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CANOLA BASED DIESEL FUEL CONDITIONER

Did You Ever Consider Insurance for Your Diesel Engine and Injector Pump?



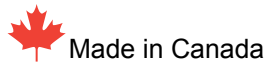
BIOTECH DIESEL FUEL CONDITIONER

- IMPROVES LUBRICITY
- CLEANS INJECTOR SYSTEMS
- ENHANCES ENGINE PERFORMANCE
- ENVIRONMENTALLY RESPONSIBLE

Milligan Biotech Diesel Fuel Conditioner is a canola based product created to address lubricity concerns about commercial diesel fuels. Recent environmental legislation requiring the reduction of sulfur and aromatic compounds in diesel fuel, both in Canada and the United States, has dramatically lowered the lubricity characteristics of untreated fuel. Refiners do blend petrochemical lubricants into commercial fuel products, but there is still room for improvement. As recently as 1998, world-wide fuel surveys conducted by Paramins of the UK have indicated that Canadian diesel fuels were among the poorest performers on lubricity tests. Researchers at the University of Saskatchewan have examined a number of environmentally friendly alternatives to petrochemical additives to improve our fuel.

With support from Agriculture and Agri-Food Canada, Sask. Agricultural Development Fund, and the Sask. Canola Development Commission, these studies led to testing a number of biodiesel additives derived from different vegetable oils. According to Professor Barry Hertz of the Mechanical Engineering Department at the U of S., "the canola based products seem to be superior to most others that we've investigated." As reported in the SCDC publication "Extending Diesel Engine Life and Fuel Economy with Canola Based Fuel Additives", the addition of even small amounts of canola methyl ester (CME or biodiesel) or a canola oil with derivative (COD) can substantially improve the lubricity performance of commercially available diesel fuels. As little as 0.5% canola biodiesel and 0.1% canola oil derivative (COD) reduced engine wear by up to 50% and improved fuel economy by up to 13% on actual road tests.

Milligan Biotech Diesel Fuel Conditioner is a proprietary blend of canola based products which combines the excellent deposit cleaning properties of biodiesel with the outstanding fuel additive with superior lubricity properties of both canola biodiesel and canola oil derivatives. The result is an environmentally responsible fuel additive with superior lubricity that improves engine performance and extends engine life. Mixed at the recommended ratio of 1 L to 1000 L of fuel it adds less than 2 cents to the cost of a liter of fuel.

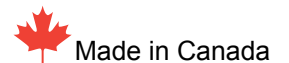


PART NO.	DESCRIPTION	SIZE
LUB DFC-250ML	Milligan Biotec Diesel Additive	250 mL
LUB DFC-1L	Milligan Biotec Diesel Additive	1L
LUB DFC-5L	Milligan Biotec Diesel Additive	5L

CANOLA BASED PENETRATING OIL

PRAIRIE CLEAN

- LOOSEN RUSTED AND SEIZED NUTS AND BOLTS
- EXCELLENT LUBRICATOR AND RUST REMOVER
- 100% CANOLA BASED
- ENVIRONMENTALLY RESPONSIBLE



PART NO.	DESCRIPTION	SIZE
LUB PO-313G	Prairie Clean Penetrating Oil, Aerosol	313 g


MILLIGAN PRODUCT DISPLAY

PART NO.	DESCRIPTION	SIZE
LUB DFD	Milligan Product Display	Asst.



RENEW-A-SHINE



 Made in Canada

Restore your equipment
to its original shine!

Renew-A-Shine
protectant impedes
rust & corrosion

PART NO.	DESCRIPTION
LUB 2001	340 g Aerosol

WORX - REVOLUTIONARY HAND CLEANER

PART NO.	DESCRIPTION	PHOTO
LUB 11-1009	All Natural Hand Cleaner - 9 ounce pouch	G
LUB 11-1009-150	All Natural Hand Cleaner - Case of 150 - 9 ounce pouches	-
LUB 11-1100	All Natural Hand Cleaner - 1 lb. bottle	C
LUB 11-1100-12	All Natural Hand Cleaner - Case of 12 - 1 lb. bottles	-
LUB 11-1300	All Natural Hand Cleaner - 3 lb. bottle	E
LUB 11-1300-4	All Natural Hand Cleaner - Case of 4 - 3 lb. bottles	-
LUB 11-1450	All Natural Hand Cleaner - 4.5 lb. bottle	-
LUB 11-1450-4	All Natural Hand Cleaner - Case of 4 - 4.5 lb. bottles	-
LUB 11-1650	All Natural Hand Cleaner - 6.5 ounce bottle	B
LUB 11-1650-24	All Natural Hand Cleaner - Case of 24 - 6.5 ounce bottles	-
LUB 11-9995	Dispenser for 3 lb. bottles	F
LUB 11-9999	Dispenser for 4.5 lb. bottles	D
LUB 26-0006	Waterless Hand Cleaner - 6 fl. ounce tube	A
LUB 26-0006-10	Waterless Hand Cleaner - Case of 10 - 6 fl. ounce tubes	-



The Ultimate "Hands-On" Cleaning Solution!



ENVIRONMENTAL CERTIFICATION

WORX™ was the first hand cleaner certified to use the internationally recognized EcoLogo (Environmental Choice) and Green Seal symbols for environmental excellence. Customers can be confident they have made the right choice for today and tomorrow by purchasing an effective, safe, environmentally friendly product.



No Compromise In...

- Cleaning power
- Cost
- Convenience
- Commitment to the Environment

Makes Sense

- Concentrated Powder
- Does Not Clog Drains
- Easy to Store

Convenient Storage

WORX™ wall mounted dispensers are tough, yet attractive. Our dispensers or easy-to-use bottles are ideal for the shop, the show-room, or the kitchen.

The Difference

- Highly Effective
- Conditions Skin
- Reduces Costs
- Environmentally Friendly
- Safe to Use

Simple-To-Use

- Wet One Hand
- Apply WORX™ Powder
- Wet the Other Hand
- Scrub
- Rinse Thoroughly

Contains NO...

- Borax
- Phosphates
- Pumice
- Alkali
- Sand
- Solvents
- Plastic
- Soap

FLUID FILM

**SUPERIOR LUBRICANT
RUST & CORROSION PROTECTION
LONG-TERM PENETRANT**



**Environmentally Friendlier
Solvent Free - Non-Toxic**

**VEHICLE UNDERCOATING
Rust's Worst Enemy**

Environmentally Friendly

Nature Given Material

FLUID FILM utilizes the unique molecular action derived from WOOL WAX (Lanolin) (nature given, taken from the wool of sheep). Along with other corrosion inhibiting ingredients.

One of the best lubrication and corrosion control agents found in nature today.

FLUID FILM has been used for over 50 years in the highly corrosive marine environment of ships and off-shore drilling rigs.

SILICONE/TEFLON FREE.
WILL NOT DRY OUT OR EVAPORATE.
NOT WATER SOLUBLE.
DISPLACES MOISTURE.
CAN BE APPLIED OVER DAMP/DRY SURFACES.
PREVENTS ICE/SNOW FROM BUILDING UP ON MOVING PARTS. WORKS IN SUB-ZERO WEATHER -50°F TO 350°F.
NON-CONDUCTOR. WILL NOT CAUSE STATIC ELECTRICITY.
REDUCES STRESS CORROSION.

PART NO.	DESCRIPTION
LUB 1450	145 g Aerosol
LUB 3300	833 g Aerosol
LUB 3700	3.5 L Pail
LUB 4300	20 L Pail

CARS – TRUCKS – BUSES – BOATS – TOOLS – HOME – FARM – SPORTS
INDUSTRIAL – AIRCRAFT – RV'S – MARINE – BATTERY TERMINALS
TRAILERS – SALT TRUCKS – FORESTRY – ELECTRICAL

COUNTER DISPLAY

ORDER ANY 12 CANS OF PLASTI-KOTE ON THE
NEXT PAGE AND RECEIVE A T124 COUNTER
DISPLAY CARTON . . .

FREE!



PLASTI-KOTE FINISHES

Plasti-Kote Premium Enamels are simply the finest spray paint made.

Super Enamel



340 g aerosol



Through years of research and practical application, Plasti-Kote has developed the most remarkably versatile spray paint available anywhere. Plasti-Kote SUPER ENAMELS dry fast to a beautiful high gloss finish. They can be recoated anytime. The wide variety of colours and primers available are fade and chip resistant; can be used on most surfaces, indoors or out. The finish will last for years. Totally lead free, Plasti-Kote ENAMELS are completely safe, even for children's toys and furniture. And what's more, they cover more square feet per can than the leading competition. That translates to real value. When your customers want the best...they want Plasti-Kote premium quality ENAMELS.

PART NO.	DESCRIPTION
LUB T1	Gloss Black 340 g
LUB T2	Flat Black 340 g
LUB T4	Gloss White 340 g
LUB T6	Swift Red 340 g
LUB T10	Machinery Grey 340 g
LUB T16	Royal Blue 340 g
LUB T23	Aluminum 340 g

Implement Enamel



340 g aerosol

TRACTOR & IMPLEMENT ENAMEL has been specially formulated to stand up against the roughest kind of outdoor exposure, and the weather resistant gloss finish protects against rust. It won't fade, chalk or peel.

Plasti-Kote TRACTOR & IMPLEMENT colours are gasoline and oil resistant. The wide variety of colours available precisely matched to the colour standard of leading farm and industrial equipment manufacturers. The perfect finish for all outdoor machinery needs.

PART NO.	DESCRIPTION
LUB 1350	Case Orange 340 g
LUB 1351	Deere Yellow 340 g
LUB 1352	Ford Grey 340 g
LUB 1353	Oliver Green 340 b
LUB 1354	New AC Orange 340 g
LUB 1355	New Cat Yellow 340 g
LUB 1356	Cat Yellow 340 g
LUB 1359	Harvester Red 340 g

PART NO.	DESCRIPTION
LUB 1360	Deere Green 340 g
LUB 1361	Ford Blue 340 g
LUB 1362	Case Red 340 g
LUB 1365	Massey Red 340 g
LUB 1368	New Holland Yellow 340 g
LUB 1374	Massey Grey 340 g
LUB 1375	Kubota Orange 340 g



Made in Canada

Non-Sandable General Purpose Primers



340 g aerosol



For all purpose use to get a lasting, professional finish. Available in grey, red or black depending on shades of finish coat desired. For rustproofing rusted surfaces after scale is removed.

PART NO.	DESCRIPTION
LUB T18	Grey 340 g
LUB T19	Red Oxide 340 g
LUB T25	Black 340 g

TECH PRODUCTS

Hi-Temp Sealer, Cast Iron and Steel Repair Compound

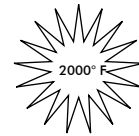


PART NO.	SIZE
LUB 2000	20 g



RED HOT 2000™ is a unique ceramic metallic paste ideal for repairing cracks and holes in cast iron and steel automotive and marine engine parts as well as many other high temperature applications. This advanced single part, machinable compound is easy to use, cures at room temperature, and cleans up with water and soap.

CERAMIC METALLIC PASTE THAT GETS STRONGER WITH HEAT
Seals cracks and fills Pits and Pinholes in Cast Iron and Steel!
Manifolds • Headers • Tail Pipes • Mufflers • Crossover Pipes
Stoves • Furnaces • Barbecues and much more!
EASY TO USE • NO MIXING • NO WASTE • EASY CLEANUP



Plastic Fiberglass Repair



BEGINS TO HARDEN IN 10-15 MINUTES

Tech Plastic™ when hand mixed (kneaded) can be molded to any size, can be drilled, sawed, sanded, stained or painted. Interior & exterior applications for fast permanent repair. Excellent adhesive properties for metal or plastic repairs. Dries white, does not shrink, crack, rot or pullaway, non-yellowing and rustproof. Cures underwater (fresh & saltwater), excellent for plumbing repairs on PVC, ABS, faucets, fixtures, ceramic tile, porcelain, stripped screw holes, water tanks, tubs, gutters, seals, electrical wires, plastic bumpers, battery cases, fish boxes, sprinkler heads, on board fuel tank leaks, many automotive and household uses.

No Home/Marine/RV tool box is complete without Tech Plastic™



PART NO.	SIZE
LUB 2900	57 g

Steel Reinforced Epoxy Putty



PART NO.	SIZE
LUB 16002	57 g



Steel Hard in 15 Minutes • Full Cure in 1 Hour

PERMANENTLY ADHERES TO:

Steel – Aluminum – Wood – Copper – Cast Iron – PVC – ABS
 Bronze – Concrete – Plastics – Glass – Fiberglass – Ceramics – Brass & Much More!!!
 • 500° temperature resistant • 3-year shelf life • Sets up under water
 • Impervious to Chemicals

AUTO/TRUCK: Gas Tanks, Tailpipes, Mufflers, Intake Manifolds, Radiators, Blocks
HOME: Furniture, Appliances, Hot Tubs, Pools, Gutters, Screens, Glass, Woodwork
FARM: Farm Equipment, Fuel Tanks, Troughs, Fences, Irrigation Equipment
MARINE: Fiberglass, Aluminum, Inboard/Outboard Motors, Gas Tanks, Water Tanks
HOBBIES: Crafts, Jewelry, Ceramics, Plastics, Models, Molds, Glass Toys
PLUMBING: PVC, ABS, Faucets, Fixtures, Porcelain, Copper, Brass, Stripped Screws

LUBRIPLATE®

Automotive Lubricants

No. 105 MOTOR ASSEMBLY GREASE: A smooth light-bodied grease made especially for motor assembly. Prevents "Dry Start". Provides lubrication during the initial start up before the motor oil has circulated. Protects freshly machined engine parts from rust and corrosion.

10 oz. tube. **Part No. LUB 03494**

SPECIAL AUTO-MARINE GREASE: A super multi-purpose, high temperature, water repellent, extreme pressure grease for automotive and marine uses.

14 oz. cartridge. **Part No. LUB 20698**

WHEEL BEARING GREASE: A superior, long lasting, water resistant, extreme pressure, wheel bearing grease. N.L.G.I. GC-LB certified.

16 oz tube **Part No. LUB 22004**

6 lb. can **Part No. LUB 22006**

No. 105 "B" TUBE GENERAL PURPOSE LUBRICANT: The original white grease in a handy tube. Ideal for locks, latches, hinges, wiper mechanisms, speedometer cables, or anywhere you need. Also excellent for motor assembly.

1 3/4 oz. tube. **Part No. LUB 03487**



Lubriplate® Multi-Purpose Greases

630 SERIES: These very popular lithium type, multi-purpose greases are excellent for a wide range of lubrication demands, thus reducing the need to carry large grease inventories. All have high film strength, exceptional resistance to water, steam and other adverse conditions. This series is available in 4 NLGI densities for a variety of applications.

14 oz. cartridge. **Part No. LUB 07298**

730 SERIES: These high performance, aluminum complex type lubricants provide high load carrying ability and anti-wear protection with high resistance to water, steam and other corrosive action. This series is available in 3 NLGI densities for a wide range of applications and temperatures.

14 oz. cartridge. **Part No. LUB 08598**

930 SERIES: The 930 lubricants are formulated for higher temperature applications. They are shear stable, multi-purpose greases for both plain and anti-friction bearings. This series works well up to 375°F/191°C and for short intervals up to 400°F/204°C. Available in 4 NLGI densities for a wide range of applications.

14 oz. cartridge. **Part No. LUB 09698**

14 oz. cartridge, **Part No. LUB 10098**

No. 1200-2: This is an excellent, heavy-duty, general purpose, lithium type grease for both industrial and automotive applications. It provides a high film strength, great shear stability, anti-wear and extreme pressure additives.

14 oz. cartridge. **Part No. LUB 10298**

1240 SERIES: Polymer type, viscous, non-corrosive, extreme pressure greases. Highly water resistant and tacky, they are designed for applications where the grease is subjected to heavy pressure and shock loads. This series is available in 3 NLGI densities for a wide range of applications and temperatures.

14 oz. cartridge. **Part No. LUB 10698**

No. 3000 and 3000-W: These tacky, moly, extreme pressure greases provide durable, tenacious, adhesive films to protect against water, rust and corrosive contaminants. 3000-W is for cold ambient temperatures. Excellent for construction and mining applications.

14 oz. cartridge. **Part No. LUB 10898**

14 oz. cartridge. **Part No. LUB 10798**

PART NO.	LUBRIPLATE PRODUCT	GREASE TYPE	NLGI GRADE	OIL VIS. SUS. @100°F/38°C	WORKED PENETRATION @77°F/25°C	ASTM DROP POINT	APPROX. COLD TEST	AW/EP	LUBRICITY RUST/OXID. ADDITIVES	WATER RESISTANT	APPLICATIONS/COMMENTS
LUB 07298	630-2	LITHIUM	2	750	265/295	380°F/193°C	0°F/-18°C	AW/EP	YES	YES	Multi-purpose, general greasing, bearings
LUB 08598	730-2	ALUMINIUM	2	800	265/295	560°F/293°C	-10°F/-23°C	AW/EP	YES	YES	Industrial/construction equip., adverse conditions
LUB 09698	930-AA	BENTONE	1	750	310/340	NON-MELT	0°F/-18°C	AW/EP	YES	YES	High temperatures, automatic dispensers
LUB 10098	930-2	BENTONE	2	750	265/295	NON-MELT	10°F/-12°C	AW/EP	YES	YES	Multi-purpose, high temperatures
LUB 10298	1200-2	LITHIUM	2	950	265/295	400°F/204°C	-25°F/-32°C	AW/EP	YES	YES	Very popular general purpose industrial and automotive grease
LUB 10698	1242	LITHIUM	2	1250	265/295	425°F/218°C	15°F/-9°C	AW/EP	YES	YES	Heavy-duty construction equipment, front end loaders, etc.
LUB 10898	3000	MOLY-LITHIUM	2	1250	265/295	450°F/232°C	0°F/-18°C	AW/EP	YES	YES	For heavy-duty, moly type grease construction equipment
LUB 10798	3000-W	MOLY-LITHIUM	1	315	310/340	375°F/191°C	-30°F/191°C	AW/EP	YES	YES	Heavy-duty equipment. Chassis. Cold weather conditions.

Greases for Special Conditions and Applications

HIGH TEMP: For high temperature applications. Non-melt type, workable from 40°F/4°C to 510°F/266°C and up to 550°F/288°C for short intervals.

14 oz. cartridge. **Part No. LUB 16198**

LOW-TEMP and MAG-1: These greases are for cold temperature applications down to -60°F/-51°C

LOW TEMP and MAG-1 are excellent multi-purpose low temperature greases. MAG-1 has a wider operating range for applications up to 300°F/149°C.

14 oz. cartridge. **Part No. LUB 18998**

14 oz. cartridge. **Part No. LUB 17298**

EMB: Developed specifically for lubrication of electric motor bearings, fans and other high speed grease type ball and roller bearings.

14 oz. cartridge. **Part No. LUB 14898**

PART NUMBER	LUBRIPLATE PRODUCT	GREASE TYPE	NLGI GRADE	OIL VIS. SUS. @100°F/38°C	WORKED PENETRATION @77°F/25°C	ASTM DROP POINT	APPROX. COLD TEST	AW/EP	LUBRICITY RUST/OXID. ADDITIVES	WATER RESISTANT	APPLICATIONS/COMMENTS
LUB 16198	High Temp	BENTONE	2	2600	265/29	NON-MELT	0°F/-18°C	AW	YES	YES	Multi-purpose, general greasing, bearings.
LUB 17298	Low Temp	ANHY. DROUS CALCIUM	1.5	90	290/320	280°F/138°C	-60°F/-51°C	AW	YES	YES	Cold temp., multi-purpose, freezers, fifth wheels.
LUB 18998	MAG-1	LITHIUM POLYMER	1	120	310/340	375°F/191°C	-60°F/-51°C	AW/EP	YES	YES	Cold and wide temperature range, bearings, cam slides.
LUB 14898	EMB	LITHIUM POLYMER	2	290	265/295	390°F/199°C	-20°F/-29°C	AW/EP	YES	YES	Electric motor bearings, fans air handlers



Lubriplate® Spray Lubricants

CHAIN & CABLE FLUID SPRAY: Superior penetrating oil. A cleansing non-gumming oil. Lubricates wire rope, chains, cables, any moving metal surfaces. Prevents rust and corrosion. Protects brightwork, loosens rusty nuts and bolts. Excellent drilling, tapping and sawing oil. 12 oz/ 340 g spray can. **Part No. LUB 13563**

SPRAY LUBE "A": A multi-purpose, white lithium-based lubricant of medium density. Sprays like a fluid, congeals to a grease. Excellent for latches, locks, hinges, battery terminals and other hardware. 11 oz/ 311.8 g spray can. **Part No. LUB 03463**

GEAR SHIELD EXTRA HEAVY SPRAY: Developed for easy lubrication of open gears. A tough tacky grease. Excellent for fifth wheel applications. Packed in handy 11 oz/ 311.8 g spray can. **Part No. LUB 15263**

METAL WORKING FLUID SPRAY: A specially developed product for metal working operations. Excellent for drilling, tapping, sawing and grinding. Packed in handy 12 oz/ 340 g spray can. **Part No. LUB 18563**

X-357 LUBRICANT SPRAY: A special extreme pressure lubricant that penetrates and adheres. Water resistant and unaffected by temperature extremes. For use on pintle hooks, slide axles, open gears, fifth wheels. Contains moly-disulfide. Packed in handy 11 oz/ 311.8 g spray can. **Part No. LUB 14963**

MARINE & AUTO GUARD: Multi-purpose penetrating oil. An excellent "wet start" product. Spray on wet plug wires and distributor cap. Outstanding moisture displacement properties. Prevents rust and corrosion. Excellent fogging oil. Packed in 12 oz/ 340 g spray can. **Part No. LUB 71763**



Lubriplate Spray Lubricants do not contain fluorocarbons or 1, 1, 1-Trichloroethane.

Food Machinery Greases/Class H-1

FGL SERIES: Designed to meet the demands of food and beverage industry plant engineers who want USDA authorized* Class H-1 greases to totally replace H-2 greases. Fortified with anti-wear, anti-rust and anti-corrosion additives and heavy base oils which combine to yield excellent shear stability, load carrying capability and resistance to water and caustic wash down. Available in four NLGI densities for a variety of applications.

FGL-CC is for centralized/automatic lubrication systems on high speed can closing equipment. 14 oz cartridge. **Part No. LUB 23298**

FML SERIES: These white, multipurpose greases have been leaders in the food processing industry for years. USDA H-1 authorized. 14 oz cartridge. **Part No. LUB 14598**



PART NUMBER	LUBRIPLATE PRODUCT	GREASE TYPE	NLGI GRADE	OIL VIS. SUS. @100°F/38°C	WORKED PENETRATION @77°F/25°C	ASTM DROP POINT	APPROX. COLD TEST	AW/EP	LUBRICITY RUST/ OXID. ADDITIVES	WATER RESISTANT
LUB 23298*	*FGL-2	Aluminum Complex	2	500	265/295	515°F/268°C	10°F/-12°C	AW	YES	YES
LUB 14598*	*FML-2	Aluminum Complex	2	700	265/290	285°F/141°C	0°F/-18°C	AW	YES	YES

Food Grade Spray Lubricants/Class H-1

FGL-1 SPRAY: USDA authorized* Class H-1 lubricant in handy easy to use 11 oz/ 312 g spray can. Quick and clean applications. Fortified with anti-wear, anti-rust and anti-corrosion additives. **Part No. LUB 23163**

SUPER FML-2 SPRAY: USDA authorized* Class H-1 white lubricant in handy, easy to use spray can. Quick and clean applications. For use in all food processing operations where a class H-1 lubricant is required. 11 oz/ 312 g spray can. **Part No. LUB 14563**

*USDA H-1 Authorized for use in federally inspected meat and poultry plants.

*Manufactured in compliance with FDA Regulations 21 CFR 178.3570 for lubricants with incidental food contact.

Metal Working Fluids



WATER SOLUBLE PRODUCTS	PRODUCT	MIX: OIL TO MACHINING	WATER RATIO GRINDING
General Purpose	No. 35	1-5 to 1-20	1-40
Heavy Duty	Cut-N-Cool	1-5 to 1-10	1-40
Biodegradable	Metsol or HP-76	1-5 to 1-20	1-50

NO. 405 DARK CUTTING OIL: Heavy-duty, dark cutting oil recommended for difficult machining operations like pipe threading. Excellent for high carbon steels, alloys and stainless steels. Not recommended for brass, bronze, copper or aluminum. One gallon jug. **Part No. LUB 58756**

METAL WORKING FLUID SPRAY: Multi-purpose cutting oil for drilling, tapping, sawing and grinding. Available in a handy 12 oz/ 340 g aerosol can with extender tip. **Part No. LUB 18563**

NO. 35 SOLUBLE OIL: Multi-purpose, water soluble cutting oil which forms a stable, milky white emulsion that does not readily decompose, separate or evaporate. One gallon jug. **Part No. LUB 57656**

CUT-N-COOL: Heavy duty, water soluble cutting oil fortified with both sulfur and chlorine which delivers substantially longer tool life, improved finish and more accurate cuts. May stain brass, bronze and copper if not cleaned off work shortly after use. One gallon jug. **Part No. LUB 51456**

HP-76: This product is a biodegradable, synthetic, (non-petroleum), water-soluble cutting fluid. It is recommended for cutting and grinding operations where the biodegradability feature is of primary concern. This product can produce transparent dispersions at any dilution, giving machine operators visibility for the work. HP-76 is best suited for soft water and moderately hard water areas. Five gallon pail. **Part No. LUB 53460**

Lubriplate® Specialty Lubricants

AIR TOOL LUBRICANT: Designed for both rotary and reciprocating types of air tools such as hammers, impact wrenches, air motors, grinders, reamers, and drills. Proven excellent air line lubricant, used effectively on lift cylinders of can fillers in breweries, bottling plants. Removes gumming and sludge. One quart bottle. **Part No. LUB 71353**



Ingersoll Rand Air Tool Lubricant

PART NO.	SIZE
CPT 50A	500 ml
CPT 50G	4 Litres



Lubriplate® Air Compressor Oils

AC SERIES AIR COMPRESSOR OILS: Lubriplate AC SERIES petroleum-based air compressor oils are especially formulated to reduce carbon and varnish buildup. These oils contain fluid zinc to effectively fight friction and wear thus reducing heat and foaming. Available in six ISO grades for a variety of applications and temperatures. **See chart for Part No.**



LUBRIPLATE SYNAC SERIES SYNTHETIC AIR COMPRESSOR FLUIDS: These diesterbased synthetic air compressor fluids are outstanding for applications in which the fluid is subjected to high temperature and high stress conditions over extended drain intervals. Available in 4 ISO grades. Available in 5 gallon pails or 55 gallon drums only. **Call for price and delivery.**

PART NUMBER	LUBRIPLATE PRODUCT	SAE NO.	VIS. SUS. @100°F/38°C	VIS. SUS. @210°F/99°C	VIS. INDEX	FLASH POINT	FIRE POINT	POUR POINT	ISO VIS GRADE
	AC-0	10	160	46	136	415°F/213°C	440°F/227°C	-30°F/-34°C	32
LUB 70557	AC-1	20	213	49	120	420°F/221°C	450°F/232°C	-25°F/-32°C	46
LUB 70657	AC-2	20	309	54	106	430°F/221°C	465°F/221°C	-20°F/-29°C	68
LUB 70757	AC-2A	30	518	66	104	445°F/229°C	480°F/249°C	-15°F/-26°C	100
LUB 70857	AC-3	40	690	75	102	460°F/238°C	510°F/266°C	-10°F/-23°C	150
	AC-4	40	840	83	101	470°F/243°C	525°F/243°C	0°F/-18°C	150
	SYNAC 32	10	155	46	135	450°F/232°C	530°F/277°C	-45°F/-43°C	32
	SYNAC 46	20	213	49	118	455°F/235°C	535°F/279°C	-35°F/-37°C	46
	SYNAC 68	20	311	53	98	455°F/235°C	535°F/279°C	-20°F/-29°C	68
	SYNAC 100	30	510	60	76	450°F/232°C	530°F/277°C	-15°F/-26°C	100

Highlighted rows in chart indicate products which are in stock.

OEM Air Compressor Fluid Cross Reference

Save Money By Converting From OEM Compressor Fluids to LUBRIPLATE!

