

TAPPING MACHINES

B-100 MACHINE
FEATURES

Fast taps, pressure tight connections and easy trouble-free operation provide an operating efficiency so necessary to meet today's demands. The new B-100 Drilling, Tapping and Inserting Machine gives these results IMMEDIATELY and CONSISTENTLY.

The machine incorporates the same basic double pressure chamber, single boring bar design principle which, through 89 years of field experience, research and testing, has proved to be the most efficient in operation. Its design permits the

operator to handle the machine in lightweight sections. The tapping and inserting operations are performed separately. Tool or stop may be safely removed from the machine at any time during the operation for inspection or replacement, if necessary.

The "B-100" is all new from the saddle up, and has plus features we know you have wanted. Look over these features—see how they all combine to contribute to faster taps, pressure tight connections and easy, trouble-free operations.

ANTI-FRICTION THRUST COLLAR — sandwich type nylon-“teflon”-nylon bearing sealed in steel case; no lubrication; won't gall under power operation.

FEED NUT AND YOKE — spring detents hold feed yoke securely in place around boring bar; acme threads; square shank on feed yoke fits power operator for automatic feed.

EASY OPERATING RATCHET HANDLE — fully enclosed; lubricated; quick-reverse button; lightweight.

“O” RINGS ELIMINATE PACKING ADJUSTMENTS — provide oil reservoir for lubricating boring bar and “O” rings. Boring bar wiper protects bottom “O” ring.

FEED SLEEVE AND CAP — quick removal; acme threads, only 2½ turns to remove; long bearings give maximum boring bar rigidity; positive metal-to-metal contact with cylinder; “O” ring seal.

CHROME PLATED BORING BAR — won't corrode — assures long life of “O” ring seals.

“O” RING SEAL

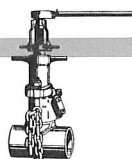
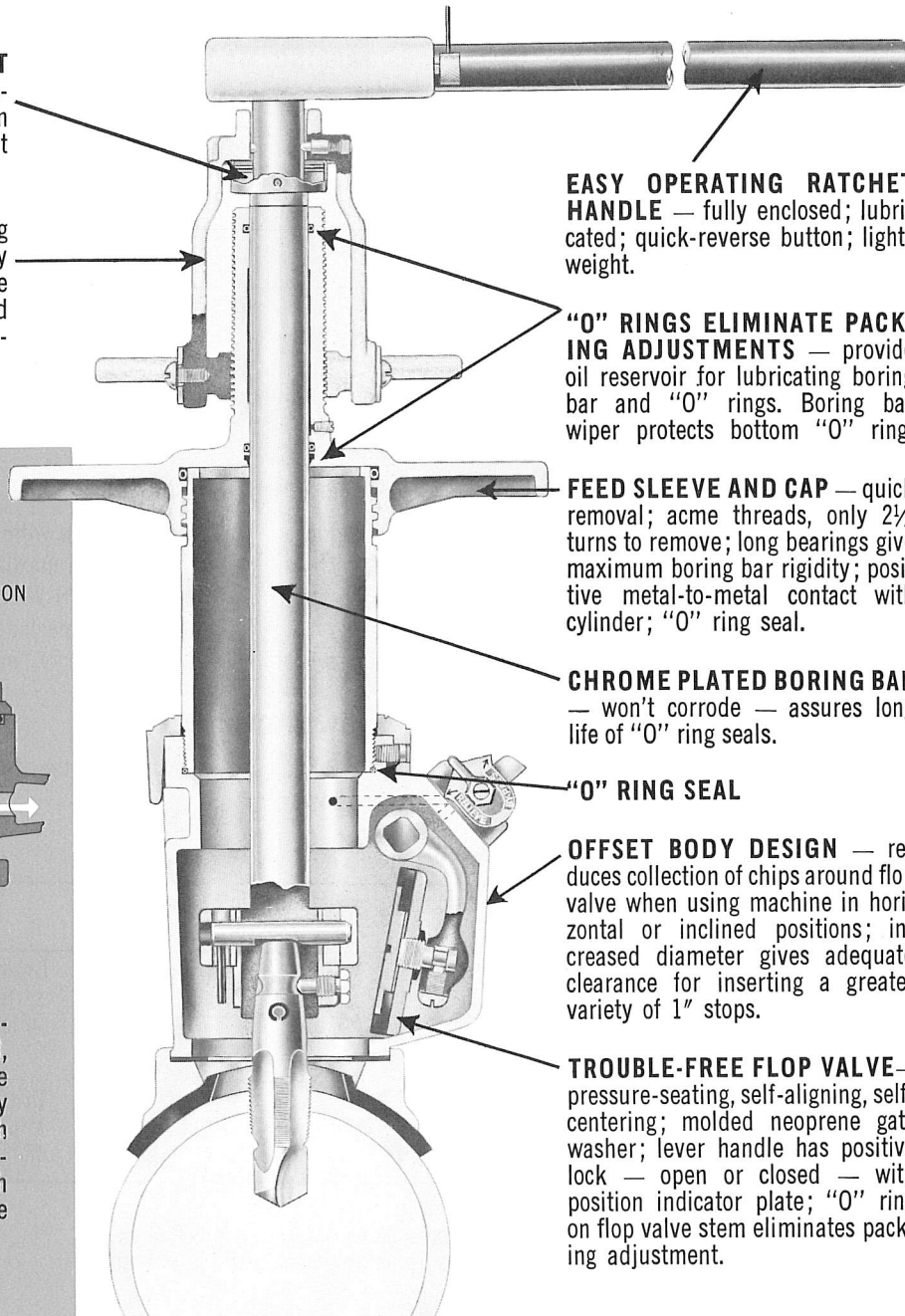
OFFSET BODY DESIGN — reduces collection of chips around flop valve when using machine in horizontal or inclined positions; increased diameter gives adequate clearance for inserting a greater variety of 1" stops.

