0230144	13/32	3/8	5/8-18	24708N-406
0230146	5/8	3/4	1-1/16-12	24712N-412

\* For JIC 37° connections only



### SAE 37° (JIC) Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230131	3/16	1/4	7/16-20	24704N-604
0230132	1/4	5/16	1/2-20	24705N-605
0230133	5/16	3/8	9/16-18 *	24706N-606
0230134	13/32	1/2	3/4-16	24708N-608
0230135	1/2	5/8	7/8-14	24710N-610
0230136	5/8	3/4	1-1/16-12	24712N-612
0230137	7/8	1	1-5/16 *	24716N-616

\* For JIC 37° connections only



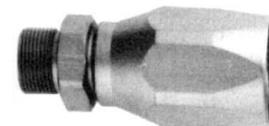
### Air Brake Connection

#### Hose to Copper / Nylon Tubing

#### 150 PSI Max. Pressure

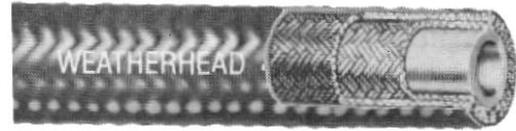
Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230202	1/2	1/2	3/4-16	24710B-Y58
0230203	1/2	5/8	7/8-14	24710B-Y60

Includes Sleeve and Nut



## Medium Pressure H-435 Non-Conductive SAE 100R7 Orange-Thermoplastic

- Typical Applications: Compatible with all hydraulic fluids, designed for use where electric shock hazard exists.
- Maximum leakage is 5 micro amperes per foot at 75 KV per foot for 5 minutes
- Inner Tube: Nylon 11
- Reinforcement: 2 Fiber Braids
- Cover: Non-conductive Polyurethane
- Temperature Range: -40° F to +200 ° F



Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Whd No	Box Qty
0233504	1/4	29/64	2750	11000	H43504	50 feet
0233506	3/8	5/8	2250	9000	H43506	50 feet
0233508	1/2	13/16	2000	8000	H43508	50 feet

## Field Attachable 436 'N' Series Ends

### Male Pipe Rigid

Part No	Hose I.D.	Pipe Thread	Whd No.
0230230	1/4	1/4-18	43604N-104
0230231	3/8	1/4-18	43606N-104
0230232	3/8	3/8-18	43606N-106
0230233	1/2	3/8-18	43608N-106
0230234	1/2	1/2-14	43608N-108



### SAE 37° Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230235	1/4	1/4	7/16-20	43604N-604
0230236	1/4	3/8	9/16-18	43604N-606
0230237	3/8	3/8	9/16-18	43606N-606
0230238	3/8	3/8	5/8-18	43606N-406
0230239	3/8	1/2	3/4-16	43606N-608
0230245	1/2	5/8	7/8-14	43608N-610

\* For SAE 45° connections only



### SAE 37° Female Swivel 90° Tube Elbow

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230246	1/4	1/4	7/16-20	43604N-664
0230247	3/8	3/8	9/16-18	43606N-666
0230248	1/2	1/2	3/4-16	43608N-668



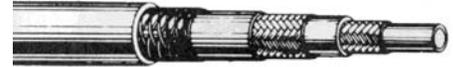
# FIELD ATTACHABLE



## High Pressure Fleet & Implement Hose H-425

### SAE 100 R2 Type AT

- Most commonly used for high pressure lines on off-road construction equipment, farm equipment and other high pressure applications.
- Inner Tube: Neoprene
- Reinforcement: 2 Steel Braids
- Cover: Neoprene
- Meets SAE 100 R2 Type AT specifications
- USCG Fluid Power and Fuel/Lube Systems Accepted, MSHA Accepted
- Temperature Range: -40° F +212° F

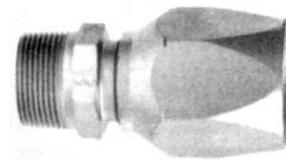


Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Whd No	Box Qty
0233004	1/4	19/32	5000	20000	H42504	50 feet
0233006	3/8	3/4	4000	16000	H42506	50 feet
0233008	1/2	7/8	3500	14000	H42508	50 feet
0233010	5/8	1	2750	11000	H42510	50 feet
0233012	3/4	1-5/32	2250	9000	H42512	50 feet
0233016	1	1-1/2	2000	8000	H42516	50 feet

## Field Attachable 425 'N' Series Ends

### Male Pipe

Part No	Hose I.D.	Pipe Thread	Whd No.
0230303	1/4	1/8-27	42504N-102
0230304	1/4	1/4-18	42504N-104
0230305	3/8	1/4-18	42506N-104
0230306	3/8	3/8-18	42506N-106
0230307	3/8	1/2-14	42506N-108
0230308	1/2	3/8-18	42508N-106
0230309	1/2	1/2-14	42508N-108
0230310	1/2	3/4-14	42508N-112
0230311	1/2	3/4-14	42512N-112
0230313	1	1-11	42516N-116



## SAE 37° (JIC) Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230355	1/4	1/4	7/16-20	42504N-604
0230356	1/4	5/16	1/2-20	42504N-605
0230357	1/4	3/8	9/16-18	42504N-606
0230358	3/8	3/8	9/16-18	42506N-606
0230359	3/8	3/8	5/8-18 *	42506N-406
0230360	1/2	1/2	3/4-14	42508N-608
0230361	1/2	5/8	7/8-14	42508N-610
0230363	3/4	5/8	7/8-14	42512N-610
0230364	3/4	3/4	1-1/16-12	42512N-612
0230367	1	1	1-5/16-12	42516N-616

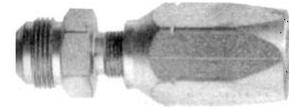


\* For SAE 45° connections only

## Field Attachable 425 'N' Series Ends

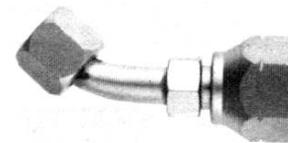
### SAE 37° JIC Male Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230318	1/4	1/4	7/16-20	42504N-504
0230319	1/4	5/16	1/2-20	42504N-505
0230320	1/4	3/8	9/16-18	42504N-506
0230321	3/8	3/8	9/16-18	42506N-506
0230322	3/8	1/2	3/4-16	42506N-508
0230323	1/2	1/2	3/4-16	42508N-508
0230324	1/2	5/8	7/8-14	42508N-510
0230325	3/4	3/4	1-1/16- 12	42512N-512
0230327	1	1	1-5/16- 12	42516N-516



### SAE 37° JIC Female Swivel 45° Elbow

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230408	1/4	1/4	7/16-20	42504N-684
0230409	3/8	3/8	9/16-18	42506N-686
0230410	1/2	1/2	3/4-16	42508N-688
0230411	1/2	5/8	7/8-14	42508N-690
0230412	3/4	3/4	1-1/16- 12	42512N-692
0230413	1	1	1-5/16- 12	42516N-696



### SAE 37° JIC Female Swivel 90° Elbow

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0230414	1/4	1/4	7/16-20	42504N-664
0230415	3/8	3/8	9/16-18	42506N-666
0230417	1/2	1/2	3/4-16	42508N-668
0230418	1/2	5/8	7/8-14	42508N-670
0230419	3/4	3/4	1-1/16- 12	42512N-672
0230420	1	1	1-5/16- 12	42516N-676



# COLL-O-CRIMP



## Coll-O-Crimp Equipment

- The Coll-O-Crimp system allows you to quickly and easily make-up your own hose assemblies, while reducing downtime and operating costs.
- In addition to saving time and money, the Coll-O-Crimp system is simple to use.
- The compact bottom loading machine will assemble hoses from 3/16" to 1-1/4" I.D. Simply choose the correct collet size, insert the hose and hose end, and activate the hydraulic power unit. The rest is automatic. No dials or gauges to set. No special operator training required. In just a few seconds, you have a safe, reliable hose assembly.
- The Coll-O-Crimp system can assemble many types of hoses: Rubber cover, Thermoplastic or Cotton Cover.
- You can order the Coll-O-Crimp system with you choice of electric, air, or hand operated pumps.



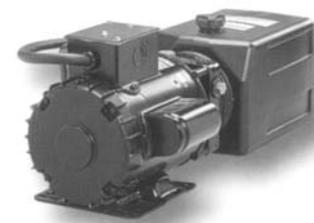
### Coll-O-Crimp press and tooling package Includes one of each of the following:

- Coll-O-Crimp Press - 25 ton
- Spacer Ring (black)
- Spacer Ring (silver)
- Pusher
- Hose assembly with fittings
- Die Ring - 1/4 thru 1-1/4
- U-Series Collet in the following sizes: 1/4", 3/8", 1/2", 3/4", and 1"

Part No	Description
1734000	Coll-O-Crimp Package- Electric Pump
1734100	Coll-O-Crimp Package- Air/Hyd Pump

## Electric Pump

Part Number	Description
1730401	<ul style="list-style-type: none"> <li>• Ideal power unit for use with the Coll-O-Crimp Press</li> <li>• High volume pump for fast crimping 4000-4200 PSI</li> <li>• 1 HP, 3450 R.P.M. 115/230 Volts</li> <li>• Moderate motor speed provides quiet operation and long service</li> </ul>



## Air/Hydraulic Pump

Part Number	Description
1730402	<ul style="list-style-type: none"> <li>• Air driven hydraulic pump with hand/foot treadle actuator for fast control.</li> <li>• Use with any air supply of 60 to 120 PSI</li> <li>• Pressure 4000-4200 PSI relief valve protects system regardless of air pressure</li> </ul>



## Portable Coll-O-Crimp Equipment

- The T-460 is a completely portable hose assembly system.
- Supplied with a lightweight hand pump ,or air / hydraulic pump for compressed air in shop or in field via portable compressor if available.
- Self supporting base features layback positioning up to a 45° angle
- Maximum crimping capacity 1-3/8" I.D. wire hose



### Portable Coll-O-Crimp Packages:

- Portable Coll-o-Crimp Press
- U-series Collets for 1/4", 3/8" & 1/2" wire Hose
- Black Spacer Ring

Part No	Description	Whd No
1734600	Portable Coll-o-Crimp - Hand Pump	T-464
1734610	Portable Coll-o-Crimp - Air/ Hydraulic Pump	T-466

## Collet Packages

Part No	Collet Series	Collo Crimp Hose Series	Size Range
1730411	U-series Collets	2 wire HP 425 Rubber Hose	1/4",3/8",1/2",5/8",3/4",1" & 1-1/4"
1730412	E-series Collets	1 wire MP 069 Truck Hose	3/16",1/4",5/16",13/32",1/2",5/8"

\*\* Note Spacer Rings Not Included in Packages must be purchased separately

## Spacer Rings

Part No	Description	Whd No
1730321	Black Spacer Ring	T-400-10
1730322	Silver Spacer Ring	T-400-11
1730323	Yellow Spacer Ring	T-400-62



## Individual Collets

Part No	Description	Whd No
1730304	1/4" U-series Collet	T-400-2C
1730306	3/8" U-series Collet	T-400-3C
1730308	1/2" U-Series Collet	T-400-4C
1730310	5/8" U-Series Collet	T-400-64C
1730312	3/4" U-Series Collet	T-400-5C
1730316	1" U-Series Collet	T-400-6C



# COLL-O-CRIMP



## Medium Pressure Coll-O-Crimp Hose Ends

for use on H-069 Hose

- Typical application: General purpose, medium pressure hydraulics
- Material: AISI/SAE 12L14 Carbon Steel
- Plating: Zinc yellow dichromate finish



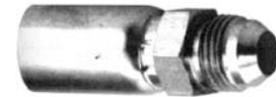
### Male Pipe Rigid

Part No	Hose I.D.	Pipe Thread	Whd No.
0239201	3/16	1/8-27	06904E-102
0239202	3/16	1/4-18	06904E-104
0239203	1/4	1/4-18	06905E-104
0239204	5/16	1/4-18	06906E-104
0239205	5/16	3/8-18	06906E-106
0239206	13/32	3/8-18	06908E-106
0239207	13/32	1/2-14	06908E-108
0239208	1/2	1/2-14	06910E-108
0239209	5/8	3/4-14	06912E-112



### SAE 37° JIC Male Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239218	5/16	3/8	9/16-18	06906E-506
0239219	1/2	5/8	7/8-14	06910E-510



### Inverted Male Swivel Straight Thread

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239220	3/16	1/4	7/16-20	06904E-B04
0239221	1/4	5/16	1/2-20	06905E-B05
0239222	5/16	3/8	5/8-18	06906E-B06



### SAE 37° (JIC) Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239210	3/16	1/4	7/16-20	06904E-604
0239211	1/4	5/16	1/2-20	06905E-605
0239212	5/16	3/8	9/16-18	06906E-606
0239213	13/32	1/2	3/4-16	06908E-608
0239214	1/2	5/8	7/8-14	06910E-610
0239215	5/8	3/4	1-1/16-12	06912E-612



### SAE 45° Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239216	5/16	3/8	5/8-18	06906E-406
0239217	5/8	3/4	1-1/16-14	06912E-412



## High Pressure Fleet & Implement Hose H-245

### SAE 100R16 ABS

- Most commonly used for high pressure lines on off-road construction equipment, farm equipment and other high pressure applications.
- Inner Tube: Nitrile
- Reinforcement: 2 Steel Braids
- Cover: Neoprene
- Meets SAE 100 R16 ABS specifications
- Marine applications J1942 Fuel & Lube Systems, MSHA Accepted ABS
- Temperature Range: -40° F +212° F

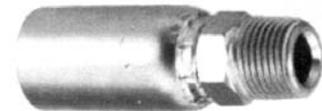


Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Whd No	Box Qty
0233304	1/4	19/32	5000	20000	H24504	50 feet
0233306	3/8	3/4	4000	16000	H24506	50 feet
0233308	1/2	7/8	3500	14000	H24508	50 feet
0233310	5/8	1	2750	11000	H24510	50 feet
0233312	3/4	1-5/32	2250	9000	H24512	50 feet
0233316	1	1-1/2	2000	8000	H24516	50 feet

## High Pressure Coll-O-Crimp Hose Ends- for H-245 & H-425 Hoses

### Male Pipe Rigid

Part No	Hose I.D.	Pipe Thread	Whd No.
0239001	1/4	1/8-27	04U-102
0239002	1/4	1/4-18	04U-104
0239302	1/4	3/8-18	04U-106
0239003	3/8	1/4-18	06U-104
0239004	3/8	3/8-18	06U-106
0239005	3/8	1/2-14	06U-108
0239006	1/2	3/8-18	08U-106
0239007	1/2	1/2-14	08U-108
0239303	1/2	3/4-14	08U-112
0239008	3/4	3/4-14	12U-112
0239304	3/4	1-11 1/2	12U-116
0239009	1	1-11 1/2	16U-116



### Male Pipe Swivel

Part No	Hose I.D.	Pipe Thread	Whd No.
0239120	1/4	1/4-18	04U-J04
0239125	3/8	1/4-18	06U-J04
0239121	3/8	3/8-18	06U-J06
0239126	3/8	1/2-14	06U-J08
0239122	1/2	1/2-14	08U-J08
0239123	3/4	3/4-14	12U-J012
0239124	1	1-11/32	16U-J16



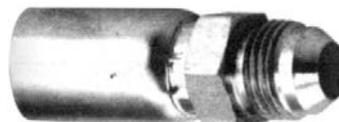
# COLL-O-CRIMP



## High Pressure Coll-O-Crimp Hose Ends- for H-245 & H-425 Hoses

### SAE 37° (JIC) Male Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239010	1/4	1/4	7/16-20	04U-504
0239011	1/4	5/16	1/2-20	04U-505
0239012	1/4	3/8	9/16-18	04U-506
0239013	3/8	3/8	9/16-18	06U-506
0239014	3/8	1/2	3/4-14	06U-508
0239015	1/2	1/2	3/4-14	08U-508
0239016	1/2	5/8	7/8-14	08U-510
0239019	1/2	3/4	1-1/16- 12	08U-512
0239017	3/4	3/4	1-1/16- 12	12U-512
0239071	3/4	7/8	1-3/16-12	12U-514
0239072	3/4	1	1-5/16-12	12U-516
0239018	1	1	1-5/16-12	16U-516



### Inverted Male Swivel Straight Thread

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239080	1/4	1/4	7/16-20	04U-804
0239081	3/8	5/16	1/2-20	06U-805
0239082	3/8	3/8	5/8-18	06U-806



### SAE 37° (JIC) Female Swivel

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239020	1/4	1/4	7/16-20	04U-604
0239021	1/4	5/16	1/2-20	04U-605
0239022	1/4	3/8	9/16-18	04U-606
0239024	3/8	3/8	5/8-18	06U-406
0239025	3/8	3/8	9/16-18	06U-606
0239026	3/8	1/2	3/4-14	06U-608
0239035	3/8	5/8	7/8-14	06U-610
0239027	3/8	3/4	1-1/16- 12	06U-612
0239028	1/2	1/2	3/4-16	08U-608
0239029	1/2	5/8	7/8-14	08U-610
0239036	1/2	3/4	1-1/16-12	08U-612
0239030	3/4	5/8	7/8-14	12U-610
0239031*	3/4	3/4	1-1/16-14	12U-412
0239032	3/4	3/4	1-1/16-12	12U-612
0239033	3/4	7/8	1-3/16-12	12U-614
0239039	3/4	1	1-5/16-12	12U-616
0239034	1	1	1-5/16-12	16U-616



\*SAE 45°

## High Pressure Coll-O-Crimp Hose Ends- for H-245 & H-425 Hoses

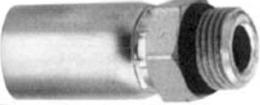
### SAE 37° (JIC) Female Swivel 90°

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239040	1/4	1/4	7/16-20	04U-664
0239043	3/8	3/8	9/16-20	06U-666
0239044	1/2	1/2	3/4-16	08U-668
0239047	1/2	5/8	7/8-14	08U-670
0239045	3/4	3/4	1-1/16-12	12U-672
0239046	1	1	1-5/16-12	16U-676



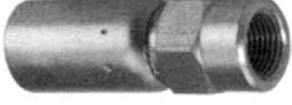
### Male Straight Thread O-Ring Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239133	3/8	3/8	9/16-18	06U-P06
0239134	3/8	1/2	3/4-16	06U-P08
0239135	1/2	1/2	3/4-16	08U-P08
0239136	1/2	5/8	7/8-14	08U-P10
0239137	3/4	3/4	1-1/16-12	12U-P12



### Female Pipe Rigid

Part No	Hose I.D.	Tube Size	Tube Thread	Whd No.
0239048	3/8	3/8	9/16-18	06U-206
0239049	1/2	1/2	3/4-16	08U-208



## High Pressure Fleet & Implement Hose H-425

### SAE 100 R2 Type AT

- Most commonly used for high pressure lines on off-road construction equipment, farm equipment and other high pressure applications.
- Inner Tube: Neoprene
- Reinforcement: 2 Steel Braids
- Cover: Neoprene
- Meets SAE 100 R2 Type AT specifications
- USCG Fluid Power and Fuel/Lube Systems Accepted, MSHA Accepted
- Temperature Range: -40° F +212° F

Part No	Hose I.D.	Hose O.D.	Working Pressure	Min Burst Pressure	Whd No	Box Qty
0233004	1/4	19/32	5000	20000	H42504	50 feet
0233006	3/8	3/4	4000	16000	H42506	50 feet
0233008	1/2	7/8	3500	14000	H42508	50 feet
0233010	5/8	1	2750	11000	H42510	50 feet
0233012	3/4	1-5/32	2250	9000	H42512	50 feet
0233016	1	1-1/2	2000	8000	H42516	50 feet

# COLL-O-CRIMP



## High Pressure Coll-O-Crimp Hose Ends- for H-245 & H-425 Hoses

### For-Seal Male Rigid

Part No	Hose ID	Tube Size	Whd No
0239404	1/4	1/4	04U-E64
0239406	3/8	3/8	06U-E66
0239408	1/2	1/2	08U-E68



### For-Seal Female Swivel

Part No	Hose ID	Tube Size	Whd No
0239444	1/4	1/4	04U-S64
0239446	1/4	3/8	04U-S66
0239466	3/8	3/8	06U-S66
0239468	3/8	1/2	06U-S68
0239488	1/2	1/2	08U-S68
0239480	1/2	5/8	08U-S70
0239400	5/8	5/8	10U-S70



### For-Seal Female 45° Elbow

Part No	Hose ID	Tube Size	Whd No
0239744	1/4	1/4	04U-L64
0239746	1/4	3/8	04U-L66
0239766	3/8	3/8	06U-L66
0239768	3/8	1/2	06U-L68
0239788	1/2	1/2	08U-L68
0239700	5/8	5/8	10U-L70



### For-Seal Female 90° Elbow

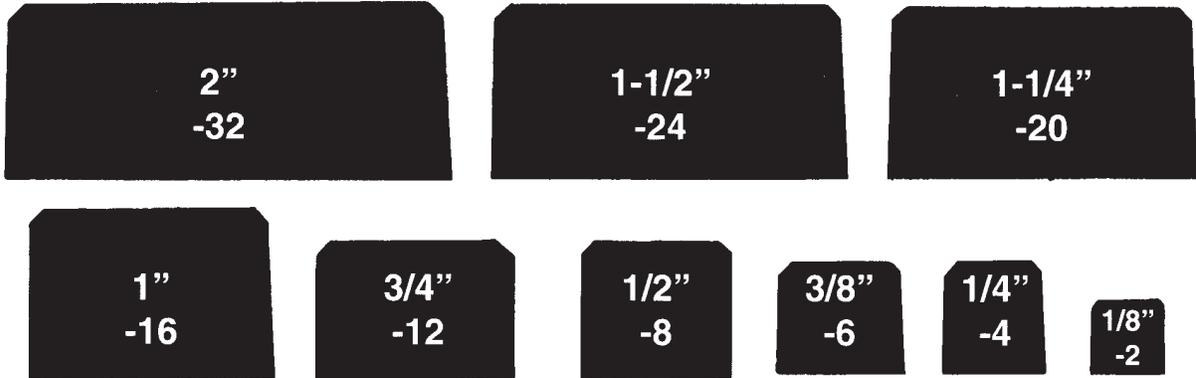
Part No	Hose ID	Tube Size	Whd No
0239644	1/4	1/4	04U-A24
0239646	1/4	3/8	04U-A26
0239664	3/8	1/4	06U-A24
0239666	3/8	3/8	06U-A26
0239688	1/2	1/2	08U-A28
0239600	5/8	5/8	10U-A30



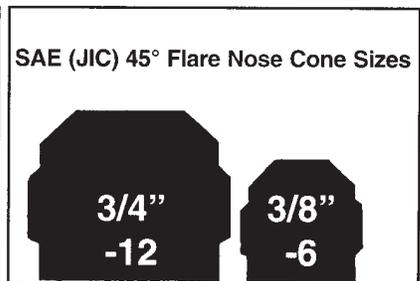
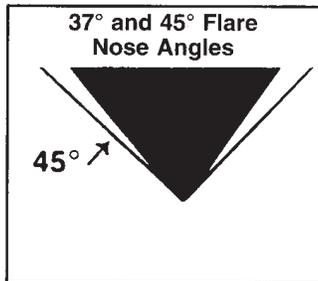
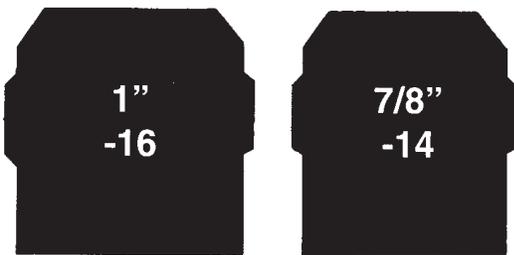
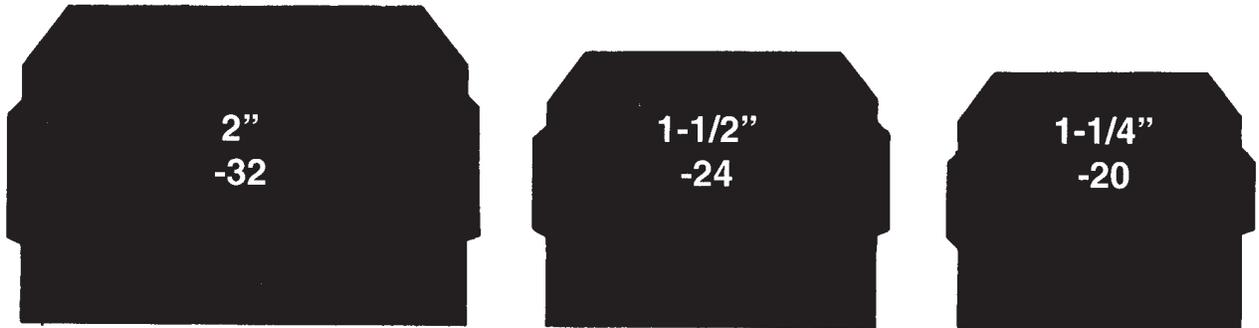
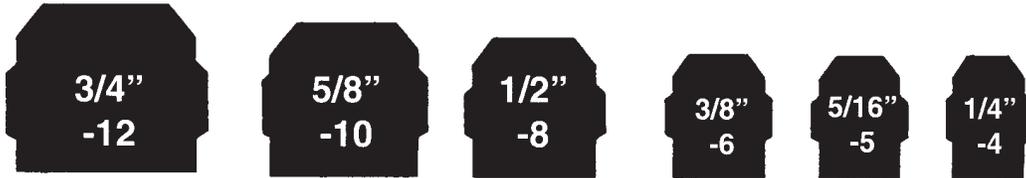
# FITTINGS MEASUREMENT CHART

## JIC 37° Flare Fitting Measurement Chart

### Male Pipe Thread Sizes



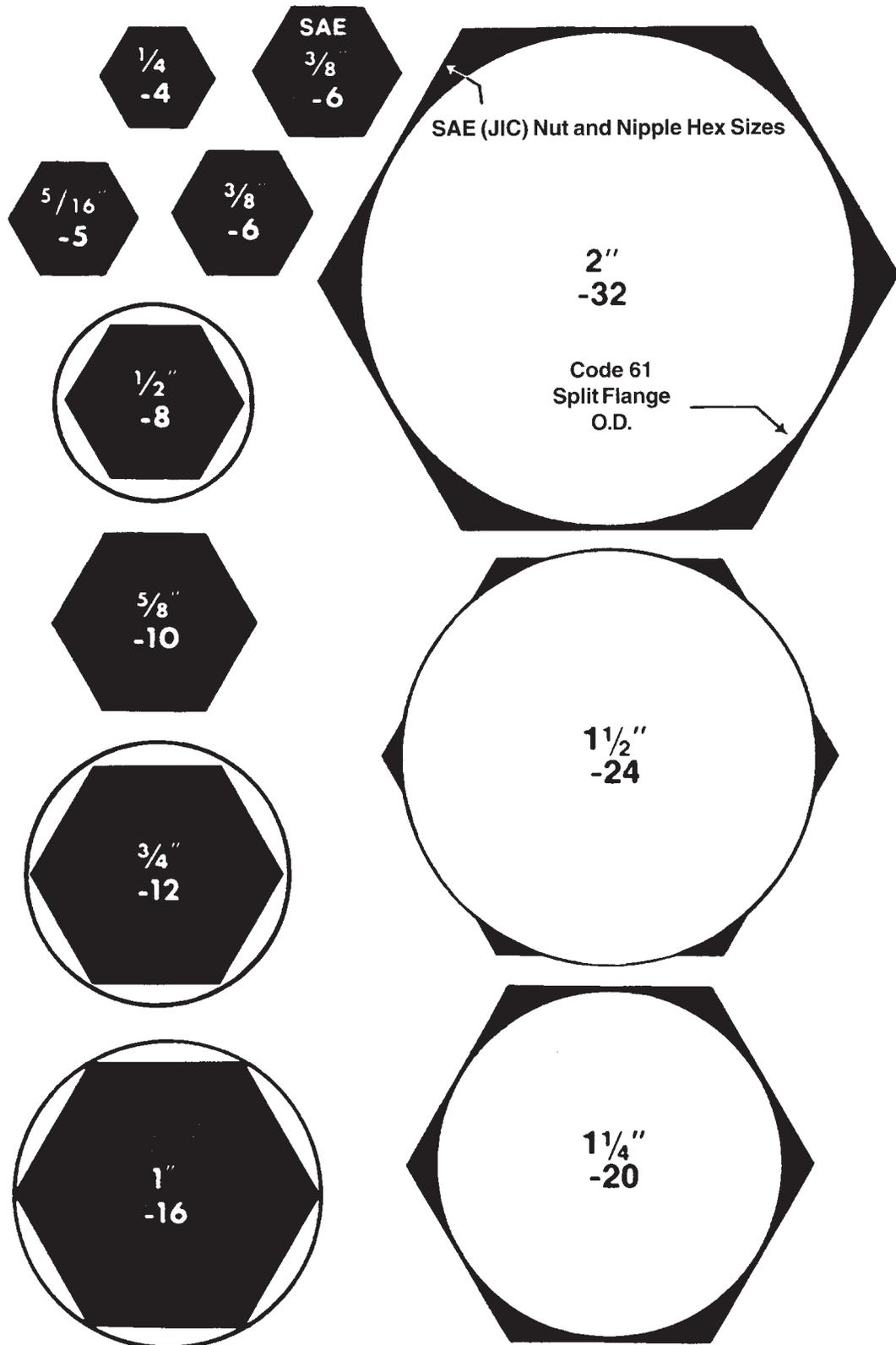
### SAE (JIC) 37° Flare Nose Cone Sizes



# FITTINGS MEASUREMENT CHART



## JIC 37° Flare Fitting Measurement Chart



## High Pressure Steel Pipe Fittings

- Working pressure up to 3,000 psi , proof test rating 15,000 psi sizes up to 1 inch
- Precision machined from AISI 12L14 carbon steel
- Dry seal pipe threads
- Meets or exceeds all SAE standards
- Applications include: air, gas, oil and hydraulic lines, and coolant systems

## Reducing Bushing

Part No	Pipe Thread	Whd No
0237413	1/4x1/8	C3109x4x2
0237414	3/8x1/8	C3109x6x2
0237415	3/8x1/4	C3109x6x4
0237417	1/2x1/4	C3109x8x4
0237418	1/2x3/8	C3109x8x6
0237419	3/4x3/8	C3109x12x6
0237421	3/4x1/2	C3109x12x8
0237420	1x1/2	C3109x16x8
0237422	1x3/4	C3109x16x12



## Hex Pipe Plug

Part No	Pipe Thread	Whd No
0237487	1/8	C3159x2
0237488	1/4	C3159x4
0237489	3/8	C3159x6
0237490	1/2	C3159x8
0237491	3/4	C3159x12
0237492	1	C3159x16



## Hex Pipe Nipple

Part No	Pipe Thread	Whd No
0237406	1/8	C3069x2
0237407	1/4	C3069x4
0237493	1/4x1/8	C3069x4x2
0237408	3/8	C3069x6
0237493	3/8x1/4	C3069x6x4
0237409	1/2	C3069x8
0239495	3/4x1/2	C3069x12x8
0237410	3/4	C3069x12
0237411	1	C3069x16



## Socket Pipe Plug

Part No	Pipe Thread	Whd No
0480002	1/8	C3169x2
0480004	1/4	C3169x4
0480006	3/8	C3169x6
0480008	1/2	C3169x8
0480012	3/4	C3169x12
0480016	1	C3169x16



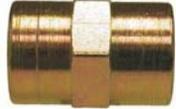
## Reducing Adapter

Part No	Pipe Thread	Whd No
0237428	1/2x1/4	C3209x8x4
0237429	1/2x3/8	C3209x8x6
0237431	3/4x1/2	C3209x12x8



## Female Pipe Coupler

Part No	Pipe Thread	Whd No
0237435	1/8	C3309x2
0237436	1/4	C3309x4
0237437	3/8	C3309x6
0237438	1/2	C3309x8
0237439	3/4	C3309x12



## 45° Street Elbow

Part No	Pipe Thread	Whd No
0237453	1/8	C3359x2
0237454	1/4	C3359x4
0237455	3/8	C3359x6
0237456	1/2	C3359x8
0237457	3/4	C3359x12



## 90° Street Elbow

Part No	Pipe Thread	Whd No
0237441	1/8	C3409x2
0237442	1/4	C3409x4
0237443	3/8	C3409x6
0237444	1/2	C3409x8
0237445	3/4	C3409x12



## Male Run Tee

Part No	Male Pipe Thread	Female Pipe Thread	Whd No
0237552	1/4	1/4	C3759x4
0237553	3/8	3/8	C3759x6
0237554	1/2	1/2	C3759x8
0237555	3/4	3/4	C3759x12



## High Pressure Steel Pipe Fittings

### 90° Female Pipe Elbow

Part No	Pipe Thread	Whd No
0237448	1/4	C3509x4
0237449	3/8	C3509x6
0237450	1/2	C3509x8



### Female Pipe Tee

Part No	Pipe Thread	Whd No
0237500	1/8	C3709x2
0237501	1/4	C3709x4
0237502	3/8	C3709x6
0237503	1/2	C3709x8
0237504	3/4	C3709x12
0237505	1	C3709x16



## SAE 37° JIC Steel Fittings

- Working pressure up to 10,000 psi depending on tube and fitting size
- Meets or exceeds ASA, ASME, SAE and MS specifications
- Applications include medium and high pressure lines on heavy construction
- Use with copper, brass, steel, aluminum and other tubing that can be flared.

### Male Connector

Part No	Pipe Size	Tube Size	Whd. No.
0237000	1/8	1/4	C5205x4
0237001	1/4	1/4	C5205x4x4
0237002	1/8	5/16	C5205x5x2
0237003	1/4	5/16	C5205x5
0237004	1/8	3/8	C5205x6x2
0237005	1/4	3/8	C5205x6
0237006	3/8	3/8	C5205x6x6
0237008	1/4	1/2	C5205x8x2
0237009	3/8	1/2	C5205x8
0237010	1/2	1/2	C5205x8x8
0237013	1/2	5/8	C5205x10
0237015	1/2	3/4	C5205x12
0237016	3/4	3/4	C5205x12x12
0237018	3/4	7/8	C5205x14
0237019	3/4	1	C5205x16



### Hex Union

Part No	Tube Size	Whd No
0237105	1/8	C5305x2
0237106	1/4	C5305x4
0237107	5/16	C5305x5
0237108	3/8	C5305x6
0237109	1/2	C5305x8
0237110	5/8	C5305x10
0237111	3/4	C5305x12
0237112	7/8	C5305x14
0237113	1	C5305x16



### Straight Thread O-Ring Connector

Part No	Tube O.D.	Port Size	Whd. No.
0237216	1/4	1/4	C5315x4
0237220	3/8	3/8	C5315x6
0237221	3/8	1/2	C5315x6x8
0237223	1/2	1/2	C5315x8
0237224	1/2	5/8	C5315x8x10
0237231	3/4	3/4	C5315x12
0237235	1	1	C5315x16



## 90° Male Elbow

Part No	Pipe Size	Tube Size	Whd. No.
0237026	1/8	1/4	C5405X4
0237027	1/4	1/4	C5405X4x4
0237030	1/8	3/8	C5405X6x2
0237031	1/4	3/8	C5405x6
0237032	3/8	3/8	C5405X6x6
0237033	1/2	3/8	C5405x6x8
0237035	3/8	1/2	C5405x8
0237036	1/2	1/2	C5405X8x8
0237037	3/4	1/2	C5405x8x12
0237042	3/4	3/4	C5405X12
0237043	1	1	C5405x16



## Straight Thread O-Ring 90° Elbow

Part No	Tube O.D.	Port Size	Whd. No.
0237241	1/4	1/4	C5515x4
0237243	3/8	3/8	C5515x6
0237244	3/8	1/2	C5515x6x8
0237246	1/2	1/2	C5515x8
0237250	3/4	3/4	C5515x12
0237253	1	1	C5515x16



## Swivel Nut 90° Elbow

Part No	Tube Size	Whd. No.
0237118	1/4	C5506X4
0237119	3/8	C5506X6
0237120	1/2	C5506X8
0237121	5/8	C5506x10
0237122	3/4	C5506X12
0237124	1	C5506X16



## 45° Male Elbow

Part No	Tube Size	Pipe Size	Whd. No.
0237069	1/4	1/8	C5355x4
0237070	1/4	1/4	C5355x4x4
0237074	3/8	1/4	C5355x6
0237077	1/2	1/4	C5355x8x4
0237079	1/2	1/2	C5355x8x8
0237080	5/8	3/8	C5355x10x6
0237081	5/8	1/2	C5355x10
0237082	3/4	1/2	C5355x12x8
0237083	3/4	3/4	C5355x12
0237086	1	1	C5355x16



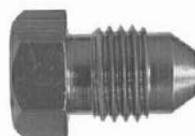
## Swivel Nut Run Tee

Part No	Tube Size	Whd. No.
0237704	1/4	C5706X4
0237706	3/8	C5706X6
0237708	1/2	C5706X8
0237712	3/4	C5706X12



## Plug

Part No	Tube Size	Whd. No.
0237338	1/4	C5229X4
0237340	3/8	C5229X6
0237341	1/2	C5229X8
0237342	5/8	C5229x10
0237343	3/4	C5229X12
0237344	1	C5229X16



## Cap

Part No	Tube Size	Whd. No.
0237328	1/4	C5129x4
0237330	3/8	C5129x6
0237331	1/2	C5129x8
0237332	5/8	C5129X10
0237333	3/4	C5129x12
0237334	1	C5129x16



## 2 Piece Nut

Part No	Tube Size	Whd. No.
0237602	1/4	C5115X4
0237603	5/16	C5115X5
0237604	3/8	C5115X6
0237605	1/2	C5115X8
0237606	5/8	C5115X10



## 3 Piece Nut

Part No	Tube Size	Whd. No.
0237607	1/4	C5105x4
0237608	5/16	C5105x5
0237609	3/8	C5105x6
0237610	1/2	C5105x8
0237611	5/8	C5105x10
0237612	3/4	C5105x12
0237613	7/8	C5105x14
0237614	1	C5105x16



## Sleeve

Part No	Tube Size	Whd. No.
0237615	1/4	C5165x4
0237616	5/16	C5165x5
0237617	3/8	C5165x6
0237618	1/2	C5165x8
0237619	5/8	C5165x10
0237620	3/4	C5165x12
0237621	7/8	C5165x14
0237622	1	C5165x16



## JIC Plug and Cap Assortment HP Steel Fittings

Part No	Description	Comp	Pieces	Contents
1930420	JIC 37° Plugs & Caps	12	65	Caps & Plugs: 1/4 - 1"



## Flat Face For-Seal Plugs

Part Number	Tube Size	Whd. No.
0237564	1/4	4229x4
0237566	3/8	4229x6
0237568	1/2	4229x8
0237570	5/8	4229x10
0237572	3/4	4229x12
0237571	1"	4229x16



## Flat Face For-Seal Cap

Part Number	Tube Size	Whd. No.
0237574	1/4	4129x4
0237576	3/8	4129x6
0237578	1/2	4129x8
0237580	5/8	4129x10
0237582	3/4	4129x12
0237581	1"	4129x16



## Flat Face For-Seal Plug and Cap Assortment HP Steel Fittings

Part No	Description	Comp	Pieces	Contents
1930421	FLAT FACE FOR-SEAL Plugs & Caps	12	40	Caps & Plugs: 1/4 - 1"



# SWIVEL ADAPTERS



## Swivel Adapters

- Application: High Pressure hydraulic systems
- Pressure up to 10,000 psi

### Male Straight

Part No	Taper Pipe Size	Straight Pipe Size	Whd. No.
0237347	1/8-27	1/8-27	9205x2x2
0237349	1/4-18	1/4-18	9205x4x4
0237350	1/4-18	3/8-18	9205x4x6
0237351	3/8-18	3/8-18	9205x6x6
0237354	1/2-14	3/8-18	9205x8x6
0237360	3/8-18	1/2-14	9205x6x8
0237353	1/2-14	1/2-14	9205x8x8
0237355	3/4-14	3/4-14	9205x12x12
0237359	1-12	1-12	9205x16x16



### Male 45° Elbow

Part No	Taper Pipe Size	Straight Pipe Size	Whd. No.
0237398	1/4-18	1/4-18	9355x4x4
0237399	3/8-18	3/8-18	9355x6x6
0237400	1/2-14	1/2-14	9355x8x8
0237401	3/4-14	3/4-14	9355x12x12



### Male 90° Elbow

Part No	Taper Pipe Size	Straight Pipe Size	Whd. No.
0237373	1/8-27	1/8-27	9405x2x2
0237374	1/4-18	1/4-18	9405x4x4
0237376	3/8-18	3/8-18	9405x6x6
0237378	1/2-14	1/2-14	9405x8x8
0237382	3/4-14	3/4-14	9405x12x12
0237384	1-12	1-12	9405x16x16



### Female Straight

Part No	Taper Pipe Size	Straight Pipe Size	Whd. No.
0237365	1/4-18	1/4-18	9255x4x4
0237366	3/8-18	3/8-18	9255x6x6
0237367	1/2-14	1/2-14	9255x8x8
0237368	3/4-14	3/4-14	9255x12x12
0237369	1-11	1-11	9255x16x16



## Interchange/Match-Up Chart

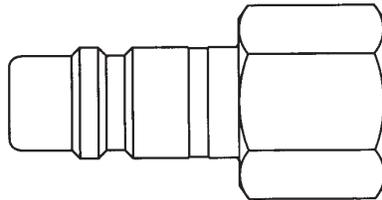
### Popular Coupling Designs

Parker's Quick Coupling Division manufactures quick couplings to interchange with popular designs that have

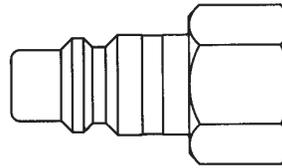
become accepted standards in the industry today. The actual size nipple chart below can be

used to help select Parker Quick Couplings that will interchange with specific nipple designs and sizes.

