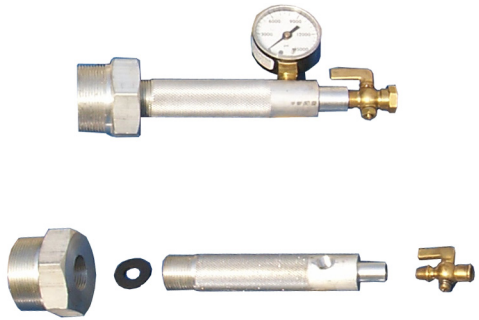


KRAVITCH MACHINE COMPANY

2016

**Piping System
Leak Detection**



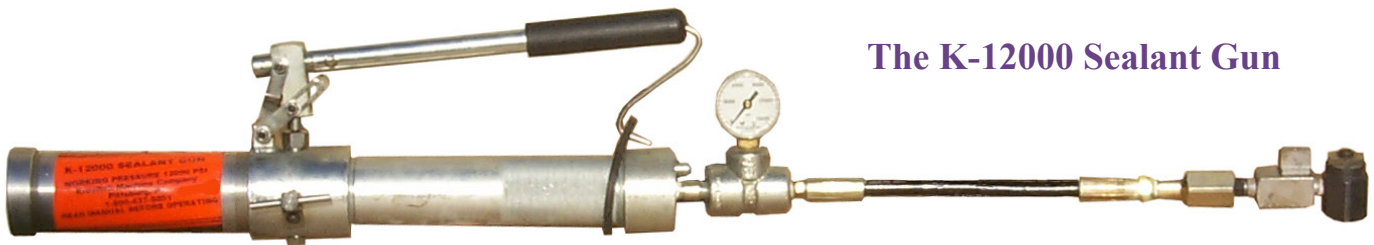
**FACTORY
DIRECT**

**HEAVY-DUTY
INDUSTRIAL
QUALITY
TOOLS**

**Valve Box
Lid Lifter**



The K-12000 Sealant Gun



**Eye Combo Key
with Tommy Bar**



**AMERICAN
MADE
BY
SKILLED
AMERICAN
WORKERS**

**Hand-held
Alignment Clamp**



NOTES

2 KRAVITCH UTILITY TOOLS

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KRAVITCH NO-BLOWING-GAS TOOLS

FOR SERVICE TEES

ABANDONMENT & RENEWAL WALL

We manufacture **NO-BLOWING-GAS** Tool Kits for the following classes of Abandonment & Renewal Service Tees.

PUNCH SERVICE TEE



WELD ON SERVICE TEE



HOME MADE SERVICE TEE



PLASTIC SERVICE TEE



Kravitch's patented NO-BLOWING-GAS Tools are available in kits that can be customized for your company-specific procedures.

All Kravitch tooling systems are robust and are pressure tested.

Kravitch's NO-BLOWING-GAS Tooling Systems are available for both Conventional-cut and Keyhole applications.

Contact us for your Service Tee Abandonment & Renewal Tooling needs.

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LITERATURE AVAILABLE UPON REQUEST

KEYHOLE TOOL CATALOG

PLUG VALVE MAINTENANCE CATALOG

GATE VALVE MAINTENANCE CATALOG

TEE HANDLE CURB KEY



Tee Handle Curb Keys 24" Tee Handle, Standard Round Solid Shaft, Machined Slot.			
		Fits Standard Valve	Fits Lubricated Valve
Length	Wt lbs	Tool Number	Tool Number
4'	12.0	CK00748	CK01648
4 1/2'	13.0	CK00754	CK01654
5'	14.0	CK00760	CK01660
5 1/2'	15.0	CK00766	CK01666
6'	16.0	CK00772	CK01672
7'	18.0	CK00784	CK01684
8'	20.0	CK00796	CK01696



Flexible "Slinky" Curb Key Machined Slot			
		Fits Standard Valve	Fits Lubricated Valve
Length	Wt lbs	Tool Number	Tool Number
4'	10.0	CKGL048	CKGU048
5'	12.0	CKGL060	CKGU060
6'	14.0	CKGL072	CKGU072
7'	16.0	CKGL084	CKGU084
8'	18.0	CKGL096	CKGU096

The Flexible "Slinky" Curb Key has a flexible shaft which follows the contour of a heavily shifted box. Once on the curb stop the Slinky remains rigid enough to operate the curb stop. The Flexible "Slinky" Curb Key reduces the need to dig up shifted valve boxes.

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COMBINATION CURB KEY + PENTAGON SOCKET



Cross Combination Key			
		Fits Standard Valve	Fits Lubricated Valve
Length	Wt lbs	Tool Number	Tool Number
4'	12.0	CB14748	CB14948
4 1/2'	13.0	CB14754	CB14954
5'	14.0	CB14760	CB14960
6'	16.0	CB14772	CB14972
7'	18.0	CB14784	CB14984
8'	20.0	CB14796	CB14796

The Cross Combination Key has a standard Pentagon Socket at the top of the key. A Tee Handle is located approximately 9 inches below the pentagon socket. At the bottom is a curb key slot.

This key can be used to remove the pentagon bolt from a curb box lid and then used to operate the curb stop.

When choosing the length of key you desire, please note that the length listed in the table above represents the length of the shaft under the Tee Handle.

COMBINATION CURB KEY + PENTAGON SOCKET

**Eye Combo Key
No Handle**



**Eye Combo Key
with Tommy Bar**



**Eye Combo Key
with L Handle**



Eye Operator Combination Key Fits Standard Valve Next table fits Lubricated Valves				
		Fits Standard Valve No Handle included	Fits Standard Valve includes Tommy Bar	Fits Standard Valve includes L Handle
Length	Wt lbs	Tool Number	Tool Number	Tool Number
4'	10.0	CB16748	CB16748TB	CB16748LH
4 1/2'	11.0	CB16754	CB16754TB	CB16754LH
5'	12.0	CB16760	CB16760TB	CB16760LH
6'	14.0	CB16772	CB16772TB	CB16772LH
7'	16.0	CB16784	CB16784TB	CB16784LH
8'	18.0	CB16796	CB16796TB	CB16796LH

The Eye Combination Key has a standard Pentagon Socket at the top of the key. An Eye Operator is located approximately 9 inches below the pentagon socket. At the bottom is a curb key slot. This key can be used to remove the pentagon bolt from a curb box lid and then used to operate the curb stop.

When choosing the length of key you desire, please note that the length listed in the table above represents the length of the shaft under the Eye Operator.

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COMBINATION CURB KEY + PENTAGON SOCKET

Eye Operator Combination Key Fits Lubricated Valves Previous table fits Standard Valves				
		Fits Lubricated Valve No Handle included	Fits Lubricated Valve includes Tommy Bar	Fits Lubricated Valve includes L Handle
Length	Wt lbs	Tool Number	Tool Number	Tool Number
4'	10.0	CB16948	CB16948TB	CB16948LH
4 1/2'	11.0	CB16954	CB16954TB	CB16954LH
5'	12.0	CB16960	CB16960TB	CB16960LH
6'	14.0	CB16972	CB16972TB	CB16972LH
7'	16.0	CB16984	CB16984TB	CB16984LH
8'	18.0	CB16996	CB16996TB	CB16996LH

The Eye Combination Key has a standard Pentagon Socket at the top of the key. An Eye Operator is located approximately 9 inches below the pentagon socket. At the bottom is a curb key slot. This key can be used to remove the pentagon bolt from a curb box lid and then used to operate the curb stop.

When choosing the length of key you desire, please note that the length listed in the table above represents the length of the shaft under the Eye Operator.

CURB BOX WRENCHES



Meter Reader Curb Box Wrench
Standard Pentagon
Tool Number: CW00103

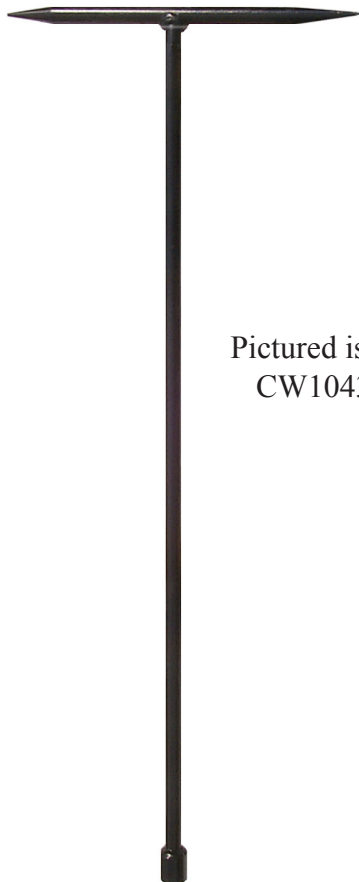
8" Pentagon Wrench
Standard Pentagon

Tool Number: (with Point & Chisel on the Handle) CW10408 (pictured)

Tool Number: (with Point & Blunt on the Handle) CW10208



OUR MOST POPULAR PENTAGON WRENCH



Pictured is the
CW10436

Serviceman Model Curb Box Wrenches - Standard Pentagon			
		Point-Blunt Handle	Point-Chisel Handle
Length	Weight	Tool Number	Tool Number
12"	2.5	CW10212	CW10412
18"	3.5	CW10218	CW10418
24"	4.5	CW10224	CW10424
36"	7.0	CW10236	CW10436

Serviceman Model Curb Box Wrenches - Large Pentagon			
		Point-Blunt Handle	Point-Chisel Handle
Length	Weight	Tool Number	Tool Number
12"	2.5	CW20212	CW20412
18"	3.5	CW20218	CW20418
24"	4.5	CW20224	CW20424
36"	7.0	CW20236	CW20436

10 KRAVITCH UTILITY TOOLS

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CURB BOX WRENCHES



The Double Ended Curb Box Wrench.
A standard Pentagon Socket at one end and a Large Pentagon
Socket at the other end. Overall length: approx 6"

Tool Number (Blunt-Blunt Handle) CW60106 (pictured)
Tool Number (Point-Chisel Handle) CW60406

GATE VALVE KEYS - TEE HANDLE MODELS STANDARD DUTY & HEAVY DUTY



Tee Handle Gate Key - Standard Duty Round Tubing Shank - Fixed Open Socket		
Length	Wt - lbs	Tool Number
4'	13.7	GGK0148
5'	15.4	GGK0160
6'	17.1	GGK0172
7'	18.8	GGK0184
8'	20.5	GGK0196

OUR MOST POPULAR GATE KEY

Kravitch Machine Company's Standard Tubing Gate Key is stronger than most keys on the market. It is strong enough to turn most valves.