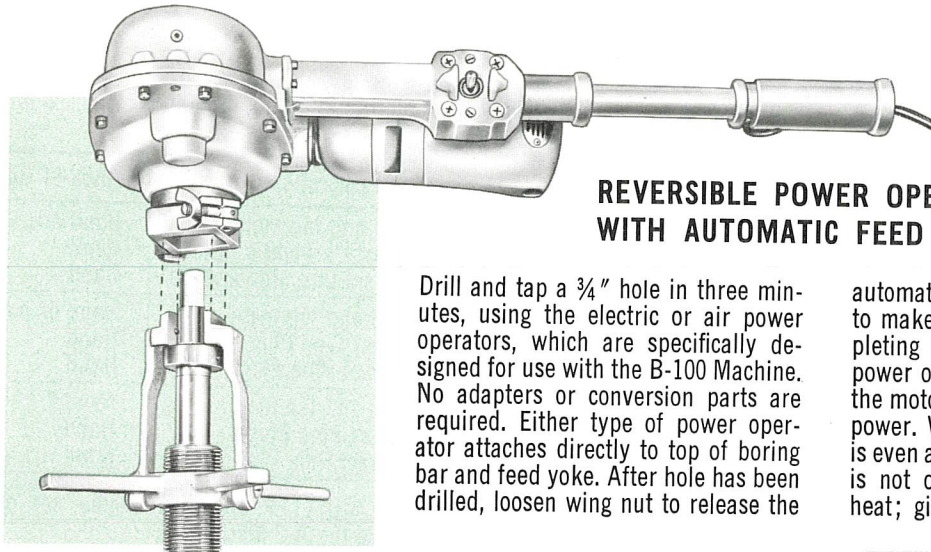
TROUBLE-FREE FLOP VALVE — pressure-seating, self-aligning, self-centering; molded neoprene gate washer; lever handle has positive lock — open or closed — with position indicator plate; “O” ring on flop valve stem eliminates packing adjustment.

BY-PASSING POSITION

RELIEVING POSITION

EASILY MAINTAINED BY-PASS VALVE — self-contained, spring-loaded, ground key valve with fluid escape deflector; easily attached; wing-type handle with indicator plate clearly shows position. Straight passageways through ground key valve and body are easily cleaned.





