# Mueller®B-101<sup>™</sup>and A-3<sup>™</sup> Drilling and Tapping Machines

A guide to selecting Mueller Equipment



# Mueller<sup>®</sup> B-101 <sup>™</sup>and A-3 <sup>™</sup> Drilling and Tapping Machines

hen it comes to line stopping and drilling and tapping technology for the gas industry, there's only one leader - Mueller. After all, we invented and patented the very first drilling and tapping machine back in 1871. It's just one of the reasons more people than ever continue to turn to us for solutions and service of unsurpassed quality and performance. They know they can count on over 140 years of innovation and reliability. They know they can count on the industry's broadest selection of products. They know they can count on Mueller.

The Mueller B-101 and A-3 Drilling and Tapping Machines are the industry standard for drilling and tapping cast iron, ductile iron, and steel gas mains from 2" to 48" in size. Both can drill and tap holes up to 2½". The No-Blo<sup>®</sup> System also allows for the removal of a coupon from the main for inspection, and insertion of a threaded plug, also while maintaining full control over the flow. Both can be power operated or manually operated.

And now, as part of the Mueller<sup>®</sup> No-Blo<sup>®</sup> System, the B-101 machine can also be used to bag off low-pressure gas mains, thanks to the new One-Tap System Launch Tube (available from Custom Service Laboratories, Inc.).

The proven Mueller No-Blo System allows two bags to be inserted, the main vented, plugged and "gassed-up" all through one tap hole - while maintaining full control over the gas flow. This enables a section of pipe to be isolated through just two tap holes in the main. The result? Less area to excavate and repave. Reduced crew time. And a savings in time and money. Plus, with no uncontrolled flow of gas, it's environmentally responsible, as well.

Now you can bag off low-pressure gas mains with confidence. With the proven Mueller No-Blo System. With the leaders in line stopping and drilling and tapping technology. Mueller Company.



# **B-101<sup>™</sup> Machine Features**

# ANTI-FRICTION COLLAR

Fluorocarbon impregnated steel bearing sealed in a steel case. No lubrication required.

# **RATCHET HANDLE**

Fully enclosed ratchet. Easily lubricated. Quick reverse button.

# FEED NUT AND YOKE

Spring detents hold feed yoke securely in place around boring bar. Square shank on feed yoke fits power operator for automatic feed.

# FEED SLEEVE AND CAP

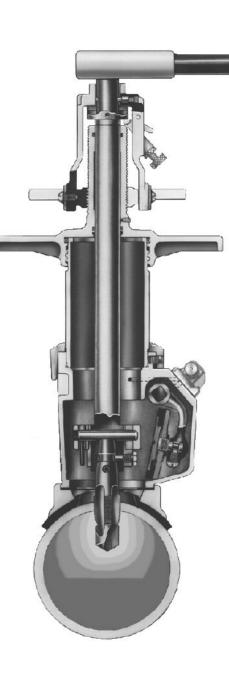
Acme threads require only 2½ turns to remove sleeve and cap for fast disassembly. Long bearing surfaces provide exceptional boring bar rigidity. Positive metal-tometal contact with upper barrel maintains boring bar alignment.

# **BORING BAR**

Chrome plated to resist corrosion. Helps assure long life of O-ring seals.

## **TOOL HOLDING METHOD**

Transmits force evenly through drive pins on tool to drill and tap pipe. Retaining screw holds tool tightly in boring bar socket for precise alignment of tool and boring bar. Convenient knock-out pin allows easy tool removal.



### LOCKING MECHANISM

Secures boring bar to feed yoke to prevent drill from spiraling into pipe before hole is completely drilled. Helps prevent tool breakage.

# **O-RING SEALS**

Seals off special cavity inside feed sleeve to provide oil reservoir for lubricating boring bar and O-rings. Boring bar wiper ring protects bottom O-ring.

### **OFFSET BODY**

Reduces collection of chips around flop valve when machine is in horizontal or inclined position. Increased diameter gives adequate clearance for inserting greater variety of tees and plugs.

#### **FLOP VALVE**

Seats with pressure, selfaligning, molded neoprene washer. Lever handle has positive lock in open or closed position. Position indicator included. O-ring on flop valve stem eliminates packing adjustment.

# **MUELLER<sup>®</sup> B-101<sup>™</sup>MACHINE**

he B-101 combined drilling and tapping machine will drill and tap cast iron and steel gas mains from 2" - 48" in size. It will perform taps from ½" - 2½" inclusive. The B-101 machine is power operated with an optional H-604 air motor or can be hand operated. All necessary standard tools and equipment are provided in a rugged, gray metallic carrying case.