OEM Compressor Fluid	LUBRIPLATE CONVERSION	OEM Compressor Fluid	LUBRIPLATE CONVERSION
Atlas Copco Atlas-Copco GA-4K Atlas-Copco GA-8K Atlas-Copco GA-FG	AC-1 SYN LUBE-46 SFGO Ultra 46	Kaeser Kaeser Sigma 8000 S-320 Kaeser Sigma 8000 S-460 Kaeser Sigma 8000 S-680 Kaeser Sigma 4000 M-460 Kaeser Sigma 8000 FG-460 Kaeser Sigma 8000 S-100 Kaeser Sigma 8000 S-150 Kaeser Sigma 4000 M-100 Kaeser Sigma 4000 M-150	SYN LUBE-32 SYN LUBE-46 SYN LUBE-68 AC-1 SFGO Ultra 46 SYNAC-100 SYNAC-150 AC-2A AC-3
Compair Compair CS 100 Compair CS 200 Compair CS 300 Compair CS 400 Compair Hydrovane 2000 Compair CN 300	SYNAC-32 SYNAC-68 SYNAC-100 SYNAC-150 AC-2A AC-2A	Leroi Leroi SSL-46	SYN LUBE-46
Gardner-Denver Gardner-Denver Aeon 9000SP Gardner-Denver Aeon 8000 Gardner-Denver Aeon 4000 Gardner-Denver Aeon 500 Gardner-Denver Aeon 5000 Gardner-Denver Aeon 6000FG Gardner-Denver Aeon PD	SYN LUBE-32 SYNAC-68 AC-1 AC-2A SYNAC-100 SFGO Ultra 32 SYNAC-150	Palatek Palatek Pallube 32	SYNCOOL-32
Ingersoll-Rand Ingersoll-Rand SSR Ultracoolant Ingersoll-Rand XL-700 Ingersoll-Rand XL-740HT Ingersoll-Rand SSR H-1F Coolant Ingersoll-Rand T30 Select	SYNCOOL-46 SYNAC-100 SYNAC-150 SFGO Ultra 32 SYNAC-150	Quincy Quincy Quin-Syn Quincy Quin-SynF	SYN LUBE-46 SFGO Ultra 46
		Sullair Sullair Sullube 32	SYNCOOL-32

LOCTITE

▶ Loctite Corporation, the pioneer of anaerobic adhesives, has applied this technology to create **LOCTITE** retaining compounds that increase the shear strength of cylindrical, non-threaded assemblies.

Finding wide acceptance as a standard method for assembling press and slip fitted parts, Loctite® Retaining Compounds fill the "inner space" between components and cure to form a strong precision assembly. Formulated in a selection of viscosities, gap filling ability, flexibility and strength characteristics, Loctite® Retaining Compounds can be applied with automated process equipment or dispensed manually.

▶ Use Loctite® liquid or paste Retaining Compounds to bond non-threaded, cylindrical metal assemblies. Fill the inner voids in close-fitting press fits, keyways, and splines. Mount bearings and bushings, and make press fits even stronger.

Retaining Compounds

603 Retaining Compound Oil Tolerant: A retaining compound tolerant of oil and other contamination. Seals and secures cylindrical assemblies up to 0.005" radial clearance. Fixtures in 10 minutes. Prevents fretting and corrosion of metal assemblies.

609 Retaining Compound General Purpose: A low viscosity retaining compound that bonds rigid metal assemblies. Ideal for gap distances up to 0.005" diameter. Fixtures in 10 minutes and provides a shear strength of 3,000 psi after 24 hours. Easily joins dissimilar metals. Withstands temperatures to 300°F.

620 Retaining Compound High Temperature: A high temperature (450°F), high viscosity liquid retaining compound. Provides a shear strength of over 3,500 psi on steel. Locks and secures metal cylindrical assemblies up to .015" diameter clearance. Prevents metal fretting and corrosion. Seals against leakage.

660 Quick Metal® Retaining Compound: A creamy, non-running gel that is applied onto cylindrical parts to fill surface imperfections and repair worn areas. It contains no metal, but once assembled hardens to a strength that often doubles that of a press fit. Use 660 to salvage worn metallic parts, or to keep machinery running until new parts arrive. Use to 300°F (149°C). Restores correct fit to mating assemblies. Fills gaps up to 0.020" diameter clearance.

680 Retaining Compound High Strength/High Viscosity: A retaining compound for joining fitted cylindrical parts. Fixtures in 10 minutes and provides a shear strength of 4,000 psi on steel after 24 hours. Fills diametrical gap distances up to 0.015".



LOCTITE

PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Gap Fill (Diametral)	Viscosity cP	Shear Strength Steel/Steel (PSI)*	Temperature Range	Cure Speed, Steel @25°C	Recommended Primer	Specific Gravity	Key Specifications
603	LUB 21440 LUB 21441 LUB 21442	10 ml bottle 50 ml bottle 250 ml bottle	For close fitting parts with light contamination.	Green	.005*	125	3,770	-65°F to 300°F	Fixture-30 min. Full-24 hrs.	T	1.10	-
609	LUB 60905 LUB 60921 LUB 60941	.5 ml capsule 10 ml bottle 250 ml bottle	1st generation to augment press fits.	Green	.005*	125	3,000	-65°F to 300°F	Fixture-10 min. Full-24 hrs	T	1.10	Mil-Spec (R-46082B)
620	LUB 62005 LUB 62015 LUB 62040 LUB 62070	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	For high temperature applications.	Green	.015*	8,500/ 22,000 Thixotropic	3,800	-65°F to 450°F	Fixture-1 hr. Full-24 hrs.	N	1.16	-
660	LUB 66017 LUB 66040 LUB 30287	6 ml tube 50 ml tube 250 ml tube	For repair of worn machinery parts.	Silver	.020*	250,000/ 1,500,000	3,335	-65°F to 300°F	Fixture-10 min. Full-24 hrs.	N	1.13	Agriculture Canada approved
680	LUB 68005 LUB 68015 LUB 68035 LUB 68060	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	High strength for slip fitted parts.	Green	.015*	1,250	4,000	-65°F to 300°F	Fixture-10 min. Full-24 hrs.	T	1.11	NSF/ANSI 61 approved

SURFACE PREPARATION

- ▶ Loctite offers a complete line of surface preparation products to ensure the maximum performance of Loctite® Adhesives and Sealants.
- ▶ Loctite® Accelerators are used to increase the cure speed and gap filling capabilities of Cyanoacrylate Adhesives. Activators are specially engineered curing agents for Structural machinery adhesives.
- ▶ All Loctite® Surface Preparation Products are available in ozone-safe (non-CFC) solvent-based and solventless formulations.

7471 Primer T: A solvent-based primer speeds cure of all Loctite® Anaerobic Adhesives and ensures proper cure on inactive metals.

7649 Primer N: A solvent-based primer that features very long on-part life. Use to speed cures of all Loctite® Anaerobic Products and ensure proper cure on inactive metals. Ideal for cure conditions below room temperature.

770 PRISM® Primer: An adhesion promoter formulated for use with polyolefins and other low-energy surfaces. Use with Loctite® Cyanoacrylate Adhesives. Features fast dry time and long on-part life.

LOCTITE ACCELERATORS/PRIMERS PROPERTIES CHART

Product	Part No.	Container	Colour	Viscosity (mPas)	Base	On-Part Life	Dry Time	Application
736	LUB 22490 LUB 73656	1 qt. can 6 oz. aerosol can	Brown	3	Trichloroethylene isopropyl alcohol	30 min.	32 min.	Anaerobics
770	LUB 18396 LUB 18397	1.75 fl. oz. bottle 16 fl. oz. can	Colourless	1.25	Heptane	8 hrs.	30 sec.	All Cyanoacrylates
7471	LUB 19267 LUB 22477 LUB 19268	1.75 fl. oz. bottle 4.5 oz. aerosol can 1 gallon can	Amber	2	Acetone/ isopropanol	7 days	30-70 sec.	Anaerobics
7649	LUB 19269 LUB 21347 LUB 21348 LUB 19266	1.75 fl. oz. bottle 25 gm aerosol can 4.5 oz. aerosol can 1 gallon can	Clear/ Green	2	Acetone	30 days	30-70 sec.	Anaerobics

THREADLOCKING

- ▶ Invented by Loctite Corporation as a revolutionary method to lock and seal threaded fasteners, Loctite® Liquid Threadlockers have found wide acceptance in a range of applications, from delicate electronic components to heavy construction equipment.
- ▶ Loctite® Threadlockers are available in varying viscosities and strengths for virtually any applications, including exposure to extreme environments.

Liquid Threadlockers

222MS Threadlocker Low Strength/Small Screw: Ideal for fastener diameters of 1/4" (6 mm) and smaller. Controlled lubricity for accurate clamp loads. Parts can be separated using hand tools.

242® Threadlocker Medium Strength: A general-purpose, removable threadlocker for fasteners between 1/4" and 3/4" (6 to 20 mm) diameters. Controlled lubricity for accurate clamp loads. Parts can be separated using hand tools.

243 Threadlocker Oil Resistant/ Medium Strength: A general-purpose medium strength threadlocker with improved oil tolerance. For fasteners between 1/4" and 3/4" (6 to 20 mm) diameters.

262 Threadlocker Medium to High Strength: A permanent locking threadlocker for fasteners up to 3/4" (20 mm) diameter. High lubrication for easy assembly. Excellent for preventing rust and corrosion in extreme chemical/environmental conditions

271™ Threadlocker High Strength: A high strength, low viscosity threadlocker for fasteners up to 1" (25 mm) diameter.

272 Threadlocker High Temp./High Strength: Withstands temperatures to 450°F. Provides a fast cure on most surfaces including "as received" fasteners. Recommended for bolts up to 1 1/2" (36 mm) in diameter. Heat and hand tools are required for disassembly.

277 Threadlocker High Strength: Locks fasteners up to 1 1/2" (36 mm). Protects threads from rust and corrosion. Removable with heat and hand tools.

290 Threadlocker Wicking Grade: A medium-strength threadlocker for pre-assembled bolts up to 1/2" (12 mm). Penetrates threads by capillary action. Secures set screws and other assemblies after settings are completed. Seals welds and porous metal parts. Protects threads from rust and corrosion. Localized heating and hand tools are needed for disassembly.



LOCTITE
PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Viscosity cP	Torque in. lbs. (M10 Steel Nuts & bolts) Break/Prevail	Temp. Range	Cure Speed, Steel @ 25°C*	Oil Tolerant	Recommended Primer	Specific Gravity	Key Specifications
222MS	LUB 22205 LUB 22221 LUB 22231 LUB 22241	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Easy removal small screws	Purple	1,200/ 6,000 Thixotropic	62/67	-65°F to 300°F	Fixture 20 min. Full 24 hrs.	-	N or T	1.05	Mil-Spec (S-46163A) Type II, Grade M
242®	LUB 24205 LUB 24221 LUB 24231 LUB 24241	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Removable grade up to 3/4" bolts	Blue	1,200/ 6,000 Thixotropic	115/53	-65°F to 300°F	Fixture 10 min. Full 24 hrs.	-	N or T	1.05	Mil-Spec (S-46163A) Type II, Grade N, NSF/ANSI 61 approved
243	LUB 23977 LUB 24077 LUB 24078 LUB 24079	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Up to 3/4" bolts with light oil contamination	Blue	2,250/ 12,000 Thixotropic	180/62	-65°F to 300°F	Fixture 10 min. Full 24 hrs.	Yes	N or T	1.08	NSF/ANSI 61 approved Agriculture Canada approved
262	LUB 26205 LUB 26221 LUB 26231 LUB 26241	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Permanent locking up to 3/4" bolts	Red	1,800/ 5,000 Thixotropic	190/275	-65°F to 300°F	Fixture 20 min. Full 24 hrs.	-	N or T	1.08	NSF/ANSI 61 approved Agriculture Canada approved
271™	LUB 27105 LUB 27121 LUB 27131	.5 ml capsule 10 ml bottle 50 ml bottle	High strength for fasteners up to 1" dia.	Red	500	230/320	-65°F to 300°F	Fixture 10 min. Full 24 hrs.	-	N or T	1.12	Mil-Spec (S-46163A) Type I, Grade K, UL classified
272	LUB 27240	50 ml bottle	High	Red	9,500	200/220	-65°F to 300°F	Fixture 30 min. Full 24 hrs.	-	N or T	1.11	-
277	LUB 21434 LUB 27731	10 ml bottle 50 ml bottle	High strength for lrg. bolts	Red	7,000	275/275	-65°F to 300°F	Fixture 30 min. Full 24 hrs.	-	N or T	1.12	Mil-Spec (S-46163A) Type I, Grade L
290	LUB 29005 LUB 29021 LUB 29031 LUB 29041	.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Wicking grade for preassembled parts	Green	12	85/250	-65°F to 300°F	Fixture 20 min Full 24 hrs.	-	N or T	1.08	Mil-Spec (S-46163A) Type III, Grade R, NSF/ANSI 61 cert.

Thread Treatment Sticks

248 Medium Strength Threadlocker Stick: Eliminates loosening from vibration, shock, and thermal expansion. More reliable and cost effective than conventional mechanical fasteners. Prevents rust and corrosion while sealing and protecting threads. Removable with hand tools.

268 High Strength Threadlocker Stick: Eliminates loosening from vibration, shock, and thermal expansion. More reliable and cost effective than conventional mechanical fasteners. Prevents rust and corrosion while sealing and protecting threads. Requires localized heat and hand tools for removal.

PST® 561 Thread Sealant Stick with Teflon®: Immediate low pressure sealing to 100 psi. Controlled lubricity prevents galling. Protects threaded areas from rust and corrosion. Provides exceptional fluid compatibility and chemical resistance. Will not contaminate or clog lines. Easy disassembly.

C-5A® Copper Anti-Sieze Stick: Protects metal parts in high heat environments up to 1800°F. Prevents rust, corrosion, seizing, and eases disassembly. Reduces friction and wear critical to parts. Buttery texture ideal for both coarse and fine threads. Exceptional lubrication properties.

Silver Grade Anti-Sieze Stick: Protects metal parts in high heat environments up to 1600°F. Prevents rust, corrosion, seizing, and eases disassembly. Reduces friction and wear critical to parts. Buttery texture ideal for both coarse and fine threads. Exceptional lubrication properties.

NEW! QuickStix™ 548™ Gasket Eliminator® Flange Sealant: Patented semi-solid formula is ideal for on-the-spot repairs, or when a conventional gasket is out of stock. Can be applied quickly and neatly on a variety of metal surfaces, including aluminum, to form a flexible, solvent resistant seal. Seals to 300°F (149°C) and fills gaps to 0.010". Vertical applications, uses less product. Applications: Transmissions, cast metal housings.

NEW! QuickStix™ 534™ Hi-Tack Gasket Dressing: No mess, semi-solid formula offers added control and ease of use. Patented package is portable and won't leak or spill. Seals and holds the heaviest gaskets in place during assembly. Solvent-free and low odor. Suitable to 300°F (149°C). Vertical applications, uses less product, repositionable. Applications: Holds gaskets in place (rubber, cork, paper, felt and metal).

NEW! QuickStix™ 668™ Retaining Compound: A high temperature retaining compound in a revolutionary semi-solid formula. Patented, no-mess package offers added convenience and portability. Ideal for gaps up to 0.005" on the diameter. Withstands temperatures to 400°F (204°C).



PROPERTIES CHART

Product	Part No.	Container	Colour	Breakloose Torque in Lbs.	Temperature Resistance	Cure Time* Fixture/Full Strength
248 Medium Strength Threadlocker Stick	LUB 37087	19 gram stick	Blue	138	300°F (150°C)	10 min. / 24 hrs.
	LUB 37684	9 gram stick	Blue	138	300°F (150°C)	10 min. / 24 hrs.
268 High Strength Threadlocker Stick	LUB 37686	19 gram stick	Red	360	300°F (150°C)	10 min. / 24 hrs.
	LUB 37685	9 gram stick	Red	360	300°F (150°C)	10 min. / 24 hrs.

*Typical Value at 70°F (22°C)

Product	Part No.	Container	Colour	Breakloose Torque in Lbs.	Temperature Resistance	Maximum Pressure Resistance/Cure Time
PST® 561 Pipe Sealant Stick	LUB 37127	19 gram stick	White	410	300°F (150°C)	10,000 PSI/ 72 hrs

Product	Part No.	Container	Colour	Consistency	Oil Resistance	Non-Corrosive	Temp. Range (intermittent)	Sealing Time
NEW! QuickStix™ 534™ Hi-Tack Gasket Sealant	LUB 39155 LUB 39156 LUB 39157	9 g stick 19 g stick 38 g stick	Purple	Semi-Solid	Oil Resistant	Yes	-65°F to 300°F (-54°C to 149°C)	5 minutes to set

Product	Part No.	Container	Colour	Viscosity/Consistency	Cured State	Temperature Range	Sealing Time	Gap Fill	Agency Approvals
NEW! QuickStix™ 548™ Gasket Eliminator®	LUB 39151 LUB 39152 LUB 39153	9 g stick 18 g stick 37 g stick	Orange	Semi-Solid Paste	Flexible	-65°F to 300°F (-54°C to 149°C)	>3 hours with or without primer*	0.010"	CFIA

*Recommended primer is Loctite® 7649™ Primer N™.

Product	Part No.	Container	Colour	Max Gap Fill (Dia.)	Shear Strength Steel/Steel* PSI	Temperature Range	Set-up Time	Recommended Primer
NEW! QuickStix 668™ Retaining Compound	LUB 39147 LUB 39148 LUB 39149	9 g stick 19 g stick 39 g stick	Green Stick	0.005"	1,870 psi	-65°F to 400°F (-54°C to 204°C)	Set-up: 30 min. Full Strength: 24 hrs	7649™ Primer N™ or 7471™ Primer T™

Product	Part No.	Container	Colour	Temperature Resistance	K Value*	Key Specifications
C5-A® Copper Anti-Sieze Stick	LUB 37229	20 gram stick	Copper	1800°F (982°C)	0.164	MIL-PRF-907E
Silver Grade Anti-Sieze Stick	LUB 37230	20 gram stick	Silver	1600°F (870°C)	0.181	MIL-PRF-907E

*K Value tested on steel nuts and bolts

THREADSEALING

Pipe Sealing Cord

Use Loctite 55 Pipe Sealing Cord for your everyday pipe and fitting sealing.

Instead of carrying thread tape, pipe dope, and wicking, Loctite 55 replaces these common sealants in one convenient package. Eliminates the confusion of whether to use dope or tape, or a combination of sealants, Loctite 55 can solve your non-critical sealing applications.

FEATURES:

- Replaces tape, dope, and wicking, all in one convenient package!
- Over 350 applications per container*.
- Integrated cutting tool for easier application.
- 5700 inches of sealing cord per container.
- Easy-to-use packaging.
- Requires similar application technique as thread tape (nothing new to learn).
- Won't unspool.
- Tough, durable container.
- Seals out air, common fluids, petroleum-based fluids, propane, and natural gas.

*On 1/2" metal pipe using 6 wraps per application



PART NO.	DESCRIPTION
LUB 35082	55 pipe sealing cord, 5700 inch container

QUICKTAPE™ 249™

LUB 1372603

- The first threadlocker in tape form
- No mess, no waste
- Can be pre-applied for future assembly
- Same reliability and performance as Loctite® Removable Grade Threadlocking Liquids
- Familiar application method
- Toolbox/tool belt/pocket friendly.

PART NO.	DESCRIPTION
LUB 1372603	Quicktape™ 249™



Standard Sealant

542 Thread Sealant Fine Threads: A liquid sealant recommended for sealing the fine threads of hydraulic and pneumatic connectors.

545 Thread Sealant Hydraulic/Pneumatic Sealant: A liquid sealant for locking and sealing high pressure fluid power systems with tapered fittings. Contains no fillers and will not foul valves or fluid filtering systems.

554 Thread Sealant Refrigerant Sealant: Excellent solvent resistance on threaded fittings and pipes up to 3" in diameter. Recommended for refrigeration systems and service with aggressive chemicals.

565 PST® Thread Sealant Controlled Strength: A general-purpose instant sealant for tapered and straight/tapered fittings. Controlled strength for ease of disassembly.

567 PST® Thread Sealant High Temperature: Withstands temperatures to 400°F with excellent solvent resistance. Locks and seals tapered pipe threads and fittings, including high pressure applications. Disassembles with hand tools.

592 PST® Thread Sealant Slow Cure: Locks and seals threaded fittings. Parts may be repositioned up to 24 hours after application.

No more Leaks™ Plastic Pipe Sealant: Seals plastic pipes and allows easy disassembly. Specially formulated without the added lubricity of Teflon® to avoid cracked fittings caused by over-tightened plastic joints.

Thread Sealant with Teflon®: A general-purpose sealant with the added lubricity of Teflon® for metal pipes. Won't shred like Teflon tape and allows easy disassembly. Resists common shop fluids.



LOCTITE

PROPERTIES CHART

Product	Part No.	Container	Temperature Resistance	Adhesive Appearance	Pressure Resistance
No More Leaks™ Plastic Pipe Sealant	LUB 80725 LUB 80724 LUB 80726	2 fl. oz. tube 7 fl. oz. tube 1 qt. brush can	-65° to 400°F -54° to 204°C	White Paste	5000 psi
Thread Sealant with Teflon®	LUB 30534 LUB 30561	0.25 pt. brush can 1 pt. brush can	-60° to 300°F -51° to 149°C	White Paste	5000 psi

LOCTITE

PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Viscosity cP	Temp. Range	Seal to Operating Pressure. Pressure Resistance	Recommended Primer	Specific Gravity	Key Specifications
542	LUB 21453	50 ml bottle	Fine threads	Brown	525/1,850 Thixotropic	-65°F to 300°F	Seals operating pressure to 10,000 PSI	N	1.06	-
545	LUB 54505 LUB 54531 LUB 54541	.5 ml capsule 50 ml bottle 250 ml bottle	Pneumatic hydraulic sealant. No fillers.	Purple	14,000	-65°F to 300°F	Seals operating pressure to 10,000 PSI	N	1.20	Agriculture Canada approved
554	LUB 25882 LUB 55441	10 ml bottle 250 ml bottle	Refrigerant sealant. High strength.	Red	2,500	-56°F to 300°F	Seals operating pressure to 10,000 PSI	N	1.02	-
565	LUB 56507 LUB 56531 LUB 56541 LUB 56571	6 ml tube 50 ml tube 250 ml tube 300 ml cartdg.	Controlled strength	White	300,000	-65°F to 300°F	Seals operating pressure to 10,000 PSI	N	1.10	AGA 4-90 UL MH8007 (N) NSF/ANSI 61 ULC-Canada approved, Agriculture Canada approved
567	LUB 56707 LUB 56747 LUB 56765	6 ml tube 50 ml tube 250 ml tube	For stainless steel fittings	White	540,000	-65°F to 400°F	Seals operating pressure to 10,000 PSI	N	1.14	UL MH8007 (N)
569	LUB 56931 LUB 56941	50 ml bottle 250 ml bottle	Original hydraulic sealant	Brown	400	-65°F to 300°F	Seals operating pressure to 10,000 PSI	N	1.05	-
592	LUB 59214 LUB 59231 LUB 59241	6 ml tube 50 ml tube 250 ml tube	Medium strength	White	350,000	-65°F to 400°F	Seals operating pressure to 10,000 PSI	N	1.21	UL MH8007 (N)

ADHESIVES

330 Depend® Adhesive: Depend® 330 sets in just minutes to a tough acrylic adhesive with high peel and impact strength. Bonds almost all combinations of materials, including glass. No-mix kit includes activator and adhesive.

380 Black Max® Instant Adhesive: For parts that encounter shock, vibration or thermal cycling, 380 is the instant adhesive choice. This black, toughened cyanoacrylate adhesive uses elastomers to withstand impact and challenging environmental conditions. Seals as well as bonds.

404 Quick Set™ Instant Adhesive: This general-purpose Quick Set™ instant adhesive liquid is the one everyone needs in their toolbox for general maintenance and repair. It sets instantly. No clamping, no mixing, no waiting. Keep it handy to bond just about anything in an instant.

454 Prism® Instant Adhesive: The ideal adhesive for porous substrates, 454 is a clear gel adhesive. As a surface insensitive cyanoacrylate, it is ideal for difficult-to-bond substrates, including rough, porous and acidic surfaces. Need to bond something on a vertical surface? The gel formulation won't run off before you put substrate together.

Black Contact Adhesive: Fast-drying, neoprene-based adhesive bonds rubber, insulation, weatherstripping, and other porous materials. Sets to a tack-free surface in 3-4 minutes. Allows repositioning of parts after initial contact. Withstands freezing temperatures.

Contact Adhesive: A professional contact adhesive that blends with black colored moldings and weatherstripping materials. Withstands temperature extremes and is resistant to gasoline, kerosene, and other solvents. Fast drying, waterproof.

All-Purpose Spray Adhesive: Bonds lightweight, porous and non-porous surfaces. Allows repositioned and permanent bonds. Fast drying; won't shrink or bleed. Resists water and humidity. Contains no ozone-depleting compounds.

Max Strength Spray Adhesive: Max Strength Spray Adhesive is a high-strength product designed for bonding foam, carpet, fabrics, plastics, rubber, etc. Max Strength Spray Adhesive is resistant to extreme weather conditions, is water-resistant and sprays on clear.



LOCTITE PROPERTIES CHART

Product	Part No.	Container	Temperature Resistance	Adhesive Appearance	Common Surfaces Adhesive will Bond	Bond Time	Key Specifications
330 Depend® No-Mix Adhesive	LUB 20251	Kit - 25 ml syr. applicator 25 g aerosol activator	-60° to 250°F (-51° to 121°)	Amber liquid	Glass, wood, metal, concrete, ceramic, rubber	Set-up: 1-2 min. Full strength: 24 hrs.	NSF/ANSI 61 approved
380 Black Max® Instant Adhesive	LUB 38004 LUB 38050	3 g net wt. tube 1 oz. net wt. bottle	-65° to 225°F (-54° to 107°)	Black liquid	Metal, plastic, rubber	Set-up: 90-150 sec. Full strength: 24 hrs.	-
404 Quick Set™ Instant Adhesive	LUB 46551 LUB 46548	1/3 net wt. bottle 4 oz. net wt. bottle	-65° to 180°F (-54° to 106°)	Clear liquid	Metal, plastic, rubber	Set-up: 20-40 sec. Full strength: 24 hrs.	AA-3097
454 Prism® Instant Adhesive Gel	LUB 45404 LUB 45440	3 g net wt. tube 20 g net wt. tube	-65° to 180°F (-54° to 106°)	Clear gel	Metal, plastic, cardboard, leather, rubber, cork	Set-up: 15-90 sec. Full strength: 24 hrs.	-
Contact Adhesive	LUB 30537	5 fl. oz. tube, hangable box	180°F	Thick yellow liquid	Weatherstripping, vinyl, rubber, wood, metal	Let dry 3-4 min before assembly. Sets on contact	-
Black Contact Adhesive	LUB 30540	5 fl. oz. tube	180°F	Thick black liquid	Weatherstripping, vinyl, rubber, wood, metal	Let dry 3-4 min before assembly. Sets on contact	-
All-Purpose Spray Adhesive	LUB 30544	10.5 oz. net wt. aerosol	100° to 120°F (38° to 49°)	Clear-drying semi-translucent foam	Lightweight porous and non-porous materials	Let dry 15-20 min before assembly. Sets on contact	-
Max Strength Spray Adhesive	LUB 30568	16.75 oz. net wt. aerosol	100° to 120°F (38° to 49°)	Clear-drying semi-translucent foam	Foam, carpet, fabrics, plastics, rubber	Let dry 15-20 min before assembly. Sets on contact	-

*Times are based on bonding steel to steel parts.

BONDING

Acrylic Adhesives

▶ Loctite® Acrylic Adhesives were developed for bonding applications that require tensile, shear and peel strength combined with maximum impact, stress and shock resistance. On contact with an activator, these no-mix materials cure rapidly at room temperature to a weather-resistant bond.

324 High Impact SpeedBonder™: Ideal for large gap applications. A structural adhesive that offers the strength of an epoxy and the speed of an instant adhesive. Solvent resistant. Cures in minutes. Specially formulated for toughness and impact strength.

