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1976

# GROEBNER

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## Natural Gas Distribution Tools *catalog*

LEAK  
DETECTION

STEEL TOOLS  
& MACHINES

POLYETHYLENE  
TOOLS &  
MACHINES

LOCATORS

SPECIALTY  
PRODUCTS

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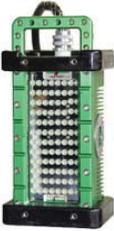
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# THE NEW VIPERMAG LOCATOR!

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The Copperhead ViperMag pipe and cable locator is a general purpose locator used to detect buried pipe and cable services in a variety of situations. The ViperMag has achieved a compact and lightweight design without compromising strength and performance to meet the requirements of those wishing to detect the presence of active power cables, metal locating, and tracing all types of pipes and cables. The ViperMag transmitter can supply a very useful 1 watt signal power. Signal application can be either direct connection or induction if there is no access point. With the addition of the optional signal clamp the ViperMag transmitter can be applied to the target line no matter what the situation.

### Features

- Passive Power Locating - 60Hz
- Active Frequencies - 512Hz, 8kHz, 83kHz
- Ferrous Metal Locating
- Push Button Depth



## Equipment

### Standard

- Receiver
- Transmitter
- Direct Connection Cables
- Ground Rod
- Alkaline Batteries
- Soft Sided Case
- User Guide

### Optional Accessories

- Clamps  
2" and 4" Clamps - used to apply the transmitter signal to a target cable when safe access to the conductor is not possible.
- Hard Case  
Our hard case features a rugged exterior and custom cut high density foam inserts to give your ViperMag ultimate protection. The interior is oversized providing plenty of room for your receiver, transmitter, direct connection cables, ground rod, and other accessories.



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# CELEBRATING 60 YEARS OF INNOVATION



**In 1954,** Art McElroy took the first step in realizing his dream by starting his company in a small garage in Tulsa, Oklahoma. This humble beginning, however, was no match for his unquenchable thirst for the science of design. Together, with his wife Panny, their honest work ethics and determination saw their dream come to fruition as McElroy Manufacturing.

Today, McElroy has left its mark on the world as the leader in engineering and manufacturing solutions for the thermoplastic pipe industries. See the entire line of fusion machines, productivity accessories and quality assurance tools at [www.mcelroy.com](http://www.mcelroy.com)

**MMI** **McELROY**



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### **Mini-Mc® Fusion Machine & Accessories**

McElroy's smallest fusion machine, the Mini-Mc®, makes small diameter butt fusion projects simple. They are compact, lightweight, highly reliable, accurate, and rugged. Perfect for joining 1/2" CTS to 1" IPS (16mm to 34mm) service sizes. The Mini-Mc requires only one operator and works in the most difficult conditions. The narrow clamp design provides butt fusion with precise pipe alignment at the fusion joint. The heater is thermostatically controlled and has a durable anti-stick coating. Manufactured by McElroy.

#### **Mini-Mc® Fusion Machine & Accessories**

Catalog No.	Product	Description
CTS07901	<b>Mini-Mc® Fusion Machine Package</b>	Mini-Mc® Fusion Machine fuses pipe up to 1" IPS. Includes fusion machine & screwdriver kit. Heater, facer, and inserts sold separately.
CTS00702	<b>Heater</b>	110V/120V, 50/60 Hz, 300 Watt, 1ph. Plug type A.
CTS08301	<b>Insulated Heater Sling</b>	Protects heater and helps maintain a constant temperature.
MJQ00032	<b>Case</b>	Our strong and durable carrying case will hold a Mini-Mc®, heater, heater sling, facer, inserts, tubing shear, and other miscellaneous items.
CTS07101	<b>1" CTS (1.13" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07201	<b>3/4" IPS (1.05" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07301	<b>3/4" CTS (0.88" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07401	<b>1/2" IPS (0.84" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07501	<b>1/2" CTS (0.63" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS15014	<b>Ratchet Facer</b>	This facer is designed for increased leverage.
CTS01701	<b>Knurled Facer</b>	This facer is designed for compact use.
CTS15017	<b>1" IPS (1.32" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.
CTS15019	<b>1" CTS (1.13" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.
CTS15020	<b>3/4" IPS (1.05" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.
CTS15021	<b>3/4" CTS (0.88" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.
CTS15022	<b>1/2" IPS (0.84" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.
CTS15018	<b>1/2" CTS (0.63" OD) Facer Insert Set</b>	Facer insert sets must be selected for each pipe size. Compatible with either facer. Set includes 2 inserts.

**Butt Fusion Tools****Mini-Mc® Fusion Machine & Accessories**

Catalog No.	Product	Description
CTS06803	<b>Facer Blade Set</b>	Set of two spare facer discs. Compatible with either facer and made of hardened steel.
ACTS08201	<b>Screw/Driver Kit</b>	Spare driver kit with insert screws and wire brush for cleaning serrated jaws and inserts.
04176	<b>Pipe Shear</b>	Used to cut plastic tubing only, up to 1.7" OD capacity.
A218804	<b>Pyrometer Kit</b>	Accurately checks surface temperature of heater

**1LC Fusion Machine & Accessories**

The 1LC is the tool of choice for butt fusing 1/2" CTS to 1" IPS (16mm – 34mm) service sizes. As an alternative to the Mini-Mc®, the 1LC offers a more conventional style of operation while maintaining the great features of the 2LC. The compact design allows for fusing in tight quarters. Manufactured by McElroy.

**1LC Fusion Machine & Accessories**

Catalog No.	Product	Description
ACTS16001	<b>1LC Fusion Machine Package</b>	Fusion capability for 1/2" CTS thru 1" IPS (16mm - 34mm). Plug type A. Package includes fusion machine, heater (110V/120V, 50/60Hz, 100 Watt, 1Ph), facer, insulated heater sling, ratchet wrench, screw/driver kit, and case.
CTS07101	<b>1" CTS (1.13" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07201	<b>3/4" IPS (1.05" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07301	<b>3/4" CTS (0.88" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07401	<b>1/2" IPS (0.84" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS07501	<b>1/2" CTS (0.63" OD) Butt Fusion Insert Set</b>	Inserts are serrated for maximum grip and are made for one size pipe only. Set includes 4 inserts, screws, and wrench.
CTS20101	<b>Heater</b>	110V/120V, 50/60Hz, 100 Watt, 1Ph. Plug type A. Microprocessor-controlled to maintain heater temperature.
CTS08301	<b>Insulated Heater Sling</b>	Protects heater and helps maintain a constant temperature.
CTS17601	<b>Facer</b>	Facer used to face pipe ends.
CTS21302	<b>Facer Blade Set</b>	Blade set includes 2 blades, attaching screws and wrench.
A218804	<b>Pyrometer Kit</b>	Accurately checks surface temperature of heater
CTS15801	<b>Case</b>	Strong and durable carrying case will hold a 1LC, heater, heater sling, facer, and inserts.
ACTS08201	<b>Screw/Driver Kit</b>	Driver kit with insert screws and wire brush for cleaning serrated jaws and inserts.



**1LC Fusion Machine & Accessories**

Catalog No.	Product	Description
04176	<b>Pipe Shear</b>	Used to cut plastic tubing only, up to 1.7" OD capacity.



**2LC & 2CU Fusion Machine & Accessories**

The 2LC employs a semi-automatic locking cam (LC) system to maintain force during the cooling cycle. It will butt fuse 1/2" CTS to 2" IPS (16mm to 60mm) pipe. The 2LC incorporates McElroy's patented Centerline Guidance System, and is designed to butt fuse tees, ells, and other fittings. The machine is made primarily of surface-hardened aluminum for light weight and durability. The jaws and inserts have multiple serrations for maximum grip on the pipe. Raise the machine to a comfortable level with the optional manual fusion machine stand. Manufactured by McElroy.

The 2CU machine will butt fuse 1/2" CTS to 2" IPS (16mm to 60mm) pipe, tees, ells, and other fittings. This combination unit (CU) incorporates McElroy's patented combination sidewall feature. Sidewall inserts with chain vise allow the unit to be attached on the centerline of a pipe main for sidewall fusion of 1/2" to 2" service saddles, round base branch saddles and small tapping tees. The 2CU is equipped with chain lengths that will clamp up to 8" IPS pipe. Additional chain lengths are available for larger main sizes. Manufactured by McElroy.

**2LC & 2CU Fusion Machine & Accessories**

Catalog No.	Product	Description
A217201	<b>2LC Fusion Machine Package</b>	1/2" CTS thru 2" IPS. Manual. 100V-120V, 50/60Hz, 800 Watt, 1Ph input voltage requirements. Plug type A. Package includes fusion machine, heater, facer, insulated heater/facer stand and screw/driver kit.
A200101	<b>2CU Fusion Machine Package</b>	1/2" CTS thru 2" IPS. Combination unit. 100V-120V, 50/60Hz, 800 Watt, 1Ph input voltage requirements. Plug type A. Package includes fusion machine, heater, facer, insulated heater/facer stand and screw/driver kit.
207521	<b>1/2" IPS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207512	<b>3/4" IPS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207513	<b>1" IPS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207514	<b>1-1/4" IPS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207515	<b>1-1/2" IPS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207516	<b>1/2" CTS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207517	<b>3/4" CTS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207518	<b>1" CTS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.
207519	<b>1-1/4" CTS Butt Fusion Insert Set</b>	Set includes 4 inserts, screws, and wrench.

**Butt Fusion Tools**

**2LC & 2CU Fusion Machine & Accessories**

Catalog No.	Product	Description
A215505	<b>Multi-Mc® Heater Kit</b>	100V-120V, 50/60Hz, 1Ph. Kit includes heater plates.
A215701	<b>Heater Plate Kit</b>	Plates have an anti-stick coating and are required for butt fusion. The kit includes 2 plates, attaching screws and wrench.
216101	<b>Facer</b>	Facer used to face pipe ends to be fused.
205702	<b>Facer Blades</b>	Blade set includes 4 blades, attaching screws and wrench.
218301	<b>Stand With Heater Bag</b>	Holds facer and heater for easier carrying and protection. Heater bag helps the heater maintain a constant temperature.
203004	<b>Heat Shield</b>	For fusing two materials with different melt rates. Shields the faster melt rate materials from over melting.
A214201	<b>Screw/Driver Kit</b>	Spare driver kit with insert screws and wire brush for cleaning serrated jaws and inserts.
MJL00002	<b>Torque Wrench</b>	
MJQ00193	<b>Storage Box</b>	For 2LC fusion machine, inserts and adapters.
MJQ00194	<b>Storage Box</b>	For 2CU fusion machine, inserts and adapters.
ASW15902	<b>Insert &amp; Adapter Box</b>	Storage box for organizing your inserts and adapters for safe keeping.
439001	<b>2LC Manual Fusion Machine Stand</b>	Expands to a comfortable operator height equal to our other pipe supports. Folds for easy storage and has wheels for easy transporting.
A218804	<b>Pyrometer Kit</b>	Accurately checks surface temperature of heater
410211	<b>1-1/4" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
410212	<b>1-1/2" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
410213	<b>2" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
410305	<b>3" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
410405	<b>4" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
821403	<b>6" IPS Sidewall Inserts</b>	Supports 2CU on top of the main. Set of 2.
413304	<b>1-1/4" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
413305	<b>1-1/2" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
413301	<b>2" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
413302	<b>3" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
413303	<b>4" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
413306	<b>6" IPS Line Pipe Bolster</b>	Supports underneath the main - straightens & re-rounds.
212302	<b>Fitting Insert</b>	Butt & Socket Outlet Tap Tees, Stem Diameter 1.88" (Central & Drisco).
212304	<b>Fitting Insert</b>	Butt & Socket Outlet Tap Tees, Stem Diameter 1.68", Buttress Threads (PLEXCO).
227402	<b>Fitting Insert</b>	Butt & Socket Outlet Tap Tees, Stem Diameter 1.61", Buttress Thread (Central).
N/A	<b>Fitting Insert</b>	Butt & Socket Outlet Tap Tees, 1" Outlet Tap Tee (Drisco).
207902	<b>Fitting Insert</b>	Butt Outlet Service Saddles, Outlet Size 1/2" CTS.
208302	<b>Fitting Insert</b>	Butt Outlet Service Saddles, Outlet Size 3/4" CTS.
208402	<b>Fitting Insert</b>	Butt Outlet Service Saddles, Outlet Size 1" CTS.
208002	<b>Fitting Insert</b>	Butt Outlet Service Saddles, Outlet Size 3/4" IPS.
208102	<b>Fitting Insert</b>	Butt Outlet Service Saddles, Outlet Size 1" IPS.



### **Pit Bull® 14 Fusion Machine & Accessories**

The Pit Bull® 14 is a compact, lightweight, highly reliable and rugged machine. It fuses 1" IPS to 4" DIPS (32mm to 110mm) pipe. The machine incorporates McElroy's patented Centerline Guidance System, and is designed to butt fuse tees, ells, and other fittings with consistent, high-quality results. The machine's semi-automatic locking cam system maintains force during the cooling cycle. The machine is primarily made of surface-hardened aluminum for light weight and durability. Features include reversible jaws, clamp knobs, and facer. Manufactured by McElroy.

### **Pit Bull® 14 Fusion Machine & Accessories**

Catalog No.	Product	Description
A430101	<b>Pit Bull® 14 Fusion Machine Package</b>	Fusion capability for 1" IPS thru 4" DIPS pipe (32mm -110mm). Package includes fusion machine, facer, heater (100V/120V, 50/60 Hz, 1Ph), insulated heater/facer stand, 4" IPS Master Inserts (430701) and screw/driver kit.
A441501	<b>Pit Bull® 14 Productivity Package</b>	Fusion capability for 1" IPS thru 4" DIPS pipe (32mm - 110mm). Package includes fusion machine, manual fusion machine stand, and 2 PolyPorters®.
430701	<b>Master - 4" (4.50" OD) Butt Fusion Insert Set</b>	Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe. Inserts are made for one size pipe only.
410103	<b>3" IPS (3.50" OD) Butt Fusion Insert Set</b>	Fits in 4" IPS master inserts. Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe.
410007	<b>Master - 2" IPS (2.38" OD) Butt Fusion Insert Set</b>	Fits in 4" IPS master inserts. Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe.
207515	<b>1-1/2" IPS (1.90" OD) Butt Fusion Insert Set</b>	Fits in 2" IPS master inserts. Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe.
207514	<b>1-1/4" IPS (1.66" OD) Butt Fusion Insert Set</b>	Fits in 2" IPS master inserts. Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe.
207513	<b>1" IPS (1.32" OD) Butt Fusion Insert Set</b>	Fits in 2" IPS master inserts. Inserts have been surface-hardened for longer life. All inserts are serrated for maximum grip on the pipe.
A424317	<b>Multi-Mc® Heater Kit</b>	100V120V, 50/60Hz, 1Ph. Kit includes heater plates.
A425201	<b>Heater Plate Kit</b>	Plates have an anti-stick coating and are required for butt fusion. The kit includes 2 plates and attaching screws.
433701	<b>Facer</b>	100V-120V, 50/60Hz, 1Ph.
413702	<b>Facer Blades</b>	Blade set includes 4 blades, attaching screws, and wrench.
A214201	<b>Screw/Driver Kit</b>	Driver kit with insert screws and wire brush for cleaning serrated jaws and inserts.
433104	<b>Heater/Facer Stand</b>	Holds facer and heater for easier carrying and protection. Heater bag helps the heater maintain a constant temperature.
203006	<b>Heat Shield</b>	For fusing two materials with different melt rates. Shields the faster melt rate materials from over melting.
410802	<b>Torque Wrench Adapter</b>	Used to adapt a torque wrench to the 14 when a specified interfacial pressure is required. Requires a ½" drive, 100 ft. lb., 15" torque wrench.

**Butt Fusion Tools****Pit Bull® 14 Fusion Machine & Accessories**

Catalog No.	Product	Description
ASW15904	<b>Insert &amp; Adapter Box</b>	Storage box with universal storage tray to organize tooling.
812501	<b>Pipe Support Stand</b>	For use with manual machine stand. Adjustable height to support, position, and align pipe.
422801	<b>Pipe Support Stand</b>	For use with the 14 cart only. Adjustable height to support, position, and align pipe.
439001	<b>Manual Fusion Machine Stand</b>	Expands to a comfortable operator height equal to our other pipe supports. Folds for easy storage and has wheels for easy transportation.
864201	<b>PolyPorter®</b>	Designed to aid in lifting of pipe into the fusion machine, as well as perform as a pipe stand.
434001	<b>Cart</b>	Cart and outrigger pipe supports for added mobility and handling of pipe.
A218804	<b>Pyrometer Kit</b>	Accurately checks surface temperature of heater

**Pit Bull® 26 Fusion Machine & Accessories**

The Pit Bull® 26 fuses 2" IPS to 6" DIPS (60mm to 180mm). The 26 incorporates the patented Centerline Guidance System, and is capable of butt fusing tees, ells, and other fittings. The machine has a semi-automatic locking cam that maintains fusion during the cooling cycle and even fits on the Manual Fusion Machine Stand. An electric facer offers fast, efficient facing with an advanced blade design for smooth face offs and longer life. Manufactured by McElroy.

**Pit Bull® 26 Fusion Machine & Accessories**

Catalog No.	Product	Description
A708502	<b>Pit Bull® 26 Fusion Machine Package</b>	Fusion capability for 2" IPS thru 6" DIPS (63mm to 180mm) pipe. Package includes fusion machine, facer, heater (100V/120V, 50/60 Hz, 1Ph), insulated heater/facer stand, 6" IPS Master Inserts (430701) and screw/driver kit.
A708402	<b>Productivity Pit Bull® 26 Fusion Machine Package</b>	Fusion capability for 2" IPS thru 26" DIPS. Package includes fusion machine, fusion stand, and 2 PolyPorters®.
Included w/Package	<b>Master - 6" IPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809435	<b>5" IPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809237	<b>4" DIPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809434	<b>4" IPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809326	<b>3" DIPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809323	<b>3" IPS Butt Fusion Insert Set</b>	Set of 4 inserts.
809215	<b>2" IPS Butt Fusion Insert Set</b>	Set of 4 inserts.
707701	<b>Heater</b>	100V-120V, 50/60Hz, 1200 Watt, 1Ph. Microprocessor-controlled with dial thermometer.



## Butt Fusion Tools

### Pit Bull® 26 Fusion Machine & Accessories

Catalog No.	Product	Description
A707901	<b>Heater Plate Kit</b>	Plates have an anti-stick coating and are required for butt fusion. The kit includes 2 plates and attaching screws.
712001	<b>Heater Stand</b>	Holds heater for easier carrying and protection. Heater bag helps the heater maintain a constant temperature.
709601	<b>Facer</b>	100V-120V, 50/60Hz, 1Ph.
710602	<b>Facer Blades</b>	Blade set includes 6 blades, attaching screws and wrench.
711801	<b>Facer Stand</b>	Facer stand provides a convenient place to protect and store your facer out of the dirt and mud.
410802	<b>Torque Wrench Adapter</b>	Used to adapt to a torque wrench when a specified interfacial pressure is required. Requires a ½" Drive 100 ft.lb. 15" torque wrench.
SW16001	<b>Toolbox With Tray</b>	For organizing your inserts and adapters for safe keeping.
439001	<b>Manual Fusion Machine Stand</b>	Expands to a comfortable operator height equal to our other pipe supports. Folds for easy storage and has wheels for easy transporting.
812501	<b>Pipe Support Stand</b>	For use with manual machine stand.
A1867501	<b>Low Profile Rollers</b>	Aids by reducing the drag on 4" to 18" pipe and protecting the pipe from damage. Case includes 40 complete roller assemblies.
864201	<b>PolyPorter®</b>	Designed to aid in lifting of pipe into the fusion machine, as well as perform as a pipe stand.
A218804	<b>Pyrometer Kit</b>	Accurately checks surface temperature of heater

**Butt Fusion Tools****28 Fusion Machine & Accessories**

The 28 fusion machines now come in multiple model configurations to assure your pipe fusion needs are covered. They will butt fuse pipe sizes from 2" IPS to 8" DIPS (60mm to 225mm).

The Rolling 28 has staked its claim as the industry standard for more than 30 years. Its ease of use and rugged quality construction opened the door for the most extensive line of 8-inch fusion machines on the market. The TracStar® 28 offers a self-contained, self-propelled, track-mounted vehicle that can handle grades up to 30%. It is the number one choice on the job site for its ease of maneuverability and productivity gains. The Pit Bull® 28 is used for special applications where the wheeled or tracked vehicle is not needed.

The latest upgrade to the TracStar 28 is an option that allows automated control and monitoring over the heat, soak, fuse and cool cycles. The Automated TracStar 28 guides the operator through a step-by-step procedure for fusing pipe. It has a built-in data logging feature that keeps a record of each fusion joint, which allows you to verify joint integrity.

All units incorporate the interchangeable 28 4-jaw carriage, which can be easily removed for in-ditch fusion. For tight installations, the outer fixed jaw and skid can be removed from the carriage converting it to a 3-jaw carriage for an even more compact fusion unit. Several of these units offer saddle fusion capability in the form of a Combination Unit (CU) that allows fusion of branch saddles with a maximum base diameter of 9.63" onto any size main. Manufactured by McElroy.

**28 Fusion Machine & Accessories**

Catalog No.	Product	Description
A860805	<b>Rolling 28 Fusion Machine Package</b>	High cylinder force. 120V, 60Hz, 1Ph input voltage requirement. 3.4KVA, 3.2KW minimum power requirement. A plug type. Package includes fusion machine, facer, heater and insulated heater stand.
A860810	<b>Rolling 28 Fusion Machine Package</b>	Low cylinder force. 120V, 60Hz, 1Ph input voltage requirement. 3.4KVA, 3.2KW minimum power requirement. A plug type. Package includes fusion machine, facer, heater and insulated heater stand.
A860801	<b>Rolling 28 CU Fusion Machine Package</b>	Rolling CU. High cylinder force. 120V, 60Hz, 1Ph input voltage requirement. 3.4KVA, 3.2KW minimum power requirement. A plug type. Package includes fusion machine, facer, heater and insulated heater stand.
A860803	<b>Rolling 28 CU Fusion Machine Package</b>	Rolling CU. Low cylinder force. 110V, 60Hz, 1Ph input voltage requirement. 4.1KVA, 3.7KW minimum power requirement. B plug type. Package includes fusion machine, facer, heater and insulated heater stand.
A897601	<b>Rolling 28 Hand Pump Fusion Machine Package</b>	Rolling Hand Pump. Low cylinder force. 120V, 50/60Hz, 1Ph input voltage requirement. 3.28KVA, 3KW minimum power requirement. A plug type. Package includes fusion machine, facer, heater and insulated heater stand.
AT800105	<b>TracStar® 28 Fusion Machine Package</b>	Tracked. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.

**28 Fusion Machine & Accessories**

Catalog No.	Product	Description
AT800107	<b>TracStar® 28 Fusion Machine Package</b>	Tracked. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.
AT800106	<b>TracStar® 28 CU Fusion Machine Package</b>	Tracked CU. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.
AT800108	<b>TracStar® 28 CU Fusion Machine Package</b>	Tracked CU. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.
AT806101	<b>Automated TracStar® 28 Fusion Machine Package</b>	Automated tracked. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.
AT806103	<b>Automated TracStar® 28 Fusion Machine Package</b>	Automated tracked. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand and lifting assembly.
AT805501	<b>Pit Bull® 28 Fusion Machine Package</b>	In-ditch. High cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 1.75 KW minimum power requirement. C plug type. Package includes fusion carriage, heater, facer, and insulated heater stand. HPU which includes extension hoses and lifting assembly sold separately.
AT805503	<b>Pit Bull® 28 Fusion Machine Package</b>	In-ditch. Low cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 1.75 KW minimum power requirement. C plug type. Package includes fusion carriage, heater, facer, and insulated heater stand. HPU which includes extension hoses and lifting assembly sold separately.
AT805502	<b>Pit Bull® 28 CU Fusion Machine Package</b>	In-ditch CU. High cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 1.75 KW minimum power requirement. C plug type. Package includes fusion carriage, heater, facer, and insulated heater stand. HPU which includes extension hoses and lifting assembly sold separately.
AT805504	<b>Pit Bull® 28 CU Fusion Machine Package</b>	In-ditch CU. Low cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 1.75 KW minimum power requirement. C plug type. Package includes fusion carriage, heater, facer, and insulated heater stand. HPU which includes extension hoses and lifting assembly sold separately.
T1810901	<b>Pit Bull® 28 HPU</b>	Hydraulic Power Unit. 240V, 60Hz, 1Ph input voltage requirement. HPU 4.9KVA /4.8KW, Pit Bull® + HPU 6.6KVA /6.6KW minimum power requirement. G plug type.
T1810902	<b>Pit Bull® 28 HPU</b>	Hydraulic Power Unit. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. HPU 5.2KVA /4.5KW, Pit Bull® + HPU 6.6KVA /6.2KW minimum power requirement. D plug type.

**Butt Fusion Tools**

**28 Fusion Machine & Accessories**

POLYETHYLENE TOOLS & MACHINES

Catalog No.	Product	Description
A881701	<b>DynaMc® 28 HP Fusion Machine Package</b>	2 Jaw Hand Pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph input voltage requirement. 100V-120V, 50/60Hz, 1Ph heater voltage requirement. 3KVA, 2.9KW minimum power requirement. A plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand.
A881401	<b>DynaMc® 28 HP Fusion Machine Package</b>	4 Jaw Hand Pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph input voltage requirement. 100V-120V, 50/60Hz, 1Ph heater voltage requirement. 3KVA, 2.9KW minimum power requirement. A plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand.
A900201	<b>DynaMc® 28 EP Fusion Machine Package</b>	2 Jaw Electric Pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirement. 100V-120V, 50/60Hz, 1Ph heater voltage requirement. 3KVA, 2.9KW minimum power requirement. A/A plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand. Electric Pump is sold separately.
A900101	<b>DynaMc® 28 EP Fusion Machine Package</b>	4 Jaw Electric Pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirement. 100V-120V, 50/60Hz, 1Ph heater voltage requirement. 3KVA, 2.9KW minimum power requirement. A/A plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand. Electric Pump is sold separately.
1272701	<b>DynaMc® 28 Electric Pump HPU</b>	Hydraulic Power Unit. 120V, 60Hz, 1Ph input voltage requirement. 1.56KVA, 1.25KW minimum power requirement. A plug type.
898101	<b>DynaMc® 28 Sidewall</b>	1 jaw/tailstock. Includes fusion carriage. Heater and electric pump is sold separately.
Included w/Package	<b>Master - 4 Jaw, 8" IPS/DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
801510	<b>Master - 4 Jaw, 6" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 8" IPS master.
809409	<b>4 Jaw, 5" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809408	<b>4 Jaw, 4" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809304	<b>4 Jaw, 3" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809204	<b>4 Jaw, 2" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
801525	<b>4 Jaw, 6" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 8" IPS master.
809315	<b>4 Jaw, 4" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809313	<b>4 Jaw, 3" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
Included w/Package	<b>Master - 2 Jaw, 8" IPS/DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
801547	<b>Master - 2 Jaw, 6" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 8" IPS master.
809434	<b>2 Jaw, 4" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.



## Butt Fusion Tools

### 28 Fusion Machine & Accessories

Catalog No.	Product	Description
809323	<b>2 Jaw, 3" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
809215	<b>2 Jaw, 2" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
801550	<b>2 Jaw, 6" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 8" IPS master.
809327	<b>2 Jaw, 4" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
809326	<b>2 Jaw, 3" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
A848706	<b>Heater Plate Kit</b>	Set of 2 plates with anti-stick coating required for butt fusion. Kit includes attaching screws and wrench.
203006	<b>Heat Shield</b>	For fusing two materials with different melt rates. Shields the faster melt rate materials from over melting.
T1208602	<b>Facer Blade Set</b>	Standard blades. Includes 4 blades, screws and wrench.
T1208602C	<b>Facer Blade Set</b>	Extended life blades. Includes 4 blades, screws and wrench.
812501	<b>Pipe Support Stand</b>	Adjustable pipe stand to properly support, position and align pipe to be fused.
A1867501	<b>Low Profile Rollers</b>	Aids by reducing the drag on 4" to 18" pipe and protecting the pipe from damage. Case includes 40 complete roller assemblies.
864201	<b>PolyPorter®</b>	Designed to aid in lifting of pipe into the fusion machine, as well as perform as a pipe stand.
1875501	<b>PolyHorse®</b>	Standard.
1875502	<b>PolyHorse®</b>	With Power Assist.
1219105	<b>Hydraulic Extension Hoses</b>	Set of four 25' hydraulic extension hoses required for in-ditch fusion. Extension hoses are included with Pit Bull® HPU.
T5009101	<b>Reusable Shipping Container</b>	Container for TracStar® 28.
817902	<b>Reusable Shipping Container</b>	Container for Rolling 28.
SW16001	<b>Insert &amp; Adapter Box</b>	For organizing your inserts and adapters for safe keeping.
826803	<b>Saddle Fusion Heater</b>	200-240V, 50/60Hz, 1Ph 2270 Watt. Adjustable thermostat to control temperature. Does not include heater blanket.
826903	<b>Sidewall Heater Blanket</b>	Protects and helps maintain a constant heater temperature.
N/A	<b>Additional Sidewall Fusion Components</b>	Call for additional inserts and heater adapters needed for specific sidewall fusion fittings.

**Butt Fusion Tools**



**412 Fusion Machine & Accessories**

McElroy's 412 line of fusion machines come in multiple model configurations to meet the demands of your pipeline project. They will butt fuse pipe sizes from 4" IPS to 12" DIPS (110mm to 340mm). The Rolling 412 changed the industry when introduced as the first fully self-contained fusion machine in the world. The TracStar® 412 added all-terrain mobility to the unit setting a new industry standard.

The TracStar 412 offers a self-contained, self-propelled track-mounted vehicle that can handle grades up to 30%. It is the number one choice on the job site for its ease of maneuverability and productivity gains. The Pit Bull® 412 is used for special applications where the wheeled or tracked vehicle is not needed.

All units incorporate the interchangeable 412 4-jaw carriage, which can be easily removed for in-ditch fusion. For tight installations, the outer fixed jaw and skid can be removed from the carriage converting it to a 3-jaw carriage for an even more compact fusion unit. These machines can fabricate segmented ells with optional mitered inserts and are DataLogger® compatible.

New to the TracStar 412 is an option that allows automated control and monitoring over the heat, soak, fuse and cool cycles. The Automated TracStar 412 system guides the operator through a step-by-step procedure for fusing pipe. It has a built-in data logging feature that keeps a record of each fusion joint, which allows you to verify joint integrity. Manufactured by McElroy.

**412 Fusion Machine & Accessories**

Catalog No.	Product	Description
A1248101	<b>Rolling 412 Fusion Machine Package</b>	Rolling. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
A1248102	<b>Rolling 412 Fusion Machine Package</b>	Rolling. Medium cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
A1248103	<b>Rolling 412 Fusion Machine Package</b>	Rolling. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
A1248104	<b>Rolling 412 Electric Fusion Machine Package</b>	Rolling Electric. High cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 6.2KVA/5.8KW minimum power requirement. F plug type. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
A1248105	<b>Rolling 412 Electric Fusion Machine Package</b>	Rolling Electric. Medium cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 6.2KVA/5.8KW minimum power requirement. F plug type. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.



## Butt Fusion Tools

### 412 Fusion Machine & Accessories

Catalog No.	Product	Description
A1248106	<b>Rolling 412 Electric Fusion Machine Package</b>	Rolling Electric. Low cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 6.2KVA/5.8KW minimum power requirement. F plug type. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1212902	<b>TracStar® 412 Fusion Machine Package</b>	Tracked. High cylinder force, on-board generator, self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1212901	<b>TracStar® 412 Fusion Machine Package</b>	Tracked. Medium cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1212903	<b>TracStar® 412 Fusion Machine Package</b>	Tracked. Low cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1213202	<b>Automated TracStar® 412 Fusion Machine Package</b>	Automated tracked. High cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1213201	<b>Automated TracStar® 412 Fusion Machine Package</b>	Automated tracked. Medium cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1213203	<b>Automated TracStar® 412 Fusion Machine Package</b>	Automated tracked. Low cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, insulated heater stand, 12" IPS butt fusion inserts and lifting assembly.
AT1213002	<b>Pit Bull® 412 Fusion Machine Package</b>	In-ditch. High cylinder force. 240V, 50/60Hz, 1Ph input voltage requirement. 3KW minimum power requirement. C plug type. Package includes fusion carriage, facer, heater, insulated heater stand and 12" IPS butt fusion inserts. HPU which includes extension hoses and lifting assembly sold separately.
AT1213001	<b>Pit Bull® 412 Fusion Machine Package</b>	In-ditch. Medium cylinder force. 240V, 50/60Hz, 1Ph input voltage requirement. 3KW minimum power requirement. C plug type. Package includes fusion carriage, facer, heater, insulated heater stand and 12" IPS butt fusion inserts. HPU which includes extension hoses and lifting assembly sold separately.
AT1213003	<b>Pit Bull® 412 Fusion Machine Package</b>	In-ditch. Low cylinder force. 240V, 50/60Hz, 1Ph input voltage requirements. 3KW minimum power requirements. C plug type. Package includes fusion carriage, facer, heater, insulated heater stand and 12" IPS butt fusion inserts. HPU which includes extension hoses and lifting assembly sold separately.
T1810901	<b>Pit Bull® 412 HPU</b>	Hydraulic Power Unit. 240V, 60Hz, 1Ph input voltage requirement. HPU 4.9KVA /4.8KW, Pit Bull® + HPU 7.9KVA /7.8KW minimum power requirement. G plug type.

**Butt Fusion Tools**

**412 Fusion Machine & Accessories**

POLYETHYLENE TOOLS & MACHINES

Catalog No.	Product	Description
T1810902	<b>Pit Bull® 412 HPU</b>	Hydraulic Power Unit. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. HPU 5.2KVA /4.5KW, Pit Bull® + HPU 8.2KVA /7.5KW minimum power requirement. D plug type.
A1263601	<b>DynaMc® 412 HP Fusion Machine Package</b>	2 jaw. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirement. 220V-240V, 50/60Hz, 1Ph heater voltage requirement. 4.2KVA, 4.2KW minimum power requirement. A facer plug type. C heater plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand.
A1262901	<b>DynaMc® 412 HP Fusion Machine Package</b>	4 jaw hand pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirement. 220V-240V, 50/60Hz, 1Ph heater voltage requirement. 4.2KVA, 4.2KW minimum power requirement. A facer plug type. C heater plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand.
A1274901	<b>DynaMc® 412 EP Fusion Machine Package</b>	2 jaw electric pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirements. 220V-240V, 50/60Hz, 1Ph heater voltage requirements. 4.2KVA, 4.2KW minimum power requirements. A facer plug type. C heater plug type.
A1274801	<b>DynaMc® 412 EP Fusion Machine Package</b>	4 jaw electric pump. Low cylinder force. 100V-120V, 50/60Hz, 1Ph facer voltage requirements. 220V-240V, 50/60Hz, 1Ph heater voltage requirements. 4.2KVA, 4.2KW minimum power requirements. A facer plug type. C heater plug type. Package includes fusion carriage, facer, facer stand, heater and insulated heater stand. Electric Pump is sold separately.
1272701	<b>DynaMc® 412 Electric Pump HPU</b>	Hydraulic Power Unit. 120V, 60Hz, 1Ph input voltage requirement. 1.56KVA, 1.25KW minimum power requirement. Plug type A.
Other Pumps	<b>DynaMc® 412 Electric Pump HPU</b>	Other hydraulic power unit options available.
A1242108	<b>Heater Plate Kit</b>	Set of 2 plates with anti-stick coating required for butt fusion. Kit includes attaching screws and wrench.
T1208603	<b>4.63" Facer Blade Set</b>	Standard blades. Economical blade must be positioned for different pipe sizes. Includes 6 blades, screws and wrench. Use for machine 10/2003 or newer.
T1208603C	<b>4.63" Facer Blade Set</b>	Extended-life blades. Economical blade must be positioned for different pipe sizes. Includes 6 blades, screws and wrench. Use for machine 10/2003 or newer.
T1208610	<b>6.13" Facer Blade Set</b>	Standard blades. Spans the entire facer range without repositioning. Includes 6 blades, screws and wrench. Use for machine 10/2003 or newer.
T1208610C	<b>6.13" Facer Blade Set</b>	Extended-life blades. Spans the entire facer range without repositioning. Includes 6 blades, screws and wrench. Use for machine 10/2003 or newer.
1223201	<b>Pipe Support Stand</b>	Adjustable pipe stand to properly support, position and align pipe to be fused.
A1867501	<b>Low Profile Rollers</b>	Aids by reducing the drag on 4" to 18" pipe and protecting the pipe from damage. Case includes 40 complete roller assemblies.



