

MUELLER®

OPERATING INSTRUCTIONS for MEGA-CUT™ DRILLING MACHINE



WARNING

1. Read and follow instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage.
2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.

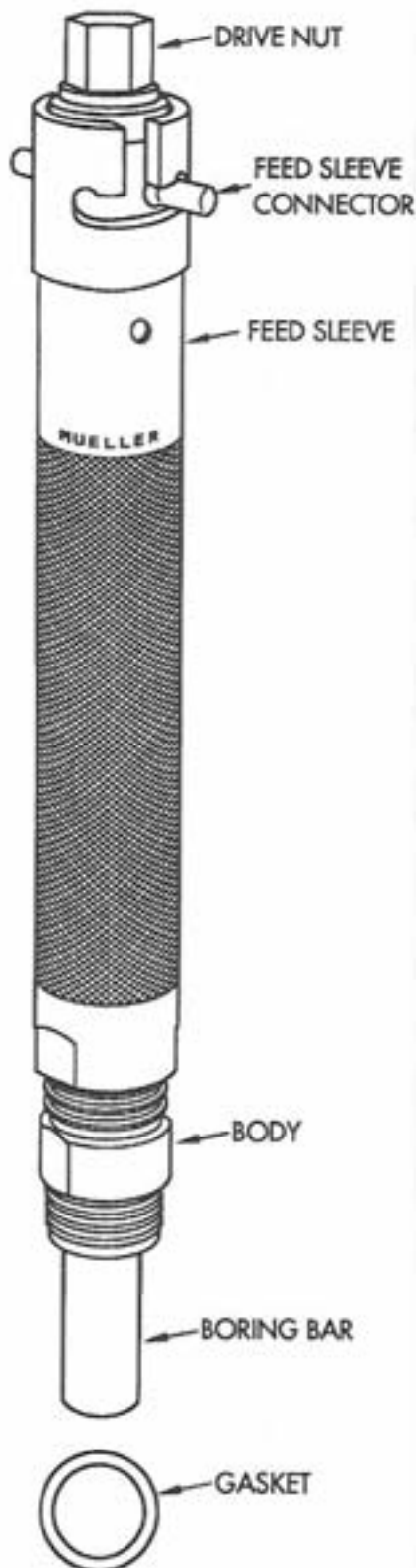
MUELLER® Drilling Machines and Equipment have been carefully designed and engineered to work together as a unit. The use of equipment manufactured by someone other than Mueller Co. may cause excessive wear or a malfunction of the MUELLER Machines.

Mueller Co. will assume no responsibility or liability, either expressed or implied, for any malfunction or damage caused by or to a MUELLER machine when the use of shell cutters or equipment manufactured by someone other than Mueller Co. is involved.

Mueller Co.

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MEGA-CUT™ DRILLING MACHINE



INSTALLATION OF CORPORATION VALVE WITH SERVICE CLAMP ON PVC PLASTIC WATER MAIN

The Mueller Mega-Cut™ Drilling Machine is used to install up to 2" corporation valves using a service clamp on PVC plastic, cast or ductile iron, or steel water main. Maximum hole size 1 7/8". The machine operates easily by hand, and allows independent control of tool rotation (cutting action) and boring bar feed (tool advancement). It includes a feature that allows the boring bar to be disconnected from the feed sleeve and repositioned quickly.

CAUTION

Use of serrated jaw wrenches or pipe wrenches on any machine parts or accessories may result in deformation or other damage which would render the machine or an accessory unusable. Use only smooth jawed wrenches with this equipment.

OTHER EQUIPMENT REQUIRED

The following items are not supplied with the machine and are purchased separately, according to the application – see the current Mueller Water Distribution Products Catalog.

MACHINE ADAPTER

MACHINE ADAPTER GASKET

SHELL CUTTER or DRILL

CUTTING GREASE

Also needed: smooth jawed wrench to tighten Machine Adapter and Shell Cutter to Mega-Cut™ Drilling Machine, and Adapter to corporation valve outlet; wrench to drive Boring Bar (Machine Drive Nut will accommodate 7/8" socket). In addition, when working on PVC plastic pipe: a Drift Pin (part no. 63264) or Coupon Removal Tool (part no. 681242) and hammer to remove coupon from Shell Cutter.