LOCTITE PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Gap Fill	Viscosity cP@ 20 RPM	Shear Strength (PSI)*	Temperature Range	Cure Speed	Recommended Primer	Specific Gravity
324	LUB 32430 LUB 32490	50 ml bottle 1 liter bottle	High impact applications	Amber	.040"	17,000	2,175	-65°F to 275°F	Fixture - 5 min. Full - 24 hrs.	7075	1.11

Cyanoacrylate Adhesives

▶ Loctite technology has made the productivity promises of cyanoacrylate adhesives a reality with the industry's widest selection of high-performance, application-specific, instant adhesives. Loctite® Instant Adhesives are available in a variety of viscosities, cure speeds, gap-filling capability and substrate compatibility.

▶ The ultra high-performance PRISM® family offers additional products that surpass the most stringent demands, including toughened formulations, low odor and low blooming products, surface insensitive and thermally resistant formulations.

401 PRISM® Surface Insensitive Instant Adhesive: A general-purpose surface insensitive adhesive for difficult-to-bond surfaces.

411 PRISM® Clear Toughened Instant Adhesive: An adhesive formulated for excellent impact and peel strength in gap-filling applications.

495 Super Bonder® Instant Adhesive: A general-purpose adhesive designed to bond rubber, metal and plastic parts with gaps to .004".



LOCTITE
PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Gap Fill	Category	Viscosity cP	Strength (PSI)* Tensile Shear	Temp. Range	Cure Speed**	Specific Gravity	Key Specifications
401	LUB 40104 LUB 40140 LUB 40161	3 g bottle 20 g bottle 1 lb. bottle	General Purpose	Clear	.005"	Surface insensitiv Ethyl	110	3,200	-65°F to 180°F	Fixture: 15 sec. Full: 24 hrs	1.05	Agriculture Canada approved
409	LUB 40904 LUB 21922 LUB 40945 LUB 40974 LUB 18030	3 g tube 10 g syringe 20 g tube 200 g tube 300 g cartridge	General purpose gel adhesive	Clear	.010"	General purpose Ethyl	Gel	3,200	-65°F to 180°F	Fixture: 75 sec. Full: 24 hrs.	1.10	-
411	LUB 41104 LUB 41145 LUB 41161	3 g tube 20 g bottle 1 lb. bottle	Clear gap filling	Clear	.008"	Toughened Ethyl	5,000	3,200	-65°F to 210°F	Fixture: 30 sec. Full: 24 hrs.	1.07	-
414	LUB 41404 LUB 41450 LUB 41461	3 g tube 1 oz bottle 1 lb. bottle	Plastic bonder	Clear	.006"	General Purpose Ethyl	110	3,200	-65°F to 180°F	Fixture: 20 sec. Full: 24 hrs.	1.05	Commercial item std. A-A-3097 Type II Class 2
415	LUB 41550 LUB 41561	1 oz. bottle 1 lb. bottle	Gap filling metal bonder	Clear	.008"	General purpose methyl	1,500	3,600	-65°F to 180°F	Fixture: 30 sec. Full: 24 hrs.	1.09	Commercial item std. A-A-3097 Type 1, Class 3
416	LUB 41650 LUB 41661	1 oz. bottle 1 lb. bottle	Gap filling plastic bonder	Clear	.008"	General purpose Ethyl	1,500	3,200	-65°F to 180°F	Fixture: 30 sec. Full: 24 hrs.	1.05	Commercial item std. A-A-3097, Type II, Class 3
420	LUB 42050 LUB 42061	1 oz. bottle 1 lb. bottle	Wicking type plastic bonder	Clear	.002"	General purpose Ethyl	2	2,900	-65°F to 180°F	Fixture: 20 sec. Full: 24 hrs.	1.05	Commercial item std. A-A-3097, Type II, Class 1
495	LUB 49595 LUB 49504 LUB 49550 LUB 49561	.07 fl. oz. Gluematic® Pen 3 g tube 1 oz. bottle 1 lb. bottle	General purpose	Clear	.004"	General purpose Ethyl	45	2,750	-65°F to 180°F	Fixture: 20 sec. Full: 24 hrs.	1.05	Commercial item std. A-A-3097, Type II, Class 1



Power Grab® Industrial Construction Adhesive

It's likely your Customers have already heard of Power Grab® and now you can tell them the Industrial version is available through you!

This heavy duty, high strength adhesive grabs instantly with nine times higher initial hold than traditional construction adhesives. Power Grab® is water-resistant, paintable and bonds many combinations of surfaces from concrete and wood to ceramics and much more. Power Grab® is environmentally responsible and meets GreenGuard® Certification as well as meets and exceeds building specifications as outlined in attached sell sheet LT-5268.

Who is a target Customer for Power Grab®?

Including OEMs in the building and construction market, you can sell Power Grab® to virtually all of your Maintenance accounts too. Now more than ever, maintenance professionals are working on numerous repairs in the plant and this product will help get the jobs done!



NEW	PART NO.	SIZE	UNITS PER CASE
	LUB 1210760	300ml cartridge	12



Loctite® Insulating & Sealing Wrap

Loctite® Insulating & Sealing Wrap - a non-sticky self fusing, multipurpose wrap with literally hundreds of applications! It withstands extreme conditions with a temperature range of -65°F to 500°F and tensile strength up to 700 psi. Loctite Sealing Wrap is UV resistant as well as saltwater, fuel and acid resistant.



PART NO.	SIZE	DESCRIPTION
NEW! LUB 1212164	1" x 10'	Single Roll Blister Pack

CLEANERS

▶ Loctite offers a complete line of highly effective general-purpose or application-specific cleaners and degreasers. Included are both aqueous and solvent-based products, all of which are free of Class 1 ozone-depleting compounds.



Natural Blue® Cleaner & Degreaser: Biodegradable, all-purpose, industrial strength, concentrated cleaner and degreaser. Can be economically diluted with water. Natural Blue is formulated for wipe down, pressure spraying and immersion cleaning processes - at room temperature or heated. Pine-scented, non-flammable and non-toxic. Contains no ODCs.

ODC-Free Cleaner & Degreaser (Naphtha): A non-aqueous, hydrocarbon-based solvent designed for cleaning and degreasing surfaces to be bonded with adhesives, as well as for general-purpose industrial cleaning. Safe on aluminum, rubber and most plastics, and will not cause flash rusting on water-sensitive parts. Dries without residue. Contains no ozone-depleting compounds. (formally referenced as 7070)

Aqua Power™ Cleaner & Degreaser: Penetrates, dissolves and removes dirt and oil. Fast drying and residue-free. Environmentally friendly product is biodegradable, has low toxicity, no ODCs and is non-corrosive/non caustic.

Non-Chlorinated Parts Cleaner: Penetrates, dissolves and removes dirt and oil from metal parts. Leaves no residue. Does not contain 1, 1, 1-trichloroethane; helps manage EPA halide limits.

Pro Strength Degreaser: Quickly dissolves and removes grease, oil and dirt from: iron, steel, aluminum, magnesium, copper, rubber, plastic and concrete. Rinses off with water.

Pro Strength Varnish Remover: Super jet spray quickly cuts and removes grease, gum and varnish from chokes, baffle plates and carburetor linkage. Improves performance and fuel efficiency.

Electrical Contact & Parts Cleaner: Fast evaporating cleaner removes grease, oil and other contaminants from electrical parts and mechanical equipment. Contains no CFCs or HCFCs and is safe on most plastics. Non-conductive, non-corrosive.

Multi-Purpose Glass Cleaner: Fast-acting, professional-strength cleaner removes tough grease and dirt from glass, chrome, aluminum, stainless steel and enamel finishes. Orange-scented formula will not run or streak. Contains no ODCs.

Chisel® Gasket Remover (Methylene Chloride): Removes gaskets from any type of assembly in 10 to 15 minutes. Prepares metal parts for new gaskets, eliminating scraping and sanding. Works on wood; non-corrosive on aluminum. Not for use on plastics, linoleum or synthetic fibers.


CLEANER PRODUCTS APPLICATION CHART

Product	Part No.	Function	Application
Natural Blue® Cleaner & Degreaser	LUB 82244	Removes grease, grime, oil, soot, cutting fluids, mildew, stains, light carbon, animal fat, polishing compounds and ink.	Cleans engine parts, ovens, exhaust hoods, drilling rigs. Can be diluted for general wipe down cleaning. Formulated for pressure spraying and immersion cleaning processes, at room temperature of heated.
	LUB 82249		
	LUB 82251		
	LUB 82253		
	LUB 82254		
LUB 82255			
Aqua Power™ Cleaner & Degreaser	LUB 30565	Biodegradable cleaner for removing oil, grease, asphalt.	All purpose metal parts cleaner.
ODC-Free Cleaner & Degreaser	LUB 22355	Removes grease, oil, lubrication fluids, metal cuttings and fines from parts, equipment and machinery.	Use as a spray or in immersion cleaning processes, at room temperature of heated. Recommended as a final pre-assembly cleaning treatment for all surfaces bonded with adhesives.
	LUB 20162		
	LUB 20260		
Non-Chlorinated Parts Cleaner	LUB 30545	Cleaner for removing oil, grease, asphalt with no chlorinated solvent run-off.	All-purpose metal parts cleaner. Ideal for aluminum surfaces.
Pro Strength Degreaser	LUB 30521	Self-emulsifying degreaser that quickly cuts and removes grease, oil and dirt, as well as inhibiting rust and corrosion.	Cleaning and degreasing industrial and farm equipment, lawn mowers, garage floors, tools.
Pro Strength Varnish Remover	LUB 30529	Dissolves and cleans residue deposited during normal operation of gasoline engine powered equipment.	Carburetors, chokes, linkages, heat risers, PCV valves, metal parts, industrial equipment.
Electrical Contact & Parts Cleaner	LUB 25791	Removes grease, dirt, oil, flux and surface contaminants from sensitive electrical/electronic devices. Also used for equipment requiring non-conductive, low residue degreasing agents.	Switches, relays, motor controls, pc boards, connectors, tape heads, sensors, control panels, electrically driven equipment, general parts degreasing.
Chisel® Gasket Remover	LUB 79040	Removes pre-cut conventional gasket cements as well as formed-in-place chemical gaskets.	Removing silicones, baked-on gaskets, gaskets from aluminum and small, difficult-to-reach components, weatherstrip adhesive, dried oil, grease, paint, varnish.

LOCTITE
 PROPERTIES CHART

Product	Part No.	Container	Drying Time	Residue/ Rinsibility	Odor
Natural Blue® Cleaner & Degreaser	LUB 82244	4 fl. oz. bottle	Equivalent to the evaporation rate of water. Wiping or blowers will accelerate dry time.	Rinses residue free with water	Pine scent
	LUB 82249	24 fl. oz. spray bottle			
	LUB 82251	1 gal. bottle			
	LUB 82253	5 gal. pail			
	LUB 82254	15 gal. pail			
	LUB 82255	55 gal. drum			
Aqua Power™ Cleaner & Degreaser	LUB 30565	17 oz. net wt. aerosol	5-15 minutes	No rinse and no residue	Mild solvent
ODC-Free Cleaner & Degreaser	LUB 22355	15 oz. net wt. aerosol	5-20 minutes (without wipe) 1-2 minutes (with wipe)	No rinse and no residue	Mild citrus
	LUB 20162	16 fl. oz. pump spray			
	LUB 20260	1 gal. can			
Non-Chlorinated Parts Cleaner	LUB 30545	14.75 oz. net wt. aerosol	5-15 minutes	No rinse and no residue	Mild solvent
Pro Strength Degreaser	LUB 30521	15 oz. net wt. aerosol	Leave on surface 10 minutes	Rinses clean	Mild solvent
Pro Strength Varnish Remover	LUB 30529	12 oz. net wt. aerosol	5 minutes	No rinse and no residue	Aromatic
Electrical Contact & Parts Cleaner	LUB 25791	11 oz. net wt. aerosol	<30 seconds	No rinse and no residue	Mild solvent
Chisel® Gasket Remover	LUB 79040	18 oz. net wt. aerosol	Leave on surface 10-15 minutes. Wipe/scrape clean	Waxy residue	Mild solvent

COATINGS

▶ Loctite offers a variety of coatings to protect, seal, insulate, prevent corrosion, color code and add gripping power. Many products provide excellent resistance to acids, alkalis, salt and moisture that can damage equipment.

Colour Guard® Tough Rubber Coating: Inhibits rust and corrosion; seals, insulates and identifies almost any material in minutes. Creates a non-slip gripping surface. Rubber coating won't crack or chip. Acid and alkali resistant. Lasts for years. Use to 200°F. Dip, spray or brush to apply. Suggested applications include: tools, metal, electrical connections, masonry, wood, conveyors, glass, rope, fabric.

Belt Dressing & Conditioner: Extends belt life. Penetrates the cord fibers of "V" belts to restore pliability and flexibility. Prevents belt slippage due to heat, cold, dampness and dust. Eliminates squeaking and glazing.

Extend® Rust Treatment: One-step rust treatment goes on white and converts rust to a durable, black, metal-protective coating in 10 minutes. Wirebrush parts and apply with brush or spray. Surface rust must be present. Use as a primer or finish coat. Resists temperatures to 250°F intermittent, 200°F continuous.

Cold Galvanizing Compound: Sprays on metal surfaces to prevent corrosion even when surface is scratched. Idea touch-up for welded seams. Highly resistant to salt corrosion and water. Not resistant to acid or alkaline solutions. Contains no ozone-depleting compounds.



PROPERTIES CHART

Product	Part No.	Container	Coating Appearance	Coating Thickness	Dry Time	Temp. Resistance	Moisture Resistance	Salt Spray Test	Accelerated Weather Test
Color Guard® Tough Rubber Coating	LUB 34894	11 oz. aerosol	Black	1 dip: 8-10 mil	4 hours (allow 30 minutes between)	-30°F to 200°F	Excellent/ ASTM E-96	Passed 1000 hours/ ASTM B-117	10 years with slight loss of thickness/ ASTM G-53-84
	LUB 34979	14.5 fl. oz. can	Black						
	LUB 34895	11 oz. aerosol	Blue						
	LUB 34982	14 fl. oz. can	Blue	1 spray: .5-1 mil					
	LUB 34896	11 oz. aerosol	Red						
	LUB 34985	14.5 fl. oz. can	Red						
	LUB 34897	11 oz. aerosol	Yellow						
LUB 34988	14.5 fl. oz. can	Yellow							
Primer for Color Guard® Tough Rubber Coating	LUB 34994	1 gal. can	Grey	-	10-15 minutes	-	-	-	
Thinner for Color Guard® Tough Rubber Coating	LUB 34995	1 gal. can	-	-	-	-	-	-	

PROPERTIES CHART

Product	Part No.	Container	Coating Appearance	Dry Time	Temp. Resistance	Key Specifications
Belt Dressing & Conditioner	LUB 30527	12 oz. net wt. aerosol	White	N/A	Up to 200°F (93°C)	-
Extend® Rust Treatment	LUB 30539 LUB 75430 LUB 75448 LUB 75465	10.5 oz. net wt. aerosol 1 qt. bottle 1 gal. bottle 5 gal. pail	Converts from a white liquid to a black coating	30 minutes to touch	Up to 250°F (121°C)	-
Cold Galvanizing Compound	LUB 82039	15 oz. net wt. aerosol	Low gloss grey	15 minutes to touch	Up to 400°F continuous; 600°F intermittent	Conforms to MIL-P-26915A Conforms to MIL-T-26433 Conforms to MIL-T-21035 Conforms to MIL-P-46105 Conforms to ASTM A239-41

EPOXIES

► Fixmaster® filled and general-purpose epoxies repair, rebuild and restore damaged parts to quickly return equipment to service. Cured epoxies can be drilled, tapped and machined - just like the original metal. These non-shrinking products are available in a range of performance characteristics for specific applications. Each epoxy is capable of bonding to metal, ceramic, wood, glass and some plastics.

Fixmaster® Fast Cure Epoxy Mixer Cups: Premeasured epoxy mixer cups. Bonds in 5-15 minutes. Excellent chemical resistance. Fills porosities and can be used to build up worn parts. Ideal for bonding glass, hard plastics, rubber and metal.

Fixmaster® Underwater Repair Epoxy: This putty-like material is ideal for plumbing, irrigation and marine applications because it is unaffected by chlorinated or salt water. It is hand kneadable and fully cures in one hour.

Fixmaster® Metal Magic Steel™: Steel epoxy in stick form. Cut off a section, knead and apply to leaking pipes or damaged equipment. Cures in 10 minutes. NSF approved, Standard 61.



PROPERTIES CHART

Product	Part No.	Container	Color (cured)	Temperature Resistance, °F	Adhesive tensile shear, PSI	Working Time, min.	Fixture Cure Speed	Functional Cure, hours
Fixmaster® Fast Cure Epoxy Mixer Cups	LUB 21425 LUB 21426	10 - 12 fl. oz. cups 10 - 1 oz. cups	Grey	180	2000	5	10 min.	12 hours
Fixmaster® Underwater Repair Epoxy	LUB 82093	4 oz. stick	-	White	300	700	2 min.	1 hour

Properties based on ultimate cure.
Epoxy properties based on mixing 20 g. mass at 77°F.
*Time to reach handling strength.

Bonding Characteristics

Product	Gap Filling	Fast Cure Time	Ferrous Metal Repair	Toughened Formulation	Shock Resistance	Water Resistance	Plastic Bonding	Rubber Bonding	Metal Bonding	Sandable Finish	Paintable Finish
Fast Cure Epoxy Mixer Cups	●	●					○	○	●	●	○
Underwater Repair Epoxy	●	●			●	●	●		●	●	●

● Preferred Choice ● Good Choice ○ Acceptable Choice

Metal-Filled Epoxies Properties Chart

Product	Item No.	Container	Coverage, ft. @ 1/4" thickness	Colour	max. operating temp., °F	Compressive Strength, psi	Tensile strength, psi	Hardness (shore D)	Working time, min.	Functional cure, hrs.	Mix ratio by volume, r:h	Mix ratio by weight, r:h
Fast Set Steel Putty	39917	1 lb. kit	0.4	Grey	200	10,800	4,600	80	3	10 min	1:1	6.3:1
Metal Magic Steel™	98853	4 oz.	7 in ²	Grey	500	12,000	2,500	80	3	10 min	N/A	N/A

Properties based on mixing one lb. mass of 77°F, 7 days cure.
*Ultimate cure.

Application Selection Guide

Product	Emergency Metal Repairs	Corrosion Protection	Repairing pipes, tanks	Rebuilding shafts, keyways, bearings	Repairing threaded parts	Restoring tube sheets	Pump repair	Repairing engine blocks	Fixtures and prototypes	Rebuilding impellers, valves	Repairing aluminum parts	Repairing stain-less steel parts	Forming molds, fixtures	Wet surface repairs
Metal Magic Steel™	●		●											●

● Preferred Choice ● Good Choice

GASKET & SEALING

- ▶ **Loctite®** innovative gasketing products offer precise, reliable sealing. They can be applied manually or - for high volume assembly - can be applied by automated methods, such as tracing, stenciling and screen printing.
- ▶ A leader in form-in-place gasket makers, gasket dressings and general purpose sealants, Loctite offers a choice of anaerobics, RTV Silicones or solvent-based products to meet broad gasket and sealing needs.

510 Gasket Eliminator® Flange Sealant: A high-temperature sealant specially engineered for making or dressing gaskets in rigid assemblies. Able to withstand temperatures to 400°F (204°C). Fills gaps up to 0.010" (0.254 mm) and permits clamping loads to be maintained for strong, leakproof assemblies.

Instant Gasket: Makes high-performance, leakproof gaskets in one minute. Equipment can be returned to service immediately. Blowout resistant. Outperforms pre-cut gaskets.

518 Gasket Eliminator® Flange Sealant: Ideal for on-the-spot and emergency repairs, or when a conventional gasket is out of stock. Seals to 300°F (149°C) and fills gaps to 0.050" (1.27 mm). Can be used on a variety of metal surfaces, including aluminum. Forms a flexible, solvent-resistant seal that will not tear or decay. Parts disassemble easily even after extended service.

Gasket Sealant #1: Reliable, paste-like gasket sealant/dressing/coating. Sets quickly to a hard set and is recommended for rigid, permanent assemblies. Use to 400°F. Resistant to gasoline and other solvents. Tested to MIL-S-45180D.

Gasket Sealant #2: Reliable, paste-like gasket sealant/dressing/coating. Sets more slowly to a pliable film best suited for non-rigid, vibrating assemblies. Use to 400°F. Resistant to gasoline and other solvents. Tested to MIL-S-45180D.

Ultra Black® Silicone Gasket Maker: Retains high flexibility and oil resistance for longer gasket life. Temperature range -75°F to 625°F (-59°C to 329°C) intermittent. Low odor, non-corrosive, low volatility. Resistant to most chemicals and solvents. Fills gaps to .25".

Ultra Copper® High Temp Silicone Gasket Maker: Premium silicone that can withstand operating environments to 700°F (371°C) intermittent. Superior oil resistance. Low odor, non-corrosive, low volatility, non-conductive. Resistant to most chemicals and solvents. Fills gaps to .25".

Ultra Grey® Silicone Gasket Maker: Remains flexible and withstands high vibration. Designed for high-torque applications. Withstands temperatures from -75°F to 625°F (-59°C to 329°C). Outstanding oil and shop fluid resistance. Non-corrosive, low odor.

Superflex™ Blue RTV Silicone Adhesive Sealant: Cures to a tough, flexible rubber. Makes reliable "formed-in-place" gaskets that resist shrinking, cracking and migrating. Coats pre-cut gaskets to increase reliability. Temperatures range -65°F to 500°F (-54°C to 260°C) intermittent. Low volatility. Fills gaps to .25".

Superflex™ Red High Temp Silicone Adhesive Sealant: Makes gaskets that resist temperatures to 600°F (315°C) intermittent. Resists aging, weather and thermal cycling without shrinking, cracking or hardening. Fills gaps to .25".

Superflex™ Non-Corrosive RTV Silicone Clear: Neutral curing and non-corrosive. For aluminum, concrete, electrical applications. Temperatures resistant to 400°F (204°C) continuous service, 500°F (260°C) intermittent. TT-S-00230C Type II. TT-S-001543A, Class A.



GASKET & SEALING

Superflex™ Silicone Adhesive Sealant: General-purpose, one-part silicone adhesive sealant cures at room temperature to form a tough rubber seal. Will not slump in overhead or vertical applications. Formulated to withstand extreme temperature cycling, U.V. light and ozone. Cannot be painted. Available in black, clear and white.

Hi-Tack Gasket Sealant: Red-coloured, liquid sealant that holds gaskets in place during assembly. Seals and bonds rubber, cork, paper, felt, metal, and asbestos gaskets. Sets quickly to a very tacky film. Suitable to 500°F (260°C). Contains no ozone-depleting compounds.

High Temperature Gasket Sealant: Slow-setting, non-hardening, high-temperature sealant. Recommended for heavy-duty applications. Temperature range -65°F to 600°F (-54°C to 315°C) intermittent. Resists common shop fluids.



Copper Gasket Adhesive: Fast-drying, metallic, copper sealant helps dissipate heat, prevent gasket burnout and improve heat transfer. Fills hot spots and surface imperfections. Temperature range -50°F to 500°F (-45°C to 260°C). Resists shop fluids.

Instant Gasket: Return equipment to service immediately when you make leakproof gaskets in just one minute with Instant Gasket. Outperforms precut gaskets.

LOCTITE PROPERTIES CHART

Product	Part No.	Container	Typical Use	Colour	Gap Fill	Cured State	Viscosity cP	Temp. Range	Cure Speed	Recommended Primer	Specific Gravity	Key Specifications
510	LUB 51031 LUB 51041	50 ml tube 250 ml tube	High temp. applications Excellent solvent resistance	Red	Unprimed .010" Primed .020"	Rigid	188,000/ 500,000 Thixotropic	-65°F to 400°F	Unprimed 4 to 24 hrs. Primed 30 min. to 4 hrs.	N	1.16	UL classified
515	LUB 51517 LUB 51531 LUB 51580	6 ml tube 50 ml tube 300 ml cartdg.	For flexible applications	Purple	Unprimed .010" Primed .050"	Flexible	275,000/ 950,000 Thixotropic	-65°F to 300°F	Unprimed 1 to 12 hrs. Primed 15 min. to 2 hrs.	N	1.10	UL classified
518	LUB 22423 LUB 22424 LUB 51817 LUB 51831 LUB 51845	Kit Kit 6 ml tube 50 ml tube 300 ml cartdg.	For all metals including aluminum flanges	Red	Unprimed .010" Primed .050"	Flexible	800,000/ 3,750,000 Thixotropic	-65°F to 300°F	Unprimed 4 to 24 hrs. Primed 30 min. to 4 hrs.	N	1.13	NSF/ANSI 61 certified Agriculture Canada approved

PROPERTIES CHART

Product	Part No.	Container	Colour	Oil Resistance	Non Corrosive	Temp. Resistance	Sealing Time	Key Specifications
Instant Gasket	LUB 30684 LUB 30509 LUB 30507	4 oz. can 5 oz. cartridge 7 oz. can	Black	Increased oil resistance	Non-Corrosive	-75°F to 600°F (-59°C to 316°C)	Operating Strength 15 psi - 1 min.	GM 998-5590 Ford WSE-M4G 323-A6 Chrysler GF-44-A
Superflex™ RTV Silicone Adhesive Sealants	LUB 59330 LUB 59375 LUB 30563 LUB 59530 LUB 59575 LUB 30562 LUB 59430 LUB 59475 LUB 82518	80 ml tube 300 ml cartridge 7.25 oz. can 80 ml tube 300 ml cartridge 7.25 oz. can 80 ml tube 300 ml cartridge 7.25 oz. can	Black Black Black Clear Clear Clear White White White	-	-	-65°F to 450°F (-54°C to 232°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Superflex™ Blue RTV Silicone Adhesive Sealant	LUB 30560 LUB 30533 LUB 30541 LUB 30518	80 ml tube 300 ml cartridge 7.25 oz. can 12 oz. tube	Blue	-	-	-65°F to 500°F (-54°C to 260°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Superflex™ Red High Temp RTV Silicone Adhesive Sealant	LUB 59630 LUB 59675 LUB 30564 LUB 82279	80 ml tube 300 ml cartridge 7.25 oz. can 12 oz. tube	Red	-	-	-75°F to 600°F (-59°C to 316°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Superflex™ Non-Corrosive RTV Silicone	LUB 51387 LUB 51388	80 ml tube 300 ml cartridge	Clear	Oil resistant	-	-75°F to 400°F (-59°C to 204°C)	Tack free - 25 min. Full strength - 24 hrs.	UL QMFZ294 HB FDA 21CFR175.105
Ultra Black® RTV Silicone Gasket Maker	LUB 59830 LUB 59875 LUB 59866 LUB 59891	70 ml tube 300 ml cartridge 8.75 oz. can 40 lb. pail	Black	Excellent oil resistance	Non-Corrosive	-75°F to 625°F (-59°C to 329°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Ultra Blue® RTV Silicone Gasket Maker	LUB 58730 LUB 58775 LUB 30567 LUB 58791	70 ml tube 300 ml cartridge 8.75 oz. can 40 lb. pail	Blue	Increased oil resistance	Non-Corrosive	-75°F to 500°F (-59°C to 260°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Ultra Copper® RTV Silicone Gasket Maker	LUB 30542 LUB 82046	70 ml tube 300 ml cartridge	Copper	Increased oil resistance	Non-Corrosive	-75°F to 700°F (-59°C to 371°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Ultra Grey® RTV Silicone Gasket Maker	LUB 18718 LUB 18581	70 ml tube 300 ml cartridge	Grey	Increased oil resistance	Non-Corrosive	-75°F to 625°F (-59°C to 329°C)	Tack free - 30 min. Full strength - 24 hrs.	-
Aviation Gasket Sealant	LUB 30517 LUB 30516	0.25 pt. brush can 1 pt. brush can	Dark red - dish brown	Oil resistant	Non-Corrosive	-65°F to 400°F (-54°C to 204°C)	Full strength - 12 hrs.	Mil-S-45 180 D Type II
Gasket Sealant #1	LUB 30510 LUB 30511 LUB 30512	1.5 oz. tube 3 oz. tube 11 oz. tube	Reddish Brown	Oil resistant	Non-Corrosive	-65°F to 400°F (-54°C to 204°C)	Full strength - 24 hrs.	Mil-S-45180 D Type I
Gasket Sealant #2	LUB 30513 LUB 30514 LUB 30515 LUB 80964	1.5 oz. tube 3 oz. tube 11 oz. tube 5 gal. can	Black	Oil resistant	Non-Corrosive	-65°F to 400°F (-54°C to 204°C)	Remains tacky	Mil-S-45180 D Type II
Hi-Tack Gasket Sealant	LUB 30524 LUB 30525 LUB 30526	0.25 pt. brush can 1 pt. brush can 9 oz. aerosol	Red	Increased oil resistance	Non-Corrosive	-65°F to 500°F (-54°C to 260°C) Aerosol to 600°F	5 min. to set	-
High Temperature Gasket Sealant	LUB 30558	7 fl. oz. tube	Black	Oil resistant	Non-Corrosive	-50°F to 600°F (-45°C to 316°C)	3 to 5 hrs. to set	-
Copper Gasket Adhesive	LUB 30535	9 oz. aerosol	Copper	Oil resistant	Non-Corrosive	-50°F to 500°F (-45°C to 260°C)	Remains tacky	-

PROPERTIES CHART

Product	Part No.	Container	Colour	Viscosity cP/ Consistency	Cured State	Temperature Range	Sealing Time	Gap Fill	Recommend- ed Primer
510 Flange Sealant	LUB 51031	50 ml tube	Red	165,000/500,000 thixotropic paste	Rigid	-65°F to 400°F (-54°C to 204°C)	30 minutes - 4 hrs. w/primer 4 - 24 hrs. without primer	.020" w/primer .010" w/o primer	7649 Primer N
518 Flange Sealant	LUB 51817 LUB 51831	6 ml tube 50 ml tube	Red	750,000/3,750,000 thixotropic paste	Flex-ible	-65°F to 300°F (-54°C to 149°C)	30 minutes - 4 hrs. w/primer 4 - 24 hrs. without primer	.050" w/primer .010" w/o primer	7649 Primer N

GENT-L-KLEEN HAND CLEANERS

► Formulated to remove grease, grime, paint, and adhesives, Gent-L-Kleen waterless hand cleaners also contain multiple skin conditioners to help counteract the drying effects of frequent washing.