## Butt Fusion Tools

### 412 Fusion Machine & Accessories

Catalog No.	Product	Description
1219105	<b>Hydraulic Extension Hoses</b>	25'. Set of four 25' hydraulic extension hoses required for in-ditch fusion. Extension hoses are included with Pit Bull® HPU.
1219002	<b>Heater Extension Cord</b>	25', 240V, 1Ph, 15A. For use with non-automated machines when fusing in-ditch. Plug type C.
1816502	<b>Reusable Shipping Container</b>	For Rolling 412.
T5009102	<b>Reusable Shipping Container</b>	For TracStar® 412.
Included w/Package	<b>Master - 4 Jaw, 12" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207221	<b>4 Jaw, 10" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207204	<b>4 Jaw, 10" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207107	<b>4 Jaw, 8" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207104	<b>4 Jaw, 8" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207020	<b>4 Jaw, 6" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts.
1207007	<b>4 Jaw, 6" IPS Butt Fusion Master Insert Set</b>	4 jaw set = 8 inserts.
809409	<b>4 Jaw, 5" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809315	<b>4 Jaw, 4" DIPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
809408	<b>4 Jaw, 4" IPS Butt Fusion Insert Set</b>	4 jaw set = 8 inserts. Fits in 6" IPS master.
Included w/Package	<b>Master - 2 Jaw, 12" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207231	<b>2 Jaw, 10" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207229	<b>2 Jaw, 10" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207109	<b>2 Jaw, 8" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207108	<b>2 Jaw, 8" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207048	<b>2 Jaw, 6" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
1207043	<b>Master - 2 Jaw, 6" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts.
809435	<b>2 Jaw, 5" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
809327	<b>2 Jaw, 4" DIPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.
809434	<b>2 Jaw, 4" IPS Butt Fusion Insert Set</b>	2 jaw set = 4 inserts. Fits in 6" IPS master.

**Butt Fusion Tools**



**618 Fusion Machine & Accessories**

McElroy's 618 line of fusion machines come in multiple model configurations to meet the demands of your pipeline project. They will butt fuse pipe sizes from 6" IPS to 18" OD (180mm to 450mm). One of our best sellers, the Rolling 618 bridges the gap between small and large diameter pipe fusion.

The TracStar® 618 offers a self-contained, self-propelled, track-mounted vehicle that can handle grades up to 30%. It is the number one choice on the job site for its ease of maneuverability and productivity gains. The Pit Bull® 618 is used for special applications where the wheeled or tracked vehicle is not needed.

All units incorporate the interchangeable 618 4-jaw carriage, which can be easily removed for in-ditch fusion. For tight installations, the outer fixed jaw and skid can be removed from the carriage converting it to a 3-jaw carriage for an even more compact fusion unit. These machines can fabricate segmented ells with optional mitered inserts and are DataLogger® compatible.

New to the TracStar 618 is an option that allows automated control and monitoring over the heat, soak, fuse and cool cycles. The Automated TracStar 618 system guides the operator through a step-by-step procedure for fusing pipe. It has a built-in data logging feature that keeps a record of each fusion joint, which allows you to verify joint integrity. Manufactured by McElroy.

**618 Fusion Machine & Accessories**

Catalog No.	Product	Description
A1869101	<b>Rolling 618 Fusion Machine Package</b>	Rolling. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
A1869102	<b>Rolling 618 Fusion Machine Package</b>	Rolling. Medium cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
A1869103	<b>Rolling 618 Fusion Machine Package</b>	Rolling. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
A1869104	<b>Rolling 618 Electric Fusion Machine Package</b>	High cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 8.0KVA/7.4KW minimum power requirement. F plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
A1869105	<b>Rolling 618 Electric Fusion Machine Package</b>	Medium cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 8.0KVA/7.4KW minimum power requirement. F plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.

**618 Fusion Machine & Accessories**

Catalog No.	Product	Description
A1869106	<b>Rolling 618 Electric Fusion Machine Package</b>	Low cylinder force. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. 8.0KVA/7.4KW minimum power requirement. F plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807402	<b>TracStar® 618 Fusion Machine Package</b>	Tracked. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807401	<b>TracStar® 618 Fusion Machine Package</b>	Tracked. Medium cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807403	<b>TracStar® 618 Fusion Machine Package</b>	Tracked. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1813202	<b>Automated TracStar® 618 Fusion Machine Package</b>	Automated tracked. High cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1813201	<b>Automated TracStar® 618 Fusion Machine Package</b>	Automated tracked. Medium cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1813203	<b>Automated TracStar® 618 Fusion Machine Package</b>	Automated tracked. Low cylinder force. On-board generator. Self-contained gasoline. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807502	<b>Pit Bull® 618 Fusion Machine Package</b>	In-ditch. High cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 3KW minimum power requirement. C plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807501	<b>Pit Bull® 618 Fusion Machine Package</b>	In-ditch. Medium cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 3KW minimum power requirement. C plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
AT1807503	<b>Pit Bull® 618 Fusion Machine Package</b>	In-ditch. Low cylinder force. 220V - 240V, 50/60Hz, 1Ph input voltage requirement. 3KW minimum power requirement. C plug type. Package includes fusion machine, facer, 12" IPS – 18" OD heater, insulated heater stand and lifting assembly.
T1810901	<b>Pit Bull® 618 HPU</b>	Hydraulic Power Unit. 240V, 60Hz, 1Ph input voltage requirement. HPU 4.9KVA /4.8KW, Pit Bull® + HPU 6.6KVA /6.6KW minimum power requirement. G plug type.
T1810902	<b>Pit Bull® 618 HPU</b>	Hydraulic Power Unit. 220V - 240V, 50/60Hz, 3Ph input voltage requirement. HPU 5.2KVA /4.5KW, Pit Bull® + HPU 8.2KVA /7.5KW minimum power requirement. D plug type.

**Butt Fusion Tools**

**618 Fusion Machine & Accessories**

POLYETHYLENE TOOLS & MACHINES

Catalog No.	Product	Description
1852019	<b>12" IPS -18" OD Heater</b>	220-240V, 50/60Hz, 1Ph. Microprocessor-controlled with dial thermometer to monitor temperature. Includes heater plates insulated heater stand and stripper bars.
1855502	<b>6" IPS -12" DIPS Heater</b>	220-240V, 50/60Hz, 1Ph. Microprocessor-controlled with dial thermometer to monitor temperature. Includes heater plates insulated heater stand and stripper bars.
A1852013	<b>Heater Plate Kit</b>	Set of two 12" IPS - 18" OD plates. Plates have an anti-stick coating & are required for butt fusion. Includes attaching screws and wrench.
A1242108	<b>Heater Plate Kit</b>	Set of two 6" IPS - 12" DIPS plates. Plates have an anti-stick coating & are required for butt fusion. Includes attaching screws and wrench.
T1208603	<b>4.63" Facer Blade Set</b>	Standard blades. Economical blade must be positioned for different pipe sizes. Includes 6 blades, screws and wrench. Use for machine 1/2005 or newer.
T1208603C	<b>4.63" Facer Blade Set</b>	Extended-life blades. Economical blade must be positioned for different pipe sizes. Includes 6 blades, screws and wrench. Use for machine 1/2005 or newer.
T1812602	<b>9.12" Facer Blade Set</b>	Standard blades. Spans the entire facer range without repositioning. Includes 6 blades, screws and wrench. Use for machine 1/2005 or newer.
T1812602C	<b>9.12" Facer Blade Set</b>	Extended-life blades. Spans the entire facer range without repositioning. Includes 6 blades, screws and wrench. Use for machine 1/2005 or newer.
1223201	<b>Pipe Support Stand</b>	Adjustable pipe stand to properly support, position and align pipe to be fused.
A1867501	<b>Low Profile Rollers</b>	Aids by reducing the drag on 4" to 18" pipe and protecting the pipe from damage. Case includes 40 complete roller assemblies.
1219105	<b>Hydraulic Extension Hoses</b>	Set of four 25' hydraulic extension hoses required for in-ditch fusion. Extension hoses are included with Pit Bull® HPU.
1219002	<b>Heater Extension Cord</b>	For use with non-automated machines when fusing in-ditch. Plug type C.
1816502	<b>Reusable Shipping Container</b>	For Rolling 618.
T5009101	<b>Reusable Shipping Container</b>	For TracStar® 618.
2412117	<b>16" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts.
2412110	<b>16" IPS Butt Fusion Insert Set</b>	Includes 8 inserts.
2412215	<b>14" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts.
2412206	<b>14" IPS Butt Fusion Insert Set</b>	Includes 8 inserts.
2411826	<b>12" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts.
2411810	<b>Master - 12" IPS Butt Fusion Insert Set</b>	Includes 8 inserts.
1207221	<b>10" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.
1207204	<b>10" IPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.



## Butt Fusion Tools

### 618 Fusion Machine & Accessories

Catalog No.	Product	Description
1207107	<b>8" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.
1207104	<b>8" IPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.
1207020	<b>6" DIPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.
1207007	<b>Master - 6" IPS Butt Fusion Insert Set</b>	Includes 8 inserts. Fits in 12" IPS master.



### Large Fusion Machines & Accessories

McElroy manufactures a variety of machines to fuse PE pipe up to 65" OD (1600mm). Each machine offers the McElroy superior design and durability. Additional large diameter pipe handing tools and accessories are available to make the fusion process easier and more productive. Contact a GROEBNER representative for purchasing, rental, or specialty tool options.

### Large Fusion Machines & Accessories

Catalog No.	Product	Description
AT5000110	<b>TracStar® 500 Fusion Machine Package</b>	Fuses 6" IPS to 20" OD Pipe (180mm to 500mm). Standard 20" carriage. Medium cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, 6" IPS to 20" OD heater, and lifting assembly.
A2435501	<b>MegaMc® 824 Fusion Machine Package</b>	Fuses 8" IPS to 24" OD Pipe (225mm to 630mm). Rolling. High cylinder force. 220V-240V, 50/60Hz, 3Ph input voltage requirement. 29.8KVA/28.1KW minimum power requirement. I plug type. Package includes fusion machine, facer, heater, 24" OD butt fusion inserts, and lifting assembly.
AT2400101	<b>TracStar® 630 Fusion Machine Package</b>	Fuses 8" IPS to 24" OD Pipe (225mm to 630mm). Tracked. High cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, 24" OD butt fusion inserts, remote control with batteries, and 12V charger.
A3639501	<b>MegaMc® 1236 Fusion Machine Package</b>	Fuses 12" IPS to 36" OD Pipe (340mm to 900mm). Rolling. High cylinder force. 220V-240V, 50/60Hz, 3Ph input voltage requirement. 39.4KVA/37.7KW minimum power requirement. I plug type. Package includes fusion machine, facer, heater, and lifting assembly.
AT9028001	<b>TracStar® 900 Fusion Machine Package</b>	Fuses 12" IPS to 36" OD Pipe (340mm to 900mm). Tracked. High cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, remote control with batteries, and 12V charger, and lifting assembly.
A4800806	<b>MegaMc® 1648 Fusion Machine Package</b>	Fuses 16" OD to 48" OD (450mm to 1200mm). Rolling. High cylinder force. 220V-240V, 50/60Hz, 3Ph input voltage requirement. 45KVA/43.8KW minimum power requirement. J plug type. Package includes fusion machine, facer, heater, and lifting assembly.

**Butt Fusion Tools****Large Fusion Machines & Accessories**

Catalog No.	Product	Description
A6300102	<b>MegaMc® 2065 Fusion Machine Package</b>	Fuses 20" OD to 65" OD Pipe (500mm to 1600mm). Rolling. High cylinder force. 220V-240V, 50/60Hz, 3Ph input voltage requirement. 50KVA/48.8KW minimum power requirement. J plug type. Package includes fusion machine, facer, 48" and 65" heaters, and lifting assembly.
A6500103	<b>MegaMc® 1600 Fusion Machine Package</b>	Fuses 20" OD to 65" OD Pipe (500mm to 1600mm). Fuses 12" IPS to 36" OD Pipe (340mm - 900mm). Tracked. High cylinder force. On-board generator. Self-contained diesel. Package includes fusion machine, facer, heater, remote control with batteries, and 12V charger, and lifting assembly.

**Electrofusion Tools****Electrofusion Processors & Accessories**

Electrofusion Processors are the control boxes for the electrofusion process. Available in both AC powered (MSA 340) or battery powered (B.O.S.S. III). Accessories include replacement leads and tips and interface cables for downloading data from the processors. Manufactured by Georg Fischer Central Plastics.

The accessories listed below are for both current and older version electrofusion processors.

**Electrofusion Processors & Accessories**

Catalog No.	Product	Description
10010411	<b>MSA 340 EF Processor With Wand</b>	Processor to provide precision control over the electrofusion process. Barcode wand reader, 115 volt, manual, and CP dedicated operation.
10012999	<b>MSA 340 EF Processor With Scanner</b>	Processor to provide precision control over the electrofusion process. Barcode scanner, 115 volt, manual, and CP dedicated operation.
10012034	<b>B.O.S.S. III EF Processor</b>	Battery powered electrofusion processor with 25' standard leads.
10008753	<b>B.O.S.S. III Battery Charger</b>	3 bay battery charger.
10006039	<b>Replacement EF Leads</b>	25' CP dedicated leads.
10012052	<b>Replacement EF Leads</b>	25' leads with barcode wand reader and cannon connector, for Emie Processor. Barcode and manual input only.
10012994	<b>Barcode Scanner</b>	Includes scanner, cable assembly, and pouch.
10010696	<b>Barcode Wand Reader</b>	Includes wand with cable.
590-0005	<b>Replacement Tips</b>	3.0mm, 4.0mm, 4.7mm. Central Universal Processor tip set.
590-0028	<b>Replacement Tips</b>	3.0mm tips, Central 3 pin fittings. 1 pair.
590-0007	<b>Replacement Tips</b>	4.0mm tips, Innogaz & Friatec fittings. 1 pair.
590-0096	<b>Replacement Tips</b>	4.7mm tips, Uponor & Central single pin fittings. 1 pair.
10002790	<b>Replacement Tips</b>	4.7mm tip w/pogo pin & 4.7mm solid tip pin. Central Easy Fuse Processor tip set.
10001004	<b>Pin Adapter Set</b>	4.7/3.0mm (1 pair), easy fuse processor.
10001005	<b>Pin Adapter Set</b>	4.7/4.0mm (1 pair), easy fuse processor.
590-0093	<b>Connector Tip Set</b>	Friatec 4.0mm to Central 4.7mm.



## Electrofusion Tools

### Electrofusion Processors & Accessories

Catalog No.	Product	Description
N/A	<b>Connector Tip Set</b>	Central 3-pin to Central 4.7mm single pin.
900-0643	<b>Power Adapter (Pig Tail)</b>	110 VAC adapter from marine type plug to standard wall outlet. Not recommended for use in the field.
575-0375	<b>Download Software</b>	CP download software and cables.
575-1579	<b>Download Software</b>	Sauron download software (GETRS).
590-0072	<b>Download Software</b>	WINCPF software 3.5" disks with documentation.
575-1528	<b>Download Cable</b>	Printer serial for Sauron Processor.
575-0363	<b>Download Cable</b>	Interface cable for model C&U downloading.
590-0091	<b>Download Cable</b>	Download cable for B.O.S.S. Easy Fuse Processor.
590-0102	<b>Charging Cord</b>	Charging cord for B.O.S.S. Processor.
10002412	<b>Fuse Kit</b>	For 110V Easy Fuse Processor.
10003892	<b>Fuse Kit</b>	For 220V Easy Fuse Processor.



### Pencil & Molded Scrapers

The pencil and molded scrapers are used in the exterior pipe preparation for electrofusion. The pencil scrapers are for tubing sizes 1/2" CTS – 2" IPS. In addition, the pencils scrapers have replaceable blades and calibration mandrels to set the blades at the correct depth. The molded scrapers are for larger pipe sizes from 1-1/4"IPS up to 6" IPS, and are an economical tool that provides quality scraping.

### Pencil & Molded Scrapers

Catalog No.	Product	Description	Manufacturer
IQP050	<b>1/2" CTS Pencil Scraper</b>		Cumberland Products
IQP065	<b>1/2" IPS Pencil Scraper</b>		Cumberland Products
IQP070	<b>3/4" CTS Pencil Scraper</b>		Cumberland Products
IQP075	<b>3/4" IPS Pencil Scraper</b>		Cumberland Products
IQP100	<b>1" CTS Pencil Scraper</b>		Cumberland Products
IQP125	<b>1" IPS Pencil Scraper</b>		Cumberland Products
IQP420	<b>1-1/4" IPS Pencil Scraper</b>		Cumberland Products
IQP550	<b>2" IPS Pencil Scraper</b>		Cumberland Products
IQPC075050	<b>3/4" IPS x 1/2" CTS Pencil Scraper Combo</b>		Cumberland Products
IQPC100050	<b>1" CTS x 1/2" CTS Pencil Scraper Combo</b>		Cumberland Products
IQPC100075	<b>1" CTS x 3/4" IPS Pencil Scraper Combo</b>		Cumberland Products
IQPC125050	<b>1" IPS x 1/2" CTS Pencil Scraper Combo</b>		Cumberland Products

**Electrofusion Tools**

**Pencil & Molded Scrapers**

Catalog No.	Product	Description	Manufacturer
IQPC125075	<b>1" IPS x 3/4" IPS Pencil Scraper Combo</b>		Cumberland Products
575-2159	<b>1/2" CTS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2124	<b>1/2" IPS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2249	<b>3/4" CTS Pencil Scraper</b>	Medium density PE2406 only.	Georg Fischer Central Plastics
575-2241	<b>3/4" CTS Pencil Scraper</b>	High density PE4710/PE100 only.	Georg Fischer Central Plastics
575-2125	<b>3/4" IPS Pencil Scraper</b>		Georg Fischer Central Plastics
10007609	<b>1" CTS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2127	<b>1" IPS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2128	<b>1-1/4" CTS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2143	<b>1-1/4" IPS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2139	<b>1-1/2" IPS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2142	<b>2" CTS Pencil Scraper</b>		Georg Fischer Central Plastics
575-2142	<b>2" IPS Pencil Scraper</b>	Use with molded fittings only.	Georg Fischer Central Plastics
575-2130	<b>Replacement Blades</b>	For pencil scrapers.	Georg Fischer Central Plastics
575-2200	<b>1/2" CTS Mandrel</b>		Georg Fischer Central Plastics
575-2201	<b>1/2" IPS Mandrel</b>		Georg Fischer Central Plastics
N/A	<b>3/4" CTS Mandrel</b>	Medium density PE2406 only.	Georg Fischer Central Plastics
575-2242	<b>3/4" CTS Mandrel</b>	High density PE4710/PE100 only.	Georg Fischer Central Plastics
575-2202	<b>3/4" IPS Mandrel</b>		Georg Fischer Central Plastics
575-2203	<b>1" CTS Mandrel</b>		Georg Fischer Central Plastics
575-2204	<b>1" IPS Mandrel</b>		Georg Fischer Central Plastics
575-2205	<b>1-1/4" CTS Mandrel</b>		Georg Fischer Central Plastics
575-2225	<b>1-1/4" IPS Mandrel</b>		Georg Fischer Central Plastics
575-2226	<b>1-1/2" IPS Mandrel</b>		Georg Fischer Central Plastics
575-2254	<b>2" CTS Mandrel</b>		Georg Fischer Central Plastics
575-2227	<b>2" IPS Mandrel</b>		Georg Fischer Central Plastics
575-2120	<b>1-1/4" IPS Molded Scraper</b>	Plastic.	Georg Fischer Central Plastics
575-2118	<b>2" IPS Molded Scraper</b>	Plastic.	Georg Fischer Central Plastics



## Electrofusion Tools

### Pencil & Molded Scrapers

Catalog No.	Product	Description	Manufacturer
575-2122	<b>3" IPS Molded Scraper</b>	Plastic.	Georg Fischer Central Plastics
575-2119	<b>4" IPS Molded Scraper</b>	Plastic.	Georg Fischer Central Plastics
575-0127	<b>6" IPS Molded Scraper</b>	Plastic.	Georg Fischer Central Plastics



### Mainline Multi-Size Scrapers

The Mainline Scrapers are used in the exterior pipe preparation for electrofusion. The Mainline Scrapers are made of machined aircraft aluminum and used on pipes 1-1/4" IPS – 12" DIPS. Each mainline tool will do a range of pipe sizes that makes tool inventories smaller and less expensive. The Mainline Scrapers adjust to the specific pipe size and then locked in place. They are designed for both coupling and sidewall fusions. Each tool comes with a 4-sided carbide tipped cutter that will last a long time and is inexpensive to replace. Manufactured by Cumberland Products.

### Mainline Scrapers

Catalog No.	Product	Description
IQ200	<b>1-1/4" thru 2" Mainline Scraper</b>	
IQ2040	<b>2" thru 4" Mainline Scraper</b>	
IQ800	<b>6" thru 8" Mainline Scraper</b>	
IQ0612	<b>6" thru 12" Mainline Scraper</b>	
IQ1012	<b>10" thru 12" Mainline Scraper</b>	
CIQ200	<b>Case for IQ200</b>	
CIQ2040	<b>Case for IQ2040</b>	
CIQ800	<b>Case for IQ800</b>	
CIQ0612	<b>Case for IQ0612</b>	
CIQ1012	<b>Case for IQ1012</b>	
N/A	<b>Replacement Parts</b>	Available upon request.



### Machined Rotary Scrapers

The machined rotary scrapers are used in the exterior pipe preparation for electrofusion. The machined rotary scrapers are made of aluminum and available in 1-1/4" IPS – 8" IPS. Each scraper is designed to be low profile and sized for a single pipe size. They clamp around the pipe and are designed for both coupling and sidewall fusions. Accessories include spare blades and wheel kits to extend the life of the tool. Manufactured by OEM.

### Machined Rotary Scrapers

Catalog No.	Product	Description
10002723	<b>1-1/4" OEM Rotary Scraper</b>	

**Electrofusion Tools****Machined Rotary Scrapers**

Catalog No.	Product	Description
10002724	<b>2" OEM Rotary Scraper</b>	
10002725	<b>3" OEM Rotary Scraper</b>	
10002726	<b>4" OEM Rotary Scraper</b>	
10002727	<b>6" OEM Rotary Scraper</b>	
10002728	<b>8" OEM Rotary Scraper</b>	
10002729	<b>1-1/4" to 2" Blade Kit</b>	
10002730	<b>3" to 4" Blade Kit</b>	
10002731	<b>6" to 8" Blade Kit</b>	
10002736	<b>1-1/4" Roller Wheel</b>	Replacement Part
10002737	<b>2" Roller Wheel</b>	Replacement Part
10002738	<b>3 to 4" Roller Wheel</b>	Replacement Part
10002739	<b>6" Roller Wheel</b>	Replacement Part
10002740	<b>8" Roller Wheel</b>	Replacement Part

**Cast Rotary Scrapers**

The Cast Rotary Scrapers are used in the exterior pipe preparation for electrofusion. The scrapers are made of cast aluminum and available in 1-1/4" IPS to 8" IPS. Each scraper is designed to be low profile and sized for a single pipe size. They clamp around the pipe and are designed for both coupling and sidewall fusions. Each replaceable blade has two cutting surfaces to double the life. Accessories include spare blades and wheel kits to extend the life of the tool. Sold by Georg Fischer Central Plastics.

**Cast Rotary Scrapers**

Catalog No.	Product
10001617	<b>1-1/4" IPS Cast Rotary Scraper</b>
10001619	<b>2" IPS Cast Rotary Scraper</b>
10001988	<b>1-1/4" to 2" Wheel Kit Assembly</b>
575-2209	<b>1-1/4" to 2" Latch Assembly Kit</b>
10001994	<b>1-1/4" to 2" Spring</b>
10001995	<b>1-1/4" to 2" Knob Kit</b>
10001623	<b>3" IPS Cast Rotary Scraper</b>
10001996	<b>3" Knob Kit</b>
10001991	<b>1-1/4" to 3" Blade Kit</b>
10001989	<b>3" to 4" Wheel Kit Assembly</b>
10001997	<b>3" to 4" Latch Assembly Kit</b>
10001624	<b>4" IPS Cast Rotary Scraper</b>
10001992	<b>4" Blade Kit</b>
10002266	<b>4" Knob Kit</b>
10001625	<b>6" IPS Cast Rotary Scraper</b>
10001990	<b>6" Wheel Kit Assembly</b>
10001993	<b>6" to 8" Blade Kit</b>
575-2210	<b>6" to 8" Latch Assembly Kit</b>
10002265	<b>6" to 8" Knob Kit</b>

**Cast Rotary Scrapers**

Catalog No.	Product
10001626	<b>8" IPS Cast Rotary Scraper</b>
10001972	<b>8" Wheel Kit Assembly</b>
10001973	<b>1-1/4" to 8" Bushing Kit</b>
575-2213	<b>3" - 8" Spring</b>
10002070	<b>1-1/4" to 2" Stiffener</b>

**Service Line Clamps**

Service line clamps hold the two pipes in place to ensure no external forces act on the pipe and couplings while the electrofusion process takes place. The service line clamps hold pipe sizes 1/2" CTS - 2" IPS. They come in a variety of configurations from multi-sized clamps, mini-clamps, reducing clamps, and vice grip style clamps. The multi-sized clamp is dual purposed and can be configured as a straight coupling clamp or reducing coupling clamp. The vice grip clamps are designed for fusing couplings on the outlet of tees.

**Service Line Clamps**

Catalog No.	Product	Description	Manufacturer
GAMC MULTISIZE	<b>Tubing Multi Clamp</b>	Holds 4 pipe sizes from 1/2" CTS to 1" IPS. Can be for straight couplings or reducing couplings. 16 tools in one. Vice grip style clamp.	Cumberland Products
IQC050	<b>1/2" CTS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC065	<b>1/2" IPS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC070	<b>3/4" CTS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC075	<b>3/4" IPS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC100	<b>1" CTS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC125	<b>1" IPS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC420	<b>1-1/4" IPS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC550	<b>2" IPS Tubing Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC075050	<b>3/4" IPS x 1/2" CTS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC125050	<b>1" IPS x 1/2" CTS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC125065	<b>1" IPS x 1/2" IPS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC100070	<b>1" CTS x 3/4" CTS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC125075	<b>1" IPS x 3/4" IPS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC125100	<b>1" IPS x 1" CTS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC420125	<b>1-1/4" IPS x 1" IPS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products

**Electrofusion Tools**

**Service Line Clamps**

Catalog No.	Product	Description	Manufacturer
IQC100050	<b>1" CTS x 1/2" CTS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC100075	<b>1" CTS x 3/4" IPS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
IQC550420	<b>2" IPS x 1-1/4" IPS Tubing Reducer Clamp</b>	Vice grip style clamp.	Cumberland Products
575-2006	<b>1/2" CTS Mini Clamp</b>		Georg Fischer Central Plastics
575-2005	<b>1/2" IPS Mini Clamp</b>		Georg Fischer Central Plastics
575-2244	<b>3/4" CTS Mini Clamp</b>		Georg Fischer Central Plastics
575-2004	<b>3/4" IPS Mini Clamp</b>		Georg Fischer Central Plastics
575-2003	<b>1" CTS Mini Clamp</b>		Georg Fischer Central Plastics
575-2002	<b>1" IPS Mini Clamp</b>		Georg Fischer Central Plastics
575-2090	<b>1-1/4" CTS Mini Clamp</b>		Georg Fischer Central Plastics
575-2011	<b>3/4" IPS - 1/2" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2010	<b>1" IPS - 1/2" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2009	<b>1" IPS - 1/2" IPS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2008	<b>1" IPS - 3/4" IPS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2007	<b>1" IPS - 1" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2040	<b>1" IPS - 1-1/4" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2043	<b>1-1/4" IPS - 1" IPS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
10000520	<b>1-1/4" CTS - 1" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
10000474	<b>1" CTS - 1/2" CTS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
10000476	<b>1" CTS - 3/4" IPS Reducing Mini Clamp</b>		Georg Fischer Central Plastics
575-2273	<b>1-1/4" CTS Vice Grip Clamp</b>	Vice grip style clamp.	Georg Fischer Central Plastics
575-2001	<b>1-1/4" IPS Vice Grip Clamp</b>	Vice grip style clamp.	Georg Fischer Central Plastics
575-2097	<b>1-1/2" IPS Vice Grip Clamp</b>	Vice grip style clamp.	Georg Fischer Central Plastics
575-2096	<b>2" CTS Vice Grip Clamp</b>	Vice grip style clamp.	Georg Fischer Central Plastics
575-2098	<b>2" IPS Vice Grip Clamp</b>	Vice grip style clamp.	Georg Fischer Central Plastics



### Mainline Clamps

Mainline clamps hold the two pipes in place to ensure no external forces act on the pipe and couplings while the electrofusion process takes place. The mainline clamps hold pipe sizes 1-1/4" CTS - 12" IPS. There are two styles of main line clamps – strap style and clamp style. The clamp kits can accommodate multiple pipe sizes and additional pipe sizes can be added individually as well. Accessories can be added to configure the clamps for tees and elbows.

### Mainline Clamps

Catalog No.	Product	Description	Manufacturer
IQMC0206	<b>2" to 6" Clamp</b>	Clamps 2" thru 6" IPS pipe sizes. Includes 2' dovetail bar with 2 clamps. Strap style.	Cumberland Products
IQMC0612	<b>6" to 12" Clamp</b>	Clamps 6" thru 12" IPS pipe sizes. Includes 2' dovetail bar with 2 clamps. Strap style.	Cumberland Products
575-0350	<b>2" to 4" Multi-Clamp Kit (MCK)</b>	Clamps sizes 2" IPS, 3" IPS & 4" IPS. Comes with 4" master clamps, 3" liners, 2" liners, clamp base and connections, metal case. Clamp style.	Georg Fischer Central Plastics
575-0263	<b>1-1/4" Liner Kit</b>	4" IPS x 1-1/4" IPS liner set. Used with MCK.	Georg Fischer Central Plastics
575-0297	<b>1-1/2" Liner Kit</b>	4" IPS x 1-1/2" IPS liner set. Used with MCK.	Georg Fischer Central Plastics
557LK1404021	<b>2" Liner Kit</b>	4" IPS x 2" IPS liner set. Included with MCK.	Georg Fischer Central Plastics
575-0371	<b>2-1/2" Liner Kit</b>	4" IPS x 2-1/2" IPS liner set. Used with MCK.	Georg Fischer Central Plastics
557LK1404030	<b>3" Liner Kit</b>	4" IPS x 3" IPS liner set. Included with MCK.	Georg Fischer Central Plastics
575-0366	<b>4" IPS Clamp Assembly</b>	4" IPS. 1 clamp only. Does not include base. Included with MCK.	Georg Fischer Central Plastics
575-0066	<b>6" IPS Clamp Kit</b>	Set of 2 clamps only. Does not include base.	Georg Fischer Central Plastics
575-2081	<b>4" DIPS Clamp Kit</b>	Set of 2 clamps only. Does not include base.	Georg Fischer Central Plastics
575-2082	<b>6" DIPS Clamp Kit</b>	Set of 2 clamps only. Does not include base.	Georg Fischer Central Plastics
575-0262	<b>Dovetail Connecting Bar Kit</b>	Does not include base. Used with MCK.	Georg Fischer Central Plastics
575-0309	<b>Dovetail Tee Connecting Bar Kit</b>	Does not include base. Used with MCK.	Georg Fischer Central Plastics
575-0347	<b>Dovetail Slide Block</b>		Georg Fischer Central Plastics
575-0384	<b>Dovetail Slide Base</b>	Multi-clamp base.	Georg Fischer Central Plastics
575-2098	<b>Dovetail Slide Base</b>	4 foot long base.	Georg Fischer Central Plastics

**Electrofusion Tools**



**Tap Tee Clamps, Test Caps, & Punch Tools**

All of the accessories needed to electrofuse a tap tee onto a main pipe. Under saddle clamps hold the tee or branch saddle in place for main sizes 1-1/4" – 6". Larger main sizes use the top load clamp. The test caps are used to pressure test the service for leaks before tapping the main. And the punch tools are used to tap out the main in a safe no blow environment. All necessary tools when installing electrofusion tap tees or branch saddles. Manufactured by Georg Fischer Central Plastics.

**Tap Tee Clamps, Test Caps, & Punch Tools**

Catalog No.	Product	Description
575-0014	<b>1-1/4" IPS Tee, Under Saddle Clamp</b>	
575-0019	<b>1-1/2" IPS Tee, Under Saddle Clamp</b>	
575-2093	<b>2" CTS Tee, Under Saddle Clamp</b>	
575-0862	<b>2" IPS Tee, Under Saddle Clamp</b>	
575-0863	<b>3" IPS Tee, Under Saddle Clamp</b>	
575-0864	<b>4" IPS Tee, Under Saddle Clamp</b>	
575-1656	<b>4" DIPS Tee, Under Saddle Clamp</b>	
575-0865	<b>6" IPS Tee, Under Saddle Clamp</b>	
575-1644	<b>6" DIPS Tee, Under Saddle Clamp</b>	
10006736	<b>Top Load Clamp</b>	Clamps tees and saddles on 8" IPS - 12" IPS and larger. All adapters included.
575-0666	<b>Top Load Clamp Adapter</b>	Tap tee service fitting top load adapter.
575-0067	<b>Top Load Clamp Adapter</b>	HVTT and 2" branch saddle top load adapter.
575-8320	<b>Top Load Clamp Adapter</b>	WBHVTT and corp saddle fitting top load adapter.
575-0015	<b>2" x 2" Branch Saddle, Under Saddle Clamp</b>	
575-0016	<b>3" x 2" Branch Saddle, Under Saddle Clamp</b>	
575-0017	<b>4" x 2" Branch Saddle, Under Saddle Clamp</b>	
575-0013	<b>6" x 2" Branch Saddle, Under Saddle Clamp</b>	
500-1063	<b>4" x 4" Branch Saddle, Under Saddle Clamp</b>	
500-1080	<b>6" x 4" Branch Saddle, Under Saddle Clamp</b>	
575-0925	<b>2" IPS Outlet T-Clamp</b>	
575-0926	<b>4" PSM / 4" IPS Outlet T-Clamp</b>	
10003201	<b>6" PSM / 6" IPS / 8" IPS Outlet T-Clamp</b>	
10003201	<b>Top Clamp</b>	Electrofusion WYE's Top Clamp
900-1287	<b>Ratchet Strap</b>	
575-0007	<b>Standard Punch Tool</b>	For Tapping Tees. T-handle x 1/2" hex.
575-0202	<b>High Volume Tap Tee Punch Tool</b>	T-handle x 1/2" hex. Old style.



## Electrofusion Tools

### Tap Tee Clamps, Test Caps, & Punch Tools

Catalog No.	Product	Description
575-8000	<b>Wide Body HVTT Punch Tool</b>	T-handle x 5/8" hex with blow by restrictor.
575-1907	<b>Wide Body HVTT Punch Tool</b>	Hex heavy duty with 18" handle.
575-8111	<b>Wide Body HVTT Punch Tool</b>	3/4" square ratchet drive x 5/8" hex with blow by restrictor.
900-1304	<b>Ratchet Wrench</b>	Ratchet wrench with 3/4" square, female, open ended socket drive.
692-0980	<b>Test Cap</b>	Standard tapping tee test cap with 1/8" NPT male.
575-0320	<b>Test Cap</b>	Standard high volume tapping tee test cap with 1/8" NPT male.
575-8595	<b>Test Cap</b>	Wide body HVTT test cap with 1/8" NPT male.



### Large Diameter Tools

All of the accessories needed to electrofuse large diameter pipes – specifically 12" and larger pipe. Scrapers, re-rounding tools, and large diameter clamps are tools necessary to properly electrofuse large diameter polyethylene pipe. Large diameter electrofusion couplings are costly - having the right tools makes the process go more smoothly the first time. Manufactured by Georg Fischer Central Plastics.

### Large Diameter Tools

Catalog No.	Product
575-2080	<b>6" IPS to 14" IPS Mega-Clamp Kit</b>
575-0048	<b>8" IPS Pipe Clamp Kit</b>
10003956	<b>12" IPS/DIPS to 20" IPS/DIPS Re-Rounding Tool</b>
10003957	<b>20" IPS/DIPS to 28" IPS/DIPS Re-Rounding Tool</b>

**Socket Fusion Tools****Socket Fusion Kits**

McElroy socket tooling will fuse 1/2" CTS to 4" IPS pipe and is perfect for installing fittings. With the new socket tooling kits, you can locate and identify a specific range of socket tooling equipment that fits your needs, instead of ordering each piece separately. McElroy has selectively chosen the proper heater adapters, ratchet shears, depth gauge / chamfer tools, and cold ring tools for a complete kit. All the equipment conveniently fits in a specially designed tool box and tray to keep all of your socket tooling in one place. Parts can be ordered individually or in these convenient kits. Other kits available upon request.

