Reed DMPVC Drilling Machine Operating Instructions

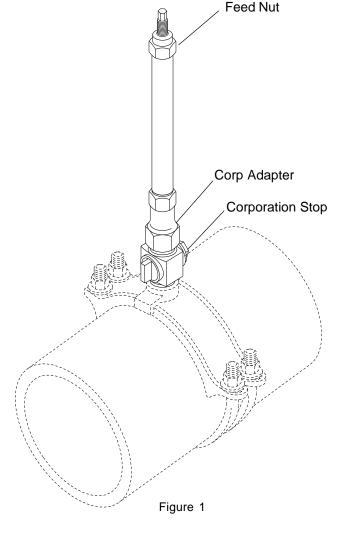


1. Select proper tools necessary to perform drilling operation.

WARNING: Prevent injury to eyes, hands, and other body parts. Always wear safety goggles, substantial gloves, and other required protective equipment when using this or any other tool.



- A. Service saddle.
- B. Corporation stop.
- C. Shell cutter sized to match corporation stop bore.
- D. Corp adapter.
- E. Any other necessary accessories to meet operating requirements.
- 2. Assemble saddle to the pipe.
 - A. Clean area of pipe where drilling is to be performed.
 - B. Assemble and position service saddle on the pipe where desired and tighten securely using manufacturer's requirements.
- 3. Insert corporation stop into saddle threads.
 - A. Thread sealant may be used.
 - B. Tighten corporation stop with an adjustable wrench. NOTE: Make sure corporation stop valve is open.
 - Remove corporation stop tube nut or compression nut and gasket.
- 4. Screw corp adapter onto corporation stop and tighten.
- 5. Screw correct size shell cutter into boring bar and tighten on flats with wrenches.
 - NOTE: Always use wrenches on the flats to tighten or loosen the shell cutters from the boring bar. Do not use flutes on shell cutter sides to tighten.
 - Lightly lubricate the <u>outside</u> of the shell cutter with tapping compound (#98425).
 - B. Lubricate the boring bar and the feed screw of the machine with light oil. (See Fig. 1)





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- 6. Loosen the feed nut from the main body with a gloved hand and turn it down until it is near the top of the boring bar, or turn the feed screw counterclockwise using a ratchet wrench (7/16") until the screw stops.
- 7. (Again, make sure the corporation stop is open.)
 Assemble the cutter end of the machine to the corp
 adapter and tighten.
- 8. Drilling
 - A. Screw shell cutter down until it touches the pipe. It may be best to spin the cutter down using the optional ratchet wrench.
 - B. Attach a ratchet or suitable wrench and turn clockwise until the cutter penetrates the pipe.
 - C. Retract the shell cutter by reversing the ratchet and turning counterclockwise. Continue until the bar stops.

NOTE: At pipe pressures of 100 psig or below, the shell cutter can be retracted by loosening the feed nut with a gloved hand and holding the feed nut while the shell cutter is withdrawing.

WARNING: Prevent possible personal injury or damage to the machine due to sudden withdrawal of the shell cutter under pressure when the feed nut is loosened.

- A. Allow the shell cutter to retract slowly by putting downward pressure on the feed nut with a gloved hand during withdrawal.
- B. The feed nut must not be loosened at pipe pressures above 100 psig.
- 9. Close off the corporation stop using an adjustable wrench.
- Disassemble machine from corporation stop. Loosen the shell cutter from the boring bar using wrenches on the bar and cutter flats.
- Assemble tubing to corporation stop per tubing and fitting manufacturer's specifications.

DMPVC Maintenance Instructions

BEFORE USING

- 1. Clean and oil all bearing and wear surfaces and threads.
 - A. Inspect and clean shell cutters, and remove any chips or scale that might prevent proper function of the tool.
 - B. The boring bar, shell cutters, and corp adapters threaded ends should be inspected to remove any scale or chips that may interfere with thread engagement.

AFTER USING

- 1. Clean the machine and oil the machined surfaces. Tapping compound (#98425) is useful in this application.
- If necessary, flush the corp adapters with a water hose to remove any chips that may have accumulated.
- 3. Periodically inspect the machine's o-rings and replace if worn.
- 4. Carefully place the tool back in the tool box for storage.