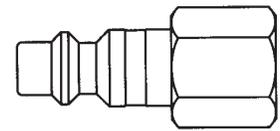
### 20 Series, 30 Series, E-z-mate (Industrial Interchange)



— 1/2" BODY SIZE —

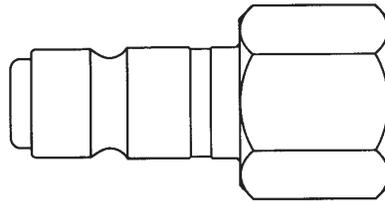


— 3/8" BODY SIZE —

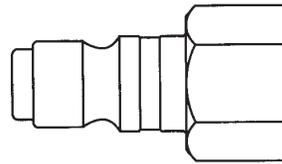


— 1/4" BODY SIZE —

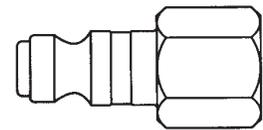
### 10 Series (Tru-Flate Interchange)



— 1/2" BODY SIZE —

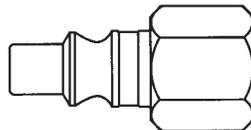


— 3/8" BODY SIZE —



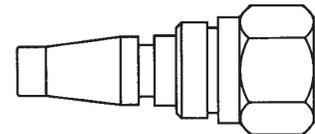
— 1/4" BODY SIZE —

### 50 Series (ARO 210 Interchange)



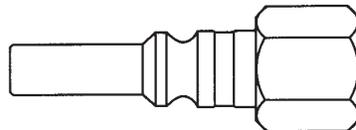
— 1/4" BODY SIZE —

### Twist-Lock



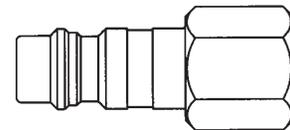
— 1/4" BODY SIZE —

### 70 Series (Lincoln Interchange)



— 1/4" BODY SIZE —

### CJ Series (Integral Sleeve Lok)



— 1/4" BODY SIZE —

## Industrial Interchange Sleeve Type Couplers

- Manufactured of high grade alloy steel, corrosion resistant finish
- Maximum pressure rated 300 PSI
- Safety-sleeve guard at end of coupler prevents accidental uncoupling
- Designed for use on air, water, and other low pressure fluid systems

Body Size	Pipe Thread	Size	Coupler Part No		Nipple Part No	
1/4	Male	1/4	1250100		1250170	
3/8		3/8	1250101		1250171	
1/2		1/2	1250102		1250172	
1/4	Female	1/4	1250120		1250180	
3/8		3/8	1250121		1250181	
1/2		1/2	1250122		1250182	
1/4	Barb	1/4	1250130		1250190	
3/8		3/8	1250131		1250191	
1/2		1/2	1250132		1250192	

## Heavy- Duty Aro 210 Sleeve Type Couplers

- Features a tubular valve in a coupler body
- Locking device is 4 steel ball bearings
- Maximum rated pressure 300 PSI
- Designed for air, water, and other low pressure fluid systems

Body Size	Pipe Thread	Size	Coupler Part No		Nipple Part No	
1/4	Male	1/4	1250201		1250401	
1/4	Female	1/4	1250221		1250406	

## Heavy-Duty Lincoln Long Stem Couplers

- Features full opening tubular valve for maximum flow
- Locking device is 4 steel ball bearings
- Maximum rated pressure 300 PSI
- Designed for air, water, and other low pressure fluid systems

Body Size	Pipe Thread	Size	Coupler Part No		Nipple Part No	
1/4	Male	1/4	1250302		1250502	
1/4	Female	1/4	1250304		1250504	

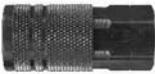
## Tru-Flate Couplers

- Full-opening tubular valves for maximum flow
- Protective sleeve guard minimizes accidental disconnection
- Maximum pressure rating 300 PSI

Body Size	Pipe Thread	Size	Coupler Part No		Nipple Part No	
1/4	Male	1/4	1250601		1250610	
3/8		3/8	1250602		1250620	
1/2		1/2	1250603		1250630	
1/4	Female	1/4	1250621		1250611	
3/8		3/8	1250622		1250612	
1/2		1/2	1250623		1250613	

## Universal Coupler

- The 1/4" Universal Coupler will accept the Industrial Interchange Series, Truflate, or ARO-210 Series nipples.
- The coupler features automatic push to connect operation, corrosion resistant brass construction and a sleeve guard which helps prevent accidental disconnects and protect the sleeve from damage.

Body Size	Pipe Thread	Size	Coupler Part No	
1/4	Male	1/4	1250624	
1/4	Female	1/4	1250625	

## Prevost Push Button Safety Couplers

- Simple one hand engagement/disengagement
- Vibration, Impact and Wear Resistant
- 5 Times Longer Service Life
- Color Coded for Identification
- Conforms to ISO 4414 Safety Standard

Part Number	Safety Couplers		Nipple Profile/Part No.s
1250800	1/4" <b>Industrial Interchange</b> Body Size Color Black / Blue 1/4"FNPT		  1250170 1/4 MP 1250180 1/4 FP 1250171 3/8 MP 1250181 3/8 FP
1250810	1/4" <b>Industrial Interchange</b> Body Size Color Black / Blue 3/8"FNPT		
1250802	1/4" <b>TruFlate</b> Body Size Color Black / Red 1/4"FNPT		  1250610 1/4 MP 1250611 1/4 FP
1250811	1/4" <b>TruFlate</b> Body Size Color Black / Red 3/8"FNPT		
1250801	1/4" <b>ARO210</b> Body Size Color Black / Yellow 1/4"FNPT		  1250401 1/4 MP 1250406 1/4 FP



## Quick Coupling Cross Reference

Industrial Interchange Series-Couplers							
Foster & Co	Aeroquip	Amflo	ARO	Foster	Hansen	Milton	Parker
125-100	FD40-1001-04-04	C21	23102-212	3103	1100	716	22
125-101	FD40-1001-06-06	C25	23103-313	4304	430	1836	24
125-102	FD40-1001-08-08	C9	23104-014	5305	530	1816	16
125-120	FD40-1000-04-04	C20	23102-200	3003	1000	715	23
125-121	FD40-1000-06-06	C26	23103-300	4204	420	1835	25
125-122	FD40-1000-08-08	C10	23104-400	5205	520	1816	17
125-130		C20-42	23102-022	3603	1600	717	20-3B
125-131		C26-44	23103-324	4804	4006		24-5B
125-132		C10-45	23104-025	5805	580		16-6B

Industrial Interchange Series-Nipples							
125-170	FD40-1014-04-04	CP21	23902-210	10-3	10	727	H2C
125-171	FD40-1014-06-06	CP25	23903-310	42-4	42	1837	H2E
125-172	FD40-1014-08-08	CP17	23904-410	54-5	54	1857	H2F
125-180	FD40-1013-04-04	CP20	23902-200	11-3	11	728	H3C
125-181	FD40-1013-06-06	CP26	23903-300	43-4	43	1838	H3E
125-182	FD40-1013-08-08	CP18	23904-400	55-5	55	1858	H3F
125-190	FD40-1019-04-04	CP21-42	23902-027	16-3	16	736	H8C
125-191	FD40-1019-06-06	CP25-44	23903-028	48-4	406		H5E
125-192	FD40-1019-08-08	CP17-45	23904-028	60-5	60		H5F

ARO Interchange Series - Couplers							
125-201	FD41-1001-04-04	C37	210-012	210-3103	103		52
125-221	FD41-1000-04-04	C38	210	210-3003	102	775	53

ARO Interchange Series - Nipples							
125-401	FD41-1014-04-04	CP37	2608	210-10	1G3	777	A2C
125-426		CP38	2609	210-11	1G2	778	A3C

Lincoln Long Stem Series- Couplers							
Foster & Co.	Aeroquip	Amflo	ARO	Foster	Lincoln	Milton	Parker
125-302		C27					72
125-304		C28			815	790	73

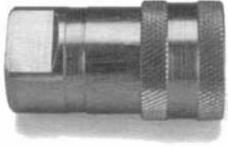
Lincoln Long Stem Series- Nipples							
125-502		CP27			11659	791	L2C
125-504		CP28			11661	792	L3C

Truflate Series- Couplers							
125-601		C1		TF3103		786	12
125-602		C5				1806	14
125-603		C9		5305		1816	16
125-621		C2		TF3003		785	13
125-622		C6				1805	15
125-623		C10		5205		1815	17

Truflate Series- Nipples							
125-610		CP1		TF10		783	2C
125-620		CP5				1807	2E
125-630		CP9		54-5		1817	2F
125-611		CP2		TF11		784	3C
125-612		CP6				1808	3E
125-613		CP10		55-5		1818	3F

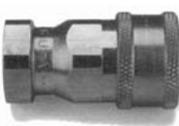
## Hydraulic Quick Couplers - 4000 Series

- Poppet valves available to prevent uncoupled leakage
- Ball valves available for rugged dependability in heavy duty hydraulic applications
- Critical parts are induction hardened for durability
- Dependable ball-locking mechanism holds the mating halves together
- Couplers and nipple are precision machined from solid bar stock

Body Size	Pipe Thread	Size	Working Pressure	Coupler Part Number		Nipple Part Number	
1/4	Female	1/4	3000	0234104		0234204	
3/8	Female	3/8	3000	0234106		0234206	
1/2	Female	1/2	3000	0234108		0234208	
3/4	Female	3/4	3000	0234112		0234212	

## Hydraulic Quick Couplers - 6600 Series

- Poppet valves are made with a solid metal perch that maintains valve alignment and prevents flow checking
- Both the couplers sleeve and the nipples body are case hardened to make the 6600 series couplings resistant to damage from brinelling and mechanical shock
- The durable ball locking mechanism ensures a reliable connection every time
- Female pipe and straight thread end configuration
- 6600 series couplings meet the dimensional requirements of series A in ISO 7241-1. Body and nipple are interchangeable with the Aeroquip FD56 series

Body Size	Pipe Thread	Size	Working Pressure	Coupler Part Number		Nipple Part Number	
1/4	Female	1/4	5000	0236004		0236104	
3/8	Female	3/8	4000	0236006		0236106	
1/2	Female	1/2	4000	0236008		0236108	
3/4	Female	3/4	4000	0236012		0236112	
1	Female	1	2000	0236016	0236116		

## Quick Coupler Dust Caps & Plugs

Dust Caps Part Number	Dust Plugs Part Number	Size	Description	
0234404	0234304	1/4	Protection for 4000 series couplers	
0234406	0234306	3/8		
0234408	0234308	1/2		
0234412	0234312	3/4		
0236204	0236304	1/4	Protection for 6600 series couplers	
0236206	0236306	3/8		
0236208	0236308	1/2		
0236212	0236312	3/4		
0236216	0236316	1		

## Malleable Pipe Fittings

150 -Pound Standard

### 90° Female Pipe Elbow

Pipe Size	Black	Galv
1/8	1510201	1510001
1/4	1510202	1510002
3/8	1510203	1510003
1/2	1510204	1510004
3/4	1510205	1510005
1	1510206	1510006
1-1/4	1510207	1510007
1-1/2	1510208	1510008
2	1510209	1510009



### 45° Street Elbow

Pipe Size	Black	Galv
1/8	1510210	1510010
1/4	1510211	1510011
3/8	1510212	1510012
1/2	1510213	1510013
3/4	1510214	1510014
1	1510215	1510015
1-1/4	1510216	1510016
1-1/2	1510217	1510017
2	1510218	1510018



### 45° Female Pipe Elbow

Pipe Size	Black	Galv
1/8	1510219	1510019
1/4	1510220	1510020
3/8	1510221	1510021
1/2	1510222	1510022
3/4	1510223	1510023
1	1510224	1510024
1-1/4	1510225	1510025
1-1/2	1510226	1510026
2	1510227	1510027



### 90° Street Elbow

Pipe Size	Black	Galv
1/8	1510228	1510028
1/4	1510229	1510029
3/8	1510230	1510030
1/2	1510231	1510031
3/4	1510232	1510032
1	1510233	1510033
1-1/4	1510234	1510034
1-1/2	1510235	1510035
2	1510236	1510036



## Standard Coupling

Pipe Size	Black	Galv
1/8	1510237	1510037
1/4	1510238	1510038
3/8	1510239	1510039
1/2	1510240	1510040
3/4	1510241	1510041
1	1510242	1510042
1-1/4	1510243	1510043
1-1/2	1510244	1510044
2	1510245	1510045



## Solid Hex Plug

Pipe Size	Black	Galv
1/8	1510246	1510046
1/4	1510247	1510047
3/8	1510248	1510048
1/2	1510249	1510049
3/4	1510250	1510050
1	1510251	1510051
1-1/4	1510252	1510052
1-1/2	1510253	1510053
2	1510254	1510054



## Countersunk Plug

Pipe Size	Black	Galv
1/8	1510255	1510055
1/4	1510256	1510056
3/8	1510257	1510057
1/2	1510258	1510058
3/4	1510259	1510059
1	1510260	1510060
1-1/4	1510261	1510061
1-1/2	1510262	1510062
2	1510263	1510063



## Reducing Coupling

Pipe Size	Black	Galv
1/4x1/8	1510264	1510064
3/8x1/8	1510265	1510065
3/8x1/4	1510266	1510066
1/2x1/8	1510267	1510067
1/2x1/4	1510268	1510068
1/2x3/8	1510269	1510069
3/4x1/4	1510270	1510070
3/4x3/8	1510271	1510071
3/4x1/2	1510272	1510072
1 x 1/2	1510273	1510073
1 x 3/4	1510274	1510074
1-1/4x1	1510275	1510075
1-1/2x1-1/4	1510276	1510076



## Hex Bushing

Pipe Size	Black	Galv
1/4x1/8	1510313	1510113
3/8x1/8	1510314	1510114
3/8x1/4	1510315	1510115
1/2x1/8	1510316	1510116
1/2x1/4	1510317	1510117
1/2x3/8	1510318	1510118
3/4x1/4	1510319	1510119
3/4x3/8	1510320	1510120
3/4x1/2	1510321	1510121
1 x1/2	1510322	1510122
1 x3/4	1510323	1510123
1-1/4x1	1510324	1510124
1-1/2x1-1/4	1510325	1510125



## Female Pipe Tee

Pipe Size	Black	Galv
1/8	1510277	1510077
1/4	1510278	1510078
3/8	1510279	1510079
1/2	1510280	1510080
3/4	1510281	1510081
1	1510282	1510082
1-1/4	1510283	1510083
1-1/2	1510284	1510084
2	1510285	1510085



## Union

Pipe Size	Black	Galv
1/8	1510326	1510126
1/4	1510327	1510127
3/8	1510328	1510128
1/2	1510329	1510129
3/4	1510330	1510130
1	1510331	1510131
1-1/4	1510332	1510132
1-1/2	1510333	1510133
2	1510334	1510134



## Pipe Cap

Pipe Size	Black	Galv
1/8	1510295	1510095
1/4	1510296	1510096
3/8	1510297	1510097
1/2	1510298	1510098
3/4	1510299	1510099
1	1510300	1510100
1-1/4	1510301	1510401
1-1/2	1510302	1510402
2	1510303	1510403



# BRASS & HYDRAULICS



## Close Nipple

Pipe Size	Black	Galv
1/8	1510335	1510135
1/4	1510336	1510136
3/8	1510337	1510137
1/2	1510338	1510138
3/4	1510339	1510139
1	1510340	1510140
1-1/4	1510341	1510141
1-1/2	1510342	1510142
2	1510343	1510143



## Welded Steel Nipples



Length	1/8		1/4		3/8	
	Black	Galvanized	Black	Galvanized	Black	Galvanized
1-1/2	1510344	1510144	1510354	1510154	1510364	1510164
2	1510345	1510145	1510355	1510155	1510365	1510165
2-1/2	1510346	1510146	1510356	1510156	1510366	1510166
3	1510347	1510147	1510357	1510157	1510367	1510167
3-1/2	1510348	1510148	1510358	1510158	1510368	1510168
4	1510349	1510149	1510359	1510159	1510369	1510169
4-1/2	1510350	1510150	1510360	1510160	1510370	1510170
5	1510351	1510151	1510361	1510161	1510371	1510171
5-1/2	1510352	1510152	1510362	1510162	1510372	1510172
6	1510353	1510153	1510363	1510163	1510373	1510173

Length	1/2		3/4		1	
	Black	Galvanized	Black	Galvanized	Black	Galvanized
2	1510375	1510175	1510385	1510185	1510395	1510195
2-1/2	1510376	1510176	1510386	1510186		
3	1510377	1510177	1510387	1510187	1510397	1510197
4	1510379	1510179	1510389	1510189	1510399	1510199
5	1510381	1510181	1510391	1510191	1510401	1510501
6	1510383	1510183	1510393	1510193	1510403	1510503

Length	1-1/4	
	Black	Galvanized
2	1510405	1510505
3	1510407	1510507
4	1510409	1510509
5	1510411	1510511
6	1510413	1510513



# AEROSOL ASSORTMENTS



## STANDARD AEROSOL ASSORTMENT DOZEN PART NUMBER 0190996

Chose any combination of 12 of the following **STANDARD AEROSOLS**:

## STANDARD AEROSOL ASSORTMENT 1/2 DOZEN PART NUMBER 0199976

Chose any combination of 6 of the following **STANDARD AEROSOLS**:

0190896 FOAMY CITRUS	0190046 NO STREAK	0190056 HYDRO SOLV
0190066 ZENABRITE LEMON	0190086 REMOVIT	0190096 POWDER FRESH
0190106 FRESH & NEW	0190116 ORCHARD SPICE	0190156 JEL-LUBE
0190176 GLEAMONEX	0190186 UNLOX	0190196 SLIKIT
0190206 GLISTEN	0190216 ZENALUBE ULTRA	0190226 ENDURA
0190316 SCRUB	0190336 ZENAGRIP	0190346 ZENAKOTE
0190356 SPRAYMATIC	0190416 NU-BRAKE	0190926 RUBBERIZE
0190436 FROSTY	0190446 COIL-KLEEN	0190466 JEL STRIP
0190476 PREMIUM WHITE	0190526 CHEM GON	0190556 VANILLA DELIGHT
0190566 LEMON ICE	0190576 CHEM SHEEN	0190606 KLEENZ
0190686 STARTING FLUID	0190706 GRAFFITI REMOVER	0190816 FRESH LINEN

**\*\* NONE** of the following **DELUXE AEROSOLS** may be assorted with the above **STANDARD AEROSOLS ASSORTMENTS**



## DELUXE AEROSOL ASSORTMENT DOZEN PART NUMBER 0199986

Chose any combination of 12 of the following **DELUXE AEROSOLS**:

## DELUXE AEROSOL ASSORTMENT 1/2 DOZEN PART NUMBER 0199996

Chose any combination of 6 of the following **DELUXE AEROSOLS**:

**\*\* STANDARD AEROSOLS** from above may also be mixed in to the **DELUXE AEROSOL ASSORTMENTS** but the following **DELUXE AEROSOLS** may **NOT** be mixed in to the **STANDARD AEROSOL ASSORTMENTS**.

0190026 LEKTRIX-102	0190076 RUST CONVERTER	0190956 PROTEX
0190146 ANTI SEIZE	0190246 GRAPHITE LUBE	0190276 SPRAY ADHESIVE
0190286 PERMADHESIVE	0190396 ZENALUBE MOLY	0190746 EXPANDING FOAM
0190766 METALIZE	0190936 COLD PIPE INS	0190946 CITRI SOLV
0190796 ZENATIZE FOAM		

**ASK YOUR AGENT FOR DETAILS\*\***

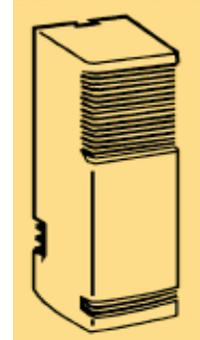
# AEROSOL ASSORTMENTS



## OTHER AEROSOL PRODUCTS AVAILABLE ASSORTED:

### ODOR NEUTRALIZERS FOR METERED UNITS

Part Number	Scent	Description
0190366	Citrus Cream	Unpleasant odors are hunted down and chemically destroyed. Millions of tiny aerosol particles are suspended with each metered spray. One unit is recommended per 6,000 cubic feet of space. <b>Use with metered dispensing unit: 8150997</b>  <b>Case Quantity 1 Dozen</b>
0190556	Green Apple	
0190566	Lemon Ice	
0190806	Fresh Linen	
0190736	Vanilla Delight	
0190116	Mango	
<b>0190976</b>	<b>Assorted</b>	



### RTV GASKET MAKER

Part Number	Color	Description
0190876	Blue	Made of 100% silicone in a pressurized can that's easy to use and empties completely. No cartridge guns or messy squeeze tubes. Replaces a wide range of cork, paper, asbestos, felt and metal gaskets. Low volatility, oxygen sensor safe. One 8 oz. Can provides 54 feet of even, consistent bead.  <b>Case Quantity 6 Cans</b>
0190866	Red	
0190856	Black	
0190916	Clear	
0190906	White	
<b>0190986</b>	<b>Assorted</b>	





## LUBRICANTS & PENETRANTS

### PENETRATING OIL

Part Number	Description	
0190186	<p>A unique combination of ingredients that loosens rusted nuts, bolts, and studs commonly found on mufflers, tailpipe fittings, brake cables, lock mechanisms, pipe couplings and machine parts. Residual oil film lubricates while corrosion inhibitors provide protection against subsequent corrosion.</p> <p><b>UN-LOX</b>                      <b>Case Quantity 1 Dozen</b></p>	

### OPEN GEAR & CHAIN LUBE

Part Number	Description	
0190356	<p>A black, viscous lubricant with excellent thixotropic, cohesive and adhesive qualities. Its ability to hold up under water makes it ideally suited for heavy duty outdoor use. Use on cranes, hoists, cables, chains &amp; gears, drag lines, winches, rock crushing machinery, street cleaners and snow removal equipment.</p> <p><b>SPRAYMATIC</b>                      <b>Case Quantity 1 Dozen</b></p>	

### PENETRATING LUBRICANT WITH TEFLON™

Part Number	Description	
0190156	<p>Lasts longer than conventional lubricants. Withstands severe temperatures from -30°F to over 600°F. Prevents rust, corrosion, water washout, sticking and freezing of rubber to metal. Stays put and withstands extreme pressure.</p> <p><b>JEL-LUBE</b>                      <b>Case Quantity 1 Dozen</b></p>	

### DRY MOLY LUBE

Part Number	Description	
0190396	<p>Forms a thin, dry, nontransferable black coating. Reduces metal to metal contact on highly machined metal surfaces. Withstands water, oil, alkalis and most acids. Contains approximately 5% Molybdenum disulfide for superior anti-friction and anti-seize properties. Pressure stable from -40°F to 500°F.</p> <p><b>ZENALUBE MOLY</b>                      <b>Case Quantity 1 Dozen</b></p>	



## LUBRICANTS & PENETRANTS

### DRY FILM TEFLON-LUBE

Part Number	Description	
0190216	<p>All purpose high temperature dry film lubricant contains PTFE, a nonoily chemically inert lubricant, will not attract dust and dirt. Unaffected by most solvents and chemicals. Use on metal, paper, wood, plastic, glass and rubber, acts as a release agent and helps to prevent dragging, Sticking and binding. Heat resistant to 500°F.</p> <p><b>CHEM-LUBE</b>                      <b>Case Quantity 1 Dozen</b></p>	

### RED GREASE IN A CAN

Part Number	Description	
0190226	<p>This multi-purpose lubricant sprays out of the can as a thin, red penetrating liquid which quickly turns into a thick grease. It withstands temperatures of 500°F, and is water and acid resistant. Includes additives for protection against oxidation and wear.</p> <p><b>ENDURA</b>                      <b>Case Quantity 1 Dozen</b></p>	

### ANTI-SEIZE COMPOUND/RELEASE AGENT

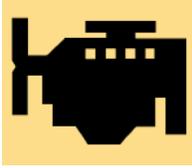
Part Number	Description	
0190146	<p>ZICROM is an extreme temperature and pressure sealant and lubricant that protects metal from galling, seizing or pitting. Reduces friction and wear, makes tighter firmer joints possible that also open easier. Completely non-corrosive and inert to rubber. Effective on a broad group of metals with metal to metal and metal to rubber contact.</p> <p><b>ANTI-SEIZE</b>                      <b>Case Quantity 6 Cans</b></p>	





## SOLVENTS, DEGREASERS & STRIPPERS

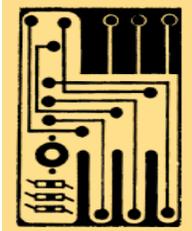
### ENGINE DEGREASER-EMULSIFIABLE

Part Number	Description	
0190526	Dissolves heavily embedded grease, oil, dirt and grime. Sprays on then flushes away with water. Safe to use, harmless to metals. USDA authorized. <b>CHEM-GON</b> <b>Case Quantity 1 Dozen</b>	

### DEGREASER-GREEN 100% NATURAL

Part Number	Description	
0190516	Use as a safe alternative to hazardous petroleum-based degreasers and harsh alkaline cleaners. Dissolves heavily embedded grease, oil, dirt and grime. Sprays on then flushes away with water. Powerful all-natural cleaner. TOTAL GREEN ECO-FRIENDLY. <b>CHEM-GON GREEN</b> <b>Case Quantity 6 Cans</b>	

### CONTACT & CIRCUIT BOARD CLEANER

Part Number	Description	
0190026	Cleans dirt, grease, oil and moisture from printed circuits, precision instruments, controls, switches, motors and film. Safe on plastics and rubber. Nonconductive for safe cleaning of operating equipment. Dries residue free. Nonflammable, odor free. <b>LEKTRIX 102</b> <b>Case Quantity 1 Dozen</b>	

### BIODEGRADABLE SOLVENT DEGREASER-NATURAL CITRIC

Part Number	Description	
0190946	Highly concentrated all natural biodegradable solvent. Easily removes grease, oil and grime from metallic and nonmetallic surfaces. Nonconductive to 32,000 volts. <b>CITRI-SOLV</b> <b>Case Quantity 1 Dozen</b>	



## SOLVENTS, DEGREASERS & STRIPPERS

### FAST-ACTING PAINT REMOVER

Part Number	Description	
0190466	Dissolves and removes most paints, decals, varnishes and gasket adhesives. Thickened formula clings to vertical and overhead surfaces to extend contact time. For use on metal and wood surfaces. USDA authorized. <b>JEL STRIP</b> <b>Case Quantity 1 Dozen</b>	

### GRAFFITI REMOVER

Part Number	Description	
0190706	A special blend of cleansers and solvents formulated to remove stubborn marks such as spray paints, crayons, marking inks, road tar, stencil inks and other solvent and oil based stains from nonporous surfaces. Safe on Most painted surfaces. <b>GRAFFITI REMOVER</b> <b>Case Quantity 1 Dozen</b>	

### STARTING FLUID

Part Number	Description	
0190686	Quickly starts engines without excessive battery drain. Contains an upper cylinder lubricant to aid in initial start. May be used on any internal combustion engine, diesel, marine, or automotive engines. Noncorrosive. <b>STARTING FLUID</b> <b>Case Quantity 1 Dozen</b>	

### CARBURETOR & CHOKE CLEANER

Part Number	Description	
0190606	Instantly removes grease, gum, carbon, dirt, varnish and other soils from the moving and sealing surfaces of engine carburetors. Fast drying, leaves no film to cause sticking. Cleans and frees automatic chokes, linkages, manifold heat controls, and PVC valves. Harmless to catalytic converters. <b>KLEENZ</b> <b>Case Quantity 1 Dozen</b>	

### DE-ICER

Part Number	Description	
0190436	Removes ice, snow and frost from windshields, windows, headlights, and thaws frozen door locks. Will not harm paint, metal, plexiglass or rubber. <b>FROSTY</b> <b>Case Quantity 1 Dozen</b>	

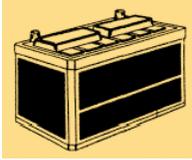


## CLEANERS

### BRAKE CLEANER - ENVIRONMENTALLY SAFE

Part Number	Description	
0190416	Effectively removes asbestos, dust, oil, grease, brake fluid and other soils associated with brake parts. Stops disc brake squeal. Leaves no residue. Low toxicity, no chlorinated solvents, safe on rubber and plastic. <b>NU-BRAKE</b>	 <b>Case Quantity 1 Dozen</b>

### BATTERY CLEANER

Part Number	Description	
0190316	Penetrates, neutralizes and cleans accumulated dirt and corrosion on batteries, terminals and cables. Formula contains color indicator that appears red in the presence of acid, yellow when neutral. Minimizes battery current leakage and prolongs battery life. <b>SCRUB</b>	 <b>Case Quantity 1 Dozen</b>

### PROTECTIVE COATING

Part Number	Description	
0190346	<b>ZENAKOTE</b> industrial battery terminal sealer and protector. Ideal for use on battery posts, terminals, in automobiles, power equipment, boats, busses, construction equipment, electric fork-lift golf carts, municipal vehicles and trucks. Unique film designed to protect battery terminals from corrosion. BE SURE CELL COVERS ARE CLOSED. Shake well before using. Spray a uniform coat on to cables, posts or carriers. Be sure to remove old corrosion with <b>SCUB</b> or comparable battery cleaner containing an acid indicator. <b>ZENAKOTE</b> Industrial battery terminal sealer and protector Extends battery life, Prevents Corrosion, Improves Electrical Output and Remains Flexible <b>ZENAKOTE</b>	 <b>Case Quantity 1 Dozen</b>

### TIRE & VINYL CLEANER & PROTECTOR

Part Number	Description	
0190206	Clear Acrylic Coating. Watermelon Scent. Works Instantly. No wiping required. Excellent for hard to reach areas. <b>GLISTEN</b> shines all vinyl, rubber and synthetic surfaces. Cures to a glossy protective shine in minutes with no buffing. Repels dirt, salt and grime, protects against discoloration, oxidation, and ozone deterioration. Product works best if original surface is cleaned first. <b>GLISTEN</b>	 <b>Case Quantity 1 Dozen</b>

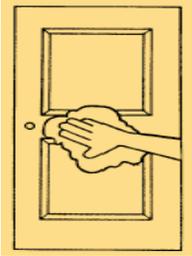


## CLEANERS

### CARPET CLEANER & STAIN REMOVER

Part Number	Description	
0190086	Safely cleans high traffic areas on carpets. Removes grease, oil, lipstick, crayon, magic marker, blood, rust stains, dust and dirt. Deep penetration action gets out tough spots and stains. Dries quickly. No vacuuming required. <b>REMOVIT</b> Case Quantity 1 Dozen	

### ALL-PURPOSE CLEANER

Part Number	Description	
0190056	Quick action, multi-surface cleaner. Powerful foaming action penetrates and dissolves smudges, film and dirt on any surface not harmed by water alone. Easily wipes clean -no scrubbing or rinsing necessary. USDA authorized. <b>HYDRO-SOLV</b> Case Quantity 1 Dozen	

### FOAMING DISINFECTANT CLEANER

Part Number	Description	
0190796	Hospital use, broad spectrum disinfectant. Disinfectant against Staphylococcus aureus, Salmonella choleraesuis and Pseudomonas aeruginosa. Kills HIV Virus. Eliminates Trichophyton mentagrophytes (the cause of Athlete's Foot Fungus). Powerful cleaner for use on floors, walls, garbage cans, showers, lavatory fixtures and more. Safe on chrome, plastic, enamel, porcelain and fiberglass. <b>ZENATIZE FOAM</b> Case Quantity 1 Dozen	

### FURNITURE POLISH

Part Number	Description	
0190066	The ideal polish & cleaner for use on formica, metal, plastic and vinyl furniture. Also protects and polishes ceramic, enameled porcelain and wood surfaces. Polished surfaces resist finger smudges. <b>ZENABRITE LEMON</b> Case Quantity 1 Dozen	



## CLEANERS

### STAINLESS STEEL CLEANER & POLISH

Part Number	Description	
0190576	New generation water based cleaner/polish formulated for stainless steel, chrome, brass, copper and aluminum. Great for railings, elevator cabs, kitchen and lab equipment, etc. Effectively removes smudges, fingerprints, water marks, grease, tarnish and oxidation from bright metals. Seals and protects from future oxidation. <b>CHEM-SHEEN</b> <b>Case Quantity 1 Dozen</b>	

### GLASS & HARD SURFACE CLEANER

Part Number	Description	
0190046	Foaming formulation clings to vertical surfaces. Penetrates and dissolves grease, oil, dirt, and deposits. Does not streak or run. Cleans windows, mirrors, windshields, and other smooth porous surfaces such as chrome, stainless steel, ceramic tile, vinyl etc. NSFC authorized. <b>NO-STREAK</b> <b>Case Quantity 1 Dozen</b>	

### FOAMING CITRIC CLEANSER

Part Number	Description	
0190896	Formulated to clean and degrease institutional and industrial equipment. Pleasant deodorizing action utilizes a naturally occurring citrus solvent. Nonflammable, contains no chlorinated solvents, petroleum distillates, hydrocarbons or butylsolvents. 100% biodegradable. Rinse all food surfaces with potable water before reuse. <b>FOAMY CITRIC</b> <b>Case Quantity 1 Dozen</b>	

### SANITIZER, DISENFECTANT AND DEODORANT

Part Number	Description	
0190826	A total release hospital grade disinfectant and deodorant that kills TB (tubercule Bacilli), E. Coli, Herpes Simplex 1 & 2, Salmonella enterica, Staphylococcus, Avian Influenza A virus (H5N1), Methicillin-resistant Staphylococcus aureus (MRSA) and more. Inactivates HIV (AIDS virus) on pre-cleaned environmental surfaces/objects previously soiled with blood/body fluids. Contains a blend of powerful phenolic germicides. Hospital-Use and Broad-Spectrum Disinfectant and Antimicrobial Agent. Controls mildew. Deodorize areas where foul odors are present. For use on pre-cleaned, hard, nonporous, nonfood-contact surfaces in/on industrial, institutional, commercial, medical and residential facilities, equipment and vehicles. <b>PHENOMENAL-CITRUS</b> <b>Case Quantity 1 Dozen</b>	



## AIR FRESHENERS

### AIR FRESHENER DRY SPRAY

Part Number	Scent	Description	
0190096	Powder Fresh	Finely atomized spray formulated to stay airborne, 100% of the fragrance is available instantly to deodorize and freshen every cubic inch in the room. The dry spray allows for deodorizing of carpeting, upholstery and draperies without wetting or staining. <b>Case Quantity 1 Dozen</b>	
0190106	Fresh & New		
0190816	Fresh Linen		