**Socket Fusion Kits**

Catalog No.	Product	Description
ASW19101	<b>3/4" - 2" IPS Kit</b>	Kit setup for 3/4" IPS, 1" IPS, 1-1/4" IPS, 1-1/2" IPS, & 2" IPS. 2" Multi-Mc® Heater. 2" IPS socket fitting holder. 1.7" & 2.4" OD capacity pipe shears/cutters. Tool box with tray.
ASW19201	<b>1/2" CTS - 2" IPS Kit</b>	Kit setup for 1/2" CTS, 1/2" IPS, 3/4" CTS, 3/4" IPS, 1" CTS, 1" IPS, 1-1/4" CTS, 1-1/4" IPS, 1-1/2" IPS, & 2" IPS. 2" Multi-Mc® Heater. 2" IPS socket fitting holder. 1.7" & 2.4" OD capacity pipe shears/cutters. Tool box with tray.
ASW19301	<b>3" &amp; 4" IPS Kit</b>	Kit setup for 3" IPS & 4" IPS. 4" Multi-Mc® Heater. 3" & 4" IPS socket fitting holder. 4" plastic pipe cutter. Tool box with tray.
ASW19401	<b>3/4" &amp; 1-1/4" IPS Kit</b>	Kit setup for 3/4" IPS & 1-1/4" IPS. 2" Multi-Mc® Heater. 1.7" & 2.4" OD capacity pipe shears/cutters. Tool box with tray.

**Heaters & Accessories**

The McElroy 2" or 4" Multi-Mc® Heaters are the primary tool used for socket fusion. Choose the proper heater for the size fittings you will be fusing. Accessories include insulated heater slings, fitting holders, storage boxes, and pyrometers.

In addition to the heater and sling, choose the appropriate heater adapters, depth gauge / chamfer tool and cold ring clamp for each fitting size desired.

**Heaters & Accessories**

Catalog No.	Product	Description
214905	<b>2" Multi-Mc® Heater</b>	110V-120V, 50/60 Hz, 800 Watt, 1ph power requirements. Microprocessor-controlled to maintain heater temperature.
424315	<b>4" Multi-Mc® Heater</b>	110V-120V, 50/60 Hz, 800 Watt, 1ph power requirements. Microprocessor-controlled to maintain heater temperature.
SW02804	<b>Auxiliary Handle</b>	For 2" Multi-Mc® Heater. Includes attaching screws. Suggested for 1-1/4" fittings and larger.
SW02806	<b>Auxiliary Handle</b>	For 4" Multi-Mc® Heater.
SW08601	<b>Insulated Heater Sling</b>	Protects heater and helps maintain constant temperature.



## Socket Fusion Tools

### Heaters & Accessories

Catalog No.	Product	Description
SW07101	<b>2" Socket Fitting Holder</b>	
SW10601	<b>3" Socket Fitting Holder</b>	
SW11201	<b>4" Socket Fitting Holder</b>	
A214102	<b>Screw/Driver Kit</b>	For 2" Multi-Mc® Heater.
A424901	<b>Screw/Driver Kit</b>	For 4" Multi-Mc® Heater.
ASW15901	<b>Storage Box</b>	For socket tooling and accessories, includes universal storage tray to organize tooling



### Depth Gauge / Chamfer Tools

The Depth Gauge / Chamfer Tool is used to put the required chamfer on the end of the pipe and also used as a depth gauge. Select one tool for each pipe size you will be fusing. Manufactured by McElroy.

### Depth Gauge / Chamfer Tools

Catalog No.	Product
SW08719	<b>1/2" CTS Tool</b>
SW08717	<b>3/4" CTS Tool</b>
SW08715	<b>1" CTS Tool</b>
SW08713	<b>1-1/4" CTS Tool</b>
SW08711	<b>1/2" IPS Tool</b>
SW08709	<b>3/4" IPS Tool</b>
SW08707	<b>1" IPS Tool</b>
SW08705	<b>1-1/4" IPS Tool</b>
SW08703	<b>1-1/2" IPS Tool</b>
SW08701	<b>2" IPS Tool</b>
SW08734	<b>3" IPS Tool</b>
SW08736	<b>4" IPS Tool</b>
SW08731	<b>Extra Blade</b>

**Socket Fusion Tools**



**Cold Ring Clamps**

The Cold Ring Clamp is used with the depth gauge to clamp the pipe at the proper depth and to round and hold the pipe to be fused. Select one tool for each pipe size you will be fusing. Manufactured by McElroy.

**Cold Ring Clamps**

Catalog No.	Product
SW02714	1/2" CTS Cold Ring Tool
SW02715	3/4" CTS Cold Ring Tool
SW02716	1" CTS Cold Ring Tool
SW02717	1-1/4" CTS Cold Ring Tool
SW02718	1/2" IPS Cold Ring Tool
SW02719	3/4" IPS Cold Ring Tool
SW02720	1" IPS Cold Ring Tool
SW02721	1-1/4" IPS Cold Ring Tool
SW02722	1-1/2" IPS Cold Ring Tool
SW02710	2" IPS Cold Ring Tool
SW02723	3" IPS Cold Ring Tool
SW02724	4" IPS Cold Ring Tool



**Heater Adapter Sets**

The heater adapter sets are used to heat the pipe and fitting. All adapters have an anti-stick coating. Select one set of adapters for each pipe size you will be fusing. Manufactured by McElroy.

**Heater Adapter Sets**

Catalog No.	Product	Description
SW02660	1/2" CTS Heater Adapter Set	
SW02661	3/4" CTS Heater Adapter Set	
SW02662	1" CTS Heater Adapter Set	
SW02666	1-1/4" CTS Heater Adapter Set	
SW02663	1/2" IPS Heater Adapter Set	
SW02664	3/4" IPS Heater Adapter Set	
SW02665	1" IPS Heater Adapter Set	
SW02667	1-1/4" IPS Heater Adapter Set	



## Socket Fusion Tools

### Heater Adapter Sets

Catalog No.	Product	Description
SW02668	1-1/2" IPS Heater Adapter Set	
SW02669	2" IPS Heater Adapter Set	
SW02672	3" IPS Heater Adapter Set	
SW02676	4" IPS Heater Adapter Set	
A218804	Pyrometer Kit	Accurately checks surface temperature of heater

## Sidewall Fusion Tools



### Sidewinder® Fusion Machines

The McElroy Sidewinder® Fusion Machines give you the ability to saddle fuse 4" IPS and smaller branch saddles, tapping tees and service saddle fittings onto 1-1/4" IPS and larger main sizes.

The Sidewinder comes in two configurations: the Jaw Clamp and Chain Clamp. The Jaw Clamp Sidewinder is used for fusing branch saddles, tapping tees and service saddle fittings onto 1-1/4" to 4" IPS main sizes. The Chain Clamp Sidewinder gives you the ability to fuse onto main sizes 1-1/4" to 8" IPS and larger.

Both Sidewinders are DataLogger® compatible. The standard size Sidewinders are designed to fuse a full range of fittings. The Compact Sidewinders are designed for tighter confines and smaller fittings.

Fusion machines are sold with a 3" pivot master and screw/driver kit. Heaters and adapters are sold separately.

### Sidewinder® Fusion Machines

Catalog No.	Product
ASW00113	300 PSI Gauge Chain Clamp Sidewinder®
ASW00112	600 PSI Gauge Chain Clamp Sidewinder®
ASW00111	1000 PSI Gauge Chain Clamp Sidewinder®
ASW00110	1500 PSI Gauge Chain Clamp Sidewinder®
ASW00123	300 PSI Gauge Compact Chain Clamp Sidewinder®
ASW00122	600 PSI Gauge Compact Chain Clamp Sidewinder®
ASW00121	1000 PSI Gauge Compact Chain Clamp Sidewinder®
ASW00120	1500 PSI Gauge Compact Chain Clamp Sidewinder®
ASW00133	300 PSI Gauge Jaw Clamp Sidewinder®
ASW00132	600 PSI Gauge Jaw Clamp Sidewinder®
ASW00131	1000 PSI Gauge Jaw Clamp Sidewinder®
ASW00130	1500 PSI Gauge Jaw Clamp Sidewinder®

**Sidewall Fusion Tools****Sidewinder® Fusion Machines**

Catalog No.	Product
ASW00143	<b>300 PSI Gauge Compact Jaw Clamp Sidewinder®</b>
ASW00142	<b>600 PSI Gauge Compact Jaw Clamp Sidewinder®</b>
ASW00141	<b>1000 PSI Gauge Compact Jaw Clamp Sidewinder®</b>
ASW00140	<b>1500 PSI Gauge Compact Jaw Clamp Sidewinder®</b>

**Heaters & Accessories**

The McElroy 2" or 4" Multi-Mc® Heaters are the primary tool used to heat the fittings and pipe for sidewall fusion of tap tees and branch saddles. Choose the proper heater for the size fittings you will be fusing. Accessories include insulated heater slings, heat shields, conversion kits, storage boxes, and pyrometers. In addition to the heater and sling, choose the appropriate heater adapters, fitting holder, and inserts for the specific Sidewinder® and tap tee/branch saddle chosen.

**Heaters & Accessories**

Catalog No.	Product	Description
214905	<b>2" Multi-Mc® Heater</b>	110V-120V, 50/60 Hz, 800 Watt, 1ph power requirements. Microprocessor-controlled to maintain heater temperature.
424315	<b>4" Multi-Mc® Heater</b>	110V-120V, 50/60 Hz, 800 Watt, 1ph power requirements. Microprocessor-controlled to maintain heater temperature.
SW08601	<b>Insulated Heater Sling</b>	Protects heater and helps maintain constant temperature.
SW04701	<b>3" IPS Pivot Release Master</b>	Included with Sidewinder®.
SW07301	<b>4" Pivot Release Master</b>	
ASW10201	<b>Conversion Clamp Kit</b>	Jaw clamp kit.
ASW10301	<b>Conversion Clamp Kit</b>	Chain clamp kit.
SW13602	<b>Conversion Kit</b>	Converts Sidewinder® from a standard to a compact configuration.
SW13601	<b>Conversion Kit</b>	Converts Sidewinder® from a compact to a standard configuration.
A213601	<b>Chain Extension Kit</b>	30" chain extensions for main sizes larger than 8" IPS. Requires a minimum of two.
203006	<b>Heat Shield</b>	For fusing two materials with different melt rates. Shields the faster melt rate materials from over melting.
ASW07801	<b>Screw/Driver Kit</b>	Driver kit with insert screws and wire brush for cleaning serrated jaws and inserts.
ASW13104	<b>300 PSI Gauge Kit</b>	
ASW13102	<b>600 PSI Gauge Kit</b>	
ASW13105	<b>1000 PSI Gauge Kit</b>	
ASW13103	<b>1500 PSI Gauge Kit</b>	
ASW15903	<b>Insert &amp; Adapter Box</b>	Storage box with universal storage tray to organize tooling.



## Sidewall Fusion Tools

### Heaters & Accessories

Catalog No.	Product	Description
MJQ00191	<b>Storage Box</b>	For Sidewinder® fusion machines, inserts and adapters.

### Jaw Clamp Accessories



The line pipe inserts come in a set to configure the McElroy Jaw Clamp Sidewinder® for the specific main size pipe to be fused. In addition to the line pipe inserts, the appropriate fitting holder and heater adapters are required to make a successful sidewall fusion.

### Jaw Clamp Accessories

Catalog No.	Product
SW09802	<b>1-1/4" Line Pipe Inserts</b>
SW10003	<b>2" Line Pipe Inserts</b>
SW10102	<b>3" Line Pipe Inserts</b>



### Chain Clamp Accessories

The accessories required for the McElroy Chain Clamp Sidewinder® include the sidewall inserts and a line pipe bolster. Both items configure the Chain Clamp Sidewinder for the specific main size pipe to be fused. They aid in re-rounding the pipe to be fused as well as hold the Sidewinder secure on the pipe. In addition to the Sidewall Inserts and Line Pipe Bolster, the appropriate Fitting Holder and Heater Adapters are required to make a successful sidewall fusion.

### Chain Clamp Accessories

Catalog No.	Product	Description
410211	<b>1-1/4" IPS Sidewall Insert</b>	
410213	<b>2" IPS Sidewall Inserts</b>	
410305	<b>3" IPS Sidewall Insert</b>	
410405	<b>4" IPS Sidewall Insert</b>	
821403	<b>6" IPS Sidewall Insert</b>	
413304	<b>1-1/4" IPS Line Pipe Bolster</b>	
413301	<b>2" IPS Line Pipe Bolster</b>	
413302	<b>3" IPS Line Pipe Bolster</b>	
413303	<b>4" IPS Line Pipe Bolster</b>	
413306	<b>6" IPS Line Pipe Bolster</b>	
411002	<b>Line Pipe Bolster</b>	Bolster for Performance Pipe 2" IPS rectangular base branch saddles.

**Sidewall Fusion Tools****Fitting Inserts**

The fitting inserts go inside the McElroy Sidewinder® Pivot Release Master to grip specific tap tee cap sizes or outlet of the branch saddles to be fused. The Inserts assure a good grip and a centered fusion.

In addition to the fitting inserts, the appropriate accessories and heater adapters are required to make a successful sidewall fusion.

**Fitting Inserts**

Catalog No.	Product	Description
SW04701	<b>3" IPS Pivot Release Master</b>	Included with Sidewinder®.
SW06101	<b>Fitting Insert</b>	Used with tap tees having cap diameters of 2-1/2". Insert used with 3" pivot release master to properly grip cap or fitting.
SW04901	<b>2" IPS Fitting Insert Master</b>	Used with 2" IPS outlet branch saddles (2-3/8" OD) and tap tees with cap diameters of 2-3/8". Insert used with 3" pivot release master to properly grip cap or fitting.
SW04803	<b>Fitting Insert</b>	Used with Performance Pipe 1-1/4" IPS butt outlet tapping tee (large round base). Cap diameter of 3-1/16". Insert used with 3" pivot release master to properly grip cap.
207537	<b>Fitting Insert</b>	For 1-1/4" IPS outlet service saddle. Use with 2" IPS fitting insert master.
208102	<b>Fitting Insert</b>	For 1" IPS outlet service saddle. Use with 2" IPS fitting insert master.
208002	<b>Fitting Insert</b>	For 3/4" IPS outlet service saddle. Use with 2" IPS fitting insert master.
208402	<b>Fitting Insert</b>	For 1" CTS outlet service saddle. Use with 2" IPS fitting insert master.
208302	<b>Fitting Insert</b>	For 3/4" CTS outlet service saddle. Use with 2" IPS fitting insert master.
207902	<b>Fitting Insert</b>	For 1/2" CTS outlet service saddle. Use with 2" IPS fitting insert master.
SW07301	<b>4" IPS Pivot Release Master</b>	Used for 4" IPS (4-1/2" OD) outlet branch saddles.



### Concave Heater Adapters

McElroy Concave Heater Adapters are used to heat the pipe during a sidewall fusion. The exact Concave Heater Adapter is needed for the specific fitting to be fused. Having the right dimensions on the Concave Heater Adapter is necessary to avoid heating too big of a pattern onto the pipe.

#### Concave Heater Adapters

Catalog No.	Product	Description
S230166287	1-1/4" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230237287	2" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230350287	3" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230450237	4" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230662287	6" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230862287	8" IPS Serrated HA	2.5" x 2" rectangular base tee.
S231075287	10" IPS Serrated HA	2.5" x 2" rectangular base tee.
S231275287	12" IPS Serrated HA	2.5" x 2" rectangular base tee.
S230480287	4" DIPS Serrated HA	2.5" x 2" rectangular base tee.
S230690287	6" DIPS Serrated HA	2.5" x 2" rectangular base tee.
S230905287	8" DIPS Serrated HA	2.5" x 2" rectangular base tee.
S231110287	10" DIPS Serrated HA	2.5" x 2" rectangular base tee.
S231320287	12" DIPS Serrated HA	2.5" x 2" rectangular base tee.
230166287	1-1/4" IPS Smooth HA	2.5" x 2" rectangular base tee.
230237287	2" IPS Smooth HA	2.5" x 2" rectangular base tee.
230350287	3" IPS Smooth HA	2.5" x 2" rectangular base tee.
230450237	4" IPS Smooth HA	2.5" x 2" rectangular base tee.
230662287	6" IPS Smooth HA	2.5" x 2" rectangular base tee.
230862287	8" IPS Smooth HA	2.5" x 2" rectangular base tee.
231075287	10" IPS Smooth HA	2.5" x 2" rectangular base tee.
231275287	12" IPS Smooth HA	2.5" x 2" rectangular base tee.
S210166237	1-1/4" IPS Serrated HA	2" diameter small round base tee.
S210237237	2" IPS Serrated HA	2" diameter small round base tee.
S210350237	3" IPS Serrated HA	2" diameter small round base tee.
S210450237	4" IPS Serrated HA	2" diameter small round base tee.
S210662237	6" IPS Serrated HA	2" diameter small round base tee.
S210862237	8" IPS Serrated HA	2" diameter small round base tee.
S211075237	10" IPS Serrated HA	2" diameter small round base tee.
S211275237	12" IPS Serrated HA	2" diameter small round base tee.
S430237462	2" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430350462S	3" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430450462S	4" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430662462	6" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430862462	8" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S431075462	10" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S431275462	12" IPS Serrated HA	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.

**Sidewall Fusion Tools**

**Concave Heater Adapters**

Catalog No.	Product	Description
S430480462	<b>4" DIPS Serrated HA</b>	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430690462	<b>6" DIPS Serrated HA</b>	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S430905462	<b>8" DIPS Serrated HA</b>	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S431110462	<b>10" DIPS Serrated HA</b>	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.
S431320462	<b>12" DIPS Serrated HA</b>	4.25" x 2.63" rectangular base tee. For use with 4" Multi-Mc® Heater.



**Convex Heater Adapters**

McElroy Convex Heater Adapters are used to heat the fitting during a sidewall fusion. The Convex Heater Adapter is needed for the specific fitting to be fused and also will match the main pipe diameter.

Note: Use the S2XXX adapters when using a 2" Multi-Mc® Heater and the S4XXX adapters when using the 4" Multi-Mc® Heater.

**Convex Heater Adapters**

Catalog No.	Product	Description
S200166300	<b>1-1/4" IPS Serrated HA</b>	
S200237300	<b>2" IPS Serrated HA</b>	
S200350300	<b>3" IPS Serrated HA</b>	
S200450300	<b>4" IPS Serrated HA</b>	
S200662300	<b>6" IPS Serrated HA</b>	
S200862300	<b>8" IPS Serrated HA</b>	
S201075300	<b>10" IPS Serrated HA</b>	
S201275300	<b>12" IPS Serrated HA</b>	
S200480300	<b>4" DIPS Serrated HA</b>	
S200690300	<b>6" DIPS Serrated HA</b>	
S200905300	<b>8" DIPS Serrated HA</b>	
S201110300	<b>10" DIPS Serrated HA</b>	
S201340300	<b>12" DIPS Serrated HA</b>	
200166300	<b>1-1/4" IPS Smooth HA</b>	
200237300	<b>2" IPS Smooth HA</b>	
200350300	<b>3" IPS Smooth HA</b>	
200450300	<b>4" IPS Smooth HA</b>	
200662300	<b>6" IPS Smooth HA</b>	
200862300	<b>8" IPS Smooth HA</b>	
201075300	<b>10" IPS Smooth HA</b>	
201275300	<b>12" IPS Smooth HA</b>	
S420237500	<b>2" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420350500	<b>3" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420450500	<b>4" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420662500	<b>6" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420862500	<b>8" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S421075500	<b>10" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S421275500	<b>12" IPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.



## Sidewall Fusion Tools

### Convex Heater Adapters

Catalog No.	Product	Description
S420480500	<b>4" DIPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420690500	<b>6" DIPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S420905500	<b>8" DIPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S421110500	<b>10" DIPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.
S421320500	<b>12" DIPS Serrated HA</b>	For use with 4" Multi-Mc® Heater.

## Mechanical Coupling Tools



### Con-Stab Forming Tools

Con-Stab forming tools are used to prepare the ends of the pipe to prevent rolling or damaging the o-ring seals. The forming tool is also used to measure depth to ensure the Con-Stab fitting is pressed on properly.

### Con-Stab Forming Tools

Catalog No.	Product
33-5481-00	<b>1/2 CTS x 3/4" IPS Forming Tool</b>
33-5514-00	<b>1/2" CTS x 1" IPS Forming Tool</b>
33-5480-00	<b>1/2" CTS x 1" CTS Forming Tool</b>
33-5515-00	<b>1/2" CTS x 1-1/4" CTS Forming Tool</b>
33-5516-00	<b>3/4" IPS x 1" IPS Forming Tool</b>
33-5485-00	<b>1-1/4" IPS Forming Tool</b>
33-5486-00	<b>2" IPS Forming Tool</b>
33-5606-00	<b>1" CTS x 1" IPS Forming Tool</b>

**Mechanical Coupling Tools**



**Permasert Chamfering Tools**

Permasert chamfering tools are used to prepare the ends of the pipe to prevent rolling or damaging the o-ring seals. The chamfering tool is also used to measure depth to ensure the Permasert fitting is pressed on properly.

**Permasert Chamfering Tools**

Catalog No.	Product
51020	1/2" CTS x 1/2" IPS Chamfering Tool
51016	1/2" CTS x 3/4" IPS Chamfering Tool
51006	1/2" IPS x 3/4" IPS Chamfering Tool
51004	1/2" CTS x 1" CTS Chamfering Tool
51008	3/4" IPS x 1" IPS Chamfering Tool
51028002	1" IPS x 1-1/4" IPS Chamfering Tool
51040	2" IPS Chamfering Tool



**LYCOFIT Tools & Accessories**

LYCOFIT mechanical fittings are quickly assembled with appropriate tools for a permanent leak-free connection. There are 3 models to choose from:

The Quick Ratchet Press (QRP) 100 is a light weight tool that quickly assembles 1/2" – 1" fittings.

The Quick Ratchet Press (QRP) 200 offers a dual handle ratchet to complete the larger fittings (1/2" - 2") while still working with a light and compact tool. QRP and the Ratchet Wrench Handle sold separately.

The LYCOFIT Hydraulic Press (LHP) 200 is also for assembling the larger fittings. This tool offers a hydraulic advantage making it simple to install the larger fittings. The Hydraulic Press Tool and the Enerpac Hydraulic Pump are sold as separate components.

**LYCOFIT Tools & Accessories**

Catalog No.	Product	Description
QRP-100	<b>Quick Ratchet Press - Single</b>	1/2" CTS through 1" IPS assembly. Lightweight, durable single ratchet field assembly tool.
QRP-RATCHET	<b>Ratchet Wrench</b>	16" long handled 1/2" ratchet wrench.
LF-BOXQRP	<b>Tool Box</b>	For QRP-100. Plastic.



## Mechanical Coupling Tools

### LYCOFIT Tools & Accessories

Catalog No.	Product	Description
QRP-200	<b>Quick Ratchet Press - Dual</b>	1/2" CTS through 2" IPS assembly. Dual ratchet design makes it simple to install medium to large sized piping systems.
LF-BOXLAP	<b>Tool Box</b>	For QRP-200. Plastic.
QRP-UPDATE-03F	<b>1/2" to 1-1/4" CTS and 1/2" to 1" IPS Front Plate</b>	For QRP-200.
QRP-UPDATE-03B	<b>1/2" to 1-1/4" CTS and 1/2" to 1" IPS Back Plate</b>	For QRP-200.
QRP-UPDATE-02F	<b>1-1/4" and 1-1/2" IPS Front Plate</b>	For QRP-200.
QRP-UPDATE-02B	<b>1-1/4" and 1-1/2" IPS Back Plate</b>	For QRP-200.
QRP-UPDATE-01F	<b>2" IPS Front Plate</b>	For QRP-200.
QRP-UPDATE-01B	<b>2" IPS Back Plate</b>	For QRP-200.
LHP-200	<b>Hydraulic Press</b>	With hose and fittings.
LHP-200-KIT-01	<b>Hydraulic Press Kit</b>	With P142 hand pump, hose, clamps, and carrying case.
LHP-200-KIT-03	<b>Hydraulic Press Kit</b>	With PA133 pump, hose, clamps, and carrying case.
LPH200-SET	<b>2" IPS Clamp Set</b>	For LHP200. Includes 2 clamps and 1 alignment plate.
APJ080-1	<b>1-1/4" IPS Clamp</b>	Standard clamp.
AHP200	<b>P142 Hand Pump</b>	With fittings for LHP200. Enerpac.
AHP133	<b>PA133 Air Over Hydraulic Pump</b>	With fittings for LHP200. Enerpac.
LF-BOXLHP	<b>Carrying Case</b>	For LHP kits.

## Squeeze Tools & Anti-Static



### Mechanical PE Squeeze Tools (up to 2")

The Mustang squeeze tools have 4 manual tools to accommodate pipe sizes from 1/2" CTS to 2" IPS maximum. Choose the tool that best meets your pipe size requirements and specify the gap stops required. A single tool may meet all of your different pipe size requirements. Mustang tools include a heavy-duty frame designed to withstand the greater force needed to squeeze today's PE pipe, while retaining either the single or double-bar jaw designs for greatest contact area. A SEG-30 Grounding Rod, for static electric grounding, completes the package.

### Mechanical Squeeze Tools (up to 2")

Catalog No.	Product	Description
DBS-10A	<b>1" Double Bar Squeeze Tool</b>	Pipe Sizes 1/2" CTS - 1" IPS. Specify 1 gap stop size.
DBS-11A	<b>1" Flat Bar Squeeze Tool</b>	Pipe Sizes 1/2" CTS - 1" CTS. Specify 1 gap stop size.
DBS-20C	<b>2" Double Bar Squeeze Tool</b>	Pipe Sizes 1/2" CTS - 2" IPS. Specify 2 gap stops for pipe sizes up to 2" IPS.
DBS-24C	<b>2" Double Bar Squeeze Tool</b>	Pipe Sizes 1/2" CTS - 2" IPS. Specify 4 gap stops for pipe sizes up to 2" IPS.
LJ-20C	<b>DBS-20C Lower Jaw</b>	Specify 2 gap stops from 1/2" CTS - 2" IPS.

**Squeeze Tools & Anti-Static****Mechanical Squeeze Tools (up to 2")**

Catalog No.	Product	Description
LJ-24C	<b>DBS-24C Lower Jaw</b>	Specify 4 gap stops from 1/2" CTS - 2" IPS.
SEG-30	<b>Static Electricity Ground Kit</b>	Includes 12" copper spike, 5' copper braid and connector to upper jaw on squeeze tool.

**Mechanical PE Squeeze Tools (up to 8")**

The Mustang manual squeeze tools are an economical choice to squeeze up to 8" IPS. All models have the same rugged design to provide maximum strength, lighter weight, and superior performance. Mustang tools feature proven tubular frame, powerful Acme power screw, upper jaw thrust bearing, and grease fittings for lubricating the screw and thrust bearing. A SEG-30 Grounding Rod for static electric grounding, completes the package.

**Mechanical Squeeze Tools (up to 8")**

Catalog No.	Product	Description
DBS-40F	<b>4" Double Bar Squeeze Tool</b>	Pipe sizes 1" IPS - 4" IPS. Specify 2 pipe sizes up to 4" IPS.
DBS-44F	<b>4" Double Bar Squeeze Tool</b>	Pipe sizes 1" IPS - 4" IPS. Specify 4 pipe sizes up to 4" IPS.
DBG-60	<b>6" Double Bar Squeeze Tool</b>	Pipe sizes 2" IPS - 6" IPS. Specify 2 pipe sizes up to 6". Comes with SC-60 saddle clamps.
DBGA-80	<b>8" Double Bar Squeeze Tool</b>	Pipe sizes 3" IPS - 8" IPS. Specify 2 pipe sizes up to 8". Comes with SC-80 saddle clamps.
SC-40/44	<b>DBS-40F Saddle Clamps</b>	
SC-40/44	<b>DBS-44F Saddle Clamps</b>	
SC-60	<b>DBG-60 Saddle Clamps</b>	
SC-80	<b>DBGA-80 Saddle Clamps</b>	
LJ-40F	<b>DBS-40F Lower Jaw</b>	Specify 2 gap stops from 1" IPS - 4" IPS.
LJ-44F	<b>DBS-44F Lower Jaw</b>	Specify 4 gap stops from 1" IPS - 4" IPS.
LJ-60	<b>DBG-60 Lower Jaw</b>	Specify 2 gap stops from 2" IPS - 6" IPS.
LJGA-80	<b>DBGA-80 Lower Jaw</b>	Specify 2 gap stops from 3" IPS - 8" IPS.
SEG-30	<b>Static Electricity Ground Kit</b>	Includes 12" copper spike, 5' copper braid, and connector to upper jaw on squeeze tool.



### Anti-Static Tools

When squeezing PE pipe it is essential to protect the operator from static electric discharge creating an arch in the hazardous working area. There are multiple ways this is accomplished – from properly grounding the tool and using a system to eliminating static buildup on the exterior of the pipe.

#### Anti-Static Tools

Catalog No.	Product	Description	Manufacturer
SEG-30	<b>Static Electricity Ground Kit</b>	Ground strap and stake to adapt to PE squeeze tools and other tools needing to be grounded. Kit includes 12" copper spike, 5' copper braid and connector to upper jaw on squeeze tool.	Mustang Manufacturing
500002	<b>32 Ounce Statikil PE</b>	Spray bottle. Topical treatment used on polyethylene gas piping to dissipate static charges.	Pipeline Equipment Resources Company
500003	<b>1 Gallon Statikil PE</b>	Topical treatment used on polyethylene gas piping to dissipate static charges.	Pipeline Equipment Resources Company
500004	<b>5 Gallon Statikil PE</b>	Topical treatment used on polyethylene gas piping to dissipate static charges.	Pipeline Equipment Resources Company



### Ground Level PE Squeeze Tool

The Mustang GLS-26 provides direct dial squeeze control. The new color coded gap stops, along with an emergency setting, enables you to safely squeeze off every PE pipe size from 1/2" CTS through 2" IPS - with all settings and pipe sizes cross-referenced on a frame mounted color chart. Simply dial in the prescribed gap stop by rotating the stainless steel, color coded disc. A dualset of spring-action "whiskers" guide you in centering the jaws squarely on the pipe. Turning the tool's 12" handle generates up to 10,000 lbs. of squeeze force, while its upper-frame torque handle provides added leverage.

Light and durable, the trim GLS-26 is designed with the same unparalleled 3:1 strength factor bred into the entire Mustang family. For further safety, we've attached a solid copper grounding device, with 5' strap and 3/8"x12" spike, as standard equipment.

#### Ground Level Squeeze Tool

Catalog No.	Product	Description
GLS-26	<b>2" Squeeze Tool</b>	Pipe sizes up to 2" IPS. Dial in the appropriate gap stop or no gap stop for emergency situation. Squeeze safely from above the ditch with the GLS-26. Includes SEG-30 kit.
SEG-30	<b>Static Electricity Ground Kit</b>	2" IPS - 6" IPS. 12" copper spike, 5' copper braid, and connector to upper jaw on squeeze tool.

**Squeeze Tools & Anti-Static**



**Hydraulic PE Squeeze Tools**

The Mustang family of hydraulic squeeze tools offers both medium duty (DBM) and heavy duty (DBH) models. Each tool offers two pipe sizes and gap stops on the lower bar. The correct hydraulic pump is included as part of the tool. The hydraulic cylinder(s) on the tools incorporate a built in locking valve to assure that pressure is maintained on the pipe in the event of a hydraulic failure. Saddle clamps are provided to mechanically lock the upper and lower jaws and to assist in accomplishing a good squeeze off. An optional squeeze release control valve is also available that permits a slow, controlled release of the upper jaw.

**Hydraulic Squeeze Tools**

Catalog No.	Product	Description
DBM-60	<b>6" Hydraulic Squeeze Tool Package</b>	Pipe sizes 2" IPS - 6" IPS. Specify 2 pipe sizes up to 6" IPS. Package includes DBM-60, Model 20A hydraulic hand pump and hose, SC-60 saddle clamps.
DBML-80	<b>8" Hydraulic Squeeze Tool Package</b>	Pipe sizes 3" IPS - 8" IPS. Specify 2 pipe sizes up to 8" IPS. Package includes DBML-80, Model 20A pump and hose assembly, and SC-80 saddle clamps.
DBH-68-E	<b>8" Hydraulic Squeeze Tool Package (Heavy Duty)</b>	Pipe sizes 3" IPS - 8" IPS. Specify 2 pipe sizes up to 8" IPS. Package includes DBH-68-E, 25A-HP hand pump, and a pair of SC-80 saddle clamps.
DBH-1200-B	<b>12" Hydraulic Squeeze Tool Package (Heavy Duty)</b>	Pipe sizes 6" IPS - 12" IPS. Specify 2 pipe sizes up to 12" IPS. Package includes DBH-1200-B, Model 25A pump and hose assembly, and SC-1200 saddle clamps.
DBH-1800	<b>18" Hydraulic Squeeze Tool Package (Heavy Duty)</b>	Squeezes up to 18" IPS pipe. Contact GROEBNER for product specifications.
DBH-2400	<b>24" Hydraulic Squeeze Tool Package (Heavy Duty)</b>	Squeezes up to 24" IPS pipe. Contact GROEBNER for product specifications.
20A-HP	<b>Hydraulic Hand Pump</b>	Double stage pump to effectively squeeze the pipe with single cylinder tools.
25A-HP	<b>Hydraulic Hand Pump</b>	Double stage pump to effectively squeeze the pipe with multiple cylinder tools.
SC-60	<b>DBM-60 Saddle Clamps</b>	
SC-80	<b>DBML-80 Saddle Clamps</b>	
SC-80	<b>DBH-68-E Saddle Clamps</b>	
SC-1200	<b>DBH-1200-B Saddle Clamps</b>	
LJ-60	<b>DBM-60 Lower Jaw</b>	Specify 2 gap stops from 2" IPS - 6" IPS.
LJ-80	<b>DBML-80 / DBH-68-E Lower Jaw</b>	Specify 2 gap stops from 3" IPS - 8" IPS.
LJ-1200	<b>DBH-1200-B Lower Jaw</b>	
SEG-30	<b>Static Electricity Ground Kit</b>	Includes 12" copper spike, 5' copper braid and connector to upper jaw on squeeze tool.



## Pipe Straighteners & Trailers



### LineTamer® (2" IPS)

With the McElroy LineTamer®, you can install coiled PE pipe, conduit, and duct faster than installations with straight, cut lengths of pipe. You can install an entire coil of pipe with a minimum of two fusion joints. The LineTamer cost effectively straightens and re-rounds coiled pipe to meet or exceed ASTM D2513 ovality requirements. It removes coil set for speedy installations on the job site.

The 2" IPS LineTamer allows you to straighten and re-round 2" IPS PE pipe, conduit, and duct quickly with minimal training. Ball thrust bearings make for easy roller adjustment to remove the coil set in the pipe for straightening.

### LineTamer® (2" IPS)

Catalog No.	Product	Description	Manufacturer
LT0122	<b>LineTamer®</b>	2" LineTamer® with 2" IPS rollers installed (no trailer).	McElroy
CT1143TT -2LT	<b>LineTamer® &amp; Trailer</b>	Trailer with 2" LineTamer® and operator's manual.	McElroy / Sweetwater Metal Products



### LineTamer® (3" to 6" IPS)

With the McElroy LineTamer®, you can install coiled PE pipe, conduit, and duct faster than installations with straight, cut lengths of pipe. You can install an entire coil of pipe with a minimum of two fusion joints. The LineTamer cost effectively straightens and re-rounds coiled pipe to meet or exceed ASTM D2513 ovality requirements. It removes coil set for speedy installations on the job site.

The 3" to 6" IPS LineTamer comes equipped with 4" to 6" re-rounding rollers, an optional 3" to 4" re-round rollers are also available and the unit is powered by hydraulic controls for ease of operation.