**REVERSIBLE POWER OPERATOR
WITH AUTOMATIC FEED**

Drill and tap a $\frac{3}{4}$ " hole in three minutes, using the electric or air power operators, which are specifically designed for use with the B-100 Machine. No adapters or conversion parts are required. Either type of power operator attaches directly to top of boring bar and feed yoke. After hole has been drilled, loosen wing nut to release the

automatic feed driver, then continue to make tap under power. After completing tap, flip the switch on the power operator to reverse direction of the motor and withdraw the tool under power. While drilling, boring bar feed is even and completely automatic—tool is not over-crowded; does not over-heat; gives longer effective tool life.

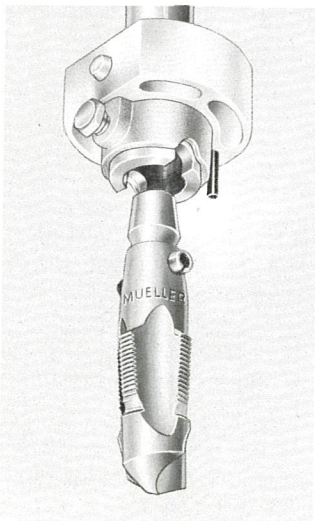
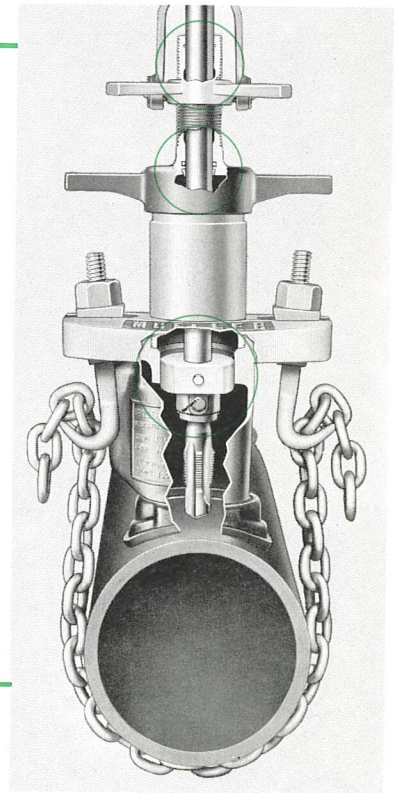
ASSURED RIGIDITY

ON THE MAIN

Pressure-tight connections start with complete machine rigidity on the main. Aluminum alloy chain yoke has high strength—lightweight. Chain hook washers are widely spread and deeply recessed in yoke to prevent slipping off on large diameter pipe. Chain hook cannot rotate—chain cannot twist during tightening. Square shank on chain hook fits inside square hole in chain washer. Square shank on chain washer prevents turning in yoke. Acme threads on chain hooks give long life. Chain hooks, chain hook washers and chain hook nuts are cadmium plated to resist corrosion.

IN THE BORING BAR

Perfect alignment of the boring bar is assured by three boring bar bearings; two, widely spaced in the feed sleeve, and the third at the extreme bottom end of the boring bar. The lower bearing is of molded nylon and closely bears against a machined surface in the body when the drill first contacts the main and also when the stop is being inserted. Curvature of the pipe cannot deflect the drill—tools are relieved of unnecessary stresses and give longer effective life. These three widely spaced boring bar bearings assure perfect centering of tool and stop for accurate threading and a pressure-tight connection.

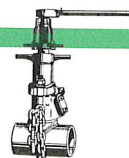


NEW TOOL RETAINER WITH INDEPENDENT DRIVE

Drive pins in shank of new combined drill and tap or E-Z Release Screw Plug slip into notches in the boring bar socket. All driving force is exerted against these drive pins, preventing damage to the surface of the tool shank. Tool retaining screw in replaceable bronze sleeve bears against the upper part of a circular groove around tool shank—holds

tool tight in boring bar socket. This new holding and driving arrangement assures perfect tool-boring bar alignment and maximum rigidity, for long tool life.

No problem to remove tools in the "B-100". Just loosen the tool retaining screw, tap the knockout pin in the tool holder and the tool slides out in your hand.