Loctite® Industrial Strength Hand Wipes: Pre-moistened with a powerful citrus scented cleaning formula that is abrasive enough to scrub off the toughest grease and grime without scratching your hands. Quick and easy to use, these 9.5" x 12" towels eliminate rinsing and drying and leave no oily residue behind. These wipes are perfect for industrial and commercial working hands in the painting, printing, maintenance, transportation, agricultural and construction industries. Take them anywhere.



Gent-L-Kleen® Orange Lotion Hand Cleaners: Citrus-based, pumice and smooth lotion cleaners that quickly dissolve tough soils like grease, ink, paint, glue and rubber gasket cement, while protecting hands with 5 skin conditioners. Does not contain any petroleum solvents. Replaces Loctite® nos.: 25218, 25104, 25116, 23218 and 23116.

Gent-L-Kleen® Orange Cream Hand Cleaner: All the benefits of the Pumice Orange Lotion hand cleaner in a thick cream formula. Conveniently fits on the 4.5 lb. wall-mount dispenser. Replaces Loctite® no.: 35406.

Gent-L-Kleen® Original Cream Hand Cleaner: Removes tough grease and grime, while skin conditioners and antiseptic agents keep sensitive hands protected and conditioned. Does not contain any harsh solvents. Replaces Loctite® nos.: 01406 and 01013.

Gent-L-Kleen® Ultra Zapper™ Paint, Sealant, Adhesive Remover Hand Cleaner: Quickly and safely removes paints, sealants, and adhesives (especially those with a urethane base), but is gentle to the skin and leaves no oily residue behind. Replaces Loctite® nos.: 65116.



PRODUCT	REPLACES LOCTITE PART NO.	PART NO.	PHOTO	ITEM	UNITS PER CASE	SHIPPING WEIGHT
Loctite Industrial Hand Wipes	NA	LUB 34943 LUB 34944	-	75 count container 130 count bucket	-	-
Orange Smooth Lotion Hand Cleaner	23116 23218	LUB 23-116 LUB 23-218	G A	15 Fl. Oz. Bottle 1 Gal. Dispensing Jug	12 4	15 38
Orange Pumice Lotion Hand Cleaner	25116 25218 25104	LUB 25-116 LUB 25-218 LUB 25-104	H B C	15 Fl. Oz. Bottle 1 Gal. Dispensing Jug 1 Gal. Flat-Top	12 4 4	15 38 38
Orange Pumice Cream Hand Cleaner	35406	LUB 35-406	J	4.5 lb. Cartridge	6	31
Original Cream Hand Cleaner	01013 01406	LUB 2-1412 LUB 2-4560	M D	14 Oz. Container 4.5 lb. Cartridge	12 6	13 31
Ultra Zapper™ Hand Cleaner	65116	LUB 65-116	N	15 Fl. Oz. Bottle	12	15
Dispensers	90123	LUB 95-140	L	Heavy-Duty Dispenser for 4.5 lb.	1	-

WIPING RAGS



PART NO.	DESCRIPTION
HAR RSTW-30P	30 pack of deluxe shop towels
HAR RSTW-50P	50 pack of deluxe shop towels
HAR RBXN-10C	10 lb. bag of near white wiping rags



LUBRICANTS

- ▶ A variety of penetrants, greases, oils and anti-seize formulas are available for lasting, general-purpose lubrication or specific applications.
- ▶ Anti-seize compounds protect mated metal parts against friction, galling and corrosion. Anti-seize compounds also reduce wrench torque to facilitate assembly and disassembly of threaded connections.
- ▶ Super Lube® synthetic-based lubricants last four times longer than traditional petroleum-based greases and work in high and low temperatures, food grade and multi-purpose applications.

Anti-Seize

Silver Grade Anti-Seize: Heavy duty, temperature-resistant, petroleum-based lubricant compound fortified with graphite and metallic flake. Inert, will not evaporate or harden in extreme cold or heat. For use in assemblies up to 1600°F(871° C).

White Hi-Temp Anti-Seize: General purpose non-metallic formulation that protects against high temperature seizing and galling of mated metal parts, up to 2000°F. White in color it has a cleaner, less messy appearance. It has excellent lubricity and can be used on various metals such as copper, brass, cast iron, steel, and all alloys including stainless steel. Use for assembly and disassembly of mated parts such as bolts, screws, studs, pipe joints, nuts, shafts, bushings, splines, chains and cables.



**PROPERTIES CHART/
APPLICATION
SELECTION GUIDE**

Product	Part Number	Container	Temp. Resistance	General Purpose Anti-Seize	Extreme Chemical Resistance	For Max. Lubricity	Electrically Conductive	For aluminum/soft metals	For Stainless steel	Copper-free formulation	For low speeds, high loads	High Purity
Silver Grade Anti-Seize	LUB 80209	4 oz. brush-top can	1600°F (871°C)	●			●	●	●			
	LUB 76732	8 oz. brush-top can										
	LUB 76759	13 oz. aerosol										
	LUB 76764	1 lb. brush-top can										
	LUB 80206	1 gal. can										
LUB 76775	5 gal. pail											
White Hi-Temp Anti-Seize	LUB 34517	8 oz. brush-top can	2000°F									
	LUB 34518	16 oz. brush-top can										
	LUB 76759	13 oz. aerosol										

● Preferred Choice ● Good Choice ○ Acceptable Choice

LUBRICANTS

General Purpose

Gear, Chain & Cable Lubricant: Protects and prolongs the life of gears, chains, wire rope, and cable. Repels dirt, sand and dust with minimum "throw-off" from centrifugal force. Contains no ozone-depleting compounds.

Hydraulic Jack Oil: Non-corrosive oil improves lubrication in all types of hydraulic units (except hydraulic breaks). Contains antioxidant, anti-rust and anti-wear additives.

Penetrating Oil: Penetrates, lubricates and displaces moisture. Protects against rust and corrosion. Contains no ODC's.

Solvo-Rust® Super Penetrating Oil: Frees rusted parts and keeps them lubricated and protected from rust after use. May be applied on or near moving parts. Will not harm painted surfaces. Contains no ODC's.

Super Lube® Synthetic-Based Lubricant with PTFE Grease: Lasts four times longer than petroleum-based lubricants. Withstands temperatures from -45°F to 450°F (550°F intermittent). Contains PTFE for added protection against friction and wear. Non-flammable (aerosol is flammable). Contains no ODC's.
NLGI #2 grease. Translucent white to slightly yellow.



PROPERTIES CHART/ APPLICATION SELECTION GUIDE

Product	Part Number	Container	Temperature Resistance	Food processing equipment	Close fitting parts	High Temperature	Electrically conductive	Electrical equipment	Gears, bearings, cable, conveyors	Hydraulic units (not brakes)	For high speed bearings	For low speeds, high loads	Chain-driven equipment	Disc braking systems	Solid film
Gear, Chain & Cable Lubricant	LUB81251	12 oz. aerosol	-						●				●		
Hydraulic Jack Oil	LUB30522 LUB30523	1 qt. can 1 gal. can	120°F (48°C)							●					
Penetrating Oil	LUB80032 LUB51221	1 pt. spout can 16 oz. aerosol	100°F (38°C)		●										
Solvo-Rust® Super Penetrating Oil	LUB81252	13 oz. aerosol	-		●										
Super Lube® Grease with PTFE	LUB82340 LUB82324 LUB82325 LUB23755 LUB20029 LUB82328 LUB82329	1 cc kit sized packet 0.5 oz. tube 3 oz. tube 6 oz. aerosol 11 oz. aerosol 14.1 oz. grease cardg. 400 gm can	450°F (232°C)	●		○		●					●		

● Preferred Choice ● Good Choice ○ Acceptable Choice

PROPERTIES CHART

Product	Part Number	Container	Temperature Resistance	Type of Lubricant	Viscosity	ISO Grade	Drop point (ASTM D556)	Four point (ASTM D97)	Four Ball Test (ASTM D 4172)	Four Ball E.P. Scar Test (ASTM D974)	TAN (ASTM D974)	Salt spray test (ASTM B177)
Super Lube® Grease with PTFE	LUB82340 LUB82324 LUB82325 LUB23755 LUB20029 LUB82328 LUB82329	1 cc kit sized packet 0.5 oz. tube 3 oz. tube 6 oz. aerosol 11 oz. aerosol 14.1 oz. grease cardg. 400 gm can	-45°F to 45°F (-43°C to 232°C) continuous	Synthetic hydrocarbon (polyalphaolefin-based) with PTFE	NLGI #2 grease	-	> 500°F (260°C)	-	Load wear index > 40 kg Weld Point > 250 kg	< .5	0.04 max	Pass

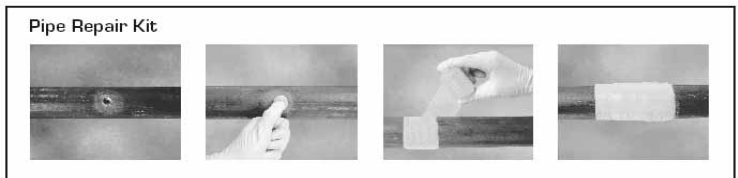
SPECIAL PRODUCTS

Form-A-Thread®: Stripped Thread Repair Kit permanently repairs stripped threads and fasteners in five minutes (up to SAE Grade 5 English and 8.8 metric). Allows up to 128 lb. torque and 300°F. Resists most shop fluids.

Pipe Repair Kit: Urethane-impregnated fiberglass tape, activated by water, for reliable temporary repairs of metal, plastic and composite pipes. Includes Metal Magic Steel™ epoxy stick and gloves. Cures in 30 minutes. Can be used to repair metal, plastic and composite pipes. Meets requirements of USDA for incidental food contact.



O-Ring Splicing Kit: Makes replacement, high performance O-rings in less than a minute. Contains 3 foot lengths of common Buna N cord stock, Quick Set™ 404, splicing fixture and cutting blade, waterproofing solution and clean-up solvent.



Quick Service Tool Kit: This compact kit contains everything needed to solve the most common mechanical failures. Included in the kit are: 242® Medium and 262 High Strength Threadlockers, 7649 Primer/Activator, Prism® 454 Instant Adhesive Gel, Quick Metal® 660 Retaining Compound, 565 Thread Sealant, Blue 587 Silicone Gasket Maker and 518 Gasket Eliminator®.

Loctite® Freeze and Release™: An innovative solution to a classic maintenance problem of seized fasteners. Loctite® Freeze & Release™ combines a shock freeze effect with the advantage of an ultra low viscosity penetrating lubricant. When sprayed, the immediate sub-zero temperature effectively cracks the rust that has built up over time, allowing the lubricant to wick into the parts to allow for disassembly. Works great, saves time!



SPECIAL PRODUCTS ORDERING INFORMATION

PRODUCT	PART NO.	CONTAINER	VISCOSITY cP	COLOUR
Form-A-Thread® Stripped Thread Repair Kit	LUB 28654	4.8 ml kit	300°F	Grey (mixed)
Pipe Repair Kit	LUB 96321 LUB 96322	2" x 6' tape 4" x 12' tape	250°F	Yellow
O-Ring Making Kit	LUB 00112	1 oz. waterproofing solution 1 oz. clean-up solvent 1/3 oz. 404 Quick Set™ instant adhesive Cord - 3/32", 1/8", 3/16, 1/4" Fixture and cutting blade	N/A	Clear
Quick Service Tool Kit	LUB 00101	10 ml, 242® Medium Strength Threadlocker 10 ml, 262 High Strength Threadlocker 4.5 oz. aerosol, 7649 Locquic® Primer N 3 gm tube, 454 Prism® Instant Adhesive Gel 6 ml tube, 660 Quick Metal® Retaining Compound 50 ml tube, 565 PST® Thread Sealant 70 ml tube, 587 Blue RTV Silicone Gasket Maker 50 ml tube, 518 Gasket Eliminator® Flange Sealant	N/A	-
NEW! Loctite® Freeze & Release™	LUB 996456	Aerosol can	-	-

JET LUBE PRODUCTS

Thread Sealants

JET-LUBE

A World Leader in Anti-Seize,
Sealant & Lubrication Technology



PROPERTIES CHART

PRODUCT	PART NO.	SIZE	DESCRIPTION	APPLICATION	SERVICE RATING
No. 60 Lead Seal Compound	LUB 26702 LUB 26704	225 ml 1 litre	Has a high lead content which makes it resistant to impact, shock, high loads and pressures. ULC listed for gas installations.	Seals pipe fittings against leakage in a wide variety of piping systems, including natural gas, chemicals, refrigerants, oil, and petroleum products.	-18°C to 315°C (0°F to 600°F) 41,000 kPa (6,000 psi)
TF-15 Thread Seal Compound	LUB 23002	225 ml	Contains PTFE fluorocarbon resin and molybdenum disulphide in a water resistant, non-hardening grease base.	Excellent for use on all threads subjected to vibration, surge, pressure and temperature fluctuations. Particularly resistant to H ₂ S and salt water. Seals badly worn threads. Ideal for use on fiberglass tubing and casing.	-23°C to 260°C (-10°F to 500°F) 69,000 kPa (10,000 psi)
V-2 Thread Seal Compound	LUB 22002	225 ml	A soft-setting non-petroleum based compound containing PTFE. ULC listed for petroleum products and potable water.	A non-toxic compound designed for use on potable water, liquids, gases, or where ever a non-flammable, non-staining compound is required. May be used on steel, copper, iron, fiberglass, etc.	-18°C to 260°C (0°F to 500°F) liquids to 69,000 kPa gases to 14,000 kPa
Petro-Tape Thread Seal	LUB 30793 LUB 30794 LUB 30795	1/2" x 540" 3/4" x 540" 1" x 540"	Made of pure virgin PTFE. Conforms to Military Specification MIL-T-27730A ULC listed for gas installations. Full 3 mil thick.	For heavy-duty use on lines carrying oxygen, acids, fuels, chemicals, solvents, etc.	-240°C to 260°C (-400°F to 500°F)

Anti-Seize Compounds



PROPERTIES CHART

PRODUCT	PART NO.	SIZE	DESCRIPTION	APPLICATION	SERVICE RATING
Kopr-Kote Anti-Seize Compound	LUB 10202 LUB 10204	225 ml 1 liter	A premium grade general purpose anti-seize compound containing copper, graphite and a combination of specialty products blended into a water-resistant, non-melting grease base.	Use on all types of threaded connections bushings, keyways, press fits, etc. to protect against seizure, heat freeze, galling, rust and corrosion.	-54°C to 815°C (-65°F to 1500°F)

JET LUBE PRODUCTS

Penetrants and Coatings



PROPERTIES CHART

PRODUCT	PART NO.	SIZE	DESCRIPTION	APPLICATION	SERVICE RATING
12/34 Penetrating Oil	LUB 37341 LUB 37316	12 oz. aerosol 4 liter	A high quality industrial strength penetrating oil which lubricates, penetrates, removes moisture and prevents rust and corrosion.	Use to free rusted or corroded connections. Dries wet ignition systems and is excellent for cleaning electronic components.	-75°C to 150°C (-100°F to 300°C)
Rust-Guard Storage Compound	LUB 13341		Provides extended, long-term protection for all metal surfaces from moisture, oxidation and corrosion. Will not dry out, harden or crack.	Use on the threaded ends of drill pipe, tubular goods or any metallic surface to prevent corrosion while in storage.	-30°C to 204°C (-20°F to 400°F)

PRESSURE WASHER CHEMICALS

Biodegradable Citrus Cleaner/Degreaser

▶ Excalibur 4000 is a highly concentrated industrial degreaser designed for cold water pressure wash applications in cleaning of heavy equipment and ferrous (iron) metal surfaces. Removes oils, greases, smoke stains, waxes, tar and inks. Not for use on painted road vehicle surfaces. It contains no glycol ether solvents and is non-caustic thus making it safe to use on most hard surfaces.

▶ Excalibur 4000 is designed to go to work wherever greasy, oily, organic-based soils exist. It's great for ink too! Use it to clean tile, concrete, marble and terrazzo floors or any other hard surface not affected by water. Cleans and deodorizes typewriters, vending machines, garbage and trash containers, machinery, tools, etc.

Excalibur 4000 offers the following advantages:

- **NON-BUTYL** - Does not contain "butyl" or other glycol ether type solvents yet penetrates better than butyl for grease and inks.
- **LOW VOL** - Increased concern for Volatile Organic Compounds in work place areas has meant an increased concern for solvent cleaners. Excalibur 4000 contains less than 5% VOC and low evaporation rate meaning improved air quality.
- **BIODEGRADABLE** - The use of biodegradable citrus derivative means a more environmentally safe product.
- **PLEASANT ODOUR** - Many cleaners use perfumes or fragrances to mask the powerful solvent odours that people find objectionable. Excalibur 4000 uses no such perfumes but rather relies on the natural "orange" aroma of the citrus additive to provide a fresh clean smell after use.
- **VERSATILE** - Excalibur 4000 may be used in hot tanks as a soak cleaner, steam cleaner, pressure wash, automatic floor scrubber or in normal cleaning.

PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO	
LUB WP4004	4 Liter Jug	Light Duty Cleaning	40 to 1 - 100 to 1
LUB WP4020	20 Liter Pail	General Cleaning	20 to 1 - 40 to 1
LUB 4000-205L	210 Liter Drum	Heavy Duty Cleaning	5 to 1 - 10 to 1



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PRESSURE WASHER CHEMICALS

Biodegradable Natural Solvent Equipment Degreaser

► Excalibur 4001 is a blend of natural solvents and detergents designed to remove tough soils including carbons, greases and oils. It was designed to replace the standard petroleum distillates, chlorinated hydrocarbons and glycol ether type cleaners which work well but present a disposal problem. Heavy equipment automotive engines, machinery and production equipment will clean quickly and easily with Excalibur 4001. Road tars, greases, carbon and specialty lubricants are typical soils which are readily removed by Excalibur 4001.

- **EMULSIFIABLE LIQUID** - May be used straight or extended with water for increase economy. Unlike petroleum solvents like kerosene or mineral spirits, surfaces cleaned with Excalibur 4001 may be rinsed free with a water flush.
- **SAFER** - Excalibur 4001 uses no petroleum distillates, chlorinated hydrocarbons, phenolics or glycol ethers which present waste disposal problems. Most waste treatment plants are able to accept Excalibur 4001 dilutions for treatment (check with local authorities first).
- **WORKS COLD** - No need to add heat as with water-based cleaners. Excalibur 4001 works at full efficiency when cold thus lowering energy requirements and costs.
- **PLEASANT ODOUR** - Most heavy duty solvent cleaners cresylic acid, chlorinated solvents or other odourous and toxic additives. Excalibur 4001 cleans in heavy duty fashion and leaves behind a "citrus-like" odour. Excalibur 4001 also has a slower evaporation rate than chlorinated-type solvents meaning lower volatile organic content in the air and thus a safer workplace environment.
- **NON-CORROSIVE** - When used as directed, Excalibur 4001 will not harm most metals and painted surfaces. Certain aluminum alloys and paints may be affected and surfaces should always be checked for safety before use.

PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO
LUB 4001-4L	4 Liter Jug	Designed to be sprayed directly onto surface to be cleaned.
LUB 4001-20L	20 Liter Pail	Designed to be sprayed directly onto surface to be cleaned.
LUB 4001-210L	210 Liter Drum	Designed to be sprayed directly onto surface to be cleaned.



Natural Citrus Cleaner/Degreaser

▶ Excalibur 4100 is a heavy duty natural citrus solvent cleaner using state-of-the-art microemulsion technology. A unique blend of citrus oils, emulsifiers, detergents, and water softeners in a highly concentrated formula. Excalibur 4100 will penetrate, dissolve, disperse and remove heavy oils/greases/tars from surfaces that previously required cleaning with harmful petroleum and chlorinated solvents.

▶ When used as directed, Excalibur 4100 will clean heavy equipment, engines and machinery of even the heaviest soils. Excellent for removing oil and grease deposits and stains from concrete. When used as a general purpose cleaner diluted with up to 500 parts of water, Excalibur 4100 will give superb cleaning results without the need for scrubbing or rinsing.

- **POWER PLUS** - The Excalibur 4100 Micro-Emulsion Technology "locks in" a higher level of ingredients than normally possible in a solvent type product. This means greater efficiency of use because the product can be further diluted. It also means that when heavy duty jobs are at hand, Excalibur 4100 can take them on with power to spare.

- **ENVIRONMENTAL** - Excalibur 4100 uses no petroleum distillates, chlorinated hydrocarbons, phenolic compounds or glycol ethers which have been typically used to do heavy grease and oil cleanups. These materials are presenting increasing handling and disposal problems and in many areas are being phased out of use. The natural "citrus" solvent used in Excalibur 4100 provides a more environmentally acceptable alternative to these materials.

- **ENERGY EFFICIENT** - Many detergent products require higher temperature to activate their emulsion and penetration characteristics. Excalibur 4100 works extremely well in cold water even in the heaviest of cleaning jobs because it penetrates and solubilizes oils/grease/fats using the micro-emulsion principle.

- **NON-CORROSIVE** - Excalibur 4100 does not depend on caustic ingredients to get the job done as many alkaline cleaners do. It has a pH in the neutral range (6.5-8.5) at recommended dilution and thus will not corrode metal surfaces. In addition, it does not present a corrosive hazard to skin.

- **ODOUR COUNTERACTION** - The citrus solvent that provides the "punch" for Excalibur 4100 micro-emulsion has another unique property. It exhibits the ability to counteract many mal-odors associated with industrial soils. Surfaces cleaned with Excalibur 4100 not only look good but are left with a pleasant citrus-like odour.

PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO
LUB 4100-4L	4 Liter Jug	Light Duty and General Cleaning 20 to 1 - 500 to 1
LUB 4100-20L	20 Liter Pail	Light Duty and General Cleaning 20 to 1 - 500 to 1
LUB 4100-210L	210 Liter Drum	Heavy Duty Cleaning Use Straight



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Industrial Strength Alkaline Cleaner

- ▶ Excalibur 5000 is an industrial strength alkaline cleaner concentrate formulated around state of the art cleaning technology. It contains twice the active ingredients of many alkaline cleaners presently being sold thus making it extremely low in cost to use.
- ▶ Excalibur 5000 incorporates emulsifiers, soil destructive and peptizing agents that synergize the action of the builders to provide rapid, complete oil and dirt breakdown. These oily contaminants are emulsified and dispersed completely so that they do not interfere with rinsing. Built-in water softeners ensure that water hardness in make-up water is tied up and does not remove any cleaning power.
- ▶ Excalibur 5000 will easily clean most plastic, rubber, porcelain, concrete as well as a variety of metal surfaces without leaving a white residue on the surface after rinsing. It will take on any cleaning chores from light duty to the toughest. It is safe on most surfaces that can be cleaned with water.

Excalibur 5000 offers the following advantages:

- Excalibur 5000 contains no phosphates and is biodegradable - reduces disposal problems.
- Is non-toxic and non-flammable - safe for employees to handle.
- Contains no free hydroxides - will not clog steam cleaning and high pressure hot water machines.
- Rapid penetration.
- Versatile - may be applied by hand, immersion, spray, steam gun, high pressure hot water or scrubber.
- Liquid - easily diluted and totally dissolved, unlike powdered products.

PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO
LUB WP5004	4 Liter Jug	Light Duty Cleaning 40 to 1 - 100 to 1
LUB WP5020	20 Liter Pail	General Cleaning 20 to 1 - 40 to 1
LUB 5000-205L	210 Liter Drum	Heavy Duty Cleaning 5 to 1 - 10 to 1



Vehicle Wash Concentrate

- ▶ Excalibur 5100 is a liquid alkaline detergent concentrate chemically formulated to remove road film, carbon exhaust deposits and bug residue from painted vehicle surfaces utilizing pressure spray equipment and without the need to agitate the surface with brushes. It works equally well in hot or cold water and contains water softening agents to rinse freely even in hard water.
- ▶ Many products have claimed to remove "road film", that ugly residue that normally remains on the vehicle surface unless it is mechanically or manually brushed during cleaning. This thin film is tenaciously held to the surface and requires a special combination of penetrants and dispersants to break the bond and bring the surface clean without the use of brushing.
- ▶ Excalibur 5100 contains builders, sequestrants and detergents in balanced levels to obtain "brushless" road film removal. This balanced system has been obtained without the use of phosphates, solvents or acids which have been part of most formulae designed in the past to attempt removal of "road film".
- ▶ All that is required is a good pressure washing system with the ability to produce 500 psi or higher at the nozzle. Excalibur 5100 works best when applied and rinsed under high pressure conditions, however, application at low pressure followed by a few minutes of penetration time and a high pressure rinse will normally produce excellent results. Although Excalibur 5100 works extremely well with cold water, the use of hot water will enhance cleaning results. When hot water is used, it should be possible to reduce the concentration of the cleaner to on half or one third of the level required with cold water.

Excalibur 5100 offers the following advantages:

CONCENTRATED LIQUID - Simple and quick to mix and economical to use. No undissolved powder of lumps to settle out in mixing tanks or plug up in spraying equipment. May be metered easily into any system.

SOAP FREE - May be used with any water source, soft or hard.

NON-PHOSPHATED AND BIODEGRADABLE - Reduces waste disposal problems.

NON-CAUSTIC - Contains no harsh caustic ingredients which can produce permanent and damaging effects on paint or skin.

CHELATED - Produces good cleaning and free rinsing even in the hardest of water conditions.