### LineTamer® (3" to 6" IPS)

Catalog No.	Product	Description	Manufacturer
LT0048	<b>LineTamer®</b>	3" to 6" LineTamer® with 4"–6" IPS rollers installed (no trailer).	McElroy
ALT0048	<b>LineTamer® &amp; Hydraulic Power Unit</b>	3" to 6" LineTamer® and gasoline HPU (no trailer).	McElroy
LT0037	<b>Re-round Roller Kit</b>	Kit is required for re-rounding 3" - 4" IPS pipe. Includes 2 re-round rollers and stop plates.	McElroy
LT0172	<b>Hydraulic Power Unit</b>	Gasoline HPU for 3" - 6" LineTamer®.	McElroy
LT0171	<b>Tandem Hydraulic Power Unit</b>	Tandem gasoline HPU for self-loading trailer.	McElroy
CT2710C -LT-SL	<b>LineTamer® &amp; Trailer</b>	Self loading LineTamer® & trailer system with 4" to 6" IPS rollers installed, gasoline powered CARB compliant HPU, and operator's manual.	McElroy / Sweetwater Metal Products
CT2786C -LT-XSMI	<b>LineTamer® &amp; Trailer</b>	Upright LineTamer® & coil trailer system with 4" to 6" IPS rollers installed, gasoline powered CARB compliant HPU, and operator's manual.	McElroy / Sweetwater Metal Products

**Pipe Straighteners & Trailers**



**Coiled Pipe Trailers**

Proper handling of coiled pipe, conduit or duct requires the proper trailer to make the work safe and efficient. Varieties of trailers are available with and without the McElroy LineTamer® mounted.

**Coiled Pipe Trailers**

Catalog No.	Product	Description	Manufacturer
CT1143TT -2LT	<b>LineTamer® &amp; Trailer</b>	2" coil trailer with 2" LineTamer® and operator's manual.	McElroy / Sweetwater Metal Products
CT2710C -LT-SL	<b>LineTamer® &amp; Trailer</b>	Self loading LineTamer® & trailer system with 4" to 6" IPS rollers installed, gasoline powered CARB compliant HPU, and operator's manual.	McElroy / Sweetwater Metal Products
CT2786C -LT-XSMI	<b>LineTamer® &amp; Trailer</b>	Upright LineTamer® & coil trailer system with 4" to 6" IPS rollers installed, gasoline powered CARB compliant HPU, and operator's manual.	McElroy / Sweetwater Metal Products
Other Trailers	<b>Trailers</b>	Varieties of trailers are available with and without the McElroy LineTamer® mounted.	Sweetwater Metal Products

**Test Equipment, Caps, & Plugs**



**Service Line Test Caps**

McElroy test caps are available for PE pipe sizes from 1/2" CTS to 2" IPS. They are designed for quick and easy air pressure testing of polyethylene pipe. All test caps are reusable, provide a positive o-ring seal, and have been pressure rated to 165 PSI to meet 49 CFR192.513. Test pressure actually improves the cap's grip on the pipe. One test cap is required per pipe size. They are made of corrosion resistant material, and are durable in construction.

**Service Line Test Caps**

Catalog No.	Product
TP-301	<b>1/2" CTS Test Cap</b>
TP-302	<b>1/2" IPS Test Cap</b>
TP-303	<b>3/4" CTS Test Cap</b>
TP-304	<b>3/4" IPS Test Cap</b>
TP-305	<b>1" CTS Test Cap</b>
TP-306	<b>1" IPS Test Cap</b>
TP-307	<b>1-1/4" CTS Test Cap</b>
TP-308	<b>1-1/4" IPS Test Cap</b>
TP-309	<b>1-1/2" IPS Test Cap</b>
TP-310	<b>2" IPS Test Cap</b>
308900	<b>Kit B - Gauge and Valve Test Set-up for Series 300 Test Cap</b>



### Test Plugs

The Grip Tight PE Test Plugs are available for PE pipe sizes from 1/2" CTS to 8" IPS. They are designed for quick and easy air pressure testing of polyethylene pipe. The Test Plugs are designed to seal on the ID of the pipe and must be ordered accordingly. The Test Plugs are pressure rated up to 200psi dependent on the PE wall thickness.

The Safety Gag offers an added measure of safety by providing a secondary restraint of the plug.

### Test Plugs

Catalog No.	Product	Description
GT2-SDR9-933	<b>2" Test Plug</b>	2" IPS, 9 - 9.33 SDR, 200 PSI Max Pressure HD PE, 160 PSI Max Pressure MD PE.
GT3-SDR9-933	<b>3" Test Plug</b>	3" IPS, 9 - 9.33 SDR, 200 PSI Max Pressure HD PE, 160 PSI Max Pressure MD PE.
GT4-SDR9-933	<b>4" Test Plug</b>	4" IPS, 9 - 9.33 SDR, 200 PSI Max Pressure HD PE, 160 PSI Max Pressure MD PE.
GT6-SDR9-933	<b>6" Test Plug</b>	6" IPS, 9 - 9.33 SDR, 200 PSI Max Pressure HD PE, 160 PSI Max Pressure MD PE.
GT8-SDR9-933	<b>8" Test Plug</b>	8" IPS, 9 - 9.33 SDR, 200 PSI Max Pressure HD PE, 160 PSI Max Pressure MD PE.
GT2-SDR11-115	<b>2" Test Plug</b>	2" IPS, 11 - 11.5 SDR, 160 PSI Max Pressure HD PE, 125 PSI Max Pressure MD PE.
GT3-SDR11-115	<b>3" Test Plug</b>	3" IPS, 11 - 11.5 SDR, 160 PSI Max Pressure HD PE, 125 PSI Max Pressure MD PE.
GT4-SDR11-115	<b>4" Test Plug</b>	4" IPS, 11 - 11.5 SDR, 160 PSI Max Pressure HD PE, 125 PSI Max Pressure MD PE.
GT6-SDR11-115	<b>6" Test Plug</b>	6" IPS, 11 - 11.5 SDR, 160 PSI Max Pressure HD PE, 125 PSI Max Pressure MD PE.
GT8-SDR11-115	<b>8" Test Plug</b>	8" IPS, 11 - 11.5 SDR, 160 PSI Max Pressure HD PE, 125 PSI Max Pressure MD PE.
GT2-SDR135	<b>2" Test Plug</b>	2" IPS, 13.5 SDR, 130 PSI Max Pressure HD PE, 100 PSI Max Pressure MD PE.
GT3-SDR135	<b>3" Test Plug</b>	3 IPS, 13.5 SDR, 130 PSI Max Pressure HD PE, 100 PSI Max Pressure MD PE.
GT4-SDR135	<b>4" Test Plug</b>	4" IPS, 13.5 SDR, 130 PSI Max Pressure HD PE, 100 PSI Max Pressure MD PE.
GT6-SDR135	<b>6" Test Plug</b>	6" IPS, 13.5 SDR, 130 PSI Max Pressure HD PE, 100 PSI Max Pressure MD PE.
GT8-SDR135	<b>8" Test Plug</b>	8" IPS, 13.5 SDR, 130 PSI Max Pressure HD PE, 100 PSI Max Pressure MD PE.
PEGAG-2	<b>2" Safety Gag</b>	2.375" OD.
PEGAG-3	<b>3" Safety Gag</b>	3.500" OD.
PEGAG-4	<b>4" Safety Gag</b>	4.500" OD.
PEGAG-6	<b>6" Safety Gag</b>	6.625" OD.
PEGAG-8	<b>8" Safety Gag</b>	8.625" OD.

**Test Equipment, Caps, & Plugs**



**In Field Tensile Testers**

McElroy's In Field Tensile Tester provides a quick and easy way to qualitatively test fusion joints in the field. The dual reduced section coupon allows for a quick comparison of the integrity of the joint versus the parent pipe. A hand-pump system tests coupons from 2" IPS and larger pipes (up to 5" thick wall). To create the coupon, a template is attached to the pipe's outer wall, where a drill and reciprocating saw produce the coupon in minutes. The coupon is then inserted into the hand-pump tensile test unit for destructive testing.

**In Field Tensile Testers**

Catalog No.	Product	Description
AS03501	<b>In Field Tensile Tester Package</b>	Includes hand-pump testing unit, coupon template and drill bit.
S04801	<b>In Field Coupon Drill Fixture</b>	Coupon template for 2" OD and larger pipe.
MJL00074	<b>Drill Bit</b>	Specially designed drill bit for coupon drill fixture.

**Productivity Tools & Accessories**



**Pipe Stands & Rollers**

A variety of pipe support stands and rollers are offered to make the handling and fusing of PE pipe easier. The low profile rollers minimize drag on the pipe while keeping the pipe clean and off the ground. The variety of pipe stands, including the PolyPorter®, give plenty of options to adjust and move the pipe into the right position to fuse. All rollers and stands make the fusion procedures faster and the operators more productive. Manufactured by McElroy.

**Pipe Stands & Rollers**

Catalog No.	Product	Description
422801	<b>14 Pipe Support Stand</b>	For use with the 14 cart only. Adjustable height to support, position and align pipe.
812501	<b>28 Pipe Support Stand</b>	For use with 14, 26, 28, & 250 machines. Adjustable height to support, position and align pipe.
1223201	<b>412/618 Pipe Support Stand</b>	Adjustable pipe stand to properly support, position and align pipe to be fused.
A1867501	<b>Low Profile Rollers</b>	Case of low profiler rollers. 40 complete rollers per case / 1875 lbs.
1867501	<b>Low Profile Roller</b>	Individual roller (2 required for assembly).
864201	<b>2" - 8" PolyPorter®</b>	Designed to aid in lifting of pipe into the fusion machine, as well as perform as a pipe stand.



### PolyHorse® Pipe Handling Equipment

The McElroy PolyHorse® is for use with PE sizes 3" IPS - 20" OD and is a new pipe-handling system that consists of a series of adjustable racks to store and help install the pipe on the job site. The PolyHorse can reduce manpower expense, provide an efficient, less hazardous environment for handling pipe bundles and enhance productivity by 150%.

PE pipe is off-loaded from the delivery truck directly onto the PolyHorse, off the ground and out of the way, until needed. In use, the operator rolls the pipe down the rack and onto the integral pipe rollers where it is easily loaded into a McElroy fusion machine. This eliminates the costs for additional lifting equipment and manpower.

Through its modular design, the PolyHorse can handle any length of pipe by adding additional trusses.

#### PolyHorse® Pipe Handling Equipment

Catalog No.	Product	Description
1875502	<b>Standard Kit w/Power Assist</b>	Kit includes 3 trusses, 3 stanchions, 6 screw jacks, 1 pivot roller support, 2 stationary rollers and wrench.
1875501	<b>Standard Kit w/Manual Roller</b>	Kit includes 3 trusses, 3 stanchions, 6 screw jacks, 1 pivot roller support, 2 stationary rollers and wrench.
1875505	<b>Compact Kit w/Power Assist</b>	Kit includes 3 trusses, 3 stanchions, 6 screw jacks, 1 pivot roller support, 2 stationary rollers and wrench. Half Length Trusses for tight job sites.
1875504	<b>Compact Kit w/Manual Roller</b>	Kit includes 3 trusses, 3 stanchions, 6 screw jacks, 1 pivot roller support, 2 stationary rollers and wrench. Half Length Trusses for tight job sites.
1874401	<b>PowerAssist</b>	Attaches to the closest truss to the fusion operations and uses hydraulic power from the machine to effortlessly load pipe.
1876302	<b>Stationary Roller</b>	Attaches to the screw jack and supports the pipe for loading into the machine.
1876301	<b>Pivot Roller Support</b>	Attaches to the closest truss to the fusion operations and lifts the end of the pipe above the height of the jaws to load pipe into the machine.
1875901	<b>Screw Jack</b>	Used to level the trusses.
1875601	<b>Standard Truss</b>	
1875602	<b>Compact Truss</b>	
1877101	<b>Stantion</b>	Removable support to control pipe bundles.
A1262301	<b>Hydraulic Clamping Kit</b>	Retrofit kit for Rolling and TracStar® 412.
A1870301	<b>Hydraulic Clamping Kit</b>	Retrofit kit for Rolling and TracStar® 618.
8261000-0101	<b>Spreader Bar</b>	3,000 lbs. maximum. Ideal for handling 40' bundles or a single joint of pipe. Nylon lifting straps fasten securely to spreader bar to prevent bundle breakage and damage to the pipe.
8261000-0201	<b>Spreader Bar</b>	6,000 lbs. maximum. Ideal for handling 40' bundles or a single joint of pipe. Nylon lifting straps fasten securely to spreader bar to prevent bundle breakage and damage to the pipe.

**Productivity Tools & Accessories****Hot Tap Tools**

The McElroy Hot Tap tool is the most precise and economical way to tap through 2", 3", 4", or 6" branch saddles. This tool can be used with the 2LC, 2CU, Pit Bull® 14, or the 28CU fusion machines in combination with the Sidewinder®. The gland is customized to meet the user's material of choice, eliminating the need for material compatibility fusion in the field.

Main line contamination is eliminated by containing continuous chips in the cutter, ahead of the coupon, then retracting them out of the main. Tool components are butt fused together, eliminating the need for safety chains. The gland fitting of the tool includes a packing seal for safety, ensuring no leakage around the cutter drive shaft, and a test valve. The McElroy Hot Tap tool is long enough to meet or exceed ASTM standards for squeeze off dimensions or it can be used with a ball valve.

**Hot Tap Tools**

Catalog No.	Product	Description
220002	<b>2" IPS Tool</b>	PE2406 medium density plastic.
220003	<b>2" IPS Tool</b>	PE3408 high density plastic.
220006	<b>2" IPS Tool</b>	DRISCOPIPE 8100.
221501	<b>2" IPS Cutter</b>	1.5" OD x 1.75" long spare cutter.
220106	<b>3" IPS Tool</b>	PE2406 medium density plastic.
220107	<b>3" IPS Tool</b>	PE3408 high density plastic.
220109	<b>3" IPS Tool</b>	DRISCOPIPE 8100.
221601	<b>3" IPS Cutter</b>	2.25" OD x 2.25" long spare cutter.
220206	<b>4" IPS Tool</b>	PE2406 medium density plastic.
220207	<b>4" IPS Tool</b>	PE3408 high density plastic.
220209	<b>4" IPS Tool</b>	DRISCOPIPE 8100.
221702	<b>4" IPS Cutter</b>	3" OD x 2.75" long spare cutter.
220302	<b>6" IPS Tool</b>	PE2406 medium density plastic.
220303	<b>6" IPS Tool</b>	PE3408 high density plastic.
220306	<b>6" IPS Tool</b>	DRISCOPIPE 8100.
221902	<b>6" IPS Cutter</b>	4.44" OD x 3.25" long spare cutter.
220305	<b>6" IPS Conversion Kit</b>	Polyvalve Conversion Kit . Converts a standard 6" hot tap tool to a 6" Polyvalve hot tap tool. Kit includes a 3" OD cutter.



## Productivity Tools & Accessories



### DataLogger®

The McElroy DataLogger® is used to record and document key parameters of the fusion process to determine if a joint was fused with correct pressure and times according to supported standards.

The DataLogger generates joint reports for in-field review or transfer to the DataLogger Vault™, a free online application that provides secure storage and unparalleled joint data analysis capabilities.

### DataLogger®

Catalog No.	Product	Description
DL16001	<b>DataLogger® 5 Package</b>	GPS stamping, 2D barcode scanner, 5MP camera, full support for Wi-Fi and cellular networks, pressure sensor with a 0 to 3,000 PSI pressure range, FusionGuide visual graph interpretation, rechargeable internal battery. Package includes digital pressure sender, rugged handheld computer with pre-installed software, carrying case, and one year of free software support.
DL13501	<b>DataLogger® 4 Package</b>	Pressure sensor with a 0 to 3,000 PSI pressure range, FusionGuide visual graph interpretation, rechargeable internal battery. Package includes digital pressure sender, rugged handheld computer with pre-installed software, carrying case, and one year of free software support.
ADL6601	<b>No. 28 to 1648 Adapter Kit</b>	Adapter kits are used with machines made after 1994. These machines have a port labeled TXA on the manifold. This series of fusion machines are plumbed with high pressure hydraulic hoses.
ADL6602	<b>No. 28 Combination Unit (CU) Adapter Kit</b>	Adapter kits are used with machines made after 1994. These machines have a port labeled TXA on the manifold. This series of fusion machines are plumbed with high pressure hydraulic hoses.
ADL6603	<b>Sidewinder® Adapter Kit</b>	Adapter kits are used with machines made after 1994. These machines have a port labeled TXA on the manifold. This series of fusion machines are plumbed with high pressure hydraulic hoses.



### Pyrometers

Accurately checks surface temperature of heater.

### Pyrometers

Catalog No.	Product	Description	Manufacturer
A218804	<b>Digital Pyrometer</b>	Measures surface temperature of heater.	Atkins / McElroy

**Productivity Tools & Accessories****Pyrometers**

Catalog No.	Product	Description	Manufacturer
NMP-06	<b>Analog Pyrometer</b>	0° F to 600° F temperature range. Automatically adjusts for changes in room temperature. Not affected by RF noise and electrical interference.	EDL
SS-12EP	<b>Probe</b>	For NMP-06.	EDL
CC-NMP	<b>Case</b>	For NMP-06.	EDL
Fluke 62	<b>Infrared Pyrometer</b>	-22° F to 932° F temperature range. Dust and water resistant. 3-meter drop tested.	Fluke

**Bead Removal Tools**

There are many reasons to remove the fusion beads – less friction, eliminate flow restriction, and reduce contamination. Remove either the external fusion bead or internal fusion beads to gain optimum performance and efficiencies.

**Bead Removal Tools**

Catalog No.	Product	Description	Manufacturer
1221101	<b>1-1/4" to 6" IPS External Bead Remover</b>		McElroy
1810102	<b>4" IPS to 18" OD External Bead Remover</b>		McElroy
1221601	<b>Replacement Blades</b>	Replacements for 1221101.	McElroy
1221603	<b>Replacement Blades</b>	Replacements for 1810102.	McElroy
TH-3	<b>3" Internal Bead Trimmer Head</b>	3.28" Max ID, 2.48" Min ID. Shipping: 17" Length, 3.5" OD Width, 5 lbs.	R&L Manufacturing
TH-4	<b>4" Internal Bead Trimmer Head</b>	4.22" Max ID, 3.19" Min ID. Shipping: 17" Length, 4.5" OD Width, 7 lbs.	R&L Manufacturing
TH-5	<b>5" Internal Bead Trimmer Head</b>	5.22" Max ID, 3.94" Min ID. Shipping: 17" Length, 5.6" OD Width, 9 lbs.	R&L Manufacturing
TH-6	<b>6" Internal Bead Trimmer Head</b>	6.2" Max ID, 4.7" Min ID. Shipping: 17" Length, 6.6" OD Width, 13 lbs.	R&L Manufacturing
TH-8	<b>8" Internal Bead Trimmer Head</b>	8.06" Max ID, 6.12" Min ID. Shipping: 17" Length, 8.6" OD Width, 19 lbs.	R&L Manufacturing
TH-10	<b>10" Internal Bead Trimmer Head</b>	10.04" Max ID, 7.62" Min ID. Shipping: 17" Length, 10.8" OD Width, 26 lbs.	R&L Manufacturing
TH-12	<b>12" Internal Bead Trimmer Head</b>	11.92" Max ID, 9.04" Min ID. Shipping: 19" Length, 12.8" OD Width, 32 lbs.	R&L Manufacturing
TH-14	<b>14" Internal Bead Trimmer Head</b>	13.08" Max ID, 9.93" Min ID. Shipping: 19" Length, 14" OD Width, 40 lbs.	R&L Manufacturing
TH-16	<b>16" Internal Bead Trimmer Head</b>	14.95" Max ID, 11.35" Min ID. Shipping: 19" Length, 16" OD Width, 50 lbs.	R&L Manufacturing
TH-18	<b>18" Internal Bead Trimmer Head</b>	16.82" Max ID, 12.77" Min ID. Shipping: 19" Length, 18" OD Width, 62 lbs.	R&L Manufacturing
TH-20	<b>20" Internal Bead Trimmer Head</b>	18.69" Max ID, 14.19" Min ID. Shipping: 22" Length, 20" OD Width, 79 lbs.	R&L Manufacturing
TH-22	<b>22" Internal Bead Trimmer Head</b>	20.56" Max ID, 15.61" Min ID. Shipping: 22" Length, 22" OD Width, 90 lbs.	R&L Manufacturing
TH-24	<b>24" Internal Bead Trimmer Head</b>	22.43" Max ID, 17.03" Min ID. Shipping: 22" Length, 24" OD Width, 103 lbs.	R&L Manufacturing



## Productivity Tools & Accessories

### Bead Removal Tools

Catalog No.	Product	Description	Manufacturer
TTA-51	<b>51' Torque Tube Assembly</b>	Shipping: 94" Length, 8.6" OD Width, 106 lbs.	R&L Manufacturing



### Pipe Shears & Cutters

The pipe shears and cutters are for PE materials only. Manufactured by Reed.

### Pipe Shears & Cutters

Catalog No.	Product	Description
04176	<b>Up to 1.7" OD Ratchet Shear</b>	
94276	<b>Blade Replacement</b>	For 04176.
94177	<b>Ratchet Assembly</b>	For 04176. Parts.
04175	<b>Up to 1.7" OD Ratchet Shear</b>	With plated steel blade.
94180	<b>Blade Replacement</b>	For 04175.
04177	<b>Up to 2.4" OD Ratchet Shear</b>	2-handed.
94176	<b>Blade Replacement</b>	For 04177.
94178	<b>Ratchet Assembly</b>	For 04177. Parts.
94179	<b>Repair Kit</b>	For 04177. Parts.
04182	<b>Up to 2.4" OD Ratchet Shear</b>	1-handed.
94555	<b>Blade Replacement</b>	For 04182.
04174	<b>Up to 1.3" OD Scissor Shear</b>	
94170	<b>Blade Replacement</b>	For 04174.
94187	<b>Blade Replacement</b>	For 04174. Stainless steel.
04178	<b>Up to 1.7" OD Scissor Shear</b>	
94169	<b>Blade Replacement</b>	For 04178.
04120	<b>1/4" to 2-5/8" OD Quick Release Cutter</b>	
04180	<b>Cutter Wheel Replacement</b>	For 04120.
04148	<b>1-7/8" to 4-1/2" OD Quick Release Cutter</b>	
04198	<b>Cutter Wheel Replacement</b>	For 04148.
04160	<b>4" to 6-5/8" OD Quick Release Cutter</b>	
04190	<b>Cutter Wheel Replacement</b>	For 04160.
04170	<b>6-1/4" to 10" OD Quick Release Cutter</b>	
04199	<b>Cutter Wheel Replacement</b>	For 04170.
04604	<b>2" to 4" OD Guillotine Cutter</b>	
40329	<b>Blade Replacement</b>	For 04604.

**Productivity Tools & Accessories**

**Pipe Shears & Cutters**

Catalog No.	Product	Description
04608	<b>3" to 8" OD Guillotine Cutter</b>	
40027	<b>Blade Replacement</b>	For 04608.
04612	<b>4" to 12" OD Guillotine Cutter</b>	
94903	<b>Blade Replacement</b>	For 04612.



### Valve Changers

The gas meter valve provides the primary shut-off point on the gas service line. If this valve needs to be replaced for any reason, there is often no other convenient shut-off point upstream of the valve.

The Mueller NO-BLO valve changer provides a safe, effective and easy to use means for stopping gas flow upstream of the meter valve allowing the valve to be replaced. It also allows the MIP threads on the riser to be refurbished, if necessary.

The Mueller valve changer, which includes plugging units and safety clamps, can be used on most straightway and round way meter valves in sizes ranging from 3/4" through 2" if the valve has an FIP outlet and the port through the valve will permit the passage of the valve changer's plugging unit.

Extended length valve changers and safety clamps are available.

### Valve Changers

Catalog No.	Product	Description
H17010	<b>3/4", 1", 1-1/4" Valve Changer Kit</b>	Mueller NO-BLO. Kit includes safety clamp, plugging units, wooden storage chest.
H17012	<b>1-1/2", 2" Valve Changer Kit</b>	Mueller NO-BLO. Kit includes safety clamp, plugging units, wooden storage chest.
682597	<b>3/4" - 1-1/4" Safety Clamp</b>	
83792	<b>1-1/2" - 2" Safety Clamp</b>	
682857	<b>3/4" - 1-1/4" Safety Clamp</b>	Extended length.
682732	<b>1-1/2" - 2" Safety Clamp</b>	Extended length.
682795	<b>Clamp Bar</b>	Extended clamp bar (only) for safety clamp.
83962	<b>3/4" Plugging Unit Complete</b>	
83963	<b>1" Plugging Unit Complete</b>	
83964	<b>1-1/4" Plugging Unit Complete</b>	
83805	<b>1-1/2" Plugging Unit Complete</b>	
83928	<b>2" Plugging Unit Complete</b>	
H17061-163	<b>Plugging Unit</b>	3/4" valve changer for 1/2" CTS PE riser (round plug for riser stiffener).
H17061-164	<b>Plugging Unit</b>	1" valve changer for 1/2" CTS PE riser (round plug for riser stiffener).
580617	<b>3/4" x 24" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
83865	<b>3/4" x 29" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
681427	<b>3/4" x 36" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
580618	<b>1" x 24" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
83866	<b>1" x 33" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
580788	<b>1" x 36" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).

**Valve Changers**

**Valve Changers**

Catalog No.	Product	Description
580621	<b>1-1/4" x 24" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
681430	<b>1-1/4" x 36" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682857).
681431	<b>2" x 36" Extended Length Plugging Unit Complete</b>	Requires extended length safety clamp (682732).



**Valve Changer Replacement Parts**

Most components of the Mueller valve changers can be replaced when worn. The common replacement rubbers are listed below. Contact GROEBNER for the complete list of replacement parts.

**Replacement Parts**

Catalog No.	Product
51243	<b>3/4" Spare Rubber</b>
51100	<b>1" Spare Rubber</b>
51113	<b>1-1/4" Spare Rubber</b>
500561	<b>1-1/2" Spare Rubber</b>
501183	<b>2" Spare Rubber</b>
53856	<b>1/2" CTS Round Spare Rubber</b>

**Drilling & Stopping Equipment**



**Autoperf Tools**

Mueller Autoperf Tees provide a fast economical way to make a main to service connection. The Autoperf Installation Tools help to make a safe and permanent installation. There are crimping tools and operating wrenches available to work while the main is under pressure or not. All assure a safe installation of the Autoperf tees and transition tees.

**Autoperf Tools**

Catalog No.	Product	Description
H18097-250	<b>Crimping Tool</b>	For 3/4" autoperf tees, not pressure rated.
H18092-160	<b>Crimping Tool (Pressure Rated)</b>	For 1/2" autoperf tees.
H18092-250	<b>Crimping Tool (Pressure Rated)</b>	For 3/4" autoperf tees.



## Drilling & Stopping Equipment

### Autoperf Tools

Catalog No.	Product	Description
H18096-159	<b>Wrench</b>	For 1/2" autoperf tees, t-handle, 5/16" hex, not pressure rated.
H18096-122	<b>Wrench</b>	For 3/4" autoperf tees, t-handle, 3/8" hex, not pressure rated.
H18094-158	<b>Wrench</b>	For 1/2" autoperf tees, 1/4" hex, not pressure rated.
H18094-159	<b>Wrench</b>	For 1/2" autoperf tees, 5/16" hex, not pressure rated.
H18094-122	<b>Wrench</b>	For 3/4" autoperf tees, 3/8" hex, not pressure rated.
H18090-158	<b>Wrench (Pressure Rated)</b>	For 1/2" autoperf tees, 1/4" hex.
H18090-122	<b>Wrench (Pressure Rated)</b>	For 3/4" autoperf tees, 3/8" hex.



### Small Drilling & Stopping Machines

Mueller manufactures several different small drilling and stopping machines for drilling or cutting holes 1/8" to 3-3/4" in steel or cast iron pipe, and stopping off tees and fittings up to 4". Machines are available in hand or power operated models with a wide selection of drills and shell cutters.

Mueller has built these machines to take the rough handling such equipment usually receives during normal use. They are designed to provide years of service with proper maintenance.

These machines are part of a complete system of NO-BLO equipment, products and methods developed by Mueller to perform the variety of operations needed to install, extend, and maintain today's gas systems. The design of each part of this system helps everything work together efficiently for strong, leak-tight NO-BLO installations.

#### SMALL MACHINE SELECTION GUIDE

Machine	Drill or Cutter Capacity	Maximum Working Pressure*
E-5™	1/8" - 2"	500 psig
EH-5™	1/8" - 2"	1200 psig
D-5™	1/8" - 3-3/4"	500 psig
DH-5™	1/8" - 3-3/4"	1200 psig
Unit No. 1	N/A	125 psig
H-17040	N/A	125 psig
H-17045	N/A	125 psig
H-17145	N/A	1200 psig

\*This is the maximum working pressure of the machine at 100° F.

### Small Drilling & Stopping Machines

Catalog No.	Product	Description
39330	<b>E5 Machine</b>	Includes metal storage case (580971), reversible ratchet handle (580897), body gasket (47756), adjustable wrench (91664), double open end wrenches (96536 & 59787), cutting grease (88366), and operating manual (form 9335).

**Drilling & Stopping Equipment**

**Small Drilling & Stopping Machines**

Catalog No.	Product	Description
39341	<b>EH5 Machine</b>	Includes wooden storage chest (311658), reversible ratchet handle (580897), body gasket (47756), adjustable wrench (91664), double open end wrenches (96536 & 59787), cutting grease (88366), and operating manual (form 9675).
39305	<b>D5 Machine</b>	Includes metal storage case (580969), reversible ratchet handle (85308), body gasket (33278), adjustable wrench (91664), double open end wrench (58196), cutting grease (88366), and operating manual (form 9335).
39315	<b>DH5 Machine</b>	Includes wooden storage chest (680352), reversible ratchet handle (85308), body gasket (33278), adjustable wrench (91664), double open end wrench (58196), cutting grease (88366), and operating manual (form 9335).
H-17135	<b>Unit No. 1</b>	Used to stop off 1-1/2" to 4" line stopper fittings. Includes: wooden storage chest (302549) and operating manual (form 8517).
H-17040	<b>H-17040 Machine</b>	Used to stop off 3/4", 1", and 1-1/4" service tees. Can only be used with H-10914 bronze gate valve.
H-17045	<b>H-17045 Machine</b>	Used to install or remove completion plugs, stems, and bushings in 3/4" to 1-1/2" tees, Save-A-Valve drilling nipples and line stopper fittings. Includes: 1-1/4" machine adapter nipple (36733), 1-1/2" machine adapter nipple (33575), extracting fork (78897), two body gaskets (47756), and operating manual (form 8547).
H-17145	<b>H-17145 Machine</b>	Used to install or remove completion plugs, stems, and bushings in 3/4" to 2" tees and up to 3" drilling nipples. Operates up to 1200 psi. Includes tool, wood storage case (97408), body basket (33278), reversible ratchet handle (83409), and operating manual (form 8833).
681846	<b>E5 Machine Rebuild Kit</b>	Kit includes one o-ring (46726), one body gasket (47756), one friction collar (48130), and one cutting grease (88366).
681845	<b>D5 Machine Rebuild Kit</b>	Kit includes one o-ring (51458), one body gasket (33278), one friction collar (580610), one friction collar pin (48130), and one cutting grease (88366).
580657	<b>Stopper Lubricant</b>	1lb. can.
88366	<b>Cutting Grease</b>	1lb. can.
47756	<b>Gasket</b>	E5 & EH5 body gasket.
33278	<b>Gasket</b>	D5 & DH5 body gasket.
91664	<b>Wrench</b>	Adjustable wrench.
96536	<b>Wrench</b>	3/4" x 13/16" double open end wrench.
59787	<b>Wrench</b>	9/16" x 11/16" double open end wrench.



## Drilling & Stopping Equipment



### Small Machine Tooling

This list of tooling components for the smaller Mueller machines is based around the most common Mueller fittings – the H-17190 low pressure line stopper fitting (half stop) and the H-17055 service line stopper fitting.

NOTE: Each specific Mueller fitting requires a list of tooling to complete the job safely. This is only a partial list for a select set of fittings. Contact GROEBNER for the complete list of tooling for each specific Mueller fitting.

### Small Machine Tooling

Catalog No.	Product	Description
61990	<b>7/8" Drill</b>	H-17505 - 3/4" & 1".
33531	<b>1-1/8" Drill</b>	H-17505 - 1-1/4".
580678	<b>13/16" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 3/4".
537192	<b>Pilot Drill</b>	H-17190 - 3/4".
503475	<b>13/16" Shell Cutter</b>	H-17190 - 3/4".
89568	<b>3/4" Rubber Stopper Complete</b>	H-17190 - 3/4".
508695	<b>3/4" Replacement Solid Rubber</b>	H-17190 - 3/4".
580679	<b>15/16" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 1".
502906	<b>Pilot Drill</b>	H-17190 - 1" to 2".
503476	<b>15/16" Shell Cutter</b>	H-17190 - 1".
89569	<b>1" Rubber Stopper Complete</b>	H-17190 - 1".
508694	<b>1" Replacement Solid Rubber</b>	H-17190 - 1".
580680	<b>1-1/4" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 1-1/4".
503477	<b>1-1/4" Shell Cutter</b>	H-17190 - 1-1/4".
89130	<b>1-1/4" Rubber Stopper Complete</b>	H-17190 - 1-1/4".
503440	<b>1-1/4" Replacement Solid Rubber</b>	H-17190 - 1-1/4".
89877	<b>1-1/4" By-Pass Rubber Stopper Complete</b>	H-17190 - 1-1/4".
505553	<b>1-1/4" Replacement By-Pass Rubber</b>	H-17190 - 1-1/4".
89350	<b>1-3/4" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 2".
504222	<b>1-3/4" Shell Cutter</b>	H-17190 - 2".
580900	<b>2" Rubber Stopper Complete</b>	H-17190 - 2".
502916	<b>2" Replacement Solid Rubber</b>	H-17190 - 2".
89165	<b>2" By-Pass Rubber Stopper Complete</b>	H-17190 - 2".
503670	<b>2" Replacement By-Pass Rubber</b>	H-17190 - 2".
89351	<b>2-3/4" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 3".
502932	<b>Pilot Drill</b>	H-17190 - 3" to 4".
504223	<b>2-3/4" Shell Cutter</b>	H-17190 - 3".

**Drilling & Stopping Equipment**

**Small Machine Tooling**

Catalog No.	Product	Description
580917	<b>3" Rubber Stopper Complete</b>	H-17190 - 3".
502946	<b>3" Replacement Solid Rubber</b>	H-17190 - 3".
89945	<b>3" By-Pass Rubber Stopper Complete</b>	H-17190 - 3".
508425	<b>3" Replacement By-Pass Rubber</b>	H-17190 - 3".
89352	<b>3-3/4" Shell Cutter Complete</b>	Shell cutter, pilot drill, and arbor. H-17190 - 4".
504224	<b>3-3/4" Shell Cutter</b>	H-17190 - 4".
580905	<b>4" Rubber Stopper Complete</b>	H-17190 - 4".
502919	<b>4" Replacement Solid Rubber</b>	H-17190 - 4".
89947	<b>4" By-Pass Rubber Stopper Complete</b>	H-17190 - 4".
508324	<b>4" Replacement By-Pass Rubber</b>	H-17190 - 4".
83778	<b>3/4" Rubber Shut Off Tool Complete</b>	H-17055 - 3/4".
500056	<b>3/4" Replacement Rubber</b>	H-17055 - 3/4".
80082	<b>1" Rubber Shut Off Tool Complete</b>	H-17055 - 1".
78886	<b>1" Replacement Rubber</b>	H-17055 - 1".
80083	<b>1-1/4" Rubber Shut Off Tool Complete</b>	H-17055 - 1-1/4".
78890	<b>1-1/4" Replacement Rubber</b>	H-17055 - 1-1/4".
80088	<b>Extracting Tool</b>	E5 Tool 3/4" & 1" & some 1-1/4", D5 Tool 3/4" & 1".
78897	<b>80088 Fork</b>	
80086	<b>80088 Shank</b>	
83212	<b>Extracting Tool</b>	E5 Tool 1-1/4", D5 Tool 1-1/4".
78897	<b>83212 Fork</b>	
89374	<b>83212 Shank</b>	
83262	<b>Extracting Tool</b>	E5 Tool 2".
36304	<b>83262 Fork</b>	
50304	<b>83262 Shank</b>	
88384	<b>Extracting Tool</b>	D5 Tool 2".
36304	<b>88384 Fork</b>	
36193	<b>88384 Shank</b>	
580919	<b>Extracting Tool</b>	D5 Tool 3".
36404	<b>580919 Fork</b>	
36191	<b>580919 Shank</b>	
580913	<b>Extracting Tool</b>	D5 Tool 4".
53508	<b>580913 Fork</b>	
580914	<b>580913 Shank</b>	
88286	<b>Extracting Tool</b>	D5 Tool 1-1/4".
33572	<b>88286 Fork</b>	
33598	<b>88286 Shank</b>	
83261	<b>Inserting Tool</b>	E5 Tool 3/4" & 1", D5 Tool 3/4" & 1".
78897	<b>83261 Fork</b>	
83272	<b>83261 Shank Sub Assembly</b>	
83257	<b>Inserting Tool</b>	E5 Tool 1-1/4", D5 Tool 1-1/4".