Tee Handle Gate Key - Heavy Duty Larger Round Tubing Shank - Fixed Open Socket		
		Fixed Open Socket
Length	Wt-lbs	Tool Number
4'	16.0	GGK0448
5'	18.4	GGK0460
6'	20.7	GGK0472
7'	23.0	GGK0484
8'	25.3	GGK0496

12 KRAVITCH UTILITY TOOLS

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GATE VALVE KEYS - TEE HANDLE MODELS POLYVALVE AND UNIVERSAL JOINT OPTIONS



Tee Handle Gate Key for POLYVALVES		
		Fixed Open Socket
Length	Wt-lbs	Tool Number
4'	13.7	GKD0148WB
5'	15.4	GKD0160WB
6'	17.1	GKD0172WB
7'	18.8	GKD0184WB
8'	20.5	GKD0196WB



Tee Handle Gate Key with a Universal Joint Socket		
		Universal Joint Socket
Length	Wt-lbs	Tool Number
4'	22.7	GGK1048
5'	25.4	GGK1060
6'	28.0	GGK1072
7'	30.7	GGK1084
8'	33.4	GGK1096



Universal Joint Option oscillates up to 20 degrees and allows a repeated 360 degree rotation without removing the key from the valve. It also permits the flow of water and debris through the socket.



**UNIVERSAL JOINT
OPTION**

KRAVITCH UTILITY TOOLS 13

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GATE VALVE KEYS - LONG EYE MODEL TELESCOPING GATE KEY



Extra Heavy Duty Long Eye Gate Key Extra Heavy Duty (XHD) Round Tubing Shaft Fixed Open Socket		
Length	Wt-lbs	Tool Number
4'	13.0	MCGK148
5'	15.5	MCGK160
6'	18.0	MCGK172
7'	20.5	MCGK184
8'	23.0	MCGK196



Telescoping Eye Operator Gate Key with L Handle			
		Fixed Open Socket	
Closed	Open	Wt-lbs	Tool Number
4'	7'	32.0	GGK5024
5'	9'	34.2	GGK5025
6'	11'	40.4	GGK5026
7'	13'	46.6	GGK5027
8'	15'	52.8	GGK5028

The shank length of the Telescoping Eye Operator Gate Key is adjustable by sliding the outer tube up and down along the length of the inner core, and secured through incrementally drilled holes along the length of the shank.

GATE VALVE KEYS SLIDING HANDLE MODEL WITH EXTENSIONS



Sliding Handle Gate Key		
The Sliding Handle glides along the shaft and can be locked into any position along the shaft of the key. The Sliding Handle can also be removed completely for easy storage. Sliding Handle is included.		
		Fixed Open Socket
Length	Wt-lbs	Tool Number
5'	20.2	GGK2025S
6'	23.6	GGK2026S
7'	27.0	GGK2027S
8'	30.4	GGK2028S

Extensions for the Sliding Tee Handle Gate Key					
Extensions can be added to the top of the Sliding Handle Gate Key to add length. They can also be added to each other for additional length					
Length	Wt-lbs	Tool Number	Length	Wt-lbs	Tool Number
1'	5.4	EXT5112	5'	19.0	EXT5160
2'	8.8	EXT5124	6'	22.4	EXT5172
3'	12.2	EXT5136	7'	25.8	EXT5184
4'	15.6	EXT5148	8'	29.2	EXT5196



GATE VALVE EXTENSIONS

The Gate Valve Extension (GVEXT) enables the operation of deeply buried valves with standard length gate valve keys. The GVEXT consists of a shank with an 2" valve operator on the top and an 2" socket on the bottom. The bottom of the GVEXT (2" socket) is placed on top of a deeply buried valve. A standard length gate key can now be placed on top of the gate valve extension enabling the valve to be operated. The extension can be left in place and operated as needed. A centering ring is attached to the shank of the extension to keep it centered in the valve box. The weight of the extension will hold it into place. Set screws are available to secure the GVEXT to the valve on new installations. To be used only with non rising valves.



Gate Valve Extension - Standard Duty					
Length	Wt lbs	Tool Number	Length	Wt lbs	Tool Number
1'	5.4	GGVN011WB	6'	16.4	GGVN016WB
2'	7.6	GGVN012WB	7'	18.4	GGVN017WB
3'	9.8	GGVN013WB	8'	20.4	GGVN018WB
4'	12.0	GGVN014WB	9'	22.4	GGVN0110WB
5'	14.2	GGVN015WB	10'	24.4	GGVN0110WB

Gate Valve Extension - Heavy Duty					
Length	Wt lbs	Tool Number	Length	Wt lbs	Tool Number
1'	8.4	GGVN021CR	6'	25.4	GGVN026XR
2'	11.8	GGVN022CR	7'	28.8	GGVN027CR
3'	15.2	GGVN023CR	8'	32.2	GGVN028CR
4'	18.6	GGVN024CR	9'	35.6	GGVN029CR
5'	22.0	GGVN025CR	10'	39.0	GGVN0210CR

Our most popular Gate Valve Extensions and Most Recommended



GATE VALVE EXTENSIONS



Telescoping Gate Valve Extension			
Length		Wt lbs	Fixed Open Socket
Closed	Open		Tool Number
3'	5'	21.0	GGVC053
4'	7'	28.0	GGVC054
5'	9'	35.0	GGVC055
6'	10'	42.0	GGVC056
7'	13'	49.0	GGVC057
8'	15'	56.0	GGVC058

PLUG VALVE KEYS



Sliding Handle Plug Valve Key

The Sliding Handle glides along the shaft and can be locked into any position along the shaft of the key. The Sliding Handle can also be removed completely for easy storage. Sliding Handle is included.

Length	Wt-lbs	Tool Number
4'	35.0	PIST4
5'	38.0	PIST5
6'	41.0	PIST6
7'	44.0	PIST7
8'	47.0	PIST8

The Interchangeable Plug Valve Key is comprised of a shank onto which separate socket ends are attached at the bottom. This key has a pin connection coupling, which enables the worker to change the socket end by disconnecting the coupling and inserting a new socket into place. The individual sockets can be stored and transported in a tool box. Please select the sockets you need from the sizes listed on the table on the next page.

Telescoping Eye Operator Plug Valve Key L Handle is included		
Length	Wt-lbs	Tool Number
4'	35.0	PITE4
5'	38.0	PITE5
6'	41.0	PITE6
7'	44.0	PITE7
8'	47.0	PITE8

The shank of the Telescoping Plug Valve Key is adjustable by sliding the outer tube up and down along the length of the inner core. Once the desired length is achieved the outer tube is bolted to the inner core through incrementally drilled holes along the length of the shank. At the bottom of the shank is a pin connection coupling which enables the worker to change the socket end by disconnecting the coupling and inserting a new socket into place. The individual sockets can be stored and transported in a tool box. Please select the sockets you need from the sizes listed on the table on the next page.