FOR TAPPING WATER MAINS AND INSERTING CORPORATION STOPS 1/2" TO 1" INCLUSIVE UNDER PRESSURE

CAPACITY AND USE:

The B-100 Machine is designed for hand or power operation. It will perform the following operations in mains under pressure.

Item	Sizes				Operation	Method of Operation
Corporation Stop	1/2"	5/8"	3/4"	1"	Drill and tap main Insert Corporation Stop Extract Corporation Stop	Hand or power Hand Hand
Pipe Plug	1/2"	5/8"	3/4"	1"	Drill and tap main Insert Pipe Plug Extract Pipe Plug	Hand or power Hand Hand
Pipe Plug	1 1/4"	1 1/2"	2"	2 1/2"	Drill and tap main Insert Pipe Plug Extract Pipe Plug	Hand * Hand Hand

*When drilling or tapping above 1" use the MUELLER extension handle, see page 1-9. To insert corporation stops larger than 1" use the A-2 Machine.

Tools and saddles are offered for use with cast iron, cement-lined cast iron, asbestos-cement and steel pipe in sizes from 2" to 48" inclusive.

MAXIMUM WORKING PRESSURE:

90 p.s.i. without power clevis
250 p.s.i. with power clevis

MAXIMUM TEMPERATURE RATING

250° F.

EQUIPMENT FURNISHED WITH EACH MACHINE:

Ratchet Handle	Wrench for Chain
Small Saddle Gasket	Hook Nuts and Tool
Large Saddle Gasket	Retaining Screw
Round Link Chain	Body Cleaning Chisel
Chain Hooks and Nuts	Lubricating Oil
Chain Washers	Cutting Grease
Wrench for E-Z	Metal Case
Release Screw Plugs	Ditch Cloth

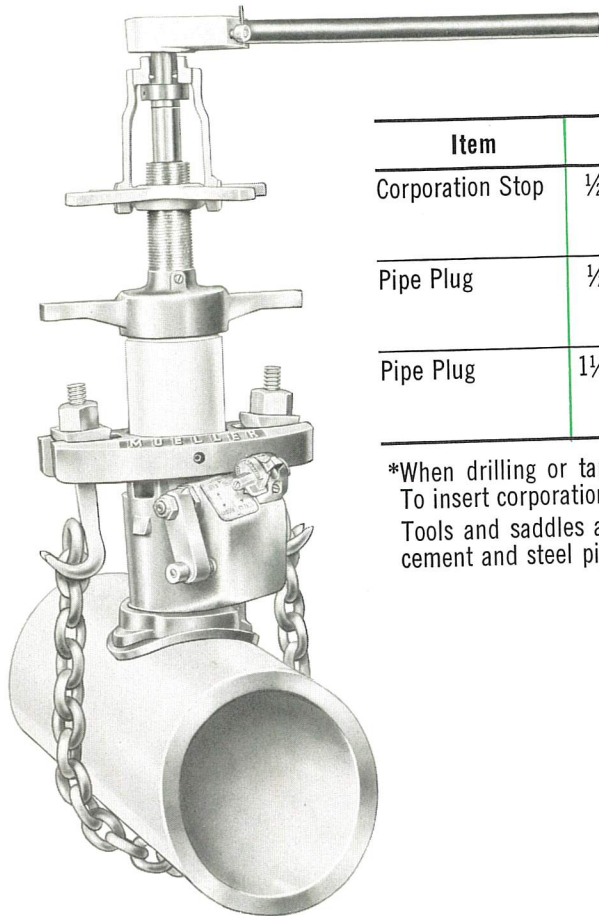
EQUIPMENT TO BE SELECTED:

Combined Drills and Taps from Page 1-5
Saddles from Page 1-6
Screw Plugs from Page 1-7
Extracting Tools from Page 1-7
Power Operator from Page 1-8
Equipment for Special Uses from Page 1-9

RECOMMENDED MINIMUM SIZE OF CAST IRON MAIN FOR EACH SIZE OF TAPPING FOR SERVICE CONNECTIONS **

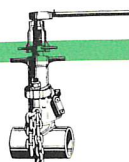
Size of Tapping	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Smallest Size of Main	3"	3"	3"	4"	6"	6"	8"	10"
Approximate Number of Full Threads	5	4 3/4	4 1/2	4 1/2	4 1/4	4	4	4

**Corporation Stops with compression joint inlet connections may be used with smaller sizes of pipe. See Section No. 3.



B-100 MACHINE AND EQUIPMENT FURNISHED

Furnished in a metal carrying case.
Total Shipping Weight: 113 Pounds.
Handling weight during operation; upper section 19 Pounds;
lower section 23 pounds.