# **Maximum Working Pressure**

90 PSI - Without Power Clevis 250 PSI - With Power Clevis

(See "Equipment for Special Uses Section" - pg 9)

## Maximum Temperature Rating 250°F

# **B-101 - Weight Information**

Total Shipping Weight - 114 Pounds

# **Handling Weight During Operation**

Upper Section - 19 pounds Lower Section - 23 pounds

# Equipment Furnished With Each Machine

Ratchet Handle Small Saddle Gasket Large Saddle Gasket Flat Link Chain Chain Hooks & Nuts E-Z Release Wrench Wrench for Chain, Hooks & Nuts Body Cleansing Chisel Cutting Grease Metal Case Chain Washers

# Equipment To Be Selected From Following Pages

Saddles Combined Drills & Taps Screw Plugs Extracting Tools Equipment For Special Uses

# B-101<sup>™</sup> Machine SCREW PLUGS, INSERTING & EXTRACTING TOOLS

# Screw Plugs for Machine Inserted Valve Tees

Туре	Size			
	1/2"	3⁄4"	1"	1 1⁄4"
E-Z Release Screw Plug	680594	680595	680596	680628*
Inside I.P. Thread				680597
Screw Plug Outside I.P. Thread	680630	680631	680632	N/A

\* Use 680628 with Machine Inserted Valve Tee



Inside Thread



Outside Thread

# **Extracting Tools** for Tees and Valve Tees

Туре	Size			
	1⁄2"	3⁄4"	1"	1 <sup>1</sup> /4"
Extracting Tool - Inside I.P. Thread	680618	680619	680620	680621
Extracting Tool - Outside I.P. Thread	680637	680638	680639	N/A

# Inside Thread



Outside Thread

# Inserting and Extracting Tools for H-10037-99004 Plugs

Туре	Size	-					
	1/2"	3⁄4"	1"	11⁄4"	11⁄2"	2"	21⁄2"
Inserting Tool - Outside Thread for H-10037-99004 BRASS Plug	680643	680644	680644	680644	680645	680645	680645
Extracting Tool - Outside Thread for H-10037-99004 BRASS Plug	680640	680641	680641	680641	680642	680642	N/A





The following table lists the available Combined Drill/Shell Cutter & Taps for the B-101 Machine. It also gives reference to the size of pipe, size of tap and the catalog parts number for the same size combined drill and tap (CD&T).

MACHINE	TYPE OF PIPE	SIZE OF PIPE	TAP SIZE	CD&T NUMBER	SHELL CUTTER & TAP COMPLETE NUMBER
B-101	Cast Iron	4"-24"	3⁄4"	680581	NA
B-101	Cast Iron	4"-24"	1"	680582	NA
B-101	Cast Iron	4"-24"	11⁄4"	681503	681970
B-101	Cast Iron	4"-24"	11⁄2"	681504	681971
B-101	Cast Iron	4"-24"	2"	681505	681972
B-101	Cast Iron	4"-24"	21⁄2"	681506	681973
B-101	Steel	4"-24"	1/2"	680569	NA
B-101	Steel	4"-24"	3⁄4"	680586	NA
B-101	Steel	4"-24"	1"	680587	NA
B-101	Steel	4"-48"	11⁄4"	681507	682263
B-101	Steel	4"-48"	11⁄2"	681508	682264
B-101	Steel	4"-48"	2"	681509	682265
B-101	Steel	4"-48"	21/2"	NA	681973

The following table consists of a list of B-101 machine saddles for cast iron pipe. A saddle must be selected to use the B-101 machine so that the machine can be attached to the pipe. The table is broken down by part number, the maximum and minimum O.D. and nominal size of the pipe.

SADDLES FOR CAST IRON MAINS - B-101 MACHINE					
PART NUMBER		E OF PIPE	CAST IRON		
	MINIMUM	MAXIMUM	PIPE SIZE		
75832	2 <sup>11/</sup> 16"	3"	2"		
75810	31⁄2"	4"	3"		
75812	4 <sup>3</sup> ⁄8 <sup>"</sup>	5"	4"		
75833	5 <sup>13/</sup> 16	63⁄8"	5"		
75815	67/ <sub>16</sub> "	71⁄8"	6"		
75817	8"	91⁄2"	8"		
40074	10"	115⁄8"	10"		
75821	11"	141⁄2"	12"		
75835	14"	173⁄8"	14"		
75836	16"	19¾"	16"		
75837	17"	211⁄8"	18"		
75204	19"	271⁄8"	20"		
75838	21"	291⁄8"	24"		
75839	26"	41"	30"		
75840	28"	47"	36"		
75841	32"	77"	48"		



The following table consists of a list of B-101 machine saddles for steel pipe. A saddle must be selected to use the B-101 machine so that the machine can be attached to the pipe. The table is broken down by part number, the maximum and minimum O.D. and nominal size of the pipe.