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PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO
LUB WP5104	4 Liter Jug	Light Duty Cleaning or use with a brush up to 100 to 1
LUB WP5120	20 Litre Pail	Light Duty Cleaning or use with a brush up to 100 to 1
LUB 5100-205L	210 Liter Drum	Heavy Duty Cleaning 25 to 1

Heavy Duty Alkaline Cleaner Degreaser

- ▶ Excalibur 7100 is a high alkali liquid detergent designed for pressure wash applications in cleaning of heavy equipment and ferrous (iron) metal surfaces. It contains a synergistic balance of alkaline builders and wetting agents to optimize penetration of tough oily and greasy soils and leave a clean free rinsed surface.
- ▶ Although many alkaline cleaners will do an adequate job on light and medium duty cleaning, they fail to meet the grade in heavy duty cleaning situations. Excalibur 7100 was designed with such heavy duty cleaning in mind. Applications such as engine cleaning, heavy equipment and hydraulic cleaning and all cleaning where difficult soil exists on ferrous metal surfaces.
- ▶ Excalibur 7100 works well in cold or hot water application however hot water will normally produce superior results particularly where grease is present. When hot water cleaning is used, it is possible to reduce the concentration substantially from cold water cleaning dilutions.

Excalibur 7100 offers the following advantages:

CONCENTRATED LIQUID - Simple and quick to mix and economical to use. No undissolved powder or lumps to settle out in mixing tanks or plug up in spraying equipment. May be metered easily into any system.

SOAP FREE - May be used with any water source - soft or hard.

CHELATED - Added sequestering agents produce enhanced cleaning and rinsing.

SUPERIOR WETTING - Rapid penetration and dispersion of soils produces cleaner surfaces in less time.

STABLE - Even though highly concentrated, no separation or settling takes place. May be stored for one year or more.

PROPERTIES CHART

PART NO.	SIZE	RECOMMENDED MIX RATIO
LUB 7100-4L	4 Liter Jug	Light Duty and General Cleaning 30 to 1 - 100 to 1
LUB 7100-20L	20 Liter Pail	Light Duty and General Cleaning 30 to 1 - 40 to 1
LUB 7100-210L	210 Liter Drum	Heavy Duty Cleaning 20 to 1 - 20 to 1



INDUSTRIAL SOIL REMOVAL

SOIL TYPE	PRODUCT SELECTION					
	4000	4001	4100	5000	5100	7100
CARBON	●	●	●	●	●	●
COAL DUST	●	●	●	●		●
CRUDE OIL		●	●	●		
DIESEL	●	●	●	●		●
DIRT	●				●	●
EXHAUST	●	●	●		●	
GREASE	●	●	●	●		●
INK	●	●	●	●		●
MINERALS						
MUD					●	
OIL	●	●	●	●		●
PARAFFIN		●				
ROAD FILM				●		
RUST						
SCALE						
SMOKE	●	●	●	●		●
SOOT	●	●	●	●		●
TAR		●	●			
SURFACE TYPE						
ALUMINUM			●	●	●	
PARTS WASHING						
BRICKS/CONCRETE	●	●	●	●	●	●
CONST. EQUIP.	●	●	●	●		●
FARM EQUIPMENT	●					●
METAL/IRON		●	●	●		●
OIL FIELD EQUIP.		●	●	●		●
PAINTED STEEL	●	●	●		●	●
STAINLESS STEEL	●	●	●	●	●	
VEHICLES	●		●		●	●
APPLICATION						
H.P. WASH - COLD	●		●	●	●	●
H.P. WASH - HOT	●		●		●	●
PRE-SPRAY		●	●	●		
IMMERSE/SOAK		●	●			
WIPE/BRUSH		●	●	●		

PRODUCT INDEX

WP 4000 - Biodegradable Citrus Cleaner/Degreaser
-removes organic soils such as oil and grease

WP4001 - Biodegradable Industrial Natural Citrus Solvent Degreaser
-removes organic tars, emulsion, grease, oils, carbons, exhaust

WP4100 - Biodegradable Natural Power Citrus Cleaner
- removes organic soils - oil, grease, carbon, exhaust, tar, inks

WP5000 - Industrial Strength Alkaline Cleaner/Degreaser
- removes organic soils - oil, grease, carbons, inks, fuels

WP5100 - Vehicle Wash Concentrate
- removes organic soils such as road film, dirt, carbon

WP7100 - Heavy Duty Alkaline Cleaner/Degreaser
- removes organic soils such as oil, grease, exhaust, fuels



Made in Canada

GREASE GUNS & INJECTORS

GREASE GUN - LEVER & PISTON GRIP TYPE

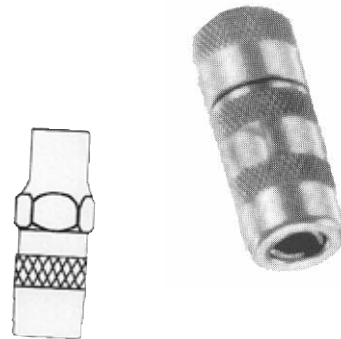
- Supplied with 7" detachable metal spout.
- 3 way filling
- 11" body accepts 14 oz. cartridges or can be filled by hand.

PART NO.	DESCRIPTION
LUB G4805	Lever type grease gun
LUB A480N	Piston grip type gun



GREASE GUN COUPLERS

PART NO.	DESCRIPTION
LUB 806	1/8" NPT 3 JAW
LUB 806HD	Heavy Duty Coupler - 1/8" NPT NEW!



GREASE GUN RIGID DELIVERY TUBES

PART NO.
LUB GP-230



GREASE HOSE ASSEMBLIES

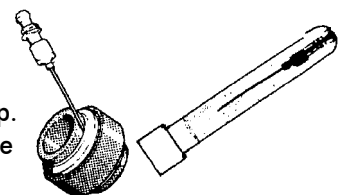
- 3/16" ID • IPT • Single Wire Braid
- 10,000 lbs. Burst Pressure

PART NO.	DESCRIPTION
HYD W08	8" long
HYD W12	12" long
HYD W15	15" long
HYD W18	18" long






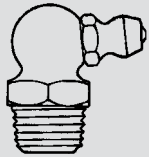
GREASE INJECTORS

- Lubricate sealed bearings - the injector goes under or through seal.
- Prevents dust, moisture, and rust build up, and reduces friction wear.
- Regular servicing of machines and motors will add years to their life.
- The injector tip is thin, flexible, surgical grade stainless steel tapered to get under the seal lip.
- The very fine outer diameter (19 to 20 gauge) of the tip allows insertion into the small relube holes in the outer ring of some sealed bearings.
- Fits standard grease guns giving flexible access to bearings, perfect for those hard to reach spots.



PART NO.
LUB CGI-198

GREASE FITTINGS

DIAMETER				
Thread 1/8" NPT	LUB 820	LUB 840	LUB 860	LUB 880
Thread 1/4" NPT	LUB 827	LUB 845		LUB 885
Thread 1/4" - 28	LUB 821	LUB 841	LUB 861	LUB 881
Thread 1/4" - 26 BSF	LUB 822	LUB 842	LUB 862	LUB 882
Thread 5/16" - 22 BSF	LUB 823	LUB 843	LUB 863	LUB 883
1/4" Drive	LUB 826			
5/16" Drive	LUB 825			

Grease Fitting Assortments

**LUB 3800****Contains:**

5 of LUB 820
3 of LUB 840
2 of LUB 880

LUB 3801**Contains:**

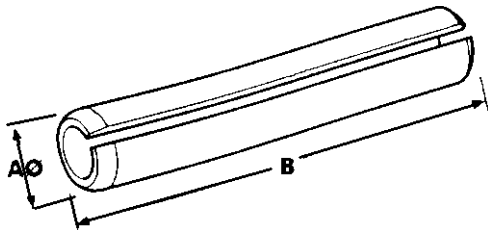
5 of LUB 822
3 of LUB 842
2 of LUB 882

LUB 3847**Contains:**

13 of LUB 820
7 of LUB 840
4 of LUB 880

PINS

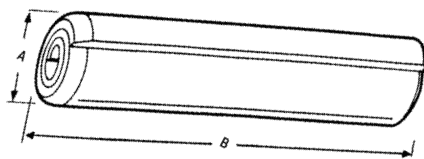
Roll Pins - Slotted



PART NO.	A x B
HAR 1102	1/16" x 1"
HAR 1109	1/8" x 5/8"
HAR 1111	1/8" x 1"
HAR 1115	3/16" x 3/4"
HAR 1117	3/16" x 1"
HAR 1119	3/16" x 1 1/2"
HAR 1121	3/16" x 2"
HAR 1126	1/4" x 1"
HAR 1129	1/4" x 1 1/2"
HAR 1131	1/4" x 1 3/4"
HAR 1133	1/4" x 2"

PART NO.	A x B
HAR 1136	5/16" x 1"
HAR 1138	5/16" x 1 1/2"
HAR 1139	5/16" x 1 3/4"
HAR 1140	5/16" x 2"
HAR 1145	3/8" x 1 1/2"
HAR 1146	3/8" x 1 3/4"
HAR 1147	3/8" x 2"
HAR 1160	1/2" x 1 1/2"
HAR 1161	1/2" x 1 3/4"
HAR 1162	1/2" x 2"

Roll Pins - Coiled



PART NO.	A x B
HAR 2788	1/8" x 1"
HAR 2789	3/16" x 1"
HAR 2790	3/16" x 2"
HAR 2791	1/4" x 1"
HAR 2792	1/4" x 1 1/2"
HAR 2793	1/4" x 2"
HAR 27935	5/16" x 1
HAR 2794	5/16" x 1 1/2"
HAR 2795	5/16" x 2"

PART NO.	A x B
HAR 2796	5/16" x 2 3/4"
HAR 2797	3/8" x 1 1/2"
HAR 2798	3/8" x 2"
HAR 2799	3/8" x 3"
HAR 2800	7/16" x 1 1/2"
HAR 2801	7/16" x 2"
HAR 239-612	7/16" x 3 1/4"
HAR 2803	1/2" x 2"
HAR 2804	1/2" x 3"

Roll Pin Assortment - Slotted

36 PIN PACKAGE

Contains:

a selection of the popular inch and metric sizes.

PART NO.
HAR 2230



62 PIN PACKAGE

Contains:

1 each of the popular inch sizes.

PART NO.
HAR 1171

172 PIN PACKAGE

Contains:

- | | | |
|--------------------|--------------------|---------------------|
| 10 - 1/16" x 1" | 10 - 1/8" x 5/8" | 10 - 1/8" x 1" |
| 10 - 3/16" x 3/4" | 10 - 3/16" x 1" | 10 - 3/16" x 1 1/2" |
| 10 - 3/16" x 2" | 10 - 1/4" x 1" | 10 - 1/4" x 1 1/2" |
| 10 - 1/4" x 1 3/4" | 10 - 1/4" x 2" | 10 - 5/16" x 1" |
| 9 - 5/16" x 1 1/2" | 7 - 5/16" x 1 3/4" | 6 - 5/16" x 2" |
| 7 - 3/8" x 1 1/2" | 7 - 5/8" x 1 3/4" | 5 - 3/8" x 2" |
| 5 - 1/2" x 1 1/2" | 4 - 1/2" x 1 3/4" | 4 - 1/2" x 2" |

Roll Pin Assortment - Coiled



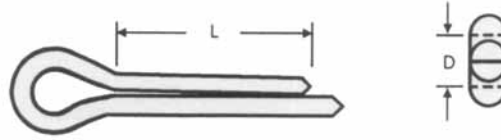
PART NO.
HAR 2805

Contains:

- | | | |
|--------------------|--------------------|--------------------------|
| 10 - 1/8" x 1" | 9 - 5/16" x 1 1/2" | 5 - 7/16" x 1 1/2" |
| 10 - 3/16" x 1" | 6 - 5/16" x 2" | 5 - 7/16" x 2" (slotted) |
| 10 - 3/16" x 2" | 5 - 5/16" x 2 3/4" | 5 - 7/16" x 3" (slotted) |
| 10 - 1/4" x 1" | 7 - 3/8" x 1 1/2" | 4 - 1/2" x 2" |
| 10 - 1/4" x 1 1/2" | 5 - 3/8" x 2" | 4 - 1/2" x 3" |
| 10 - 1/4" x 2" | 5 - 3/8" x 3" | |

Cotter Pins - Bulk

- Precision made to provide fast, easy installation.
- Easy to insert, lock, remove and re-use.
- A blow with a hammer locks the pin in place.
- Sold in Packages of 100.



PART NO.	DESCRIPTION (D x L)
HAR 1516	1/16" X 1 1/2" (2 X 38 mm)
HAR 1495	3/32" x 3/4" (2.5 x 18.75 mm)
HAR 1496	3/32" x 1" (2.5 x 25 mm)
HAR 1497	3/32" x 1 1/2" (2.5 x 38 mm)
HAR 1498	1/8" x 1" (3 x 25 mm)

PART NO.	DESCRIPTION (D x L)
HAR 1499	1/8" X 1 1/4" (3 X 32 mm)
HAR 1500CP	1/8" x 1 1/2" (3 x 38 mm)
HAR 1501	5/32" x 1 1/2" (4.5 x 38 mm)
HAR 1512	3/16" x 1" (5 x 25 mm)
HAR 1502	3/16" x 1 1/2" (5 x 38 mm)

PART NO.	DESCRIPTION (D x L)
HAR 1503	3/16" X 2" (5 X 50 mm)
HAR 1511	1/4" x 1 1/2" (6 x 38 mm)
HAR 1506	1/4" x 2" (6 x 50 mm)
HAR 1507	1/4" x 3" (6 x 75 mm)
HAR 1510	5/16" x 3" (8 x 75 mm)

Cotter Pin Packages

PART NO.

HAR 2220

PART NO.

HAR 3893

PART NO.

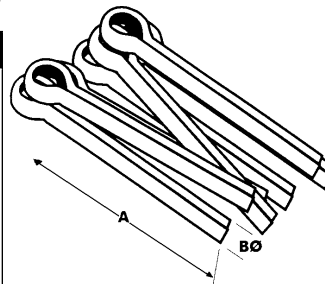
HAR 2995

Assortment contains 50 cotter pins of the following sizes:

QTY.	DESCRIPTION
10	1/16" x 1 1/2"
8	3/32" x 1 1/2"
10	1/8" x 1 1/2"
8	5/32" x 1 1/2"
6	3/16" x 2"
4	1/4" x 3"
4	5/16" x 3"

Assortment contains 55 cotter pins of the following sizes:

QTY.	DESCRIPTION
10	1/16" x 1 1/2"
10	3/32" x 3/4"
5	3/32" x 1 1/2"
10	5/32" x 1 1/2"
5	3/16" x 2"
10	1/8" x 1"
5	1/8" x 1 1/2"



Assortment contains 290 cotter pins of the following sizes:

QTY.	DESCRIPTION
50	1/16" x 1 1/2"
50	3/32" x 1"
50	3/32" x 1 1/2"
50	1/8" x 1"
50	1/8" x 1 1/2"
20	3/16" x 2"
10	1/4" x 2"
5	1/4" x 3"
5	5/16" x 3"

ABA RUBBERLINED CLIPS



For reliable, vibration-damping support

For pipes, cables, groups of cables, hoses, etc. The clip is made from galvanized steel strip, the inside and edges of which are protected by a rubber section. Impacts and vibrations are damped by the rubber, which also eliminates wear. On tightening the band adapts itself easily to the dimension it is to fit. One of the fastening holes is oval to permit any subsequent adjustment.

Applications

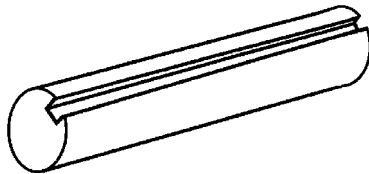
Rubber-lined hose clips are used in the automotive industry, mechanical and apparatus construction, electrical, hydraulic and pneumatic engineering, process industry, shipbuilding, refrigeration and freezing plants, etc.

PART NO.	CLAMPING RANGE		BOLT HOLE SIZE (INCHES)
	INCHES	mm	
HAR 31302	1/4	6	1/4
HAR 31304	3/8	10	1/4
HAR 31306	1/2	13	1/4
HAR 31308	5/8	16	1/4
HAR 31310	3/4	19	1/4
HAR 31312	7/8	22	1/4
HAR 31314	1	25	1/4
HAR 31316	1 1/8	29	1/4
HAR 31318	1 1/4	32	1/4
HAR 31322	1 1/2	38	1/4
HAR 31323	1 3/4	45	1/4
HAR 31324	2	52	1/4
HAR 31327	2 1/2	64	1/4
HAR 31330	2 15/16	74	1/4

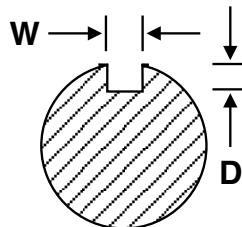
Also available in stainless steel upon special request (sold in packages of 50 each)

SHAFTING AND KEY STOCK

Keyed Shafting



36" long keyed shafting is manufactured from high quality 1018 cold drawn material with close tolerances of +.000 - .002. Standard keyways are cut the full length of each bar and are in accordance with the Machinery Handbook (ANSI B17.1 - 1967, R1989) standards. Width: +.002 -.000 Depth: +.016 - .000

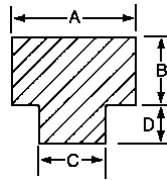


- full-length, standard size keyways allow for quick replacement
- eliminate the need for additional machining - just cut to length
- keep popular sizes on hand for emergency situations

PART NO.	SHAFT DIAMETER	KEYWAY (W x D)	WEIGHT/ FOOT
HAR 09100	1/2"	1/8" x 1/16"	.67
HAR 09101	5/8"	3/16" x 3/32"	1.04
HAR 09103	3/4"	3/16" x 3/32"	1.50
HAR 09105	7/8"	3/16" x 3/32"	2.04
HAR 09107	1"	1/4" x 1/8"	2.67
HAR 09108	1 1/8"	1/4" x 1/8"	3.38
HAR 09109	1 3/16"	1/4" x 1/8"	3.77
HAR 09110	1 1/4"	1/4" x 1/8"	4.17
HAR 09113	1 3/8"	5/16" x 5/32"	5.05
HAR 09114	1 7/16"	3/8" x 3/16"	5.52
HAR 09115	1 1/2"	3/8" x 3/16"	5.89

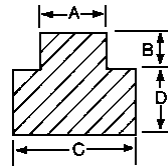
Mak-A-Key Step Key Stock

Use for couplings, gears, sheaves, sprockets, pulleys - anything that keys to a shaft, if the keyway is a different size than the keyway in the shaft. Available in 12" lengths. Material 1018. Cold finished. Oversize keystock ground down to A, B-D & C dimensions per tolerances listed at right.



Tolerances: Type 1

A & C dimensions -.000/+ .002
 B/D dimensions -.003/+ .003
 B & D dimensions -.004/+ .004



Tolerances: Type 2

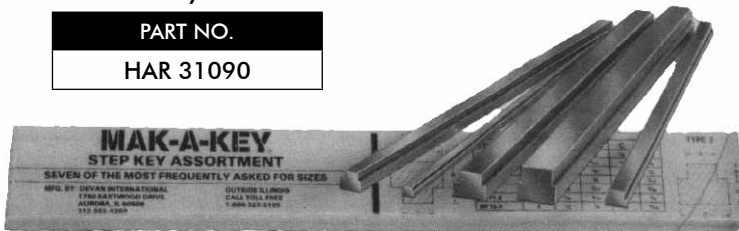
C & A dimensions -.000/+ .002
 B/D dimensions -.005/+ .005
 B & D dimensions -.005/+ .005

PART NO.	TYPE	DIMENSIONS				WEIGHT LBS/BAR
		A	B	C	D	
HAR 31001	1	3/16"	3/32"	1/8"	1/16"	.088
HAR 31003	2	3/16"	3/32"	1/4"	1/8"	.166
HAR 31004	2	1/4"	1/8"	5/16"	1/8"	.241
HAR 31006	2	1/4"	1/8"	3/8"	3/16"	.347
HAR 31008	1	3/8"	3/16"	5/16"	5/32"	.406
HAR 31011	2	3/8"	3/16"	1/2"	1/4"	.680
HAR 31015	2	1/2"	1/4"	5/8"	5/16"	1.090

Step Key Assortment

Seven pieces of the most frequently asked-for sizes. 12" long. Packed in handy toolbox-sized carton.

PART NO.
HAR 31090



Each carton includes one each of the following:

INCLUDES	
HAR 31001	HAR 31008
HAR 31003	HAR 31004
HAR 31006	HAR 31011
HAR 31015	

Key Stock - Bulk

Keystock comes in 12" lengths and is zinc-plated. Available in square, rectangular and step. Simply cut to the desired length.

SQUARE KEYSTOCK PLATED

PART NO.	DESCRIPTION
HAR 08-01	1/8" X 1/8" X 12"
HAR 08-03	3/16" X 3/16" X 12"
HAR 08-06	1/4" X 1/4" X 12"
HAR 08-09	5/16" X 5/16" X 12"
HAR 08-13	3/8" X 3/8" X 12"
HAR 08-17	7/16" X 7/16" X 12"
HAR 08-22	1/2" X 1/2" X 12"
HAR 08-23	9/16" X 9/16" X 12"
HAR 08-27	5/8" X 5/8" X 12"
HAR 08-28	3/4" X 3/4" X 12"
HAR 08-31	7/8" X 7/8" X 12"
HAR 08-29	1" X 1" X 12"

RECTANGULAR KEYSTOCK PLATED

PART NO.	DESCRIPTION
HAR 08-02	3/16" X 1/8" X 12"
HAR 08-04	1/4" X 1/8" X 12"
HAR 08-05	1/4" X 3/16" X 12"
HAR 08-07	5/16" X 3/16" X 12"
HAR 08-10	3/8" X 3/16" X 12"
HAR 08-08	5/16" X 1/4" X 12"
HAR 08-11	3/8" X 1/4" X 12"
HAR 08-14	7/16" X 1/4" X 12"
HAR 08-18	1/2" X 1/4" X 12"
HAR 08-12	3/8" X 5/16" X 12"
HAR 08-19	1/2" X 5/16" X 12"
HAR 08-20	1/2" X 3/8" X 12"
HAR 08-21	1/2" X 7/16" X 12"

ROUND KEYSTOCK/ PINSTOCK

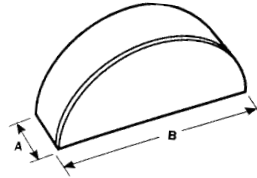
Round steel pins in handy 12" lengths have 1001 uses around the farm, machine shop and industrial plant. Zinc plated with size printed on each pin. All pins can be bent cold 180 degrees. Will rivet, can be threaded with a die or lathe, can be welded without embrittlement or hardening.

PART NO.	DESCRIPTION
HAR 09-01	1/8" X 12"
HAR 09-02	3/16" X 12"
HAR 09-03	1/4" X 12"
HAR 09-04	5/16" X 12"
HAR 09-05	3/8" X 12"
HAR 09-06	7/16" X 12"
HAR 09-07	1/2" X 12"

KEYS AND SNAPRINGS

Woodruff Keys/Half Moon Keys

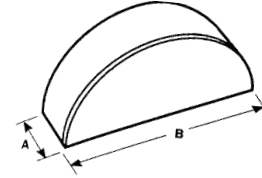
**BULK WOODRUFF/
HALF MOON KEYS**



PART NO.	DESCRIPTION
HAR 2904	3/32" X 1/2"
HAR 2905	1/8" X 1/2"
HAR 2906	1/8" X 5/8"
HAR 2907	1/8" X 3/4"
HAR 2908	5/32" X 3/4"
HAR 2909	5/32" X 7/8"
HAR 2910	3/16" X 5/8"
HAR 2911	3/16" X 3/4"
HAR 2912	3/16" X 7/8"
HAR 2913	3/16" X 1"
HAR 2914	1/4" X 3/4"

PART NO.	DESCRIPTION
HAR 2915	1/4" X 7/8"
HAR 2916	1/4" X 1"
HAR 2917	1/4" X 1 1/8"
HAR 2918	1/4" X 1 1/4"
HAR 2919	1/4" X 1 1/2"
HAR 2920	5/16" X 1"
HAR 2921	5/16" X 1 1/8"
HAR 2922	5/16" X 1 1/4"
HAR 2923	3/8" X 1 1/4"
HAR 2924	3/8" X 1 3/8"

**WOODRUFF KEY/
HALF MOON KEY
ASSORTMENT**



PART NO.
HAR 2925

Contains:

- | | |
|--------------------|----------------------|
| 10 of 3/32" x 1/2" | 10 of 1/4" x 3/4" |
| 10 of 1/8" x 1/2" | 10 of 1/4" x 7/8" |
| 10 of 1/8" x 5/8" | 10 of 1/4" x 1" |
| 10 of 1/8" x 3/4" | 10 of 1/4" x 1 1/8" |
| 10 of 5/32" x 3/4" | 5 of 1/4" x 1 1/4" |
| 10 of 5/32" x 7/8" | 4 of 1/4" x 1 1/2" |
| 10 of 3/16" x 5/8" | 10 of 5/16" x 1" |
| 10 of 3/16" x 3/4" | 10 of 5/16" x 1 1/8" |
| 10 of 3/16" x 7/8" | 5 of 5/16" x 1 1/4" |
| 10 of 3/16" x 1" | 5 of 3/8" x 1 1/4" |
| | 5 of 3/8" x 1 3/8" |

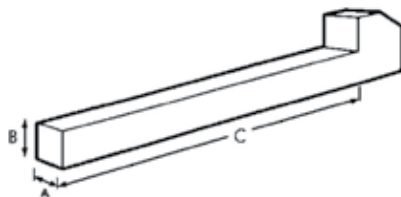
Check for price and availability on other sizes not listed.

Gib Head Keys

Gib head keys are used for holding pulleys and gears tightly on the shaft. They are tapered 1/8" per foot.

BULK GIB HEAD KEYS

PART NO.	A	B	C
HAR 3690	3/16"	3/16"	2 1/2"
HAR 3691	1/4"	3/16"	2 1/2"
HAR 3692	1/4"	1/4"	2 1/2"
HAR 3693	5/16"	1/4"	2 1/2"
HAR 3694	5/16"	5/16"	3"
HAR 3695	3/8"	5/16"	3"
HAR 3696	3/8"	3/8"	3"
HAR 3697	7/16"	7/16"	3 1/2"
HAR 3698	1/2"	1/2"	3 1/2"

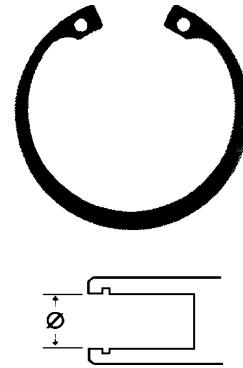


Retaining Rings

INTERNAL CIRCLIPS (N1300, N1500)

Order in multiples of 10

PART NO.	Ø (INCHES)	Ø (mm)
HAR 2814	1/2	12
HAR 2816	5/8	16
HAR 2818	3/4	19
HAR 2820	7/8	22
HAR 2822	1	25
HAR 2824	1 1/8	29
HAR 2825	1 3/16	30
HAR 2826	1 1/4	32
HAR 2828	1 3/8	35
HAR 2830	1 1/2	38
HAR 2833	1 11/16	42
HAR 2834	1 3/4	44
HAR 2835	1 13/16	46
HAR 2836	1 7/8	47
HAR 2838	2	50

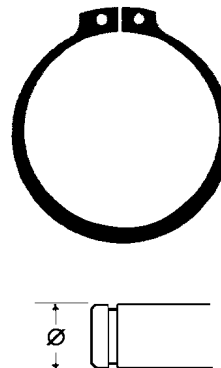


Many other sizes and styles of retaining rings are available.
Call for price and availability.

EXTERNAL CIRCLIPS (N1400, N5100)

Order in multiples of 10

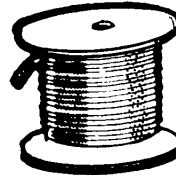
PART NO.	Ø (INCHES)	Ø (mm)
HAR 2871	1/2	12
HAR 2873	5/8	16
HAR 2875	3/4	19
HAR 2876	13/16	
HAR 2877	7/8	22
HAR 2879	1	25
HAR 2880	1 1/16	
HAR 2881	1 1/8	29
HAR 2883	1 1/4	32
HAR 2884	1 5/16	
HAR 2885	1 3/8	35
HAR 2886	1 7/16	
HAR 2887	1 1/2	38
HAR 2890	1 11/16	
HAR 2891	1 3/4	
HAR 2892	1 13/16	
HAR 2893	1 7/8	
HAR 2895	2	



Many other sizes and styles of retaining rings are available.
Call for price and availability.

WIRE ROPE & ACCESSORIES

Galvanized Aircraft Cable



NOTE: Wire rope is priced by the foot and must be purchased by the full reel.