PLUG VALVE SOCKETS

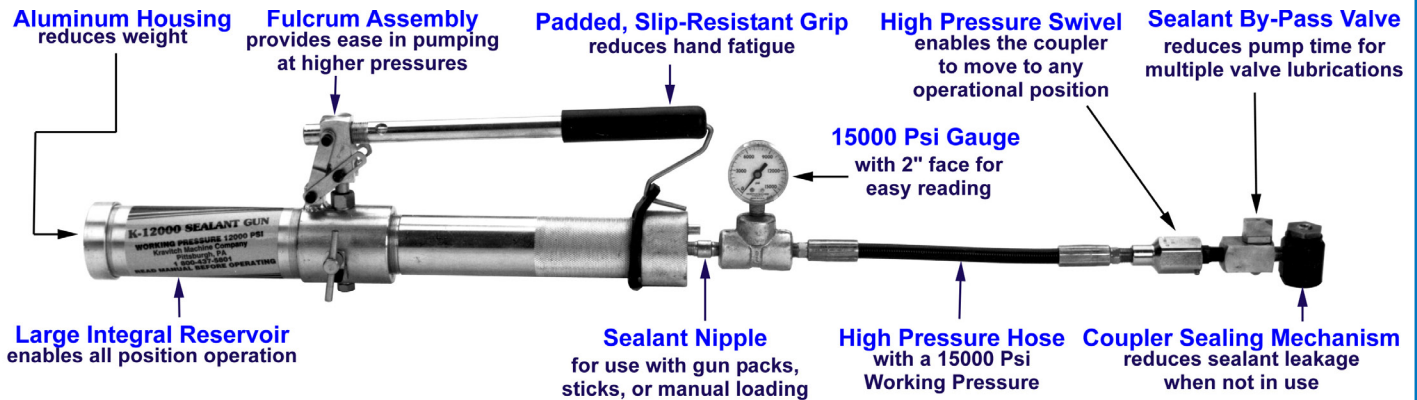
Plug Valve Socket Sizes					
Socket Size	Tool #	Socket Size	Tool#	Socket Size	Tool #
1/2" Sq	PVISS75	1 1/8" x 1 1/4"	PVISS24	1 5/8" x 1 3/4"	PVISS50
9/16" Sq	PVISS77	1 1/8" x 1 3/8"	PVISS25	1 5/8" x 1 7/8"	PVISS51
5/8" Sq	PVISS79	1 1/8" x 1 1/2"	PVISS26	1 5/8" x 2"	PVISS52
3/4" Sq	PVISS01	1 1/8" x 1 5/8"	PVISS27	1 5/8" x 2 1/8"	PVISS53
7/8" Sq	PVISS02	1 1/8" x 1 3/4"	PVISS28	1 5/8" x 2 1/4"	PVISS54
1" Sq	PVISS03	1 1/8" x 1 7/8"	PVISS29	1 5/8" x 2 3/8"	PVISS55
1 1/8" Sq	PVISS04	1 1/8" x 2"	PVISS30	1 5/8" x 2 1/2"	PVISS56
1 1/4" Sq	PVISS05	1 1/4" x 1 3/8"	PVISS31	1 3/4" x 1 7/8"	PVISS57
1 3/8" Sq	PVISS06	1 1/4" x 1 1/2"	PVISS32	1 3/4" x 2"	PVISS58
1 1/2" Sq	PVISS07	1 1/4" x 1 5/8"	PVISS33	1 3/4" x 2 1/8"	PVISS59
1 5/8" Sq	PVISS08	1 1/4" x 1 3/4"	PVISS34	1 3/4" x 2 1/4"	PVISS60
1 3/4" Sq	PVISS09	1 1/4" x 1 7/8"	PVISS35	1 3/4" x 2 3/8"	PVISS61
1 7/8" Sq	PVISS10	1 1/4" x 2"	PVISS36	1 3/4" x 2 1/2"	PVISS62
2" Sq	PVISS11	1 3/8" x 1 1/2"	PVISS37	1 7/8" x 2"	PVISS63
2 1/8" Sq	PVISS12	1 3/8" x 1 5/8"	PVISS38	1 7/8" x 2 1/8"	PVISS64
2 1/4" Sq	PVISS13	1 3/8" x 1 3/4"	PVISS39	1 7/8" x 2 1/4"	PVISS65
2 3/8" Sq	PVISS14	1 3/8" x 1 7/8"	PVISS40	1 7/8" x 2 3/8"	PVISS66
2 1/2" Sq	PVISS15	1 3/8" x 2"	PVISS41	1 7/8" x 2 1/2"	PVISS67
1" x 1 1/8"	PVISS16	1 1/2" x 1 5/8"	PVISS42	2" x 2"	PVISS68
1" x 1 1/4"	PVISS17	1 1/2" x 1 3/4"	PVISS43	2" x 2 1/8"	PVISS69
1" X 1 3/8"	PVISS18	1 1/2" x 1 7/8"	PVISS44	2" x 2 1/4"	PVISS70
1" x 1 1/2"	PVISS19	1 1/2" x 2"	PVISS45	2" x 2 3/8"	PVISS71
1" x 1 5/8"	PVISS20	1 1/2" x 2 1/8"	PVISS46	2" X 2 1/2"	PVISS72
1" x 1 3/4"	PVISS21	1 1/2" x 2 1/4"	PVISS47	3" Sq	PVISS76
1" x 1 7/8"	PVISS22	1 1/2" x 2 3/8"	PVISS48	Curb Key Slot	PVISS73
1" x 2"	PVISS23	1 1/2" x 2 1/2"	PVISS49	Lube Curb Key Slot	PVISS74



Plug Valve Sockets

The sockets at left represent just a handful of the socket sizes available for the Plug Valve Keys. First choose either a Sliding Handle or Telescoping Plug Valve Key style shown on the opposite page, then choose as many interchangeable sockets from the list above as needed. The sockets are attached to the interchangeable shank by a pin connection coupling. The individual sockets can be stored and transported in a tool box.

K-12000 HYDRAULIC SEALANT GUN



SAFETY FEATURES

Internal Pressure Relief Valve
set between 12,000 and 13000 psi

High Pressure Hose
(15000 psi Working Pressure)

A 0 to 15000 PSI Gauge
with 2" face for easy reading

OPERATIONAL FEATURES

The K-12000 Sealant Gun is designed to operate to a working pressure of 12000 psi. Each part has been engineered to meet the demands of a high pressure sealant gun. Includes a 1 Year Limited-Warranty.

- The Model K-12000 Sealant Gun operates efficiently in all positions. (Vertical, Horizontal & Upside Down)
- Floating Piston permits use with a wide range of sealants, lubricants, and fluids.
- Specially designed Sealant Nipple permits use with packs, sticks and manual charging of the gun.
- The Sealant By-Pass Valve enables the operator to lubricate several plug valves in a cluster without pumping up the sealant gun for each valve. NOTE: Do not transport a sealant gun with any internal pressure.
- Simple Field repair and wear part replacement.
- Coupler with Internal Sealing Mechanism reduces sealant loss while transporting
- Large Hydraulic Fluid Reservoir insures long periods of operation between charging
- Synthetic Hydraulic Fluid operates smoothly over wide temperature range
- Quick and easy Hydraulic Fluid Replacement.
- Each K-12000 Sealant Gun is functionally tested prior to shipment
- Each Sealant Gun comes with an operational manual

20 KRAVITCH UTILITY TOOLS

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SEALANT GUN REPLACEMENT PARTS & REBUILDING

SEALANT GUN REPLACEMENT PARTS

Sealant Gun Replacement Parts For the 400-D Sealant Gun and others			
KMC Part Number	Part Description	KMC Part Number	Part Description
7520	Hydraulic Fluid Bag Barrel Cap	7780	Sealant Barrel Assembly
7530	Hydraulic Fluid Bag Assembly	7790	Piston Assembly
7540	Sealing Ring	7800	Sealant Barrel Cap
7550	Hydraulic Fluid Bag Barrel	7810	Nipple
7562	Body Weldment	7820	Tee
7570	Pump Cylinder Assembly	7830	15000 psi Gauge
7610	Link Assembly	7840	Hose-Swivel Assy (15000 working pressure)
7650	Fulcrum Assembly	7850	Sealant By-Pass Valve
7690	Handle Assembly	7880	Giant Button Head Coupler
7710	Check Valve Assembly	7900	Hydraulic Fluid, 8 oz
7720	By-Pass Valve Assembly	7910	O-Ring Kit
7750	Internal Relief Valve Assembly	7920	Hardware Kit

SEALANT GUN REBUILDING

KMC specializes in rebuilding tools used by the utility industry, including hydraulically-operated sealant guns similar to the Rockwell Model 400-D handgun. In order to produce the highest quality rebuilt sealant guns, KMC manufactures all the metal replacement parts and purchases the highest quality American-made hardware items.

KMC rebuilds sealant guns to a “like-new” condition. All safety, and wear parts are replaced with new parts. KMC does not utilize used wear parts. KMC does not interchange parts between different guns. Each gun is reassembled with its own parts and the same gun is returned to you. NOTE: Please drain your sealant gun of all hydraulic fluid prior to shipping to KMC for repair.

Rebuilding the sealant gun consists of:

1. Complete disassembly between the sealant cylinder cap and the fluid bag cylinder cap.
2. Cleaning all parts.
3. Inspecting all parts
4. Minor Machining (such as deburring, sealant cylinder honing, thread repair etc..)
5. Replacing all safety, sealing and wear parts. These parts include the following: Pressure Relief Valve, Complete Pump Cylinder Assembly, Complete Sealant Cylinder Piston Assembly, Fluid Bag, Check Valve Assembly Hardware, all O-Rings and Seals and Hydraulic Fluid.
6. Reassembling
7. Functional pressure testing. Rebuilt sealant guns are subject to the same functional testing as new sealant guns.

The following parts are inspected and replaced as needed, for an additional cost: Sealant Nipple, Tee, Pressure Gauge, Hose Assembly, and Giant Button-Head Coupler.

A rebuilt sealant gun has a 60-Day Limited Warranty.

KRAVITCH UTILITY TOOLS 21

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RIGHT ANGLE GIANT BUTTON HEAD FITTING

ARCHIAC PLUG VALVE LUBRICATION TECHNIQUE

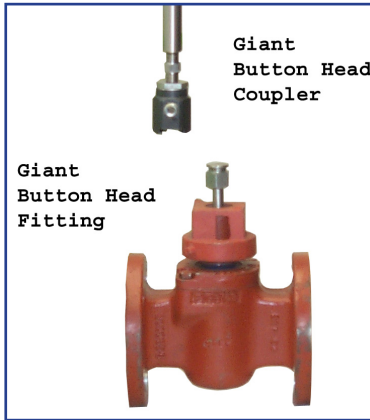


Figure 1

Plug Valves of various sizes have a Giant Button Head Fitting (GBHF) on the top of the valve stem (Fig 1). Sealant is injected into the valve through this Giant Button Head Fitting. The sealant acts as a renewable seat and hydraulically lifts the plug out of its taper allowing easier operation. This fitting is generally installed in the vertical position. This configuration does not pose any problems for sealant injection when the valve is above ground.