### ODOR NEUTRALIZERS FOR METERED UNITS

Part Number	Scent	Description	
0190366	Citrus Cream	Unpleasant odors are hunted down and chemically destroyed. Millions of tiny aerosol particles are suspended with each metered spray. One unit is recommended per 6,000 cubic feet of space. <b>Use with metered dispensing unit: 8150997</b>  <b>Case Quantity 1 Dozen</b>	
0190556	Green Apple		
0190566	Lemon Ice		
0190806	Fresh Linen		
0190736	Vanilla Delight		
0190116	Mango		
0190976	Assorted		



## SPECIALTY

### WASP & HORNET KILLER

Part Number	Description	
0190506	<p>This special formulation is designed to drop wasps, yellow jackets and hornets instantly. When the wasps return to the nest, the product continues to kill with residual action. Special nozzle concentrates a jet spray that can be directed to insect nest areas up to 20 feet above Ground. Dielectric breakdown voltage of 47,300 volts. EPA registered. <b>Case lots only</b>  <b>WASP &amp; HORNET ZENAKILL III Case Quantity 1 Dozen</b></p>	

### CRAWLING INSECT KILLER

Part Number	Description	
0190376	<p>Concentrated, premium insecticide spray that is highly effective against flying and crawling insects. Especially effective against cockroaches, ants, waterbugs, silverfish, earwigs and spiders. USDA authorized, EPA registered. <b>Case lots only</b>  <b>CRAWLING INSECT ZENA KILL II Case Quantity 1 Dozen</b></p>	



## SPECIALTY

### SPRAY TRIM ADHESIVE

Part Number	Description	
0190286	<p>A strong, clear drying adhesive for general purpose bonding of materials. A single coat to one surface gives temporary bond. A single coat to both surfaces gives permanent bond. Remains waterproof and flexible. Bonds Urethane foam, foam rubber, leather, paper, cardboard, cloth, mylar, foil acetate sheets, glass and certain plastics.</p> <p><b>PERMADHESIVE</b> <b>Case Quantity 1 Dozen</b></p>	

### CEILING TILE RESTORER

Part Number	Color	Description	
0210312 0210313	White Off-White	<p>Restores dirty, water stained or smoke discolored tiles to like new condition. Requires no surface preparation. Dries quickly with no objection- able odor. Vertical valve dispenses product readily and effortlessly with an upright spray.</p> <p><b>CEILING TILE</b> <b>Case Quantity 1 Dozen</b></p>	

### RTV GASKET MAKER

Part Number	Color	Description	
0190876	Blue	<p>Made of 100% silicone in a pressurized can that's easy to use and empties completely. No cartridge guns or messy squeeze tubes. Replaces a wide range of cork, paper, asbestos, felt and metal gaskets. Low volatility, oxygen sensor safe. One 8 oz. Can provides 54 feet of even, consistent bead.</p> <p><b>RTV GASKET MAKER</b> <b>Case Quantity 6 Cans</b></p>	
0190866	Red		
0190856	Black		
0190916	Clear		
0190906	White		
0190986	Assorted		

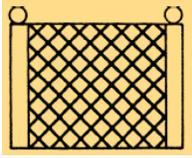
### COLD PIPE INSULATION

Part Number	Description	
0190936	<p>White aerosol insulating sealant that prevents condensation and sweating on cold water pipes, codensers, valves and pipe fittings. Stops damage caused by dripping water. Excellent for repairing wrap around, sleeve or foam-type insulation. Adheres to stainless steel, black iron, brass, copper, galvanized and PVC pipe.</p> <p><b>COLD PIPE INSULATION</b> <b>Case Quantity 1 Dozen</b></p>	



## SPECIALTY

### GALVANIZING SPRAY

Part Number	Description	
0190766	Forms a chemical bond when applied to bare metal, which will protect and preserve for years. Dries in a matter of minutes. Use to protect steel and iron from corrosion. Can be painted over if desired. Made with 96% pure zinc, giving a final finish equal to hot dip galvanize processes. <b>METALIZE</b>	
	<b>Case Quantity 1 Dozen</b>	

### STAINLESS STEEL COATING

Part Number	Description	
0190956	Super tough, long lasting coating containing pure stainless steel pigment in an ultra durable resin system. Seals, beautifies and protects metal, wood, ceramic and more! Helps prevent deterioration caused by harsh chemicals, severe atmospheres or conditions. Tack free in five minutes. Hard cure in two hours. <b>PROTEX</b>	
	<b>Case Quantity 1 Dozen</b>	

### HIGH SOLID MRO PAINTS

Part Number	Color	Description	
0210400	Gloss White	A superior, lead-free industrial coating formulated for tough applications. Protects against rust, weather, oil, gasoline and most corrosive chemicals. Resists abrasion and heat and withstands high humidity. Excellent for most types of wood and metals.  <b>MRO PAINTS Case Quantity 6 Cans</b>	
0210411	Flat Black		
0210505	Red Primer		
0210410	Gloss Black		
0210506	Gloss Safety Yellow		
0210420	Light Machinery Gray		
0210503	Light Gray Primer		
0210507	Gloss Safety Blue		
0210153	School Bus Yellow		
0210268	Hunter Green		

### SPRAY PAINT - Case Quantity 1 Dozen

Part Number	Description		
0210100	GLOSS WHITE- DZ	0210164	FORD RED- DZ
0210110	GLOSS BLACK- DZ	0210165	CAST IRON GRY- DZ
0210111	FLAT BLACK- DZ	0210168	FORD BLUE- DZ
0210119	BLK HI HEAT- DZ	0210170	CHROME ALUM- DZ
0210120	TOOL GRAY- DZ	0210171	CHEVY ORANGE- DZ
0210125	ALUM HI HEAT- DZ	0210203	GRAY PRIMER- DZ
0210130	GLOSS RED- DZ	0210205	RED OXIDE- DZ
0210161	GM BLUE- DZ	0210310	ROCKET RED- DZ
0210311	BLAZE ORANGE- DZ		



## SPECIALTY

### FOAMING NON-ACID COIL CLEANER

Part Number	Description	
0190446	No rinse coil cleaner cleans and deodorizes, eliminates the need for high pressure sprayers or bulky tank sprayers. Dirt and lint wash away with coil condensate. Sprays right side up or upside down. <b>COIL-KLEEN</b> <b>Case Quantity 1 Dozen</b>	

### UNDERCOAT

Part Number	Description	
0190926	Premium Rubberized Undercoating is a corrosion inhibiting formula that seals out moisture, deadens sound, prevents rust and will not peel off. Applications include gutter sealer, concrete, tree wound sealer, asphalt crack filler and more. <b>RUBBERIZE</b> <b>Case Quantity 1 Dozen</b>	

### PREMOISTENED GRAFFITI & OVERSPRAY TOWELS

Part Number	Description	
8320477	The latest, most convenient innovation in combating graffiti. Powerful cleaning formula removes tough graffiti. Nontoxic, nonflammable, nonhazardous and biodegradable formula. Abrasive but nonscratching towels aid in cleaning. <b>WIPE-OUT</b> <b>Case Quantity 6 Tubs</b>	

### INVERTED TIP LINE MARKING PAINT

Part Number	Color	Description	
0210600	Traffic White	Quality formulation combines the environmental advantage of being water based but not water soluble so our high pigment solids will not wash away. Easy to apply, long lasting marker spray paint that contains no CFC's, methylene chloride, and less VOC solvents. Vivid colors are ideal for any surface that requires traffic control markings, from concrete or blacktop to gravel or dirt. <b>Case Quantity 1 Dozen</b>	
0210601	Traffic Yellow		
8150201	Striping Machine		

### RUST CONVERTER

Part Number	Description	
0190076	Stops Corrosion. Eliminates Rust and Prevents future rusting. Seals and Converts rusted surface into a black protective paintable area. For use on Railings, Fences/Gates, Bridges, Towers, Vehicles, Marine Equipment, Structures, Metal Roofs, Farm Tools and Any Other Rusted Surface. <b>RUST CONVERTER</b> <b>Case Quantity 6 Cans</b>	



## STEAM & PRESSURE WASHER CLEANERS

### PRESSURE WASHER CONCENTRATE

Part Number	Description
8140553- 55GL	A heavy duty product with a unique blend of wetting and emulsifying agents that provide superior ability to penetrate the toughest soils. Soils are held in suspension to prevent deposition. Rinsing is complete, leaving a surface that is free from residue. USDA A-4. Dilute with 20 to 50 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>IMPACT</b>
8140554- 30GL	
8140555-3X5GL	
8140556- 5GL	

### HEAVY DUTY STEAM CLEANER

Part Number	Description
8140323- 55GL	A caustic heavy duty solution designed for maximum emulsification of heavy grease, oil and old paint accumulations. The impact of high pressure and heat together with the chemical power of this highly concentrated cleaning liquid make even the most stubborn steam cleaning operations easier and faster. Not recommended for use on aluminum, galvanized or other reactive metals. USDA A-4, A-8. For steam cleaners that premix before going to coils, dilute with 20 parts water. For direct feed cleaners, dilute with 80 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>TERGE OFF 32</b>
8140324- 30GL	
8140325- 3X5GL	
8140326- 5GL	

### NON-CAUSTIC STEAM CLEANER

Part Number	Description
8140313- 55GL	A concentrated liquid steam cleaner that is noncorrosive, nonfuming and safe for food processing areas. It was designed for indoor or outdoor use to remove grease, oil, grime, soil, dirt and sludge from steel, aluminum and painted surfaces. USDA A-1. For steam cleaners that premix before going to coils, dilute with 20 parts water. For direct feed cleaners, dilute With 80 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>TERGE OFF 31</b>
8140314- 30GL	
8140315- 3X5GL	
8140316 -5GL	



## WATER SOLUABLE DEGREASERS

### NON-BUTYL CLEANER DEGREASER

Part Number	Description
8140833- 55GL	Contains no butyl or other toxic solvents. ZORB-ALL cleans by spontaneous emulsion and prevents re-deposition of oily soils cleaning. Formulated to remove, emulsify and deodorize fats and greasy soil from all types of surfaces. USDA . <b>Packaging: 55GL, 30GL, 5GL, 4X1GL,12X1QT</b> <b>ZORB-ALL</b>
8140834- 30GL	
8140835- 3X5GL	
8140836- 5GL	
8140837- 4X1GL	
8140838-12X1QT	

### HEAVY DUTY SOLVENT BASED CLEANER

Part Number	Description
8140843- 55GL	Concentrated high pH butyl cleaner for cleaning and degreasing. Use where extra high solvent action is required. For effective removal of grease, oils, fats, carbon, wax, tar and other stubborn soils. Safety and convenience are assured with this nonflammable, biodegradable, nonfuming, water-based solvent. USDA A-1. Dilutes up to 40 to 1 with water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL, 12x1QT</b> <b>ALL IN ONE</b>
8140844- 30GL	
8140845- 3X5GL	
8140846- 5GL	
8140847- 4X1GL	
8140848-12X1QT	

### MULTI-PURPOSE SOLVENT BASED DETERGENT

Part Number	Description
8140233- 55GL	Penetrates and breaks the "soil bond" between the last layer of soil and the surface-which acts as a barrier to most effective cleaning or degreasing operations. Safe-o-lene is a noncombustible, non-flammable, water-soluble solvent rust inhibited. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>SAFE-O-LENE</b>
8140234- 30GL	
8140235-3X5GL	
8140236- 5GL	

### NEUTRAL pH CONCENTRATED CITRUS CLEANER

Part Number	Description
8140223- 55GL	Contains no bio-stimulating phosphates, a prime source of pollution. A high-foaming neutral pH cleaner that contains a powerful natural citrus solvent to degrease and deodorize all washable surfaces. USDA A-1. up to 20 to 1 with water. <b>Packaging: 55GL, 15GL, 30GL, 5GL, 4 x 1GL</b> <b>ZERO-PHOS</b>
8140224- 30GL	
8140225-3X5GL	
8140226- 5GL	
8140227-4X1GL	



## WATER SOLUABLE DEGREASERS

### MULTI-PURPOSE CLEANER DEGREASER

Part Number	Description
8140143- 55GL	Concentrated synthetic detergent containing a wide range of chemicals for maximum efficiency in attacking all types of dirt and grime. In addition to use on floors, this detergent is also useful in cleaning walls, counters, woodwork, blinds, porcelain, or any painted or commercially enameled wood or metal surface without harm to hands. USDA A-1. Dilute at least 10 to 1 with water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL, 12 QT</b> <b>HYDRO-SOLV</b>
8140144- 30GL	
8140145- 3X5GL	
8140146- 5GL	
8140147- 4X1GL	
8140148- 12X1QT	



## SOLVENTS & DEGREASERS

### NATURAL INDUSTRIAL CITRUS SOLVENT

Part Number	Description	
8170883- 55GL	Highly concentrated, all natural, organic biodegradable solvent/emulsifier blend that has multiple applications. Use for cleaning and degreasing machinery, engines and concrete floors without the use of ozone depleting or chlorinated solvents. Offers the power of the toughest solvent cleaners without putting your personnel at risk. Dilute 1 to 4 oz. per gallon of water depending on the amount of soil. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL, 12x1PT</b> <b>CITRI-SOLV</b>	
8170884- 30GL		
8170885- 3X5GL		
8170886- 5GL		
8170887- 4X1GL		
8170889- 12X1PT		



## SOLVENTS & DEGREASERS

### COLD SOLVENT DEGREASER

Part Number	Description	
8140103- 55GL 8140104- 30GL 8140105-3X5GL 8140106- 5GL	<p>A powerful blend of high-flash solvents that quickly penetrates, dissolves and removes grease, oil and wax-like soils without harm to the surface being cleaned. Does not contain carbon tetrachloride. Noncorrosive, nonconductive solvent that makes grease and oil soluble in water. Removes thick, heavily embedded grease, oil and grime from automotive engines, fuselages, fifth wheels, machinery and heavily accumulated grease from floors.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CHEM-GON</b></p>	

### CIRCULATING PARTS SOLVENT

Part Number	Description	
8140783- 55GL 8140784- 30GL 8140785-3X5GL 8140786- 5GL  8150730-1EA	<p>Designed for use in re-circulating parts washers, air bubble agitators and soak tank units. Safe on aluminum, brass, copper, iron, stainless steel and other metals. Quick penetrating action removes grease, oil, sludge and grime from parts. Easy on pump gaskets. Designed to be long lasting, slow evaporating and re-energizing by dropping soil and sludge to the bottom of tank. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CIRCULATING PARTS TANK PART # 8150730</b> <b>SOIL-GO</b></p>	

### NON-CHLORINATED PARTS SOLVENT

Part Number	Description	
8140923- 55GL 8140924- 30GL 8140925-3X5GL 8140926- 5GL  8150730-1EA	<p>Contains a scientific blend of low volatile, high-flash and natural organic solvents. SOILEX is designed for use in re-circulating parts washers, air bubble agitators and soak tank units. It is environmentally safe, no CFCs and low VOCs improving air quality in the work area. SOILEX can be disposed of with waste oil in accordance with federal, state and local regulations.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CIRCULATING PARTS TANK PART # 8150730</b> <b>SOILEX</b></p>	



## CLEANERS & DEGREASERS

### NON-CHLORINATED CARBURETOR CLEANER

Part Number	Description	
8140483- 55GL	A blend of organic solvents designed to replace chlorofluorocarbons (CFC's) and Hydro chlorofluorocarbons (HCFC's) for softening and removing carbon, paints, engine varnish, oil, grease, sticky gums, and other soils found on engine parts and marine and automotive components. Non-corrosive and possesses a very high dielectric constant for electronic cleaning applications. Water rinseable and completely biodegradable. <b>Packaging: 55GL, 30GL, 15GL, 5GL KLEENZ</b>	
8140484- 30GL		
8140485-3X5GL		
8140486- 5GL		

### WINDSHIELD WASHER SOLVENT

Part Number	Description	
8170043- 55GL	Windshield washer solvent concentrate is formulated to operate in subfreezing temperatures. Designed to be diluted with water for greater economy year round. VOC compliant. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL, 12 x 1QT FROSTY</b>	
8170044- 30GL		
8170045- 3X5GL		
8170046- 5GL		
8170047- 4X1GL		
8170048-12X1QT		



## CLEANERS & DEGREASERS

### DESCALER

Part Number	Description	
8180273- 55GL 8180274- 30GL 8180275-3X5GL	Fast-acting boiler and cooling tower descaler. Removes energy-robbing deposits and restores units to maximum operating efficiency. Dissolves rust and scale quickly, minimizing downtime, eliminating time-consuming scraping. Corrosion inhibited. Packaging: 55GL, 30GL, 15GL <b>CHEM SCALE</b>	

### CONCRETE REMOVER & DESCALER - CONCENTRATED

Part Number	Description	
8140393- 55GL 8140394- 30GL 8140395-3X5GL	Used by construction companies, concrete plants, masonry contractors and ceramic tile contractors. Removes heavy mortar incrustations from cement trucks, cement mixers, wheelbarrows, metal equipment, shovels, brick, transit forms, etc. Twice as effective as most muriatic acid cleaners. Removes deposits fast. Special inhibitors reduce attack on bare steel. Safe on most painted surfaces. Removes corrosion. Economical...can be diluted with up to 10 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CHEM-CRETE</b>	

### CONCRETE REMOVER & DESCALER

Part Number	Description	
8140253- 55GL 8140254- 30GL 8140255-3X5GL	A ready -to-use descaler which replaces muriatic acid. It is formulated with special soil penetrants and wetting agents that help break up and dissolve lime deposits, scale, rust, algae, stains, mineral sediments, and removes mortar, concrete and plaster without harm to most metals, paints or finishes. Recommended for use in: Industry: Descaling steam cleaners, metal cleaning. Utility Co's: Descaling water and gas meters,pumps. Concrete Plants: Removes cement from mixers and ready-mix trucks. Construction: Removes mortar and plaster from window and door frames. Shopping Malls: Decorative fountains, stains from concrete and terrazzo. Food Service: Coffee urns, ice-making machines. Building Maintenance: Ceramic tile, toilet bowls, encrusted glass. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CHEM-CRETE II</b>	

### DESCALER FOR FOOD PLANTS

Part Number	Description	
8140073-400LB 8140074-125LB 8140075- 50LB	A fast-wetting acid cleaner in a dustless powder form. It is recommended for removal of rust, protein scale and hard-water scale for operations requiring safe and non-toxic acid operations. DRY ACID is a safe replacement for hydrochloric and phosphoric acids. It is safe on stainless steel, steel, iron, copper, brass and tin. DRY ACID is effectively inhibited to prevent corrosive attack of equipment and galvanized surfaces. <b>Packaging: 400LB, 125LB, 50LB</b> <b>DRY ACID</b>	



## CLEANERS & DEGREASERS

### ECO-FRIENDLY DEGREASER

Part Number	Description	
8400013- 55GL 8400014- 30GL 8400015-3X5GL 8400016- 5GL	Use as a safe alternative to hazardous petroleum-based degreasers and harsh alkaline cleaners. Powerful All Natural Cleaner. 100% Biodegradable. Total Green Eco-Friendly. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CHEM-GON GREEN</b>	

### ULTRA HEAVY DUTY CLEANER

Part Number	Description	
8140883-55GL 8140884-30GL	Highly concentrated for use in removal of severely encrusted soils. Instantly dissolves and emulsifies fats, waxes, grease and grime most ordinary cleaners cannot remove. Excellent for use on hard metal surfaces and porous surfaces such as concrete and brick. <b>Packaging: 55GL, 30GL</b> <b>OXENE</b>	

### BLANKET & ROLLER WASH

Part Number	Description	
8140373- 55GL 8140374- 30GL 8140375-3X5GL 8140376- 5GL	Ready to use. Safe, low toxicity. Contains no chlorinated hydrocarbon solvents. Non-corrosive. Safe on aluminum, brass, copper, iron, stainless and other metals. Low evaporation. Pleasant odor. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>SAF-T-PET-O</b>	

### CITRA CRYSTALS

Part Number	Description	
8146656- 25LB 8146657-6X2LB	Heavy-duty concrete and equipment cleaner. A balanced blend of special surfactants, builders and solvents to quickly strip away grease, oil and dirt from concrete and other washable surfaces. As a powdered detergent, this product is fortified with the all-natural solvent d'Limonene, making it safe to use on almost any surface. Plus it is free-rinsing, biodegradable and provides a fresh orange scent as it cleans. Use on: Concrete, Wood, Metal, Plastic, Painted surfaces, Soak tank, Parts washer Effective Against Heavy grease and oil deposits Changes color in water from bright orange to fluorescent yellow-green to indicate the strength of the solution <b>CITRA CRYSTALS</b> <b>Packaging: 25 pound pail or Case of 6 x 2 pound cans</b>	



## CLEANERS & DEGREASERS

### GLASS CLEANER CONCENTRATE

Part Number	Description	
8170103- 55GL 8170104- 30GL 8170105- 3X5GL 8170106- 5GL 8170107-12X1QT 8170109- 4X1GL	<p>Glass cleaner that leaves a bright, clean surface without any unwanted streaks. An effective hard surface cleaner and brightener safe on ceramic, brass, chrome, stainless, porcelain, Lexan, acrylic, marble, enamel, vinyl surfaces. USDA C-1.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL, 12QT</b></p> <p><b>NO-STREAK</b></p>	

### AIR CONDITIONER COIL CLEANER - NON-ACID

Part Number	Description	
8320213- 55GL 8320214- 30GL 8320215- 3X5GL 8320216- 5GL 8320217- 4X1GL 8320218-12X1QT	<p>A blend of high performance alkaline detergents, bonders and penetrants designed for heavy duty degreasing, cleaning and brightening of condenser and evaporator coils, fins, and other equipment surfaces. Self rinsing with sufficient condensate.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL, 12QT</b></p> <p><b>COIL KLEEN</b></p>	

### AIR CONDITIONER COIL & FILTER CLEANER

Part Number	Description	
8170583- 55GL 8170584- 30GL 8170585-3X5GL 8170586- 5GL 8170587-4X1GL	<p>A blend of corrosion-inhibited acids, synthetic detergents, and super wetting agents. Made especially for exterior cleaning of air conditioning, refrigeration and air handling systems of all types and sizes. Removes corrosion, dirt, greasy soil, dust, lint and atmospheric deposits. Cleans, brightens and renovates coils, filters, fins, condensers, electronic precipitators, fan blades. Improves heat transfer efficiency and reduces energy consumption. Will not attack plastic, rubber, paint, tile floors, asphalt roofing, carpeting. Non-flammable.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b></p> <p><b>FREEZE</b></p>	

### SOLID AIR CONDITIONER TREATMENT

Part Number	Description	
8160187	<p>S•A•C•T consists of a special formulation of chemicals in a controlled-dispersal tablet form. As the tablet dissolves, it prevents the accumulation of rust, corrosion, sludge, airborne dust, and slime in condensation pans and drains. One treatment will prevent condensate drain stoppage and reduce odors from the pan for up to a month. Easy to use, store, and handle. Regular use prevents overflow damage and unnecessary maintenance repairs. Biodegradable and non-flammable. <b>Packaging: 24x1</b></p> <p><b>SACTS</b></p>	



## CLEANERS & DEGREASERS

### CHLORINATED MACHINE WARE WASHING COMPOUND

Part Number	Description	
8170873- 55GL 8170874- 30GL 8170875-3X5GL 8170876- 5GL	A light yellow, alkaline, chlorinated liquid machine ware washing compound. Provides soil-free pipelines, sparkling glasses, and stain-free ware in water of up to 15 grain hardness when used at normal concentrations. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>SIP</b>	

### OVEN CLEANER

Part Number	Description	
8140283- 55GL 8140284- 30GL 8140285-3X5GL 8140286- 5GL 8140287-4X1GL	A special formulation of biodegradable detergents and penetrants designed to remove food fats, grease and carbon deposits from ovens, ranges, deep fat fryers, filter hoods, and all other kitchen working surfaces. It is used where food is cooked or processed in restaurants, hospital and school kitchens, meat and poultry processing plants, and canneries. Safe for use in food preparation and processing plants and contains corrosion inhibitors that reduce the risk of corrosion in areas where water is used on unpainted metals. Non-flammable so it is not necessary to cool down ovens or ranges before cleaning. Safe to use near open flames. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>STRIPIT</b>	

### TAR & ASPHALT REMOVER

Part Number	Description	
8140243- 55GL 8140244- 30GL 8140245-3X5GL 8140246- 5GL	Removes crude oil sludge from storage tanks, fuel oil trucks and related equipment. Will dissolve most latex-base residues from tank cars hauling liquid latex. Can be used to clean gluing and packaging machinery. Excellent for cleaning engines and small parts. It contains special rust inhibitors to protect parts and equipment from excessive corrosion. It is designed for quick and easy removal of tar, asphalt, road oil, grease and grime from all types of road equipment, vehicles, storage tanks and machinery. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>TAR SOLV</b>	

### ASPHALT RELEASE AGENT

Part Number	Description	
8170803- 55GL 8170804- 30GL 8170805-3X5GL 8170806- 5GL	Prevents asphalt buildup in truck beds and other paving equipment. Asphalt release that encapsulates dump beds, rollers, tools and equipment with a molecular film that prevents sticking and adhesion of asphalt. 100% Biodegradable. Totally Green Eco-Friendly. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>NO STICK</b>	



## TRUCK & CAR WASH PRODUCTS



### TRAILER & TRUCK WASH

Part Number	Description
8140213- 55GL	<p>A highly concentrated, heavy-duty liquid cleaner for washing trucks, buses, tankers and other transportation equipment. It is designed to be safe for use on all surfaces common to those vehicles, such as exposed aluminum, lexan, plexiglass, and enameled or lacquered surfaces.</p> <p><b>Packaging: 55GL, 30GL, 15GL, 5GL</b></p> <p><b>TRUCK FOAM</b></p>
8140214- 30GL	
8140215-3X5GL	
8140216- 5GL	

### LIQUID CAR WASH WITH PROTECTIVE WAX

Part Number	Description
8170053- 55GL	<p>A liquid car wash detergent that deposit's a protective wax coating to transportation vehicles exterior coatings. While cleaning the surface road soil and dirt, this product leaves a protective coating that inhibits future cleaning problems. If a vehicle is washed regularly every few weeks with WASH 'N SHINE, the wax will build up to the thickness of a paste wax. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b></p> <p><b>WASH-N-SHINE</b></p>
8170054- 30GL	
8170055-3X5GL	
8170056- 5GL	

### CONCENTRATED LIQUID CAR WASH

Part Number	Description
8140193- 55GL	<p>A concentrate of foaming synthetic detergents compounded especially for washing automobiles, buses, trucks, airplanes and other high-gloss surfaces. Contains special surfactants that will drain dry without streaking. Removes dirt, greasy soil and road films, but will not remove protective waxes or polishes. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b></p> <p><b>AUTO FOAM</b></p>
8140194- 30GL	
8140195-3X5GL	
8140196- 5GL	

### ALUMINUM CLEANER & RENOVATOR

Part Number	Description
8140033- 55GL	<p>Super fast-acting, non-streaking liquid concentrate used to clean and restore unpainted aluminum and stainless steel surfaces where their luster has been lost due to buildup of road films and oxide films. Economical, dilutes with 20 to 100 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b></p> <p><b>SUPER ANTHORIUM</b></p>
8140034- 30GL	
8140035-3X5GL	

### STAINLESS STEEL CLEANER & DESCALER

Part Number	Description
8140973- 55GL	<p>A new metal brightener designed to remove heavy oxidation, corrosion and most films from stainless steel and aluminum equipment. It will not damage paint, lettering or decals when used as directed. It can be diluted from 1 part to 40 parts water, depending on condition of surface and air temperature. Warmer temperatures permit a higher dilution rate. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b></p> <p><b>TARTEEN</b></p>
8140974- 30GL	
8140975-3X5GL	
8140976- 5GL	



## FLOOR MAINTENANCE PRODUCTS

### METALLIC INTERLOCK FLOOR FINISH

Part Number	Description
8320023- 55GL	An industrial/institutional grade, high-speed, buffable floor finish that produces a durable, high gloss, wet look finish. Formulated especially for heavily-trafficked floors where its superior resistance to black heel marking and scuffing results in far greater durability than you would get from ordinary waxes or finishes. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL</b> <b>YEAR ROUND</b>
8320024- 30GL	
8320025-3X5GL	
8320026- 5GL	
8320027-4X1GL	

### CONCRETE AND TERRAZZO SEALER

Part Number	Description
8170233- 55GL	A water based acrylic floor sealer allows the sealing of concrete and terrazzo floors quickly and easily. No odor or fumes when applying. Provides a stain resistant, slip resistant, and scuff-resistant coating specially formulated for use on new or worn Terrazzo, as well as stone or masonry floors. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>POLY CRYL</b>
8170234- 30GL	
8170235-3X5GL	
8170236- 5GL	
8170237-4X1GL	

### FLOOR FINISH RESTORER

Part Number	Description
8170703- 55GL	A mop on or spray buff concentrated floor finish restorer. Renews the floor finish surface while repairing scratches and marks. Extends the time between stripping cycles and leaves a film that can be burnished to a "wet-look" shine. Dilute from 2 to 16 fl oz per gallon of water depending on floor condition. <b>Packaging: 55GL, 12 x 1QT</b> <b>CHEM-BUFF</b>
8170704- 30GL	
8170705- 3X5GL	
8170706- 5GL	
8170708-12X1QT	

### FLOOR STRIPPER/CLEANER WITH AMMONIA

Part Number	Description
8320033- 55GL	Heavy duty concentrated, ammoniated wax stripper formulated to thoroughly remove acrylic finishes, waxes and detergent-resistant floor systems. Easily penetrates multiple layers of floor finish holding them in a low-foam suspension for easy wet-vac removal. PICK-UP is free rinsing leaving no film to discolor floors. Dilute with 10 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>PICK-UP</b>
8320034- 30GL	
8320035-3X5GL	
8320036- 5GL	
8320037-4X1GL	

### NON-AMMONIATED FLOOR & BASEBOARD STRIPPER

Part Number	Description
8320143- 55GL	Highly concentrated, powerful amine-based formula converts waxes and acrylic finishes into easily removed emulsions. Removes tough finish buildups generated by high speed burnishing and constant spray buffing. Unique jelled formula allows product to adhere to baseboards for easy removal of wax and finish build-up. For normal build-ups, dilute with 10 parts water. <b>Packaging: 55GL, 30GL, 5GL, 4x1GL</b> <b>STRIP-EZ</b>
8320144- 30GL	
8320145-3X5GL	
8320146- 5GL	
8320147-4X1GL	



## FLOOR MAINTENANCE PRODUCTS

### SELF POLISHING FLOOR FINISH

Part Number	Description
8170143- 55GL 8170144- 30GL 8170145-3X5GL 8170146- 5GL	Nylar is resistant to scuff, black heel marks and dirt pick-up. It dries to a crystal hard finish - yet it's slip resistant. Long lasting. Suitable for all surfaces - vinyl, rubber, linoleum, asphalt, vinyl asbestos, wood, terrazzo and cement. Will not dull or wash off when cleaned with soap or detergents. Readily strippable with Chem-Power PICK-UP. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>NYLAR</b>

### OIL-BASED DUST CONTROL

Part Number	Description
8170743- 55GL 8170744- 30GL 8170745-3X5GL 8170746- 5GL 8170747-4X1GL	Controls dust on unsealed concrete or wood floors in industrial plants, factories, storage facilities, warehouses, garages, saw mills, readi-mix plants and body shops. Dust and dirt cling to floor reducing contamination by airborne dust particles. Works as dust mop treatment. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>DUSTEEN</b>

### DUST CONTROL

Part Number	Description
8160223- 55GL 8160224- 30GL 8160225-3X5GL 8160226- 5GL 8160227-4X1GL	Effectively controls dust on unsealed concrete, vinyl asbestos and linoleum floors, terrazzo, troweled concrete, or wood floors. Reduces dust and dirt and helps control contamination by airborne dust particles. Dust clings to surfaces for more effective cleaning. No oily residue reduces slip hazards. Does not contain silicone. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>DUST MAGNET</b>

### SPOT REMOVER & TRAFFIC LANE PRE-SPRAY

Part Number	Description
8320153- 55GL 8320154- 30GL 8320155- 3X5GL 8320156- 5GL 8320157- 4X1GL 8320158-12X1QT	A fast-drying solvent for removing difficult stains like oil, grease, and heavy accumulations in high-traffic areas. Makes extraction process easier and more efficient. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL, 12QT</b> <b>REMOVIT</b>



## CARPET MAINTENANCE PRODUCTS

### CARPET EXTRACTION & BONNET CLEANER

Part Number	Description
8370043- 55GL	A highly concentrated blend of solvents and low-foam cleaning agents designed to remove the toughest soil from all types of carpets and upholstery. Contains optical brighteners and odor counteractants. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>FIBRE-KLEEN</b>
8370044- 30GL	
8370045-3X5GL	
8370046- 5GL	
8370047-4X1GL	

### CARPET EXTRACTION CLEANER

Part Number	Description
8370243- 55GL	Highly concentrated for economic use. Safe to use on all types of carpets and upholstery. Low foam for ease of use. Removes toughest soils. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>X-TRAXALL</b>
8370244- 30GL	
8370245-3X5GL	
8370246- 5GL	

### WOOL SAFE CARPET EXTRACTION

Part Number	Description
8370253-55GL	Highly concentrated for economic use. Safe to use on all types of carpets and upholstery. Safe on imported wool. Low foam for ease of use. Removes toughest soils. Neutral pH. <b>Packaging: 55GL</b> <b>FIBER-SAFE</b>

### DRY FOAM CARPET SHAMPOO

Part Number	Description
8370013- 55GL	A powerful, concentrated, liquid carpet shampoo that cleans, deodorizes, brightens and prevents build-up of static electricity in carpets. LUSTRE-FOAM's formulation of wetting, cleaning and foaming agents produces a stable cleaning foam which will not soak into the carpet or rug that is being cleaned, and can be readily vacuumed. Contains residual soil-retarding agents that help prevent rapid resoiling of carpet after shampooing. Contains special optical brighteners to help restore original luster. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>LUSTRE FOAM</b>
8370014- 30GL	
8370015-3X5GL	
8370016- 5GL	
8370017-4X1GL	



## CARPET MAINTENANCE PRODUCTS



### BONNET CLEANER

Part Number	Description
8370063- 55GL	The ideal blend of concentrated solvents and fast drying low sudsing cleaning agents for bonnet cleaning of all carpet types. Allows the fast removal of surface soils in high-traffic areas with the benefit of being super-fast drying. Carpets can accept foot traffic almost immediately after cleaning. Dilute 6 to 8 oz per each gallon of water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>QUIK-KLEEN</b>
8370064- 30GL	
8370065- 3X5GL	
8370066- 5GL	
8370067-4X1GL	

### BIO-ENZYMATIC SPOT REMOVER AND ODOR DIGESTER

Part Number	Description
8170723- 55GL	Dissolves food-based spots caused by soda pop, chocolate and all other food based stains. Eliminates malodors caused by pets, body fluids, blood, Vomit, dampness and organic matter. Nonstaining on carpets and upholstery. Dilute 1 to 1 with water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4x1GL, 12QT</b> <b>DEVOUR</b>
8170724- 30GL	
8170725- 3X5GL	
8170726- 5GL	
8170727- 4X1GL	
8170728-12X1QT	

### SUPER CONCENTRATED DEFOAMER

Part Number	Description
8170673- 55GL	A fast-acting liquid defoamer that eliminates foaming caused by residues left in carpets. Quickly knocks down foam in recovery tanks. Add to the pick up tank at the rate of 2oz per gallon. <b>Packaging: 55GL, 5GL, 12 x 1QT</b> <b>KNOCK-DOWN</b>
8170676- 5GL	
8170678-12X1QT	



## ODOR CONTROL PRODUCTS

### HEAVY DUTY LIQUID DEODORANT

Part Number	Description
8380113 -55GL 8380114 -30GL 8380115- 3X5GL 8380116- 5GL 8380117- 4X1GL 8380118-12X1QT	Effectively halts all odors. Excellent for removing smoke odors, odors from dumpsters and waste containers, stale beer and vomit odors. Dilute 1 to 2 oz per gallon of water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL, 12QT</b> <b>DUSK TO DAWN</b>

### ODOR COUNTERACTANT

Part Number	Description
8380123- 55GL 8380124- 30GL 8380125- 3X5GL 8380126- 5GL 8380127- 4X1GL 8380128-12X1QT	A highly concentrated water-soluble odor counteractant, not a mask or cover-up. Eliminates odors associated with mustiness, fire/smoke, soiled linens, vomit, urine and many others by turning the treated surface into a continuously vaporizing wick. Surfactants enhance cleaning while the odor counteractants neutralize malodor molecules leaving a pleasant grapefruit scent. Dilute 1 to 2 oz per gallon of water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL, 12QT</b> <b>SAFARI</b>

### AIR FRESHENER BEADS

Part Number	Scent	Description
832007	Fresh 'n Clean	Air flow bags control odors in air circulating systems, garbage areas, vacuum cleaners, cars, trucks, buses and pet areas. Very effective against smoke odor. Safe and easy to handle. Used bags can be thrown in plastic recycle bin as everything in the package is environmentally friendly. <b>Packaging: 1 bucket of 24bags</b> <b>AIR-FLO BEADS SCENTS</b>
832077	Vanilla	
832078	Potpourri	
832079	Green Apple	
832080	Sea Breeze	

### WATER-SOLUBLE DEODORANT

Part Number	Description
8170623- 55GL 8170624- 30GL 8170625- 3X5GL 8170626- 5GL 8170627-12X1QT	Concentrated odor suppressor and deodorizer. Formulated to mask objectionable malodors in industrial, institutional, sewage treatment plants and other areas where malodors occur. It exhibits a potent cherry fragrance and yields low use concentrations. Effectively masks odors even at a dilution of 1:1000. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 12X1QT</b> <b>ODOR RX</b>

### LEMON SCENTED ABSORBENT POWDER

Part Number	Description
8170828-12X1QT 8170829- 6X1QT	Instantly absorbs any liquid mess and transforms it into a manageable gel. Economically absorbs 60 times its own weight so a little goes a long way. SUPER-SORB is effective on urine, blood, vomit and oil. <b>Packaging: 12X1QT, 6X1QT</b> <b>SUPER-SORB</b>



## ODOR CONTROL PRODUCTS

### Eco-Fresh

*The world's only air freshener dispenser that uses the fragranced cover of the dispenser as the air freshener refill. Instead of unlocking a dispenser, unloading the old refill, loading the new refill and replacing the cover, you just take off the old cover/refill and replace it with a fresh one!!!*

- Each cover is composed of a unique material containing twice as much fragrance as most other air fresheners which is released over 30 days.
- Eco-Fresh refills are 100% recyclable and VOC compliant. Manufactured with over 50% less energy than typical plastic or steel containers.
- Continuously freshens for 30 days so you don't have the peaks and valleys (or the spritzing showers!) of metered aerosols.
- Each refill comes with a battery, so simply replace the old cover with a fresh one - it's easy!

