

**EZ-TAP**<sup>™</sup> Drilling Machine

"Tapping Never Been Easier Live or Dry"

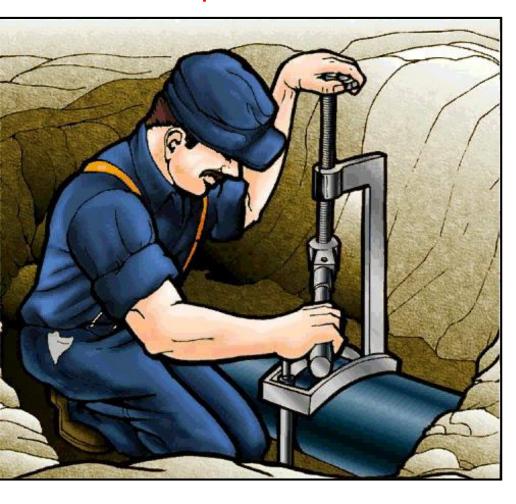
Department of Environment & Climate Change Water and Wastewater Workshop March 28<sup>th</sup> - 30<sup>th</sup>, 2023 Gander, Newfoundland & Labrador, Canada

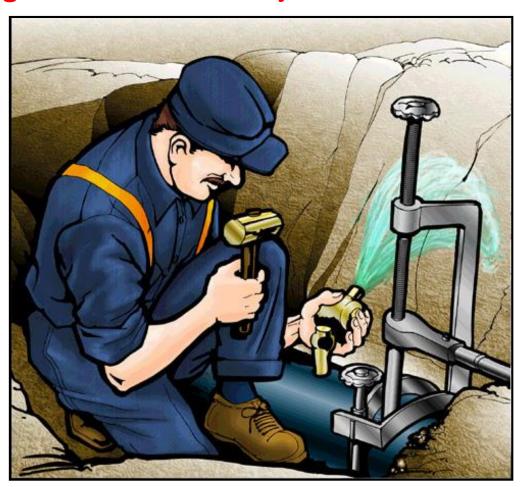
Presenter: Jeff B. Jensen, MUELLER Water Products



### History of Service Connections on Water Mains – 1850 circa

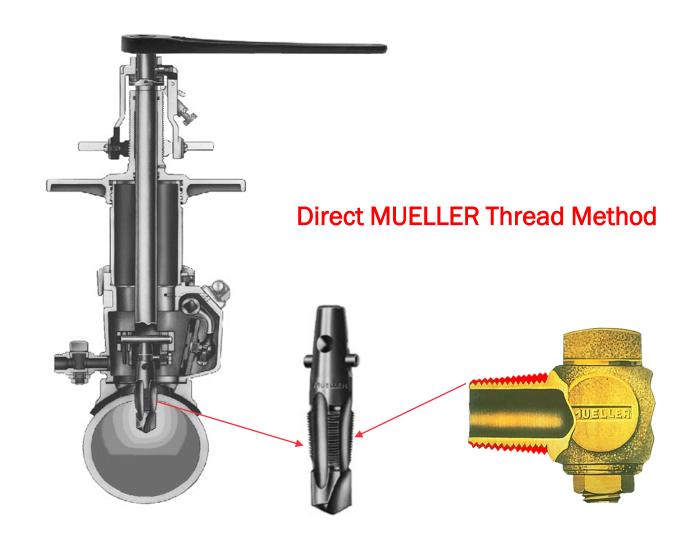
### Corporation Cock Hammer Method cw Swedge Lead Joint.....seriously