Lubrication of buried plug valves require the use of an injection rod which consists of a Giant Button Head Coupler on the bottom, a length of high strength tubing in between, and a Giant Button Head Fitting on the top. The lower end of the injection rod is shown in Figure 2. Currently the Injection Rod is attached to the buried valve by horizontally sliding the Giant Button Head Coupler on the insertion rod over the Giant Button Head Fitting on the valve stem. This can be quite difficult and sometimes impossible to accomplish. The operator may not know if they are injecting sealant into the valve because their view of the connection does not show if the two mating parts are properly attached.



Figure 2

The Kravitch Right Angle Sealant Fitting (patent-pending) pictured in Figure 3 solves these problems. The Kravitch Right Angle Sealant Fitting is attached to the valve the same way as the standard Giant Button Head Fitting, however the Sealant Injection Rod is attached to this fitting by vertically sliding the Giant Button Coupler on the Sealant Injection Rod over the Giant Button Head Fitting of the Kravitch Right Angle Sealant Fitting as pictured in Figure 4. This operation is easy to perform, the operator knows positively that the coupler is mated with the giant button head fitting, and the connection of the two mating parts is easily observed. The operator can easily see that sealant is being injected into the valve and not being pumped into the valve box. The Kravitch Right Angle Sealant Fitting does not interfere with the access to the valve operator. A standard valve key will slip over the fitting to operate the valve.

MODERN PLUG VALVE LUBRICATION TECHNIQUE



Figure 3



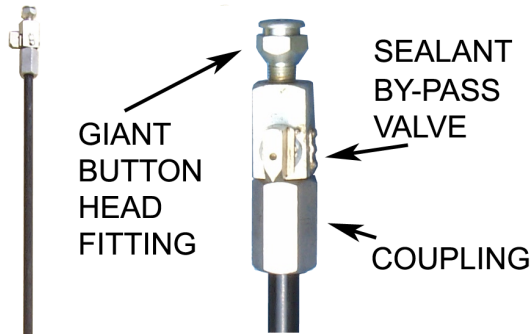
Figure 4

RIGHT ANGLE GIANT BUTTON HEAD FITTING (Patent-pending)	
Size	Tool Number
1/4" Right Angle Giant Button Head Fitting	RAGBF14
3/8" Right Angle Giant Button Head Fitting	RAGB38
1/2" Right Angle Giant Button Head Fitting	RAGB12
3/4" Right Angle Giant Button Head Fitting	RAGB34
Insertion Socket, 1/4", 3/8" & 1/2"	RAGBFIS
Insertion Socket, 3/4"	RAGBF2S



SEALANT EXTENSIONS “INJECTION RODS”

SEALANT EXTENSION



Sealant Extensions “Injection Rods”	
Length	Stainless Steel
3'	SIRSS03
4'	SIRSS04
5'	SIRSS05
6'	SIRSS06
7'	SIRSS07
8'	SIRSS08

Sealant Injection Rods are made from Stainless Steel.

SEALANT EXTENSION

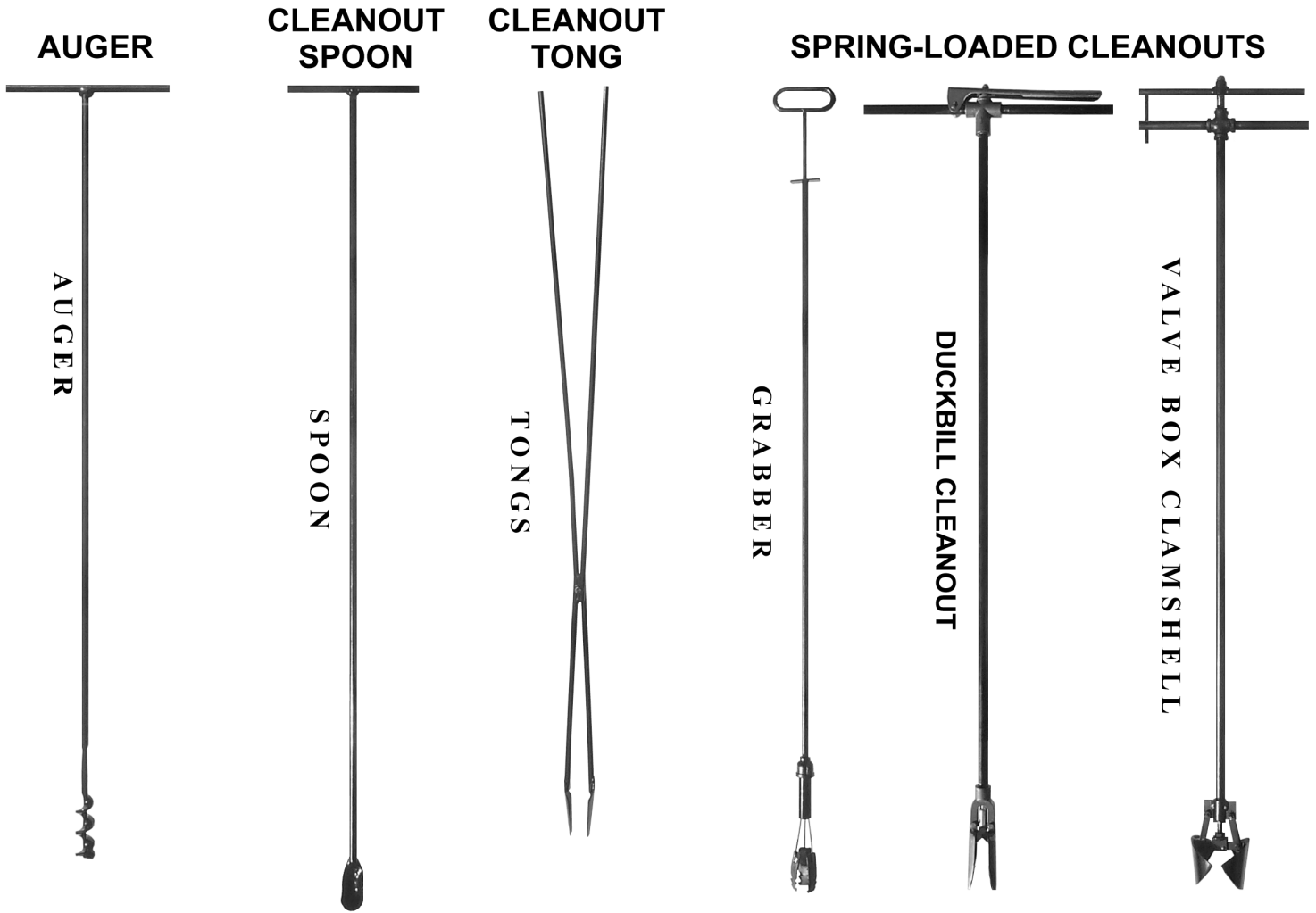


Right Angle Sealant Extensions “Injection Rods”	
Length	Stainless Steel
3'	SIRSS03RA
4'	SIRSS04RA
5'	SIRSS05RA
6'	SIRSS06RA
7'	SIRSS07RA
8'	SIRSS08RA

Right Angle Sealant Extensions are made from Stainless Steel.

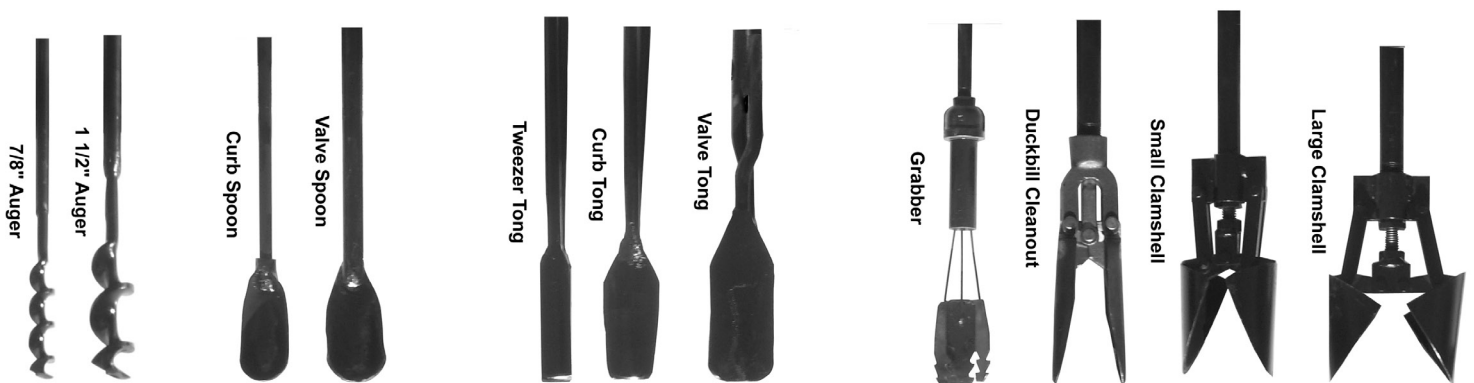


CLEANOUT TOOLS



Kravitch Machine Company manufactures industrial-quality cleanout tools. These cleanout tools remove stones, dirt and debris from curb & valve boxes.