<u>Part Number</u>	<u>Fragrance</u>	<u>Contents per Case</u>
8380226	Herbal Mint	12 covers /batteries
8380236	Mango	12 covers /batteries
8380246	Spiced Apple	12 covers /batteries
8380276	Ocean Mist	12 covers /batteries
8380286	Starter Kit	1 Fan Unit / 6 covers & Batteries
8150986	Fan Unit	1 per box





## ODOR CONTROL PRODUCTS

### GRANULAR ODOR ABSORBENT

Part Number	Description
8170763- 325LB 8170764- 100LB 8170765- 50LB 8170767-12X2LB	A dry, chemically-treated granular product for destroying both inorganic and organic malodors. It works scientifically by absorption, chemical reactivity and oxidation. This formula effectively counteracts bad odors caused by putrefaction, decay, decomposition or odorous gases. Recommended highly for hotels, restaurants, breweries, canneries, packing plants, slaughterhouses, dog kennels, sewage plants, composts, garbage trucks, rendering plants, garbage cans, processing plants, and any place where undesirable odors occur. <b>Packaging: 325LB, 100LB, 50LB, 12 X 2LB</b> <b>RX GRANULES</b>

### NON-PARA SUPER FRAGRANCE BLOCKS

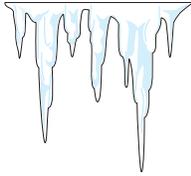
Part Number	Description
8320063	No added VOC's. Evaporates completely. Great deodorizer. Maximum deodoizing power, deodorant powerhouse for sewers, elevator shafts, dumpster areas, garbage collection areas, water treatment facilities, etc. <b>Packaging: 2 x 5LB per case</b> <b>NON-PARA SUPER FRAGRANCE BLOCKS</b>

### CHERRY BLAST- ENVIRONMENTAL ODOR CONTROL

Part Number	Description
8170633- 55GL 8170634- 30GL 8170635-3X5GL 8170636- 5GL	Cherry Blast is a water-based system designed to significantly reduce the perception of malodors. Formulated to counteract and mask objectionable malodors and effective in low levels of application. Ideal for use in garbage dumps, sewage treatment plants, landfills, composting sites, dumpsters, feed lots and rendering plants. <b>Packaging 55GL, 30GL,5GL</b> <b>CHERRY BLAST</b>

### RE-FRESH - UNSCENTED NATURAL ODOR ELIMINATOR

Part Number	Description
8380148 - 12 QTS	Re-Fresh is formulated from natural ingredients which include plant extracts it is a powerful natural odor eliminator that works by breaking down and neutralizing foul odors without alcohol or toxic chemicals. Safe organic compounds formed during the elimination of odors simply oxidize and evaporate, leaving behind a fresh, clean, natural scent. without perfumes or fragrances. ReFresh must contact the source of odors to eliminate them completely.



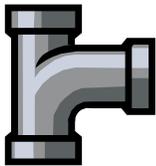
## SNOW & ICE PRODUCTS

### SNOW & ICE MELTER

Part Number	Description
8170223-20X50 8170224-10X50 8170225- 2X50	A naturally occurring material in pellet form that gives off heat as it dissolves. Penetrates snow and ice layers faster and at lower temperatures (-25° F) will not chemically attack concrete walkways. De-Ice does not leave a powdery white residue to track in on floors and Carpets. Packed in convenient 50 LB plastic lined fiber containers. <b>DE-ICE PELLETS</b>

### LIQUID ICE MELT & ROCK SALT ENHANCER

Part Number	Description
8160903- 55GL 8160904- 30GL 8160905-3X5GL 8160906- 5GL	CHEM-THAW is a powerful deicer that will react immediately with rock salt to create a salt brine, which will enhance the entire process of deicing pavements and roadways. It significantly increases the effectiveness of rock salt to temperatures up to -40°F. CHEM-THAW will reduce waste due to “bounce and scatter” when untreated salt is spread and it will extend the melting time of rock salt and prevent refreezing for several hours resulting in a substantial savings in use of rock salt and reducing labor costs by achieving bare pavement conditions with less deicer per road mile and fewer repeat spreading runs. CHEM-THAW will not harm concrete, vegetation or Asphalt when added to aggregates. Packaging: 55GL, 30GL, 15GL, 5GL <b>CHEM THAW</b>



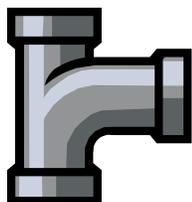
## DRAIN MAINTENANCE PRODUCTS

### NON-ACID DRAIN OPENER

Part Number	Description
8380398	Our new extra-strength drain opener blasts away the toughest clogs. Quickly dissolves grease, paper, rags, hair, soap, etc. Uniquely powerful 40% active formula works where others fail. Fresh lemon scent helps to cover up any odors that may result from product dissolving clogging matter. Harmless to plumbing and septic systems. <b>Packaging: 12 x 1 QT</b> <b>RAM EXTRA</b>

### DISOLV-KTSK

Part Number	Description
8140185	Alkaline mix that for all types of lines, fittings, septic tanks and sewers. It is designed for drains 4 inches and larger for drain clearing and maintenance. Dissolv-Kstk dissolves food particles, cloth, foliage, grease, oils, paper, roots and other organic obstructions. Nonflammable, Controlled Heat and Tracer Dye. <b>Packaging: 50LB</b> <b>DISOLV-KTSK</b>



## DRAIN MAINTENANCE PRODUCTS

### LIVE BACTERIAL ENZYMES

Part Number	Description
8170713- 55GL	Contains a balance blend of nonpathogenic aerobic and acultative Anaerobic, high-enzyme producing bacteria, plus stabilizing and suspending agents. OZYME 2 breaks down and liquifies suspended solids such as fats, proteins, carbohydrates, cellulose and greases that comprise the organic waste accumulations found in drains and sewer lines. <b>Packaging: 55GL,30GL, 15GL, 5GL, 4x1GL, 12 QT OZYME 2</b>
8170714- 30GL	
8170715- 3X5GL	
8170716- 5GL	
8170717- 4X1GL	
8170718-12X1QT	

### GRANULATED BACTERIAL ENZYMES

Part Number	Description
8170734- 100LB	Contains aerobic and anaerobic enzyme-producing bacteria to liquefy and digest sewage wastes and solids. Reduces offensive odor and will restore and revitalize septic tanks, cesspools, drain pipes, sewage systems and waste lagoons. USDA L-2. <b>Packaging: 100LB, 50LB, 50 x 1/2lb Solu Pak OZYME 3</b>
8170736- 50LB	
8170737-50X1/2LB	

### ONE SHOT Drain Opener with Odor Blanket

Part Number	Description
8170138	Contains 93% virgin sulfuric acid, with special solvent "odor control blanket" layer on top. Speedy bi-phase drain opener with special odor control blanket. Sulfuric acid based liquid blasts away clogs, while solvent layer stays on top, keeping odors down. Packed in pints for safer, one shot usage. <b>SURE SHOT - 48 QT PER CASE MINIMUM ORDER</b>

### ALL NATURAL GREASE TRAP SOLVENT

Part Number	Description
8170883- 55GL	Works in 1 to 50 dilution to dissolve grease and slime. Lifts up grease and floats it away keeping grease traps maintenance free. 100% active, no chlorinates or petroleum distillates. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4 x 1GL, 12PT CITRI SOLV</b>
8170884- 30GL	
8170885- 3X5GL	
8170886- 5GL	
8170887- 4X1GL	
8170888-12X1QT	

### LIFT STATION CLEANER

Part Number	Description
8140303- 55GL	Does not mix with water allowing it to float on the surface of wastewater contained in the lift station. It will rise and fall with the level of wastewater to keep walls, pumps, hoses, etc. clean and functioning properly. The special soybean oil derivative does not evaporate as other solvents do, so it remains on the surface of the wastewater longer to penetrate and dissolve wastewater deposits. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4 x 1GL POWER ORANGE LIFT STATION CLEANER</b>
8140304- 30GL	
8140305-3X5GL	
8140306- 5GL	
8140307-4X1GL	



## BATHROOM MAINTENANCE PRODUCTS

### GEL TYPE BOWL CLEANER-ACID

Part Number	Description
8320117	Removes organic encrustation, stubborn stains, lime, scale and corrosion films. Thickened acid cleaner designed to 'cling' to the surfaces makes this formula far superior to the watery types which run off and are wasted before stains are removed. <b>Packaging: 12x1QT</b> <b>NOCK OUT</b>

### GEL TYPE BOWL CLEANER-NONACID

Part Number	Description
8320206- 5GL 8320207- 4X1GL 8320208-12X1QT	A blend of high-performance alkaline detergents and penetrants designed to remove tough stains from grout, porcelain, stainless steel, ceramics, and other hard nonporous surfaces. Ideal for removing soap scum and light scale. Safe on marble. <b>Packaging: 5GL, 4x1GL, 12x1QT</b> <b>NOCK OUT-NA</b>

### TILE AND GROUT CLEANER

Part Number	Description
8170083- 55GL 8170084- 30GL 8170085- 3X5GL 8170086- 5GL 8170087-12X1QT	A unique blend of safe acids and cleaners restores luster and brightness to shower stalls, bathroom tile, grout, drinking fountains, glass, bathtubs, sinks, toilet bowls, urinals, quarry tile, chrome, brass, stainless steel, etc. Removes hard water stains, lime deposits, soap film, body oils, rust stains, Mildew, oxidation corrosion, etc. CHEM-QUICK is the total bathroom renovator and maintainer. USDA A-3. Dilute with up to 5 parts of water for regular use. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 12X1QT</b> <b>CHEM-QUICK</b>

### CONCENTRATED DEODORANT CLEANER

Part Number	Description
8170753- 55GL 8170754- 30GL 8170755- 3X5GL 8170756- 5GL 8170757-4X1GL	Cleans and deodorizes in one step, leaving a pleasant mint fragrance in treated areas. CHEM-MINT is ideal for use in schools, hotels, restaurants, offices, industrial buildings, nursing homes and public rest rooms. Dilute with up to 15 parts water. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>CHEM-MINT</b>

### NON-ACID TUB & TILE CLEANER

Part Number	Description
8320198	Alkaline detergents cling to vertical surfaces for more effective cleaning. Removes soap scum, body oils and hard water mineral buildups. Safe for all porcelain, fiberglass and bright work. <b>Packaging: 12x1QT</b> <b>TNT</b>



## BATHROOM MAINTENANCE PRODUCTS

### Eco-Fresh Urinal Screens with Enzymatic Deodorant Block

Part Number	Description	
8320066	<p><b>Eco Fresh® Urinal Screens with Enzymatic Blocks</b>                      Long lasting – up to 1,200 flushes. Prevents costly drain clogs – flexible screen traps more debris. Reduces splash back – patented non-splash design keeps liquids where they belong. Eco-friendly packaging – screen is recyclable and is not packaged in unnecessary plastic bags. Cleans with every flush – contains powerful surfactants and chelating agents. Eliminates odors – billions of select bacterial spores digest odors at their source. Lets you know it's cleaning – blues the water with every flush.</p> <p><b>Packaging: 1 Dozen</b></p>	

### MOLD ZAPPER

Part Number	Description	
8170788	<p>Designed to quickly remove mold and mildew stains on contact without scrubbing. Works instantly removing black mildew and green and yellow mold stains from all surfaces. Simply spray on and let dry, or rinse away when stains disappear. No dilution required, eliminating mess and waste. For use on bathroom tiles, grout, painted surfaces, brick, concrete, shower curtains, stalls, mats, awnings and vinyl canopies, auto and boat vinyl tops, tents, equipment, outdoor furniture, ceilings, walls and poolside areas. Areas of use include homes, offices, factories, sports and recreation facilities, pool service companies and hotels/motels. <b>Packaging: 12 QTS</b></p> <p><b>MOLD ZAPPER</b></p>	



## INDUSTRIAL ABSORBENTS

### ABSORBENT PADS

Part Number	Description
8170546	For maximum absorption at the fastest possible rate. Each pad absorbs up to 25 times its own weight. Meltblown weight. Meltblown 8 Polypropylene composition. <b>Packaging: 1 BALE = 100 pads (17"x19"x3/8")</b> <b>ABSORBENT PADS</b>

### INDUSTRIAL ABSORBENT FOR LIQUIDS

Part Number	Description
8170293	Contains, controls and picks up unwanted liquid spills, and removes sheen from floors, work surfaces, driveways, etc. It is made from 100% reclaimed cellulose fiber and absorbs liquids ranging from oil and solvents to water and non-aggressive chemicals on contact. Through capillary action, the absorbed liquid is locked into the cellulose fiber, preventing leaching and handling problems common with clay and diatomaceous earth (DE). Our cellulose fibers contain no respirable crystalline silica dust (a known cause of silicosis and a probably carcinogen) which is common with most mineral sorbents. Ideal for consumer, commercial and industrial users. SPILL-SORB is the preferred alternative to clay and diatomaceous earth! <b>Packaging: 25 x 20LB</b> <b>SPILL SORB</b>

### INDUSTRIAL ABSORBENT

Part Number	Description
8170284	A homogeneous material containing no sawdust to leave a dusty residue. It will soak up all kinds of liquids including oil, water, grease, coffee, paint... any spilled liquid that could cause dangerous slippery areas in plants, factories, warehouses, stores, schools... any area. Sponge-All absorbs 125% of its own weight of oil, grease, water, acid, etc. Recommended wherever greasy, oily floors are to be protected and cleaned. <b>Packaging: 100LB</b> <b>SPONGE ALL</b>



## TOTAL GREEN ECO-FRIENDLY CLEANERS

### CHEM GREEN

Part Number	Description
8140268	<p><b>CHEM GREEN</b> is a powerful yet safe multi-functional cleaner that combines the high cleaning performance of an acid with the mildness of liquid dish soap. <b>CHEM GREEN</b> removes Rust, Calcium (hard water scale), Soap Scum, Lime, Mold &amp; Mildew Stains, Grease, Beer Stone, Milk Stone, Scuff Marks, Stains, Soils and other discolorations from Stainless Steel, Copper, Brass, Aluminum, Concrete, Ceramic, Stone, Porcelain, Brick, Fiberglass, Grouting and many Fabrics. This product should not be used on Marble. Test on an inconspicuous area if uncertain.</p> <p><b>Packaging: 12 QTS</b> <b>CHEM GREEN</b></p>

### ECO-FRIENDLY DEGREASER

Part Number	Description
8400013- 55GL	Use as a safe alternative to hazardous petroleum-based degreasers and harsh alkaline cleaners. Powerful All Natural Cleaner. 100% Biodegradable. Total Green Eco-Friendly.
8400014- 30GL	
8400015-3X5GL	
8400016- 5GL	
<p><b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>CHEM-GON GREEN</b></p>	



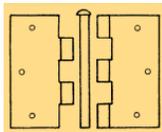
## MISCELLANEOUS GREEN ECO-FRIENDLY

### GERANIOL INSECT REPELLENT

Geraniol, a product that is patented by the University of Florida, has been proven to be the best flying insect repellent available. It is a natural, pesticide free product which requires no EPA registration and is environmentally safe. Geraniol has proven to be 100% more effective than products like Citronella and more effective than products containing 10% Deet. Geraniol has been proven effective in repelling mosquitoes, house flies, stable flies, horn flies, head lice, cockroaches, fire ants, gnats, dog ticks, star ticks and no-see-ums. Wristbands are an ideal way to dispense the Geraniol insect repellent vapors for outdoor activities such as landscaping, lawn work, road work, or many other activities.

Part Number	Description	
8160606	Wristband has an active life of up to 120 hours which can be preserved if it is stored between uses. Won't rinse off with water or perspiration like other repellents. Vapors from the wristband form a protective shield around the immediate area, keeping blood sucking insects a safe distance away. Designed with a patented "break away" strap that snaps if the band is entangled and pulls on the persons arm. Packaged in an innovative reusable plastic "pot" which can be used to store the wristband between uses. Band can also be worn on belt loops, hatbands, or applied to other areas where insects could be a problem. Recyclable - simply dispose of the band and the pot with your plastic recyclable containers. <b>Packaging: Bucket of 12 Bands BUG BANDS</b>	
8160607	A naturally effective insect repellent 1-3/4" button that you pin on clothing or a hat that will repel mosquitoes, gnats, bees, and other flying pests. Once opened, it is effective for up to 175 hours (place in plastic bag when not in use to prolong its life). Great for all outdoor activities. Active ingredients are lemongrass, geraniol, and citronella oils. <b>Package of 12 BUG BUTTONS</b>	
8160608	The convenient Foil 2-Pak travels anywhere with you taking up very little space. The BugBand towelette is a very handy, easy-to-use method of applying Geraniol insect repellent. Easy to use, safe and effective, the towelettes allow for exact application of Geraniol lotion on exposed skin. They're ideal for using around your face or neck without worrying about over-applying. The towelettes can be folded and stored in the foil container for future use. <b>Box of 50 wipes. BUG WIPES</b>	

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## LUBRICANTS

### NON-MELT GREASE

Part Number	Description
8120203-120LB 8120204-35#LB 8120206-50/CS 8120207-10/CS	Lithium all-purpose, nonmelt grease specially formulated with extreme pressure and anti-wear additives to provide heavy duty service. This product has excellent adhesive and cohesive properties. It resists most acids, weather, dirt, salt spray, steam and oxidation. It is one of the very few greases that is able to withstand heavy shock load and impact pressures of 65 Timken load capabilities. USDA H-2. NLGI Grade 2. <b>Packaging: 120LB, 40LB, 50TB, 10TB,</b>  <b>ROYAL NOVA</b>

### MULTI PURPOSE BARIUM GREASE

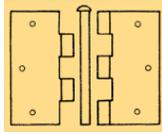
Part Number	Description
8120074-120LB 8120076-50/CS 8120077-10/CS	Possesses excellent water and heat resistance and is specially compounded to remain stable in severe working conditions. Its unusual tenacity makes it highly effective as a corrosion preventative, and tests indicate its superior quality as a bearing lubricant. Its multi-purpose feature makes it the most outstanding fibrous lubricant available. It "stays put", cushions shock loads, and does not "thin" under tough operation conditions. It binds to metal surfaces to provide continuous lubrication and protection and through its cohesive action, strings out into long fibers of grease that pass from gear to gear, continuously renewing the lubrication action and resisting "squeeze out" or bleed on open gear drives. <b>Packaging: 120LB, 50LB, 10LB.</b> <b>BARIUM HI-TEMP</b>

### WHITE LITHIUM GREASE

Part Number	Description
8120054-120LB 8120055- 45LB 8120056-48/CS 8120057-10/CS	A clean, pure, white grease for food equipment and machinery lubrication in meat and poultry processing plants, canneries, citrus houses, bakeries, dairies, bottling plants, kitchens . . . anywhere a clean and non-toxic grease is needed. In addition to its excellent lubricating properties, this food-grade grease contains an anti-wear agent to prevent friction destruction of metallic surfaces, as well as oxidation inhibitors to prevent the formation of corrosive or contaminating materials. Resists water, and will not run off under the wettest conditions. <b>Packaging: 120LB, 45LB, 48 tubes, 12 tubes</b> <b>WHITE GUARD</b>

### ALUMINUM COMPLEX GREASE

Part Number	Description
8120064-120LB 8120065- 45LB 8120066-48/CS 8120067-12/CS	Developed to satisfy the most exacting industrial and automotive applications.. . particularly in the area of heat and extreme pressure requirements. Excellent for sleeve bearings, ball joints, and gear drives, and is an outstanding universal joint grease. As a fifth-wheel grease, it withstands high pressures and shock loads, and is resistant to water washout, and guarantees continuous protection against all weather conditions. For use in high-temperature industrial applications, such as chain drives, sleeve bearings, conveyor bearings, etc. <b>Packaging: 120LB, 45LB, 48 Tubes, 12 Tubes</b> <b>MULTI LUBE</b>



## LUBRICANTS

### MOLY-LITH MULTI PURPOSE GREASE

Part Number	Description
8120044-120LB 8120045- 45LB 8120046-48/CS 8120047-12/CS	P Moly Lubricant is formulated to replace almost all single-purpose greases. It contains molybdenum di-sulfide in a lithium base, and is effective in cold and heat conditions up to 250° F. It increases performance and extends equipment life under most conditions. Gives outstanding low-friction performance and exceptional chemical and mechanical stability under high loadings, shock and vibration. Withstands extreme pressures and temperatures. Clings to metal and does not run off. REGAL PLP is an outstanding all-weather lubricant for both indoor and outdoor use. Use in plain and anti-friction bearings, universal joints, sleeve bearings, slides, water pumps, drive shafts, splines, grease cups, chains, conveyors, chassis, etc. <b>Packaging: 120LB, 35LB, 48 tubes, 12 tubes</b> <b>REGAL PLP</b>

### SILICONE LUBRICANT

Part Number	Description
8170013- 55GL 8170014- 30GL 8170015-3X5GL 8170016- 5GL	Stops sticking of drawers, windows, doors and locks. Eliminates annoying squeaks in hinges, latches, springs, etc. Stops car doors, locks and trunk moldings from sticking. Retards corrosion—protects battery terminals, tools, guns and doors, etc. Waterproofs ignition systems and spark plugs. Helps prevent grass, dirt and mud from sticking to lawn mowers. Use on any surface—metal, glass, rubber plastic, painted finishes and fabrics. <b>Packaging: 55GL, 30GL, 15GL, 5GL</b> <b>SLIKIT</b>

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### PENETRATING OIL & RUST RELEASE AGENT

Part Number	Description
8130133- 55GL 8130134- 30GL 8130135-3X5GL 8130136- 5GL 8130137-4X1GL	A unique formulation that substantially reduces surface tension, permitting rapid, deep penetration of rusted or corroded parts. Penetrates, frees and cleans rusted parts. Loosens rusted nuts, bolts and studs commonly found on mufflers, tailpipe fittings, brake cables, lock mechanisms, speedometers, conveyors and wheels. Provides a residual oil film for lubrication and protection against corrosion. Also used as a cutting oil for pipe threading, etc. <b>Packaging: 55GL, 30GL, 15GL, 5GL, 4X1GL</b> <b>UN-LOX</b>



## HERBICIDES

### HERBICIDE CONCENTRATE

Part Number	Description
	<p>A highly concentrated, non-selective herbicide that kills all types of broadleaf and grass weeds. It will kill the entire plant-root, stems and leaves- but only when it is absorbed by the foliage. It deactivates on contact with the soil and will not leach through the soil to damage desirable plants.</p> <p><b>Packaging: 55GL, 35GL, 30GL, 20GL, 6x1GL, 4X1GL</b>  <b>ZAP-IT ULTIMATE</b></p>

### NON-SELECTIVE WEED KILLER

Part Number	Description
<p>8163183- 55GL                      8163184- 30GL                      8163186- 5GL                      8163187- 4X1GL</p>	<p>Banish is a water-based, non-selective, total kill herbicide with residual control. It is strong enough to eliminate hard-to-kill weeds. For use in areas where you would want a non-selective herbicide with year-long residual control: non cropland areas, railroad rights-of-way, fence rows, around buildings, loading ramps, storage yards, industrial sites, parking lots, tank farms and more.</p> <p><b>Packaging: 55GL, 30GL, 5GL, 4X1GL</b>  <b>BANISH</b></p>

### AQUATIC WEED KILLER

Part Number	Description
	<p>DUAL-PURPOSE AQUATIC AND TERRESTRIAL HERBICIDE. A versatile, non-selective herbicide used to kill terrestrial and aquatic weeds in non-crop areas, as well as ponds, lakes and drainage ditches. It offers no residual action, is water dilutable and is only effective when absorbed by foliage- it becomes inactive upon contact with soil.</p> <p><b>Packaging: 55GL, 35GL, 30GL, 20GL, 6GL, 5GL, 6X1GL, 4X1GL</b>  <b>ELIMINATOR</b></p>



## HAND CLEANERS

### HEAVY DUTY MECHANICS HAND CLEANER BAG-IN-BOTTLE HAND SOAPS

- Space saving large capacity
- Ultimate view window created by the bag-in-bottle design
- Durable construction
- Simple loading.

Part Number	Description	Contents	
8320615	Gritty Regal	4-2000 ml	
8320625	Gritty Orange	4-2000 ml	
8320635	Gritty Green	4-2000 ml	
8320488	Antibacterial Soap with .3% Triclosan	4-2000 ml	
8320508	Instant Hand Sanitizer	4-2000 ml	
8320498	Pink Lotion Skin Cleaner	4-2000 ml	
8140447	Assorted	4-2000 ml & 1 Dispenser	
8150777	2000 ml Wall Mount Dispenser	1	

### INSTANT HAND SANITIZER

Part Number	Size	Description
8320508	12 x 800ml	Crystal-clear, ethyl alcohol-based gel that kills 99.9% of eight important organisms in less than 15 seconds! May be used when water is unavailable. Nondrying to the skin; odorless. Helps employers comply with OSHA's Bloodborne Pathogens Standard. USDA E4-listed. <b>SANTI-GEL</b>

### EZ FOAM HAND SANITIZER- NO ALCOHOL

Part Number	Description	
8320656	A foaming hand sanitizer with .2% Benzethonium Chloride. Kills 99.9% of many important organisms including MRSA VRE E coli Pseudomonas aeruginosa Yeasts and Fungi. Use without water to decrease bacteria on the skin. Apply a small amount to palm briskly rub covering hands with product until dry 50ML/1.7 fl. oz. Pump Style <b>Packaging: Case of 24</b>	



## HAND CLEANERS

### LOTION SKIN CLEANER

Part Number	Size	Description
8320498	12 x 800ml	A blend of natural soaps and synthetic cleaning agents to maximize cleaning with luxurious suds. Contains emollients to leave skin soft and smooth. Formulated for medium to heavy soil removal to be used in a wide range of applications. Pleasant scent encourages frequent use. Pearlized appearance is aesthetically pleasing. <b>CREEMEE PINK</b>



### ORANGE TOUCH

Part Number	Size	Description
8320425	4 x 1GL	Orange Touch offers gentle yet effective cleaning in a lotionized waterless cleanser without scrubbers. The formula is d-Limonene based with a natural citrus-based solvent. This cleanser contains skin conditioners to keep your skin from getting dry. Use with or without water. Wall Bracket #8150977 Plunge Pump #8150966

### POWDERED HAND CLEANER

Part Number	Description
8140343- 325LB 8140344- 125LB	Recommended for municipal garages, factories, appliance repair shops, printers, auto repair shops, sewage plants, painters, transmission shops and more. <b>Packaging: 325LB, 125LB</b> <b>PALMS UP</b>

### MULTI-FUNCTION WIPES

- Premoistened citrus cleaner towels. Industrial strength. Safe for skin
- Cuts through tar, grease, wax, ink, lubricants and adhesives
- Ideal for maintenance, plumbing, transportation, printing, manufacturing, construction and industrial applications.

Part Number	Size	
8140907	20-count, 9.5" x 12", 6 canisters per case	
8140908	20-count, 9.5" x 12",	



## HAND CLEANERS

### TURBO SCRUB HAND SOAP

- All natural ingredients
- Concentrated. Use half as much soap and get twice the results
- Contains biodegradable walnut shells scrubbers
- Deep cleans tough soils like grease, paint and glue
- Non-solvent formula with skin conditioner leaves hands feeling great
- No drying or cracking revitalizes dry skin
- Washes away leaving no greasy residue

Part Number	Description	
8320675	<b>TURBO SCRUB</b> 18oz personal size <b>Packaging 1 Dozen</b>	
8320645	<b>TURBO SCRUB</b> <b>Packaging: 4 x 3.35 liter per case</b>	
8150749	<b>TURBO SCRUB</b> 3.35 liter Wall Mount Dispenser	

### WASH-N-WIPE LIME GREEN WATERLESS HAND CLEANER

- Use half the soap get twice the results
- Super Thick Concentrate. Removes Stubborn Grease and Oil.
- Contains Superior Emollients to Reduce Drying and Cracking.
- Low Solvent Formula Leaves Hands Feeling Conditioned.
- **Packaging: 1 Dozen 18oz.**
- **Part Number: 8320751**



## FUEL ADDITIVES

### DIESEL CLEAN

Part Number	Description
8130506 - 5 GL 8130508-4x1GL	This product is a multifunctional premium diesel package and is recommended for use in both high and low sulfur diesel fuels. It has been formulated to provide fuel detergency. Reducing deposit buildup promotes fuel system cleanliness which increases engine power and extends engine life. Specifically formulated to provide cetane enhancement. Cetane is a measure of ignition quality of a diesel fuel. Higher cetane fuels provide easier starts, less engine noise and faster warm-ups. In addition, higher cetane fuels reduce exhaust smoke and emissions. Provides lubricity protection against color degradation and sludge formation. <b>Packaging: 5GL, 4 x 1GL</b> <b>DIESEL CLEAN</b>

### DIESEL FUEL ANTI-GEL

Part Number	Description
8130516- 4X1 GL	Concentrated anti-gel additive keeps all types of fuel and diesel oils flowing in cold weather. By interfering with the formulation of wax crystals in the fuel, the pour point of the fuel can be reduced by as much as 25°F. Fuel flows easily through lines and filters without the need for tank heaters. Stabilizes fuel. <b>Packaging: 4 x 1GL</b> <b>DIESEL FUEL ANTI-GEL</b>

### FUEL AID PLUS

Part Number	Description
8130526- 5GL	This premium additive helps all types of engines run clean and more efficiently. Special detergents remove deposits and clogs from fuel injection systems for better acceleration, no stall, stumble, or run-on. Dispersant and corrosion inhibitor additives clean gums, varnish, and corrosion deposits from fuel tank., delivery system and carburetors - and protects from further corrosion. It extends engine life by eliminating intake valve deposits, and lubricating upper cylinders under cold start conditions. Reduces emissions. Good water removal. <b>Packaging: 5GL</b> <b>FUEL AID PLUS</b>



# SPRAYERS & DISPENSERS

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# SPRAYERS & DISPENSERS



## Kleen Air Automatic Metered Aerosol Dispenser

Part Number	Description
8150997	<ul style="list-style-type: none"> <li>• Provides accurate and reliable dispensing of metered aerosols</li> <li>• Features include a wide range of enhancements not available elsewhere</li> <li>• Side hinged door provides easy access for can or battery changes</li> <li>• Programmable interval settings 7.5/15/30 minutes</li> <li>• Exterior on/off switch</li> <li>• "Empty Can" warning light illuminates at 3000 sprays before can is empty at 3400</li> <li>• "Battery Low" warning light illuminates before the end of the usable battery life</li> <li>• Lockable for theft and vandalism deterrence</li> </ul>




## Kleen -N- Fresh Scents

- Dispenses millions of tiny odor killing droplets into the air with each metered spray
- Not just another odor mask
- Each can delivers 3400 sprays

Part Number	Choice of Scents
0190116	Orchard Spice
0190806	Fresh Linen
0190556	Vanilla Delight
0190366	Fresh & New-Green Apple
0190566	Lemon Ice
0190736	Spring Rain

## Kleen -N- Fresh Start Up Kit

Part Number	Includes
8140999	1 Kleen Air Dispenser 6 Cans of Kleen -N- Fresh

## Sure Shot Sprayers

- Heavy duty steel construction, built to last, nothing to break
- Interchangeable spray nozzles. Choose jet stream or mist spray.
- Little or no chance of flame or explosion from butane or propane based propellents. Pressurized by free air.
- Refillable, reusable, not a throwaway. Buy products in bulk and make your own aerosols the money saving common sense way at up to 1/8 the cost of ready mades.



Part Number	Description
8150110	1 Quart Capacity
8150043	16 Oz Capacity

**Many aerosols contain as little as 65% product.  
Cans, labels, propellant and filling add up to  
as much as 80% of the cost of a 16 oz. can**

## Special Offer

**Receive 1 Sure Shot dispenser free with 5 gallons of:**

Promo Number	Contains
8990001	5 Gallons CITRISOLV / Sure Shot
8990002	5 Gallons KLEENZ / Sure Shot
8990003	5 Gallons UNLOX / Sure Shot

## Mixing Station

- Quickly blends the desired mixture of your chemical concentrate and water, with just the push of a button.
- No need to ever mix by hand again.
- No electrical connection required.
- Each mixing valve has 9 color coded, threaded flow tips to provide positive mix ratios, accurately and consistently without chemical waste.
- Comes assembled with a 4 g.p.m. Venturi tube. An optional, field changeable, 1 g.p.m. Venturi tube is also shipped with each Mixing Station for maximum flexibility and minimum inventory.
- Available in 1, 2, 3 and 4 product stations
- Up to 18 mix ratios per product valve
- Built in back flow prevention
- Rugged, streamlined all stainless steel case
- Choice of color push buttons: red, blue, green, yellow and white
- Optional lock down button
- Tested and approved in conformance with ASSE standard 1011 & CSA B664.2



Promo Number	Description
8150001	1 Product Station
8150003	3 Product Station



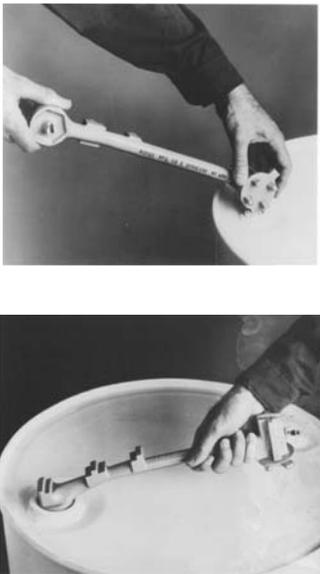
## Drum Pump

- Can be assembled and attached to drum in seconds
- Fits any 15, 30 or 55 gallon drum with either 3/4" or 2" openings
- Extension tubing and clamps are supplied with the pump

Part Number	Description	
8150024	Drum Pump	

## Bung Wrench

- New design works with most surfaces and shapes to fit virtually all drum plugs.
- Works with steel, fibre or plastic drums.
- Solid ductile iron one piece construction for durability.
- Generous size for extra leverage and hand clearance.

Part Number	Description	
8150724	Drum Plug Wrench	

# SPRAYERS & DISPENSERS



## Parts Washer

Filter Features:

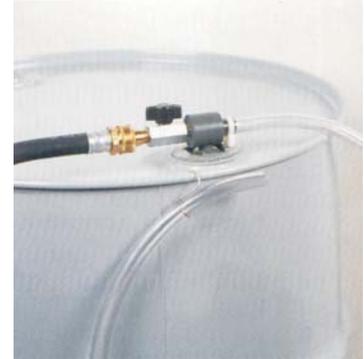
- Extruded aluminum casing and center tube
- Machined aluminum filter retaining nut
- Cast aluminum cap and base assemblies
- Replaceable 2 micron filter element
- Non-swelling fiberglass element (Comparable units use paper elements that tend to swell in water based solvents.)

Part Number	Description	
8150730	Parts Washer	

## Drum Mounted Liquid Proportioners

- Mixes any liquid product with water in desired proportion.
- Draws from any drum with a 2" bung.
- Delivery rate of diluted product is up to 5-1/2 gpm with a 40 psi water supply. Metering screw for easy adjustment of proportion desired.
- Constructed of PVC and stainless steel with a brass water shut-off valve. Outlet tube can be hooked over rim of drum when not in use to prevent dripping on the floor.

Maximum Proportions	
Product Viscosity Centipoise	Fluid Ounces Per Gallon Of Water
1 (water)	23
75 (SAE 10 oil)	13
220 (SAE 30 oil)	6

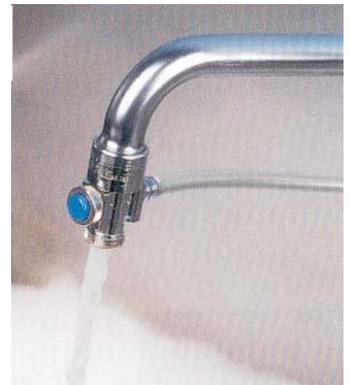


Part Number	Description
8150720	Drum Mounted Liquid Proportioner

## Faucet Mounted Liquid Proportioners

- Mixes any liquid product with water in desired proportion.
- Water capacity: 4 gpm at 30 psi
- Draws from container of any size.
- Will lift up to 25' ct reduced proportion
- Supplied with 8' suction tubing, foot valve and container protector disk.

Part Number	Description
8150037	Faucet Mounted Liquid Proportioner



## Pump Hose

Part Number	Description
8150025	<ul style="list-style-type: none"> <li>• Clear vinyl hose</li> <li>• 1/2" x 8'</li> <li>• Garden hose connection with curved nozzle</li> </ul>



# SPRAYERS & DISPENSERS



## Spray Foamer

- Accurately mixes and sprays foaming chemicals
- Foam generating wand creates a thick, clinging foam
- Detach handle for a powerful spray rinse
- Easy to fill wide mouth, chemical resistant polyethylene quart bottle

Part Number	Description
8150260	Spray Foamer - Quart



## Wash Gun Heavy Duty Sprayer

- Accurately mixes cleaners or sanitizers with water as you spray
- Exclusive rinse lever switches to rinse instantly
- All brass mixing head, metering stem and internal parts for long, trouble free operation

Part Number	Description
8150018	Wash Gun



## Compression Tank Sprayer

- Translucent tanks and poly wands with adjustable tips
- Locking "D" type pump/carry handle

Part Number	Description
8150012	3 Gallon Compression Sprayer
8150015	1.5 Gallon Compression Sprayer



## Acid Cleaning Gun

- Specially designed for cleaning aluminum trailers.
- Special metering disc provides four acid strength settings: 3:1, 4:1, 5:1 & 6:1.
- Patented plunger valve permits head to be quickly changed from acid spraying to water rinsing.
- Economical and effective for all types of acid and detergent cleaning.
- No hazardous pre-mixing of acids and water; mixing is performed in the mixing head as the acid is drawn from the container.
- Precision tooled all brass valve assembly, leakproof construction.
- Tooled brass mixing head and control device.
- Chrome-plated pistol grip water control nozzle with adjustable spray deflector.
- Works effectively with water pressure of 40 lbs. Or more; sprays up to 15 feet high
- Full 1 quart (32 oz.) polyethylene bottle attached.
- Also available with 3 ft. Rubber syphon hose and 1 gallon polyethylene jug and shoulder strap.