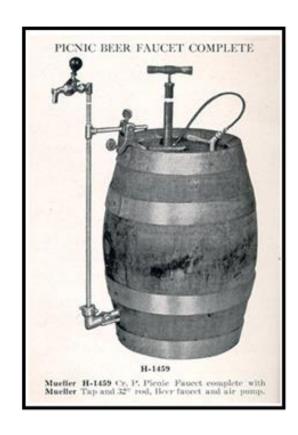






### MUELLER found a better way...1871 circa to present day





**Mueller Good Time Method** 



### MUELLER Service Connection Methods; Direct vs. Saddle

# DIRECT THREAD METHOD

B101 & H603 POWER OPERATOR SHOWN WITH RELIABLE LEROY



- No service Saddle thread the pipe
- In depth process start to finish
- Heavy machine
- Tribal knowledge aids hot taps
- Lengthy process

# SADDLE DRILLING METHOD

SADDLE/CORP. STOP/TUBE SHOWN LEFT

D5/E5/MEGA-CUT/TRU-CUT SHOWN RIGHT



- Service Saddle required
- Simple process consistent rule of thumb
- Light weight machine available
- Learn and Go
- Quick



### Service Saddles – wide vary of industry options

#### **DUCTILE & SS STRAP**

#### **BRASS & SS STRAP**

#### **BRASS & BRASS STRAP**

**BRASS - PVC OD** 

- High Galvanic level Sturdy fit = zero flex
- Wide range of Pipe types
   Body material = Corp Stop
- Lowest Galvanic level
- Will not distort PVCO Pipe Saddle material = Corp stop











## **Corporation Stop Best Practice**



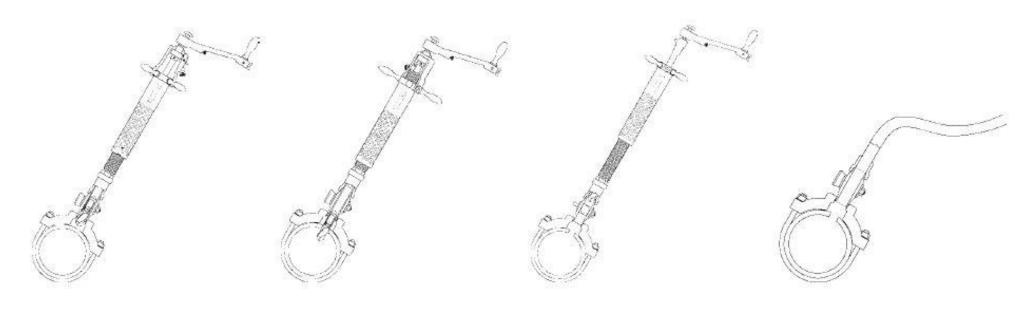
Do not use seam to tighten



Use provided wrench flats to insert



### Saddle Drilling Machines - Pick a gun and go to work



- □ With the service saddle attached to the main, the corporation stop is threaded into the clamp. The machine is then mounted on the corporation stop using an adapter nipple, and the stop is opened.
- The main is drilled out under pressure.
- The boring bar of the machine is retracted and the corporation stop is closed to control the water. The machine is removed.
- The service line is attached to the outlet of the corporation stop and the stop is opened to activate service.



Machine	cost	Sizes	Pipe Type	Pressure	Operator
EZ Tap	<mark>\$\$</mark> \$	<sup>3</sup> / <sub>4</sub> " – 2"	AII	300psi	Hand/power
Tru-Cut/PL-2	\$ \$\$	3/4" - 1"	PVC only	200psi	hand
Mega-Cut	\$\$ \$\$\$	7/16" – 1 7/8"	AII	200psi	hand
E-5	\$\$\$\$ \$\$\$	7/16" – 1 7/8"	AII	500psi	Hand/power
D-5	\$\$\$\$\$ \$\$\$	5/8" - 2"	AII	500psi	Hand/power  MUELLER

### **Product Overview**



- Compact & Lightweight
- Designed specifically for water application
- Used with service saddles and corporation stops
- Turnkey solution that will fit any small drilling machine needs
- Proven Mueller dependability
- Made Decatur, USA