CLEANOUT TOOL END OPTIONS



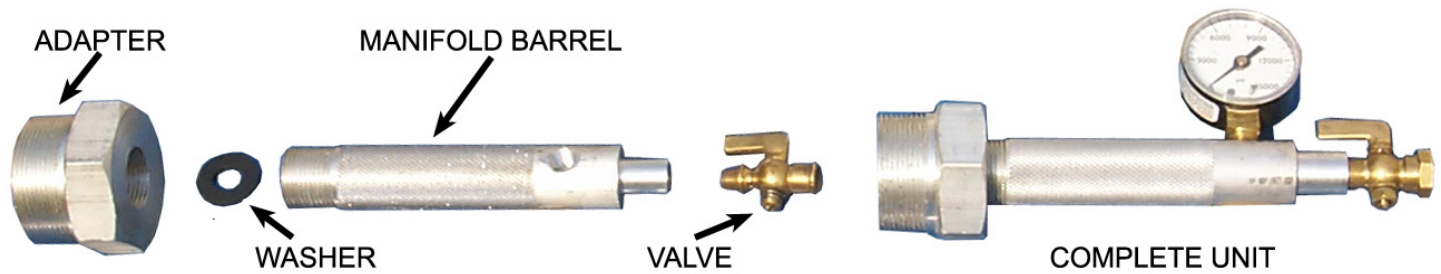
CLEANOUT TOOLS

CURB & VALVE BOX CLEANOUT TOOLS			
Tool Description	Length	Wt lbs	Tool Number
Auger, 7/8" diameter bit	3'	2.7	CT10136
	4'	3.4	CT10148
	5'	4.1	CT10160
	6'	4.8	CT10172
Auger, 1 1/2" diameter bit	3'	6.0	CT10236
	4'	7.5	CT10248
	5'	9.0	CT10260
	6'	10.5	CT10272
Curb Spoon - useful for curb boxes & valve boxes	5'	9.0	CT10360
	6'	10.0	CT10372
	7'	11.0	CT10384
	8'	12.0	CT10396
Valve Spoon - used for valve boxes only	5'	9.0	CT11260
	6'	10.0	CT11272
	7'	11.0	CT11284
	8'	12.0	CT11296
Curb Tong - useful for curb boxes & valve boxes	5'	9.0	CT10460
	6'	10.0	CT10472
	7'	11.0	CT10484
	8'	12.0	CT10496
Valve Tong - used for valve boxes only	6'	10.0	CT11172
	7'	11.0	CT11184
	8'	12.0	CT11196
Tweezer Tong - useful for curb boxes & valve boxes	5'	9.0	CT10560
	6'	10.0	CT10572
	7'	11.0	CT10584
	8'	12.0	CT10596
Duckbill Cleanout Tool - useful for curb boxes & valve boxes	5'	9.0	CT10660
	6'	10.0	CT10672
	7'	11.0	CT10684
	8'	12.0	CT10696
Small Clamshell Cleanout Tool - used for valve boxes only	5'	9.0	CT11060
	6'	10.0	CT11072
	7'	11.0	CT11084
	8'	12.0	CT11096
Large Clamshell Cleanout Tool - used for valve boxes only	5'	9.0	CT10960
	6'	10.0	CT10972
	7'	11.0	CT10984
	8'	12.0	CT10996
Grabber - useful for curb boxes & valve boxes	5'	4.0	CT10760
	6'	5.0	CT10772
	7'	6.0	CT10784
	8'	7.0	CT10796

KRAVITCH UTILITY TOOLS 25

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PIPING SYSTEM LEAK DETECTION / GAS FITTING ADAPTORS



Piping System Leak Detection		
Description	Wt lbs	Tool Number
Manifold Barrel, 1/8" NPT	<1.0	TT185MB
Valve, 1/8" NPT	<1.0	TT181PV
Lite Fitting Adapter Washer - use your own washer or purchase one for each Lite Adapter.	<1.0	TT5LWSH
10 Lite Adapter	<1.0	TT10LAD
20 Lite Adapter	<1.0	TT20LAD
30 Lite Adapter	<1.0	TT30LAD
45 Lite Adapter	<1.0	TT45LAD
Back & Bottom mounted gauges available upon request.		

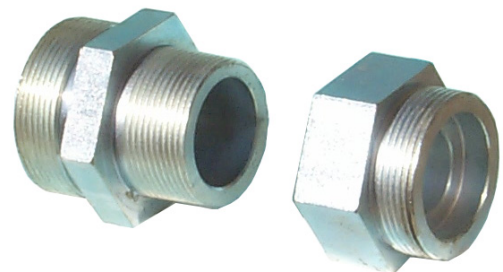
GAS FITTING ADAPTORS

Kravitch Machine Company manufactures quality Gas Fitting Adaptors. This includes special adaptors. Both external and internal threaded adaptors are available for the following thread sizes:

1. all National Pipe Sizes
2. 5, 10, 20, 30, 45, 60 Lite
3. 1, 2, 4, 5 Sprague
4. 1" Pittsburgh

KMC currently stocks these adaptors:

- 20 Lite internal to 30 Lite external Adaptor
- 45 Lite internal to 30 Lite external Adaptor
- 45 Lite external to 1 1/4" NPT external Adaptor



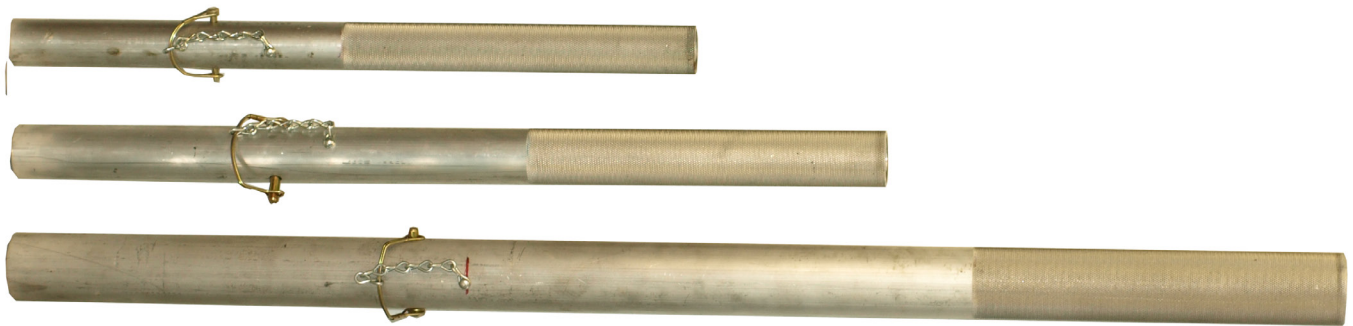
DRIP PUMP / ALUMINUM PIPE WRENCH HANDLE



DRIP PUMP

The Drip Pump is used to remove condensation from pipes. The Drip Pump is a heavy duty hand water pump made from brass and is resistant to corrosion. The inlet thread is 1" NIP and the outlet thread is 3/4" NIP.

Tool Number: DP00001



Aluminum Pipe Wrench Handle

Choose from three sizes:

Fits 14" Pipe Wrench: ALWR11424

Fits 18" Pipe Wrench: ALWR11230

Fits 24" Pipe Wrench: ALWR00245

KRAVITCH UTILITY TOOLS 27

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SPLITTING WEDGES / DIGGING BARS / SECURITY DEVICES

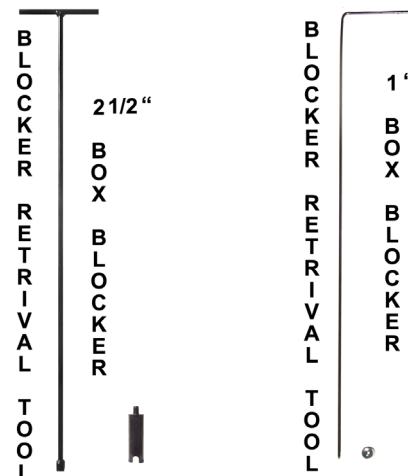
Splitting Wedges - Rectangular		
Description	Wt lbs	Tool Number
1 1/2" x 1" x 8" Splitting Wedge	3.4	WG02108
2" x 1" x 8" Splitting Wedge	4.2	WG02208
3" x 1" x 8" Splitting Wedge	5.1	WG02308



Digging Bars		
Length	Wt lbs	Tool Number
2'	8.0	DB00124
2 1/2' Pictured, far left	10.0	DB00130
3'	11.0	DB00136
4'	14.0	DB00148
5' Pictured, near left	17.0	DB00160
6'	20.0	DB00172
7'	23.0	DB00184
8'	26.0	DB00196

Digging Bars are manufactured with a strong steel shank. The Kravitch Digging Bar has a specially hardened cutting edge that out performs and out lasts off the shelf digging bars. In addition, the top of the Digging Bar can be used to tamp the ground.