Part Number	Description	
8150160	Acid Cleaning Gun	
8150161	1 Gallon Polyethylene Jug with Shoulder Strap	

## Acid Cleaning Wand

- Engineered for hi-pressure cleaning of aluminum trailers
- Precision tooled all brass, dual barrel spray head
- 2 ft. or 4 ft. (8 ft. Also available) permits operator to reach and clean those high and difficult areas effectively.
- Positive metering to immediately increase or decrease strength of acid.
- Patented plunger valve permits head to be quickly changed from acid spraying to water rinse.
- Requires no pre-mixing of acid. Only water passes through the pump, greatly extending pump life (Other sprayers require pre-mixing of acid which passes through the pump and soon causes trouble)
- For use with 300 (min) to 600 psi high pressure pumps having at least 2 gallons per minute capacity.
- Includes 6' rubber syphon hose (will not rot or harden)

Part Number	Description	
8150017	Acid Cleaning Wand	

# SPRAYERS & DISPENSERS



## Chemical Feed Pump

- A compact, diaphragm-type injector pump
- Equipped with a 115v/60 hz motor and 3/8" o.d. Connections
- Max feed rate of 2.4 gph
- Polypropylene cartridge style pump head, teflon coated ethylene propylene diaphragm & Viton o-ring seals

Part Number	Description	
8150150	Chemical Feed Pump	

## Knight Watch

A microprocessor based chemical dispensing system for grease traps, drains and odor control. This easy to use system stores up to 20 dispensing events per day, programmable by day, minutes or seconds. With an addition of the misting kit, becomes an advanced chemical spray system designed to spray deodorizing or sanitizing mist in a variety of applications such as trash compactors, roll-away garbage bins and other trash depositories.

- Microprocessor based controls
- High impact thermoplastic, watertight case
- LCD display
- Self priming
- Wall or shelf mounting
- Non-volatile program memory
- 115 volt transformer or 6 volt batteries



Part Number	Description	
8150005	Knight Watch	

## Hi-Pressure Lever Type Grease Gun

Part Number	Description	
8150010	<ul style="list-style-type: none"> <li>• Size-O-matic plunger - automatically sizes itself for any use</li> <li>• Hi-tension spring for multiple duty</li> <li>• EZ vent cap relieves airlock by unscrewing gun barrel one half turn</li> <li>• Automatic handle stop prevents damage of binding piston</li> </ul>	

## Hand Lever Grease Gun

Part Number	Description	
8150014	<ul style="list-style-type: none"> <li>• Easy one-handed greasing</li> <li>• Loads 3 ways</li> <li>• 5,000 psi or more</li> <li>• Equipped with EZ vent valve features</li> </ul>	

## Grease Gun Hose

Part Number	Description	
8150027	Grease Gun Replacement Hose	

## Air Operated Grease Gun

Part Number	Description	
8150036	<ul style="list-style-type: none"> <li>• Delivers 1500-9000 psi each time the trigger is squeezed</li> <li>• Easy 3 way loading; by standard 14 oz. cartridge, bulk loader fitting on head cap or suction filled</li> <li>• Rugged steel and die cast zinc construction</li> <li>• Comes complete with flexible 18" grease whip hose and standard grease coupler</li> </ul>	

# SPRAYERS & DISPENSERS



## Chassis Pump Lubricator

- 40:1 ratio
- 6 foot hose swivel
- Control valve
- Air coupler
- Drum cover and dolly

Part Number	Description	
8150101	Gear Pump	
8150100	Chassis Pump	

## Bag-In-Bottle Dispenser

- Space saving large capacity; greater capacity means fewer change outs
- Ultimate view window created by the unique bag-in-bottle design; soap level is easily inspected without spending time opening cabinets
- Sealed bag of hand cleaner is “suspended” inside the bottle, improving soap evacuation and reducing waste
- Durable construction and completely waterproof
- Simple loading saves time

Part Number	Description	
8150777	Bag-in-Bottle Dispenser	

## Wall Bracket

Part Number	Description	
8150967	Wall Bracket for One Gallon Jugs	

## Soap Dispenser

Part Number	Description	
8150051	Soap Dispenser for One Gallon Jugs	

# SPRAYERS & DISPENSERS



## Lever Soap Dispenser

- 85 oz. Capacity
- Large opening for quick filling
- Can be used with lotion and liquid soap products
- See-thru tank for easy viewing

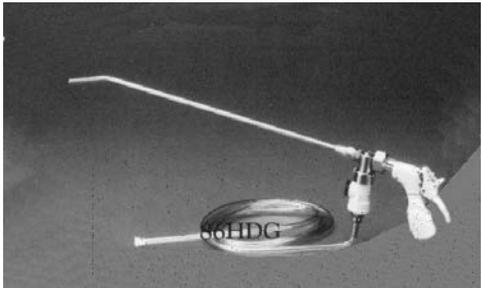
Part Number	Description	
8150050	Lever Soap Dispenser	

## Degreaser Gun

Part Number	Description	
8150200	Degreaser Gun	

## Grime Blaster Degreasing and Cleaning Gun

- Unique dual function gun applies degreasing cleaners plus pressure washes surfaces with a powerful air/water blast
- 18" stainless steel wand
- 1/4" NPT inlet in insulated handle
- Use 4 cfm at 70 PSI from minimum 1 hp compressor

Part Number	Description	
8150019	Degreasing Gun	

## Foamer Trigger Sprayer

Part Number	Description	
8150097	Foamer Trigger Sprayer	

## Pint Bottle Sprayer

Part Number	Description	
8150022	Pint Bottle Sprayer	
8150090	Pint Spray Head	

## Quart Bottle Sprayer

Part Number	Description	
8150021	Quart Bottle Sprayer	
8150095	Quart Spray Head	

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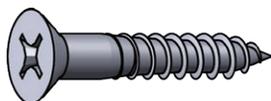
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Weather Pack	4-17	Flat-SAE Grade 8	2-4		
Terminals, Insulated		Flat-USS Grade 8	2-1		
Blue 16-14 ga	4-3				
Flag	4-7				
Hook	4-6				
Multi-stack	4-7				

# Fastener Basics

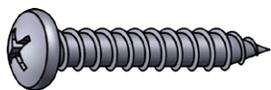
## Common Fastener Types



**Hex bolts**, or hex cap screws, are used in machinery and construction. Can be used with a nut, or in a tapped hole. Fully threaded hex bolts are also known as tap bolts.



**Wood screws** have large threads and a smooth shank for pulling two pieces of material together. They can be used in wood and other soft materials.



**Sheet metal screws** have sharp points and threads, and are designed to be driven directly into sheet metal. They can also be used in softer materials like plastic, fiberglass, or wood.



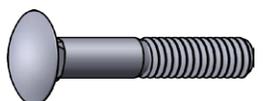
**Machine screws** are fully threaded for use with a nut or in a tapped hole. Certain types are sometimes referred to as stove bolts.



**Socket screws** are machine screws with an internal hex socket (Allen) drive. Longer lengths may have a smooth shank.



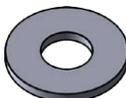
**Lag bolts**, or lag screws, are large wood screws with hex heads. Typically used for wood construction.



**Carriage bolts** have smooth, domed heads with a square section underneath that pulls into the material to prevent spinning during installation.



**Nuts** are used to fasten machine threaded fasteners in through-hole applications. Lock nuts help prevent loosening.



**Washers** spread the load over a greater surface area when tightening a bolt, screw or nut. Lock washers help prevent loosening.

## Grade/Class & Fastener Strength

### US bolt head markings



Low Carbon



Grade 5



Grade 8

### Metric bolt head markings



Class 8.8



Class 10.9



Class 12.9

**Note:** In addition to these markings, the head will often have a manufacturer stamp.

## Fastener Materials

**Note:** Do not rely on this guide for color-matching. The appearance of these materials sometimes differs significantly from the photos below.

**Zinc-plated steel** is a low carbon steel for general use. Relatively inexpensive, with the zinc plating providing moderate corrosion resistance suitable for indoors or otherwise dry conditions. Color is either a blue-ish tint or yellow depending on the exact process.



**Hot-dipped galvanized steel** has a thicker zinc coating for better corrosion resistance, making it suitable for outdoor use. Because of the thick plating, only galvanized nuts and washers will fit galvanized bolts. The coating typically has a rough, dull grey finish.



**Stainless steel** offers good corrosion resistance, making it suitable for outdoor use and marine applications, but is more expensive than zinc plated.



**Chrome and nickel plated steel** are smooth and polished for appearance. The plating offers moderate corrosion resistance.



**Brass and bronze** are copper alloys with good corrosion resistance. More expensive than steel, these materials are typically used for decorative applications. Colors can vary significantly.



**Alloy steel** is highly hardened and usually black oxide and/or oil coated, offering little corrosion resistance.



# How Fasteners are Notated: An Example



Machine screws, Phillips pan head, Stainless steel 18-8, #12-24 x 1"

Fastener type

Material

Diameter

Length

Thread Count (TPI)

## Drive Types



Phillips Slotted

**Phillips and Slotted** drives are common in screws, but prone to cam-out (stripping).



Combo

**Combo** drives, that can be used with either driver, are available for many fastener types.



Frearson Pozidriv

**Frearson and Pozidriv** are similar to Phillips, but less prone to cam-out.



Hex socket (Allen)

**Hex socket (Allen)** drives are compact and easy to drive, but prone to cam-out.



Star Square (Robertson)

**Star and Square** drive are resistant to cam-out and can be installed single-handed.

**Note:** Most drive types (Frearson and Slotted being notable exceptions) require the correct driver size for proper installation.

## Head Styles



**Hex heads** are typically used with larger bolts and screws, and tightened with a wrench.



**Pan heads** have a slightly domed head that sits above the surface.



**Flat heads** are installed in a countersunk hole for a flat surface.



**Round heads** are tall domed heads, used primarily for decorative purposes.



**Oval heads** are a low domed and countersunk heads, used primarily for decorative purposes.



**Truss heads** are slightly domed, with a wide head for an extra large surface area.



**Socket heads** are narrow with a socket drive, and knurled or smooth sides.



**Button heads** feature a medium dome. Typically used with a hex socket drive.

## Measuring Diameter



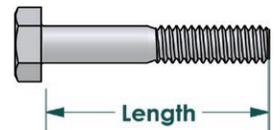
## Thread Count & Thread Pitch

Machine threaded fasteners specify a thread density in **Threads Per Inch** (US) or as a **Thread Pitch** in mm (Metric).

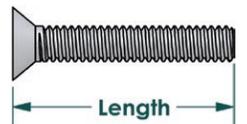
For a given diameter, a fastener may be available in **coarse** (standard), **fine** and sometimes **super fine** thread.

## Measuring Length

Fastener length is usually measured from where the material is assumed to be to the end of the fastener.



Thus, countersunk fasteners are measured overall and non-countersunk fasteners are measured from under the head.



## Nut & Washer Sizes

Nut and washer sizes indicate **the screw or bolt they fit**. For example:



3/8"-16 Hex Bolt



3/8" Washer



3/8" -16 Nut

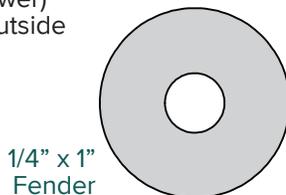
Different washer patterns have different **outside diameters**. For example, hardened US washers are available in **USS** (wider) and **SAE** (narrower) patterns. Fender washers have large outside diameters.



1/4" SAE



1/4" USS

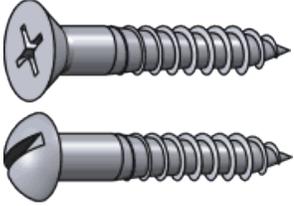


1/4" x 1" Fender



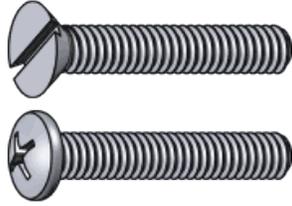
# Fastener Type Chart

## Fastener Categories



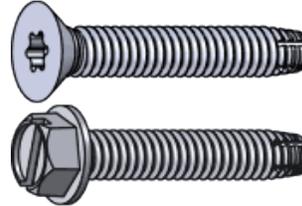
### Wood Screws

Screws with a smooth shank and tapered point for use in wood. Abbreviated WS.



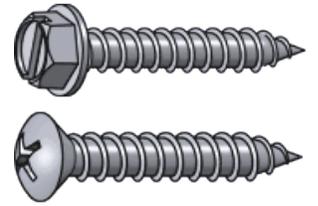
### Machine Screws

Screws with threads for use with a nut or tapped hole. Abbreviated MS.



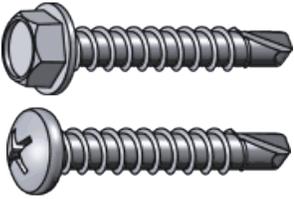
### Thread Cutting Machine Screws

Machine screws with a thread cutting (self tapping) point.



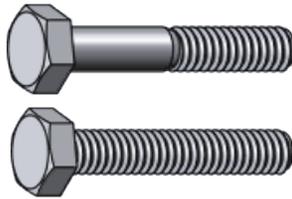
### Sheet Metal Screws

Fully threaded screws with a point for use in sheet metal. Abbreviated SMS.



### Self Drilling SMS

A sheet metal screw with a self drilling point.



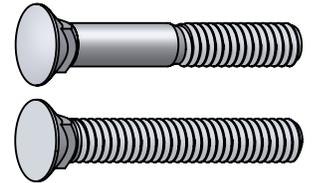
### Hex Bolts

Bolts with a hexagonal head with threads for use with a nut or tapped hole. Abbreviated HHMB or HXBT.



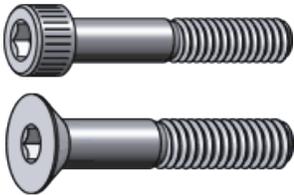
### Carriage Bolts

Bolts with a smooth rounded head that has a small square section underneath.



### Plow Bolts

Similar to carriage bolts but used for attaching the cutting edge of a plow to the plow blade.



### Socket Screws

Socket screws, also known as Allen Head, are fastened with a hex Allen wrench.



### Lag Bolts

Bolts with a wood thread and pointed tip. Abbreviated Lag.



### Eye Bolts

A bolt with a circular ring on the head end. Used for attaching a rope or chain.



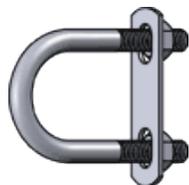
### Eye Lags

Similar to an eye bolt but with wood threads instead of machine thread.



### J-Bolts

J shaped bolts are used for tie-downs or as an open eye bolt.



### U-Bolts

Bolts in U shape for attaching to pipe or other round surfaces. Also available with a square bend.



### Shoulder Bolts

Shoulder bolts (also known as stripper bolts) are used to create a pivot point.

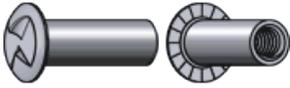


### Elevator Bolts

Elevator bolts are often used in conveyor systems. They have a large, flat head.

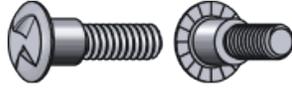
# Fastener Type Chart

## Fastener Categories (continued)



### Sex Bolts

Sex bolts (a.k.a. barrel nuts or Chicago bolts) have a female thread and are used for through bolting applications where a head is desired on both sides of the joint.



### Mating Screws

Mating screws have a shoulder that matches the diameter of the sex bolts they are used with.



### Hanger Bolts

Hanger bolts have wood thread on one end and machine thread on the other end.



### Set Screws

Machine screws with no head for screwing all the way into threaded holes.



### Timber Bolts

Machine threaded fasteners with a wide domed head. The head has fins underneath that prevent the bolt from spinning during installation. Typically used in wood.



### Cotter Pins

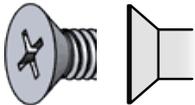
Cotter or split pins have two tines which are bent apart to hold them in place.



### Rivets

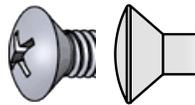
Used to join sheets of metal. During installation the rivet body is deformed to permanently lock in place. Blind rivets can be installed without access to the back side of the material.

## Head Styles



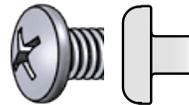
### Flat

A countersunk head with a flat top.  
Abbreviated FH



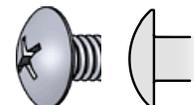
### Oval

A countersunk head with a rounded top.  
Abbreviated OH or OV



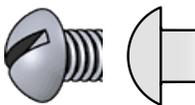
### Pan

A slightly rounded head with short vertical sides.  
Abbreviated PN



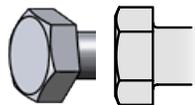
### Truss

An extra wide head with a rounded top.



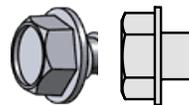
### Round

A domed head.  
Abbreviated RH



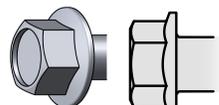
### Hex

A hexagonal head  
Abbreviated HH or HX



### Hex Washer

A hex head with built in washer.



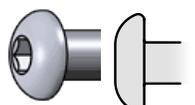
### Hex Flange

A hex head with built in flange.



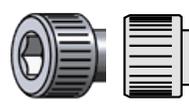
### Slotted Hex Washer

A hex head with built in washer and a slot.



### Button

A low-profile rounded head using a socket drive.

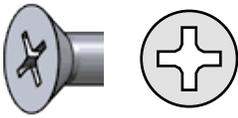


### Socket Cap

A small cylindrical head using a socket drive.

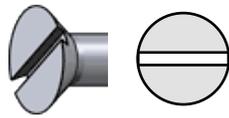
# Fastener Type Chart

## Drive Types



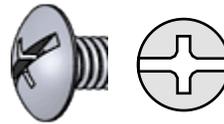
### Phillips and Frearson

An X-shaped drive.  
Abbreviated PH.



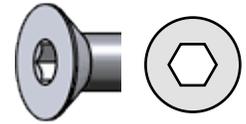
### Slotted

A slot in the head.  
Abbreviated SL.



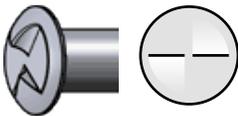
### Combination

A combination of slotted and  
Phillips drives.  
Abbreviated combo.



### Socket, Hex or Allen

A hexagonal hole for use  
with an Allen wrench.



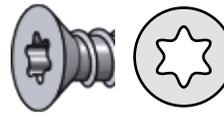
### One Way

Installs with a normal slotted  
driver but can not be  
removed without special  
tools.



### Square

Also known as Robertson  
drive.  
Abbreviated SQ or SD.



### Star

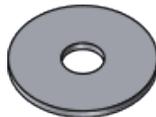
A six-pointed star pattern,  
specifically designed to  
prevent cam-out and stripped  
heads.

## Washer Types



### Flat

A flat washer, used to  
distribute load. Available in  
SAE, USS and other patterns.



### Fender

An oversize flat washer used  
to further distribute load  
especially on soft materials.



### Finishing

A washer used to obtain a  
'finished' look. Usually used  
with oval head screws.



### Split Lock

The most common style of  
washer used to prevent nuts  
and bolts from backing out.



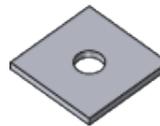
### External Tooth Lock

A washer with external  
'teeth'. Used to prevent nuts  
and bolts from backing out.



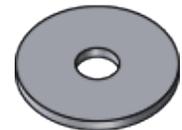
### Internal Tooth Lock

A washer with internal 'teeth'.  
Used to prevent nuts and  
bolts from backing out.



### Square

A square shaped washer.



### Dock

Dock washers have a larger  
outside diameter and are  
thicker than standard.



### Ogee

Thick, large diameter, cast  
iron washers with a curved or  
sculpted appearance.  
Typically used in dock and  
wood construction.

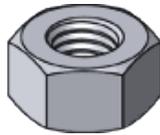
# Fastener Type Chart

## Nut Types



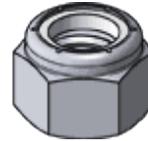
### Hex

A six sided nut. Also referred to as a Finished Hex Nut.



### Heavy Hex

A heavier pattern version of a standard hex nut.



### Nylon Insert Lock

A nut with a nylon insert to prevent backing off. Also referred to as a Nylock.



### Jam

A hex nut with a reduced height.



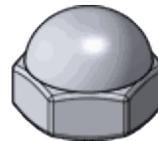
### Nylon Insert Jam Lock

A nylock nut with a reduced height.



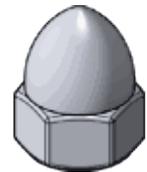
### Wing

A nut with 'wings' for hand tightening.



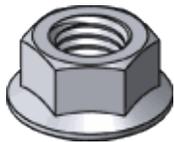
### Cap

A nut with a domed top over the end of the fastener.



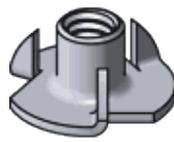
### Acorn

Acorn nuts are a high crown type of cap nut, used for appearance.



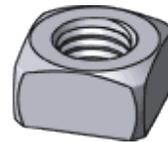
### Flange

A nut with a built in washer like flange.



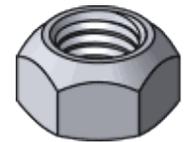
### Tee

A nut designed to be driven into wood to create a threaded hole.



### Square

A four sided nut.



### Prevailing Torque Lock

A non-reversible lock nut used for high temperature applications.



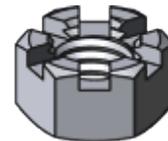
### K-Lock or Kep

A nut with an attached free-spinning external tooth lock washer.



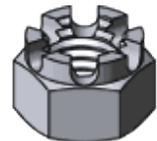
### Coupling

Coupling nuts are long nuts used to connect pieces of threaded rod or other male fasteners.



### Slotted

Slotted nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.



### Castle

Castle nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.



### Pin Lock

A nut that does not require an high installation torque and can be installed and removed without thread damage.

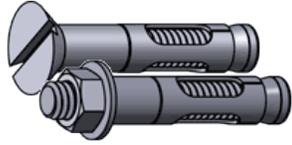
# Fastener Type Chart

## Anchoring Products



### Stud Anchors

A.k.a. Wedge Anchors. One piece expansion bolts for heavy duty fastening into stone or solid concrete.



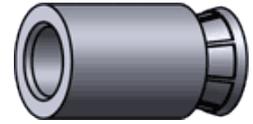
### Sleeve Anchors

Heavy duty masonry anchors. Does not require a solid base material for installation.



### Lag Shields

Medium duty anchors for use in concrete, brick or mortar. Use with a lag bolt.



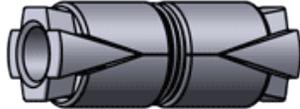
### Machine Screw Anchors

A two-piece machine thread anchor for use in stone, brick, or concrete.



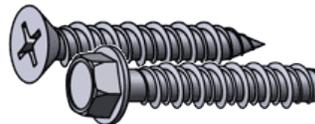
### Drop-in Anchors

A heavy duty machine thread anchor for concrete or stone.



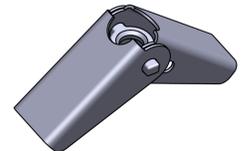
### Double Expansion Sleeves

Expansion anchor for masonry that ensures contact along the length of the hole.



### Concrete Screws

Used in concrete, brick or block. A quick and easy way to fasten in light to medium duty applications



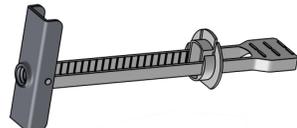
### Spring Toggle Wings

Non-removable fasteners that expand behind the material, e.g. inside a wall, for a secure grip.



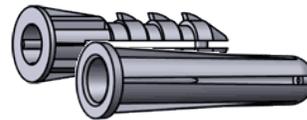
### Plastic Toggle

When these anchors are driven in they expand inside the hole for a secure grip. Drill hole the same size as the anchor. Non-removable.



### Kaptoggle®

A non removable anchor commonly used for hollow spaces such as drywall and masonry block.



### Conical Anchors

Plastic anchors used with sheet metal screws. Can be used in most materials.



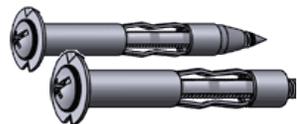
### Self Drilling Drywall Anchors

Quick-install plastic anchors used in drywall with sheet metal screws.



### Wood Screw Anchors

This anchor is made of lead and can be used with wood screws or sheet metal screws.



### Hollow Wall Anchors

A.k.a. Molly Bolts. Used for light duty anchoring in drywall or other hollow walls.



### Nail Drive Anchors

Non removable anchors that expand inside the hole when the nail like pin is driven.



### Anchor Bolts

L shaped, machine threaded anchors. Typically embedded in concrete when it is poured.

# US and Metric Thread Sizes

## US Thread Sizes

7 threads per inch

8 tpi

9 tpi

10 tpi

11 tpi

12 tpi

13 tpi

14 tpi

16 tpi

18 tpi

20 tpi

24 tpi

28 tpi

32 tpi

40 tpi

## Metric Thread Pitches

2.5 mm thread pitch

2.0 mm

1.75mm

1.5mm

1.25mm

1.0mm

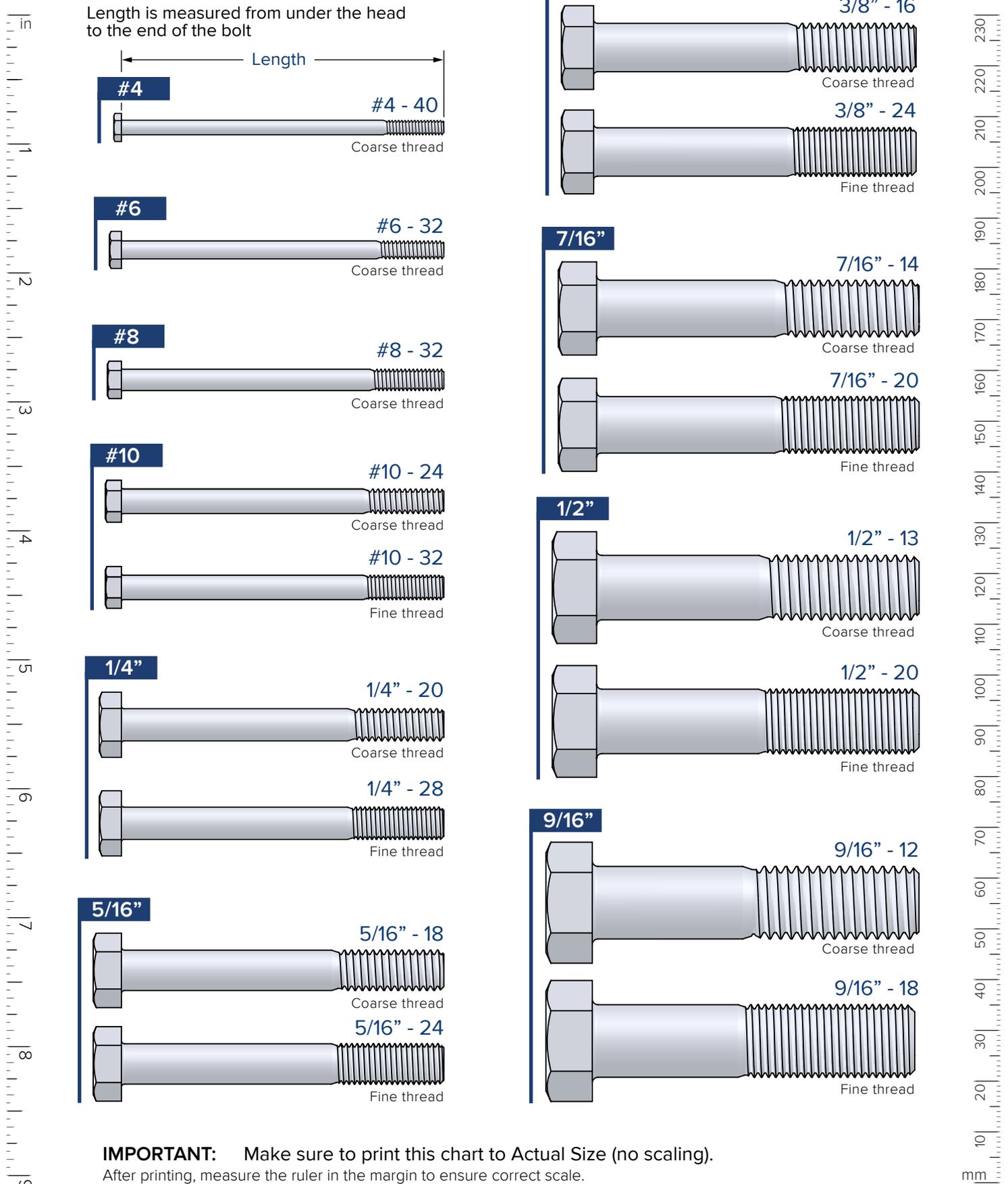
0.8mm

0.7mm

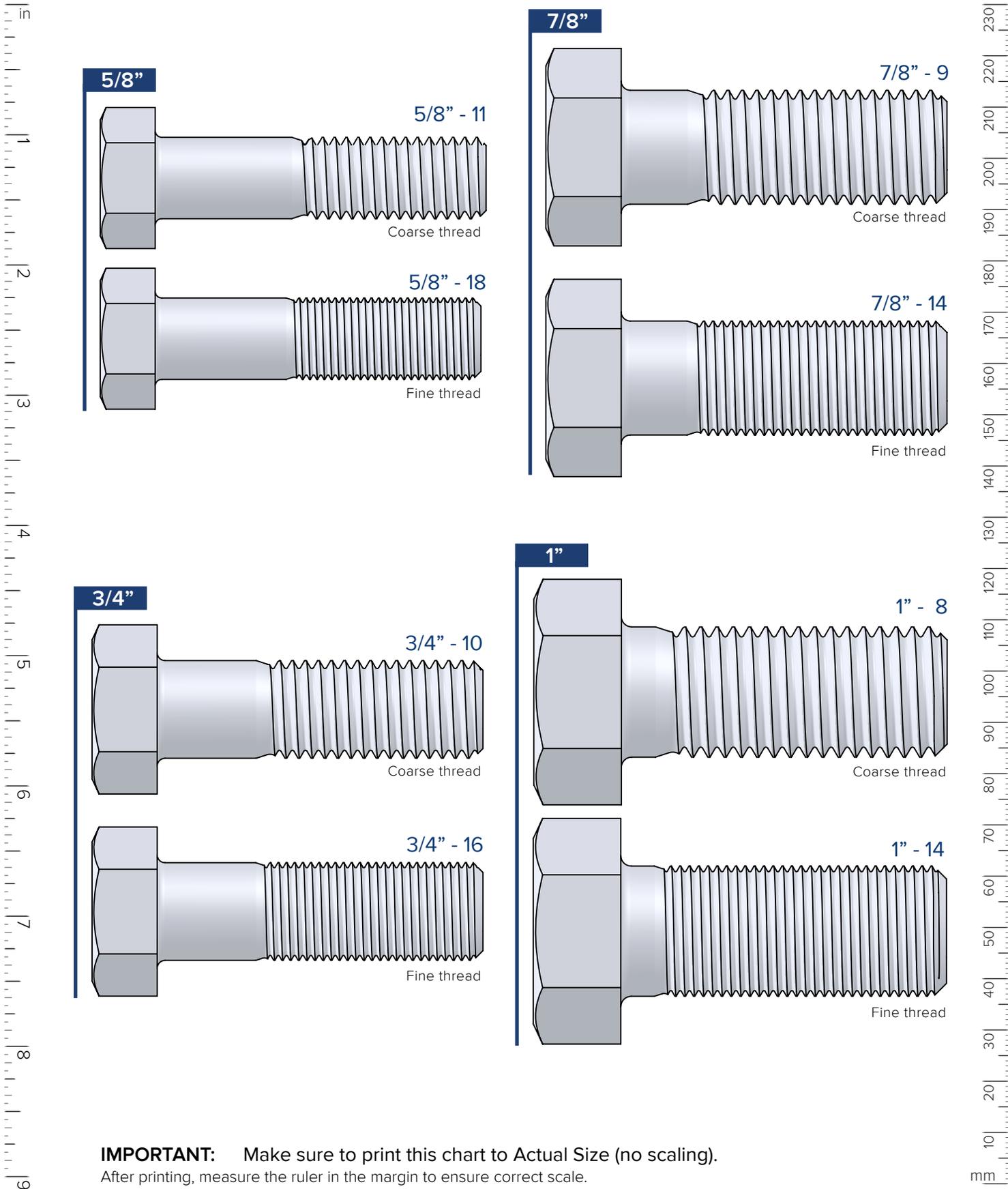
0.5mm



# US Hex Bolt Sizes and Thread Pitches



# US Hex Bolt Sizes and Thread Pitches (continued)

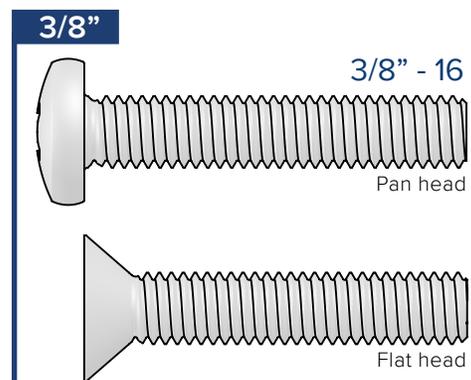
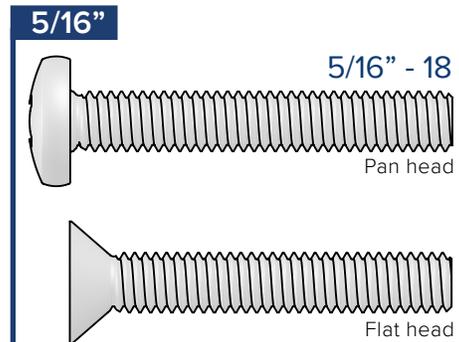
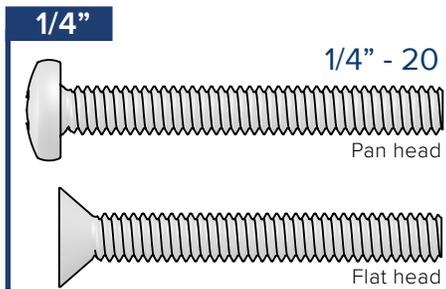
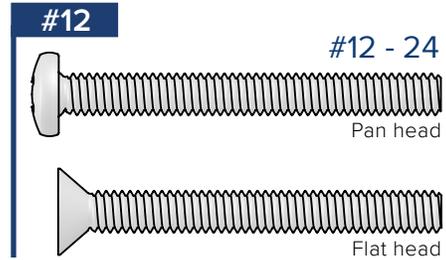
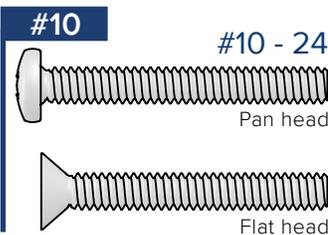
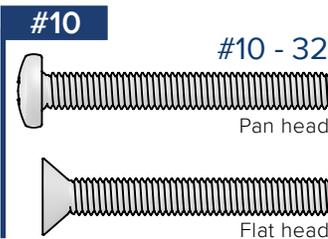
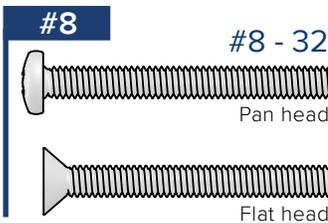
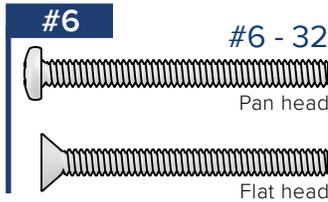
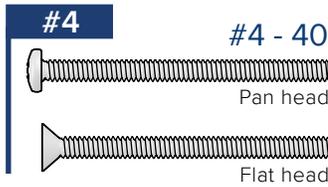
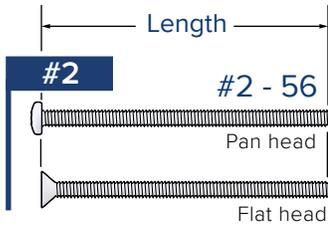


**IMPORTANT:** Make sure to print this chart to Actual Size (no scaling).  
After printing, measure the ruler in the margin to ensure correct scale.

mm

# US Machine Screw Sizes

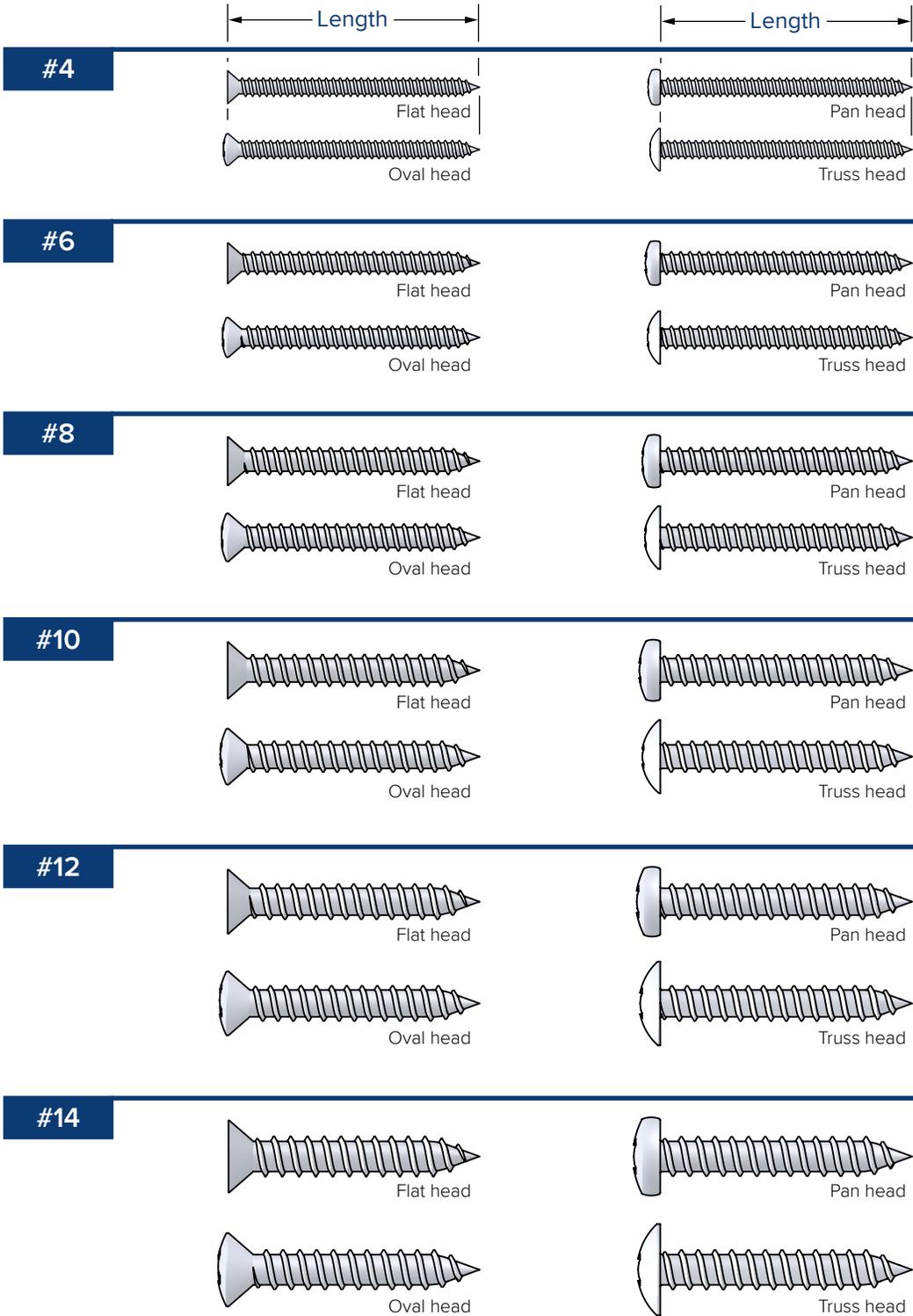
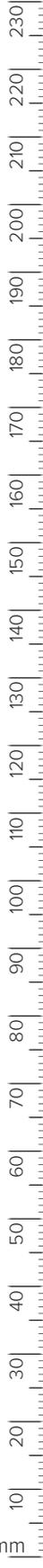
Length is measured from where the surface is assumed to be, to the end of the screw. Therefore, pan head screws are measured from under the head, and flat head screws are measured overall.