## **EZ-TAP Machine Assembled - PVC Configuration**





## **EZ-TAP Machine Assembled - DI Configuration**







### **EZ-TAP Machine Kit1**

ID	Part No.	Description
-	683283	EZ-TAP Machine Kit
1	683243	EZ-TAP Drilling Machine
2	683244	<b>3/4</b> " CTS Outlet: 110, PJ, GJ, Flare
3	683245	1" CTS Outlet: 110, PJ, GJ, Flare
4	683246	<b>3/4"</b> IPS Outlet: 110, PJ, GJ
5	683247	<b>1</b> " IPS Outlet: 110
6	538952	Gasket for 683244
7	538953	Gasket for 683245
8	538954	Gasket for 683246

ID	Part No.	Description
9	538955	Gasket for 683247
10	683265	PVC Shell Cutter Adapter for 5/8", 7/8", and 1-1/16" Cutters
11	683254	Non-Plastic <sup>3</sup> Shell Cutter Adapter for 11/16" and 7/8" Cutters
12	538975	<b>3/4"</b> Corporation PVC Shell Cutter (5/8" diameter)
13	538976	<b>1"</b> Corporation PVC Shell Cutter (7/8" diameter)
14	313839	3/4" Corporation Non-Plastic <sup>3</sup> Shell Cutter (11/16" diameter)
15	313840	<b>1"</b> Corporation Non-Plastic <sup>3</sup> Shell Cutter (7/8" diameter)
16	313853	Boring Bar Drive Socket
17	313852	Power Operator Socket Adapter





## **EZ-TAP Large Diameter Kit2**



ID	Part No.	Description
-	683284	EZ-TAP Large Diameter Kit (Less Machine)
1	683248	1" IPS Outlet: PEP/PVC, PJ, GJ 1-1/4" CTS Outlet: PJ, GJ, Flare
2	683249	1-1/4" CTS Outlet: 110
3	683250	1-1/4" IPS Outlet: PJ 1-1/2" IPS Outlet: PEP/PVC 1-1/2" CTS(CS) Outlet: 110, PJ, Flare
4	683251	1-1/2" CTS Outlet: 110, PJ, GJ
5	683252	<b>1-1/2</b> " IPS Outlet: PJ <b>2</b> " CTS Outlet: 110, PJ, GJ
6	683253	2" IPS Outlet: PEP/PVC, PJ 2" CTS Outlet: 110, Flare, PJ (CS)
7	538956	Gasket for 683248
8	538957	Gasket for 683429
9	538958	Gasket for 683250
10	538959	Gasket for 683251
11	538960	Gasket for 683252
12	538961	Gasket for 683253

ID	Part No.	Description
13	683266	PVC Shell Cutter Adapter for 1-3/8″and 1-3/4″ Cutters
14	683255	Non-Plastic <sup>3</sup> Shell Cutter Adapter for 1-1/8", 1-3/8", and 1-3/4" Cutters
15	538977	1-1/4" Corporation PVC Shell Cutter (1-1/8" diameter)
16	538978	<b>1-1/2</b> " Corporation PVC Shell Cutter (1-3/8" diameter)
17	538979	2" Corporation PVC Sheller Cutter (1-3/4" diameter)
18	683256	1-1/4" Corporation Non-Plastic <sup>3</sup> Shell Cutter (1-1/8" diameter)
19	683257	1-1/2" Corporation Non-Plastic <sup>3</sup> Shell Cutter (1-1/8" diameter)
20	683258	2" Corporation Non-Plastic <sup>3</sup> Shell Cutter (1-3/4" diameter)
21	313868	Spare PVC Pilot Drill
22	313837	Spare Non-Plastic <sup>3</sup> Pilot Drill



### Recommended Right-Angle Cordless Drills for non-PVC pipes

<u>1<sup>st</sup> Option</u> Makita XAD03PT



2<sup>nd</sup> Option

DeWalt DCD470X1



3<sup>rd</sup> Option Milwaukee 2809-22