Security Devices for Curb Boxes		
Tool Description	Wt lbs	Tool Number
1" Blocker	1.0	SD01100
1" Removal Tool	1.0	SD2100
2 1/2" Blocker	5.0	SD01212
2 1/2" Removal Tool	8.0	SD11212



LID LIFTER / CURB STOP TOPS / GATE VALVE OPERATOR NUTS

The Heavy Duty Lid Lifter is approx 3' in length.
 The handle is perpendicular to the hook.
 Tool Number: LLT0236



Curb Stop Tops		
Description	Wt lbs	Tool Number
Small Curb Stop Top, 3/8" "Yellow"		CST3800
Medium Curb Stop Top, 1/2" "Black"		CST1200
Large Curb Stop Top, 5/8" "Red"		CST5800

Gate Valve Operator Nuts		
Description	Wt lbs	Tool Number
#12 Valve Nut	2.0	VALNUT12
#13 Valve Nut	2.0	VALNUT13
#15 Valve Nut	2.0	VALNUT15
#16 Valve Nut	2.0	VALNUT16
Valve Nut Kit - 1 of each size	8.0	VALNUTKIT



Valve Box Lid Lifter
 Tool Number: VBL000

ERGONOMIC BARHOLING - SINGLE POINT PROBES & PURGERS



STEP ONE

Drive Single Point Probe into the ground to desired depth.

Single Point Probe Bars						
	Wt lbs	5/8" dia	5/8" dia with Pounding Pad	Wt lbs	1" dia	1" dia with Pounding Pad
Length		Tool Number	Tool Number		Tool Number	Tool Number
4'	6.6	PBS5848	PBS5848PP	14.0	PBS1048	PBS1048PP
5'	7.8	PBS5860	PBS5860PP	17.0	PBS1060	PBS1060PP
6'	8.9	PBS5872	PBS5872PP	20.0	PBS1072	PBS1072PP
7'	10.1	PBS5884	PBS5884PP	23.0	PBS1084	PBS1084PP
8'	11.2	PBS5896	PBS5896PP	26.0	PBS1096	PBS1096PP

The Probe Bar pictured at left is a 5' Single Point Probe that is 1" in diameter and includes a Pounding Pad on top.

To ergonomically remove the Single Point Probe once it has been driven into the ground, see Bar Pullers on the next page.



Purgers					
		3/8" dia Steel	3/8" dia Stainless Steel	1/2" dia Steel	1/2" dia Stainless Steel
Length	Wt lbs	Tool Number	Tool Number	Tool Number	Tool Number
3'	7.5	PURG3836	PURG3836SS	PURG1236	PURG1236SS
4'	8.0	PURG3848	PURG3848SS	PURG1248	PURG1248SS
5'	8.5	PURG3860	PURG3860SS	PURG1260	PURG1260SS
6'	9.0	PURG3872	PURG3872SS	PURG1272	PURG1272SS
7'	9.5	PURG3884	PURG3884SS	PURG1284	PURG1284SS

The Purger is used to extract gas from the ground through Bar Holes. This unit will also extract water out of curb boxes. Purgers are available in 3/8" and 1/2" diameter steel or stainless steel.

30 KRAVITCH UTILITY TOOLS

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ERGONOMIC BARHOLING - BAR PULLERS



STEP TWO

Affix the bar puller onto the Single Point Probe Bar. Be sure the handle is positioned along side of the Probe bar. Place your foot on the footpad.



STEP THREE

Begin stroking the handle back and forth. Short strokes are all that are required to pull the bar steadily upward.



STEP FOUR

IT IS NOT NECESSARY TO BEND YOUR KNEES OR SQUAT DOWN AND PUSH THE HANDLE BACKWARD TOWARD THE GROUND. Continue short strokes while standing until the bar comes to the surface and can be removed by hand.



Bar Pullers					
Description	Wt lbs	Tool Number	Description	Wt lbs	Tool Number
The Mini Bar Puller	6.0	BP20312	1/2" Block (for Bar Puller not Mini)	2.0	BPB0212
Bar Puller with 5/8" Block	12.0	BP20258	5/8" Block	2.0	BPB0258
Bar Puller with 3/4" Block	12.0	BP20234	3/4" Block	2.0	BPB0234
Bar Puller with 1" Block	12.0	BP20210	1" Block	2.0	BPB0210
Bar Puller with 1 1/8" Block	12.0	BP20218	1 1/8" Block	2.0	BPB0218
Bar Puller with 1 1/4" Block	12.0	BP20214	1 1/4" Block	2.0	BPB0214

The Mini Bar Puller is used to extract 1/2" diameter bars such as those used in Plunger Bars.

Bar Pullers are used to extract bars of any shape (round, hexagon, square etc.) from 7/16-1 1/4" section size. One Bar Puller will do all these sizes by changing out the Bar Puller Block.

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ERGONOMIC BARHOLING - TEE PROBE BAR ILLUSTRATION



Tee Probe driven into the ground with a small sledge hammer.



Drive Tee Probe a short distance into the ground and then rotate it. This will produce a round hole and facilitate bar extraction.



Drive the bar deeper into the ground.



Rotate the Tee Probe.



Repeat driving in the bar and rotating until reaching the desired depth.



Rotate the Tee Probe which will free up the Tee Probe in the ground.



With the Tee Probe loose in the ground, pull up on the Tee Handle. The Tee Probe will come out easily.



Tee Probe is completely removed from the ground.

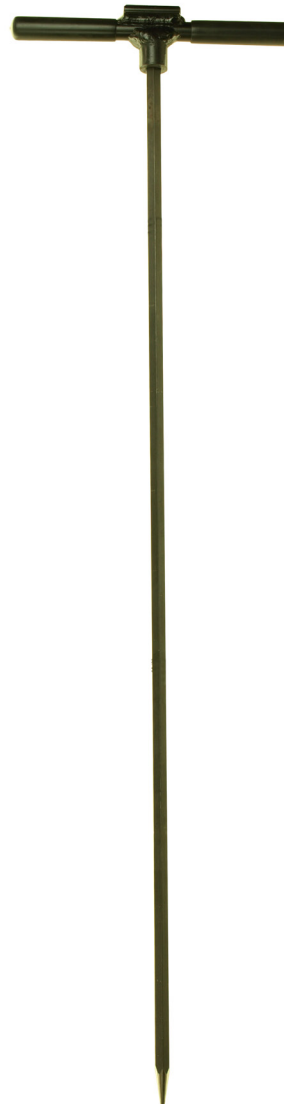
ERGONOMIC BARHOLING - TEE PROBE BARS

Tee Probes Bars						
		7/16" diameter	7/16 diameter with Pounding Pad & Grips		5/8" diameter	5/8" diameter with Pounding Pad & Grips
Length	Wt lbs	Tool Number	Tool Number	Wt lbs	Tool Number	Tool Number
3'	5.0	PBT7637	PBT7636PPGG	6.5	PBT5836	PBT5836PPGG
4'	5.6	PBT7648	PBT7648PPGG	7.6	PBT5848	PBT5848PPGG
5'	6.1	PBT7660	PBT7660PPGG	8.8	PBT5860	PBT5860PPGG
6'	6.7	PBT7672	PBT7672PPGG	10.0	PBT5872	PBT5872PPGG
7'	7.3	PBT7684	PBT7684PPGG	11.2	PBT5884	PBT5884PPGG
8'	7.9	PBT7696	PBT7696PPGG	12.3	PBT5896	PBT5896PPGG