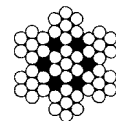
Galvanized Commercial Quality Aircraft Cable

These aircraft cables are manufactured with 7 strands and a galvanized finish giving improved flexibility, strength and resistance to corrosion. These versatile cables are used in a variety of applications such as winches, hoists, hand rails, mine signal cords, truck tie downs and various other small cable applications.

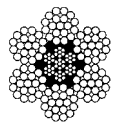
Round Strand General Purpose Cable

These ropes feature 6 strands (25 wires per strand) closed around a fibre core. This class of rope is used on a greater variety of applications than any other. Such ropes will be found on bridge cranes and gantrys, shop cranes and mobile cranes, hoists and derricks, dredges and clam shells, drag lines and scrapers, power shovels and trench hoes, blast-holes drills, and in general industry.

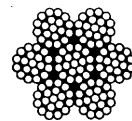
PART NO.	DIA.	TYPE	BREAKING STRENGTH	AVAILABLE LENGTH
HAR 1/16-7X7	1/16"	7 x 7 Galvanized Aircraft Cable	480 lbs.	500 ft.
HAR 3/32-7X7	3/32"	7 x 7 Galvanized Aircraft Cable	920 lbs.	500 ft.
HAR 1/8-7X19	1/8"	7 x 19 Galvanized Aircraft Cable	2,000 lbs.	500 ft.
HAR 5/32-7X19	5/32"	7 x 19 Galvanized Aircraft Cable	2,800 lbs.	500 ft.
HAR 3/16-7X19	3/16"	7 x 19 Galvanized Aircraft Cable	4,200 lbs.	500 ft.
HAR 1/4-7X19	1/4"	7 x 19 Galvanized Aircraft Cable	7,000 lbs.	500 ft.
HAR 5/16-7X19	5/16"	7 x 19 Galvanized Aircraft Cable	9,800 lbs.	500 ft.
HAR 3/8-7X19	3/8"	7 x 19 Galvanized Aircraft Cable	14,400 lbs.	500 ft.
HAR 1/2-6X25	1/2"	6 x 19 Round Strand General Purpose Cable	20,700 lbs.	500 ft.



7 x 7



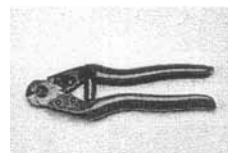
6 x 19



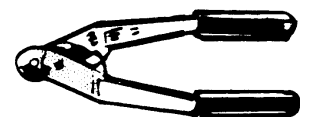
7 x 19

Wire Rope Hand Cutters

PART NO.	FOR CABLE DIAMETER	LENGTH
HAR C7	0 - 3/16"	8"
HAR C9	0 - 1/4"	13"



HAR C-7

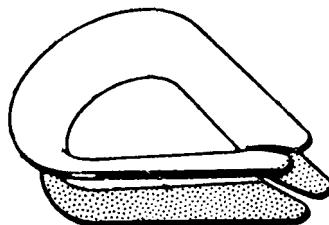


HAR C-9

NOTE: For best results you should wrap the rope with a piece of tape before cutting to prevent the end from fraying.

Cable Thimbles

PART NO.	FOR CABLE DIAMETER
HAR T1/8	1/8"
HAR T3/16	3/16"
HAR T1/4	1/4"
HAR T5/16	5/16"
HAR T3/8	3/8"
HAR T1/2	1/2"
HAR T5/8	5/8"

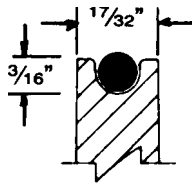


Cable Clamps

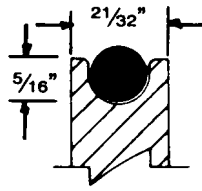
PART NO.	FOR CABLE DIAMETER
HAR C1/8	3/32" - 1/8"
HAR C3/16	3/16"
HAR C1/4	1/4"
HAR C5/16	5/16"
HAR C3/8	3/8"
HAR C1/2	1/2"
HAR C5/8	5/8"
HAR C3/4	3/4"



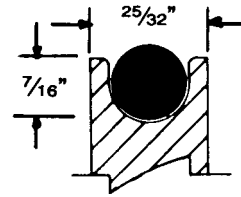
STEEL WIRE ROPE PULLEYS



For 3/16" & 1/4" Dia. Cable



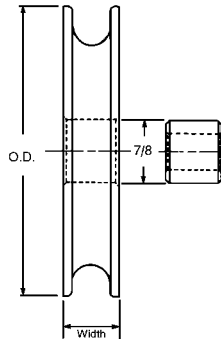
For 5/16" & 3/8" Dia. Cable



For 7/16" & 1/2" Dia. Cable

2" TO 4" OUTSIDE DIAMETER

Pulleys are furnished with a 7/8" stock bore to receive a press fit on the 7/8" O.D. powdered metal bushing sizes. Pulleys and bushings should be ordered separately by part number.

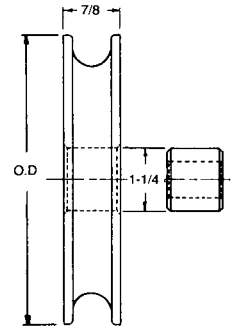


PULLEYS

PART NO.	O.D.	WIDTH	APPROX. WT.
PTP 150-3217	2"	17/32"	.32 lb.
PTP 150-3221	2"	21/32"	.32 lb.
PTP 150-3225	2"	25/32"	.25 lb.
PTP 150-4817	3"	17/32"	.88 lb.
PTP 150-4821	3"	21/32"	.94 lb.
PTP 150-4825	3"	25/32"	.94 lb.
PTP 150-6417	4"	17/32"	1.69 lb.
PTP 150-6421	4"	21/32"	1.83 lb.
PTP 150-6425	4"	25/32"	2.00 lb.

5" TO 10" OUTSIDE DIAMETER

Pulleys are furnished with a 1 1/4" stock bore to receive a press fit on the 1 1/4" O.D. powdered metal bushing sizes. Pulleys and bushings should be ordered separately by part number.



PULLEYS

PART NO.	O.D.	CABLE SIZE	APPROX. WT.
PTP 150-8006	5"	5/16" & 3/8"	3.94 lb.
PTP 150-8008	5"	7/16" & 1/2"	3.56 lb.
PTP 150-9606	6"	5/16" & 3/8"	6.00 lb.
PTP 150-9608	6"	7/16" & 1/2"	5.63 lb.
PTP 150-11208	7"	7/16" & 1/2"	7.50 lb.
PTP 150-12808	8"	7/16" & 1/2"	10.50 lb.
PTP 150-14408	9"	7/16" & 1/2"	13.00 lb.
PTP 150-16008	10"	7/16" & 1/2"	16.50 lb.

POWDERED METAL BUSHINGS

PART NO.	O.D.	I.D.	WIDTH	WEIGHT
PTP 151-0817	7/8"	1/2"	17/32"	.06 lb.
PTP 151-1017	7/8"	5/8"	17/32"	.05 lb.
PTP 151-1217	7/8"	3/4"	17/32"	.02 lb.
PTP 151-0821	7/8"	1/2"	21/32"	.05 lb.
PTP 151-1021	7/8"	5/8"	21/32"	.04 lb.
PTP 151-1221	7/8"	3/4"	21/32"	.03 lb.
PTP 151-0825	7/8"	1/2"	25/32"	.07 lb.
PTP 151-1025	7/8"	5/8"	25/32"	.05 lb.
PTP 151-1225	7/8"	3/4"	25/32"	.03 lb.

POWDERED METAL BUSHINGS

PART NO.	O.D.	I.D.	WIDTH	WEIGHT
PTP 151-1214	1 1/4"	3/4"	7/8"	.15 lb.
PTP 151-1414	1 1/4"	7/8"	7/8"	.13 lb.
PTP 151-1614	1 1/4"	1"	7/8"	.08 lb.
PTP 151-1814	1 1/4"	1 1/8"	7/8"	.04 lb.

CLEVISES AND PINS

D-Shackles - Screw Type Pin Utility Clevis

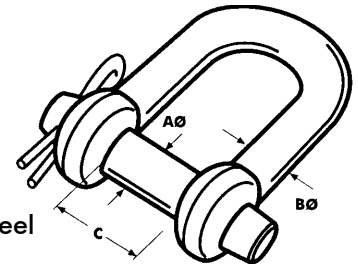
PART NO.	A	B	C	SAFE WORKING LOAD LIMIT	ULTIMATE LOAD LIMIT
HAR 2763	5 mm ($\frac{3}{16}$ "	5 mm ($\frac{3}{16}$ "	10 mm ($\frac{3}{8}$ "		
HAR 2764	6 mm ($\frac{1}{4}$ "	6 mm ($\frac{1}{4}$ "	13 mm ($\frac{1}{2}$ "	1,000 lbs.	5,000 lbs.
HAR 2765	8 mm ($\frac{5}{16}$ "	8 mm ($\frac{5}{16}$ "	16 mm ($\frac{5}{8}$ "	1,500 lbs.	7,500 lbs.
HAR 2766	10 mm ($\frac{3}{8}$ "	10 mm ($\frac{3}{8}$ "	18 mm ($\frac{3}{4}$ "	2,000 lbs.	10,000 lbs.
HAR 2767	11 mm ($\frac{7}{16}$ "	11 mm ($\frac{7}{16}$ "	21 mm ($\frac{7}{8}$ "	3,000 lbs.	15,000 lbs.
HAR 2768	13 mm ($\frac{1}{2}$ "	13 mm ($\frac{1}{2}$ "	26 mm (1"	4,500 lbs.	9,000 lbs.



- Commercial Type
- Zinc plated, Mild steel
- Supplied untested

D-Shackles - Loose Pin Utility Clevis

PART NO.	A	B	C
HAR 1410	6 mm	6 mm ($\frac{1}{4}$ "	13 mm ($\frac{1}{2}$ "
HAR 1412	8 mm	8 mm ($\frac{5}{16}$ "	13 mm ($\frac{1}{2}$ "
HAR 1415	8 mm	8 mm ($\frac{5}{16}$ "	16 mm ($\frac{5}{8}$ "
HAR 1420	10 mm	10 mm ($\frac{3}{8}$ "	19 mm ($\frac{3}{4}$ "
HAR 1425	11 mm	11 mm ($\frac{7}{16}$ "	22 mm ($\frac{7}{8}$ "
HAR 1430	13 mm	13 mm ($\frac{1}{2}$ "	25 mm (1"
HAR 1400	19 mm	19 mm ($\frac{3}{4}$ "	49 mm (2"

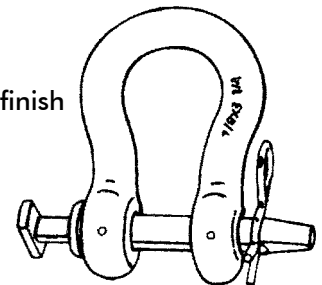


- Commercial Type
- Zinc plated, Mild steel
- Supplied untested

Farm Straight Clevis

PART NO.	PIN DIA.	BODY SIZE	MAX. WWL
HAR 66029	6 mm	$\frac{5}{8}$ " x 3 $\frac{1}{4}$ "	6,000 lbs.
HAR 66030	8 mm	$\frac{3}{4}$ " x 3 $\frac{3}{4}$ "	12,000 lbs.
HAR 66031	8 mm	$\frac{7}{8}$ " x 4 $\frac{1}{4}$ "	16,000 lbs.
HAR 66032	10 mm	$\frac{15}{16}$ " x 4 $\frac{5}{8}$ "	20,000 lbs.
HAR 66033	11 mm	1" x 5 $\frac{5}{16}$ "	25,000 lbs.

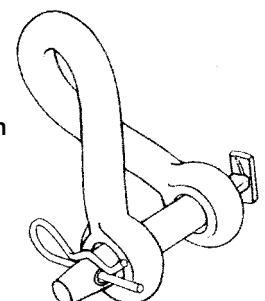
- Black powder coated finish
- Zinc plated pin & clip



Farm Twisted Clevis

PART NO.	PIN DIA.	BODY SIZE	MAX. WWL
HAR 30258	$\frac{1}{2}$ "	$\frac{5}{8}$ " x 3"	6,000 lbs.
HAR 30234	$\frac{5}{8}$ "	$\frac{3}{4}$ " x 3 $\frac{1}{2}$ "	12,000 lbs.
HAR 30287	$\frac{3}{4}$ "	$\frac{7}{8}$ " x 3 $\frac{7}{8}$ "	16,000 lbs.
HAR 30290	$\frac{7}{8}$ "	$\frac{15}{16}$ " x 4 $\frac{1}{4}$ "	20,000 lbs.
HAR 30295	1"	1" x 5 $\frac{5}{16}$ "	25,000 lbs.

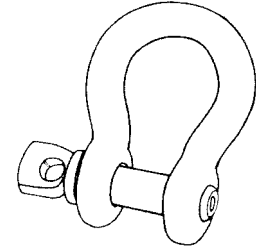
- Black powder coated finish
- Zinc plated pin & clip



CLEVISES AND PINS

Bow Shackles - Farm Screw Pin Clevis

PART NO.	BODY DIA. & LENGTH	PIN SIZE	SAFE WORKING LOAD LIMIT	ULTIMATE LOAD LIMIT
HAR 66000	1/4" x 1 1/8"	5/16"	1,000	5,000
HAR 66001	5/16" x 1 1/4"	3/8"	1,500	7,500
HAR 66002	3/8" x 1 7/16"	7/16"	2,000	10,000
HAR 66003	7/16" x 1 11/16"	1/2"	3,000	15,000
HAR 66004	1/2" x 1 15/16"	5/8"	4,000	20,000
HAR 66005	5/8" x 2 1/2"	3/4"	6,500	32,500
HAR 66006	3/4" x 3"	7/8"	9,500	47,500
HAR 66007	7/8" x 3 1/4"	1"	13,000	65,000
HAR 66008	1" x 3 3/4"	1 1/8"	17,000	85,000

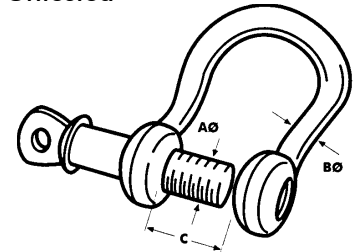


- Black powder coated finish
- Zinc plated pin

Bow Shackles - Threaded Farm Clevis

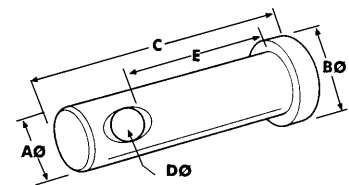
PART NO.	A	B	C
HAR 4867	6 mm	6 mm (1/4")	11 mm (7/16")
HAR 4868	8 mm	8 mm (5/16")	14 mm
HAR 4869	10 mm	10 mm (3/8")	19 mm (3/4")
HAR 4870	11 mm	11 mm (7/16")	21 mm
HAR 4871	13 mm	13 mm (1/2")	21 mm
HAR 4872	16 mm	16 mm (5/8")	33 mm
HAR 4873	19 mm	19 mm (3/4")	40 mm
HAR 4874	22 mm	22 mm (7/8")	45 mm
HAR 4875	25 mm	25 mm (1")	51 mm

- Commercial Type
- Galvanized Mild Steel
- Supplied Untested



Clevis Pins - Bulk

PART NO.	A	B	C	D	E
HAR 1440	6 mm (1/4")	10 mm (3/8")	34 mm (1 5/16")	2 mm (3/32")	26 mm (1 1/32")
HAR 1469	8 mm (5/16")	11 mm (7/16")	32 mm (1 1/4")	3 mm (1/8")	23 mm (29/32")
HAR 1441	8 mm (5/16")	11 mm (7/16")	40 mm (1 9/16")	2 mm (3/32")	33 mm (1 9/32")
HAR 1468	9 mm (3/8")	12 mm (1/2")	37 mm (1 7/16")	3 mm (1/8")	28 mm (1 3/32")
HAR 1439	9 mm (3/8")	12 mm (1/2")	42 mm (1 5/8")	3 mm (1/8")	34 mm (1 3/8")
HAR 1442	9 mm (3/8")	12 mm (1/2")	47 mm (1 7/8")	3 mm (1/8")	39 mm (1 17/32")
HAR 1448	11 mm (7/16")	14 mm (9/16")	43 mm (1 11/16")	3 mm (1/8")	33 mm (1 5/16")
HAR 1443	11 mm (7/16")	14 mm (9/16")	55 mm (2 1/8")	3 mm (1/8")	45 mm (1 25/32")
HAR 1444	12 mm (1/2")	16 mm (5/8")	61 mm (2 3/8")	3 mm (1/8")	52 mm (2 1/32")



Clevis pins are used as a quick and secure fastener in place of bolts and rivets.

Other sizes of clevis pins are available, please call with your requirements.

Clevis Pin Assortment

- Zinc Plated

Contains:

10 of 1/4" x 1 1/32" 10 of 3/8" x 1 17/32"
 10 of 5/16" x 29/32" 10 of 7/16" x 1 5/16"
 10 of 5/16" x 1 9/32" 10 of 7/16" x 1 25/32"
 10 of 3/8" x 3/32" 10 of 1/2" x 2 1/32"

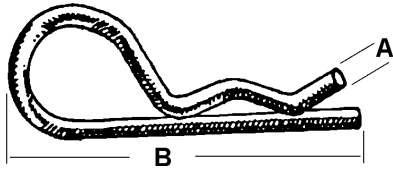
PART NO.

HAR 3425



Hair Pins

BULK



PART NO.	A	B	TO FIT PIN DIA.
HAR 4401	5/64" (2 mm)	1 5/8" (42 mm)	1/4" - 7/16" (7 mm - 10 mm)
HAR 4404	1/8" (3 mm)	2 1/2" (65 mm)	3/8" - 11/16" (9 mm - 18 mm)
HAR 4408	5/32" (4 mm)	3" (78 mm)	1/2" - 7/8" (12 mm - 26 mm)
HAR 4405	13/64" (5 mm)	4" (104 mm)	5/8" - 1 1/16" (15 mm - 30 mm)
HAR 4403	1/4" (6 mm)	4 1/2" (117 mm)	3/4" - 1 1/4" (18 mm - 32 mm)
HAR 4402	9/32" (7 mm)	6" (156 mm)	1" - 1 1/2" (26 mm - 36 mm)

Hair Pins

PACKAGES

PART NO.
HAR 2255

Package contains 12 hair pins of the following sizes:

QTY.	DESCRIPTION
4	5/64"
4	1/8"
4	5/32"



PART NO.
HAR 4575

Package contains 14 hair pins of the following sizes:

QTY.	DESCRIPTION
4	1/8"
8	5/32"
2	13/64"

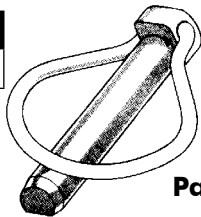
PART NO.
HAR 2250

Package contains 25 hair pins of the following sizes:

QTY.	DESCRIPTION
2	5/64"
4	3/32"
5	1/8"
10	5/32"
2	13/64"
2	1/4"

Combination Hair Pin/Linch Pins Pkg.

PART NO.
HAR 3795



Package contains:

- 2 of 5/16" Linch Pins
- 6 of 7/16" Linch Pins
- 4 of 1/8" Hair Pins
- 4 of 5/32" Hair Pins
- 4 of 13/64" Hair Pins

Linch Pins - Bulk by the Pail

Attractively Packaged in approx. 2 1/2" gallon white pails with tamper proof lids.

PART NO.	QTY.	SIZE
HAR 16790	400	7/16"
HAR 16791	400	1/4"

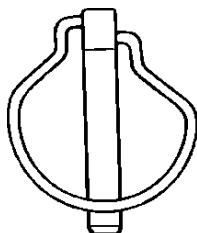


**Sell Linch Pins
"Buy the Bucket"**



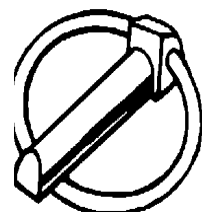
Bent Linch Pins Packages

PART NO.	DESCRIPTION
HAR 3314	Pkg - 5 of 1/4"
HAR 3321	Pkg - 5 of 5/16"
HAR 3335	Pkg - 5 of 3/8"
HAR 3334	Pkg - 5 of 7/16"



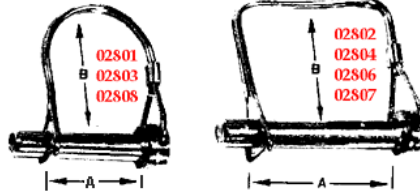
Linch Pin Packages

PART NO.	DESCRIPTION
HAR 3288	Pkg - 5 of 3/16"
HAR 3247	Pkg - 5 of 1/4"
HAR 3248	Pkg - 5 of 5/16"
HAR 3291	Pkg - 5 of 3/8"
HAR 3222	Pkg - 5 of 7/16"



Lock Pins

Popular quick connect and disconnect pins find many uses on equipment and shafts up to 2 1/2" in diameter. The retainer wire is formed of tempered M-B spring wire and coldheaded shank is of 1010 carbon steel. Entire assembly is zinc plated. Two styles, round lock wire or square lock wire.



Round

PART NO.	SIZE	USABLE LENGTH(A)	CLEARANCE (B)	WEIGHT PER 100
HAR 02801	1/4" x 2"	1 3/4"	1 1/2"	6.50
HAR 02803	3/8" x 1 3/8"	1 1/2"	1 1/2"	9.31
HAR 02808	5/16" x 2"	1 3/4"	1 1/2"	8.84

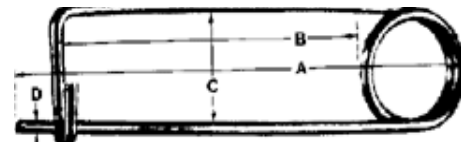
Square

PART NO.	SIZE	USABLE LENGTH(A)	CLEARANCE (B)	WEIGHT PER 100
HAR 02802	5/16" x 2 3/4"	2 1/2"	1 5/8"	12.31
HAR 02804	3/8" x 2 1/2"	2 1/4"	1 1/2"	12.50
HAR 02806	3/8" x 2 3/4"	2 1/2"	1 5/8"	13.75
HAR 02807	1/4" x 2 3/4"	2 1/2"	1 3/4"	9.20

Safety Pins

Positive locking pin for retaining Clevis Pin is made from hard-drawn M-B plated spring wire.

PART NO.	LENGTH			WIRE DIA. (D)	WEIGHT PER 100
	(A)	(B)	(C)		
HAR 2503	1 9/16"	15/16"	3/8"	.047	.25
HAR 2504	1 3/4"	1 1/16"	3/8"	.058	.50
HAR 2505	2 3/4"	1 11/16"	5/8"	.091	1.75
HAR 2506	4 3/8"	2 13/16"	13/16"	.120	4.25
HAR 2507	5 3/4"	3 3/4"	1 1/8"	.148	9.13



Safety Pins have many uses on farm equipment, trucks, and industrial equipment where safety is important.

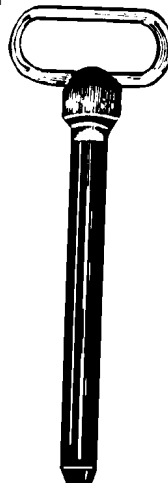
Dimensions are nominal - for reference only.

HITCH BALLS, PINS AND JACKS

Hitch Pins

SOLID VINYL DIPPED HANDLE

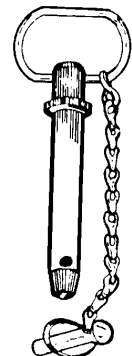
Hair Pin Included



PART NO.	DIA.	USABLE LENGTH
HAR 12	1/2"	3 5/8"
HAR 58-4	5/8"	4"
HAR 58	5/8"	5 1/2"
HAR 34-4	3/4"	4"
HAR 34	3/4"	6 1/2"
HAR 78	7/8"	6 1/2"
HAR 100	1"	7 1/2"
HAR 1125	1 1/8"	8 1/2"
HAR 1250	1 1/4"	8 1/2"
HAR 1500	1 1/2"	8 1/2"

Hitch Pins

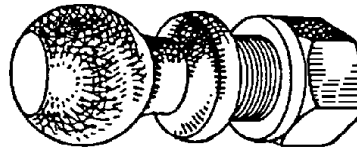
FOLD OVER HANDLE WITH LINCH PIN & CHAIN



PART NO.	DIA.	USABLE LENGTH
HAR 408	3/4"	3 7/8"
HAR 404	3/4"	6"
HAR 405	7/8"	6"
HAR 412	1 1/8"	7 3/16"

Trailer Hitch Balls

1. Grain structure forms continuous pattern through ball and shank.
2. Flat area under flange provides strong, stable mounting.
3. Radius recess allows hitch ball to be seated securely even though there may be burrs around the hole in the hitch.
4. One piece ball and shank means the ultimate in strength.
5. Accurate threads provide secure and safe fastening of the ball to the hitch.
6. Bright plated finish.



EXTERNAL THREAD

PART NO.	SIZE	LOAD RATING
HAR 3301	1 7/8" x 3/4"	2,000 lb.
HAR 3302	2" x 3/4"	3,500 lb.
HAR 3303	2" x 1"	5,000 lb.
HAR 3304	2 5/16" x 1"	5,000 lb.
HAR 3305	2 5/16" x 1 3/4"	7,500 lb.

**EXTERNAL THREAD WITH
2 1/2" LONG BOLT**

PART NO.	SIZE	LOAD RATING
HAR 3306	1 7/8" x 3/4"	2,000 lb.
HAR 3307	1 7/8" x 1"	2,000 lb.
HAR 3308	2" x 3/4"	5,000 lb.

Trailer Couplers - Channel Type

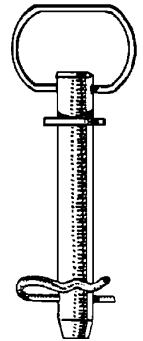
PART NO.	BALL SIZE	CHANNEL SIZE	CLASS	LOAD RATING
HAR 3309	1 7/8"	2"	II	2,000 lb.
HAR 3310	1 7/8"	2 1/2"	II	2,000 lb.
HAR 3311	2"	2 1/2"	II	3,500 lb.
HAR 3312	2"	3"	II	3,500 lb.



Hitch Pins

ZINC PLATED

Feature high shear strength material, easy grip pull ring and high tension Hairpin Cotter. They are made of 1039, 1045, or 4040 steel with a Rockwell hardness of 38-44, and are zinc plated with a dichromate dip for corrosion resistance.



Hairpin included

PART NO.	SIZE	LENGTH*
HAR 3101	3/8" x 4 3/8"	4"
HAR 3103	1/2" x 4 3/4"	4"
HAR 3105	1/2" x 6 1/2"	5 3/4"
HAR 3107	5/8" x 4 3/4"	4"
HAR 3109	5/8" x 6 1/2"	5 3/4"
HAR 3113	3/4" x 4 3/4"	4"
HAR 3117	3/4" x 7"	6 1/4"
HAR 3121	7/8" x 8"	7"
HAR 3123	1" x 8"	7"
HAR 3125	1 1/8" x 7 3/4"	7"
HAR 3129	1 1/8" x 7 3/4"	7"

*Length is effective length under collar to hole.

Agricultural Jacks

- Ideal for use with ag, industrial, commercial, recreational and many other types of trailers.
- Bracket models available with a durable black powder coat outer tube and with a durable zinc finish inner tube or with a durable clear zinc finish outer and inner tubes.
- Bracket mount and pipe mount top wind models come standard with a comfortable red claw knob on a clear zinc solid bar handle that can be folded away when not in use.
- All bracket mount models have a deep seated snap ring for side load support and also include a raw weld on bracket.
- All pipe mount models include a pin and lanyard assembly as well as a 2" raw male mating pipe.
- All bracket mount and pipe mount models come standard with a grease zerker for easy greasing of jack.
- All bracket mount and pipe mount models come standard with a welded on 3-3/4" x 7-1/2" durable zinc finish sand foot.



SIDE WIND - Ring Mount

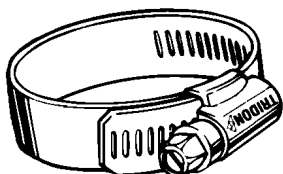
PART NO.	LIFT	LIFT RATING
JAC SLR10-SW	10"	5,000 lb.
JAC SLR15-SW	15"	5,000 lb.