B-100 MACHINE COMBINED DRILLS AND TAPS

TAPPING MACHINES

SELECT THE PROPER COMBINED DRILL AND TAP ACCORDING TO:

1. Size and type of inlet thread of the Corporation Stop to be inserted.
2. Material from which the pipe to be tapped is made.
3. Size and class of pipe to be tapped.

Type of Inlet Thread on Corporation Stop or Plug	Material of Pipe to be tapped	Size & Class of Pipe to be tapped		Drill Length	Size of Inlet Thread on Corporation Stop or Size of Thread on Plug				
		Size	Class		1/2"	3/8"	3/4"	1"	1 1/4"
MUELLER (marked CC)	Cast Iron	4"-30" 4"-20"	250 * D **	Regular	580160	580161	580162	580163	
	Cast Iron	2"-3" 2"-3"	250 * D **	Short	580167	580168	580169	580170	
	Cast Iron	36"-48" 24"-42"	250 * D **	Long	580171	580172	580173	580174	✓
	Asbestos-Cement Cement-Lined	4"-16" 4"-48"	100-150† 250 *†	Regular	580178	580179	580180	580181	
	Asbestos-Cement Cement-Lined	2"-3" 2"-3"	100-150† 250 *†	Short	580185	580186	580187	580188	
	Steel	4"-24"	Sched. 40	Regular	580189	580190	580191	580192	
	Steel	2"-3"	Sched. 40	Short	580196	580197	580198	580199	
	IRON PIPE (marked I.P.)	Cast Iron	4"-30" 4"-20"	250 * D **	Regular	580218		580219	580220
Cast Iron		2"-3" 2"-3"	250 * D **	Short	580226		580227	580228	
Cast Iron		36"-48" 24"-30"	250 * D **	Long	580229		580230	580231	
Asbestos-Cement Cement-Lined		4"-16" 4"-48"	100-150† 250 *†	Regular	580242		580243	580244	
Steel		4"-24"	Sched. 40	Regular	580235		580236	580237	
Steel		2"-3"	Sched. 40	Short			580249	580250	
HALL (marked HALL)		Cast Iron	4"-30" 4"-20"	250 * D **	Regular			580413	580414
	Asbestos-Cement Cement-Lined	4"-16" 4"-48"	100-150† 250 *†	Regular			580415	580416	

Combined Drills and Taps with other special threads available upon order.

COMBINED SHELL CUTTERS AND TAPS FOR CAST IRON PIPE SIZE 4"-48", CLASS 250 * AND SIZE 4"-36" CLASS D **	MUELLER THREAD (MARKED CC)			IRON PIPE THREAD (MARKED I.P.)		
	1 1/2"	2"	1 1/4"	1 1/2"	2"	2 1/2"
Shell Cutter and Tap Complete	580517	580518	580444	580445	580446	580447
Combined Shank and Tap	580516	580519	580440	580441	580442	580443
Shell Cutter Only	501701 ✓	53627	37353	37354	37355	40907
Pilot Drill Only	501641 ✓	501642	501641	501641	501642	37356
Retaining Screw	37802	33510	37802	37802	33510	33509
Drift Pin	63264	63264	63264	63264	63264	63264

*Centrifugally Cast and Pit Cast Iron Pipe, Classes 50 through 250, Meeting the Following Specifications:
 ASA A21.2 1953 AWWA C102-53 Federal Specification WW-P-421
 ASA A21.6 1953 AWWA C106-53
 ASA A21.8 1953 AWWA C108-53

And Pit Cast Iron Pipe, Classes A and B

* *Maximum Size of Pit Cast Iron Pipe, Classes C and D

†These tools, Marked CEM-RES, have been developed for asbestos-cement pipe meeting specifications AWWA C400-53T and ASTM C296-55; and for cement-lined pipe meeting specifications AWWA C104-53 and ASA A21.4-53.