TEE PROBE



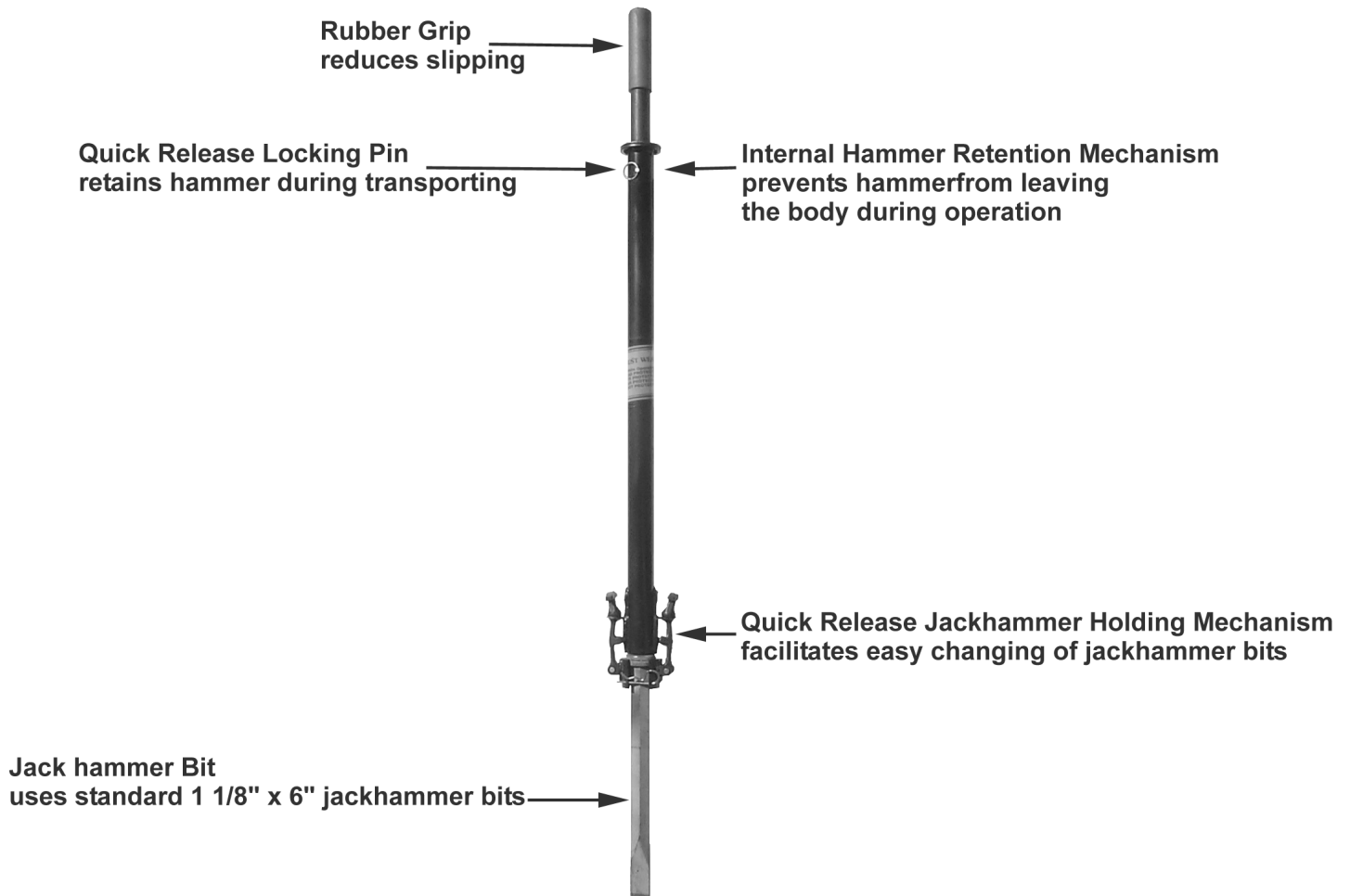
TEE PROBE WITH
POUNGING PAD & GRIPS



KRAVITCH UTILITY TOOLS 33

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SLIDE HAMMER JACKHAMMER



Slide Hammer Jackhammer		
Description	Wt lbs	Tool Number
Slide Hammer Jackhammer with Narrow Chisel Bit	25.0	SHJH02
Slide Hammer Jackhammer with NO BIT	20.0	SHJH01
Replacement Parts		
Narrow Chisel, 1 1/8" x 6"		SHJHBIT18
Narrow Chisel, 1 1/8" x 48"		SHJHBIT48
Grip	1.0	SH00021
Top Washer	1.0	SH00022
Top Washer Bolt	1.0	SH00023
Hammer Retaining Pin	1.0	SH00024
Bit Holder Unit (Complete)	3.0	SH00025
Latch (Rubber)	1.0	SH00026
Latch Hardware (Pin & Cotter Pin)	1.0	SH00027
Bit Retaining Cotter Pin	1.0	SH00028

HAND-HELD ALIGNMENT CLAMPS



CLOSED



OPEN

Hand-held Alignment Clamp					
Single Size Clamps - both pipes same size			Hybrid Clamps - connected pipes are two different sizes		
Pipe Size	Wt lbs	Tool Number	Pipe Size	Wt lbs	Tool Number
1/4" CTS	3.0	AH014CT	1/2" CTS x 1/2" IPS	3.0	AH12C12C
3/8" CTS	3.0	AH038CT	1/2" CTS x 3/4" IPS	3.0	AH12C34I
1/2" CTS	3.0	AH012CT	1/2" CTS x 1" CTS	3.0	AH12C10C
5/8" CTS	3.0	AH058CT	1/2" CTS x 1" IPS	6.0	AH12C10I
3/4" CTS	3.0	AH034CT	3/4" CTS x 1" CTS	3.0	AH34C10C
1" CTS	3.0	AH100CT	1" CTS x 1/2" IPS	3.0	AH10C12I
1 1/4" CTS	6.0	AH114CT	1" CTS x 3/4" IPS	3.0	AH10C34I
1 1/2" CTS	6.0	AH112CT	1" CTS x 1" IPS	6.0	AH10C10I
2" CTS	6.0	AH200CT	1" CTS x 1 1/4" IPS	6.0	AH10C114I
1/4" IPS	3.0	AH014IP	1" CTS x 2" IPS	9.0	AH10C20I
3/8" IPS	3.0	AH038IP	1 1/4" CTS x 1 1/4" IPS	6.0	AH114C114I
1/2" IPS	3.0	AH012IP			
3/4" IPS	3.0	AH034IP	3/4" IPS x 1" IPS	6.0	AH34I10I
1" IPS	6.0	AH100IP	1 1/4" IPS x 2" IPS	9.0	AH114I20I
1 1/4" IPS	6.0	AH114IP			
1 1/2" IPS	9.0	AH112IP			
2" IPS	9.0	AH200IP			

The Hand-held Alignment Clamp is used to hold two pieces of pipe and a coupling together while fusing the coupling and the pipe together. We offer the Hand-held Alignment Clamp in two styles. The two pipes are the same size for the Single Size Hand-held Alignment Clamp. The Hybrid Clamp is used when two different pipe sizes are being fused.

SINGLE SIZE ALIGNMENT CLAMP / REROUND TOOL

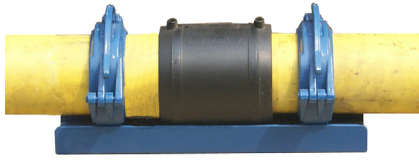


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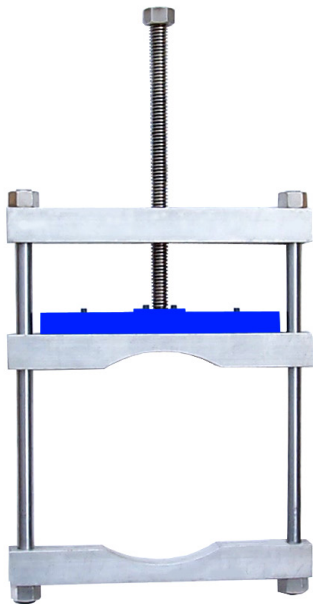
Single Size Alignment Clamp		
Pipe Size	Wt lbs	Tool Number
1 1/4" IPS	10.0	AF114IPS
1 1/2" IPS	10.0	AF112IPS
2" IPS	10.0	AF02IPS
3" IPS	15.0	AF03IPS
4" IPS	22.6	AF04IPS
6" IPS	39.5	AF06IPS
8" IPS	46.7	AF08IPS
4" DIP	22.6	AF04DIP
6" DIP	39.5	AF06DIP
8" DIP	46.7	AF08DIP

Double Size Alignment Clamp		
Pipe Size	Wt lbs	Tool Number
1 1/4" IPS	13.0	AFD114IPS
1 1/2" IPS	13.0	AFD112IPS
2" IPS	13.0	AFD02IPS
3" IPS	19.5	AFD03IPS
4" IPS	29.3	AFD04IPS
6" IPS	51.35	AFD06IPS
8" IPS	60.71	AFD08IPS
4" DIP	29.3	AFD04DIP
6" DIP	51.35	AFD06DIP
8" DIP	60.71	AFD08DIP

Each heavy duty single size alignment clamp listed above aligns one size.

Each heavy duty double size alignment clamp listed above aligns one size.

REROUND TOOL

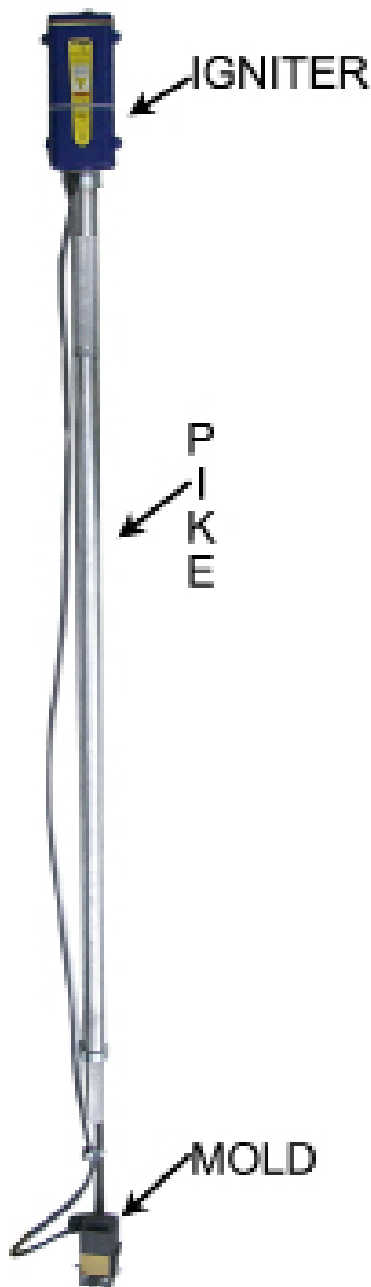


Reround Tool		
Pipe Sizes	Wt lbs	Tool Number
6" to 12" IPS & DIP	55	RRT0812
12" to 20" IPS & DIP	85	RRT1220
20" to 28" IPS & DIP	110	RRT2028

The Reround Tool resizes polyethylene pipe back to the original roundness. The Reround Tool reshapes the polyethylene pipe enabling a fusion coupling to be attached. Three Reround Tool models are available. Each model is adjustable enabling it to reround different sizes. Above is a list of the three models and the sizes each is able to resize.

CATHODIC PROTECTION

Perform Cathodic Protection safely to steel and cast iron pipe by applying an anode from a distance. Utilizing Kravitch Keyhole Tools, this procedure can be performed in a conventional dug hole or through a keyhole.