TOP WIND - Ring Mount

PART NO.	LIFT	LIFT RATING
JAC SLR10-TW	10"	5,000 lb.
JAC SLR15-TW	15"	5,000 lb.

HOSE CLAMPS AND TIES

Hose Clamps



HS SERIES

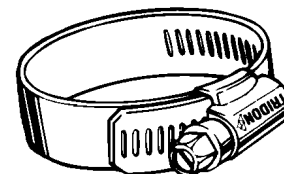
- **NOT Recommended for Underground Applications**
- $5/16$ " (8 mm) hex slotted carbon clear chromatic plated screw
- $1/2$ " (12.7 mm) 201 stainless steel band
- 301 stainless steel housing

PART NO.	SIZE RANGE (INCHES)			SIZE RANGE (mm)	
	MIN.	NOM.	MAX.	MIN.	MAX.
HAR HS6	$3/8$ "	$7/16$ "	$3/4$ "	10	22
HAR HS8	$7/16$ "	$1/2$ "	1	11	25
HAR HS10	$9/16$ "	$5/8$ "	$1 1/16$ "	14	27
HAR HS12	$9/16$ "	$3/4$ "	$1 1/4$ "	14	32
HAR HS16	$1 1/16$ "	1	$1 1/2$ "	17	38
HAR HS20	$3/4$ "	$1 1/4$ "	$1 3/4$ "	19	44
HAR HS24	$1 1/16$ "	$1 1/2$ "	2	27	51
HAR HS28	$1 5/16$ "	$1 3/4$ "	$2 1/4$ "	33	57
HAR HS32	$1 9/16$ "	2	$2 1/2$ "	40	63
HAR HS36	$1 13/16$ "	$2 1/4$ "	$2 3/4$ "	46	70
HAR HS40	$2 1/16$ "	$2 1/2$ "	3	52	76
HAR HS44	$2 5/16$ "	$2 3/4$ "	$3 1/4$ "	59	82
HAR HS48	$2 9/16$ "	3	$3 1/2$ "	65	89
HAR HS52	$2 13/16$ "	$3 1/4$ "	$3 3/4$ "	71	95
HAR HS56	$3 1/16$ "	$3 1/2$ "	4	78	101
HAR HS60	$3 5/16$ "	$3 3/4$ "	$4 1/4$ "	84	107
HAR HS64	$2 1/2$ "	$3 1/2$ "	$4 1/2$ "	64	114
HAR HS72	3	4	5	76	127
HAR HS80	$3 1/2$ "	$4 1/2$ "	$5 1/2$ "	89	140
HAR HS84	$3 3/4$ "	$4 3/4$ "	$5 3/4$ "	95	146
HAR HS88	4	5	6	102	52
HAR HS96	$4 1/2$ "	6	$6 1/2$ "	114	165
HAR HS104	5	$6 1/2$ "	7	127	178
HAR HS116	$5 3/4$ "	7	$7 3/4$ "	146	196

MH SERIES

- **NOT Recommended for Underground Applications**
- $1/4$ " (5 mm) hex slotted clear chromate plated screw
- $5/16$ " (8 mm) stainless steel band
- 301 stainless steel housing

PART NO.	SIZE RANGE (INCHES)			SIZE RANGE (mm)	
	MIN.	NOM.	MAX.	MIN.	MAX.
HAR MH4	$7/32$ "	$5/16$ "	$5/8$ "	6	16
HAR MH6	$5/16$ "	$5/8$ "	$7/8$ "	8	22
HAR MH8	$7/16$ "	$3/4$ "	1	11	25



HAS SERIES

- **Recommended for Underground Applications**
- $5/16$ " (8 mm) hex slotted 305 stainless steel screw
- $1/2$ " (12.7 mm) 301 stainless steel band
- 301 stainless steel housing

PART NO.	SIZE RANGE (INCHES)			SIZE RANGE (mm)	
	MIN.	NOM.	MAX.	MIN.	MAX.
HAR HAS6	$3/8$ "	$7/16$ "	$3/4$ "	10	22
HAR HAS8	$7/16$ "	$1/2$ "	1	11	25
HAR HAS10	$9/16$ "	$5/8$ "	$1 1/16$ "	14	27
HAR HAS12	$9/16$ "	$3/4$ "	$1 1/4$ "	14	32
HAR HAS16	$1 1/16$ "	1	$1 1/2$ "	17	38
HAR HAS20	$3/4$ "	$1 1/4$ "	$1 3/4$ "	19	44
HAR HAS24	$1 1/16$ "	$1 1/2$ "	2	27	51
HAR HAS28	$1 5/16$ "	$1 3/4$ "	$2 1/4$ "	33	57
HAR HAS32	$1 9/16$ "	2	$2 1/2$ "	40	63
HAR HAS36	$1 13/16$ "	$2 1/4$ "	$2 3/4$ "	46	70
HAR HAS40	$2 1/16$ "	$2 1/2$ "	3	52	76
HAR HAS44	$2 5/16$ "	$2 3/4$ "	$3 1/4$ "	59	82
HAR HAS48	$2 9/16$ "	3	$3 1/2$ "	65	89
HAR HAS52	$2 13/16$ "	$3 1/4$ "	$3 3/4$ "	71	95
HAR HAS56	$3 1/16$ "	$3 1/2$ "	4	78	101
HAR HAS60	$3 5/16$ "	$3 3/4$ "	$4 1/4$ "	84	107
HAR HAS64	$2 1/2$ "	$3 1/2$ "	$4 1/2$ "	64	114
HAR HAS72	3	4	5	76	127
HAR HAS80	$3 1/2$ "	$4 1/2$ "	$5 1/2$ "	89	140
HAR HAS84	$3 3/4$ "	$4 3/4$ "	$5 3/4$ "	95	146
HAR HAS88	4	5	6	102	52
HAR HAS96	$4 1/2$ "	6	$6 1/2$ "	114	165
HAR HAS104	5	$6 1/2$ "	7	127	178
HAR HAS116	$5 3/4$ "	7	$7 3/4$ "	146	196

MAH SERIES

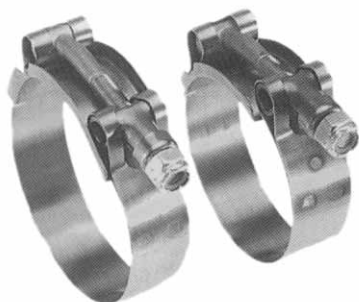
- **Recommended for Underground Applications**
- $1/4$ " (5 mm) hex slotted 410 stainless steel screw
- $5/16$ " (8 mm) 301 stainless steel band
- 301 stainless steel housing

PART NO.	SIZE RANGE (INCHES)			SIZE RANGE (mm)	
	MIN.	NOM.	MAX.	MIN.	MAX.
HAR MAH4	$7/32$ "	$7/16$ "	$5/8$ "	6	16
HAR MAH6	$5/16$ "	$5/8$ "	$7/8$ "	8	22
HAR MAH8	$7/16$ "	$3/4$ "	1	11	25

Banjo Super Clamps

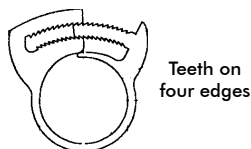
Features:

- Stainless steel construction
- Stainless steel bolt with silver plated nut to prevent seizing
- 360° sealing surface
- Ideal for high torque applications
- Strong, positive connections where ordinary hose clamps fail
- Nylon lock nut feature
- T-bolt design
- 3 spot welds for extra strength
- Burst pressure to 10,000 psi



PART NO.	HOSE I.D.	MIN. DIA.	MAX. DIA.
SPP 76100	1 1/4"	1.62"	1.87"
SPP 76101	1 1/4"	1.81"	2.06"
SPP 76102	1 1/2"	1.9"	2.18"
SPP 76103	2"	2.18"	2.50"
SPP 76104	2"	2.31"	2.62"
SPP 76105	2"	2.50"	2.81"
SPP 76106	2"	2.87"	3.18"
SPP 76107	3"	3.31"	3.62"
SPP 76108	3"	3.43"	3.75"
SPP 76109	4"	4.25"	4.56"
SPP 76110	4"	4.38"	4.75"
SPP 76111	4"	4.56"	4.94"

Speedy Clamps Reusable



PART NO.	APPROX. HOSE I.D.	I.D. OPEN	O.D. OPEN
SPP 75260	1/4"	.371"	.322"
SPP 75267	1/4"	.472"	.393"
SPP 75266	1/4"	.551"	.472"
SPP 75268	3/8"	.610"	.510"
SPP 75269	3/8"	.690"	.590"
SPP 75270	1/2"	.775"	.675"
SPP 75261	1/2"	.840"	.740"
SPP 75271	5/8"	.930"	.820"
SPP 75272	5/8"	1.010"	.900"
SPP 75262	3/4"	1.110"	.990"
SPP 75273	3/4"	1.200"	1.080"
SPP 75263	1"	1.300"	1.175"
SPP 75274	1"	1.400"	1.275"
SPP 75275	-	1.520"	1.380"
SPP 75264	-	1.635"	1.500"
SPP 75276	1 1/4"	1.755"	1.620"
SPP 75277	-	1.875"	1.740"
SPP 75278	-	1.980"	1.850"
SPP 75279	1 1/2"	2.110"	1.960"
SPP 75265	-	2.240"	2.090"

Cable Ties



UV Resistant

PART NO.	LENGTH	WIDTH
SPP 74900	4 1/2"	.100"
SPP 74901	5 1/2"	.144"
SPP 74902	6 3/4"	.195"
SPP 74903	8"	.189"
SPP 74904	11 1/2"	.189"
SPP 74905	14"	.189"
SPP 74906	17"	.189"
SPP 74907	21"	.315"
SPP 74908	28"	.354"
SPP 74909	32"	.354"

MISCELLANEOUS

Shear Bolts for Hay Balers

Each Pkg. Contains 10 Bolts with Nuts



PART NO.	O.E.M. #	DESCRIPTION
HAR SBK-JD10	PB13931	1/4" x 2 1/4" to fit John Deere, Flywheel - Models: 10, 14T s/n 32868 and up, 24, 214 (PTO), 216, 224, 323W, 327, 328, 336 (PTO), 337, 338, 348.
HAR SBK-JD11	PB14125	5/16" x 2 1/4" to fit John Deere, Flywheel - Models: 214 (engine), 225, 346 (engine), 347, 348.
HAR SBK-MF10	153221M2	5/16" x 3 1/8" to fit Massey Ferguson, Flywheel - Models: 3, 9, 10, 12.
HAR 3600	39716	5/16" x 2" to fit New Holland, Flywheel - Models: 65, 67, S67, *68, S68, S69, *78, *S78, 99, S99, 178, 268, 269, 270, 271, 272, 273, 275, 280, 281, 282, *285, 290, 1280, 1281, 1282, 1290.
HAR 3607	46520	.245 x 1 1/2" to fit New Holland, Knotter Drive - Models: 67, S67, *68, S68, S69, *78, *S78, 99, S99, 178, 270, 271, 280, 281, *285, 286, 320, 425, 430, 500, 1280, 1281, 1425.
HAR SBK-NH12	58118	3/16" x 1 1/2" to fit New Holland, Knotter Drive & Twister Sprocket - Models: 65, 268, 269, 272, 273, 275, 276, 277, 278, 282, 283, 285, 290, 315, 1282, 1283, 1290.
HAR SBK-NH13	35535	3/8" x 2 3/4" to fit New Holland, Flywheel - Models: 66, 166.
HAR 3601	46047	5/16" x 1 1/2" to fit New Holland, Tinebar Drive - Models: 271, s/n 16616/up, 276, 277, 278, 280 s/n 6431/up, 281, 282, 283, 285, 286, 290, 316, to s/n 695560, 320 to s/n 420423, 500 to s/n 462471, 1280 s/n 1284/up, 1281, 1282, 1283, 1290. Feeder Drive, Sprocket, Knotter or Twisted Models: 280, 281, 282, 285, 1280, 1281, 1282. Gearbox Shear Hub Sprocket Models: 290 s/n 1965/up, 1290. 2-roto feed: 570, 3-roto feed: 575.
HAR SBK-NH15	167494	5/16" x 2" to fit New Holland, Flywheel - Models: 311, 315, 316, 565, 2000, 2010.
HAR SBK-NH16	226228	7/16" x 2" to fit New Holland, Flywheel - Models: 278, 283, 286, 320, 326, 420, 425, 426, 430, 500, 505, 515, 1283, 1425, 1426.

*Knotter drive on 68, 78, S78 and 285 balers. There are two sizes of shear bolts. Check size for correct bolt.

General Purpose Tie Wire

- 18 gauge.
- 2 lb. spool.
- Used for general purpose repair work.
- Soft annealed.
- Approximately 330'.

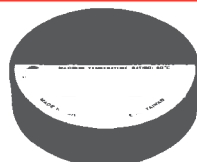


PART NO.

HAR SPW-2

PVC Tape

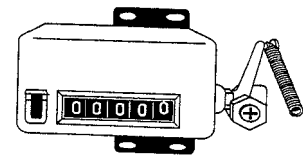
- Quality Guaranteed.
- CSA Approved.
- Available in two sizes.
- 7.5 mil. thickness.
- Sold by individual roll.



PART NO.	SIZE
HAR PVC33	7.5 mil x 3/4" x 33 ft.
HAR PVC66	7.5 mil x 3/4" x 66 ft.

Universal Hay Bale Counter

- Adapts to fit all models of balers using a mechanical counter.
- 4 mounting holes.
- Arm can be set in any position.
- Spring compensates for alignment.
- Push button reset.
- Counts up to 99,999.



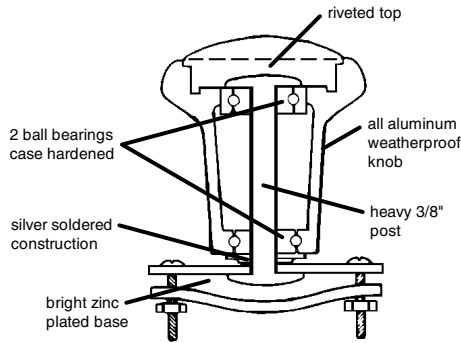
PART NO.

HAR 50023

Installation Instructions:

Some models of balers require that you re-drill mounting holes on the counter or baler to mount the Universal Bale Counter.

Steering Wheel Spinners - Ball Bearing



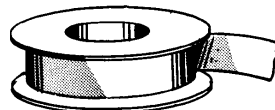
PART NO.	DESCRIPTION
HAR WSV-125A	Box of 12 Silver Wheel Spinners
HAR WSP-ASST	Box of 12 Assorted Colour Wheel Spinners

- Features an eye-catching display carton of 12 units sure to boost point-of purchase sales!
- Designed and built to last a lifetime of rugged use and all weather conditions on your work or play vehicles.
- Sealed-in ball bearings are encased in an aluminum weather-proof knob.
- Comes complete with your choice of two mounting brackets and screws.
- Assortment includes 3 black, 3 red, 2 blue, 2 green and 2 yellow.

Teflon Tape

- 1/2" x 480" rolls.

PART NO.	DESCRIPTION
HYD 1102	Single Roll
HYD 1102-50	Case of 50 Rolls
HYD 1102C	Case of 200 Rolls



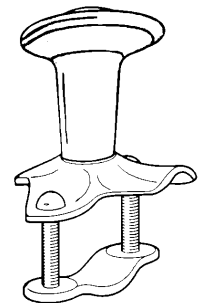
Awning Rope Pulleys

PART NO.	WHEEL	WHEEL DIA.	EYE	BODY
PTP 5610	Single	3/4"	Solid	Die Cast
PTP 5612	Single	1"	Solid	Die Cast
PTP 5614	Single	1 1/4"	Solid	Die Cast
PTP 5616	Single	1 1/2"	Solid	Die Cast
PTP 5618	Single	2"	Solid	Die Cast
PTP 5620	Single	2 1/2"	Solid	Cast Iron*
PTP 5650	Double	3/4"	Solid	Die Cast
PTP 5652	Double	1"	Solid	Die Cast
PTP 5654	Double	1 1/2"	Solid	Die Cast
PTP 5656	Double	2"	Solid	Cast Iron*
PTP 5710	Single	3/4"	Swivel	Steel
PTP 5712	Single	1"	Swivel	Steel
PTP 5750	Double	3/4"	Swivel	Steel
PTP 5752	Double	1"	Swivel	Steel

*Painted

Steering Wheel Spinner - Bushing

- For shallow dished steering wheels
- Invaluable with front end loaders and power steering. Improves operating efficiency on any tractor or combine harvester.
- Provides easy single handed steering on any tractor. Leaves the other hand free for operating linkage or hydraulics.
- Neutral in colour.
- Clamshell packaged.

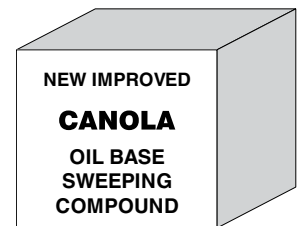


PART NO.
HAR 626

Canola Oil Base Sweeping Compound

- Contains no petroleum oils, just 100% canola oil.
- 100% environmentally safe.
- 20 kg carton or 120 kg drum.


Made in Canada



PART NO.	DESCRIPTION
HAR GSC	20 kg Carton
HAR GSC-120KG	120 kg Drum

Solid Eye Single



Wheel Solid Eye



Double Wheel Swivel Eye

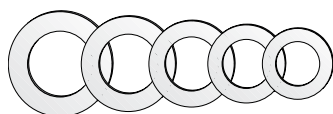


Single Wheel Swivel Eye Double Wheel



Regular Machinery Bushings

Machinery bushings reduce wear between moving parts, prevent marring of fine finishes, and can be used as spacers for sprockets, pulleys and gears on new or old equipment. **Plain finish.**

**18 GAUGE (LIGHT)**

Thickness = .042/.054"

PART NO.	OUTSIDE DIAMETER	INSIDE DIAMETER
HAR B0	7/8"	1/2"
HAR B102	1 1/8"	5/8"
HAR B5	1 3/8"	7/8"
HAR B7	1 1/2"	1"
HAR B13	1 7/8"	1 1/4"
HAR B16	2 1/8"	1 3/8"
HAR B18A	2 1/4"	1 1/2"
HAR B37	2 3/8"	1 5/8"

14 GAUGE (MEDIUM)

Thickness = .068/.082"

PART NO.	OUTSIDE DIAMETER	INSIDE DIAMETER
HAR B0	7/8"	1/2"
HAR B1A	1"	9/16"
HAR B2A	1"	5/8"
HAR B4	1 1/4"	3/4"
HAR B6	1 3/8"	7/8"
HAR B8	1 1/2"	1"
HAR B11	1 3/4"	1 1/8"
HAR B14	1 7/8"	1 1/4"
HAR B17	2 1/8"	1 3/8"
HAR B19	2 1/4"	1 1/2"
HAR B21	2 1/2"	1 3/4"
HAR B23	2 7/8"	1 7/8"
HAR B25	3"	2"
HAR B27	3 1/8"	2 1/8"
HAR B29	3 1/4"	2 1/4"

10 GAUGE (HEAVY)

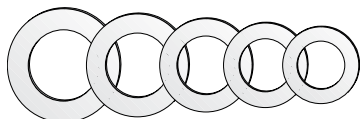
Thickness = .126/.142"

PART NO.	OUTSIDE DIAMETER	INSIDE DIAMETER
HAR B35	1"	5/8"
HAR B4A	1 1/4"	3/4"
HAR B6A	1 3/8"	7/8"
HAR B9	1 1/2"	1"
HAR B12	1 3/4"	1 1/8"
HAR B15	1 7/8"	1 1/4"
HAR B18	2 1/8"	1 3/8"
HAR B20	2 1/4"	1 1/2"
HAR B36	2 3/8"	1 5/8"
HAR B22	2 1/2"	1 3/4"
HAR B24	2 7/8"	1 7/8"
HAR B28	3 1/8"	2 1/8"
HAR B30	3 1/4"	2 1/4"
HAR B34	3 1/2"	2 1/2"

Wide Rim Machinery Bushings

WIDE RIM BUSHINGS**18 GA. (LIGHT)**

Thickness = .042/.054"



PART NO.	OUTSIDE DIAMETER	INSIDE DIAMETER
HAR B102	1 1/4"	5/8"
HAR B103	1 1/2"	3/4"
HAR B104	1 3/4"	7/8"
HAR B105	2"	1"
HAR B106	2 1/8"	1 1/8"
HAR B107	2 1/4"	1 1/4"
HAR B108	2 1/2"	1 3/8"
HAR B109	3"	1 1/2"
HAR B111	3 1/4"	1 3/4"
HAR B113	3 1/2"	2"
HAR B114	3 5/8"	2 1/8"

Display Board Asst.

Display consists of 200 narrow and wide rim bushings in assorted sizes (listed below). Board is 20" x 12" and is made of 1/2" Pressboard. Weighs 12 lbs.

PART NO.

HAR HB3

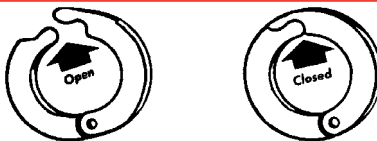
Includes:

10 of B1A 2 of B27
 10 of B2A 2 of B29
 10 of B4 10 of B103
 10 of B6 10 of B104
 15 of B8 10 of B105
 15 of B11 10 of B106
 15 of B14 10 of B107
 13 of B17 6 of B108
 13 of B19 6 of B109
 6 of B21 6 of B111
 4 of B23 5 of B103
 2 of B25



Quick Repair Washers

- **No disassembly is needed!** Excess play can be taken up easily without dismantling. Simply place Quick Repair washer over shaft in desired location. Pound tabs down firmly with hammer.
- Made in the USA using cold finished C1010 mild steel.
- Zinc plated to resist corrosion.
- Shaft sizes are stamped on each washer
- A must-have part for any maintenance shop, farm or construction site!



PART NO.	O.D.	I.D.	THICKNESS
HAR 1QR	1 3/4"	3/4"	1/8"
HAR 2QR	1 7/8"	7/8"	1/8"
HAR 3QR	2"	1"	1/8"
HAR 4QR	2 1/8"	1 1/8"	1/8"
HAR 5QR	2 1/4"	1 1/4"	1/8"
HAR 6QR	2 3/8"	1 3/8"	1/8"
HAR 7QR	2 1/2"	1 1/2"	1/8"
HAR 8QR	2 3/4"	1 3/4"	1/8"
HAR 9QR	3"	2"	1/8"

Quick Repair Displays

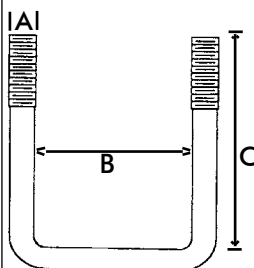
PART NO.	DESCRIPTION
HAR 30QR	30 bushings (3 to 4 of each size)
HAR 90QR	90 bushings (10 of each size)



FASTENERS

U-Bolts

PART NO.	(A) THREAD DIA.	(B) OPENING	(C) LENGTH
BLT U504100	1/4"	1"	2"
BLT U504125	1/4"	1 1/4"	2 1/2"
BLT U505150	5/16"	1 1/2"	3"
BLT U506200	3/8"	2"	4"
BLT U506250	3/8"	2 1/2"	5"
BLT U508300	1/2"	3"	6"
BLT U508350	1/2"	3 1/2"	7"
BLT U508400	1/2"	4"	8"
BLT U510400	5/8"	4"	8"
BLT U510500	5/8"	5"	10"
BLT U510600	5/8"	6"	10"
BLT U512600	3/4"	6"	10"



U-Bolt Display

Display includes the following:

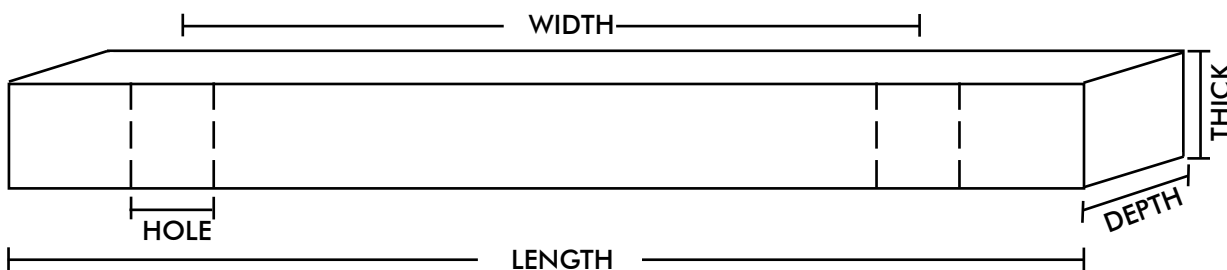
QTY.	PART NO.	SIZE
10	BLT U504100	1/4 x 1 x 2
10	BLT U504125	1/4 x 1 1/4 x 2 1/2
10	BLT U505150	5/16 x 1 1/2 x 3
8	BLT U506200	3/8 x 2 x 4
8	BLT U506250	3/8 x 2 1/2 x 5
6	BLT U508300	1/2 x 3 x 6
6	BLT U508350	1/2 x 3 1/2 x 7
6	BLT U508400	1/2 x 4 x 8
4	BLT U510400	5/8 x 4 x 8
4	BLT U510500	5/8 x 5 x 10
4	BLT U510600	5/8 x 6 x 10
4	BLT U512600	3/4 x 6 x 10

QTY.	PART NO.	SIZE
5	BLT UP1	2 1/4 x 3/4 x 3/16
5	BLT UP2	2 1/2 x 3/4 x 3/16
5	BLT UP3	3 x 1 x 1/4
4	BLT UP4	3 7/8 x 1 x 3/8
4	BLT UP5	4 3/4 x 1 x 3/8
3	BLT UP6	5 x 1 1/2 x 1/2
3	BLT UP7	5 1/2 x 1 1/2 x 1/2
3	BLT UP8	6 x 1 1/2 x 1/2
2	BLT UP9	6 5/8 x 2 x 3/4
2	BLT UP10	7 5/8 x 2 x 3/4
2	BLT UP11	8 5/8 x 2 x 3/4
2	BLT UP12	8 3/4 x 2 x 3/4

PART NO.	DESCRIPTION
BLT U120	Complete Display



U-Bolt Plates



PART NO.	HOLE	W	L	DEPTH	TK
BLT UP1	5/16	1 1/4	2 1/4	3/4	3/16
BLT UP2	5/16	1 1/2	2 1/2	3/4	3/16
BLT UP3	3/8	1 3/16	3	1	1/4
BLT UP4	7/16	1 3/16	3	1	1/4
BLT UP5	7/16	2 7/8	4 7/8	1	3/8
BLT UP6	9/16	3 1/2	5	1 1/2	1/2

PART NO.	HOLE	W	L	DEPTH	TK
BLT UP7	9/16	4	5 1/6	1 1/2	1/2
BLT UP8	9/16	4 1/2	6	1 1/2	1/2
BLT UP9	11/16	4 5/8	6 5/8	2	3/4
BLT UP10	11/16	5 5/8	7 5/8	2	3/4
BLT UP11	11/16	6 5/8	8 5/8	2	3/4
BLT UP12	13/16	6 3/4	8 3/4	2	3/4

Coupling Nuts

Fully threaded with UNC Unified National Course thread. Bright zinc plated.

PART NO.	SIZE	WIDTH	LENGTH ACROSS FLATS	APPROX. LBS. PER 10
HAR 570230	1/4" - 20	3/8"	7/8"	.95
HAR 570240	5/16" - 18	5/8"	1 3/4"	4.20
HAR 570250	3/8" - 16	5/8"	1 3/4"	3.66
HAR 570270	1/2" - 13	11/16"	1 3/4"	3.70
HAR 570290	5/8" - 11	13/16"	2 1/8"	3.56
HAR 570310	3/4" - 10	1"	2 1/4"	5.68
HAR 570330	7/8" - 9	1 1/4"	2 1/2"	5.53
HAR 570350	1" - 8	1 3/8"	2 3/4"	7.40



Square Head Set Screws

UNC Coarse thread Square Head Set Screws are made of hardened 1018 carbon steel for strength. Cup point provides holding power. Black oxide finish.