## Drilling & Stopping Equipment

### Small Machine Tooling

Catalog No.	Product	Description
78897	<b>83257 Fork</b>	
83273	<b>83257 Shank Sub Assembly</b>	
83258	<b>Inserting Tool</b>	D5 Tool 2".
50303	<b>83258 Fork</b>	
83274	<b>83258 Shank Sub Assembly</b>	
580291	<b>Inserting Tool</b>	D5 Tool 3".
50303	<b>580291 Fork</b>	
89368	<b>580291 Shank Sub Assembly</b>	
580908	<b>Inserting Tool</b>	D5 Tool 4".
89570	<b>3/4", 1", 1-1/4" Chip Sweeper</b>	
580902	<b>2", 3", 4" Chip Sweeper</b>	
508567	<b>Small Chip Sweeper Brush</b>	
502912	<b>Large Chip Sweeper Brush</b>	
682080	<b>Small Magnet</b>	
682081	<b>Large Magnet</b>	
47756	<b>E5 Machine Gasket</b>	
33278	<b>D5 Machine Gasket</b>	
580657	<b>Stopper Lubricant</b>	1lb. can.
88366	<b>Cutting Grease</b>	1lb. can.



### Control Valves

An important component of the Mueller drilling and stopping system is the control valve. You have choices of valves to use depending on the system pressures you are working with.

H-10917 Slide Gate Valve has a maximum working pressure of 250 psi and is repairable.

H-10914 Bronze Gate Valve has a maximum of 125 psi.

H-17025 Control Chamber is for steel tees and has a by-pass/equalizing feature. Add bushings to size appropriately for the specific tee size. Maximum working pressure of 125 psi.

H-10918 Steel Gate Valve has a maximum working pressure of 2000 psi.

### Control Valves

Catalog No.	Product	Description
H10917-2"	<b>2" Slide Gate Valve</b>	
H10917-2-1/2"	<b>2-1/2" Slide Gate Valve</b>	
H10917-3"	<b>3" Slide Gate Valve</b>	
H10917-4"	<b>4" Slide Gate Valve</b>	
507781	<b>2" Bushing</b>	Optional bushings for the H-10917 to give the same face to face as the H-10914 bronze gate valve.

**Drilling & Stopping Equipment**

**Control Valves**

Catalog No.	Product	Description
507782	<b>2-1/2" Bushing</b>	Optional bushings for the H-10917 to give the same face to face as the H-10914 bronze gate valve.
507783	<b>3" Bushing</b>	Optional bushings for the H-10917 to give the same face to face as the H-10914 bronze gate valve.
507784	<b>4" Bushing</b>	Optional bushings for the H-10917 to give the same face to face as the H-10914 bronze gate valve.
681794	<b>2" Repair Kit</b>	Kit includes one gasket (78833), one o-ring (79344), sixteen spring washers (311663), one o-ring (311818), one gasket (509499). (H-10917).
681795	<b>2-1/2" Repair Kit</b>	Kit includes one gasket (78833), one o-ring (79344), twenty spring washers (311663), one o-ring (52162), one gasket (509498). (H-10917).
681796	<b>3" Repair Kit</b>	Kit includes one gasket (78833), one o-ring (79344), twenty four spring washers (311663), one o-ring (47879), one gasket (509497). (H-10917).
681765	<b>4" Repair Kit</b>	Kit includes one gasket (78833), one o-ring (79344), twenty eight spring washers (311639), one o-ring (311808), one gasket (509496). (H-10917).
H10914-3/4"	<b>3/4" Bronze Gate Valve</b>	
H10914-1"	<b>1" Bronze Gate Valve</b>	
H10914-1-1/4"	<b>1-1/4" Bronze Gate Valve</b>	
H10914-1-1/2"	<b>1-1/2" Bronze Gate Valve</b>	
H10914-2"	<b>2" Bronze Gate Valve</b>	
H10914-2-1/2"	<b>2-1/2" Bronze Gate Valve</b>	
H10914-3"	<b>3" Bronze Gate Valve</b>	
H17025	<b>Control Chamber</b>	Includes 1", 1-1/4", & 1-1/2" bushings.
503080	<b>1/2" Control Chamber Bushing</b>	For H-17025.
502232	<b>3/4" Control Chamber Bushing</b>	For H-17025.
78829	<b>1" Control Chamber Bushing</b>	For H-17025.
78830	<b>1-1/4" Control Chamber Bushing</b>	For H-17025.
78831	<b>1-1/2" Control Chamber Bushing</b>	For H-17025.
44628	<b>Spanner Wrench</b>	For use with H-17025 control chamber adapter bushings.
H10918-2"	<b>2" High Pressure Ball Valve</b>	
H10918-3"	<b>3" High Pressure Ball Valve</b>	



### **C1-36 Machine & Shell Cutters**

The Mueller C1-36 Drilling Machine is used for the drilling operation, under pressure, to cut 1-1/2" - 12" holes. The C1-36 has a 36" boring bar travel, is used on 3" - 12" fittings, and is rated up to 500 psi working pressure. The C1-36 now comes in two speeds; the standard 6 : 1 ratio or 8 : 1 ratio which cuts slower for harder and older pipe applications.

Contact GROEBNER to learn about the C1-36 Refurbishment Program. The refurbishment is done at Mueller by their expert mechanics and the old tool comes back with a new life and a new warranty. Refurbished tools are available in stock at GROEBNER locations.

The shell cutters and pilot bits are critical for successful drilling operations. Choose from the tipped shell cutters for the longest life available from your tools. This is only a partial list of cutters and adapters used with the Mueller Fittings. Contact GROEBNER for complete parts available.

### **C1-36 Machine & Shell Cutters**

Catalog No.	Product	Description
C1-36	<b>C1-36 Drilling Machine</b>	Used for drilling operations under pressure. Cuts 3" through 12" main sizes.
C1-36-99002	<b>C1-36-99002 Drilling Machine</b>	Used for drilling operations under pressure. Cuts 3" through 12" main sizes. This model runs at slower RPMs creating a smoother cut on large diameter pipe/fittings.
C1-36-R	<b>C1-36-R Drilling Machine</b>	Refurbished as new by Mueller's experienced staff. Has the same 1 year warranty as a new machine.
682879	<b>4-1/4" Tipped Shell Cutter</b>	4" fittings. Carbide.
682885	<b>6-1/4" Tipped Shell Cutter</b>	6" fittings. Carbide.
682876	<b>6-1/2" Tipped Shell Cutter</b>	6" thin wall fittings. Carbide.
682877	<b>8-1/4" Tipped Shell Cutter</b>	8" fittings. Carbide.
682878	<b>8-1/2" Tipped Shell Cutter</b>	8" thin wall fittings. Carbide.
682780	<b>12-1/2" Tipped Shell Cutter</b>	10" & 12" fittings. Carbide.
36463	<b>3-1/4" Shell Cutter</b>	3" fittings.
36472	<b>4-1/4" Shell Cutter</b>	4" fittings.
36548	<b>6-1/4" Shell Cutter</b>	6" fittings.
63146	<b>6-1/2" Shell Cutter</b>	6" thin wall fittings.
36521	<b>8-1/4" Shell Cutter</b>	8" fittings.
36115	<b>8-1/2" Shell Cutter</b>	8" thin wall fittings.
88101	<b>3-1/4" Cutter Hub</b>	3" fittings.
54526	<b>4-1/4" Cutter Hub</b>	4" fittings.
54501	<b>6-1/4" Cutter Hub</b>	6" fittings.
83760	<b>6-1/2" Cutter Hub</b>	6" thin wall fittings.
54653	<b>8-1/4" Cutter Hub</b>	8" fittings.
83762	<b>8-1/2" Cutter Hub</b>	8" thin wall fittings.
68278	<b>12-1/2" Cutter Hub</b>	10" & 12" fittings.
88101	<b>Pilot Drill</b>	3" fittings.
54526	<b>Pilot Drill</b>	4" fittings.
54501	<b>Pilot Drill</b>	6" fittings.
83760	<b>Pilot Drill</b>	6" thin wall fittings.
54653	<b>Pilot Drill</b>	8" fittings.
83762	<b>Pilot Drill</b>	8" thin wall fittings.

**Drilling & Stopping Equipment**

**C1-36 Machine & Shell Cutters**

Catalog No.	Product	Description
68278	Pilot Drill	10" & 12" fittings.



**Large Line Stopper Machines**

The Mueller Line Stopper Unit Numbers 2, 3, 3SW, 3SW-500, and 4SW stopping and completion machines are an assembly of tools and methods that provide a means to install and stop off 3" to 12" line stopper fittings having flanged completion caps.

This equipment is not sold as a unit. Due to the variations in tools required for the different sizes pressure classes and styles of fittings, machines and tools are purchased individually. Each line stopper fitting is accompanied with a list of equipment that is used to install and stop it off. Below is only a partial list of common replacement components. Contact GROEBNER for a complete list.

**Large Line Stopper Machines**

Catalog No.	Product	Description
H-17235	Unit No. 2	Used to stop off 3" & 4" fittings, integral 1-1/4" bypass. Used in conjunction with control valve - 5" gate valve (88611).
88611	5" Gate Valve	Control valve for Unit No. 2.
88610	3" Solid Rubber Stopper	
36443	3" Replacement Rubber	For replacing solid rubber stopper.
88614	4" Solid Rubber Stopper	
36471	4" Replacement Rubber	For replacing solid rubber stopper.
88514	3" Full Bypass Rubber Stopper	
509447	3" Replacement Rubber	For replacing full bypass rubber stopper.
88515	4" Full Bypass Rubber Stopper	
509448	4" Replacement Rubber	For replacing full bypass rubber stopper.
88609	3" Top Bypass Rubber Stopper	
36439	3" Replacement Rubber	For replacing top bypass rubber stopper.
88613	4" Top Bypass Rubber Stopper	
36467	4" Replacement Rubber	For replacing top bypass rubber stopper.
80064	3" Bottom Bypass Rubber Stopper	
36439	3" Replacement Rubber	For replacing bottom bypass rubber stopper.
81496	4" Bottom Bypass Rubber Stopper	
36467	4" Replacement Rubber	For replacing bottom bypass rubber stopper.
681990	3" Bottom Out Rubber Stopper	
681991	4" Bottom Out Rubber Stopper	
83504	3" Flanged Tee Stopper	
53195	3" Replacement Rubber	For replacing flanged tee stopper.
83506	4" Flanged Tee Stopper	
53407	4" Replacement Rubber	For replacing flanged tee stopper.



## Drilling & Stopping Equipment

### Large Line Stopper Machines

Catalog No.	Product	Description
H-17335	<b>Unit No. 3</b>	Used to stop off 6" & 8" line stopper fittings and flanged service tees, integral 2" FIP bypass. Used in conjunction with control valve - 9-1/4" gate valve (83953).
83953	<b>9-1/4" Gate Valve</b>	Control valve for Unit No. 3.
682365	<b>6" Solid Rubber Stopper</b>	
37202	<b>6" Replacement Rubber</b>	For replacing solid rubber stopper.
88699	<b>8" Solid Rubber Stopper</b>	
37208	<b>8" Replacement Rubber</b>	For replacing solid rubber stopper.
682364	<b>6" Full Bypass Rubber Stopper</b>	
509449	<b>6" Replacement Rubber</b>	For replacing full bypass rubber stopper.
680517	<b>8" Full Bypass Rubber Stopper</b>	
509450	<b>8" Replacement Rubber</b>	For replacing full bypass rubber stopper.
681993	<b>6" Bottom Out Rubber Stopper</b>	
682634	<b>8" Bottom Out Rubber Stopper</b>	*ANSI 150*
681995	<b>8" Bottom Out Rubber Stopper</b>	
682337	<b>6" Flanged Tee Stopper</b>	
53439	<b>6" Replacement Rubber</b>	For replacing flanged tee stopper.
682339	<b>8" Flanged Tee Stopper</b>	
53447	<b>8" Replacement Rubber</b>	For replacing flanged tee stopper.
H-17340	<b>Unit No. 3SW</b>	Steel Wedge (SW) Stopper. Used to stop off 4", 6", & 8" line stopper fittings and flanged service tees, integral 2" FIP bypass. 275psi maximum working pressure. Used in conjunction with control valve - 9-1/4" gate valve (83953).
H-17342	<b>Unit No. 3SW-500</b>	Steel Wedge (SW) Stopper. Used to stop off 4", 6", & 8" line stopper fittings and flanged service tees, integral 2" FIP bypass. 500psi maximum working pressure. Used in conjunction with control valve - 9" gate valve (83721).
83953	<b>9-1/4" Gate Valve</b>	Control valve for Unit No. 3SW.
83721	<b>9" Gate Valve</b>	Control valve for Unit No. 3SW-500.
89694	<b>4" Steel Wedge Stopper</b>	Standard wall.
89696	<b>6" Steel Wedge Stopper</b>	Standard wall.
89700	<b>6" Steel Wedge Stopper</b>	Thin wall.
89698	<b>8" Steel Wedge Stopper</b>	Standard wall.
89702	<b>8" Steel Wedge Stopper</b>	Thin wall.
681992	<b>4" Bottom Out Rubber Stopper</b>	
681994	<b>6" Bottom Out Rubber Stopper</b>	
681996	<b>8" Bottom Out Rubber Stopper</b>	
83506	<b>4" Flanged Tee Stopper</b>	
53437	<b>4" Replacement Rubber</b>	Replacement rubber for flanged tee stopper.
682337	<b>6" Flanged Tee Stopper</b>	
53439	<b>6" Replacement Rubber</b>	Replacement rubber for flanged tee stopper.
682339	<b>8" Flanged Tee Stopper</b>	
53447	<b>8" Replacement Rubber</b>	Replacement rubber for flanged tee stopper.

**Drilling & Stopping Equipment**

**Large Line Stopper Machines**

Catalog No.	Product	Description
H-17440	<b>Unit No. 4SW</b>	Steel Wedge (SW) Stopper. Used to stop off 10" & 12" line stopper fittings, integral 2" flanged bypass. 500psi maximum working pressure. Used in conjunction with control valve - 14" gate valve (83318).
83318	<b>14" Gate Valve</b>	Control valve for Unit No. 4SW.
89704	<b>10" &amp; 12" Steel Wedge Stopper</b>	Standard wall.
681997	<b>10" &amp; 12" Bottom Out Rubber Stopper</b>	

STEEL TOOLS & MACHINES



**Power Operators**

The Mueller Power Operators make the cutting process faster, easier, and more consistent. They are available in both air and hydraulic power models.

The Portable Hydraulic Power Unit is designed specifically for use with the Mueller C1-36 when close proximity to the job is not possible. Contact GROEBNER for complete details.

**Power Operators**

Catalog No.	Product	Description	Manufacturer
H-604	<b>Air Power Operator</b>	For E-5, EH-5, D-5, & DH-5. Reversible air motor (H-604).	Mueller Co.
H-614	<b>Air Power Operator</b>	For C1-36. Non-reversible air motor (H-614).	Mueller Co.
H-607	<b>Hydraulic Power Operator</b>	For C1-36 (H-607).	Mueller Co.
HPU	<b>Portable Hydraulic Power Unit</b>	Designed for the Mueller C1-36 operation. Gas powered, 12 gallon hydraulic reservoir, 1/2" quick coupler.	GROEBNER
HPU-ES	<b>Portable Hydraulic Power Unit</b>	Designed for the Mueller C1-36 operation. Electric start, gas powered, 12 gallon hydraulic reservoir, 1/2" quick coupler.	GROEBNER
2W-Kit	<b>2 Wheel Kit</b>	Adder to HPU - 2.	GROEBNER
4W-Kit	<b>4 Wheel Kit</b>	Adder to HPU - 4.	GROEBNER



## Steel Squeeze Tools



### Huskie Tools

Control hazardous gas leaks quickly with our compact, hand-operated, emergency steel squeeze tool. With the lightweight, self-contained, hydraulic PS-62B it's a cinch to shut down up to 2" IPS Schedule 40 coated pipe, whether or not the pipe jacket is removed. Rapid closure is achieved with short pump strokes that deliver 18-tons of controlled force in a matter of seconds. To release, simply turn the release knob.

The PS-75, with its massive 34-ton force, is a new design which meets the need for a 2" super tool. Rapid closure is achieved with short pump strokes that deliver 34-tons of controlled force in a matter of seconds. To release, simply turn the release knob.

The PS-62B & PS-75 incorporate newly redesigned rounded jaws which lessen the chances of severing brittle pipe or pipe of unknown chemistry. For increased safety, any over-pumping activates a unique pressure relief bypass system without reducing pressure on the pipe itself. The Huskie's latched lower jaw and 90° swivel head are able to navigate the tightest areas while the steel-wire centering whiskers and non-conductive fiberglass insulated handles ensure a swifter, safer squeeze-off every time.

### Huskie Tools

Catalog No.	Product	Description
PS-62B	<b>Steel Squeezer</b>	Hydraulic hand operated for 2" and smaller steel pipe. Maximum force 18 tons. Weight 35 lbs.
PS-75	<b>Steel Squeezer Heavy duty</b>	Hydraulic hand operated for 2" and smaller steel pipe. Maximum force 34 tons. Weight 50 lbs.
PS-88	<b>Force Gauge</b>	Squeeze force pressure gauge attachment. Adapts to PS-62B or PS-75. Specify which model tool when ordering.



### Regent Tools

Regent Tools Steel Pipe Squeezers accommodate pipe sizes ranging from 3/4" all the way up to 24" IPS, and have a clamping capacity of 18 to 260 tons. Listed below are the tools ranging from 3/4" to 12" and the air/hydraulic pumps to operate them. Contact GROEBNER for further information.

### Regent Tools

Catalog No.	Product	Description
5045T	<b>3/4" - 2" Steel Squeezer</b>	Schedule 40 and Schedule 80. Single hydraulic ram, capacity 15 tons, weight 45 lbs., 7.5" x 20.5".
5024T	<b>2" - 3" Steel Squeezer</b>	Schedule 40 and Schedule 80. Single hydraulic ram, capacity 40 tons, weight 80 lbs., 13" x 25".
5230T	<b>3" - 4" Steel Squeezer</b>	Schedule 40 and Schedule 80. Single hydraulic ram, capacity 75 tons, weight 275 lbs., 13.5" x 32.5".

**Steel Squeeze Tools**

**Regent Tools**

Catalog No.	Product	Description
7991T	<b>6" - 8" Steel Squeezer</b>	Schedule 40 and Schedule 80. Single hydraulic ram, capacity 150 tons, weight 800 lbs., 37" x 56".
7989T	<b>10" - 12" Steel Squeezer</b>	Schedule 40 and Schedule 80. Single hydraulic ram, capacity 200 tons, weight 1,400 lbs., 37" x 73".
5336-020	<b>Hand Pump</b>	Portable pump with 2-way valve. Reservoir size 364 cu. in. capacity (310 cu. in. usable), max operating pressure 10,000 psi. 20' of hydraulic hose included.
5336-A20	<b>Air / Hydraulic Pump</b>	Portable pump with 2-way valve. Operates at 40 - 100 psi air pressure at pump. Reservoir size 231 cu. in. capacity (185 cu.in. usable), max operating pressure 10,000 psi. 15' of hydraulic hose included.
16869	<b>Air / Hydraulic Pump</b>	Portable pump for models 7991T & 7989T squeeze tools. Operates at 40 - 100 psi air pressure at pump. Reservoir size 10 gallon capacity, mounted on 2 wheel hand cart. 25' of hydraulic hose included.

**Test Equipment, Caps, & Plugs**



**Wall Thickness Gauge**

The TG110-DL defines the standard for performance and value in ultrasonic thickness gauges.

- Housed in a custom, all aluminum enclosure with gasketed ends / case
- Fully adjustable velocity for perfect calibration
- Single and dual point calibration capability
- High and low alarms
- High speed scan mode

**Wall Thickness Gauge**

Catalog No.	Product	Description
TG110-DL	<b>Wall Thickness Gauge</b>	NDT Ultrasonic Wall Thickness Gauge. High resolution display with 1/2" primary readout display. Graphic display. Single or dual point calibration.
CB - 4	<b>Calibration Block - 4</b>	4 sizes (steps) machined calibration block for NDT Gauge.
CB - 5	<b>Calibration Block - 5</b>	5 sizes (steps) machined calibration block for NDT Gauge.



### High Pressure Test Plugs

High pressure pipe testing is safer than ever before, thanks to EST's GripTight High Pressure Test Plug. Unlike other plugs that can loosen and eject under high pressure - even becoming dangerous projectiles - the GripTight actually uses test pressure to seal more securely against the pipe's inner diameter. The greater the pressure - the greater the grip! The result is safer installation, better sealing and all around safer testing.

### High Pressure Test Plugs

Catalog No.	Product	Description
SQ2-0062	<b>1/2" Test Plug</b>	Schedule 40 steel, nominal pipe size 0.622", ID range 0.620"- 0.649", 6500 PSI, 1/8"M NPT.
SQ2-0053	<b>1/2" Test Plug</b>	Schedule 80 steel, nominal pipe size 0.546", ID Range .530"- .559", 6500 PSI, 1/8"M NPT.
SQ2-0081	<b>3/4" Test Plug</b>	Schedule 40 steel, nominal pipe size 0.824", ID Range .810"-.829", 6500 PSI, 1/8"M NPT.
SQ2-0072	<b>3/4" Test Plug</b>	Schedule 80, nominal pipe size 0.742", ID Range 0.720"-.749", 6500 PSI, 1/8"M NPT.
GT-1P40	<b>1" Test Plug</b>	Schedule 40 steel, nominal pipe size 1.05", ID Range 1.01"-1.09", 6200 PSI, 1/8"M NPT.
GT-1P80	<b>1" Test Plug</b>	Schedule 80 steel, nominal pipe size 0.96", ID Range 0.90"-1.00", 8600 PSI, 1/8"M NPT.
GT-125P40	<b>1-1/4" Test Plug</b>	Schedule 40 steel, nominal pipe size 1.38", ID Range 1.31"-1.43", 5100 PSI, 1/4"M NPT.
GT-125P80	<b>1-1/4" Test Plug</b>	Schedule 80 steel, nominal pipe size 1.28", ID Range 1.23"-1.33" 7200 PSI, 1/4"M NPT.
GT-15P40	<b>1-1/2" Test Plug</b>	Schedule 40 steel, nominal pipe size 1.61", ID Range 1.58"-1.66", 4600 PSI, 3/8"M NPT.
GT-15P80	<b>1-1/2" Test Plug</b>	Schedule 80 steel, nominal pipe size 1.50", ID Range 1.47"-1.61", 6500 PSI, 3/8"M NPT.
GT-2P40	<b>2" Test Plug</b>	Schedule 40 steel, nominal pipe size 2.07", ID Range 2.04"-2.12", 3900 PSI, 3/8"M NPT.
GT-2P80	<b>2" Test Plug</b>	Schedule 80 steel, nominal pipe size 1.94", ID Range 1.19"-1.99", 5600 PSI, 3/8"M NPT.
GT-25P40	<b>2-1/2" Test Plug</b>	Schedule 40 steel, nominal pipe size 2.47", ID Range 2.44"-2.45", 4200 PSI, 1/2"M NPT.
GT-25P80	<b>2-1/2" Test Plug</b>	Schedule 80 steel, nominal pipe size 2.32", ID Range 2.27"-2.45", 5900 PSI, 3/8"M NPT.
GT-3P40	<b>3" Test Plug</b>	Schedule 40 steel, nominal pipe size 3.07", ID Range 3.04"-3.14", 3700 PSI, 1/2"M NPT.
GT-3P80	<b>3" Test Plug</b>	Schedule 80 steel, nominal pipe size 2.90", ID Range 2.87"-2.98", 5200 PSI, 1/2"M NPT.
GT-4P40	<b>4" Test Plug</b>	Schedule 40 steel, nominal pipe size 4.03", ID Range 4.00"-4.11", 3100 PSI, 1/2"M NPT.
GT-4P80	<b>4" Test Plug</b>	Schedule 80 steel, nominal pipe size 3.83", ID Range 3.80"-3.91", 4500 PSI, 1/2"M NPT.
GT-6P40	<b>6" Test Plug</b>	Schedule 40 steel, nominal pipe size 6.07", ID Range 6.04"-6.17", 2500 PSI, 3/4"M NPT.
GT-6P80	<b>6" Test Plug</b>	Schedule 80 steel, nominal pipe size 5.76", ID Range 5.73"-5.87", 3900 PSI, 3/4"M NPT.
GT-8P40	<b>8" Test Plug</b>	Schedule 40 steel, nominal pipe size 7.98", ID Range 7.95"-8.10", 2200 PSI, 3/4"F NPT.
GT-8P80	<b>8" Test Plug</b>	Schedule 80 steel, nominal pipe size 7.63", ID Range 7.60"-7.75", 3400 PSI, 3/4"F NPT.

**Test Equipment, Caps, & Plugs**

**High Pressure Test Plugs**

Catalog No.	Product	Description
GT-10P40	<b>10" Test Plug</b>	Schedule 40/standard steel, nominal pipe size 10.02", ID Range 9.99"-10.21", 1966PSI, 3/4"M NPT.
GT-10P80	<b>10" Test Plug</b>	Schedule 80 steel, nominal pipe size 9.56", 9.53"-9.80", 3264 PSI, 3/4"M NPT.
GT-12P40	<b>12" Test Plug</b>	Schedule 40/standard steel, nominal pipe size 12.00", ID Range 11.97"-12.19", 1840 PSI, 3/4"M NPT.
GT-12P80	<b>12" Test Plug</b>	Schedule 80 steel, nominal pipe size 11.37", ID Range 11.34"-11.64", 3184 PSI, 3/4"M NPT.
GT-14PSTD	<b>14" Test Plug</b>	Schedule 30/standard steel, nominal pipe size 13.25", ID Range 13.22"-13.44", 1540 PSI, 3/4"M NPT.
GT-16PSTD	<b>16" Test Plug</b>	Schedule 30/standard steel, nominal pipe size 15.25", ID Range 15.22"-15.44", 1343 PSI, 3/4"M NPT.
GT-18PSTD	<b>18" Test Plug</b>	Schedule 40 steel, nominal pipe size 7.98", ID Range 17.22"-17.44", 2200 PSI, 3/4"F NPT.
GT-20PSTD	<b>20" Test Plug</b>	Schedule 20/standard steel, nominal pipe size 19.25", ID Range 19.22"-19.47", 1070 PSI, 2"M NPT.
GT-24PSTD	<b>24" Test Plug</b>	Schedule 20/standard steel, nominal pipe size 23.25", ID Range 23.22"-23.47", 889 PSI, 2"M NPT.
N/A	<b>Test Plug</b>	Larger sizes available.

STEEL TOOLS & MACHINES



**Tapered Screw Plugs**

Tapered screw plugs are used to stop leaks in steel pipe lines, boilers, tanks and large diameter pipe lines. They are self-threading. Install tapered screw plugs by screwing into hole and welding in place. Plugs are made of heat treated steel alloy.

**Tapered Screw Plugs**

Catalog No.	Product
514258	<b>3/8" Hex x 1-1/4" Long Tapered Screw Plug</b>
514259	<b>5/8" Hex x 2-1/8" Long Tapered Screw Plug</b>
514260	<b>13/16" Hex x 2-3/4" Long Tapered Screw Plug</b>
514261	<b>1" Hex x 3-1/4" Long Tapered Screw Plug</b>



### **X-Pander Plugs & Tools**

The X-Pander plug is first locked into the X-Pander wrench at its unexpanded size. Next the plug is inserted into the pipe (recessed for tamper-resistance if desired), and expanded by turning the wrench handle. Once the plug is fully expanded, a tight seal results, and the wrench can be removed, leaving the plug. Reverse the order of these directions to remove the plug.

Type "C" X-Pander pipeline plugs are available in 1/2", 3/4", 1", 1-1/4", 1-1/2", and 2" iron pipe sizes and 1/2" copper tube size. The cork is made of SBR rubber, and all steel parts are zinc-plated. All plugs are usable with all wrench sizes.

Double-length pipeline plugs for plastic pipe are available in 3/4", 1", 1-1/4", 1-1/2", and 2" iron pipe sizes and 1" copper tube size. The cork is made of SBR rubber, and all steel parts are zinc-plated. All double-length plugs are usable with all wrench sizes.

By using X-Pander Nose Cones, you protect the leading end of plastic pipe from dirt, water & other residue while pushing through old service lines. The nosecone is inserted in the pipe, then hand-tightened to ensure a good fit in the pipe. No wrench or other tools required.

### **X-Pander Plugs & Tools**

Catalog No.	Product	Description
XP-0.50 IPS	<b>1/2" IPS Plug</b>	Type "C". Steel.
XP-0.50 CTS	<b>1/2" CTS Plug</b>	Type "C". Steel.
XP-0.75 IPS	<b>3/4" IPS Plug</b>	Type "C". Steel.
XP-0.75 SP	<b>3/4" Special Plug</b>	Type "C". Steel. 23/32" cork.
XP-1.00 IPS	<b>1" IPS Plug</b>	Type "C". Steel.
XP-1.25 IPS	<b>1-1/4" IPS Plug</b>	Type "C". Steel.
XP-1.50 IPS	<b>1-1/2" IPS Plug</b>	Type "C". Steel.
XP-2.00 IPS	<b>2" IPS Plug</b>	Type "C". Steel.
DXP-0.75	<b>3/4" IPS Double Length Plug</b>	For plastic pipe.
DXP-1.00	<b>1" IPS Double Length Plug</b>	For plastic pipe.
DXP-1.25	<b>1-1/4" IPS Double Length Plug</b>	For plastic pipe.
DXP-1.50	<b>1-1/2" IPS Double Length Plug</b>	For plastic pipe.
DXP-2.00	<b>2" IPS Double Length Plug</b>	For plastic pipe.
DXP-1.12	<b>1" CTS Double Length Plug</b>	For plastic pipe. 1-1/8" OD copper tube.
XPW-07	<b>7" Wrench</b>	length.
XPW-12	<b>12" Wrench</b>	length.
XPW-18	<b>18" Wrench</b>	length.
XPW-24	<b>24" Wrench</b>	length.
XPW-36	<b>36" Wrench</b>	length.
XPW-48	<b>48" Wrench</b>	length.
XPW-60	<b>60" Wrench</b>	length.
XPW-72	<b>72" Wrench</b>	length.
P-.875	<b>1/2" IPS Nose Cone Plug</b>	19/32" minimum expansion, 3/4" maximum expansion.
P-.75	<b>3/4" IPS Nose Cone Plug</b>	25/32" minimum expansion, 15/16" maximum expansion.

**Test Equipment, Caps, & Plugs**

**X-Pander Plugs & Tools**

Catalog No.	Product	Description
P-1.3125	<b>1" IPS Nose Cone Plug</b>	1" minimum expansion, 1-5/32" maximum expansion.
P-1.25	<b>1-1/4" IPS Nose Cone Plug</b>	1-1/4" minimum expansion, 1-7/16" maximum expansion.
P-1.9062	<b>1-1/2" IPS Nose Cone Plug</b>	1-7/16" minimum expansion, 1-3/4" maximum expansion.
P-2.375	<b>2" IPS Nose Cone Plug</b>	1-13/16" minimum expansion, 2-1/8" maximum expansion.
P-.625	<b>1/2" CTS Nose Cone Plug</b>	5/8" OD. 13/32" minimum expansion, 1/2" maximum expansion.
P-1.125	<b>1" CTS Nose Cone Plug</b>	1-1/8" OD. 29/32" minimum expansion, 1" maximum expansion.
TW-Hole	<b>Trace Wire Hole</b>	All nose cone plugs available with 1/4" hole drilled in cone.

**Specialty Tools**



**Mazco Safe-T-Stopper**

Mazco Safe-T-Stopper is specifically designed to allow for open gut, pipe tees, street tees and NO-BLO service tee stopping or tee removal without hazardous release of natural gas. Simply mount the Mazco Tool over the tee, remove the cap or plug, set an expandable plug below the branch & remove the tool.

Service tee connections can be put back in service or removed without the hazardous release of the contained product. Safe-T-Stopper can also be used to change out faulty full port valves with no release of gas. Virtually any service line stopping or service tee upgrades are done safely and efficiently with the Mazco Safe-T-Stopper.

**Mazco Safe-T-Stopper**

Catalog No.	Product	Description
2500BV	<b>Basic Tool Kit</b>	For 3/4" thru 1-1/4" tee operations including most cap removal, plug removing / setting, & tee removal. Kit includes ball valve, tool shaft housing, removal tool shaft, expandable plug setting tool, lock out plug, magnet, bleeder valve, safety strap, and tool box with inserts.
CR-3/4	<b>3/4" Cap Removal</b>	Threaded black malleable iron cap removal on homemade pipe service tees.
CR-1	<b>1" Cap Removal</b>	Threaded black malleable iron cap removal on homemade pipe service tees.
CR-1-1/4	<b>1-1/4" Cap Removal</b>	Threaded black malleable iron cap removal on homemade pipe service tees.
Mueller 3/4	<b>3/4" Cap Removal</b>	NO-BLO without brass plug (H-17500).
Street Tee-3/4	<b>3/4" Plug Removal</b>	Threaded branch street tee plug removal.
Street Tee-3/4-D	<b>3/4" Plug Removal</b>	Dresser branch street tee plug removal.
Street Tee-1	<b>1" Plug Removal</b>	Threaded branch street tee plug removal.
Street Tee-1-D	<b>1" Plug Removal</b>	Dresser branch street tee plug removal.
Street Tee-1-1/4	<b>1-1/4" Plug Removal</b>	Dresser branch street tee plug removal.

**Mazco Safe-T-Stopper**

Catalog No.	Product	Description
Street Tee-1-1/4-D	<b>1-1/4" Plug Removal</b>	Threaded branch street tee plug removal.
3000BV	<b>Basic Tool Kit</b>	For larger tees up to 2". This larger tool does the cap removal, plug removing / setting, & tee removal from the main. Kit includes ball valve, tool shaft housing, removal tool shaft, expandable plug setting tool, lock out plug, magnet, bleeder valve, safety strap, and tool box with inserts.
CR-1-1/2	<b>1-1/2" Cap Removal</b>	Threaded black malleable iron cap removal on homemade pipe service tees.
CR-1-2	<b>2" Cap Removal</b>	Threaded black malleable iron cap removal on homemade pipe service tees.
Mueller 1	<b>1" Cap Removal</b>	NO-BLO without brass plug (H-17500).
Mueller 1-1/4	<b>1-1/4" Cap Removal</b>	NO-BLO without brass plug (H-17500).
Street Tee-1-1/4	<b>1-1/4" Plug Removal</b>	Threaded branch street tee plug removal and tee removal from main.
Street Tee-1-1/4-D	<b>1-1/4" Plug Removal</b>	Dresser branch street tee plug removal and tee removal from main.
Street Tee-1-1/2	<b>1-1/2" Plug &amp; Tee Removal</b>	Threaded branch street tee plug removal and tee removal from main.
Street Tee-1-1/2-D	<b>1-1/2" Plug &amp; Tee Removal</b>	Dresser branch street tee plug removal and tee removal from main.
Street Tee-2	<b>2" Plug &amp; Tee Removal</b>	Threaded branch street tee plug removal and tee removal from main.
Street Tee-2-D	<b>2" Plug &amp; Tee Removal</b>	Dresser branch street tee plug removal and tee removal from main.
SLS	<b>L-Stopper</b>	For drilling into the elbow to gain access to shut off a tee and ultimately remove the whole tee from service.

**Combustible Gas Indicators**



**SENSIT Gold G2 Combustible Gas Indicators (CGI)**

SENSIT Gold G2 CGI is a gas leak detector and confined space monitor in one user-friendly instrument. Its durable design and easy operation makes finding gas leaks fast and accurate. The bright LCD display shows up to 4 gas concentrations simultaneously, fulfilling any confined space entry requirements.

A bar-hole test feature helps to accurately detect and locate underground gas leaks. An operator controlled tick rate assists in finding leaks on exposed piping faster than ever before.