**IMPORTANT:** Make sure to print this chart to Actual Size (no scaling).  
After printing, measure the ruler in the margin to ensure correct scale.

# Sheet Metal Screw Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



# US Nut Sizes



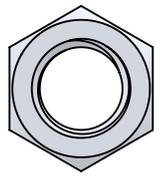
		Hex	Jam	Nylock	Jam nylock
#0			N/A	N/A	N/A
5/32" wrench					
#1			N/A	N/A	N/A
5/32" wrench					
#2			N/A	N/A	N/A
3/16" wrench					
#3			N/A	N/A	N/A
3/16" wrench					
#4			N/A		N/A
1/4" wrench					
#5			N/A	N/A	N/A
5/16" wrench					
#6			N/A		N/A
5/16" wrench					
#8			N/A		N/A
11/32" wrench					
#10			N/A		
3/8" wrench					
#12			N/A		N/A
7/16" wrench					
1/4"					
7/16" wrench					
5/16"					
1/2" wrench					
3/8"					
9/16" wrench					
7/16"					
11/16" wrench					

**Note:** Hex nuts with a diameter under 1/4" are called **hex machine screw nuts**

# US Nut Sizes (continued)



**1/2"**  
3/4" wrench

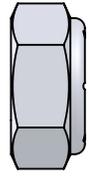
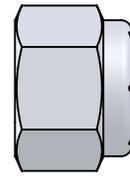
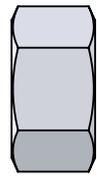


**Hex**

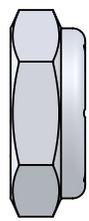
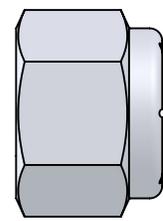
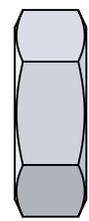
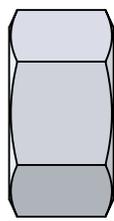
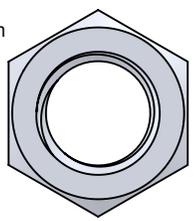
**Jam**

**Nylock**

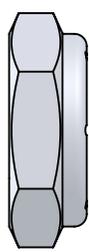
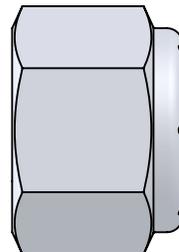
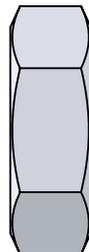
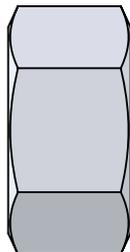
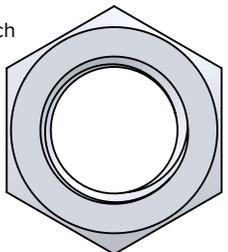
**Jam  
nylock**



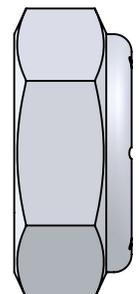
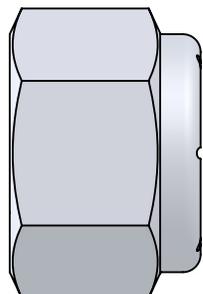
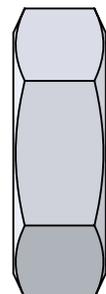
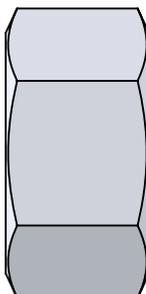
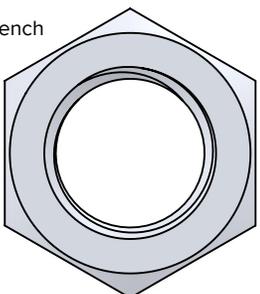
**5/8"**  
15/16" wrench



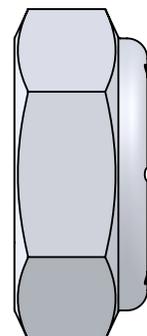
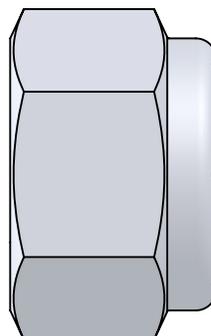
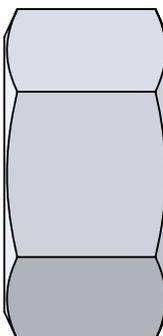
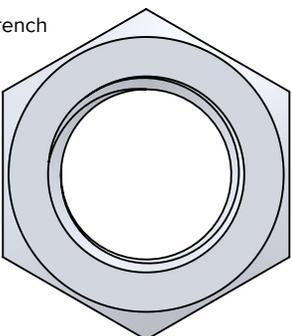
**3/4"**  
1-1/8" wrench



**7/8"**  
1-5/16" wrench



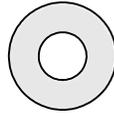
**1"**  
1-1/2" wrench



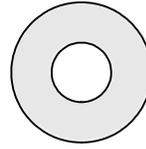
# USS Flat Washer Sizes

Washer sizes correspond to the screw/bolt diameter they fit. For example, a 1/2" washer fits a 1/2" bolt, and therefore has an inner diameter of just over 1/2".

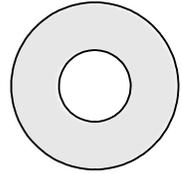
#10



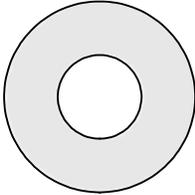
1/4"



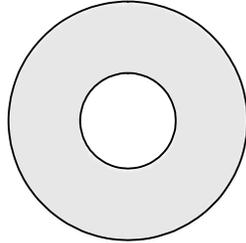
5/16"



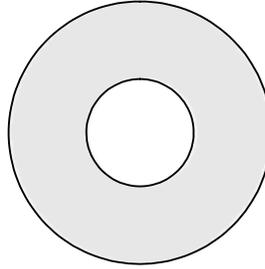
3/8"



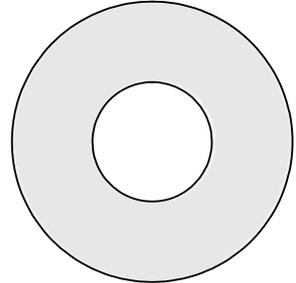
7/16"



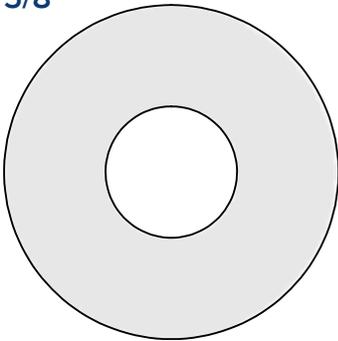
1/2"



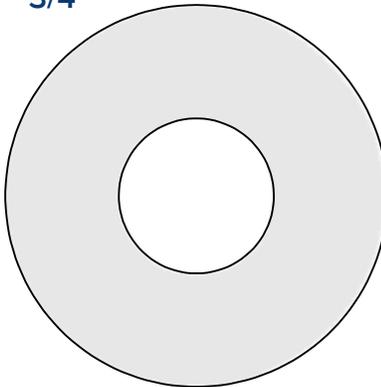
9/16"



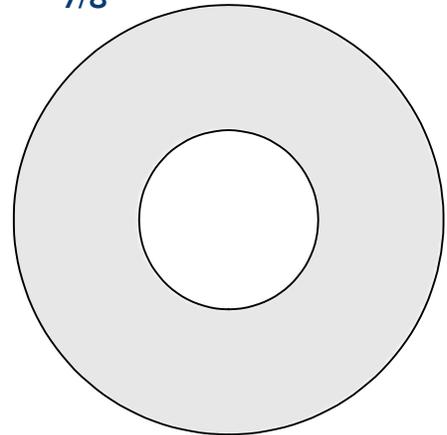
5/8"



3/4"



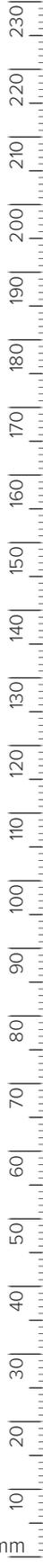
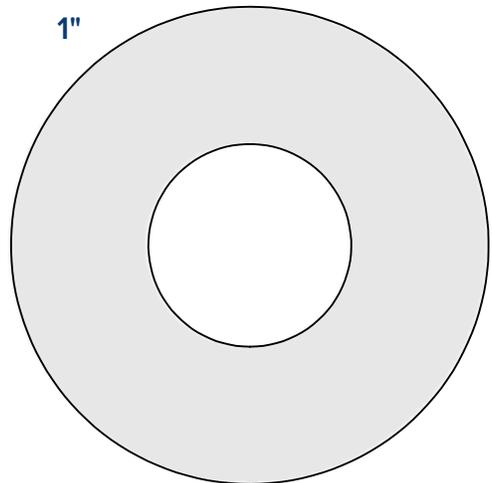
7/8"



## Large USS Washer Sizes

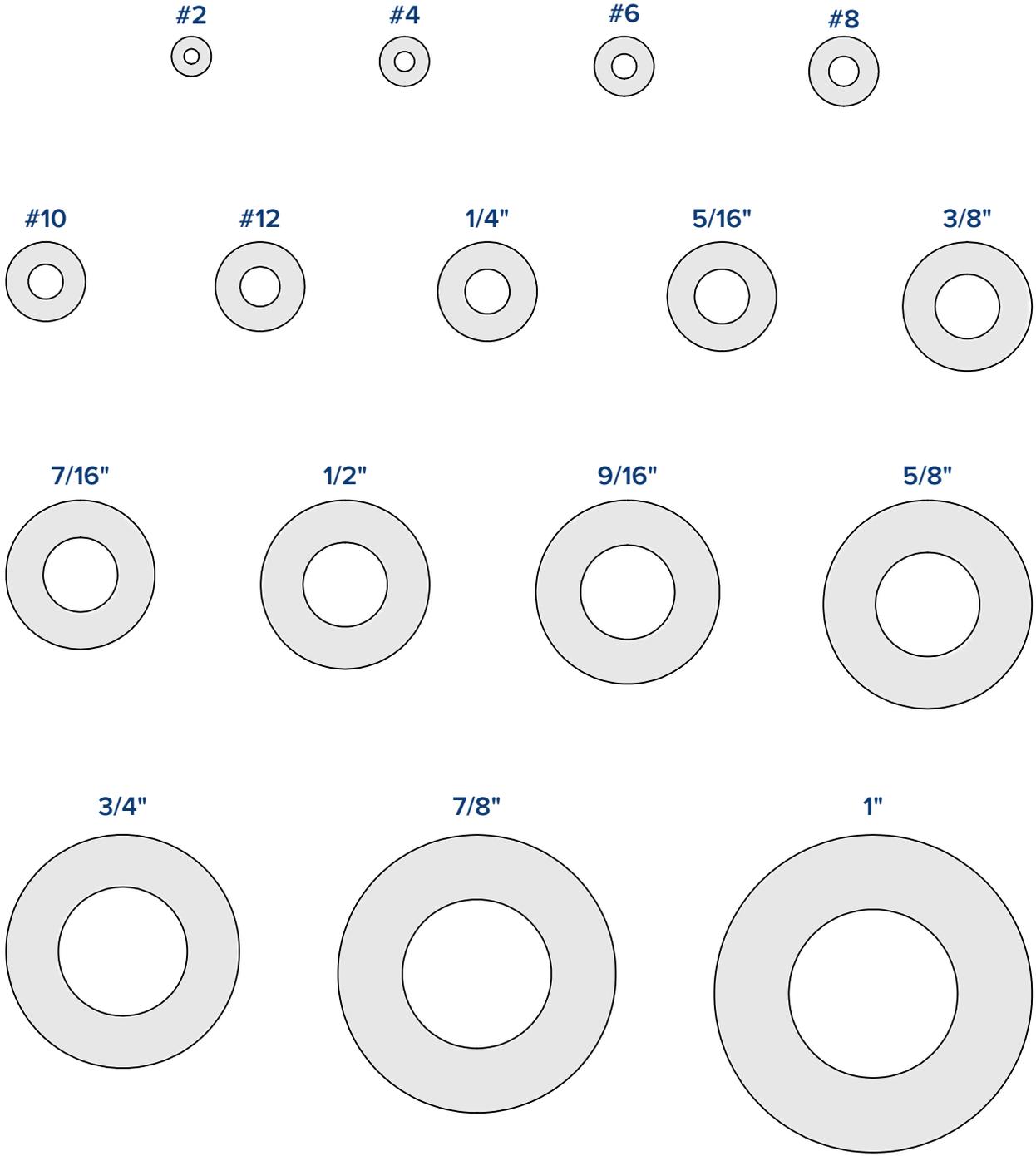
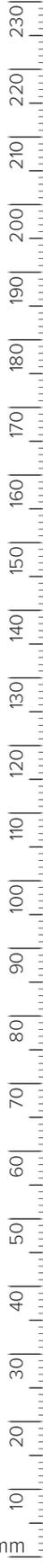
Size	Diameter	
	Inside	Outside
1-1/8"	1-1/4"	2-3/4"
1-1/4"	1-3/8"	3"
1-3/8"	1-1/2"	3-1/4"
1-1/2"	1-5/8"	3-1/2"
1-5/8"	1-3/4"	3-3/4"
1-3/4"	1-7/8"	4"
2"	2-1/8"	4-1/2"

1"



# SAE Flat Washer Sizes

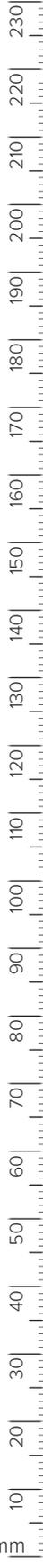
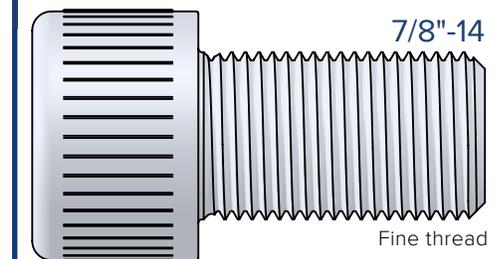
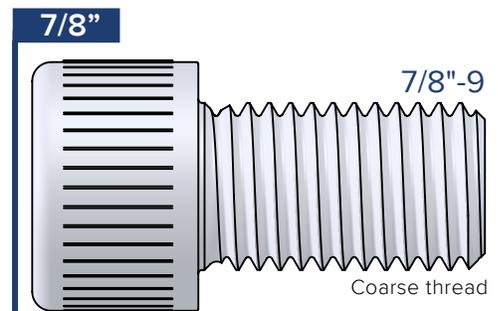
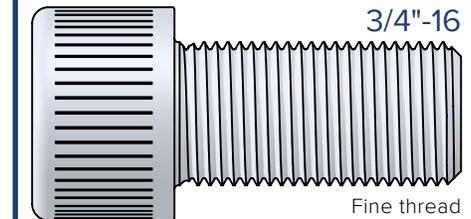
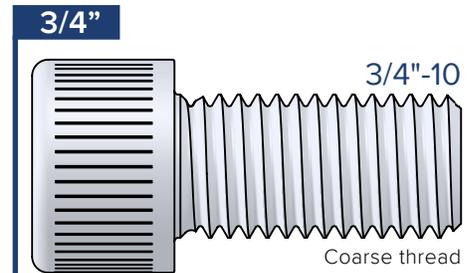
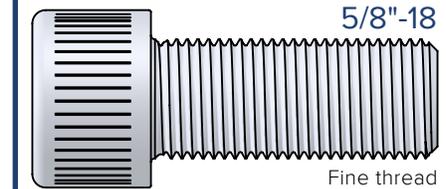
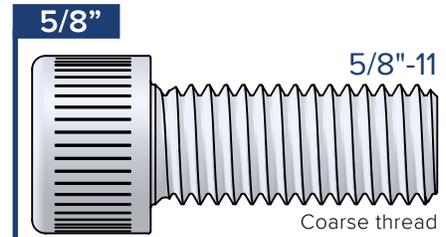
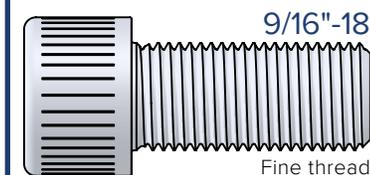
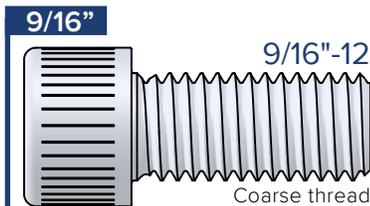
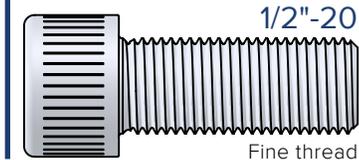
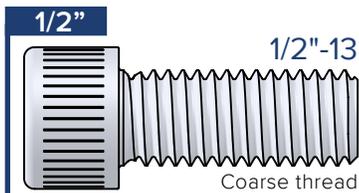
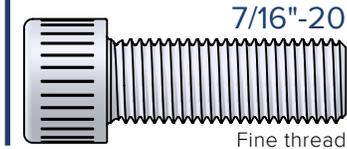
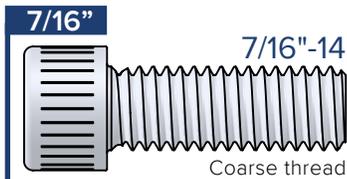
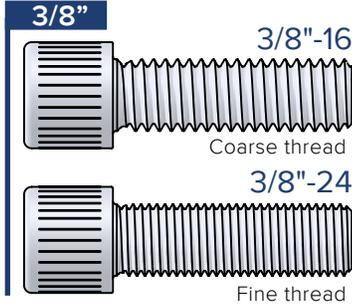
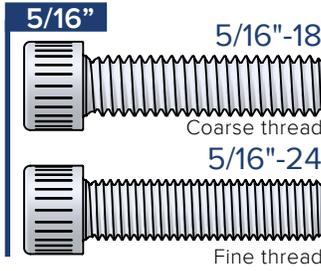
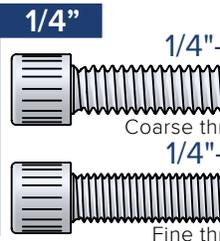
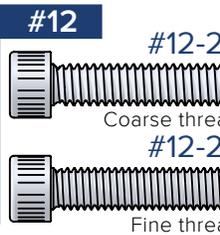
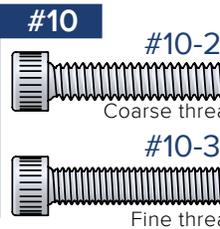
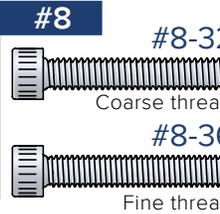
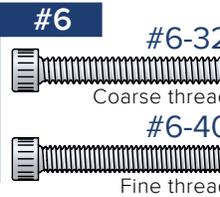
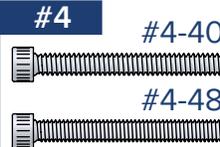
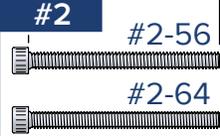
Washer sizes correspond to the screw/bolt diameter they fit. For example, an 1/4" washer fits an 1/4" bolt, and therefore has an inner diameter of just over 1/4".



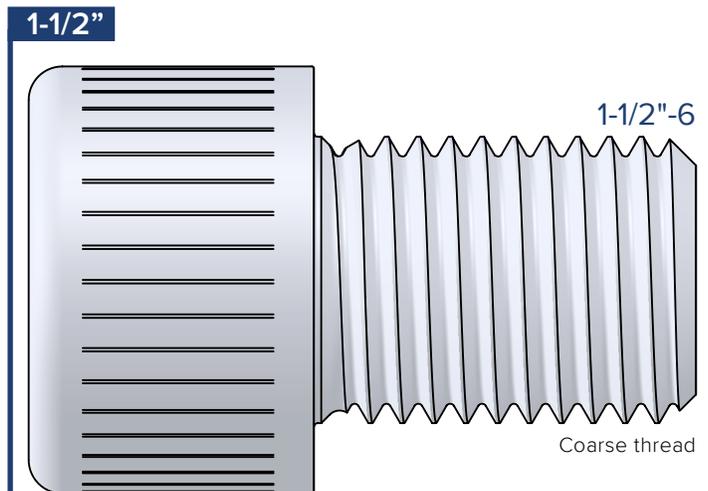
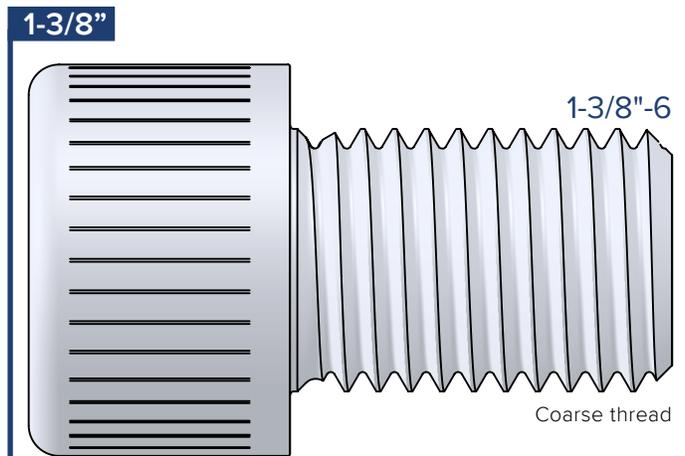
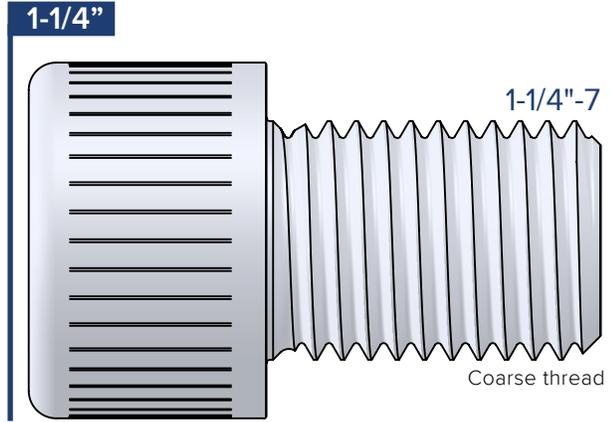
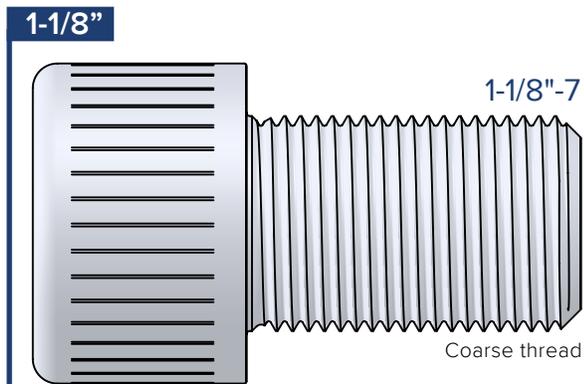
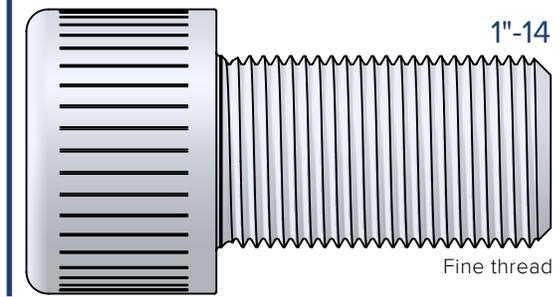
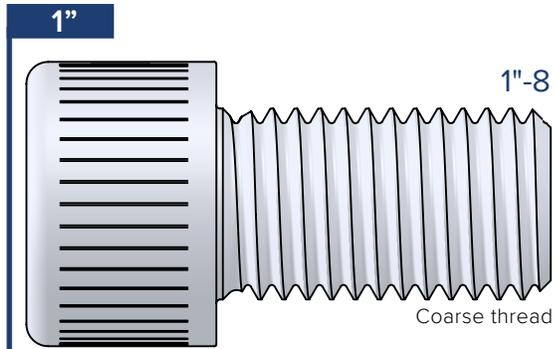
# US Socket Cap Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.

Length

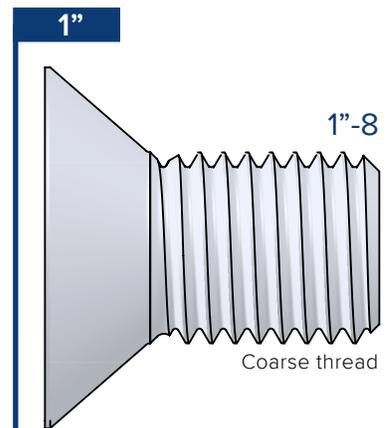
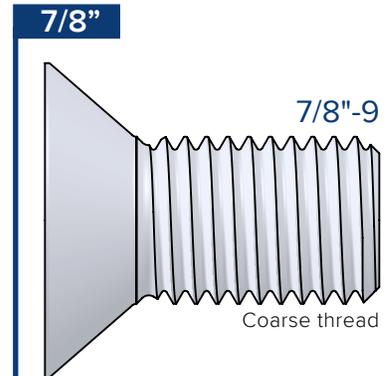
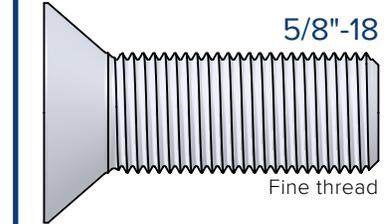
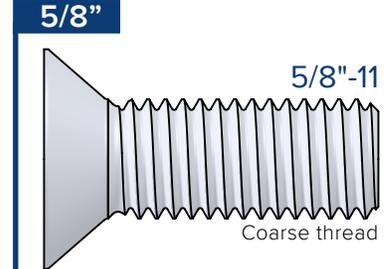
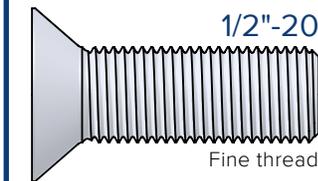
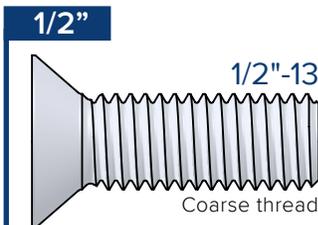
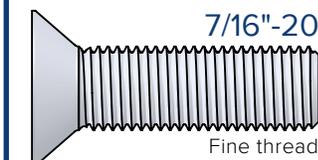
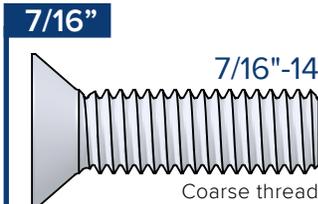
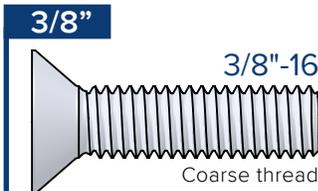
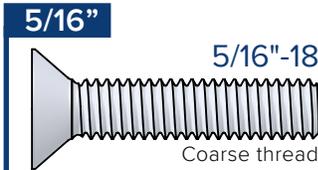
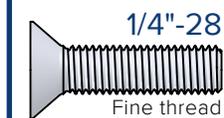
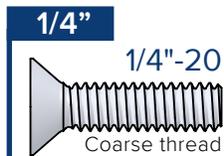
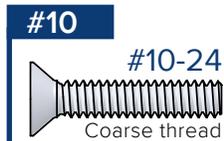
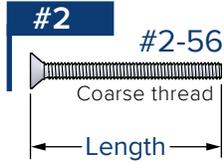


# US Socket Cap Sizes (continued)



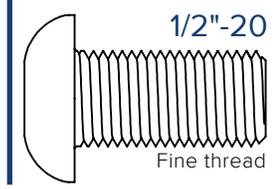
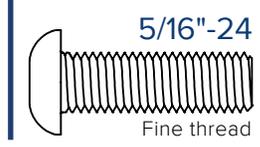
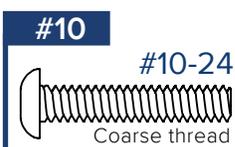
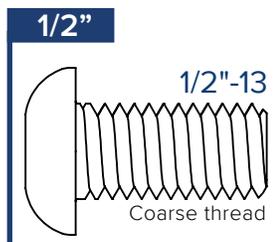
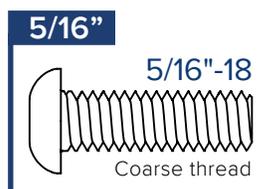
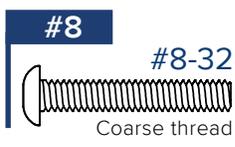
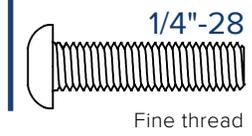
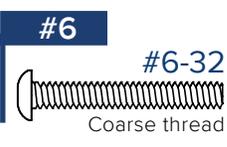
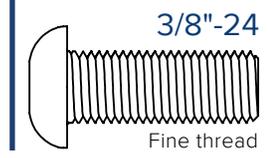
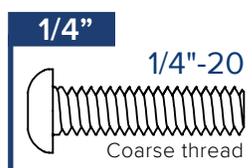
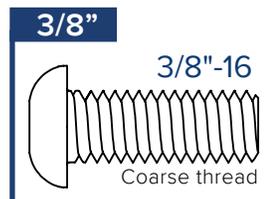
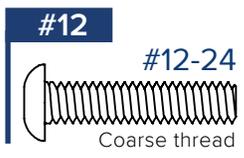
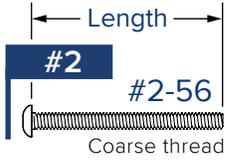
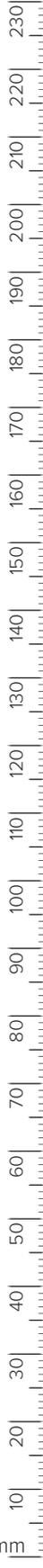
# US Socket Flat Head Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



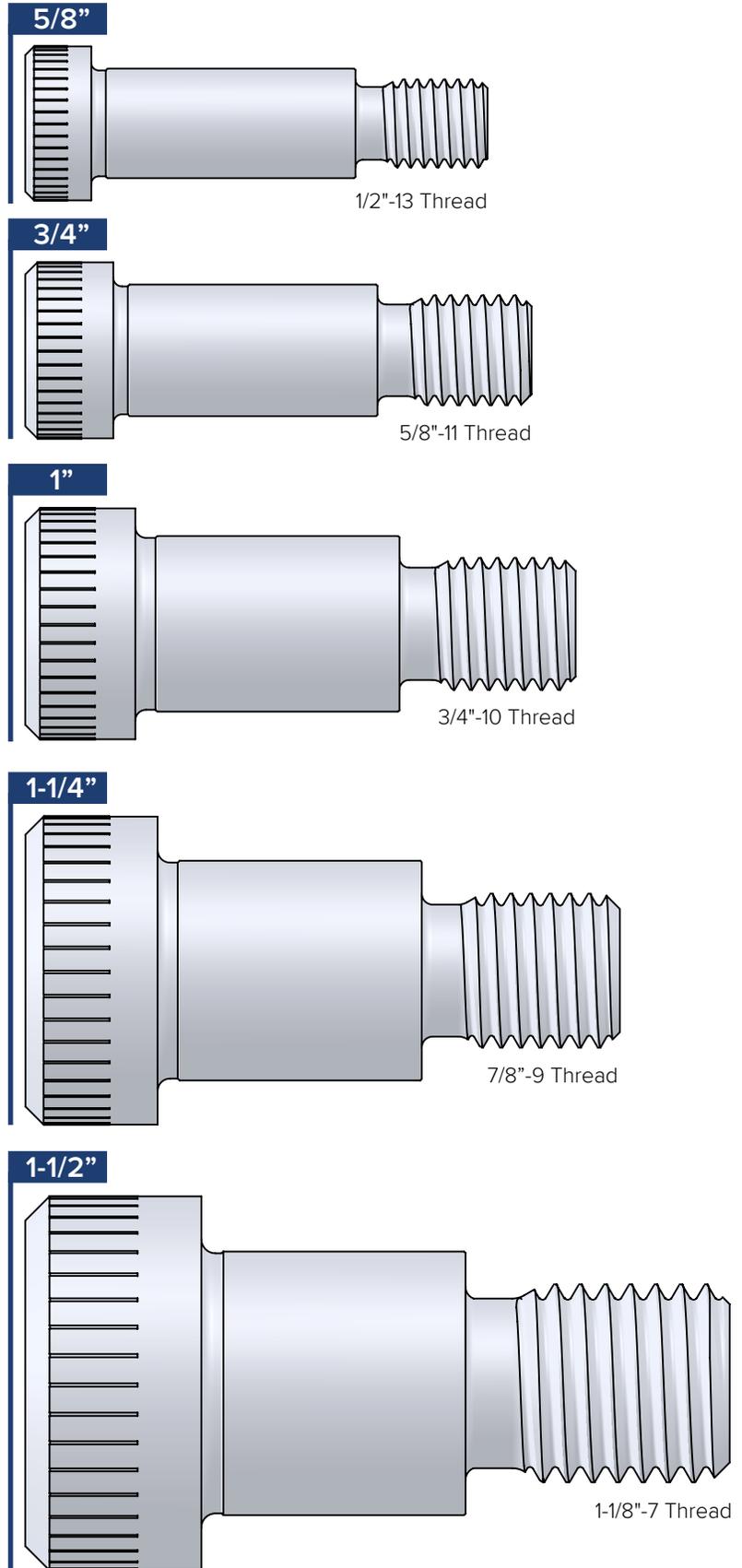
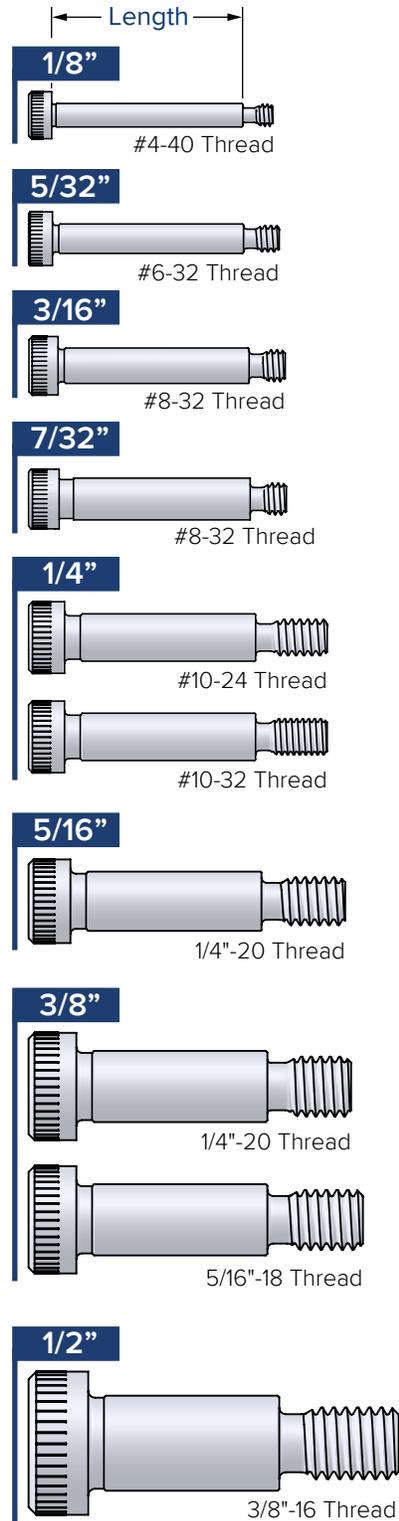
# US Socket Button Head Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



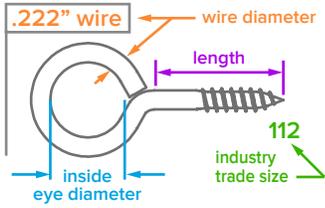
# US Shoulder Bolt Sizes

Shoulder bolt size is determined by the diameter and length of the shoulder.