SADDLES FOR STEEL MAINS - B-101 MACHINE					
PART NUMBER		E OF PIPE	STEEL		
	MINIMUM	MAXIMUM	PIPE SIZE		
75808	21⁄4"	211/16"	2"		
75809	25⁄8"	31⁄8"	21/2"		
75810	31⁄2"	4"	3"		
75811	4"	4 <sup>5/</sup> 16 <sup>"</sup>	31⁄2"		
75812	4 <sup>3</sup> ⁄8 <sup>"</sup>	5"	4"		
75833	5 <sup>13/</sup> 16 <sup>"</sup>	63⁄8"	5"		
75815	67/ <sub>16</sub> "	71⁄8"	6"		
75817	8"	91⁄2"	8"		
75819	91⁄2"	121⁄4"	10"		
75820	105⁄8"	131⁄8"	12"		
75821	11"	14½"	14"		
75835	14"	173⁄8"	16"		
75836	16"	193⁄8"	18"		
75837	17"	211⁄8"	20"		
75204	19"	271⁄8"	24"		
75839	26"	41"	30"		
75840	28"	47"	36"		



Listed below is "Equipment for Special Uses" for the B-101 machine. This is optional equipment and must be ordered separately.

# PART NUMBER

# 500684 - RATCHET HANDLE EXTENSION

Extends length of ratchet handle to give more leverage when hand opening.

# H-10802- POWER CLEVIS

Allows the maximum pressure rating of the B-101 machine to be increased to 250 PSI.

# 40321 - CHAIN SPREADER

Used when tapping pipe 3" or smaller to spread the chain so that it will clear the lower edge of the body of the machine.

# 580550- FLAT LINK CHAIN HOOK WITH NUT

- **580551- FLAT LINK CHAIN AND EYEBOLT WITH NUT** For pipe up to 12"
- **89059- 4 FT. FLAT LINK EXTENSION CHAIN** Increases 12" chain to fit 12" 24" pipe.
- **88126- 6 FT. FLAT LINK EXTENSION CHAIN** Increases 12" chain to fit 12" 36" pipe.
- **88127- 10 FT. FLAT LINK EXTENSION CHAIN** Increases 12" chain to fit 12" 48" pipe.



Flat link chain with eye bolt and nut



Flat link chain extension with bolts and nuts





# **MUELLER<sup>®</sup> A-3<sup>™</sup> MACHINE**

he A-3 combined drilling and tapping machine will drill and tap cast iron and steel gas mains from 4" - 48" in size. It will perform taps from 1" - 2½" inclusive. The A-3 machine is power operated with an optional H-604 air motor or can be hand operated. All necessary standard tools and equipment are provided in a rugged, wooden carrying case.



### **Maximum Working Pressure**

90 PSI - Without Power Clevis 250 PSI - With Power Clevis

(See "Equipment for Special Uses Section" - pg 15)

### **Maximum Temperature Rating** 250°F

### A-3 - Weight Information

Total Shipping Weight - 188 Pounds

#### **Handling Weight During Operation**

Upper Section - 40 pounds Lower Section - 58 pounds

## **Equipment Furnished With Each Machine**

**Ratchet Handle** Small Saddle Gasket Large Saddle Gasket Flat Link Chain Chain Hooks & Nuts Wrench for Chain, Hooks & Nuts **Body Cleansing Chisel Cutting Grease** Stuffing Nut Spanner Wrench Chain Washers

# **Equipment To Be Selected From Following Pages**

Saddles Combined Drills & Taps Screw Plugs **Extracting Tools Equipment For Special Uses** 

# Screw Plugs for Machine Inserted Valve Tees

Туре	Size				
	1"	1 1⁄4"	11⁄2"	2"	21/2"
E-Z Release Screw Plug	690596	680628*	83065	83066	83157
Inside I.P. Thread		680597			
Screw Plug Outside I.P. Thread	680632	61212	61213	61214	N/A

\* Use 680628 with Machine Inserted Valve Tee

# Extracting Tools for Tees and Valve Tees

Туре	Size				
	1"	11⁄4"	11⁄2"	2"	21⁄2"
Extracting Tool - Inside I.P. Thread	680620	680621	83179	83180	N/A
Extracting Tool - Outside I.P. Thread	680639	N/A	N/A	N/A	N/A

# Inserting and Extracting Tools for H-10037 Plugs

Туре	Size				
	1"	11⁄4"	11⁄2"	2"	21⁄2"
Inserting Tool - Outside Thread for H-10037 Plug	680644	680644	680645	680645	680645
Extracting Tool - Outside Thread for H-10037 Plug	680641	680641	680642	680642	N/A



Outside Thread





Inside Thread

Outside Thread

Outside Thread

The following table lists the available Combined Drill/Shell Cutter & Taps for the A-3 Machine. It also gives reference to the size of pipe, size of tap and the previous catalog part number for the same size combined drill and tap (CD&T).