**SENSIT Gold G2**

Catalog No.	Product	Description
911-00000-51	<b>SENSIT Gold G2 Model EX/TC</b>	LEL %Vol
911-00000-52	<b>SENSIT Gold G2 Model EX/TC/CO</b>	LEL %Vol / CO
911-00000-53	<b>SENSIT Gold G2 Model EX/TCplus</b>	LEL %Vol / O2
911-00000-54	<b>SENSIT Gold G2 Model EX/TC/TOX</b>	LEL %Vol / H2S
911-00000-55	<b>SENSIT Gold G2 Model EX/TC/COplus</b>	LEL %Vol / CO / O2
911-00000-56	<b>SENSIT Gold G2 Model EX/TC/CO/TOX</b>	LEL %Vol / CO / H2S
911-00000-57	<b>SENSIT Gold G2 Model EX/TC/TOXplus</b>	LEL %Vol / O2 / H2S
911-00000-58	<b>SENSIT Gold G2 Model 4 Gas/TC</b>	LEL %Vol / CO / O2 / H2S
911-00000-59	<b>SENSIT Gold G2 Model EX/TC/COplus/HCN</b>	LEL %Vol / CO / O2 / HCN
990-00000-09	<b>Hard Carrying Case Ship Kit</b>	Your choice of ship kit included with SENSIT Gold G2 order. Specify on order. Includes hard carrying case, 3 - C batteries, 2 piece bar hole probe, extra sensor cap, wrist strap, and instruction manual.
990-00000-15	<b>Soft Carrying Pouch Ship Kit</b>	Your choice of ship kit included with SENSIT Gold G2 order. Specify on order. Includes soft pouch, 3 - C batteries, 2 piece bar hole probe, extra sensor cap, wrist strap, and instruction manual.
870-00003	<b>PPM Option</b>	
870-00002	<b>Auto Log Memory Option</b>	
870-00041	<b>Leak Search Option</b>	
870-00039	<b>IR Printer Link &amp; Smart Link Software</b>	For use with PC.
870-00038	<b>IR Printer Link Only</b>	For use with PC.
870-00040	<b>SmartLink Software</b>	For use with PC. Software only.
870-00004	<b>Infrared Printer</b>	
870-00006	<b>Paper - Single</b>	
870-00005	<b>Paper - 6 Pack</b>	
872-00003	<b>Belt Holster</b>	
872-00001	<b>Hard Carrying Case</b>	Replacement.
360-00006	<b>Soft Carrying Pouch</b>	Replacement.
883-00036	<b>Polycarbonate Probe Assembly</b>	2 piece. With hose assembly.
883-00025	<b>Polycarbonate Probe Only</b>	2 piece. No hose assembly.
883-00063	<b>24" Hose Assembly</b>	For 2 piece probe.



## Combustible Gas Indicators

### SENSIT Gold G2

Catalog No.	Product	Description
883-00027	<b>30" Polycarbonate Bar Hole Probe</b>	No hose assembly.
883-00018	<b>30" Brass Bar Hole Probe (5/16" OD)</b>	With hose assembly.
883-00075	<b>30" Brass Bar Hole Probe (1/4" OD)</b>	With hose assembly.
883-00019	<b>32" Fiberglass Probe</b>	Black/brown probe, 24" hose, 2 male luers.
883-00021	<b>32" Heavy Duty Fiberglass Bar Hole Probe</b>	With hose assembly.
883-00030	<b>Purge Probe</b>	Brass.
883-00051	<b>24" Hose Assembly</b>	For brass, fiberglass, heavy duty probe.
870-00010	<b>42" Plunger Bar</b>	
883-00023	<b>Flue Gas Hot Air Probe</b>	
883-00078	<b>Angled Hot Air Probe</b>	
883-00015	<b>10" Confined Space Probe</b>	
883-00050	<b>10' Extension Tubing</b>	For use with confined space probe.
874-00001	<b>Leak Survey Drag Tube Assembly</b>	
883-00086	<b>Telescopic Survey Probe</b>	
375-2611-01	<b>Sensor EX</b>	Replacement. LEL/2611 silver 4 prong.
870-00018	<b>Sensor Cap</b>	Replacement. With o-rings. Single.
870-00019	<b>Sensor Cap</b>	Replacement. With o-rings. 6 pack.
873-00025	<b>Dirt and Water Filter Assembly</b>	
873-00008	<b>Cartridge</b>	Replacement. For 873-00025.
870-00012	<b>Extension Adapter</b>	
873-00015	<b>Hydrocarbon Filter Kit</b>	6 pack.
873-00016	<b>Hydrocarbon Filter Kit</b>	Single.
873-00030	<b>Adapter for Hydrocarbon Filter</b>	Can be used in the place of long tube style hydrocarbon filter or if a fiberglass or brass probe is not available. Purchase Mini Filters separately.
873-00012	<b>Inline Mini Hydrocarbon Filter Kit</b>	10 pack. Brass, fiberglass BH probe with filter required.
873-00013	<b>Inline Mini Hydrocarbon Filter Kit</b>	Single. Brass, fiberglass BH probe with filter required.
873-00027	<b>Permanganate Filter</b>	Single. Acid gases like sulfur based SO <sub>2</sub> , NO <sub>2</sub> , HCN, H <sub>2</sub> S.
873-00003	<b>Moisture Filter Tube</b>	Blue Drierite Desiccant.
750-00039	<b>Instruction Manual</b>	
345-00003	<b>Luer Connector</b>	Female.
360-00105	<b>T10 Wrench</b>	
360-00040	<b>Wrist Strap</b>	
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**Combustible Gas Indicators**



**Trak-It IIIa Combustible Gas Indicators (CGI)**

Trak-It IIIa is ideal for underground natural gas leak pin pointing, pipeline purging, and confined space applications. This gas detector is available for areas requiring UL, CSA and IECEx/ATEX certification.

Trak-It IIIa Displays Up To 4 Gases Simultaneously

- LEL, % Volume (PPM Optional)
- Oxygen
- Carbon Monoxide
- Hydrogen Sulfide

A variety of toxic gas sensors are available for confined space applications.

**Trak-It IIIa**

Catalog No.	Product	Description
920-00000-50	<b>Trak-It IIIa Model EX/TC</b>	LEL %Vol
920-00000-51	<b>Trak-It IIIa Model EX/TC/CO</b>	LEL %Vol / CO
920-00000-52	<b>Trak-It IIIa Model EX/TCplus</b>	LEL %Vol / O2
920-00000-53	<b>Trak-It IIIa Model EX/TC/TOX</b>	LEL %Vol / H2S
920-00000-54	<b>Trak-It IIIa Model EX/TC/COplus</b>	LEL %Vol / CO / O2
920-00000-55	<b>Trak-It IIIa Model EX/TC/CO/TOX</b>	LEL %Vol / CO / H2S
920-00000-56	<b>Trak-It IIIa Model EX/TC/TOXplus</b>	LEL %Vol / O2 / H2S
920-00000-57	<b>Trak-It IIIa Model 4 Gas/TC</b>	LEL %Vol / CO / O2 / H2S
920-00000-58	<b>Trak-It IIIa Model EX/TC/COplus/HCN</b>	LEL %Vol / CO / O2 / HCN
920-00000-11	<b>Carrying Pouch Ship Kit</b>	Included with Trak-It IIIa order. Includes padded carrying pouch, 4 - C batteries, neck strap, external water/dirt filter, instruction manual, and choice of bar hole probe or confined space probe.
870-00003	<b>PPM Option</b>	
870-00002	<b>Auto Log Memory Option</b>	
870-00041	<b>Leak Search Option</b>	
870-00039	<b>IR Printer Link &amp; Smart Link Software</b>	For use with PC.
870-00038	<b>IR Printer Link Only</b>	For use with PC.
870-00040	<b>SmartLink Software</b>	For use with PC. Software only.
870-00004	<b>Infrared Printer</b>	
870-00006	<b>Paper - Single</b>	
870-00005	<b>Paper - 6 Pack</b>	
360-00059	<b>Carrying Pouch</b>	Replacement
360-00043	<b>Shoulder Strap</b>	Replacement. For carrying pouch.
883-00039	<b>30" Brass Bar Hole Probe (5/16" OD)</b>	With 48" hose assembly.
883-00040	<b>30" Brass Bar Hole Probe (5/16" OD)</b>	With extra inline filter.
883-00076	<b>30" Brass Bar Hole Probe (1/4" OD)</b>	With 48" hose assembly.
883-00077	<b>30" Brass Bar Hole Probe (1/4" OD)</b>	With extra inline filter.
883-00041	<b>32" Fiberglass Bar Hole Probe</b>	With 48" hose assembly.



## Combustible Gas Indicators

### Trak-It IIIa

Catalog No.	Product	Description
883-00042	<b>32" Fiberglass Bar Hole Probe</b>	With extra inline filter.
883-00044	<b>32" Heavy Duty Fiberglass Bar Hole Probe</b>	With 48" hose assembly.
883-00064	<b>60" Hose Assembly</b>	For brass, fiberglass, or heavy duty probe.
883-00045	<b>Flue Gas Hot Air Probe</b>	
870-00010	<b>42" Plunger Bar</b>	
883-00047	<b>Purge Probe</b>	Brass.
883-00038	<b>10" Confined Space Probe</b>	
883-00046	<b>Telescopic Survey Probe</b>	
874-00001	<b>Leak Survey Drag Tube Assembly</b>	
375-2611-01	<b>Sensor EX</b>	Replacement. LEL/2611 silver 4 prong.
870-00018	<b>Sensor Cap</b>	Replacement. With o-rings. Single.
870-00019	<b>Sensor Cap</b>	Replacement. With o-rings. 6 pack.
873-00028	<b>Inline Dirt and Water Filter Assembly</b>	
873-00008	<b>Cartridge</b>	Replacement. For 873-00028.
873-00020	<b>External Hydrophobic Filter</b>	Small.
873-00029	<b>External Hydrophobic Filter</b>	Large.
873-00018	<b>Hydrocarbon Filter Kit</b>	6 pack.
873-00019	<b>Hydrocarbon Filter Kit</b>	Single.
873-00030	<b>Adapter for Hydrocarbon Filter</b>	Can be used in the place of long tube style hydrocarbon filter or if a fiberglass or brass probe is not available. Purchase Mini Filters separately.
873-00012	<b>Inline Mini Hydrocarbon Filter Kit</b>	10 pack. Brass, fiberglass BH probe with filter required.
873-00013	<b>Inline Mini Hydrocarbon Filter Kit</b>	Single. Brass, fiberglass BH probe with filter required.
873-00003	<b>Moisture Filter Tube</b>	Blue Drierite Desiccant.
750-00018	<b>Instruction Manual</b>	
345-00003	<b>Luer Connector</b>	Female.
874-00003	<b>Pigtail</b>	Used for calibration.
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**Gas Survey Tools**



**SENSIT PMD**

Using the latest filtered infrared spectroscopy technology, the SENSIT PMD allows users to perform gas leak surveys fast, accurately and at the lowest cost of operation.

- Large display
- Powerful 1.5 LPM pump (provides fast sensing)
- Methane selective (PMD filters out other gases in PPM range)
- Adjustable PPM and LEL alarms (high sensitivity of 1 PPM detects leaks faster)
- Automatic backlit display
- Bar hole test
- Tick-style leak detection
- Datalogging with event capture
- Easy connection for auxiliary pumps used in vehicle applications
- Detection range of 0-100% volume for faster leak classification
- Walking or vehicle operation allows for greater user flexibility
- Simple calibration compliance using SMART-CAL

**SENSIT PMD**

Catalog No.	Product	Description
921-00000-02	<b>SENSIT PMD With GPS</b>	Datalogging included with GPS (removable memory card). Included with instrument: standard ship kit, survey probe, recharge kit, battery door removal tool, instruction manual, shoulder strap, 10 pack - filter element, and 1 - blue filter.
921-00000-01	<b>SENSIT PMD Without GPS</b>	Datalogging not included. Included with instrument: standard ship kit, survey probe, recharge kit, battery door removal tool, instruction manual, shoulder strap, 10 pack - filter element, and 1 - blue filter.
990-00000-12	<b>Deluxe Hard Carrying Case Kit</b>	Heavy duty, hard sided carrying case option.
990-00000-27	<b>Compact Carrying Case Kit</b>	Compact carrying case option.
990-00000-13	<b>Standard Shipping Kit</b>	Included with PMD order. Box with foam. No case.
870-00027	<b>Datalogging Option</b>	Included with GPS model.
883-00018	<b>30" Brass Bar Hole Probe (5/16" OD)</b>	With hose assembly.
883-00019	<b>32" Fiberglass Probe</b>	Black/brown probe, 24" hose, 2 male luers.
883-00021	<b>32" Heavy Duty Fiberglass Bar Hole Probe</b>	With hose assembly.
883-00029	<b>Telescopic Survey Probe</b>	
870-00039	<b>IR Printer Link</b>	For PC with SmartLink Software option.
870-00038	<b>IR Printer Link Only</b>	For PC option.
870-00040	<b>SmartLink Software</b>	Software only.
870-00004	<b>Infrared Printer</b>	
870-00006	<b>Paper - Single</b>	
870-00005	<b>Paper - 6 Pack</b>	
872-00010	<b>Deluxe Hard Carrying Case</b>	Replacement.
872-00013	<b>Compact Carrying Pouch</b>	Replacement.
872-00017	<b>Standard Shipping Box</b>	Replacement. Box with foam. No case.
360-00249	<b>Battery Door Removal Tool</b>	
871-00018	<b>Car Charger</b>	
330-00049	<b>Clip D-ring</b>	
873-00024	<b>0.75" PMD Hydrophobic Filter Disc</b>	10 pack.

**LEAK DETECTION**

**SENSIT PMD**

Catalog No.	Product	Description
873-00031	<b>1" PMD Hydrophobic Filter Disc</b>	Old style. Single filter.
360-00064	<b>Blue Filter</b>	For probe. Single filter.
873-00022	<b>Blue Filter</b>	For probe. 10 filters.
870-00034	<b>Filter Cap Assembly</b>	With o-rings.
750-00045	<b>Instruction Manual</b>	
871-00017	<b>Lithium Rechargeable Battery Pack</b>	
871-00024	<b>AC Transformer</b>	Wall plug with US adapter.
871-00025	<b>AC Transformer</b>	Wall plug with international adapter.
360-00238	<b>Shoulder Strap</b>	For Carrying Pouch.
871-00019	<b>Automotive Adapter</b>	To operate/power in vehicle.
871-00030	<b>Hot Swap Vehicle Battery Assembly</b>	
870-00011-SN	<b>External Auxiliary Pump</b>	6 liter. Vehicle option.
870-00025	<b>Vehicle Mount</b>	For PMD.
870-00030	<b>Vehicle Sampling Kit</b>	
870-00035	<b>Vehicle Sampling System</b>	Includes external auxiliary pump, vehicle floor mount, and vehicle sampling kit.
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**Confined Space & Personal Gas Monitors**



**SENSIT P400**

SENSIT P400 is a multi gas personal monitor designed to warn the user of hazardous gases in their working environment. The P400 can be configured with 1 to 5 sensors. Available Gas Sensors: Hydrogen Sulfide (H2S), Hydrogen Cyanide (HCN), Oxygen (O2), Carbon Monoxide (CO), Chlorine (Cl2), Nitrogen Dioxide (NO2), Phosphine (PH3), Sulfur Dioxide (SO2), Ethylene Oxide (ETO), Combustible Gases.

- Audible Alarm - 3 Tone
- Visual Alarm - 360° View
- Vibration Alarm
- STEL and TWA Alarms
- Compliance/Status Indicator
- Data Logging
- Easy Field Calibration
- Easy Clean Dust Pre-Filter
- Easy-Access Reusable Dust Filter
- Alkaline and/or NiMH Battery
- Limited 2-Year Warranty (Including Sensors)
- Extended Warranty Available

Optional, Immediate Detection System (IDS) provides early warning to changes in gas concentrations.

**LEAK DETECTION**

**SENSIT P400**

Catalog No.	Product	Description
923-00000-10	<b>P400 Model 1 Gas (LEL) Without Pump</b>	
923-00000-16	<b>P400 Model 2 Gas (LEL, CO) Without Pump</b>	
923-00000-20	<b>P400 Model 2 Gas (LEL, O2) Without Pump</b>	
923-00000-17	<b>P400 Model 2 Gas (LEL, H2S) Without Pump</b>	
923-00000-30	<b>P400 Model 3 Gas (LEL, CO, O2) Without Pump</b>	
923-00000-67	<b>P400 Model 3 Gas (LEL, CO, H2S) Without Pump</b>	
923-00000-27	<b>P400 Model 3 Gas (LEL, O2, H2S) Without Pump</b>	
923-00000-40	<b>P400 Model 4 Gas (LEL, CO, O2, H2S) Without Pump</b>	
923-00000-5X	<b>P400 Model 5 Gas (LEL, O2, CO/H2S Combo Sensor, Plus Additional 5th Sensor) Without Pump</b>	For additional 5th sensor choose from: Cl2, NO2, HCN, PH3, SO2, ETO
N/A	<b>Other Configurations Available</b>	
N/A	<b>Standard Ship Kit</b>	Included with P400 without pump order. Includes belt clip, instruction manual, calibration adapter, 4 - AA alkaline batteries, 3/32 hex #1 Phillips tool, and box.
925-00000-10	<b>P400 Model 1 Gas (LEL) With Pump</b>	
925-00000-16	<b>P400 Model 2 Gas (LEL, CO) With Pump</b>	



## Confined Space & Personal Gas Monitors

### SENSIT P400

Catalog No.	Product	Description
925-00000-20	<b>P400 Model 2 Gas (LEL, O2) With Pump</b>	
925-00000-17	<b>P400 Model 2 Gas (LEL, H2S) With Pump</b>	
925-00000-30	<b>P400 Model 3 Gas (LEL, CO, O2) With Pump</b>	
925-00000-67	<b>P400 Model 3 Gas (LEL, CO, H2S) With Pump</b>	
925-00000-27	<b>P400 Model 3 Gas (LEL, O2, H2S) With Pump</b>	
925-00000-40	<b>P400 Model 4 Gas (LEL, CO, O2, H2S) With Pump</b>	
925-00000-5X	<b>P400 Model 5 Gas (LEL, O2, CO/H2S Combo Sensor, Plus Additional 5th Sensor) With Pump</b>	For additional 5th sensor choose from: Cl2, NO2, HCN, PH3, SO2, ETO
N/A	<b>Other Configurations Available</b>	
N/A	<b>Standard Ship Kit</b>	Included with P400 with pump order. Includes belt clip, instruction manual, calibration adapter, 4 - AA alkaline batteries, motorized pump with 10' tubing and confined space probe, 3/32 hex #1 Phillips tool, and box.
883-00089	<b>Hand Aspirator Hose Assembly</b>	Includes 10' tubing and Cal Cup Assembly to be used with Hand Aspirator Hose Assembly. Used with P400 without pump.
880-00057	<b>P400 Cal Cup Assembly Only</b>	Used with P400 without pump.
883-00061	<b>Probe Assembly</b>	10", polycarb. Tubing not included. Used with P400 without pump.
874-00008	<b>Hand Aspirator Bulb Assembly</b>	Includes 14" - 3/16" ID - 5/16" OD tubing, aspirator bulb, (1) male luer, (1) female luer. Used with P400 without pump.
874-00007	<b>Hose Assembly</b>	Includes 10' - 1/8" ID - 1/4" OD tubing, (1) Male luer, (1) female luer. Used with P400 without pump.
870-00042	<b>Motorized Pump</b>	Includes 10' tubing and confined space probe.
870-00037	<b>Pump Kit</b>	Not included 10' tubing and confined space probe.
873-00020	<b>External Filter Assembly</b>	
874-00006	<b>Hose With External Filter</b>	Includes 10' - 1/8" ID - 1/4" OD tubing, probe, (1) male luer, (1) female luer.
883-00090	<b>Extension Hose</b>	Includes 50' - 1/8" ID - 1/4" - OD tubing, (1) male luer, (1) female luer.
320-00047	<b>Dust Pre-Filter</b>	
360-00303	<b>3/32 Hex #1 Phillips Tool</b>	
880-00054	<b>Calibration Kit Case - 1 Cylinder</b>	Holds 1 - 34 liter cylinder.
880-00056	<b>Calibration Kit Case - 2 Cylinders</b>	Holds 2 - 34 liter cylinders.
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**Confined Space & Personal Gas Monitors**



**SENSIT P100**

SENSIT P100 is a single gas personal monitor designed to warn the user of hazardous gases in their working environment. Available Gas Sensors: Oxygen (O2), Carbon Monoxide (CO), Hydrogen Sulfide (H2S), Hydrogen Cyanide (HCN), Chlorine (Cl2), Nitrogen Dioxide (NO2), Sulfur Dioxide (SO2).

- One Button Operation
- Audible Alarm
- Visual Alarm
- Vibration Alarm
- STEL and TWA Alarms
- Alarm Event Memory
- Easy Field Calibration
- 2-Year Operation
- Limited 2-Year Warranty (Including Sensor)
- Extended Warranty Available

**SENSIT P100**

Catalog No.	Product	Description
912-00000-03	<b>P100 Model CO - 2 Year Warranty</b>	
912-00000-18	<b>P100 Model CO - 3 Year Warranty</b>	
912-00000-04	<b>P100 Model CO - 4 Year Warranty</b>	
870-00031	<b>CO Extended PPM Range</b>	For CO only. 1000 - 2000ppm.
912-00000-07	<b>P100 Model HCN - 2 Year Warranty</b>	
912-00000-08	<b>P100 Model HCN - 4 Year Warranty</b>	
912-00000-05	<b>P100 Model H2S - 2 Year Warranty</b>	
912-00000-17	<b>P100 Model H2S - 3 Year Warranty</b>	
912-00000-06	<b>P100 Model H2S - 4 Year Warranty</b>	
912-00000-10	<b>P100 Model NO2 - 2 Year Warranty</b>	
912-00000-11	<b>P100 Model NO2 - 4 Year Warranty</b>	
912-00000-13	<b>P100 Model O2 - 2 Year Warranty</b>	
912-00000-14	<b>P100 Model O2 - 4 Year Warranty</b>	
912-00000-15	<b>P100 Model SO2 - 2 Year Warranty</b>	
912-00000-16	<b>P100 Model SO2 - 4 Year Warranty</b>	
N/A	<b>Standard Ship Kit</b>	Included with P100 order. Includes belt clip with screw and instruction manual.
750-00040	<b>Instruction Manual</b>	Replacement.
870-00043	<b>Belt Clip With Screw</b>	Replacement.
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**LEAK DETECTION**



## **SENSIT HXG-3**

SENSIT HXG-3 is an advanced, portable combustible gas leak detector capable of detecting and monitoring combustible gases such as methane, propane and natural gas. The backlit LCD display shows percent lower explosive limit (LEL) and part-per million (PPM) readings simultaneously for accurate gas leak detection and gas analysis.

Audible and visual alarms warn of potential hazardous conditions.

- Displays LEL and PPM
- Long-life, Low-Cost Sensor
- Push-Button Operation
- Backlit Display
- Adjustable Tick-Dial Leak Detection
- Simple Calibration
- Infrared Data Downloading

Optional, internal pump (HXG-3P) provides faster response and better sensor protection.

### **SENSIT HXG-3**

Catalog No.	Product	Description
907-00000-01	<b>SENSIT HXG-3 Without Pump</b>	
907-00000-04	<b>SENSIT HXG-3 Without Pump</b>	Includes calibration kit.
990-00000-23	<b>Hard Carrying Case Ship Kit</b>	Your choice of ship kit included with SENSIT HXG-3 without pump order. Includes hard carrying case, 3 - C batteries, wrist strap, and instruction manual.
990-00000-22	<b>Soft Carrying Pouch Ship Kit</b>	Your choice of ship kit included with SENSIT HXG-3 without pump order. Includes soft pouch, 3 - C batteries, wrist strap, and instruction manual.
907-00000-07	<b>SENSIT HXG-3P With Pump</b>	
907-00000-09	<b>SENSIT HXG-3P With Pump</b>	Includes calibration kit.
990-00000-21	<b>Hard Carrying Case Ship Kit</b>	Your choice of ship kit included with SENSIT HXG-3 with pump order. Includes hard carrying case, 3 - C batteries, wrist strap, and instruction manual.
990-00000-20	<b>Soft Carrying Pouch Ship Kit</b>	Your choice of ship kit included with SENSIT HXG-3 with pump order. Includes soft pouch, 3 - C batteries, wrist strap, and instruction manual.
870-00039	<b>IR Printer Link &amp; Smart Link Software</b>	For use with PC.
870-00038	<b>IR Printer Link Only</b>	For use with PC.
870-00040	<b>SmartLink Software</b>	For use with PC. Software only.
870-00004	<b>Infrared Printer</b>	
870-00006	<b>Paper - Single</b>	
870-00005	<b>Paper - 6 Pack</b>	
872-00003	<b>Belt Holster</b>	
872-00001	<b>Hard Carrying Case</b>	
360-00006	<b>Soft Carrying Pouch</b>	
883-00002	<b>30" Non-Conductive Probe Without Pump</b>	1 piece.
883-00003	<b>30" Non-Conductive Probe Without Pump</b>	2 piece.

**Leak Pinpointers**

**SENSIT HXG-3**

Catalog No.	Product	Description
883-00004	<b>29" Non-Conductive Probe Without Pump</b>	3 piece.
883-00085	<b>Aspirated Probe Assembly Without Pump</b>	
883-00027	<b>30" Polycarbonate Bar Hole Probe With Pump</b>	No hose assembly.
883-00019	<b>32" Fiberglass Probe With Pump</b>	Black/brown probe, 24" hose, 2 male luers.
375-2611-01	<b>Sensor EX</b>	Replacement. LEL/2611 silver 4 prong.
870-00018	<b>Sensor Cap With Pump</b>	Replacement. With o-rings. Single.
870-00019	<b>Sensor Cap With Pump</b>	Replacement. With o-rings. 6 pack.
365-00045	<b>Sensor Cap Without Pump</b>	Without filter disc.
871-00006	<b>Battery Charger With Batteries</b>	
870-00012	<b>Extension Adapter</b>	
750-00023	<b>Instruction Manual Without Pump</b>	
750-00027	<b>Instruction Manual With Pump</b>	
360-00040	<b>Wrist Strap</b>	
N/A	<b>Calibration Equipment</b>	See Leak Detection / Calibration Equipment section for details.

**LEAK DETECTION**

**Leak Soap & Thread Sealant**

The Big Bubble leak detector soap works in a wide range of temperatures and is easy to see.



The Select-Unyte thread sealants ensure leak proof joints.

**Leak Soap & Thread Sealant**

Catalog No.	Product	Description
LD8	<b>8 Ounce Big Bubble Leak Detector</b>	Dauber top bottle.
LD1	<b>1 Gallon Big Bubble Leak Detector</b>	Plastic jug with spout.
TF8	<b>1/2 Pint Thread Sealant</b>	Select-Unyte, brush top can.
TF16	<b>1 Pint Thread Sealant</b>	Select-Unyte, brush top can.



### **SENSIT Gold G2 Calibration Equipment**

When calibrating your SENSIT Gold G2 CGI, you have a couple of options to choose from:

First is a fully automated SMART-CAL Station that sequences the instrument through the calibration process and stores record of it. The SMART-CAL can be downloaded to a computer or networked into a utilities system.

Second option is to configure a manual calibration kit to fit your needs. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

### For SENSIT Gold G2

Catalog No.	Product	Description
914-00000-01	<b>SMART-CAL Auto Calibration Station Only</b>	Includes installation guide with disk, software, and 2 year support. Use with XP or Windows 7.
914-00000-04	<b>SMART-CAL Auto Calibration Station Only - Network</b>	Includes installation guide with disk, network adapter, software, and 2 year support. Use with XP and Windows 7.
881-00034	<b>Calibration Kit - EX/TC &amp; EX/TCplus</b>	21 liter - 2.5% methane - 100% methane. Manual shut off.
881-00081	<b>Calibration Kit - EX/TC &amp; EX/TCplus</b>	21 liter - 2.5% methane, demand regulator. Manual shut off.
881-00035	<b>Calibration Kit - EX/TC/CO &amp; EX/TC/COplus</b>	21 liter - combo - 100% methane. Manual shut off.
881-00036	<b>Calibration Kit - EX/TC/CO &amp; EX/TC/COplus</b>	21 liter - combo, demand regulator. Manual shut off.
881-00033	<b>Calibration Kit - Hydrogen Sulfide</b>	58 liter. Manual shut off.
881-00038	<b>Calibration Kit - Propane</b>	21 liter - 1.1% Propane.
881-00040	<b>Calibration Kit - Propane, CO/Air</b>	21 liter - 1.1% Propane, 100ppm CO/Air.
881-00043	<b>Calibration Kit - EX/TC &amp; EX/TCplus</b>	221 liter - 2.5% methane. Purchase 100% methane or demand regulator separately. Manual shut off.
881-00044	<b>Calibration Kit - EX/TC/CO &amp; EX/TC/COplus</b>	221 liter - combo. Purchase 100% methane or demand regulator separately. Manual shut off.
315-080012	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 21 liter.
315-180013	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 221 liter.
315-080021	<b>Cylinder - 2.5% CH<sub>4</sub>/100ppm CO (Combo Gas)</b>	Replacement. 21 liter.
315-180028	<b>Cylinder - 2.5% CH<sub>4</sub>/100ppm CO (Combo Gas)</b>	Replacement. 221 liter.
315-080007	<b>Cylinder - 100% Methane</b>	Replacement. 21 liter.
315-120001	<b>Cylinder - 25ppm Hydrogen Sulfide/Air</b>	Replacement. 58 liter.
315-080022	<b>Cylinder - 1.1% Propane/Air</b>	Replacement. 21 liter.
315-180004	<b>Cylinder - 1.1% Propane/Air</b>	Replacement. 221 liter.
880-00032	<b>Regulator</b>	21 liter bottle.

**Calibration Equipment**

**For SENSIT Gold G2**

Catalog No.	Product	Description
880-00013	<b>Regulator With Calibration Adapter Assembly</b>	21 liter bottle.
880-00016	<b>Calibration Adapter Assembly Only</b>	Use with 21 and 221 liter.
880-00008	<b>221 Liter Adapter</b>	Use with 880-00032.
880-00037	<b>SMART-CAL Adapter Assembly</b>	Use with Combo 21 and 221 liter.
880-00040	<b>SMART-CAL Adapter Assembly</b>	Use 21 liter.
880-00035	<b>Regulator</b>	58 liter bottle.
880-00006	<b>Regulator With Calibration Adapter Assembly</b>	58 liter bottle.
880-00044	<b>Calibration Adapter Only</b>	
880-00007	<b>Demand Regulator</b>	Use with line gas.



**Trak-It IIIa Calibration Equipment**

When calibrating your Trak-It IIIa CGI, you have a couple of options to choose from:

First is a fully automated SMART-CAL Station that sequences the instrument through the calibration process and stores record of it. The SMART-CAL can be downloaded to a computer or networked into a utilities system.

Second option is to configure a manual calibration kit to fit your needs. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

**For Trak-It IIIa**

Catalog No.	Product	Description
914-00000-01	<b>SMART-CAL Auto Calibration Station Only</b>	Includes installation guide w/disk, software, and 2 year support. Use with XP and Windows 7.
914-00000-04	<b>SMART-CAL Auto Calibration Station Only - Network</b>	Includes installation guide with disk, network adapter, software, and 2 year support. Use with XP and Windows 7.
881-00034	<b>Calibration Kit - EX/TC &amp; EX/TCplus</b>	21 liter - 2.5% methane - 100% methane. Manual shut off.
881-00081	<b>Calibration Kit - EX/TC &amp; EX/TCplus</b>	21 liter - 2.5% methane, demand regulator. Manual shut off.
881-00035	<b>Calibration Kit - EX/TC/CO &amp; EX/TC/COplus</b>	21 liter - combo - 100% methane. Manual shut off.
881-00036	<b>Calibration Kit - EX/TC/CO &amp; EX/TC/COplus</b>	21 liter - combo, demand regulator. Manual shut off.
881-00033	<b>Calibration Kit - Hydrogen Sulfide</b>	58 liter. Manual shut off.
881-00038	<b>Calibration Kit - Propane</b>	21 liter - 1.1% Propane.
881-00040	<b>Calibration Kit - Propane, CO/Air</b>	21 liter - 1.1% Propane, 100ppm CO/Air.
315-080012	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 21 liter.
315-180013	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 221 liter.



## Calibration Equipment

### For Trak-It IIIa

Catalog No.	Product	Description
315-080021	<b>Cylinder - 2.5% CH4/100ppm CO (Combo Gas)</b>	Replacement. 21 liter.
315-180028	<b>Cylinder - 2.5% CH4/100ppm CO (Combo Gas)</b>	Replacement. 221 liter.
315-080007	<b>Cylinder - 100% Methane</b>	Replacement. 21 liter.
315-120001	<b>Cylinder - 25ppm H2S/Air</b>	Replacement. 58 liter.
315-080022	<b>Cylinder - 1.1% Propane/Air</b>	Replacement. 21 liter.
315-180004	<b>Cylinder - 1.1% Propane/Air</b>	Replacement. 221 liter.
880-00032	<b>Regulator</b>	21 liter bottle.
880-00013	<b>Regulator With Calibration Adapter Assembly</b>	21 liter bottle.
880-00016	<b>Calibration Adapter Assembly Only</b>	Use with 21 and 221 liter.
880-00008	<b>221 Liter Adapter</b>	Use with 880-00032.
880-00037	<b>SMART-CAL Adapter Assembly</b>	Use with Combo 21 and 221 liter.
880-00040	<b>SMART-CAL Adapter Assembly</b>	Use 21 liter.
880-00001	<b>Nafion Calibration Adapter</b>	
880-00035	<b>Regulator</b>	58 liter bottle.
880-00006	<b>Regulator With Calibration Adapter Assembly</b>	58 liter bottle.
880-00044	<b>Calibration Adapter Only</b>	
880-00007	<b>Demand Regulator</b>	Use with line gas.
874-00003	<b>Pigtail</b>	Used for calibration.



### **SENSIT PMD Calibration Equipment**

When calibrating your SENSIT PMD, you have a couple of options to choose from:

First is a fully automated SMART-CAL Station that sequences the instrument through the calibration process and stores record of it. The SMART-CAL can be downloaded to a computer or networked into a utilities system.

Second option is to configure a manual calibration kit to fit your needs. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

### For SENSIT PMD

Catalog No.	Product	Description
914-00000-01	<b>SMART-CAL Auto Calibration Station Only</b>	Includes installation guide with disk, software, and 2 year support. Use with XP or Windows 7.
914-00000-04	<b>SMART-CAL Auto Calibration Station Only - Network</b>	Includes installation guide with disk, network adapter, software, and 2 year support. Use with XP and Windows 7.

**Calibration Equipment**

**For SENSIT PMD**

Catalog No.	Product	Description
881-00074	<b>SMART-CAL PMD Calibration Kit</b>	Includes 1 - 0.1% methane 103 liter, 1 - 2.5% methane 103 liter, 1 - 100% methane 116 liter, 3 - regulators, 3 - calibration adapters.
881-00070	<b>SMART-CAL PMD Calibration Kit</b>	Includes 1 - 0.1% methane 103 liter, 1 - 2.5% methane 103 liter, 1 - 100% methane 116 liter, 1 - regulator, 1 - calibration adapter.
315-140006	<b>Cylinder - 0.1% Methane/Air</b>	Replacement. 103 liter.
315-140002	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 103 liter.
315-220005	<b>Cylinder - 100% Methane</b>	Replacement. 116 liter.
315-180028	<b>Cylinder - 2.5% CH4/100ppm CO (Combo Gas)</b>	Replacement. 221 liter.
880-00035	<b>Regulator</b>	Use with 34, 58, 103, and 116 liter cylinders.
880-00053	<b>Calibration Adapter Only</b>	Use with 34, 58, 103, and 116 liter cylinders.
880-00032	<b>Regulator</b>	Use with 21 and 221 liter cylinders.
880-00037	<b>SMART-CAL Adapter Assembly</b>	Use with Combo 21 and 221 liter.
881-00071	<b>Quick Check Kit</b>	Includes 1 - 50ppm methane 21 liter, 1 - regulator, 1 - adapter assembly.
315-080017	<b>Quick Check Replacement</b>	50 ppm methane. 21 liter.
880-00032	<b>Regulator</b>	Use with 21 and 221 liter cylinders.
880-00016	<b>Calibration Adapter Assembly Only</b>	Use with 21 and 221 liter.

**LEAK DETECTION**



**SENSIT P400 Calibration Equipment**

Calibration kits and charging stations are available for your SENSIT P400. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

**For SENSIT P400**

Catalog No.	Product	Description
881-00089	<b>Calibration Kit - 3 Gas (LEL/CO/O2) With Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 mix, regulator porta, hose assembly, and case. Manual shut off.
881-00082	<b>Calibration Kit - 3 Gas (LEL/CO/O2) Without Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 mix, regulator porta, hose assembly, and case. Manual shut off.
881-00084	<b>Calibration Kit - 4 Gas (LEL/CO/O2/H2S) With Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 / 25ppm H2S mix, regulator porta, hose assembly, and case. Manual shut off.
881-00086	<b>Calibration Kit - 4 Gas (LEL/CO/O2/H2S) Without Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 / 25ppm H2S mix, regulator porta, hose assembly, and case. Manual shut off.