# Screw Eye Sizes

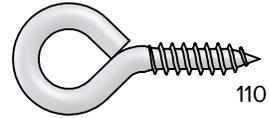
Screw eyes are sold by industry trade sizes (e.g. 112), which correspond to a specific wire diameter, inside eye diameter and length.



## .120" wire



## .135" wire continued



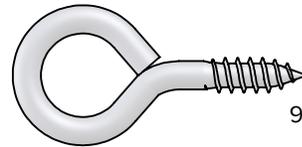
## .056" wire



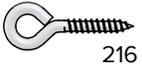
## .105" wire



## .148" wire



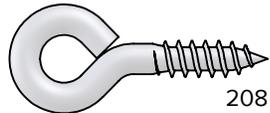
## .062" wire



## .160" wire



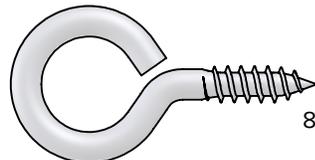
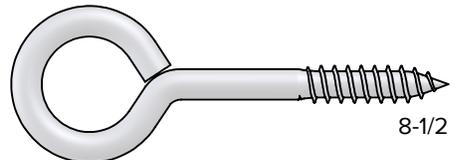
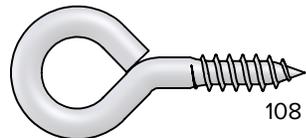
## .072" wire



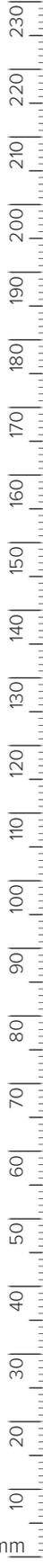
## .120" wire



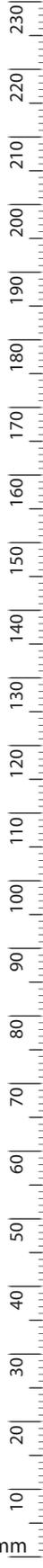
## .135" wire



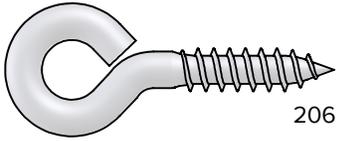
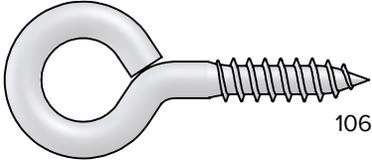
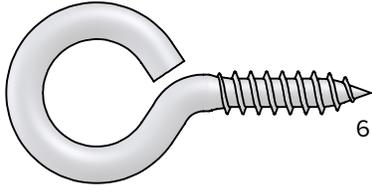
## .080" wire



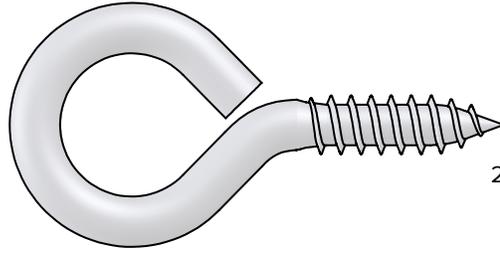
# Screw Eye Sizes (continued)



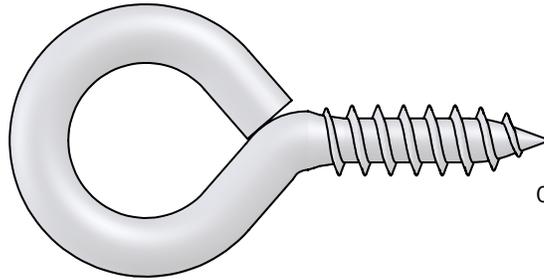
**.192" wire**



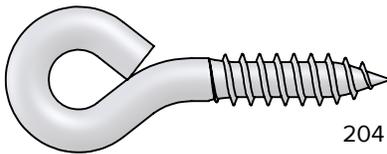
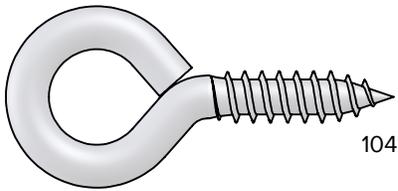
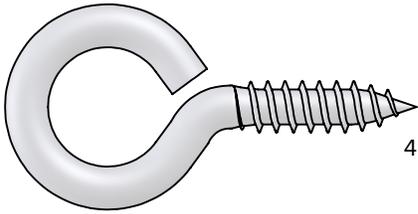
**.264" wire**



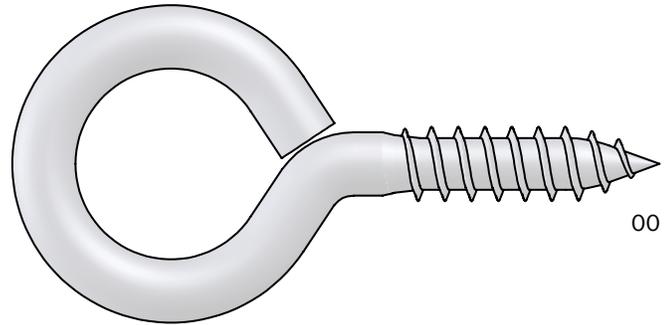
**.307" wire**



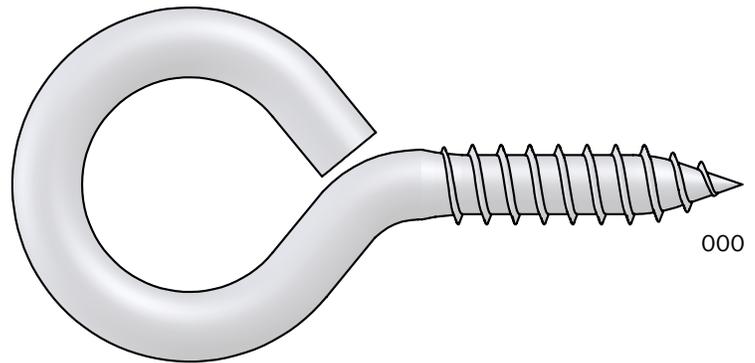
**.225" wire**



**.331" wire**



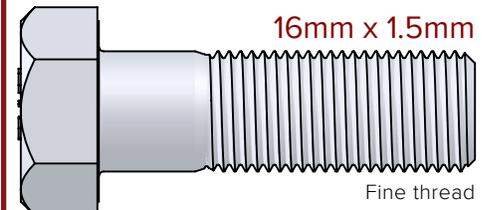
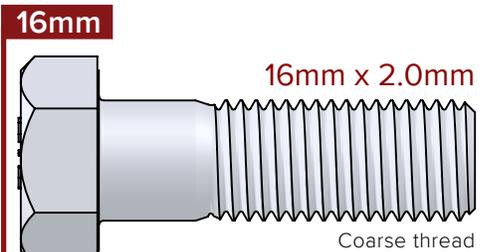
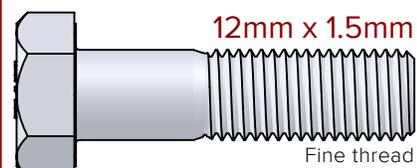
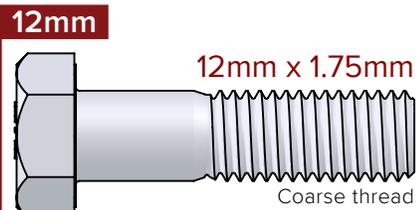
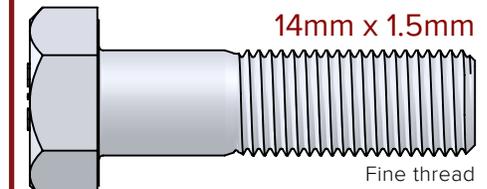
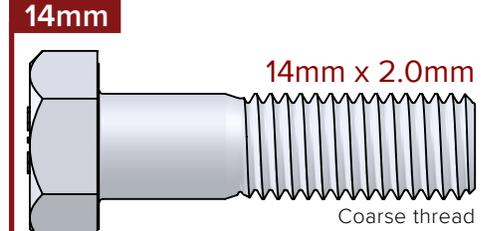
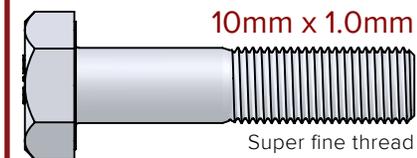
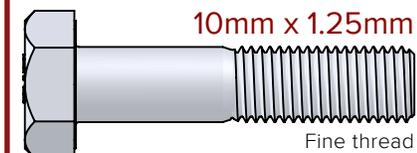
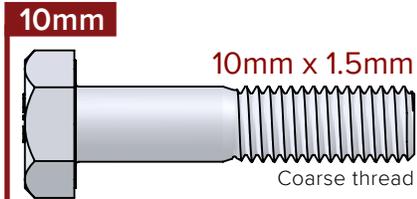
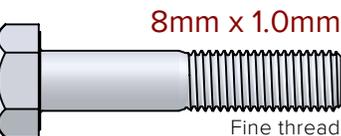
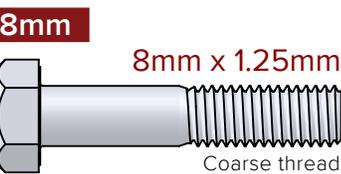
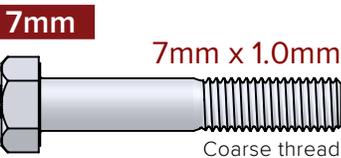
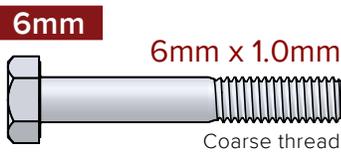
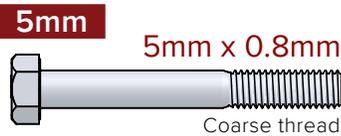
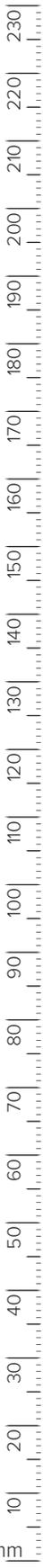
**.365" wire**



# Metric Hex Bolt Diameters and Thread Pitches

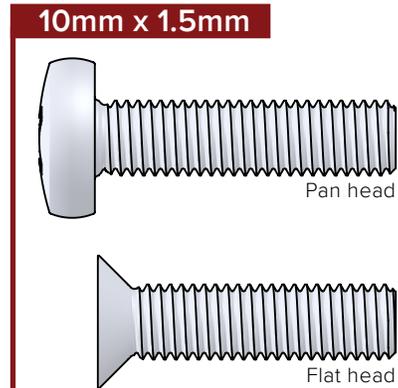
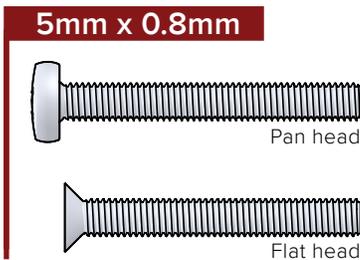
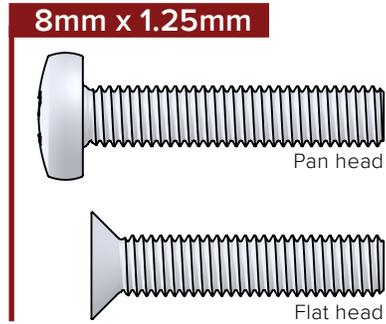
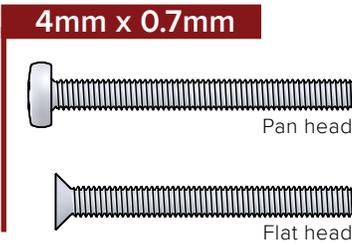
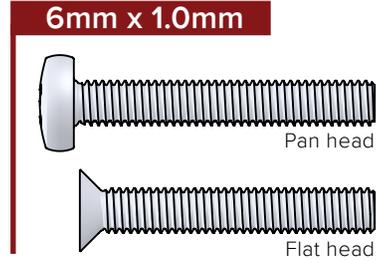
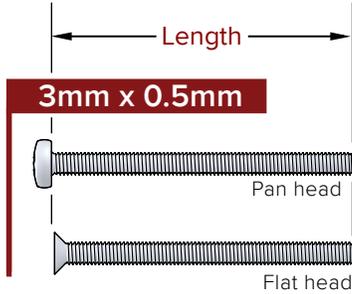
Length is measured from under the head to the end of the bolt

Note: Head sizes may differ from what is shown due to differences between metric standards

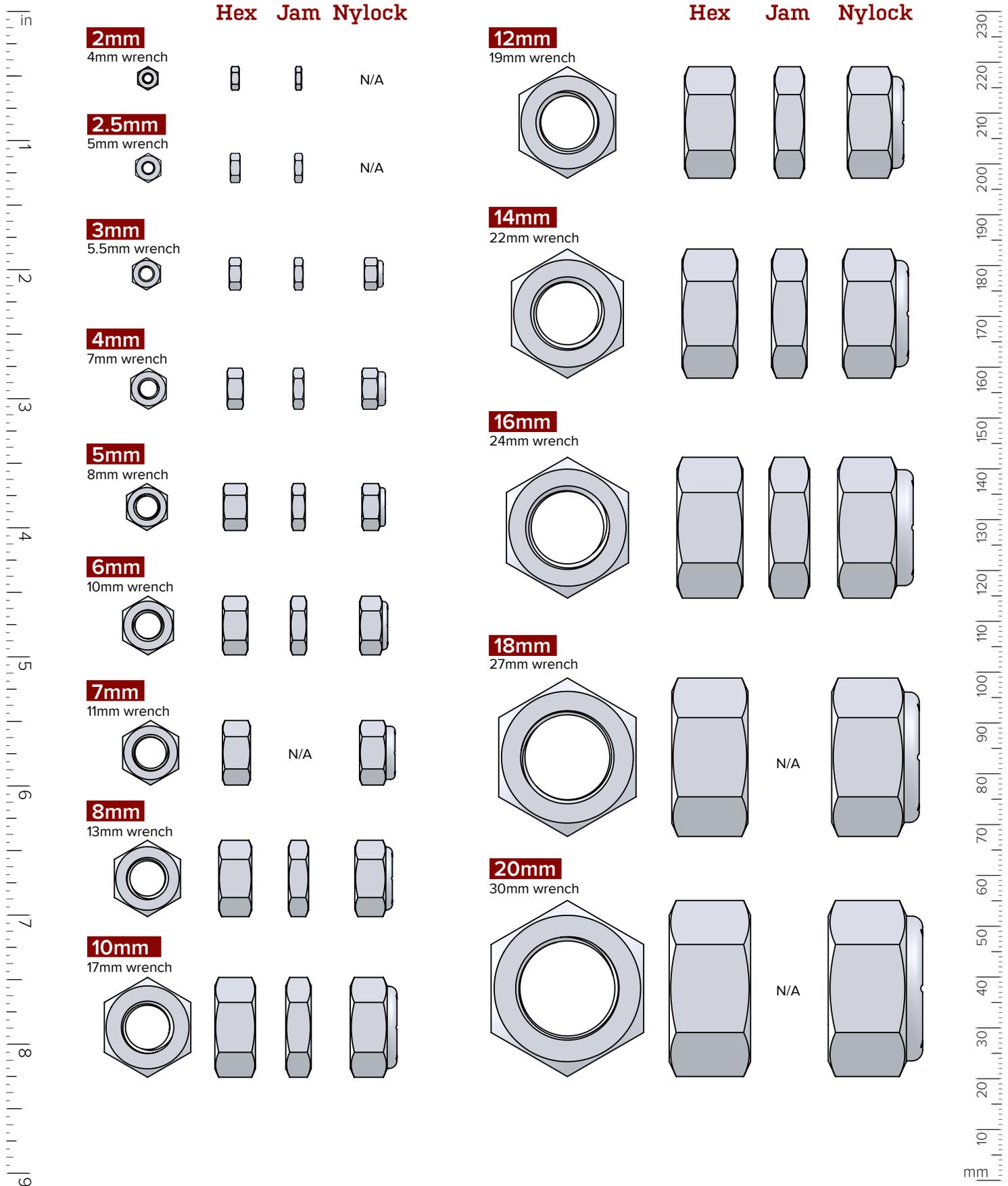


# Standard Metric Machine Screw Sizes

Length is measured from where the surface is assumed to be, to the end of the screw. Therefore, pan head screws are measured from under the head, and flat head screws are measured overall.



# Metric Nut Sizes



# Metric Flat Washer Sizes

Washer sizes correspond to the screw/bolt diameter they fit. For example, an 8mm washer fits an 8mm bolt, and therefore has an inner diameter of just over 8mm.

1.6 mm



2 mm



2.5 mm



3 mm



3.5 mm



4 mm



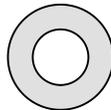
5 mm



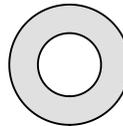
6 mm



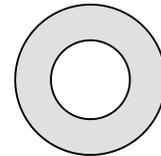
7 mm



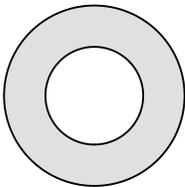
8 mm



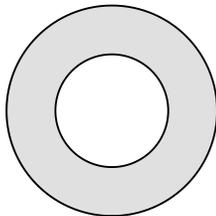
10 mm



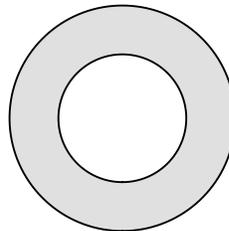
12 mm



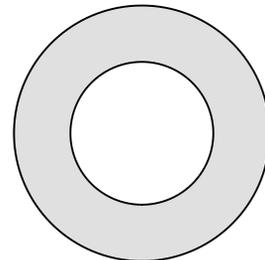
14 mm



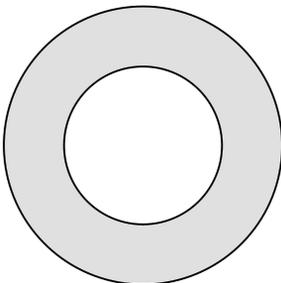
16 mm



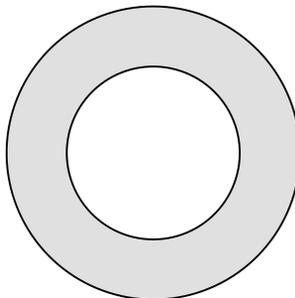
18 mm



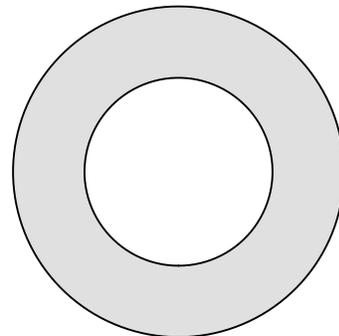
20 mm



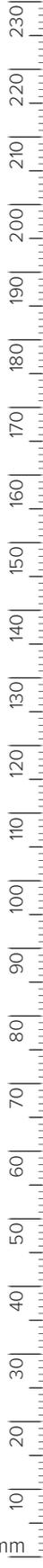
22 mm



24 mm

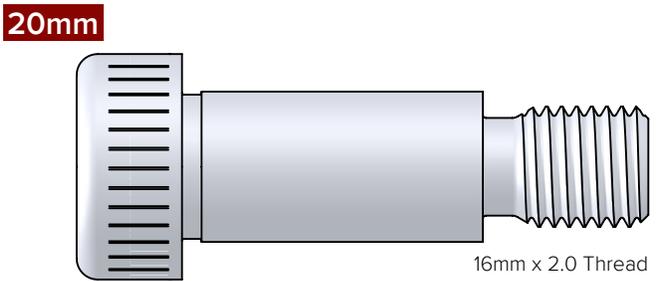
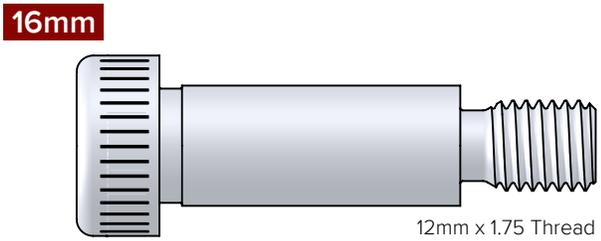
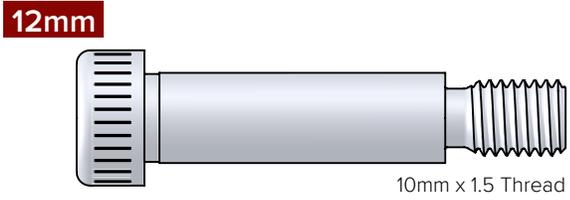
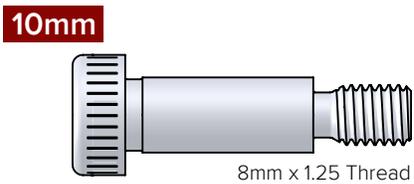
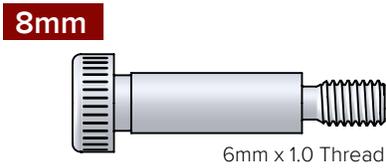
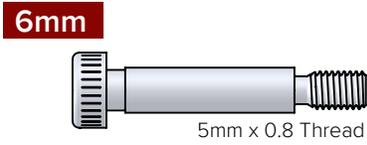
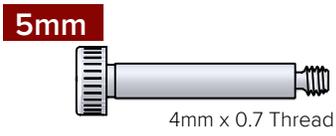
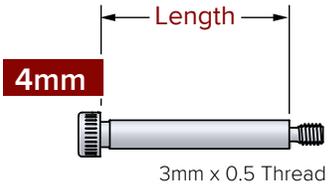


**IMPORTANT:** Make sure to print this chart to Actual Size (no scaling).  
After printing, measure the ruler in the margin to ensure correct scale.



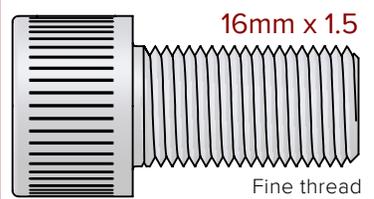
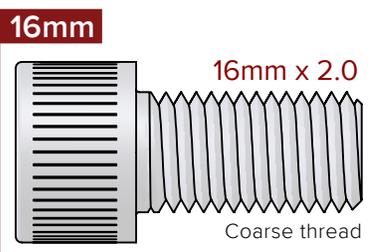
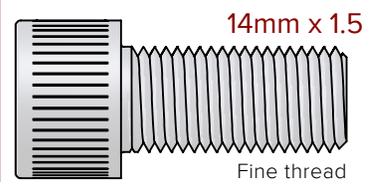
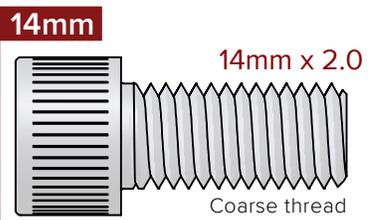
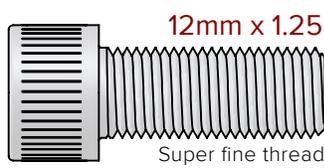
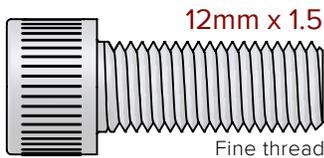
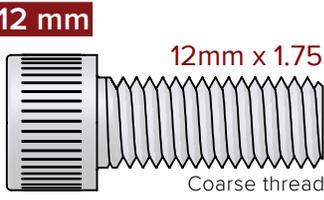
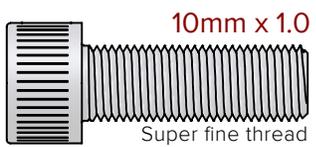
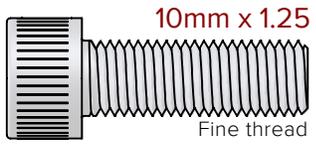
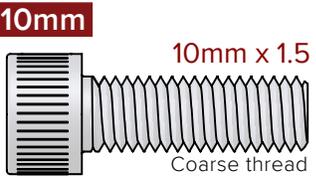
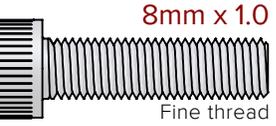
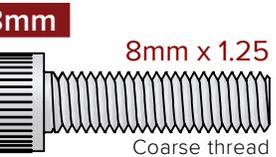
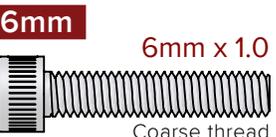
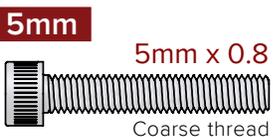
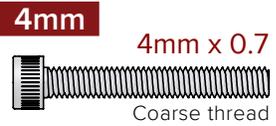
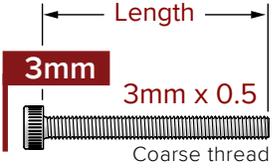
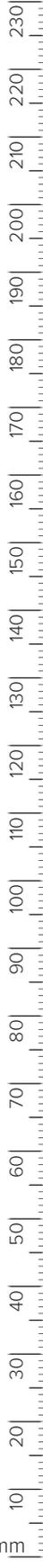
# Metric Shoulder Bolt Sizes

Shoulder bolt size is determined by the diameter and length of the shoulder.



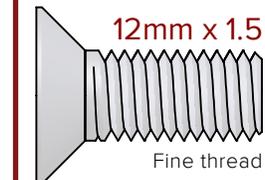
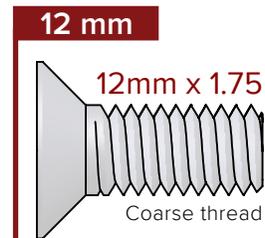
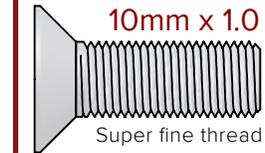
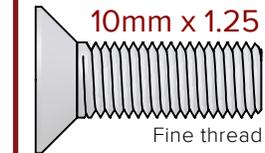
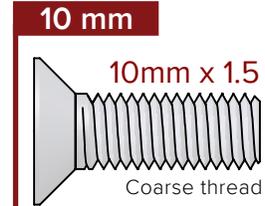
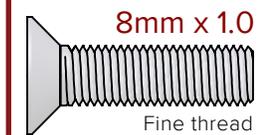
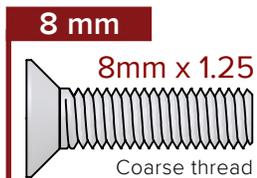
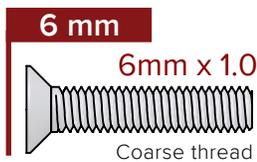
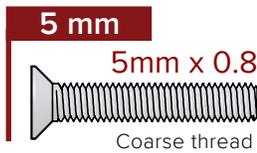
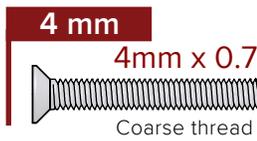
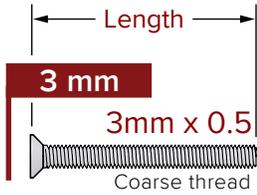
# Metric Socket Cap Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



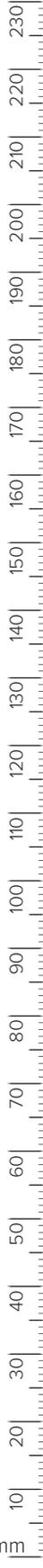
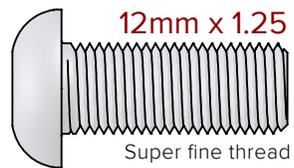
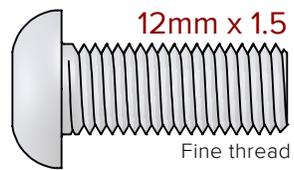
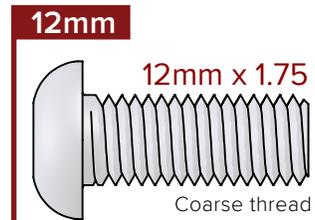
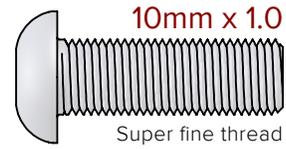
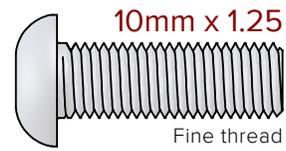
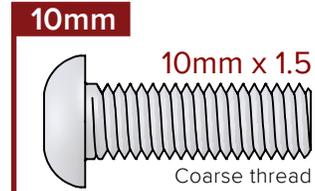
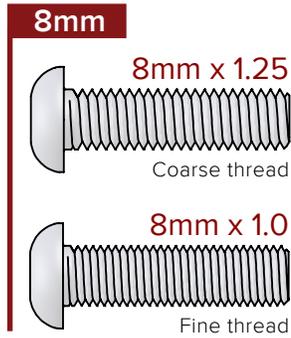
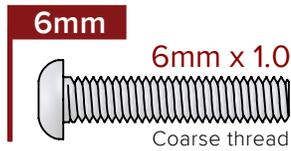
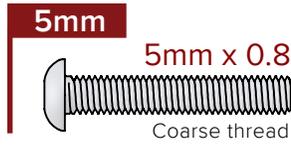
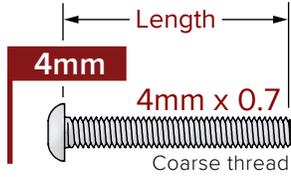
# Metric Socket Flat Head Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



# Metric Socket Button Head Sizes

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



# Fastener Terms and Abbreviations

Below are three ways of describing the same fastener:

1. 1/4 – 20 UNC Class 2A x 1 Hex Head Cap Screw per ASME B18.2.1, Grade 5 per SAE J429, Zinc/Clear plated per ASTM B633
2. 1/4 - 20 x 1 Hex Cap Screw, Gr 5, Zn
3. 1/4 x 1 Hex Bolt, NC, 5, Z

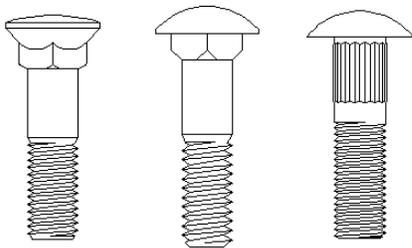
Metric Fasteners: M10 x 50 Hex Bolt, Property Class 8.8, Y

**What it means:** They want a 10mm diameter hex head cap screw with a coarse thread (1.5mm) that is made from a property class 8.8 steel and is plated zinc with yellow chromate.

The last three pages of this slide show contains a list of common abbreviations used when customers describe fasteners.

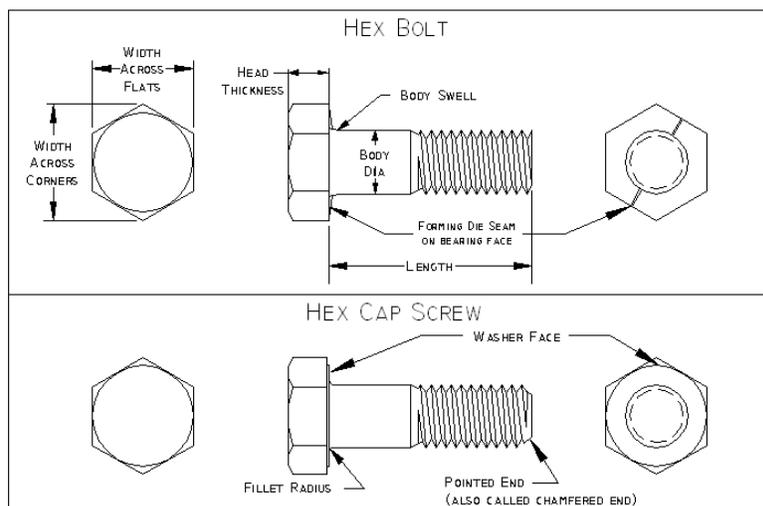
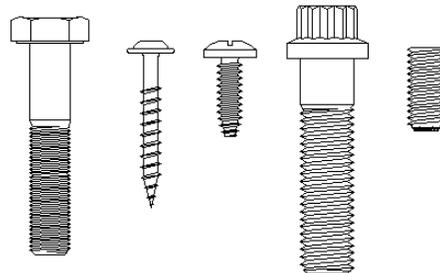
## Bolts

(must be assembled with a nut)



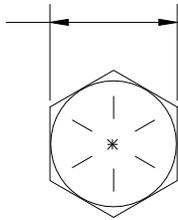
## Screws

(can be assembled by head or with a nut)

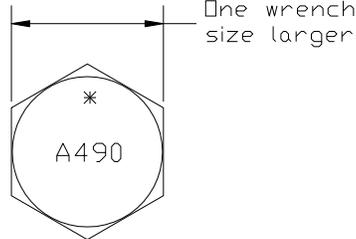


# Dimensions for Hex and Heavy Hex Cap Screws specified by ASME/ANSI B18.2.1

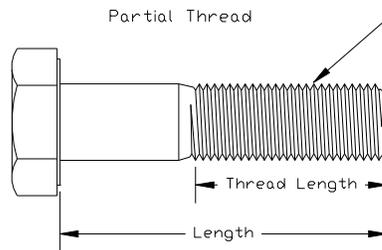
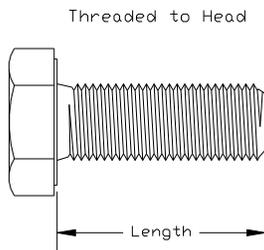
Width across flats  
(head width)  
(wrench size)  
(head diameter)



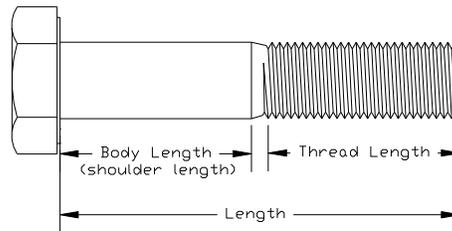
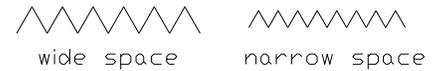
Grade 8  
Regual Hex Head  
Cap Screw



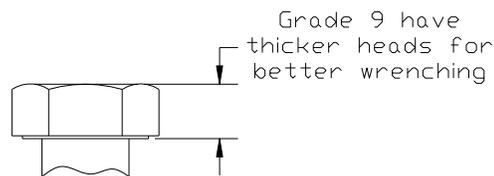
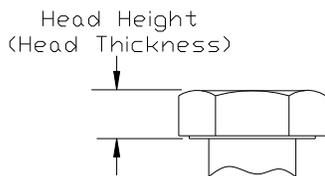
Grade A490  
Heavy Hex  
Cap Screw



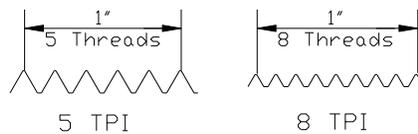
Threads per Inch (TPI)  
Coarse (UNC) or Fine (UNF)



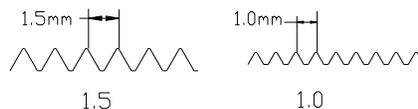
**Thread Length =  
2 x Diameter + 1/4"  
(for lengths up to 6")**



## Inch Threads



## Metric Threads



## Standard Thread Length and Body Length for Hex Head Cap Screws (per ASME/ANSI B18.2.1 – Rev 1996)

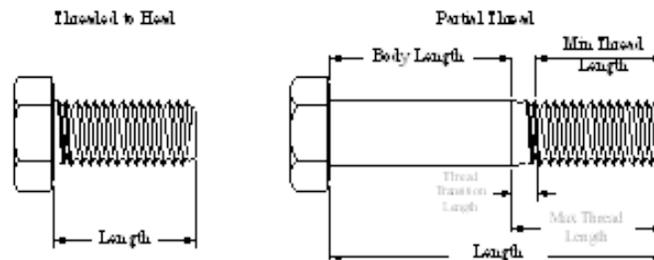
The chart below shows the thread lengths for all grades of hex and heavy hex cap screws as defined by the industry standard ASME/ANSI B18.2.1 (Rev 1996).

The minimum guaranteed thread length for lengths up to 6" long is  $2 \times \text{Dia} + 1/4"$ .  
For lengths over 6" the guaranteed minimum thread length is  $2 \times \text{Dia} + 1/2"$

- Column 2 lists the maximum lengths that are Threaded to the Head for each diameter.
- Column 4 lists the minimum thread length when the cap screw length is longer than the length listed in column 2 (for lengths up to 6" long).
- Column 5 lists the maximum Total Thread Length (full thread + thread transition length) that can be on any given lot of cap screws (for lengths up to 6").

To calculate the minimum body length, subtract the maximum thread length (column 5) from the overall length.