MACHINE SET UP

1. Attach service clamp and corporation valve at the appropriate angle to the water main using accepted installation procedures, and tighten all components to specified torque requirements. Make sure corporation valve is in fully open position.

MEGA-CUT™ DRILLING MACHINE

2. Attach proper Machine Adapter and Gasket to Machine Body wrench tight using a smooth jawed wrench. Selection of Adapter depends upon the type and size of outlet connection on the corporation valve.
3. Attach proper Shell Cutter or Drill to Boring Bar. Use wrench flats on tool and Machine Body to tighten securely – do not use any tool in the slots of the Shell Cutter.
4. Lightly lubricate outside of Shell Cutter or Drill using Mueller Cutting Grease.
5. Disengage Feed Sleeve Connector from Feed Sleeve and pull Boring Bar to the rearmost position and hold in this position during the next step.
6. Check to be sure corporation valve is open. Attach Machine assembly (with Cutter, Adapter, and Gasket) to corporation valve outlet and tighten wrench tight.
7. Push Boring Bar forward until Feed Sleeve Connector can be engaged in slot at top of Feed Sleeve (turn the Sleeve counter-clockwise if necessary).
8. Turn Connector clockwise in slot, then advance Feed Sleeve by turning clockwise until Cutter contacts main.
9. Cut hole by turning Boring Bar clockwise, while turning Feed Sleeve clockwise a little at a time. Do not force Cutter into the main. Use a light even feed at the start, then a somewhat heavier feed and finish with a light even feed. Completion of hole through the main will be accompanied by an obvious reduction in resistance felt while turning Boring Bar and Feed Sleeve.

IMPORTANT

Continue turning Boring Bar and Feed Sleeve a few additional revolutions to make sure the coupon is completely removed from the wall of the main.

CAUTION

To avoid possible injury, keep head and body

away from the end of Boring Bar at all times. Once hole has been completely cut through wall of main, Boring Bar will be under full line pressure, resulting in a piston action that will tend to force Boring Bar to the rearmost position. Leave ratchet handle and socket on Boring Bar, press down on Boring Bar and rotate Feed Sleeve Connector clockwise to engage its pins in slot on opposite side of Feed Sleeve. Control or restrain rearward movement of Boring Bar at all times by keeping Feed Sleeve Connector engaged with Feed Sleeve, and by turning Feed Sleeve in a counter-clockwise direction to back cutting tool out of main and clear of corporation valve.

10. Using both hands, turn Feed Sleeve in counter-clockwise direction to move Boring Bar to the rearmost position and retract Cutter from main. For larger holes or thicker pipe, a smooth jawed wrench may be used on Feed Sleeve flats to facilitate turning Feed Sleeve.
11. Make sure Cutter is clear of corporation valve, then close valve and remove Machine and Adapter as a unit.
12. Remove plastic coupon using one of the following methods:
 - A. Use Drift Pin (part no. 63264) to pry between the coupon and the top (or root) of the cutter slot and push the coupon from the cutter. If plastic fills the entire slot area, engage the plastic in the slot with the tip of the Drift Pin and use a hammer to drive the coupon from the cutter.
 - B. With the cutter removed from the machine, use a Coupon Removal Tool (part no. 681242) inserted through the tapped hole in the cutter shank to drive the coupon out of the cutter.
13. Clean and relubricate cutting tool before using to make another cut, or storing tool for future use.