This procedure utilizes a Pike as the central piece. The Pike is stocked from 2 - 8' in length and can be easily coupled together for any length. On the top of the Pike, an Erico Igniter is attached. On the bottom of the Pike, an Erico mold is attached into which a charge is placed. A wire attaches the Igniter on the top of the Pike to the mold on the bottom of the Pike to supply the current to apply the anode to the pipe.

Once the anode is attached to the pipe, a patch pad (Trenton, Handi-Cap, Thermoweld) can be easily applied over top of the anode utilizing a Pike, Patch Pad Applicator and Finishing Tool.

Please look under Keyhole Catalog for more details for Mechanical Pikes and Grinders to clean Pipe.

CATHODIC PROTECTION



CADWELD® IGNITER ADAPTER Patent Pending

KMC employs the Erico® Cadweld® Plus System to install exothermically welded connections through the keyhole.

Tool Description	Tool Number
Igniter with 6' Cord (uses 5' Standard Mechanical Pike)	KHIG072
Igniter with 15' Cord (uses up to 14' of Standard Mechanical Pike)	KHIG180



CADWELD® MOLD ADAPTER Patent Pending

KMC employs the Erico® Cadweld® Plus System to install exothermically welded connections through the keyhole. Other Molds available for other Material such as Cast Iron.

Tool Description	Tool Number
Steel Pipe Mold 3/4" - 3 1/2" Diameter Pipe	KHMOL01
Steel Pipe Mold 4"+ Diameter Pipe	KHMOL02



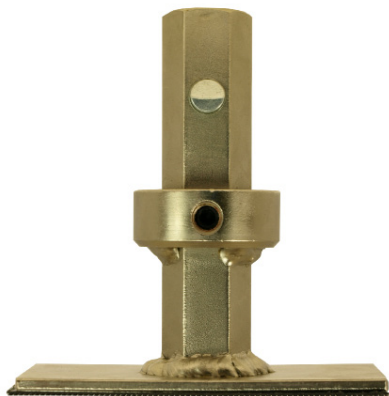
CADWELD® ACCESSORIES

Charges for steel pipe. Other Charges available for pipe materials such as cast iron .

Tool Description	Tool Number
20-Pack Charges CA15PLUS33	KHCWP15
Mold Cleaner Brush	KHMOLB1
Mold Cleaner Scraper	KHMOLS1



CATHODIC PROTECTION

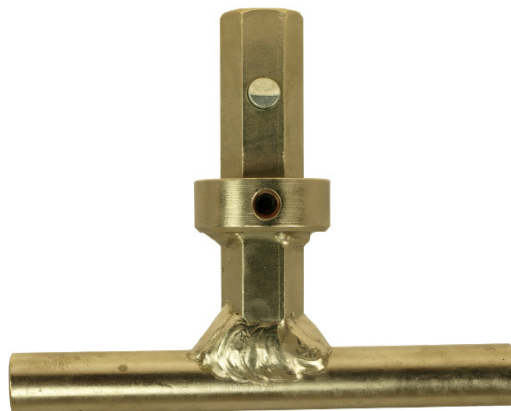


Patch Pad Installation Adapter
for Trenton & Thermoweld

Handi-Cap Patch Pad Installation
Adapter Not Shown.

Patch Pad Finishing Tool Adapter

Use for Trenton, Thermoweld &
Handi-Cap Patch Pads.

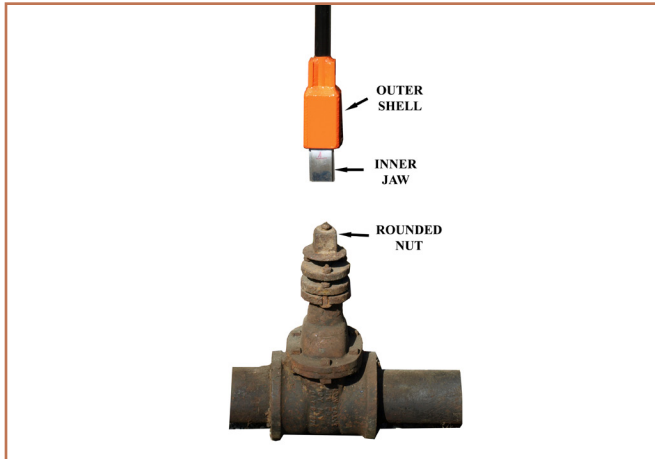


PATCH PAD INSTALLATION AND FINISHING ADAPTERS

Tool Description	Tool Number
Patch Pad Installation Adapter for Trenton & Thermoweld (Shown)	KHPPA01
Patch Pad Installation Adapter for Handi-Cap (not shown)	KHPPA02
Patch Pad Finishing Tool Adapter (Shown)	KHPFT01

THE TRN KEY - A FIRST RESPONDER TOOL

The TRN Key operates most gate valves with rounded nuts. The TRN Key is used by first-responders in emergency shutdown situations. The TRN Key Socket is made up of interjaws which grip the rounded valve nut and an outer shell which is driven over the inner jaws locking them to the valve nut. The valve is then able to be turned. TRN Key patent number 7,311,020.



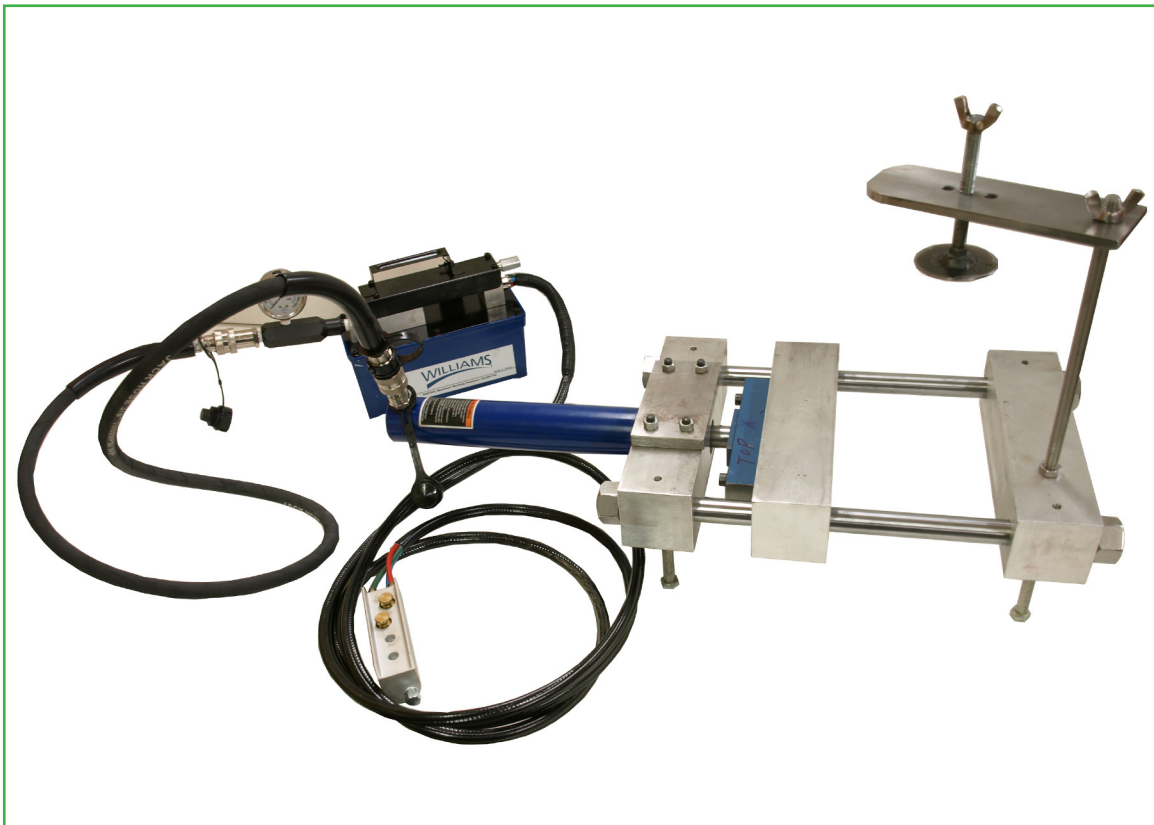
40 KRAVITCH UTILITY TOOLS

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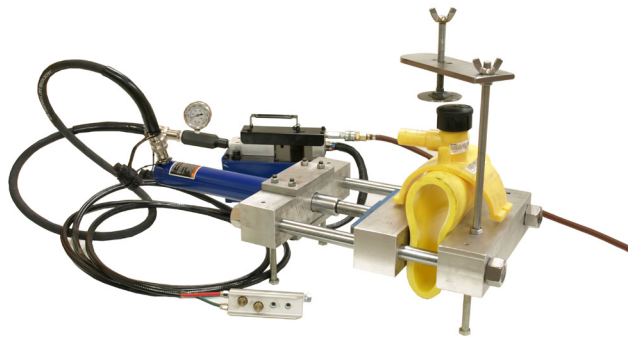
FUSION TEE TESTING MACHINE

The Compression Fusion Tee Testing Machine “the Crusher” has been designed to test service tees which have been fused onto plastic pipe. The Crusher includes a Williams air over hydraulic pump with gauge and a remote operator. An adjustable safety arm above the Tee prevents the Tee from flying out of the machine in the event it becomes unattached from the jaws. The unit is operated by a remote operator with a 6' hose.

FUSION TEE TESTING MACHINE



ONE MODEL TESTS 2" - 8" SERVICE TEES



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