MACHINE	TYPE OF PIPE	SIZE OF PIPE	TAP SIZE	CD&T NUMBER	SHELL CUTTER & TAP COMPLETE NUMBER
A-3	Cast Iron	4"-24"	3⁄4"	680581	NA
A-3	Cast Iron	4"-24"	1"	680582	NA
A-3	Cast Iron	4"-24"	11⁄4"	681503	681970
A-3	Cast Iron	4"-24"	11⁄2"	681504	681971
A-3	Cast Iron	4"-24"	2"	681505	681972
A-3	Cast Iron	4"-24"	21⁄2"	681506	681973
A-3	Steel	4"-24"	1/2"	680569	NA
A-3	Steel	4"-24"	3⁄4"	680586	NA
A-3	Steel	4"-24"	1"	680587	NA
A-3	Steel	4"-48"	11⁄4"	681507	682263
A-3	Steel	4"-48"	11⁄2"	681508	682264
A-3	Steel	4"-48"	2"	681509	682265
A-3	Steel	4"-48"	21/2"	NA	681973

The following table consists of a list of A-3 machine saddles for cast iron pipe. A saddle must be selected to use the A-3 machine so that the machine can be attached to the pipe. The table is broken down by part number, the maximum and minimum O.D. and nominal size of the pipe.

SADDLES FOR CAST IRON MAINS - A-3 MACHINE						
PART NUMBER		E OF PIPE	CAST IRON			
	MINIMUM	MAXIMUM	PIPE SIZE			
75906	-	5"	4"			
75908	6 <sup>9/</sup> 16 <sup>"</sup>	71⁄8"	6"			
75909	81⁄8"	9 <sup>3</sup> ⁄8 <sup>"</sup>	8"			
75910	101⁄8"	111⁄4"	10"			
40236	111/8"	131⁄2"	12"			
75911	141⁄8"	16¼"	14"			
40238	16"	18¾"	16"			
75831	17¾"	201⁄2"	18"			
40240	181⁄8"	22 <sup>3</sup> ⁄4 <sup>"</sup>	20"			
40241	221/2"	271⁄2"	24"			
75912	25¾"	35"	30"			
75913	301⁄8"	43"	36"			
76701	31¼"	45"	40"			
59582	34"	51"	42"			
75914	34"	58"	48"			



The following table consists of a list of A-3 machine saddles for steel pipe. A saddle must be selected to use the A-3 machine so that the machine can be attached to the pipe. The table is broken down by part number, the maximum and minimum O.D. and nominal size of the pipe.

SADDLES FOR STEEL MAINS - A-3 MACHINE					
PART NUMBER	O.D. RANG	E OF PIPE	STEEL		
	MINIMUM	MAXIMUM	PIPE SIZE		
75906	-	5"	4"		
46703	6"	65⁄8"	6"		
45384	8"	85⁄8"	8"		
43294	10"	10¾"	10"		
40236	111/8"	131⁄2"	12"		
75911	141⁄8"	16¼"	16"		
40238	16"	18¾"	18"		
75831	17¾"	201/2"	20"		
40241	221/2"	271⁄2"	24"		
75912	25¾"	35"	30"		
75913	301⁄8"	43"	36"		



Listed below is "Equipment for Special Uses" for the A-3 machine. This is optional equipment and must be ordered separately.

# PART NUMBER

# H-10800 - POWER CLEVIS

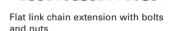
Allows the maximum pressure rating of the A-3 machine to be increased to 200 PSI.

# 40321 - CHAIN SPREADER

Used when tapping pipe 6" or smaller to spread the chain so that it will clear the lower edge of the body of the machine.

- 82314 2'4" EXTENSION CHAIN Increases 16" chain to fit 16" - 24" pipe.
- **81028 5'4" EXTENSION CHAIN** Increases 16" chain to fit 16" - 36" pipe.
- 81029 8'2" EXTENSION CHAIN Increases 16" chain to fit 16" - 48" pipe.









GAS PRODUCTS DIVISION

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All products must be installed and maintained in accordance with applicable instructions and/or standards.

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