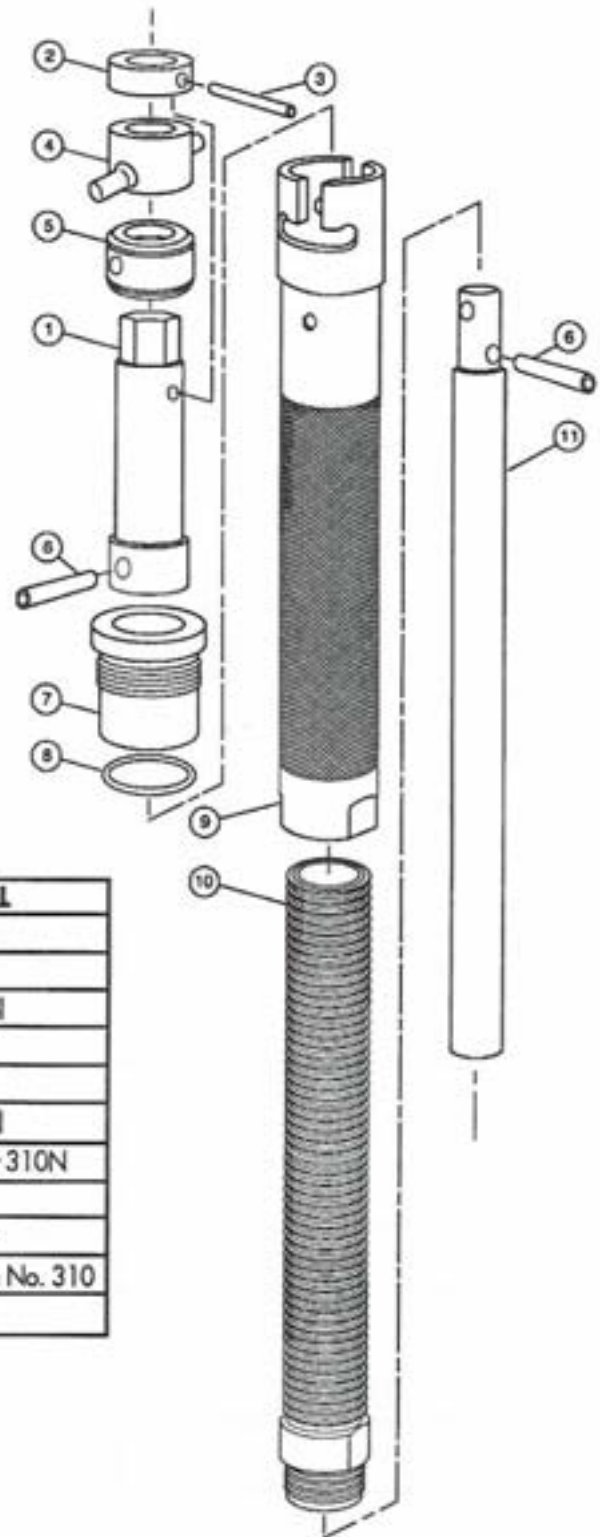
CAUTION

Prying against the sides of the cutter slot or using a prying tool that is wider than the slot can damage the cutter and make it unusable.

- B. With the cutter removed from the machine, use a Coupon Removal Tool (part no. 681242) inserted through the tapped hole in the cutter shank to drive the coupon out of the cutter.

PARTS

FOR MEGA-CUT™ DRILLING MACHINE



No.	PART No.	QTY.	DESCRIPTION	MATERIAL
1	528094	1	Boring Bar Top End	AISI 12L14 Steel
2	528092	1	Retaining Collar	AISI 12L14 Steel
3	48130	1	Pin	AISI 4140 Alloy Steel
4	682091	1	Connector Ass'y	AISI 12L14 Steel
5	580610	1	Bearing Ass'y	Steel
6	503158	1	Pin	AISI 4140 Alloy Steel
7	51432	1	Packing Gland	Bearing Bronze Alloy 310N
8	46726	1	O Ring	Rubber
9	528095	1	Feed Sleeve	AISI 1018 Steel Tube
10	503159	1	Body	Bronze Tube Asarcon No. 310
11	503161	1	Boring Bar Tool End	AISI 12L14 Steel

NOTE: These illustrations are for parts identification only. DO NOT use these illustrations for assembly or disassembly of machine. MUELLER CO. offers a machine repair service, and field tapping service. Contact MUELLER® Customer Service Center for details.

TO ORDER SPECIFY QUANTITY, PART NUMBER AND PART NAME (include catalog number and model number of machine).