## Calibration Equipment

### For SENSIT P400

Catalog No.	Product	Description
881-00083	<b>Calibration Kit - 3 Gas Plus HCN (LEL/CO/O2, HCN) With Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 mix, 10ppm HCN, regulator porta, hose assembly, and case. Manual shut off.
881-00090	<b>Calibration Kit - 3 Gas Plus HCN (LEL/CO/O2, HCN) Without Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 mix, 10ppm HCN, regulator porta, hose assembly, and case. Manual shut off.
881-00085	<b>Calibration Kit - 5 Gas (LEL,CO/H2S,O2, HCN) With Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 / 25ppm H2S mix, 10ppm HCN, regulator porta, hose assembly, and case. Manual shut off.
881-00087	<b>Calibration Kit - 5 Gas (LEL,CO/H2S,O2, HCN) Without Case</b>	34 liter - 2.5% CH4 / 100ppm CO / 18.2% O2 / 25ppm H2S mix, 10ppm HCN, regulator porta, hose assembly, and case. Manual shut off.
881-00092	<b>Calibration Kit - Chlorine Without Case</b>	34 liter - 5ppm Cl2, regulator porta, and hose assembly. Manual shut off.
871-00028	<b>Charger With NiMH Battery Pack</b>	
871-00020	<b>Charging Station</b>	
871-00021	<b>NiMH Battery Pack</b>	
190-00003	<b>Transformer Universal</b>	
315-100013	<b>3 Gas Mix</b>	34 liter - 2.5% CH4, 18.2% O2, 100ppm CO.
315-100011	<b>Quad Mix</b>	34 liter - 2.5% CH4, 18.2% O2, 100ppm CO, 25ppm H2S.
315-100006	<b>Hydrogen Cyanide</b>	34 liter - 10ppm HCN/Nit.
315-100009	<b>Chlorine</b>	34 liter - 5ppm Cl2/Nit.
880-00035	<b>Regulator</b>	
880-00044	<b>Hose Assembly</b>	For Regulator Porta 100-12P0.5.
880-00006	<b>Regulator With Calibration Adapter Assembly</b>	58 liter bottle.
880-00057	<b>P400 Cal Cup Assembly Only</b>	Used with P400 without pump.



### SENSIT P100 Calibration Equipment

Calibration kits are available for your SENSIT P100. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

### For SENSIT P100

Catalog No.	Product	Description
924-00000-01	<b>Scal 100-D - Desk Top</b>	For use with P100's with black housings.
924-00000-02	<b>Scal 100-N - Network</b>	For use with P100's with black housings.
881-00095	<b>Calibration Kit - Carbon Monoxide With Scal 100</b>	Includes 58 liter CO, regulator, and hose assembly.
881-00053	<b>Calibration Kit - Hydrogen Cyanide</b>	Includes 34 liter HCN, regulator, and hose assembly. Manual shut off.
881-00094	<b>Calibration Kit - Hydrogen Sulfide With Scal 100</b>	Includes 58 liter H2S, regulator, and hose assembly.

**Calibration Equipment**

**For SENSIT P100**

Catalog No.	Product	Description
881-00096	<b>Calibration Kit - Oxygen With Scal 100</b>	Includes 103 liter O2, regulator, and hose assembly.
315-030002	<b>Bump 4 Gas (EX/CO/H2S)</b>	11 liter bottle.
315-030003	<b>Bump 2 Gas (EX/CO)</b>	11 liter bottle.
880-00019	<b>Balloon "T" Assembly</b>	
881-00051	<b>Calibration Kit - Carbon Monoxide</b>	34 liter - 100ppm CO. Manual shut off.
881-00053	<b>Calibration Kit - Hydrogen Cyanide</b>	Includes 34 liter HCN, regulator, and hose assembly. Manual shut off.
881-00052	<b>Calibration Kit - Hydrogen Sulfide</b>	34 liter - 25ppm H2S. Manual shut off.
881-00055	<b>Calibration Kit - Nitrogen Dioxide</b>	34 liter - 10ppm NO2. Manual shut off.
881-00056	<b>Calibration Kit - Sulfur Dioxide</b>	34 liter - 10ppm SO2. Manual shut off.
315-100001	<b>Cylinder - Carbon Monoxide</b>	Replacement. 34 liter - 100ppm CO.
315-120004	<b>Cylinder - Carbon Monoxide</b>	Replacement. 58 liter - 100ppm CO.
315-100006	<b>Cylinder - Hydrogen Cyanide</b>	Replacement. 34 liter - 10ppm HCN/Ni.
315-100007	<b>Cylinder - Hydrogen Sulfide</b>	Replacement. 34 liter - 25ppm H2S/Air.
315-120001	<b>Cylinder - Hydrogen Sulfide</b>	Replacement. 58 liter - 25ppm H2S/Air.
315-140003	<b>Cylinder - Nitrogen</b>	Replacement. 58 liter - 100% Nitrogen.
315-100005	<b>Cylinder - Nitrogen Dioxide</b>	Replacement. 34 liter - 10ppm NO2/Nit.
315-100002	<b>Cylinder - Sulfur Dioxide</b>	Replacement. 34 liter - 10ppm SO2/Air.
880-00035	<b>Regulator</b>	Use with 34, 58, 103, and 116 liter cylinders.
880-00023	<b>Calibration Adapter Only</b>	

**LEAK DETECTION**



**SENSIT HXG-3 Calibration Equipment**

When calibrating your SENSIT HXG-3, you have a couple of options to choose from:

First is a fully automated SMART-CAL Station that sequences the instrument through the calibration process and stores record of it. The SMART-CAL can be downloaded to a computer or networked into a utilities system.

Second option is to configure a manual calibration kit to fit your needs. Select the kit that has the appropriate gases and regulators to match the configuration of your instruments. Contact GROEBNER if you need assistance.

**For SENSIT HXG-3**

Catalog No.	Product	Description
914-00000-01	<b>SMART-CAL Auto Calibration Station Only</b>	Includes installation guide with disk, software, and 2 year support. Use with XP or Windows 7.
914-00000-04	<b>SMART-CAL Auto Calibration Station Only - Network</b>	Includes installation guide with disk, network adapter, software, and 2 year support. Use with XP and Windows 7.



## Calibration Equipment

### For SENSIT HXG-3

Catalog No.	Product	Description
881-00015	<b>Calibration Kit - Methane Without Pump</b>	21 liter - 2.5% Methane. Manual shut off.
881-00016	<b>Calibration Kit - Methane With Pump</b>	21 liter - 2.5% Methane. Manual shut off.
315-080012	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 21 liter.
315-180013	<b>Cylinder - 2.5% Methane/Air</b>	Replacement. 221 liter.
880-00032	<b>Regulator</b>	21 liter bottle.
880-00009	<b>Regulator With Calibration Cupule Assembly Without Pump</b>	21 liter bottle.
880-00028	<b>Calibration Cupule Assembly Only Without Pump</b>	
880-00013	<b>Regulator With Calibration Adapter Assembly and Pump</b>	21 liter bottle.
880-00016	<b>Calibration Adapter Assembly Only With Pump</b>	Use with 21 and 221 liter.
880-00008	<b>221 Liter Adapter</b>	Use with 880-00032.
880-00037	<b>SMART-CAL Adapter Assembly</b>	Use with Combo 21 and 221 liter.
880-00040	<b>SMART-CAL Adapter Assembly</b>	Use 21 liter.

## Bar Hole Jacks & Evacuators



### EZ Jack Plunger

The EZ Jack Plungers are specially designed to provide years of dependable service. The plungers have a probe depth of 52" and can be ordered with an ergonomically designed handle which puts less strain on the body – ultimately helping to reduce injuries. The unique piston rod gives maximum safety and dependability, as well as easy removal of the rod. The fiberglass rod provides the ultimate in safety when probing around unfamiliar grounds.

### EZ Jack Plunger

Catalog No.	Product	Description
EZ1005	<b>Heavy Duty - Ergo Handle, Steel Rod</b>	Weights 17.5 lbs.
EZ1006	<b>Heavy Duty - Standard Handle, Steel Rod</b>	Weights 15 lbs.
EZ1004	<b>Utility - Ergo Handle, Steel Rod</b>	Weights 13 lbs.
1000-5RO	<b>Heavy Duty Steel Rod Assembly Only</b>	
1000-4RO	<b>Utility Steel Rod Assembly Only</b>	
EZ1004-F	<b>Utility - Ergo Handle, Fiberglass Rod</b>	Weights 13 lbs. Comes designed with a steel tip which is attached to the fiberglass rod.

**Bar Hole Jacks & Evacuators**

**EZ Jack Plunger**

Catalog No.	Product	Description
1000-4FRO	<b>Utility Fiberglass Rod Assembly Only</b>	



**Gas Tornado**

The Gas Tornado is designed to shorten the time it takes to pinpoint gas leaks. It uses the Venturi effect to aggressively suction the affected area. The Gas Tornado is ideal for rapidly purging gas from test holes, removing gas in hazardous areas, and for cleaning the soil of residual gas after a repair is made. The Gas Tornado generates 242" (615 cm) of simultaneous dry/wet pick-up power and can be used effectively in less than 2" diameter holes at any depth. There are no moving parts, no sparks, and absolutely no motor maintenance.

**Gas Tornado**

Catalog No.	Product	Description
T95993UNIT	<b>Gas Tornado</b>	Includes power head and lower unit.
T95993	<b>Power Head Only</b>	
T95993LU	<b>Lower Unit Only</b>	



### **ViperMag (Multi Application Locator)**

The ViperMag pipe and cable locator is a multi-function, general purpose locator used to detect buried pipe, cable services, ferrous metal objects, and active power lines. Copperhead Industries' ViperMag has achieved a compact and lightweight design without compromising strength and performance. Signal application can be either direct connection or induction if there is no access point. With the addition of the optional signal clamp, the ViperMag transmitter can be applied to the target line no matter what the situation.

### **ViperMag (Multi Application Locator)**

Catalog No.	Product	Description
VIP-MAG	<b>ViperMag Locator</b>	Pipe and cable locator with metal locator, 3 frequencies - 512 Hz / 8 kHz / 83 kHz, passive 60 Hz, ferrous metal, 1 watt transmitter, and soft carrying pouch.
VIP-Case	<b>Hard Case</b>	For ViperMag and accessories.
VIP-CL2	<b>2" Diameter Viper Clamp</b>	Signal induction clamp.
VIP-CL4	<b>4" Diameter Viper Clamp</b>	Signal induction clamp.



### **Ultra-Trac APL (Acoustic Pipe Locator)**

SENSIT Technologies' Ultra-Trac APL is the perfect choice when it is necessary to accurately locate unmarked, underground piping systems. The Acoustic Pipe Locator is ideal for finding plastic pipe and systems with missing or broken tracer wire. Materials sensed include plastic pipe, PVC, metallic pipe, concrete pipe, cast iron, ductile iron, and clay tile. Natural gas pipelines, water, and sewer laterals are easily traced using state-of-the-art acoustic technology. The APL will significantly reduce the number of unlocatable pipes and identify potential cross bore risk locations when using HDD technologies.

### **Ultra-Trac APL (Acoustic Pipe Locator)**

Catalog No.	Product	Description
926-00000-01	<b>Ultra-Trac APL</b>	Included with instrument: storage case, recharge wall adapter, measuring tape, instruction manual, quick start guide.
872-00016	<b>Storage Case</b>	
871-00029	<b>Recharge Wall Adapter</b>	
360-00342	<b>Measuring Tape</b>	
870-00050	<b>APL Acoustic Pads</b>	Set of 10.

**Locators**



**Split Box Locators**

Split box locators are some of the most rugged and compact pipe and cable locators on the market today. Cost effective, single frequency, and simple operations are trademarks of the split box locators. A variety of manufactures are available.

**Split Box Locators**

Catalog No.	Product	Description
Cable Hound DSP	<b>Cable Hound Locator Unit</b>	2.7 kHz frequency.
Fisher TW-6	<b>TW-6 Pipe and Cable Locator</b>	81.92 kHz frequency.
Goldak 902	<b>902 Locator Unit</b>	126 kHz frequency.
Metrotech 480B	<b>VM-480B Locator</b>	83 kHz frequency and passive 60 Hz.



**Pipe & Cable Locators**

Choose from a variety of pipe and cable locators ranging from the simple one button, one frequency locator to the more sophisticated and more powerful multi-frequency locator.

**Pipe & Cable Locators**

Catalog No.	Product	Description
Metrotech 550A	<b>VM-550A Line Tracer</b>	8.19 kHz and 83 kHz frequencies.
Metrotech 810	<b>VM-810 RF Line Tracer</b>	83 kHz frequency.
Metrotech 850	<b>VM-850 RF Line Tracer</b>	9.82 kHz frequency.
Metrotech vLoc-9800	<b>vLoc-9800 RF Line Tracer</b>	982 Hz, 9.82 kHz, and 83 kHz frequencies.
Signal Clamp #4820	<b>Signal Clamp</b>	
Metrotech vLocPro 2 - 1 Watt	<b>vLocPro 2 - 1 Watt</b>	Pipe and cable locator with 1 watt transmitter and multiple frequencies.
Metrotech vLocPro 2 - 5 Watt	<b>vLocPro 2 - 5 Watt</b>	Pipe and cable locator with 5 watt transmitter and multiple frequencies.
Metrotech vLocPro 2 - 10 Watt	<b>vLocPro 2 - 10 Watt</b>	Pipe and cable locator with 10 watt transmitter and multiple frequencies.
VIP-MAG	<b>ViperMag Locator</b>	Pipe and cable locator complete with ferrous metal locating capability. See complete features and benefits in the ViperMag section.



**Magnetic Locators**

Magnetic Locators locate metal that has ferrous in it. If a magnet can stick to it, it has ferrous material, hence the name "Magnetic Locator". These sensitive instruments will help you find buried valve boxes and metallic marking devices.

**Magnetic Locators**

Catalog No.	Product	Description
922-00000-01	<b>Ultra-Trac MJL (Magnetic Joint Locator)</b>	Detects features on piping systems that other underground utility pipe and cable locators cannot find. The standard features of SENSIT Technologies' MJL include an adjustable "Tick" for easy locating, a graphic display, and a battery strength indicator. Materials sensed: brass, carbon, cast iron, ductile iron, stainless steel, steel.
870-00029	<b>Wheel Counter</b>	For Ultra-Trac MJL.
882-00070	<b>Complete Handle Assembly</b>	For Ultra-Trac MJL.
870-00047	<b>Street Wheel Kit</b>	For Ultra-Trac MJL.
720 Locator	<b>720 Valve Locator</b>	Lightweight, ultra easy to use, high performance metal/valve locator. Standard equipment include locator and operating manual.
VM-880 Locator	<b>VM-880 Metal Locator</b>	Lightweight and easy to use. Submersible carbon fiber antenna tube provides maximum protection to sensitive sensors. Key features include field polarity, 50/60 Hz warning, continuous battery level, signal strength indicators, and one touch sensitivity control.
VIP-MAG	<b>ViperMag Locator</b>	Ferrous metal locator complete with pipe and cable locating capability. See complete features and benefits in the ViperMag section.



**EMS Locators & Markers**

The Electronic Marking System utilizes markers specifically programmed to emit a frequency to identify the utility it is marking. Each utility (gas, electric, cable, and water) have their own assigned frequency. The EMS Locator excites the marker when it is close by and causes it to turn on and emit the programmed frequency / signal. If it is the utility (frequency) you are looking for, the locator will help you pin point it.

**EMS Locators & Markers**

Catalog No.	Product	Description
ML83	<b>ML83 Gas 83.0 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
ML1698	<b>ML1698 Electric 169.8 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.

**Locators**

**EMS Locators & Markers**

Catalog No.	Product	Description
ML1456	<b>ML1456 Water 145.7 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
ML1014	<b>ML1014 Telephone 101.4kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
ML77	<b>ML77 CATV 77.0 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
ML1216	<b>ML1216 Sanitation / Sewer 121.6 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
MLX-GP	<b>MLX-GP Gas/Power 88.3/169.8 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
MLX-SW	<b>MLX-SW Water/Sewer 145.6/121.6 kHz</b>	Standard equipment includes EMS locator receiver, carrying case, and operating manual.
vLocML2	<b>vLocML 2 - Receiver</b>	Receiver only. Specify EMS frequency.
vLocML2 - 1 Watt	<b>vLocML 2 - 1 Watt</b>	Pipe and cable locator with 1 watt transmitter and multiple frequencies with EMS capabilities.
vLocML2 - 5 Watt	<b>vLocML 2 - 5 Watt</b>	Pipe and cable locator with 5 watt transmitter and multiple frequencies with EMS capabilities.
vLocML2 - 10 Watt	<b>vLocML 2 - 10 Watt</b>	Pipe and cable locator with 10 watt transmitter and multiple frequencies with EMS capabilities.
Model 160	<b>Power Marker Ball</b>	169.8 kHz. 24 balls per case.
Model 161	<b>Water Marker Ball</b>	145.7 kHz. 24 balls per case.
Model 162	<b>Sanitary Marker Ball</b>	121.6 kHz. 24 balls per case.
Model 163	<b>Telephone Marker Ball</b>	101.4 kHz. 24 balls per case.
Model 164	<b>Gas Marker Ball</b>	83.0 kHz. 24 balls per case.
Model 165	<b>CATV Marker Ball</b>	77.0 kHz. 24 balls per case.



## Wrenches & Wrench Assists



### Pipe Wrench Assists

The Pipe Wrench Assist Tool creates the mechanical leverage equal to one pipe wrench larger to break the most stubborn connections. It is made of cast aluminum and will yield if over stressed. The safety D-ring positions the tool properly on the wrench and prevents the tool from slipping or rotating. The Pipe Wrench Assist Tool fits both pipe wrenches and crescent wrenches. Manufactured by Cumberland Products.

### Pipe Wrench Assists

Catalog No.	Product
PWA14	Wrench Assist for 14" Wrenches - Padded Handle
PWA18	Wrench Assist for 18" Wrenches - Padded Handle
PWA24	Wrench Assist for 24" Wrenches - Padded Handle
PWA36	Wrench Assist for 36" Wrenches - Padded Handle
PWA48	Wrench Assist for 48" Wrenches - Padded Handle
GAWA125X1400KE	Wrench Assist for 14" Wrenches - Knurled Handle
GAWA150X1800KE	Wrench Assist for 18" Wrenches - Knurled Handle
GAWA200X2400KE	Wrench Assist for 24" Wrenches - Knurled Handle
GAWA200X3600KE	Wrench Assist for 36" Wrenches - Knurled Handle



### Pipe Wrenches

Reed Pipe Wrenches are made of only the highest quality materials. Plus parts are interchangeable with all major brands. The high-tensile ductile iron handle and the hardened tool steel parts are designed to withstand the heaviest demands. Offset wrenches have similar construction and provide longer swing in hard to reach places. Manufactured by Reed Manufacturing.

### Pipe Wrenches

Catalog No.	Product	Description
02110	<b>Straight 6" Pipe Wrench</b>	Model RW6. For pipe sizes 1/8" to 3/4".
02120	<b>Straight 8" Pipe Wrench</b>	Model RW8. For pipe sizes 1/8" to 1".
02130	<b>Straight 10" Pipe Wrench</b>	Model RW10. For pipe sizes 1/8" to 1-1/2".
02140	<b>Straight 12" Pipe Wrench</b>	Model RW12. For pipe sizes 1/8" to 2".
02150	<b>Straight 14" Pipe Wrench</b>	Model RW14. For pipe sizes 1/4" to 2".

**Wrenches & Wrench Assists**

**Pipe Wrenches**

Catalog No.	Product	Description
02160	<b>Straight 18" Pipe Wrench</b>	Model RW18. For pipe sizes 1/4" to 2-1/2".
02170	<b>Straight 24" Pipe Wrench</b>	Model RW24. For pipe sizes 1/4" to 3".
02180	<b>Straight 36" Pipe Wrench</b>	Model RW36. For pipe sizes 1/4" to 5".
02190	<b>Straight 48" Pipe Wrench</b>	Model RW48. For pipe sizes 1-1/2" to 6".
02210	<b>Offset 8" Pipe Wrench</b>	Model RWO8. For pipe sizes 1/8" to 1".
02220	<b>Offset 10" Pipe Wrench</b>	Model RWO10. For pipe sizes 1/8" to 1-1/2".
02230	<b>Offset 12" Pipe Wrench</b>	Model RWO12. For pipe sizes 1/4" to 2".
02232	<b>Offset 14" Pipe Wrench</b>	Model RWO14. For pipe sizes 1/8" to 2".
02240	<b>Offset 18" Pipe Wrench</b>	Model RWO18. For pipe sizes 1/4" to 2-1/2".
02242	<b>Offset 24" Pipe Wrench</b>	Model RWO24. For pipe sizes 1/4" to 3".



**Aluminum Pipe Wrenches**

Aluminum pipe wrenches are light and strong with titanium-aluminum alloy handles, heat-treated for maximum strength. They exceed U.S. Government specifications for ductile iron wrenches, but weigh about half as much. Offset wrenches have similar construction with longer swing for hard-to-reach places. Manufactured by Reed Manufacturing.

**Aluminum Pipe Wrenches**

Catalog No.	Product	Description
02093	<b>Straight 10" Pipe Wrench</b>	Model ARW10. Aluminum. For pipe sizes 1/8" to 1-1/2".
02095	<b>Straight 14" Pipe Wrench</b>	Model ARW14. Aluminum. For pipe sizes 1/4" to 2".
02097	<b>Straight 18" Pipe Wrench</b>	Model ARW18. Aluminum. For pipe sizes 1/4" to 2-1/2".
02099	<b>Straight 24" Pipe Wrench</b>	Model ARW24. Aluminum. For pipe sizes 1/4" to 3".
02101	<b>Straight 36" Pipe Wrench</b>	Model ARW136. Aluminum. For pipe sizes 1/4" to 5".
02102	<b>Straight 48" Pipe Wrench</b>	Model ARW48. Aluminum. For pipe sizes 1-1/2" to 6".
02202	<b>Offset 14" Pipe Wrench</b>	Model ARWO14. Aluminum. For 2" pipe size.
02204	<b>Offset 18" Pipe Wrench</b>	Model ARWO14. Aluminum. For 2-1/2" pipe size.



## Explosion & Water Proof Lights



### **BRICK Light**

The BRICK Light is KICK-IT Tough, nearly indestructible and explosive proof, which makes it ideal for any environment. Explosion Proof Class I & II, Gas / Dust. The light uses cutting edge LED technology and was designed so that the beam angle of the emitted light can be focused or dispersed based upon working requirements. The BRICK Light never gets hot and is also waterproof so working in inclement weather or confined spaces is not an issue. The low powered LED light allows for 2 BRICK Lights to be powered off a single truck battery utilizing only a 400mw inverter. Variable mounting options available. Manufactured by Western Technology.

### BRICK Light

Catalog No.	Product	Description
9610A	<b>BRICK Explosion Proof Lighthouse</b>	Includes 100 foot cable and non-explosion proof power connection box and plug. (Power box and plug must remain outside of hazardous space.)
9610C	<b>BRICK Explosion Proof Lighthouse</b>	Includes 100 foot cable, explosion proof power connection box, and standard explosion proof 15 amp plug. (Entire system is explosion proof.)
9610D	<b>BRICK Non-Explosion Proof Lighthouse</b>	Includes 100 foot cable and non-explosion proof power connection box and plug. (This system is NOT explosion proof)
9610 ANTI GLARE SHIELD	<b>Anti-Glare Shield</b>	Flat shield.
9610 BLAST SHIELD	<b>Blast Shield</b>	Flat shield.
9610 ROLL TOP AG	<b>Anti-Glare Roll Top Diffuser</b>	For all BRICK models.
9610 ROLL TOP CLR	<b>Clear Roll Top Diffuser</b>	For all BRICK models.
9610BAG	<b>Overspray Protection Bag</b>	Ordered in quantities of 50.
9610A-FRAME	<b>A-Frame Mount</b>	
9610PUCK	<b>Double Magnet Handle</b>	
9610KNUCKLE	<b>Magnetic Knuckle</b>	
9610STAKE	<b>Stake Mount</b>	Stake is sharpened to a point to drive into the ground. Requires a knuckle.
9610TRIPOD	<b>Tripod Mount</b>	Sturdy stand with 20" riser. Requires a knuckle.
9610PIPE MOUNT	<b>Articulating Arm</b>	For round mounting. Requires a knuckle.
6300QUADPOD	<b>Quad Pod Mount</b>	Adjusts up to 8'. Requires a 9610 adapter and a knuckle.
9610ADAPTER	<b>Quad Pod Topper Adapter</b>	
9610LADDER	<b>Ladder Mount</b>	For two lighthouses. Requires one knuckle per BRICK Lighthouse.

**Explosion & Water Proof Lights**



**STRIKER Light**

The STRICKER (Model 8100) solid state LED explosion proof drop light is an excellent light for more focused and smaller areas. It is KICK-IT Tough, nearly indestructible and explosive proof, which makes it ideal for any environment. To make the light into a 360 degree area light, attach the diffuser and it lights up the whole area. The STRIKER never gets hot and is also waterproof so working in inclement weather or confined spaces is not an issue. The low powered LED light allows for 2 lights to be powered off a single truck battery utilizing only a 400mw inverter. Manufactured by Western Technology.

**STRIKER Light**

Catalog No.	Product	Description
8100-3B STRIKER	<b>STRIKER Explosion Proof Drop Light - Long Handle</b>	Includes 100 foot cable, and non-explosion proof power connection box and plug. (Power box and plug must remain outside of hazardous space.)
8100-3A SH STRIKER	<b>STRIKER Explosion Proof Drop Light - Short Handle</b>	Includes 100 foot cable, and non-explosion proof power connection box and plug. (Power box and plug must remain outside of hazardous space.)
8100-3Diffuser (4017013)	<b>Replacement Diffuser</b>	
3015056	<b>Diffuser Bumber</b>	
8100-3Secondary Lens	<b>Blast Lenses</b>	Box of 12 lenses.
3015055	<b>Blast Lens Bumber</b>	Secondary.
8100-3Hook	<b>Hook</b>	



**Flashlights**

A variety of high quality, LED flashlights with exceptional illumination are available. The models range from explosion proof to intrinsically safe to standard lights and vary in design to meet your needs. Supplied by Western Technology.

**Flashlights**

Catalog No.	Product	Description
7403	<b>7403 Explosion Proof Rechargeable HID Flashlight</b>	Black. 20 watt HID metal halide bulb. 1200 lumens, projection distance of 2500 feet. Complies with explosion proof/hazardous location requirements. 11.5 inches long. Includes case. Does not include DC charger or lens.
7403 LENS	<b>7403 365nm UV Lens</b>	
7403 DC CHARGER	<b>7403 DC Charger</b>	
7403 BATTERY	<b>7403 Extra Rechargeable Battery</b>	



## Explosion & Water Proof Lights

### Flashlights

Catalog No.	Product	Description
7404-2 NiCD COMPLETE	<b>7404 Explosion Proof Rechargeable LED Flashlight</b>	Yellow. Complies with explosion proof/hazardous location requirements. 3 watt super bright high-flux LED with 50000 hour lifetime, Runtimes of up to 3 hours on high beam or up to 6 hours on low beam. All openings are O-ring sealed for weather resistance. Includes charger/holder, 120V AC, and 12V DC cords.
7402-LED	<b>7402 Hazardous Location LED Flashlight</b>	Yellow. Powered by three C alkaline batteries. Complies with explosion proof/hazardous location requirements. Up to 3500 candela (peak beam intensity) / 44 lumens typical. Waterproof.
99220LED	<b>99220 SPOTTER LED Flashlight</b>	Black. Rechargeable LED light. Projection distance 1000 feet. Not intrinsically safe.

## Meter Set Tools & Protection



### Regulator Testers & Tools

The Regulator Tester is designed to output specific flow rates to make the correct regulator adjustments under load conditions. It connects easily to the meter set swivels and includes an easy to read gauge.

The Retz Regulator Adjustment Tool can set most any gas service regulators. It's designed with a taped hexagon end for residential class regulators and a large flat blade end for commercial regulators. It is lightweight and compact with an aluminum anodized finish to eliminate rusting. The hexagon shaped body accepts crescent wrenches. Manufactured by Cumberland Products.

### Regulator Testers & Tools

Catalog No.	Product	Description
RT1A	<b>1A LT Meter Spud Connections</b>	
RT20	<b>20 LT Meter Spud Connections</b>	
RT30	<b>30 LT Meter Spud Connections</b>	
RTEMC	<b>AMCO Meter Spud Connections</b>	
RA246	<b>Retz Regulator Adjustment Tool</b>	Universal regulator adjustment tool.

**Meter Set Tools & Protection**



**Valve Protection**

The Beyer Box establishes and protects access to the sunken meter set valve and eliminates the high cost to raise the service line and riser. Installation is simple and fast, a one man job, causing minimal disturbance to the existing landscape. Once installed it provides access to the valve with no need for cathodic protection. Optional cover offers long-term protection. Manufactured by Cumberland Products.

**Valve Protection**

Catalog No.	Product	Description
GARB16X16	<b>Beyer Box</b>	Complete with box and lid.
GARB16X16B	<b>Box Only</b>	
GARB16X16L	<b>Lid Only</b>	



**Safety Sleeves**

The Safety Sleeve is an inexpensive solution to maintenance and visibility problems without having to paint guard posts. They offer a permanent, bright yellow surface which helps to alert people to potential dangers. Simply slip the cover over the guard post and secure it with the supplied vandal resistant hardware for a clean, highly visible, finish. Manufactured by Cumberland Products.

**Safety Sleeves**

Catalog No.	Product	Description
SL0460	<b>4" Safety Sleeve</b>	Yellow.
SL0660	<b>6" Safety Sleeve</b>	Yellow.



### Tool Packages

The Grundomat Basic Package includes practical items to be sure that, upon delivery of the tool, you're ready to bore. The basic package includes:

- Grundomat Boring Tool
- 50' Air Supply Hose
- Lubricator, in-line assembly
- 1 Gallon Grundo-Oil Tool Lubricant
- Magnetic Starting Level
- Operators & Parts Manual

The Grundomat Deluxe Package includes all components in the basic package plus a convenient maintenance tool box that includes common tools needed by the user to install accessories and perform maintenance procedures on the Grundomat.

Maintenance Tool Box includes:

- Spanner Wrench, pair
- Replacement Spanner Pins
- Seal Compression Clamp
- Roll Pin Punch
- 50ml Liquid Teflon
- 10ml Loctite
- Roll Pin Kit

Manufactured by TT Technologies.

### Tool Packages

Catalog No.	Product	Description
70604-17	<b>1-3/4" Deluxe Package</b>	Model 45P.
70604-20	<b>2" Deluxe Package</b>	Model 55P.
70604-26	<b>2-1/2" Deluxe Package</b>	Model 65P.
70604-30	<b>3" Deluxe Package</b>	Model 75P.
70604-34	<b>3-1/3" Deluxe Package</b>	Model 85P.
70604-37	<b>3-3/4" Deluxe Package</b>	Model 95P.
70604-40	<b>4" Deluxe Package</b>	Model 100P.
70604-43	<b>4-1/4" Deluxe Package</b>	Model 110P.
70604-50P	<b>5" Deluxe Package</b>	Model 130P.
70604-57P	<b>5-3/4" Deluxe Package</b>	Model 145P.
70604-60P	<b>6-1/4" Deluxe Package</b>	Model 160P.
70604-70P	<b>7" Deluxe Package</b>	Model 180P.
70769-17	<b>1-3/4" Basic Package</b>	Model 45P.
70769-20	<b>2" Basic Package</b>	Model 55P.
70769-26	<b>2-1/2" Basic Package</b>	Model 65P.
70769-30	<b>3" Basic Package</b>	Model 75P.
70769-34	<b>3-1/3" Basic Package</b>	Model 85P.
70769-37	<b>3-3/4" Basic Package</b>	Model 95P.
70769-40	<b>4" Basic Package</b>	Model 100P.
70769-43	<b>4-1/4" Basic Package</b>	Model 110P.
70769-50P	<b>5" Basic Package</b>	Model 130P.
70769-57P	<b>5-3/4" Basic Package</b>	Model 145P.
70769-60P	<b>6-1/4" Basic Package</b>	Model 160P.
70769-70P	<b>7" Basic Package</b>	Model 180P.

**Pneumatic Piercing Tools**



**Individual Tools**

Grundomat pneumatic piercing tools can perform accurate horizontal bores from 50 to 150 feet in length. The Grundomat can be used in all displaceable soils: sand, loam and even gravel and is easily configured to pull in a wide variety of new pipe materials. The reciprocating stepped-cone chisel head action of the Grundomat tool is unique because it hammers away at solid obstacles. This two-stroke action means that the piston's impact is concentrated on the reciprocating tool head for optimum boring performance. Manufactured by TT Technologies.

**Individual Tools**

Catalog No.	Product	Description
70797-17	<b>1-3/4" Grundomat Boring Tool</b>	Model 45P.
70797-20	<b>2" Grundomat Boring Tool</b>	Model 55P.
70797-26	<b>2-1/2" Grundomat Boring Tool</b>	Model 65P.
70797-30	<b>3" Grundomat Boring Tool</b>	Model 75P.
70797-34	<b>3-1/3" Grundomat Boring Tool</b>	Model 85P.
70797-38	<b>3-3/4" Grundomat Boring Tool</b>	Model 95P.
70797-40	<b>4" Grundomat Boring Tool</b>	Model 100P.
70797-43	<b>4-1/4" Grundomat Boring Tool</b>	Model 110P.
70797-50P	<b>5" Grundomat Boring Tool</b>	Model 130P.
70797-57P	<b>5-3/4" Grundomat Boring Tool</b>	Model 145P.
70797-60P	<b>6-1/4" Grundomat Boring Tool</b>	Model 160P.
70797-70P	<b>7" Grundomat Boring Tool</b>	Model 180P.



**Accessories**

All the accessories you need to run the pneumatic piercing tools – hoses, oilers, lubricant, and air compressors. Manufactured by TT Technologies.

**Accessories**

Catalog No.	Product	Description
70201-17	<b>1/2" Air Supply Hose</b>	50 feet. For Grundomat Models 45P - 55P.
70201-35	<b>3/4" Air Supply Hose</b>	50 feet. For Grundomat Models 65P - 110P.
GV1302257	<b>1-1/4" Air Supply Hose</b>	65 feet. For Grundomat Model 130P.
GV1802257	<b>1-1/2" Air Supply Hose</b>	65 feet. For Grundomat Models 145P - 180P.
70229-17	<b>6.6 Ounce In-Line Lubricator</b>	For Grundomat Models 45P - 55P.



## Pneumatic Piercing Tools

### Accessories

Catalog No.	Product	Description
70229-35	<b>10 Ounce In-Line Lubricator</b>	For Grundomat Models 65P - 110P.
GV1302300	<b>3.5 Quart In-Line Lubricator</b>	For Grundomat Model 130P.
GV1802300	<b>3.5 Quart In-Line Lubricator</b>	For Grundomat Models 145P - 180P.
07031-15	<b>Grundo-Oil</b>	1 gallon can of all season grade air tool lubricant. 4 gallons per case.
G-70	<b>Grundo-Air 70</b>	Grundomat air compressor, skid mounted.

### HDD Accessories



#### Pulling Heads & Mud Plugs

Fuse the PE pulling head to the length of pipe to be pulled into the trench or bore. The pulling heads are an economical and secure method to attaching to the PE pipe compared to mechanical grippers. Keep the dirt, mud, and drilling fluid out of your pull back. The Mud Plug is a fusible PE stop that will not let anything down into the pipe during pull back. Manufactured by Cumberland Products.

### Pulling Heads & Mud Plugs

Catalog No.	Product	Description
JP550-2406	<b>2" Pulling Head</b>	PE2406 medium density plastic.
JP650-2406	<b>3" Pulling Head</b>	PE2406 medium density plastic.
JP740-2406	<b>4" Pulling Head</b>	PE2406 medium density plastic.
JP744-2406	<b>6" Pulling Head</b>	PE2406 medium density plastic.
MP02-3408	<b>2" Mud Plug</b>	PE3408 high density plastic.
MP03-3408	<b>3" Mud Plug</b>	PE3408 high density plastic.
MP04-3408	<b>4" Mud Plug</b>	PE3408 high density plastic.
MP06-3408	<b>6" Mud Plug</b>	PE3408 high density plastic.
MP08-3408	<b>8" Mud Plug</b>	PE3408 high density plastic.