Example: 1/2 – 13 x 4 Hex Head Cap Screw will have  
 minimum guaranteed thread length = 1.250"  
 maximum possible thread length = 1.635"  
 minimum possible body length = 2.365" (4" - 1.635")



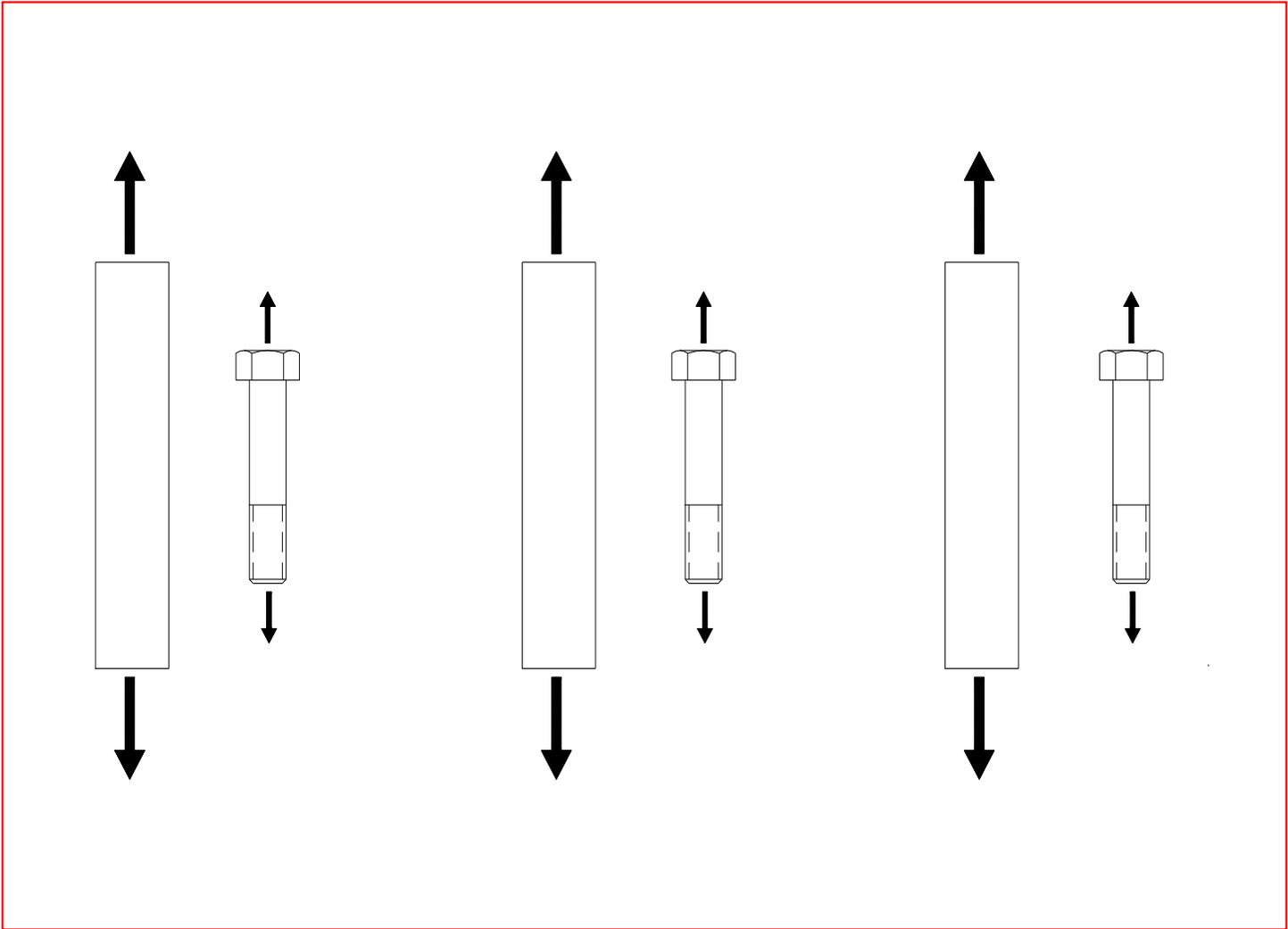
Dia	2	3	4	5	Dia	2	3	4	5
	Lengths that are <b>Threaded to Head</b> lengths up to	Lengths that have <b>Partial Threads</b> lengths	Min and Max Thread Lengths (for lengths listed in column 3)			Lengths that are <b>Threaded to Head</b> lengths up to	Lengths that have <b>Partial Threads</b> lengths	Min and Max Thread Lengths (for lengths listed in column 3)	
			min	max				min	max
1/4	1 1/8	1 1/4 to 6	3/4	1.000	1 1/8	3 1/2	3 5/8 to 6	2 1/2	3.214
5/16	1 1/4	1 5/16 to 6	7/8	1.153	1 1/4	3 3/4	3 7/8 to 6	2 3/4	3.464
3/8	1 3/8	1 1/2 to 6	1	1.312	1 3/8	4 1/4	4 5/16 to 6	3	3.833
7/16	1 5/8	1 3/4 to 6	1 1/8	1.482	1 1/2	4 1/2	4 5/8 to 6	3 1/4	4.083
1/2	1 3/4	1 7/8 to 6	1 1/4	1.635	1 3/4	5 1/8	5 1/4 to 6	3 3/4	4.75
9/16	2	2 1/8 to 6	1 3/8	1.792	2	5 3/4	5 7/8 to 6	4 1/4	5.361
5/8	2 1/8	2 1/4 to 6	1 1/2	1.955	2 1/4*	6 1/2	6 5/8 to 12	5	5.861
3/4	2 1/2	2 5/8 to 6	1 3/4	2.250	2 1/2*	7 1/8	7 1/4 to 12	5 1/2	6.500
7/8	2 3/4	2 7/8 to 6	2	2.556	2 3/4*	7 5/8	7 3/4 to 12	5 3/4	7.000
1	3	3 1/8 to 6	2 1/4	2.875	3*	8 1/8	8 1/4 to 12	6 1/2	7.500

\*For these diameters lengths up to 6" are threaded to head, min and max thread lengths (listed in columns 4 and 5) are based on  $2 \times \text{dia} + 1/2"$

The above information is for reference only and is not intended for inspection purposes. Refer to the industrial standard for exact tolerances.

### Screw Sizes Coarse and Fine Threads

Inch Size Coarse (UNC) Fine (UNF)	Decimal Equivalent		Closest Metric Size	Decimal Conversion
1/4 - 20 - 28	.250"		M6 x 1.0 x 0.75	.236"
5/16 - 18 - 24	.3125"		M8 x 1.25 x 1.0	.315"
3/8 - 16 - 24	.375"		M10 x 1.5 x 1.25	.394"
7/16 - 14 - 20	.4375"			
1/2 - 13 - 20	.500"		M12 x 1.75 x 1.25	.472"
9/16 - 12 - 18	.5625"		M14 x 2.0 x 1.5	.551"
5/8 - 11 - 18	.625"		M16 x 2.0 x 1.5	.630"
			M18 x 2.5 x 1.5	.709"
3/4 - 10 - 16	.750"			
			M20 x 2.5 x 1.5	.787"
7/8 - 9 - 14	.875"		M22 x 2.5 x 1.5	.866"
1 – 8 UNC - 12 UNF - 14 UNS	1.000"		M24 x 3.0 x 2.0	.945"
1 1/8 - 7 - 12	1.125"			
			M30 x 3.5 x 2.0	1.181"
1 1/4 - 7 - 12	1.250"			
			M36 x 4.0 x 3.0	1.417



### Ultimate Tensile Strength (UTS)

Force required to cause failure in cap screw in axial direction.

Grade 1	60,000 psi minimum	Property Class 4.6	400 MPa min
Grade 2	74,000 psi minimum	Property Class 8.8	830 MPa min
Grade 5	120,000 psi minimum	Property Class 10.9	1040 MPa min
Grade 8	150,000 psi minimum	Property Class 12.9	1220 MPa min
Grade 9	180,000 psi minimum		

If we had a bar that was heat treated to a Grade 8 strength level and the bar is one square inch in diameter, it would take 150,000 pounds to pull the bar apart.

## Inch Cap Screw Strength Designations

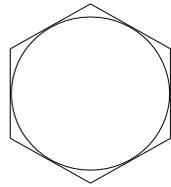
Inch Strength Designations	Tensile Strength (min)		Material	Properties
L-9 (Grade 9)	180,000 psi		Alloy Steel	Highest Strength Excellent Wear and Abrasion Resistance
<b>SAE Grades</b>				
Grade 8	150,000 psi		Alloy Steel	High Strength and Toughness
Grade 5	120,000 psi to 90,000 psi		Carbon Steel	Medium Strength (standard)
Grade 2 Grade 1	74,000 psi 60,000 psi		Carbon Steel	Low Strength
<b>ASTM Grades</b>				
A490	150,000 psi		Alloy Steel	High Strength and Toughness
A325	120,000 psi		Carbon Steel	Medium Strength
B7 (A193)	125,000 psi		Alloy Steel	Medium Strength with Excellent Toughness
A307	60,000 psi		Carbon Steel	Low Strength

## Metric Cap Screw Strength Levels

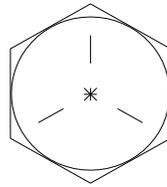
Metric Strength Designations	Tensile Strength (min)		Material	Properties
Property Class 12.9	1220 MPa (177,000 psi)		Alloy Steel	Highest Strength Excellent Wear and Abrasion Resistance
Property Class 10.9	1040 MPa (150,800 psi)		Alloy Steel	High Strength and Toughness
Property Class 8.8	830 MPa (120,350 psi)		Carbon Steel	Medium Strength (standard)
Property Class 4.6	400 MPa (58,000 psi)		Carbon Steel	Low Strength

# Head Markings – Inch & Metric

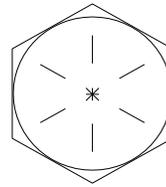
## SAE Grades



Grade 1 & 2

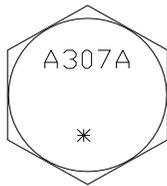


Grade 5

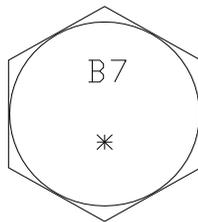


Grade 8

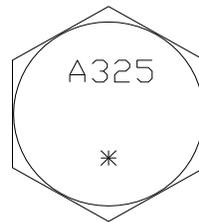
## ASTM Grades



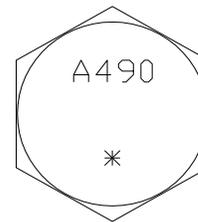
A307 Grade A



Grade B7

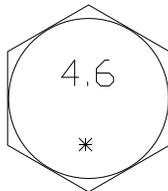


A325

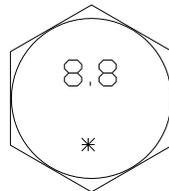


A490

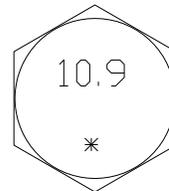
## Metric Grades



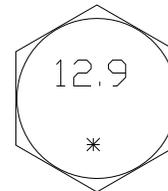
Property Class 4.6



Property Class 8.8

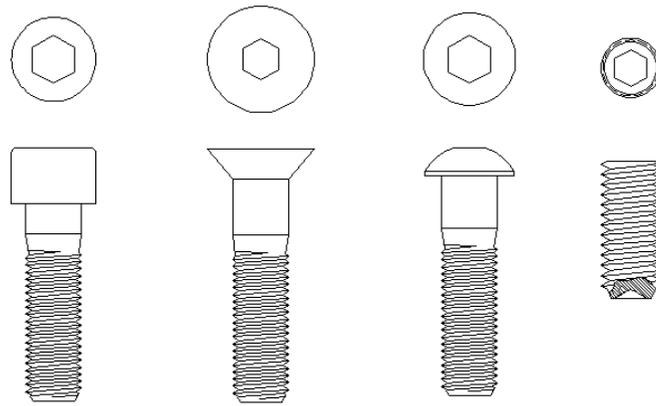


Property Class 10.9



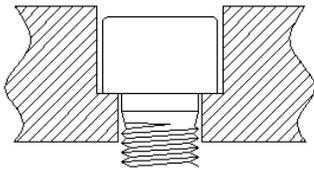
Property Class 12.9

# Socket Products



Socket products do not come in different grades like hex head cap screws

Tensile Strength :  
Diameters 1/4 to 1/2"      180,000 psi min  
Diameters above 1/2"      170,000 psi min



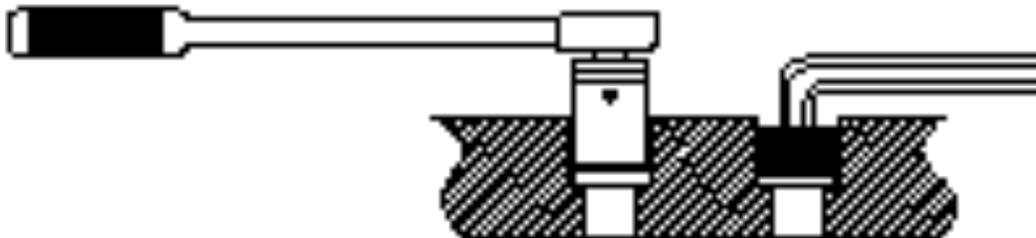
Counterbore Screw



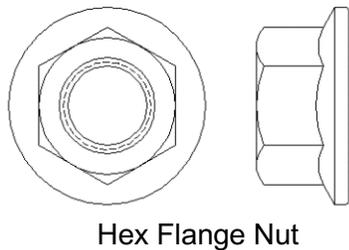
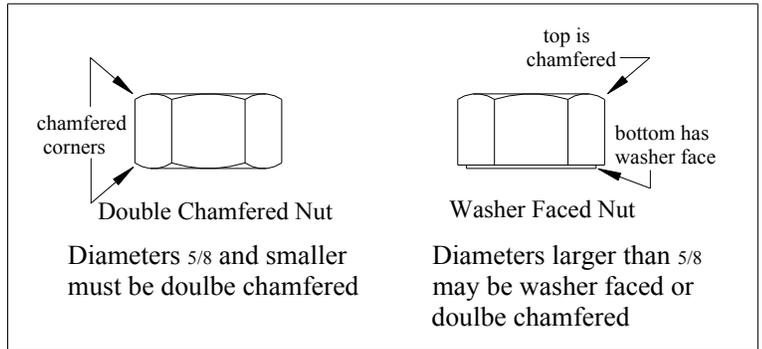
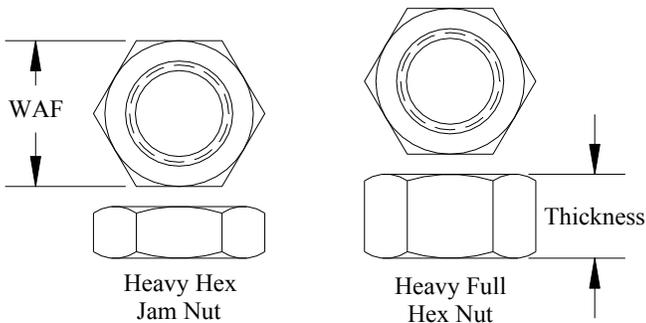
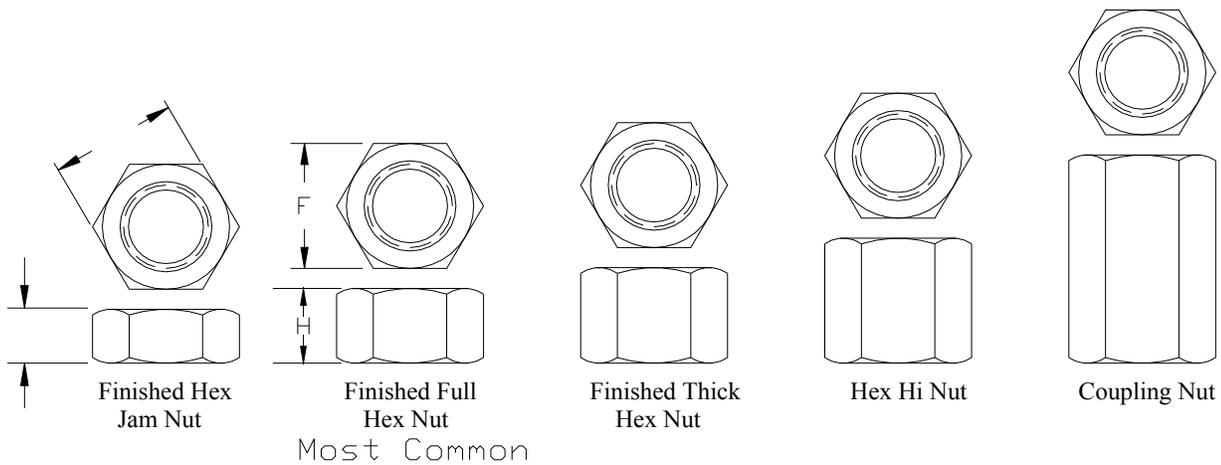
Set screws used to hold shafts in place



12 Point Flange Screws are used to replace standard socket heads



# Hex Nuts

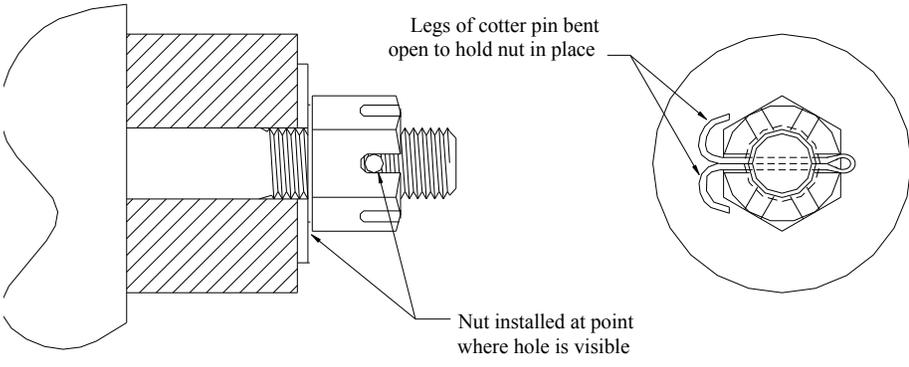
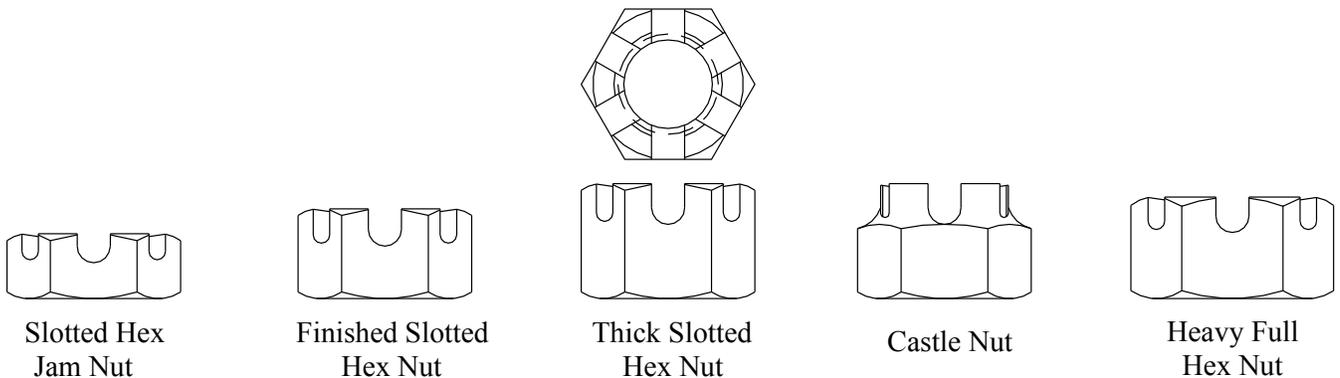


Hex Nuts				
Grade	Hardness	Proof Load Strength (psi)		
2	Rc 32 max	(not defined)		
5	Rc 32 max	Dia. 1/4 to 1 1 1/8 to 1 1/2	UNC 120,000 105,000	UNF 109,000 94,000
8	Dia 1/4 to 5/8 Rc 24/32 3/4 to 1 Rc 26/34 1 1/8 to 1 1/2 Rc 26/36	150,000		
9	Rc 30/38	180,000		

<b>Heavy Hex Nuts</b>				
<b>Grade</b>	<b>Hardness</b>		<b>Proof Load Strength (psi)</b>	
<b>A</b>	Rb 68 / Rc 32		UNC 100,000	UNF 90,000
<b>5</b>	Rc 32 max		Dia 1/4 to 1 1 1/8 to 1 1/2 UNC 133,000 116,000	UNF 120,000 105,000
<b>C</b>	Rb 78 / Rc 38		UNC 144,000	UNF (not defined)
<b>8</b>	Dia 1/4 to 5/8 3/4 to 1 1 1/8 to 1 1/2	Rc 24/32 Rc 26/34 Rc 26/36	UNC 165,000	UNF 150,000
<b>2H</b>	1/4 to 1 1/2 above 1 1/2	Rc 24/35 Rb 95/Rc 35	175,000	

<b>Metric Hex Nuts</b>				
<b>Property Class</b>	<b>Hardness</b>		<b>Proof Load Strength</b>	<b>(equivalent English Units)</b>
6	Rb 70/Rc 32		680 MPa	98,600 psi
8	M6 to M16 M16 >	Rb 80/Rc 32 Rc23 / Rc 35	880 MPa 920 MPa	127,600 psi 133,400 psi
10	Rc 26 / 36		M4 to M10 M12 >	1040 MPa 1060 MPa 150,800 psi 153,700 psi

# Slotted Nuts



## Grade 5 Hex Slotted Nuts

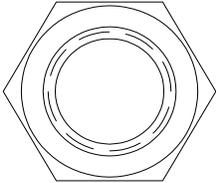
1/4 thru 1 UNC	Over 1" UNC	1/4 thru 1 UNF	Over 1 UNF
96,000 psi min	87,000 psi min	84,000 psi min	75,000 psi min

## Grade 8 Hex Slotted Nuts

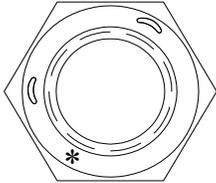
1/4 thru 1 1/2
120,000 psi min

# Hex Nut Grade Markings

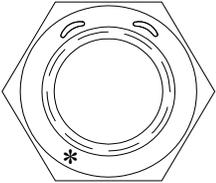
## SAE markings



Grade 2

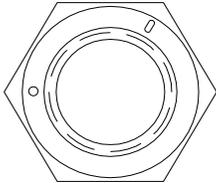


Grade 5

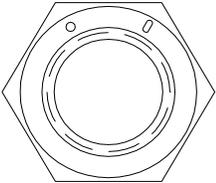


Grade 8

## Old SAE Marking

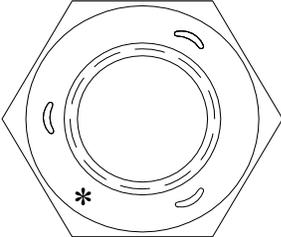


Grade 5

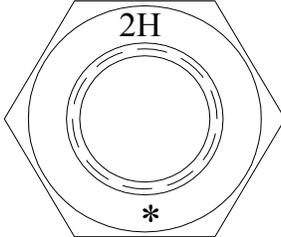


Grade 8

## ASTM marking



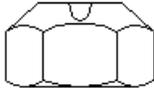
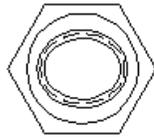
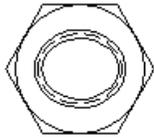
Grade C



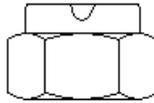
Grade 2H

# Lock Nuts

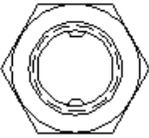
## All Metal Lock Nuts



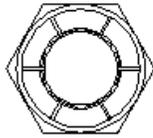
Crowned Top Lock  
(Autoamtion or Stover Style)



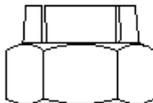
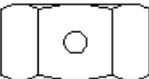
Collar Style



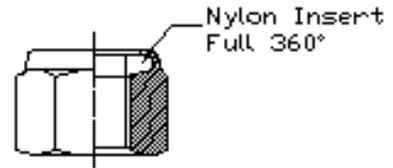
Two Way Center Lock



Flex Lock



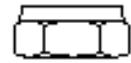
## Nylon Insert Lock Nuts



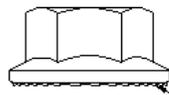
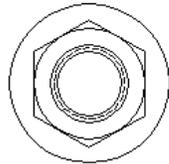
NE Series  
(Regular)



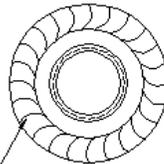
NTE Series  
(Jam Nut)



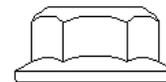
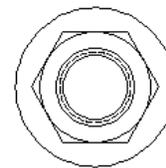
## Flange Lock Nuts



Locking Serrations



Serrated Flange Lock Nut

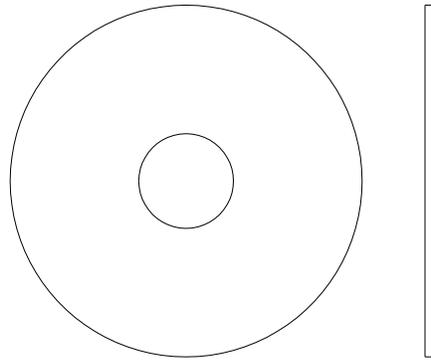


Flange Lock Nut

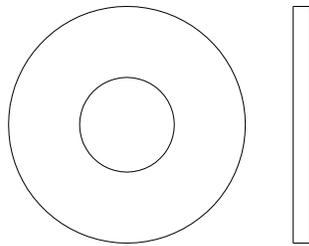
IFI Grade	For Sizes	Proof Load Strength	Max Grade of Cap Screw to be used with
Grade A	#4 to 1 1/2 (UNC & UNF)	90,000	Grade 2
Grade B	#4 to 1" (UNC & UNF) 1 1/8 to 1 1/2" (UNC & UNF)	120,000 105,000	Grade 5
Grade C	#4 to 1 1/2 (UNC & UNF)	150,000	Grade 8
Grade F	1/4 thru 3/4	120,000	Grade 5
Grade G	1/4 thru 5/8	150,000	Grade 8

SAE Grade	For Sizes	Proof Load Strength	Max Grade of Cap Screw to be used with
Grade 2	1/4 to 1 1/2	(not defined)	Grade 2
Grade 5	1/4 to 1" (UNC) 1/4 to 1" (UNF) 1 1/8 to 1 1/2 (UNC) 1 1/8 to 1 1/2 (UNF)	120,000 109,000 105,000 94,000	Grade 5
Grade 8	1/4 to 1 1/2	150,000	Grade 8

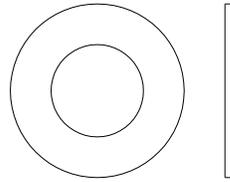
# Flat Washers



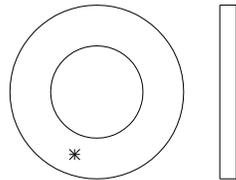
Fender Washer  
(Widest Style)



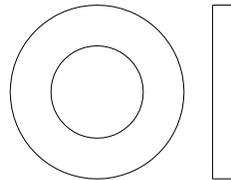
USS Washer  
(Wide Series)



SAE Washer  
(Narrow Series)



F436 Washer



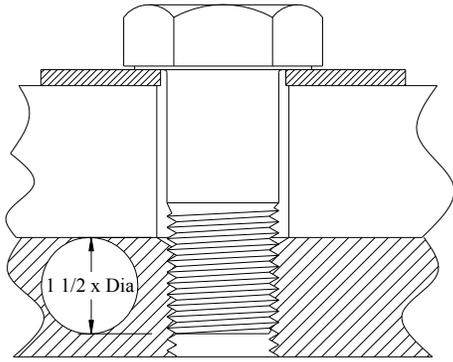
Thick Washer

Flat Washers are not graded.  
There is no grade 8 or grade 5 washer

## Three Types

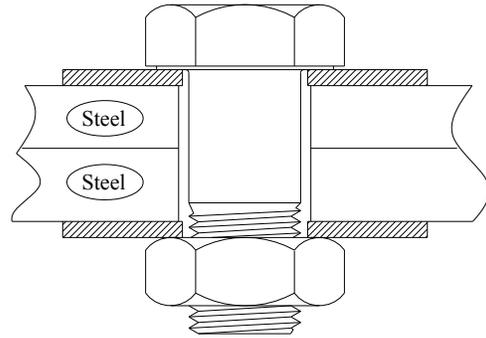
- Carbon Steel (aka, low carbon steel or steel)  
For Grade 1, 2 or 5
- Case hardened steel  
For Grade 5
- Through Hardened  
For Grade 8

# Types of Applications



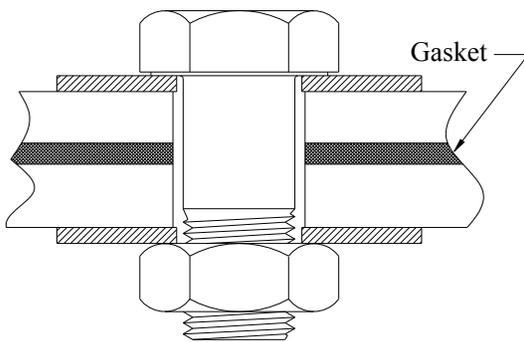
**Blind (or Tapped)  
Hole Assembly**

Grades 9, 8, 5, B7



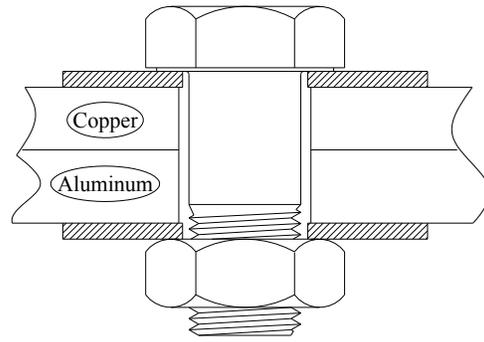
**Nut and Bolt  
Assembly**

Grades 9, 8, 5, 2(1)  
A490, A325, B7



**Gasketed Joint  
Assembly**

Grades 5, B7, 2(1)



**Clamping Soft  
Metals**

Grades 5, B7, 2(1)

# Platings & Coatings



Zinc Yellow



Hot Dip Galvanized



Zinc Plated (Zinc/Clear)

## Furnace Black (Plain)

(black oxide from heat treatment)



## Plain

(non-heat treated)



## Corrosion Protection

Coating	Salt Spray Hours
Hot Dip Galvanized	240 hrs
Zinc Yellow	96 hrs
Zinc Plated (Zn/Clear)	72 hrs
Furnace Black	4 hrs
Plain	0 hrs

## Torque Calculations for Fasteners

Standard industry practice for calculating torque for a fastener assembly is to use the formula  
 Torque = Clamp Load x Diameter x Friction Factor / 12 (T=PxDxK/12)

The desired clamp load is usually based on 75% of the Yield Strength (or Proof Load Strength) of the threaded fastener used in the assembly (the nut used should be compatible with the strength of the threaded component). The Friction Factor is based on the surface finish of the two components being assembled. If both components have a plain steel finish then the Friction Factor (K) is assumed to be .20. The use of lubricants on the threads can reduce the Friction Factor to .12 and the addition of platings that do not slide across each other well can increase the Friction Factor to .22 (for zinc plating).

The table listed below shows the recommended clamp loads for Grade 2, 5 and 8 assemblies (per SAE J429 and J995).

Diameter	TPI	Area Stress	Recommended Clamp Load (based on 75% of Cap Screws Proof Load)			Recommended Torque (for plain finish assemblies)					
			Grade 2 Clamp Load (lbs)	Grade 5 Clamp Load (lbs)	Grade 8 Clamp Load (lbs)	Gr 2 Torque Ft-Lbs		Gr 5 Torque Ft-Lbs		Gr 8 Torque Ft-Lbs	
						Dry (K=.20)	Lubed (K=.15)	Dry (K=.20)	Lubed (K=.15)	Dry (K=.20)	Lubed (K=.15)
1/4	20	0.0318	1312	2027	2862	5	4	8	6	12	9
	28	0.0364	1502	2321	3276	6	5	10	7	14	10
5/16	18	0.0524	2162	3341	4716	11	8	17	13	25	18
	24	0.058	2393	3698	5220	12	9	19	14	27	20
3/8	16	0.0775	3197	4941	6975	20	15	31	23	44	33
	24	0.0878	3622	5597	7902	23	17	35	26	49	37
7/16	14	0.1063	4385	6777	9567	32	24	49	37	70	52
	20	0.1187	4896	7567	10683	36	27	55	41	78	58
1/2	13	0.1419	5853	9046	12771	49	37	75	57	106	80
	20	0.1599	6596	10194	14391	55	41	85	64	120	90
9/16	12	0.182	7508	11603	16380	70	53	109	82	154	115
	18	0.203	8374	12941	18270	79	59	121	91	171	128
5/8	11	0.226	9323	14408	20340	97	73	150	113	212	159
	18	0.256	10560	16320	23040	110	83	170	128	240	180
3/4	10	0.334	13778	21293	30060	172	129	266	200	376	282
	16	0.373	15386	23779	33570	192	144	297	223	420	315
7/8	9	0.462	11435	29453	41580	167	125	430	322	606	455
	14	0.509	12598	32449	45810	184	138	473	355	668	501
1	8	0.606	14999	38633	54540	250	187	644	483	909	682
	14	0.68	16805	43286	61110	280	210	721	541	1019	764
1 1/8	7	0.763	18884	42347	68670	354	266	794	595	1288	966
	12	0.856	21186	47508	77040	397	298	891	668	1445	1083
1 1/4	7	0.969	23983	53780	87210	500	375	1120	840	1817	1363
	12	1.073	26557	59552	96570	553	415	1241	930	2012	1509

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- **Common Abbreviations used with Fasteners**
- 18-8 Stainless Steel with 18% Chrome and 8% Nickel
- 2, 5 or 8 Strength grade of screw or nut
- 2A (3A) Class of Thread Fit for inch screws
- 2B (3B) Class of Thread fit for inch nuts
- 2H Nut strength level designation (ASTM A194 Grade 2H Heavy Hex Nut)
- 6g Class of thread fit for metric screws
- 6H Class of thread fit for metric nuts
- A325 Heavy Hex Structural Bolt (ASTM A325), similar to Grade 5
- A490 Heavy Hex Structural Bolt ASTM A490), similar to Grade 8
- A574 Strength grade for Socket head cap screws (ASTM A574)
- AISI American Iron and Steel Institute, specifies chemical composition of steels
- ANSI American National Standards Institute
- AS Alloy Steel
- ASME American Society of Mechanical Engineers
- ASTM American Society for Testing and Materials
- B When followed by a number (ex B-90) hardness measured on the Rockwell B Scale or an abbreviation for Boron
- Bake (Bake-Out) Heat Treat process used in plating to prevent Hydrogen Embrittlement
- Bevel Style of washer (square with a taper) used with I beams
- Belleville Style of lock washer, also called conical spring washer
- BHCS Button Head Cap Screw
- BHN Hardness measured with a Brinell Hardness Tester
- BS British Standard
- C When followed by a number (ex C-35) hardness measured on the Rockwell C Scale
- or an abbreviation for Carbon
- CH Case hardened (type of heat treatment)
- C/R Cross Recess Drive (typically Phillips style) or Chamfer/Radius
- Cad Cadmium Plating
- CAD Computer Aided Design/Drafting
- Cad/Wax Cadmium Plating with a topcoat of Wax
- COO Country of Origin
- CRES Corrosion resistant steel (usually refer to 18-8 or 316 stainless steel)
- CS (cs) Carbon Steel or Countersunk
- DAC (Dac 320) Dacromet Coating (Registered Trademark of Coatings International)
- D/C Nut Double Chamfered Nut (distinguish from washer faced)
- D/E Double Ended Stud
- DIN German Standards Organization
- Deltaseal Magnigard coating (registered trademark of Magni Engineered Coatings)
- Dorrtech Magnigard coating (registered trademark of Magni Engineered Coatings)
- Driseal Pipe Thread (registered trademark of Parker Hannifin)
- ET External Thread
- FB Flange Bolt
- F436 Hardened flat washer with dimensions per ASTM F436
- FHCS Flat Head Cap Screw
- FIM Full Indicator Measurement
- FIng Hex Flange Bolt or Nut
- FW Flat Washer
- galv Galvanized, typically refers to Hot Dip Galvanized
- Gr Grade, refers to strength level of screw or nut (ex: Grade 2, Grade 5 or Grade 8)
- Hardened A product that has been heat treated
- HB Hex bolt or Hardness reading measured on the Brinell Scale
- H.T Heat Treated

• HCS		Hex Cap Screw or High Carbon Steel
• H.D.G.		Hot Dip Galvanized
• Hex Bolt	Can refer to either a “bolt” or a “cap screw”	
• HHCS Screw)		Hex Head Cap Screw (also an abbreviation for Heavy Hex Cap
• HRB		Hardness measured on the Rockwell B scale
• HRC		Hardness measured on the Rockwell C scale
• HWH		Hex Washer Head
• ID		Identification (usually refers to manufacturer logo)
• IFI		Industrial Fastener Institute
• IH		Indented Head
• in.		Inch
• ISO		International Standards Organization
• ISIR		Initial Sample Inspection Report
• IT		Internal Thread
• J429		SAE standard that specifies strength levels of screws
• J995		SAE standard that specifies strength levels of nuts
• k		Short hand for the number 1,000
• Keps		Nut with a permanently attached washer
• Kips		1,000 pounds
• ksi		Thousand of pounds per square inch
• lb (lbs)		Pounds
• Lb		Body Length on screws
• LCS		Low Carbon Steel
• Lg		Grip Length (distance from head to full threads) on screws
• LH		Left Hand Thread
• L/W		Lock Washer
• M		Metric or short hand for the number 1,000
• Magnigard	Magni Coating (Registered Trademark of Magni Engineered Coatings)	
• Mfg		Manufacturer
• mm		Millimeter
• MS	Machine screw	
• MTR		Material Test Report
• #3 (or #7)	Refers to head design of a plow bolt	
• NC		Unified National Coarse Thread
• NE (NU, NTE, NTU)	Designations that	define the thickness of Nylon Insert Lock Nuts
• NF		Unified National Fine Thread
• Nom		Nominal (reference dimension)
• NPT		National Tapered Pipe Thread
• p		Thread Pitch
• P/B		Plow Bolt
• Ph Dr		Phillips Drive (cross recess)
• PI		Plain finish
• P/N		Part Number
• Phos (P & O)		Phosphate and Oil Coating (typically Zinc Phosphate and Oil)
• Pozi Drive	Special cross recess (registered trademark of Camcar Textron)	
• PPAP		Production Part Approval Process
• psi		Pounds per square inch
• PZ		Pozi-Drive style of cross recess
• R		Radius
• Rb (RB or HRB)	Hardness measured on the Rockwell “B” scale	
• Rc (RC or HRC)	Hardness measured on the Rockwell “C” scale	
• RT		Rolled Threads
• SAE		Society of Automotive Engineers,
•	when used with washers it means “small OD”	
•	when used with screw or nuts means fine thread	