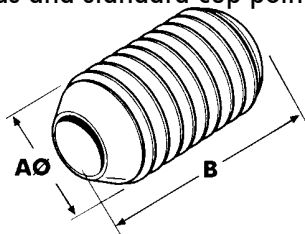
PART NO.	DIA.	THREADS PER INCH	LENGTH	WEIGHT PER 100
HAR 5701	1/4"	20	1/2 UNC	.83
HAR 5702	1/4"	20	3/4 UNC	1.10
HAR 5703	1/4"	20	1 UNC	1.36
HAR 5704	5/16"	18	1/2 UNC	1.45
HAR 5705	5/16"	18	3/4 UNC	1.88
HAR 5706	5/16"	18	1 UNC	2.30
HAR 5707	5/16"	18	1 1/4 UNC	2.73
HAR 5708	5/16"	18	1 1/2 UNC	3.15
HAR 5710	3/8"	16	1/2 UNC	2.28
HAR 5711	3/8"	16	3/4 UNC	2.90
HAR 5712	3/8"	16	1 UNC	3.53



PART NO.	DIA.	THREADS PER INCH	LENGTH	WEIGHT PER 100
HAR 5713	3/8"	16	1 1/4 UNC	4.15
HAR 5714	3/8"	16	1 1/2 UNC	4.77
HAR 5717	7/16"	14	3/4 UNC	4.20
HAR 5718	7/16"	14	1 UNC	5.05
HAR 5719	7/16"	14	1 1/4 UNC	5.90
HAR 5720	7/16"	14	1 1/2 UNC	6.75
HAR 5722	1/2"	13	3/4 UNC	5.83
HAR 5723	1/2"	13	1 UNC	6.95
HAR 5724	1/2"	13	1 1/4 UNC	8.08
HAR 5725	1/2"	13	1 1/2 UNC	9.21

Socket Set Screws - Allen Head Hex - Bulk

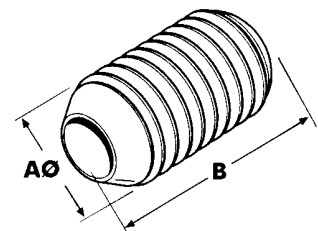
Socket set screws are made of heat treated alloy steel and have ground threads and standard cup point for holding power.



PART NO.	A x B	PART NO.	A x B
HAR 2940	10-24 x 1/2"	HAR 2948	5/16" x 1"
HAR 2941	10-24 x 3/4"	HAR 2949	3/8" x 3/8"
HAR 2942	1/4" x 1/4"	HAR 2950	3/8" x 1/2"
HAR 2943	1/4" x 1/2"	HAR 2951	3/8" x 3/4"
HAR 2944	1/4" x 3/4"	HAR 2952	3/8" x 1"
HAR 2945	1/4" x 1"	HAR 2953	1/2" x 1/2"
HAR 2946	5/16" x 1/2"	HAR 2954	1/2" x 3/4"
HAR 2947	5/16" x 3/4"		

Socket Set Screws Assortment - 160 pc.

PART NO.
HAR 2955



Contains:

QTY.	A x B	QTY.	A x B
20	3/16" x 1/2"	20	5/16" x 3/4"
20	3/16" x 3/4"	20	5/16" x 1"
20	1/4" x 1/4"	20	3/8" x 3/8"
20	1/4" x 1/2"	20	3/8" x 1/2"
20	1/4" x 3/4"	10	3/8" x 3/4"
20	1/4" x 1"	10	3/8" x 1"
20	5/16" x 1/2"	10	1/2" x 1/2"
		10	1/2" x 3/4"

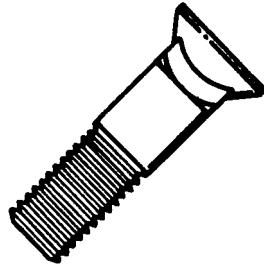
Sweep Bolts with Nuts

Available in 3/8", 7/16", 1/2"

Grade 5 Chrome

NOTE: Bolts only sold in packages of 50

PART NO.	SIZE
BLT 1304	3/8 x 1
BLT 1301	3/8 x 1 1/4
BLT 1302	3/8 x 1 1/2
BLT 1303	3/8 x 1 3/4
BLT 1305	3/8 x 2
BLT 1306	3/8 x 2 1/2
BLT 1710	7/16 x 1
BLT 1700	7/16 x 1 1/4
BLT 1701	7/16 x 1 1/2
BLT 1702	7/16 x 1 3/4
BLT 1703	7/16 x 2
BLT 1704	7/16 x 2 1/4
BLT 1705	7/16 x 2 1/2
BLT 1706	7/16 x 3
BLT 1708	7/16 x 3 1/2
BLT 1200	1/2 x 1 1/4
BLT 1211	1/2 x 1 1/2
BLT 1208	1/2 x 1 3/4
BLT 1201	1/2 x 2
BLT 1202	1/2 x 2 1/4
BLT 1203	1/2 x 2 1/2
BLT 1210	1/2 x 2 3/4
BLT 1204	1/2 x 3
BLT 1206	1/2 x 3 1/2
BLT 1207	1/2 x 4



7/16 BOLTS WITH 1/2" HEADS

PART NO.	SIZE
BLT 3701	7/16 x 1 3/4
BLT 3702	7/16 x 2
BLT 3705	7/16 x 2 1/4
BLT 3707	7/16 x 2 3/4 OS

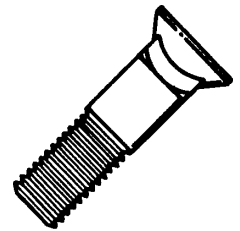
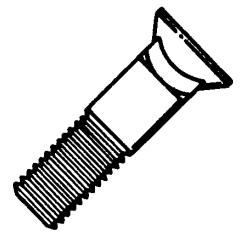
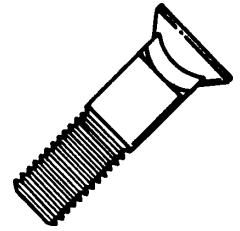
3/8 BOLTS WITH 7/16" HEADS

PART NO.	SIZE
BLT 5301	3/8 x 1 1/4
BLT 5302	3/8 x 1 1/2
BLT 5303	3/8 x 1 3/4

Bulk Sweep Bolts

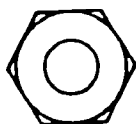
(Without Nuts)

PART NO.	SIZE	QTY.
BLT B1301	3/8 x 1 1/4	1000
BLT B1302	3/8 x 1 1/2	850
BLT B1303	3/8 x 1 3/4	725
BLT B1305	3/8 x 2	625
BLT B1306	3/8 x 2 1/2	500
BLT B1700	7/16 x 1 1/4	700
BLT B1701	7/16 x 1 1/2	600
BLT B1702	7/16 x 1 3/4	525
BLT B1703	7/16 x 2	475
BLT B1704	7/16 x 2 1/4	425
BLT B1705	7/16 x 2 1/2	375
BLT B1709	7/16 x 2 3/4	350
BLT B1706	7/16 x 3	300
BLT B1708	7/16 x 3 1/2	275
BLT B1200	1/2 x 1 1/4	525
BLT B1211	1/2 x 1 1/2	450
BLT B1208	1/2 x 1 3/4	400
BLT B1201	1/2 x 2	350
BLT B1202	1/2 x 2 1/4	300
BLT B1203	1/2 x 2 1/2	275
BLT B1210	1/2 x 2 3/4	250
BLT B1204	1/2 x 3	225
BLT B1206	1/2 x 3 1/2	200
BLT B1207	1/2 x 4	175
BLT B1209	1/2 x 4 1/2	150



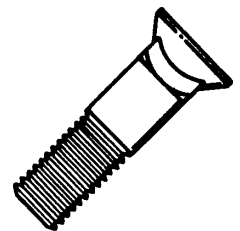
Bulk Hex Nuts - Grade 2

PART NO.	SIZE	QTY.
BLT B4001	3/8	2500
BLT B4002	7/16	1400
BLT B4005	7/16 Heavy	950
BLT B4003	1/2	1000
BLT B4004	1/2 Heavy	600
BLT B4006	5/8 Heavy	325



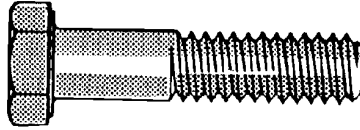
OVERSIZE HEAD BOLTS

PART NO.	SIZE	QTY.
BLT B5301	3/8 x 1 1/4 OS	775
BLT B5302	3/8 x 1 1/2 OS	700
BLT B5303	3/8 x 1 3/4 OS	650
BLT B3701	3/8 x 2 OS	450
BLT B3702	3/8 x 2 1/2 OS	425
BLT B3705	7/16 x 1 1/4 OS	375
BLT B3703	7/16 x 1 1/2 OS	350
BLT B3707	7/16 x 1 3/4	325
BLT B3704	7/16 x 2 OS	300
BLT B3706	7/16 x 2 1/4 OS	250



Capscrews

Grade 5 Plated U.N.C. Coarse



NOTE: Quantities shown are standard packages and box will not be opened for lesser amounts.

Larger sizes are available upon request.

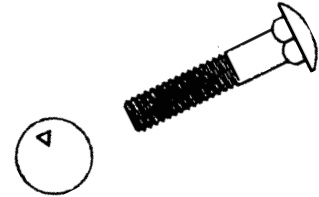
Head Marking	Specification	Material	Bolt Size (inches)	Proof Load P.S.I.	Tensile Strength P.S.I.	Hardness	
						Brinell	Rockwell
	S.A.E. Grade 5	Medium Carbon Steel Quenched & Tempered	1/4" thru 1" over 1"	85,000 74,000	120,000 min. 105,000 min.	255/321 223/285	C25/34 C19/30

PART NO.	QTY.	SIZE	PART NO.	QTY.	SIZE	PART NO.	QTY.	SIZE	PART NO.	QTY.	SIZE
BLT 504050	100	1/4" x 1/2"	BLT 506300	100	3/8" x 3"	BLT 508500	50	1/2" x 5"	BLT 512300	20	3/4" x 3"
BLT 504075	100	1/4" x 3/4"	BLT 506350	100	3/8" x 3 1/2"	BLT 508550	25	1/2" x 5 1/2"	BLT 512325	20	3/4" x 3 1/4"
BLT 504100	100	1/4" x 1"	BLT 506375	100	3/8" x 3 3/4"	BLT 508600	25	1/2" x 6"	BLT 512350	20	3/4" x 3 1/2"
BLT 504125	100	1/4" x 1 1/4"	BLT 506400	100	3/8" x 4"	BLT 508700	25	1/2" x 7"	BLT 512375	20	3/4" x 3 3/4"
BLT 504150	100	1/4" x 1 1/2"	BLT 506450	100	3/8" x 4 1/2"	BLT 508800	25	1/2" x 8"	BLT 512400	20	3/4" x 4"
BLT 504175	100	1/4" x 1 3/4"	BLT 506500	50	3/8" x 5"	BLT 509150	25	9/16" x 1 1/2"	BLT 512450	20	3/4" x 4 1/2"
BLT 504200	100	1/4" x 2"	BLT 506550	50	3/8" x 5 1/2"	BLT 509200	25	9/16" x 2"	BLT 512500	20	3/4" x 5"
BLT 504225	100	1/4" x 2 1/4"	BLT 506600	50	3/8" x 6"	BLT 509250	25	9/16" x 2 1/2"	BLT 512550	20	3/4" x 5 1/2"
BLT 504250	100	1/4" x 2 1/2"	BLT 506700	50	3/8" x 7"	BLT 509300	25	9/16" x 3"	BLT 512600	20	3/4" x 6"
BLT 504300	100	1/4" x 3"	BLT 506800	50	3/8" x 8"	BLT 509350	25	9/16" x 3 1/2"	BLT 512650	20	3/4" x 6 1/2"
BLT 504350	100	1/4" x 3 1/2"	BLT 507075	50	7/16" x 3/4"	BLT 509400	25	9/16" x 4"	BLT 512700	20	3/4" x 7"
BLT 504400	100	1/4" x 4"	BLT 507100	50	7/16" x 1"	BLT 509450	25	9/16" x 4 1/2"	BLT 512750	20	3/4" x 7 1/2"
BLT 504450	100	1/4" x 4 1/2"	BLT 507125	50	7/16" x 1 1/4"	BLT 509500	25	9/16" x 5"	BLT 512800	15	3/4" x 8"
BLT 504500	100	1/4" x 5"	BLT 507150	50	7/16" x 1 1/2"	BLT 510100	25	5/8" x 1"	BLT 512900	15	3/4" x 9"
BLT 504600	100	1/4" x 6"	BLT 507175	50	7/16" x 1 3/4"	BLT 510125	25	5/8" x 1 1/4"	BLT 514200	20	7/8" x 2"
BLT 505050	100	5/16" x 1 1/2"	BLT 507200	50	7/16" x 2"	BLT 510150	25	5/8" x 1 1/2"	BLT 514250	20	7/8" x 2 1/2"
BLT 505075	100	5/16" x 3/4"	BLT 507225	50	7/16" x 2 1/4"	BLT 510175	25	5/8" x 1 3/4"	BLT 514300	20	7/8" x 3"
BLT 505100	100	5/16" x 1"	BLT 507250	50	7/16" x 2 1/2"	BLT 510200	25	5/8" x 2"	BLT 514350	20	7/8" x 3 1/2"
BLT 505125	100	5/16" x 1 1/4"	BLT 507300	50	7/16" x 3"	BLT 510225	25	5/8" x 2 1/4"	BLT 514400	20	7/8" x 4"
BLT 505150	100	5/16" x 1 1/2"	BLT 507350	50	7/16" x 3 1/2"	BLT 510250	25	5/8" x 2 1/2"	BLT 514450	20	7/8" x 4 1/2"
BLT 505175	100	5/16" x 1 3/4"	BLT 507400	50	7/16" x 4"	BLT 510275	25	5/8" x 2 3/4"	BLT 514500	20	7/8" x 5"
BLT 505200	100	5/16" x 2"	BLT 507450	50	7/16" x 4 1/2"	BLT 510300	25	5/8" x 3"	BLT 514550	10	7/8" x 5 1/2"
BLT 505225	100	5/16" x 2 1/4"	BLT 507500	50	7/16" x 5"	BLT 510325	25	5/8" x 3 1/4"	BLT 514600	10	7/8" x 6"
BLT 505250	100	5/16" x 2 1/2"	BLT 507550	50	7/16" x 5 1/2"	BLT 510350	25	5/8" x 3 1/2"	BLT 514650	10	7/8" x 6 1/2"
BLT 505300	100	5/16" x 3"	BLT 507600	50	7/16" x 6"	BLT 510400	25	5/8" x 4"	BLT 514700	10	7/8" x 7"
BLT 505350	100	5/16" x 3 1/2"	BLT 508075	50	1/2" x 3/4"	BLT 510450	25	5/8" x 4 1/2"	BLT 514800	10	7/8" x 8"
BLT 505400	100	5/16" x 4"	BLT 508100	50	1/2" x 1"	BLT 510500	25	5/8" x 5"	BLT 516200	20	1" x 2"
BLT 505450	100	5/16" x 4 1/2"	BLT 508125	50	1/2" x 1 1/4"	BLT 510550	25	5/8" x 5 1/2"	BLT 516250	20	1" x 2 1/2"
BLT 505500	100	5/16" x 5"	BLT 508150	50	1/2" x 1 1/2"	BLT 510600	25	5/8" x 6"	BLT 516300	20	1" x 3"
BLT 505600	100	5/16" x 6"	BLT 508175	50	1/2" x 1 3/4"	BLT 510700	25	5/8" x 7"	BLT 516350	10	1" x 3 1/2"
BLT 506050	100	3/8" x 1 1/2"	BLT 508200	50	1/2" x 2"	BLT 510800	25	5/8" x 8"	BLT 516400	10	1" x 4"
BLT 506075	100	3/8" x 3/4"	BLT 508225	50	1/2" x 2 1/4"	BLT 512100	20	3/4" x 1"	BLT 516450	10	1" x 4 1/2"
BLT 506100	100	3/8" x 1"	BLT 508250	50	1/2" x 2 1/2"	BLT 512125	20	3/4" x 1 1/4"	BLT 516500	10	1" x 5"
BLT 506125	100	3/8" x 1 1/4"	BLT 508275	50	1/2" x 2 3/4"	BLT 512150	20	3/4" x 1 1/2"	BLT 516550	10	1" x 6 1/2"
BLT 506150	100	3/8" x 1 1/2"	BLT 508300	50	1/2" x 3"	BLT 512175	20	3/4" x 1 3/4"	BLT 516600	10	1" x 6"
BLT 506175	100	3/8" x 1 3/4"	BLT 508325	50	1/2" x 3 1/4"	BLT 512200	20	3/4" x 2"	BLT 516650	10	1" x 6 1/2"
BLT 506200	100	3/8" x 2"	BLT 508350	50	1/2" x 3 1/2"	BLT 512225	20	3/4" x 2 1/4"	BLT 516700	10	1" x 7"
BLT 506225	100	3/8" x 2 1/4"	BLT 508400	50	1/2" x 4"	BLT 512250	20	3/4" x 2 1/2"	BLT 516800	10	1" x 8"
BLT 506250	100	3/8" x 2 1/2"	BLT 508450	50	1/2" x 4 1/2"	BLT 512275	20	3/4" x 2 3/4"			

Bulk Quantities Available

Carriage Bolt

Grade 2 Plated U.N.C. Coarse



BOXED

PART NO.	QTY.	SIZE
BLT CB205075	100	5/16 x 3/4
BLT CB205100	100	5/16 x 1
BLT CB205200	100	5/16 x 2
BLT CB206100	100	3/8 x 1
BLT CB206125	100	3/16 x 1 1/4
BLT CB206150	100	3/8 x 1 1/2
BLT CB206175	100	3/8 x 1 3/4
BLT CB206250	100	3/8 x 2 1/2
BLT CB206450	100	3/8 x 4 1/2
BLT CB206500	50	3/8 x 5

BOXED

PART NO.	QTY.	SIZE
BLT CB207150	50	7/16 x 1 1/2
BLT CB207350	50	7/16 x 3 1/2
BLT CB208100	50	1/2 x 1
BLT CB208150	50	1/2 x 1 1/2
BLT CB208400	50	1/2 x 4
BLT CB208450	50	1/2 x 4 1/2
BLT CB208500	25	1/2 x 5
BLT CB210300	25	5/8 x 3
BLT CB210350	25	5/8 x 3 1/2
BLT CB210400	25	5/8 x 4

Grade 5 carriage bolts are also available

Plated Bulk Threaded Rod



Continuous threaded rod is threaded full length and made of cold drawn steel. Can be bent into any shape without heating. Used to make eye bolts, stud bolts, anchor bolts and for suspending equipment. Use for mounting on walls or benches in machine shops and garages. Just cut to length and use!

SIZE	PLATED PART NO.	BLACK PART NO.
1/4" x 36"	BLT TR1/4-36	BLT TRB1/4-36
5/16" x 36"	BLT TR5/16-36	BLT TRB5/16-36
3/8" x 36"	BLT TR3/8-36	BLT TRB3/8-36
7/16" x 36"	BLT TR7/16-36	BLT TRB7/16-36
1/2" x 36"	BLT TR1/2-36	BLT TRB1/2-36
5/8" x 36"	BLT TR5/8-36	BLT TRB5/8-36
3/4" x 36"	BLT TR3/4-36	BLT TRB3/4-36
7/8" x 36"	BLT TR7/8-36	BLT TRB7/8-36
1" x 36"	BLT TR1-36	BLT TRB1-36

Alloy Threaded Rod



Same uses as plated bulk threaded rod but made of yellow zinc dichromate. Meets Grade 5 strengths. Available in UNC or UNF thread.

SIZE	UNC PART NO.	UNF PART NO.
1/4" x 36"	BLT TRA1/4-36	BLT TRA1/4-36NF
5/16" x 36"	BLT TRA5/16-36	BLT TRA5/16-36NF
3/8" x 36"	BLT TRA3/8-36	BLT TRA3/8-36NF
7/16" x 36"	BLT TRA7/16-36	BLT TRA7/16-36NF
1/2" x 36"	BLT TRA1/2-36	BLT TRA1/2-36NF
9/16" x 36"	BLT TRA9/16-36	-
5/8" x 36"	BLT TRA5/8-36	BLT TRA5/8-36NF
3/4" x 36"	BLT TRA3/4-36	BLT TRA3/4-36NF
7/8" x 36"	BLT TRA7/8-36	BLT TRA7/8-36NF
1" x 36"	BLT TRA1-36	BLT TRA1-36NF

UNC Plated Nuts



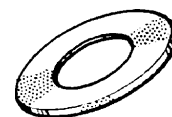
PART NO.	PACKAGE QUANTITY	SIZE
BLT FN1/4	100	1/4"
BLT FN5/16	100	5/16"
BLT FN3/8	100	3/8"
BLT FN7/16	50	7/16"
BLT FN1/2	50	1/2"
BLT FN9/16	25	9/16"
BLT FN5/8	25	5/8"
BLT FN3/4	20	3/4"
BLT FN7/8	20	7/8"
BLT FN1	20	1"
BLT FN1-1/8	15	1 1/8"
BLT FN1-1/4	15	1 1/4"
BLT FN1-1/2	15	1 1/2"

Plated Spring Lock Washers



PART NO.	PACKAGE QUANTITY	SIZE
BLT LW1/4	100	1/4"
BLT LW5/16	100	5/16"
BLT LW3/8	100	3/8"
BLT LW7/16	100	7/16"
BLT LW1/2	100	1/2"
BLT LW9/16	100	9/16"
BLT LW5/8	100	5/8"
BLT LW3/4	100	3/4"
BLT LW7/8	100	7/8"
BLT LW1	100	1"

Plated USS Flat Washers



PART NO.	PACKAGE WEIGHT	SIZE
BLT FW1/4-1	1 lb.	1/4"
BLT FW1/4-5	5 lb.	1/4"
BLT FW5/16-1	1 lb.	5/16"
BLT FW5/16-5	5 lb.	5/16"
BLT FW3/8-1	1 lb.	3/8"
BLT FW3/8-5	5 lb.	3/8"
BLT FW7/16-1	1 lb.	7/16"
BLT FW7/16-5	5 lb.	7/16"
BLT FW1/2-1	1 lb.	1/2"
BLT FW1/2-5	5 lb.	1/2"
BLT FW9/16-1	1 lb.	9/16"
BLT FW9/16-5	5 lb.	9/16"
BLT FW5/8-1	1 lb.	5/8"
BLT FW5/8-5	5 lb.	5/8"
BLT FW3/4-1	1 lb.	3/4"
BLT FW3/4-5	5 lb.	3/4"
BLT FW7/8-1	1 lb.	7/8"
BLT FW7/8-5	5 lb.	7/8"
BLT FW1-5	5 lb.	1"

Lock Nuts

"AH" Nylon Insert Lock Nuts - Plated Finish - UNC Coarse



PART NO.	PACKAGE QUANTITY	SIZE
BLT LN1/4	100	1/4"
BLT LN5/16	100	5/16"
BLT LN3/8	100	3/8"
BLT LN7/16	50	7/16"
BLT LN1/2	50	1/2"
BLT LN9/16	25	9/16"
BLT LN5/8	25	5/8"
BLT LN3/4	20	3/4"
BLT LN7/8	20	7/8"
BLT LN1	20	1"

Plow Share Bolts

Clipped Head Bolts with UNC Hex Nuts Packed 50 per carton



PART NO.	DESCRIPTION
PLO 38	3/8" x 1 3/16" Bolt with nut
PLO 716	7/16" x 1 1/4" Bolt with nut
PLO 12	1/2" x 1 3/8" Bolt with nut

HITCHES

- ISO Ring Style Hitch
- European Standards
- Material: Ductile Iron 80-55-6
- Perfect Hitch Option allows a tight, flexible tractor implement connection.



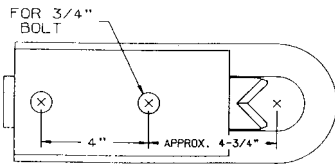
Base Hitch



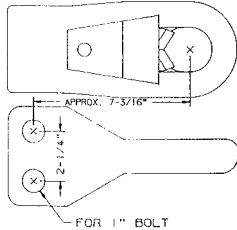
Base Hitch with Clevis



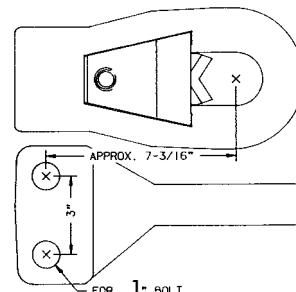
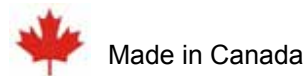
Base with Perfect Hitch



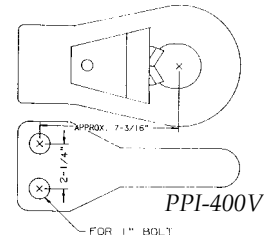
PPI-200H



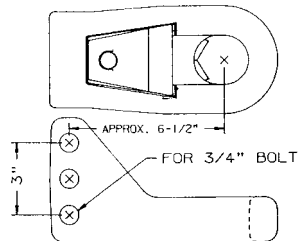
PPI-200V



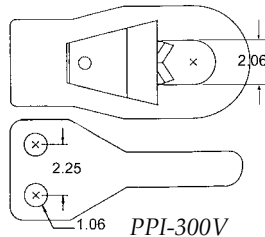
PPI-331VHA



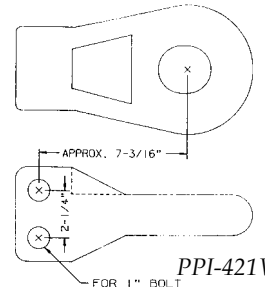
PPI-400V



PPI-237V



PPI-300V



PPI-421V3

	Category 2	Category 2	Category 2	Category 3	Category 3	Category 4	Category 4
ISO Tractor Drawbar Category	Below 65 HP	65-125 HP	65-125 HP	110-250 HP	110-250 HP	200-470 HP	200-470 HP
Mounting	Horizontal	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
Use For	Hay & Forage	Hay & Forage	Hay & Forage	Light Tillage	Tillage	Heavy Tillage	Heavy Tillage Induction Hardened
Maximum Drawpin Size for 40° of Articulation	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"
Maximum Load	75,350	169,535	169,535	301,389	301,389	423,378	423,378
Base Hitch Part Number	HAR PPI-204HR	HAR PPI-237VR	HAR PPI-201VH	HAR PPI-301VH	HAR PPI-331VH	HAR PPI-401VH	HAR PPI-421V3
Base Hitch with Perfect Hitch Part Number	HAR PPI-200H	HAR PPI-237V	HAR PPI-200V	HAR PPI-300V	HAR PPI-331VHA	HAR PPI-400V	-
Replacement Top Plate Part Number	HAR PPI-202H	HAR PPI-202V	HAR PPI-202V	HAR PPI-302V	HAR PPI-302V	HAR PPI-302V	-
Replacement V-Block Part Number	HAR PPI-203HR	HAR PPI-203VR	HAR PPI-203VR	HAR PPI-203VR	HAR PPI-203VR	HAR PPI-203VR	-
Replacement Angle Plate Part Number	HAR PPI-204HR	-	-	-	-	-	-
Replacement Cushion Part Number	HAR PPI-205HR	HAR PPI-205H	HAR PPI-205H	HAR PPI-205H	HAR PPI-205H	HAR PPI-205H	-
Bolt Part Number	-	HAR WB85	HAR WB85	HAR WB83	HAR WB83	HAR WB83	-
Base Hitch with Clevis Part Number	-	HAR PPI-237VOC	HAR PPI-200VHC	HAR PPI-301VHC	HAR PPI-331VHC	-	-
Replacement Clevis Part Number	-	HAR PPI-206V	HAR PPI-206V	HAR PPI-206V	HAR PPI-206V	-	-
Bolt Part Number	-	HAR WB90	HAR WB90	HAR WB90	HAR WB90	-	-
Nut Part Number	-	HAR WB91	HAR WB91	HAR WB91	HAR WB91	-	-

REFUSE PLASTIC BAGS

PART NO.	DESCRIPTION
HAR 93312	26 x 36, Regular strength, black, case of 250 bulk



PART NO.	DESCRIPTION
HAR 96836	35 x 50, Extra strength, black, case of 100 bulk



*Note: Sold by the case only.