**HDD Accessories**



**Wire Mesh Pulling Grips**

These grips offer a flexible eye and double weave galvanized wire construction. The galvanized steel braid offers durability for underground installations and other more demanding situations. The shoulder option offers added protection to the utility being pulled in as well as protecting the leading wire strands. Manufactured by DCD Design & Manufacturing.

**Wire Mesh Pulling Grips**

Catalog No.	Product	Description
00670-025	<b>0.24" - 0.39" Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 750 lbs., Approximate Break Strength: 4,000 lbs., Head Length: 5", Mesh Length: 24".
00670-038	<b>0.40" - 0.75" Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 950 lbs., Approximate Break Strength: 4,500 lbs., Head Length: 5", Mesh Length: 24".
00670-050	<b>0.78" - 1.18 Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 1,100 lbs., Approximate Break Strength: 5,000 lbs., Head Length: 5", Mesh Length: 24".
00670-100	<b>1.18" - 1.56" Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 1,750 lbs., Approximate Break Strength: 8,700 lbs., Head Length: 5", Mesh Length: 24".
00670-125	<b>1.57" - 1.97 Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 2,750 lbs., Approximate Break Strength: 12,000 lbs., Head Length: 7", Mesh Length: 24".
00670-200	<b>2.00" - 2.50 Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 4,000 lbs., Approximate Break Strength: 13,500 lbs., Head Length: 7", Mesh Length: 24".
00670-250	<b>2.55" - 3.15" Wire Mesh Pulling Grip, 670 Series</b>	Recommend Max Load: 6,000 lbs., Approximate Break Strength: 16,000 lbs., Head Length: 7", Mesh Length: 24".
00680-050	<b>0.78" - 1.18" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 1,460 lbs., Approximate Break Strength: 5,750 lbs., Head Length: 5", Mesh Length: 36".
00680-100	<b>1.18" - 1.56" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 2,140 lbs., Approximate Break Strength: 10,000 lbs., Head Length: 5", Mesh Length: 36".
00680-125	<b>1.57" - 1.97" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 3,600 lbs., Approximate Break Strength: 13,500 lbs., Head Length: 7", Mesh Length: 36".
00680-200	<b>2.00" - 2.50" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 5,600 lbs., Approximate Break Strength: 15,000 lbs., Head Length: 7", Mesh Length: 36".
00680-250	<b>2.55" - 3.15" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 8,200 lbs., Approximate Break Strength: 17,500 lbs., Head Length: 7", Mesh Length: 36".
00680-300	<b>3.15" - 3.74" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 12,200 lbs., Approximate Break Strength: 18,000 lbs., Head Length: 7", Mesh Length: 48".
00680-400	<b>4.33" - 5.12" Wire Mesh Pulling Grip, 680 Series</b>	Recommend Max Load: 20,100 lbs., Approximate Break Strength: 22,000 lbs., Head Length: 7", Mesh Length: 48".
00690-038	<b>0.40" - 0.78" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 1,150 lbs., Approximate Break Strength: 5,000 lbs., Head Length: 5", Mesh Length: 24".

**Wire Mesh Pulling Grips**

Catalog No.	Product	Description
00690-050	<b>0.78" - 1.18" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 1,460 lbs., Approximate Break Strength: 5,750 lbs., Head Length: 5", Mesh Length: 24".
00690-100	<b>1.18" - 1.56" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 2,140 lbs., Approximate Break Strength: 10,000 lbs., Head Length: 7", Mesh Length: 24".
00690-125	<b>1.57" - 1.97" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 3,600 lbs., Approximate Break Strength: 13,500 lbs., Head Length: 7", Mesh Length: 36".
00690-200	<b>2.00" - 2.50" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 5,600 lbs., Approximate Break Strength: 15,000 lbs., Head Length: 10", Mesh Length: 36".
00690-250	<b>2.55" - 3.15" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 8,200 lbs., Approximate Break Strength: 17,500 lbs., Head Length: 10", Mesh Length: 36".
00690-300	<b>3.15" - 3.74" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 12,200 lbs., Approximate Break Strength: 18,000 lbs., Head Length: 10", Mesh Length: 48".
00690-400	<b>4.33" - 5.12" Wire Mesh Pulling Grip, 690 Series</b>	Recommend Max Load: 20,100 lbs., Approximate Break Strength: 22,000 lbs., Head Length: 10", Mesh Length: 48".
00501-010	<b>1-1/4" Wire Grip Swivel, 501 Series</b>	O/All Length: 7", Approximate Breaking Strength: 10,000 lbs.
00501-025	<b>1-5/8" Wire Grip Swivel, 501 Series</b>	O/All Length: 8-1/2", Approximate Breaking Strength: 25,000 lbs.

**HDD Accessories**



**Duct Pullers**

Duct pullers are designed to grip polyethylene pipe or ducting using expanding jaws to grip the inside wall of the duct. With the multiple gripping points, the pulling load is spread around the circumference of the duct and allows maximum load to be applied without damage to the pipe or ducting. Manufactured by DCD Design & Manufacturing.

**Model 650 Deluxe Duct Pullers**

- Fits most duct sizes from SDR9 through SDR21
- Precision machined, hardened alloy pulling head will handle the abuses of HDD
- Completely sealed to prevent fluids from entering the duct or the puller itself
- Outer sleeve prevents stretching of duct

**Model 620 Standard Duct Pullers**

- Fits most duct sizes from SDR11 through SDR17
- Quick and easy to install with no special tools required
- Expanding jaws securely grip inside wall of duct
- Large number of jaw teeth compared to other brands results in a much stronger grip
- Pluggers available to keep the mud out

**Model 604 Lug Style Innerduct Pullers /**

**Model 605 Clevis Style Innerduct Pullers**

- Economical means of pulling small diameter duct and innerduct
- Machined from steel and chrome plated for durability
- Double cutting edges that actually cut a thread into the duct
- Quick and easy to install

**Duct Pullers**

Catalog No.	Product	Description
00650-125	<b>1-1/4" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 1-9/32", Max Duct Inside Diameter: 1-1/2", Weight: 2.2 lb.
00650-150	<b>1-1/2" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 1-7/16", Max Duct Inside Diameter: 1-21/32", Weight: 2.5 lb.
00650-200	<b>2" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 1-13/16", Max Duct Inside Diameter: 2-3/32", Weight: 4.2 lb.
00650-250	<b>2-1/2" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 2-7/32", Max Duct Inside Diameter: 2-9/16", Weight: 6.0 lb.
00650-300	<b>3" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 2-21/32", Max Duct Inside Diameter: 3-1/16", Weight: 9.0 lb.
00650-400	<b>4" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 3-7/16", Max Duct Inside Diameter: 4-1/16", Weight: 22.0 lb.
00650-500	<b>5" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 4-1/4", Max Duct Inside Diameter: 5", Weight: 32.0 lb.
00650-600	<b>6" Duct Puller, 650 Series</b>	Min Duct Inside Diameter: 5-1/16", Max Duct Inside Diameter: 6", Weight: 60.0 lb.
00620-125	<b>1-1/4" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 1-9/32", Max Duct Inside Diameter: 1-1/2", Weight: 1.6 lb.
00620-150	<b>1-1/2" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 1-15/32", Max Duct Inside Diameter: 1-11/16", Weight: 1.7 lb.
00620-200	<b>2" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 1-7/8", Max Duct Inside Diameter: 2-1/8", Weight: 3.0 lb.

**Duct Pullers**

Catalog No.	Product	Description
00620-250	<b>2-1/2" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 2-1/4", Max Duct Inside Diameter: 2-1/2", Weight: 4.9 lb.
00620-300	<b>3" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 2-3/4", Max Duct Inside Diameter: 3-1/16", Weight: 8.9 lb.
00620-400	<b>4" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 3-1/2", Max Duct Inside Diameter: 4-1/16", Weight: 14.5 lb.
00620-500	<b>5" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 4-1/2", Max Duct Inside Diameter: 5", Weight: 31.5 lb.
00620-600	<b>6" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 5-7/16", Max Duct Inside Diameter: 6-1/8", Weight: 48.6 lb.
00620-800	<b>8" Duct Puller, 620 Series</b>	Min Duct Inside Diameter: 6-7/16", Max Duct Inside Diameter: 7-7/8", Weight: 90.0 lb.
00604-100	<b>1" Duct Puller, 604 Series</b>	Lug Type, Min. Duct Inside Dia. 0.94", Max Duct Inside Dia. 1.15", Weight: 0.9 lb.
00604-125	<b>1-1/4" Duct Puller, 604 Series</b>	Lug Type, Min. Duct Inside Dia. 1.26", Max Duct Inside Dia. 1.44", Weight: 1.5 lb.
00604-150	<b>1-1/2" Duct Puller, 604 Series</b>	Lug Type, Min. Duct Inside Dia. 1/48", Max Duct Inside Dia. 1.66", Weight: 2.2 lb.
00604-200	<b>2" Duct Puller, 604 Series</b>	Lug Type, Min. Duct Inside Dia. 1.91", Max Duct Inside Dia. 2.08", Weight: 3.4 lb.
00605-100	<b>1" Duct Puller, 605 Series</b>	Clevis Type, Min. Duct Inside Dia. 0.94", Max Duct Inside Dia. 1.15", Weight: 0.9 lb.
00605-125	<b>1-1/4" Duct Puller, 605 Series</b>	Clevis Type, Min. Duct Inside Dia. 1.26", Max Duct Inside Dia. 1.44", Weight: 1.5 lb.
00605-150	<b>1-1/2" Duct Puller, 605 Series</b>	Clevis Type, Min Duct Inside Diameter: 1/48", Max Duct Inside Diameter: 1.66", Weight: 2.2 lb.
00605-200	<b>2" Duct Puller, 605 Series</b>	Clevis Type, Min Duct Inside Diameter: 1.91", Max Duct Inside Diameter: 2.08", Weight: 3.4 lb.

**Breakaway Connectors**

Breakaway connectors are designed to protect polyethylene ducting from overload during installation by directional drilling. They are installed between the pullback swivel and the duct puller. The connectors are a three-part product, held together by a group of pins. The pins are designed to break in tension at a specific load. Using one or more of the breakaway pins completes the assembly of the connector. The sum of the value of the pins is the value at which the connector will come apart. Different pin values (up to 5) can be mixed and matched to create an enormous number of different values, all in the same connector. Manufactured by DCD Design & Manufacturing.

**Breakaway Connectors**

Catalog No.	Product	Description
00560-010	<b>Light Duty Breakaway Connector</b>	Can be set between 750 - 12,500 lbs. Weighs 3.8 lbs.
00560-020B	<b>Heavy Duty Breakaway Connector</b>	Can be set between 3,000 - 45,000 lbs. Weighs 14.5 lbs.
00565-075	<b>750 lb. Breakaway Pin</b>	Yellow. For 00560-010.
00565-100	<b>1000 lb. Breakaway Pin</b>	Orange. For 00560-010.
00565-150	<b>1500 lb. Breakaway Pin</b>	Red. For 00560-010.
00565-200	<b>2000 lb. Breakaway Pin</b>	Blue. For 00560-010.
00565-250	<b>2500 lb. Breakaway Pin</b>	Green. For 00560-010.
00565-300	<b>3000 lb. Breakaway Pin</b>	Yellow. For 00560-020.

**HDD Accessories**

**Breakaway Connectors**

Catalog No.	Product	Description
00565-600	<b>6000 lb. Breakaway Pin</b>	Orange. For 00560-020.
00565-700	<b>7000 lb. Breakaway Pin</b>	Red. For 00560-020.
00565-800	<b>8000 lb. Breakaway Pin</b>	Blue. For 00560-020.
00565-900	<b>9000 lb. Breakaway Pin</b>	Green. For 00560-020.

**Pipeline Marker Installation Tools**



**Pipeline Marker Installation Tools**

The tools below make for quick and easy installation of both the TriView and flat pipeline markers. For hard or rocky soil conditions, the Pilot Hole Driver assists in making the installation easier.

**Pipeline Marker Installation Tools**

Catalog No.	Product	Description
EZA-600	<b>Rhino EZ Auger</b>	Faster, more efficient way to create a 6" diameter hole for the TriView post system. Weight 8 lbs.
TVAD-100	<b>TriView Soil Anchor Driver</b>	The TriView may be installed by fitting an anchor onto the head of the driver and using the sliding action to sink it into the ground.
FPD-44	<b>Standard Flat Post Driver</b>	Accommodates 60" to 72" flat posts.
FPD-54	<b>Long Flat Post Driver</b>	Accommodates 78" or longer flat posts.
FPD-33N	<b>1-Rail Flat Post Driver</b>	Used to install 1-Rail posts.
PHD-100	<b>Pilot Hole Driver</b>	Great for difficult soil conditions. Sliding action of driver makes installation easier.

# STEEL PIPE DIMENSION AND WEIGHT TABLE

Pipe Size (in.)	Outer Diameter (in.)	Top Line = Wall Thickness In Inches					Second Line = Weight Per Foot In Pounds											
		Schedule					Std.	Schedule		X-Heavy	Schedule				XX-Heavy			
		5	10	20	30	40		60	80		100	120	140	160				
1/8	0.405	.035	.049			.068	.068		.095	.095								
		.138	.1863			2.447	2.447		.3145	.3145								
1/4	0.540	.049	.065			.088	.088		.119	.119								
		.2570	.3297			.4248	.4248		.5351	.5351								
3/8	0.675	.049	.065			.091	.091		.126	.126								
		.3276	.4235			.5676	.5676		.7388	.7388								
1/2	0.840	.065	.083			.109	.109		.147	.147						.187	.294	
		.5383	.6710			.8510	.8510		1.088	1.088					1.304	1.714		
3/4	1.050	.065	.083			.113	.113		.154	.154						.218	.308	
		.6838	.8572			1.131	1.131		1.474	1.474					1.937	2.441		
1	1.315	.065	.190			.133	.133		.179	.179						.250	.358	
		.8678	1.404			1.679	1.679		2.172	2.172					2.844	3.659		
1 1/4	1.660	.065	.109			.140	.140		.191	.191						.250	.382	
		1.107	1.806			2.273	2.273		2.997	2.997					3.765	5.214		
1 1/2	1.900	.065	.109			.145	.145		.200	.200						.281	.400	
		1.274	2.638			2.718	2.718		3.631	3.631					4.859	6.408		
2	2.375	.065	.109			.154	.154		.218	.218						.343	.436	
		1.604	2.638			3.653	3.653		5.022	5.022					7.444	9.029		
2 1/2	2.875	.083	.120			.203	.203		.276	.276						.375	.552	
		2.475	3.531			5.793	5.793		7.661	7.661					10.01	13.70		
3	3.500	.083	.120			.216	.216		.300	.300						.437	.600	
		3.029	4.332			7.576	7.576		10.25	10.25					14.32	18.58		
3 1/2	4.000	.083	.120			.226	.226		.318	.318							.636	
		3.472	4.973			9.109	9.109		12.51	12.51							22.85	
4	4.500	.083	.120			.237	.237	.281	.337	.337			.437			.531	.674	
		3.915	5.613			10.79	10.79	12.66	14.98	14.98			19.01			22.51	27.54	
4 1/2	5.000						.247			.355							.710	
							12.53			17.61							32.53	
5	5.563	.109	.134			.258	.258		.375	.375			.500			.625	.750	
		6.349	7.770			14.62	14.62		20.78	20.78			27.04			32.96	38.55	
6	6.625	.109	.134			.280	.280		.432	.432			.562			.718	.864	
		7.585	9.289			18.97	18.97		28.57	28.57			36.39			45.30	53.16	
7	7.625						.301			.500							.875	
							23.57			38.05							63.08	
8	8.625	.109	.148	.250	.277	.322	.322	.406	.500	.500	.593	.718	.812	.906	.906	.875		
		9.914	13.40	22.36	24.70	28.55	28.55	35.64	43.39	43.39	50.87	60.63	67.76	74.69	72.42			
9	9.625						.342			.500								
							33.90			48.72								
10	10.750	.134	.165	.250	.307	.365	.365	.500	.593	.500	.718	.843	1.000	1.125	1.125			
		15.19	18.65	28.04	34.24	40.48	40.48	54.74	64.33	54.74	76.93	89.20	104.1	115.7				
11	11.750						.375			.500								
							45.55			60.07								
12	12.750	.156	.180	.250	.330	.406	.375	.562	.687	.500	.843	1.000	1.125	1.312	1.312			
		21.07	24.20	33.38	43.77	53.53	49.56	73.16	88.51	65.42	107.2	125.5	139.7	160.3				
14	14.000	.156	.250	.312	.375	.437	.375	.593	.750	.500	.937	10.93	1.250	1.406	1.406			
		23.06	36.71	45.68	54.57	63.37	54.57	84.91	106.1	72.09	130.7	150.7	170.2	189.1				
16	16.000	.165	.250	.312	.375	.500	.375	.656	.843	.500	1.031	1.218	1.437	1.593	1.593			
		27.90	42.05	52.36	62.58	82.77	62.58	107.5	136.5	82.77	164.8	192.3	223.5	245.1				
18	18.000	.165	.250	.312	.437	.562	.375	.750	.937	.500	1.156	1.375	1.562	1.781	1.781			
		31.43	47.39	59.03	82.06	104.8	70.59	138.2	170.8	93.45	208.0	244.1	274.2	308.5				
20	20.000	.188	.250	.375	.500	.593	.375	.812	1.031	.500	1.280	1.500	1.750	1.968	1.968			
		39.78	52.73	78.60	104.1	122.9	78.60	166.4	208.9	104.1	256.1	296.4	341.1	379.0				
24	24.000	.218	.250	.375	.562	.687	.375	.968	1.218	.500	1.531	1.812	2.062	2.343	2.343			
		55.37	63.41	94.62	140.8	171.2	94.62	238.1	296.4	125.5	367.1	429.4	483.1	541.9				

# COILED PE PIPE AND TUBING DATA

Nominal Pipe Size	Pipe Data					Coils					Silo Packs			48' Trailer	
	SDR	Pipe OD	Avg. Pipe ID	Min. Wall	Pounds Per Foot	Feet Per Coil	Pounds Per Coil	Coil OD	Coil ID	Coil Width	Coils Per Pack	Feet Per Pack	Pounds Per Pack	# Of Silo Packs	Total Footage
1/2" CTS	7.0 <sup>^</sup>	0.625"	0.439"	0.090"	0.06	500	35	38"	30"	6"	12	6,000	480	26	156,000
						1,000	70	44"	30"	6"	12	12,000	880	24	288,000
3/4" CTS	9.7	0.875"	0.685"	0.090"	0.10	500	50	42"	30"	7"	8	4,000	440	26	104,000
1" CTS	11.5 <sup>*</sup>	1.125"	0.919"	0.099"	0.14	500	70	43"	30"	11"	7	3,500	520	26	91,000
						500	65	43"	30"	12"	7	3,500	485	26	91,000
1/2" IPS	9.3	0.840"	0.650"	0.090"	0.09	500	45	42"	30"	7"	12	6,000	580	26	156,000
						1,000	90	44"	30"	10"	8	8,000	760	24	192,000
3/4" IPS	11.0	1.050"	0.848"	0.095"	0.12	250	30	40"	30"	7"	10	2,500	460	26	65,000
						500	60	42"	30"	10"	7	3,500	460	26	91,000
1" IPS	11.0 <sup>^</sup>	1.315"	1.061"	0.119"	0.19	250	48	44"	30"	7"	10	2,500	520	24	60,000
						500	95	46"	30"	11"	7	3,500	710	24	84,000
1-1/4" IPS	10.0 <sup>*</sup>	1.660"	1.308"	0.166"	0.34	150	51	48"	30"	5"	12	1,800	650	24	43,200
						250	85	68"	50"	5"	12	3,000	1,060	7	21,000
						500	170	75"	50"	8"	12	6,000	2,140	7	42,000
	11.0 <sup>^</sup>	1.660"	1.340"	0.151"	0.31	150	47	48"	30"	5"	12	1,800	600	24	43,200
						250	78	68"	50"	5"	12	3,000	980	7	21,000
						500	155	75"	50"	8"	12	6,000	1,960	7	42,000
2" IPS	11.0 <sup>^</sup>	2.375"	1.917"	0.216"	0.63	150	95	75"	50"	5"	10	1,500	1,000	7	10,500
						250	160	75"	50"	8"	10	2,500	1,700	7	17,500
						500	315	75"	50"	14"	7	3,500	2,305	7	24,500
						1,500	945	80"	50"	36"	2	3,000	1,990	7	21,000
3" IPS	11.0 <sup>^</sup>	3.500"	2.856"	0.318"	1.39	250	350	94"	70"	13"	7	1,750	2,550	6	10,500
						500	700	94"	70"	24"	4	2,000	2,900	6	12,000
						1,000	1,390	94"	70"	46"	2	2,000	2,900	6	12,000
	11.5 <sup>*</sup>	3.500"	2.856"	0.307"	1.32	250	350	94"	70"	13"	7	1,750	2,550	6	10,500
						500	700	94"	70"	24"	4	2,000	2,900	6	12,000
						1,000	1,390	94"	70"	46"	2	2,000	2,900	6	12,000
4" IPS	11.0 <sup>^</sup>	4.500"	3.632"	0.409"	2.30	500	1,150	104"	70"	30"	3	1,500	3,550	5	7,500
						1,000	2,300	120"	84"	48"	2	2,000	2,400	4	8,000
	11.5 <sup>*</sup>	4.500"	3.672"	0.395"	2.19	500	1,095	104"	70"	30"	3	1,500	1,195	5	7,500
						1,000	2,190	120"	84"	48"	2	2,000	2,290	4	8,000
	13.5	4.500"	3.794"	0.333"	1.88	500	940	104"	70"	30"	3	1,500	2,920	5	7,500
						1,000	1,880	120"	84"	48"	2	1,000	1,900	4	8,000
6" IPS	11.0 <sup>^</sup>	6.625"	5.349"	0.602"	4.97	500	2,485	120"	84"	54"	1	500	2,585	8	4,000
						500	2,355	120"	84"	54"	1	500	2,455	8	4,000
						500	2,035	120"	84"	54"	1	500	2,135	8	4,000

\* Most common medium density (PE2406 - yellow) gas pipe configurations.

^ Most common high density (PE3408 - black) gas pipe configurations.

## STRAIGHT PE PIPE DATA

Nominal Pipe Size	SDR	Pipe Data				Bundle Data			40' Lengths			50' Lengths		
		Pipe OD	Avg. Pipe ID	Min. Wall	Pounds Per Foot	Joints Per Bundle	Joints Per Truck	Feet Per Bundle	Bundles Per Truck	Feet Per Truck	Feet Per Bundle	Bundles Per Truck	Feet Per Truck	
2" IPS	11.0*^	2.375"	1.917"	0.216"	0.63	98	1,568	3,920	16	62,720	4,900	15	73,500	
3" IPS	11.0^	3.500"	2.856"	0.318"	1.39	50	700	2,000	14	28,000	2,500	13	32,500	
	11.5*	3.500"	2.856"	0.307"	1.32	50	700	2,000	14	28,000	2,500	14	35,000	
4" IPS	11.0^	4.500"	3.632"	0.409"	2.30	57	456	2,280	8	18,240	2,850	7	19,950	
	11.5*	4.500"	3.672"	0.395"	2.19	57	456	2,280	8	18,240	2,850	8	22,800	
	13.5	4.500"	3.794"	0.333"	1.88	57	456	2,280	8	18,240	2,850	8	22,800	
6" IPS	11.0^	6.625"	5.349"	0.602"	4.97	26	208	1,040	8	8,320	1,300	7	9,100	
	11.5*	6.625"	5.403"	0.576"	4.71	26	208	1,040	8	8,320	1,300	8	10,400	
	13.5	6.625"	5.585"	0.491"	4.07	26	208	1,040	8	8,320	1,300	8	10,400	
8" IPS	11.0^	8.625"	6.963"	0.785"	8.32	14	112	560	8	4,480	700	8	5,600	
	11.5*	8.625"	7.035"	0.750"	7.99	14	112	560	8	4,480	700	8	5,600	
	13.5	8.625"	7.270"	0.639"	6.90	14	112	560	8	4,480	700	8	5,600	
10" IPS	11.0^	10.750"	8.796"	0.977"	12.92	4/5	72	160/200	8/8	2,880	200/250	8/8	3,600	
	11.5*	10.750"	8.880"	0.935"	12.42	4/5	72	160/200	8/8	2,880	200/250	8/8	3,600	
	13.5	10.750"	9.161"	0.796"	10.74	4/5	72	160/200	8/8	2,880	200/250	8/8	3,600	
12" IPS	11.0^	12.750"	10.293"	1.160"	18.43	4	56	160	14	2,240	200	13	2,600	
	11.5*	12.750"	10.398"	1.109"	17.46	4	56	160	14	2,240	200	14	2,800	
	13.5	12.750"	10.749"	0.945"	15.10	4	56	160	14	2,240	200	14	2,800	

\* Most common medium density (PE2406 - yellow) gas pipe configurations.

^ Most common high density (PE3408 - black) gas pipe configurations.

## PIPE CIRCUMFERENCE AND SURFACE AREA TABLE

Nominal Pipe Size	Circum. Inches	Circum. Feet	Sq. Feet per Linear Ft.
1	4.0	0.344	0.344
1.5	5.96	0.497	0.497
2	7.94	0.622	0.622
2.5	9.04	0.752	0.753
3	11.00	0.916	0.916
3.5	12.56	1.047	1.047
4	14.14	1.178	1.178
5	17.47	1.456	1.456
6	20.81	1.734	1.734
8	27.01	2.258	2.258
10	33.77	2.814	2.814
12	40.08	3.34	3.34
14	44.04	3.67	3.67
16	50.28	4.19	4.19
18	56.52	4.71	4.71
20	62.88	5.24	5.24
24	75.34	6.28	6.28
30	94.2	7.85	7.85
36	113.04	9.42	9.42
42	132.00	11.00	11.00
48	150.84	12.57	12.57
60	188.52	15.71	15.71

## ELECTROFUSION FITTINGS FUSION AND COOLING TIME CHART

Tapping Tees are listed by saddle size. Times will apply to all outlet sizes.	Connection Pin Size	Fusion Time (Seconds)	Cooling Time in Clamped Position (minutes)	Total Cooling Time Before Pressure/Tap (minutes)	Total Cooling Time Before Rough Handling (minutes)	Minimum KVA*	Generator Breaker Minimum	Extension Cord Size 25ft	Extension Cord Size 50ft
<b>Tapping Tees:</b>									
1-1/4"	4.7 R	45	10	20	30	1.5	10	#10/3	#8/3
1-1/2" IPS	4.7 R	50	10	20	30	1.5	10	#10/3	#8/3
2" IPS	4.7 R	90	10	20	30	1.5	10	#10/3	#8/3
2" CTS	4.7 R	60	10	20	30	1.5	10	#10/3	#8/3
3" IPS	4.7 R	90	10	20	30	1.5	10	#10/3	#8/3
4" IPS / DIPS	4.7 R	90	10	20	30	1.5	10	#10/3	#8/3
6" IPS / DIPS	4.7 R	90	10	20	30	1.5	10	#10/3	#8/3
8" - 10" IPS / DIPS	4.7 R	60	10	20	30	1.5	10	#10/3	#8/3

\*\* These fittings require temperature compensation

<b>Reducers:</b>									
3/4" x 1/2" CTS	4.7 R	20	5	15	30	1.5	10	#10/3	#8/3
1" x 1/2" CTS	4.7 R	25	5	15	30	1.5	10	#10/3	#8/3
1" x 1/2"	4.7 R	30	5	15	30	1.5	10	#10/3	#8/3
1" x 3/4"	4.7 R	30	5	15	30	1.5	10	#10/3	#8/3
1"x 1" CTS	4.7 R	30	5	15	30	1.5	10	#10/3	#8/3
1"x 1-1/4" CTS	4.7 R	30	5	15	30	1.5	10	#10/3	#8/3
1"x 1-1/4"	4.7 R	45	10	20	30	1.5	10	#10/3	#8/3
2" x 1 1/4 IPS	4.7 R	45	10	20	30	2.5	10	#10/3	#8/3

<b>Couplings:</b>									
1/2 CTS	4.7 R	20	5	15	30	1.5	10	#10/3	#8/3
1/2 IPS	4.7 R	20	5	15	30	1.5	10	#10/3	#8/3
3/4 CTS	4.7 R	25	5	15	30	1.5	10	#10/3	#8/3
3/4 IPS	4.7 R	35	5	15	30	1.5	10	#10/3	#8/3
1 CTS	4.7 R	40	5	15	30	1.5	10	#10/3	#8/3
1 IPS	4.7 R	45	10	15	30	1.5	10	#10/3	#8/3
1 1/4 CTS	4.7 R	50	10	20	30	2	10	#10/3	#8/3
1 1/4 IPS	4.7 R	75	10	20	30	2	10	#10/3	#8/3
1 1/2 IPS	4.7 R	60	10	20	30	1.5	10	#10/3	#8/3
2 CTS	4.7 S	40	5	20	30	2.5	20	#10/3	#8/3
2 IPS	4.7 R	60	10	20	30	2.5	20	#10/3	#8/3
3 IPS	4.7 R	180	15	30	35	2.5	20	#10/3	#8/3
4 IPS	4.7 R	200	15	30	35	3.5	30	#10/3	#8/3
4 DIPS	4.7 S	200	15	30	35	3.5	30	#10/3	#8/3
6 IPS SDR 11	4.7 R	500	20	40	45	3.5	30	#10/3	#8/3
6 IPS SDR 21	4.7 R	360	20	40	45	3.5	30	#10/3	#8/3
6 DIPS	4.7 S	500	20	40	45	3.5	30	#10/3	#8/3
8 IPS	4.7 R	500	20	40	45	3.5	30	#10/3	#8/3
8 DIPS	4.7 S	500	20	40	45	3.5	30	#10/3	#8/3
10 IPS FM 150	4.7 R	750	30	60	60	3.5	30	#10/3	#8/3
10 IPS FM 200	4.7 S	TC**	45	60	60	3.5	30	#10/3	#8/3
10 DIPS	4.7 S	TC**	30	60	60	3.5	30	#10/3	#8/3
12 IPS FM 150	4.7 R	900	30	60	60	3.5	30	#10/3	#8/3
12 IPS FM 200	4.7 S	TC**	45	60	60	3.5	30	#10/3	#8/3
12 DIPS	4.7 S	TC**	45	60	60	3.5	30	#10/3	#8/3

\*\* These fittings require temperature compensation

**HV Tapping Tees, Branch Saddles with 2" and 1 1/4" Outlets and Transition Saddles with Threaded Outlets**

	Connection	Fusion Time (Seconds)	Cooling Time in Clamped Position (minutes)	Total Cooling Time Before Pressure Test / Tap (minutes)	Total Cooling Time Before Rough Handling (minutes)	Minimum KVA*	Generator Breaker Minimum	Extension Cord Size 25ft	Extension Cord Size 50ft
2"	4.7 R	90	10	25	30	1.5	10	#10/3	#8/3
3"	4.7 R	60	10	25	30	1.5	10	#10/3	#8/3
4"	4.7 R	60	10	25	30	1.5	10	#10/3	#8/3
6"	4.7 R	60	10	25	30	1.5	10	#10/3	#8/3
8" IPS PE 2406	4.7 R	80	10	25	30	1.5	10	#10/3	#8/3
8" IPS PE 3408/4710	4.7 R	240	20	30	40	1.5	10	#10/3	#8/3
8" IPS/DIPS	4.7 S	240	20	30	40	1.5	10	#10/3	#8/3
10" IPS/DIPS	4.7 S	240	20	30	40	1.5	10	#10/3	#8/3
12" IPS/DIPS	4.7 S	240	20	30	40	1.5	10	#10/3	#8/3

**Branch Saddle IPS**

4" x 4"	4.7 R	50	10	20	30	2.5	20	#10/3	#8/3
6" x 4" PE 2406	4.7 R	150	15	30	45	2.5	20	#10/3	#8/3
6" x 4" PE 3408 / PE 4710	4.7 R	200	15	30	45	2.5	20	#10/3	#8/3
8" IPS x 4" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
8" IPS x 6" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
10" IPS x 4" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
10" IPS x 6" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
10" IPS x 8" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
12" IPS x 4" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
12" IPS x 6" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
12" IPS x 8" IPS	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3

\*\* These fittings require temperature compensation

**EF Tee**

3/4 IPS	4.7R	30	5	20	30	1.5	10	#10/3	#8/3
1 IPS	4.7R	30	10	20	30	1.5	10	#10/3	#8/3
2 IPS (EF Adapted)	4.7S	45 (20v)	5	20	30	1.5	10	#10/3	#8/3

**EF Elbow**

2 IPS (EF Adapted)	4.7S	45 (20v)	5	20	30	1.5	10	#10/3	#8/3
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**Branch Saddle DIPS**

8 x 4	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
8 x 6	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
10 x 4	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
10 x 6	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
12 x 4	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3
12 x 6	4.7S	TC**	20	40	60	2.5	20	#10/3	#8/3

\*\* These fittings require temperature compensation

	Clamped Time	Testing / Tapping	Rough Handling
Example 4" IPS coupling fusion cycle ends at 12:04	+15 = 12:19	+30 = 12:34	+35 = 12:39

**Clamped cooling time:** The minimum time the fitting must remain clamped after the fusion cycle is complete.

**Time before pressure test & Tapping:** The minimum time before the joint can be pressurized to 150% of MOAP and the main can be tapped.

**Time before rough handling:** The minimum time before the joint can be subjected to forces such as pulling, or back filling.

**CAUTIONS/WARNINGS:**

Fusions should not be performed by any persons who have not been trained and qualified by an authorized electrofusion instructor. The installer should demonstrate their ability to make electrofusion joints through destructive testing. In addition to this Technical Note, the installer should have a full understanding of and available access to the Central Plastics Electrofusion Installation Procedure Manual. To obtain a copy of the Electrofusion Installation Procedure Manual, please contact Central Plastics Company

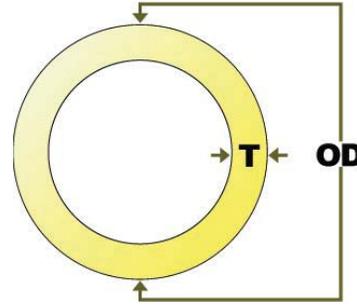
*Note: This document supercedes all previous Technical Notes and is subject to change without notice. Check for the current revision at [www.gfcp.com](http://www.gfcp.com).*



## DETERMINING FUSION PRESSURE

### Variable Definitions

<b>OD</b> = Outside Diameter
<b>T</b> = Wall Thickness
<b>PI</b> ( $\pi$ ) = 3.1416
<b>DR</b> = Dimensional Ratio
<b>IFP</b> = Manufacturers Recommended Interfacial Pressure
<b>TEPA</b> = Total Effective Piston Area
<b>DRAG</b> = Force Required to Move Pipe



**EXAMPLE:**

**Model No. 28 Fusion Machine**

Pipe Size = **8" IPS**

OD of Pipe = **8.625**

DR of Pipe = **11**

IFP = **75 PSI**

Measured Drag = **30 PSI**

**STEP 1:**

**Wall Thickness Formula** =  $T = \frac{OD}{DR}$

*T (calculated for example)* =  $\frac{8.625}{11} = .784$

### Total Effective Piston Area

Model	High Force Standard	Medium Force High Velocity	Low Force Extra High Velocity
No. 28	4.71	NA	1.67
No. 418	11.78	6.01	3.14
No. 618	11.78	6.01	3.14
Trac 500 II	NA	6.01	NA
No. 824	29.44	15.32	9.45
No 1236	29.44	15.32	9.45
Trac 900	NA	15.32	NA
No. 1648	31.42	14.14	NA
No. 2065	31.42	NA	NA

**STEP 2:**

**Total Effective Piston Area** (chosen from table) = TEPA = **4.710**



**STEP 3:**

**Gauge Pressure Formula** =  $\frac{(OD - T) \times T \times PI \times IFP}{TEPA} + DRAG$

*Gauge Pressure (calculated for example)* =  $\frac{(8.625 - .784) \times .784 \times 3.1416 \times 75}{4.710} + 30 \text{ PSI} = \mathbf{338 \text{ PSI}}$

## ROCK SHIELD ROLL AND PAD SIZING

Sizing charts below include a 4" overlap.

(Note: Tuff-N-Nuff rolls and pads can be cut to any size)

Pipe Diameter	Recommended Roll Width	Pipe Diameter	Recommended Pad Length
2"	13"	24"	80"
4"	20"	26"	86"
6"	26"	28"	92"
8"	32"	30"	98"
10	36"	36"	117"
12"	44"	42"	136"
14"	50"	48"	155"
16"	54"		
18"	60"		
20"	67"		
22"	72"		

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