MUELLER THREAD with Regular Tap Length and Regular Drill Length



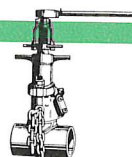
MUELLER THREAD with Regular Tap Length and Short Drill Length



MUELLER THREAD with Regular Tap Length and Long Drill Length



Combined Shell Cutter and Tap with I.P. Thread



TAPPING MACHINES

B-100 AND "B" MACHINE SADDLES



STANDARD SADDLES
see chart at right

These Saddles are also used
with the "B" Machine.

SELECT PROPER SADDLE ACCORDING TO SIZE AND TYPE OF PIPE TO BE TAPPED.

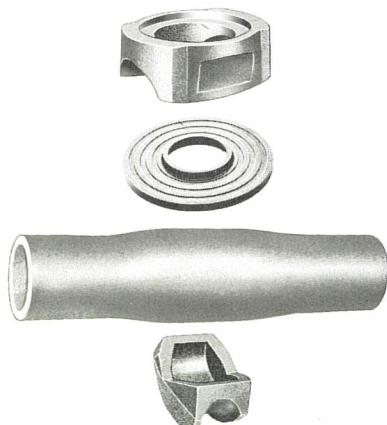
SADDLE	RANGE O. D. OF PIPE		TYPE OF PIPE			
			Cast Iron Pipe	Steel Pipe	Asbestos-Cement Pipe	
					Class 100	Class 150
Part No.	Min.	Max.	Size	Size	Size	Size
75808	2 1/4"	2 11/16"		2"		
75809	2 5/8"	3 1/8"		2 1/2"	2"	
75832	2 11/16"	3"	2"			
75810	3 1/2"	4"	3"	3"	2 1/2"	2"-2 1/2"
75830	3 3/4"	4 1/8"				
75811	4"	4 5/16"		3 1/2"	3"	3"
75812	4 3/8"	5"	4"	4"		
40070	4 5/16"	5 3/8"				
75813	5"	5 7/16"			4"	4"
75814	5 7/16"	6 1/8"		5"		
75833	5 3/16"	6 3/8"				
75815	6 1/16"	7 1/8"	6"	6"		
40072	6 11/16"	7 7/8"				
75816	7 1/8"	8 3/4"			6"	6"
75817	8"	9 1/2"	8"	8"		
40073	8 1/2"	9 3/8"				
75818	8 3/4"	10 3/4"			8"	8"
75819	9 1/2"	12 1/4"		10"		
40074	10"	11 5/8"	10"		10"	
75820	10 3/8"	13 3/8"		12"		10"
75821	11"	14 1/2"	12"	14"		
75834	12 1/2"	14 1/4"			12"	
75835	14"	17 3/8"	14"	16"	14"	12"
75836	16"	19 3/8"	16"	18"	16"	14"
75837	17"	21 1/8"	18"	20"		16"
75204	19"	27 1/8"	20"-24"	24"		
75838	21"	29 1/8"				
75839	26"	41"	30"-36"	30"		
75840	28"	47"	42"			
75841	32"	77"	48"			

All Boss Type Saddles require special Saddle Gaskets.
All Collar Type Saddles use standard Saddle Gaskets.



BOSS TYPE SADDLES

Pipe Size	Saddle & Gasket	Saddle	Gasket
2"	84827	52000	40066
3"	84826	52001	40066



COLLAR TYPE SADDLES

Pipe Size	Saddle
2"	33030
3"	55619

Saddles are suitable for pipe meeting the following specifications:

Centrifugally Cast Pipe, Classes 50-250..... — ASA A21.6 — 1953
 — ASA A21.8 — 1953
 — AWWA C106 — 1953
 — AWWA C108 — 1953
 — Federal Specifications WW-P-421

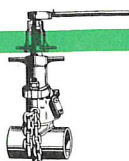
Pit Cast Pipe, Classes 50-250..... — ASA A21.2 — 1953
 — AWWA C102 — 1953

Asbestos-Cement Pipe, Classes 100 and 150 — ASTM C296 — 1955
 — AWWA C400 — 1953 T

Steel Pipe, Schedule 40..... — B36.10 — 1950

For Saddles to fit pipe not listed in these charts, use the range O. D. of pipe as a guide to select the proper Saddle.

When using the B-100 or "B" Machine on pipe 3" and smaller, special short pattern tools (Page 1-5) and a chain spreader (Page 1-9) are required.

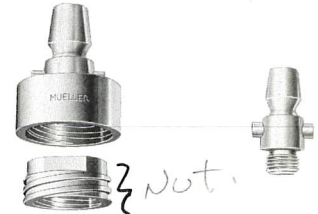


B-100 MACHINE SCREW PLUGS AND EXTRACTING TOOLS

TAPPING MACHINES

SCREW PLUGS FOR CORPORATION STOPS

Type of Screw Plugs	Size of Screw Plugs				
	1/2"	5/8"	3/4"	1"	1 1/4"
E-Z Release Screw Plug — with inside thread for corporation stops with MUELLER copper service pipe connection	580283		580285	580286	580287
E-Z Release Screw Plug — with inside thread for corporation stops with MUELLER outlet thread	580296	580297	580298	580299	
E-Z Release Screw Plug — with inside I.P. thread	580275		580276	580277	580278
Screw Plug — with outside I.P. thread	580340		580341	580342	
E-Z Release Screw Plug — with outside MUELLER screw plug thread. For corporation stops with MUELLER screw plug thread		580532	580527	580528	
Screw Plug — with outside MUELLER screw plug thread. For corporation stops with MUELLER screw plug thread	580332	580333	580334	580335	
E-Z Release Screw Plug — with inside thread for corporation stops with I.P. threaded copper service pipe connection			580291	580292	

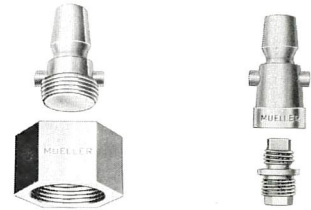


E-Z RELEASE SCREW PLUG with Inside Thread SCREW PLUG with Outside Thread

680654

EXTRACTING TOOLS FOR CORPORATION STOPS

Type of Extracting Tools	Size of Extracting Tools				
	1/2"	5/8"	3/4"	1"	1 1/4"
Extracting Tool — with inside thread for corporation stops with MUELLER copper service pipe connection	580312		580313	580314	580315
Extracting Tool — with inside thread for corporation stops with MUELLER outlet thread	580301	580302	580303	580304	
Extracting Tool — with inside I.P. thread	580305		580306	580307	580308
Extracting Tool — with outside MUELLER screw plug thread for corporation stops with MUELLER screw plug thread			580324	580325	
Extracting Tool — with inside thread for corporation stops with I.P. threaded copper service pipe connection			580319	580320	



EXTRACTING TOOL with Inside Thread EXTRACTING TOOL with Outside Thread

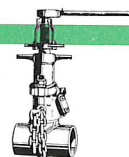
INSERTING TOOLS AND EXTRACTING TOOLS FOR H-10034, H-10037 PLUGS

Type of Inserting Tools and Extracting Tools	Size of Inserting Tools and Extracting Tools (same size as size of plug)							
	1/2"	5/8"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Inserting Tool — with outside thread for H-10034 brass plug (Section 5)	580367	580368	580368	580368	580369	580369	580369	
Inserting Tool — with outside thread for H-10037 brass plug (Section 5)	580367		580368	580368	580368	580369	580369	580369
Extracting Tool — with outside thread for H-10034 brass plug (Section 5)	580371	580372	580372	580372	580373	580373	580373	
Extracting Tool — with outside thread for H-10037 brass plug (Section 5)	580371		580372	580372	580372	580373	580373	



INSERTING TOOL FOR PLUGS EXTRACTING TOOL FOR PLUGS

ORDER BY QUANTITY AND PART NUMBER



MUELLER CO.
DECATUR, ILL.