



JCM 414 Mechanical Joint Tapping Sleeve INSTALLATION INSTRUCTIONS

**Failure to follow installation instructions will result in
voided product warranty.**

1. Check sleeve, bolts and gasket to make sure all parts are included and undamaged. Thoroughly clean pipe surface. Check the size and range of the tapping sleeve to verify correct size product. Inspect pipe surface where gaskets will seat to make certain pipe is free of flaws, gouges and extreme irregularities.
Lubricate pipe and face of gaskets with soap-water or gasket lubricating solution. **Do not** use grease or pipe lubricant. Oil based lubricants can prevent the gasket from adhering to pipe surface for water tight seal.
2. Check to be sure that the round side gaskets are properly seated in side bar grooves.
DO NOT CUT SIDE GASKETS. Side gaskets will protrude from side bar ends.
3. **(Drawing - A)** See reverse for drawings. Install sleeve in proper position on pipe and **match color marks** on body. Do not rotate fitting on pipe. Install longest "corner" bolts loosely to align sleeve halves. Install side bolts. For sleeve sizes provided with two bolt lengths, longer bolts are to be installed on the MJ ends.
4. Tighten side bar bolts first, starting in the center and working toward the ends. Next, tighten the end bolts so that the sleeve halves are butted together evenly and squarely. **Note: At this point, the round side gaskets should protrude slightly into the area (minimum 1 - 1-1/2 inches) where end gasket will seat.**

All bolts should be @ 80 Ft/Lbs. torque minimum

5. **(Drawing - B) Block under sleeve to center it on pipe.** Install end gaskets, placing lap 45° (1/8 turn) from side bars.
NOTE 1: Sleeves are furnished with long end gaskets. To cut them to length, place the gaskets around the pipe and cut one end on the bias so that the gasket fits snugly around the pipe and the bias cut ends match.

NOTE 2: The end gaskets were lubricated before shipment. If necessary to apply additional lubricant, use a standard gasket soap lubricant as used in rubber joint pipe installations.

6. **(Drawing - C)** Install pusher gland so that joints are 90° (1/4 turn) from side bars. Pusher glands must be positioned and matched to the markings provided for proper installation. Pusher glands have **color match marks** indicating the proper end and location of each segment of the pusher gland. Install pusher gland so color match marks align. **Note:** For proper gasket and pusher gland positioning, see drawing on reverse. **No "joints"** (gasket, body, pusher gland) should be in line with each other. Tighten bolts evenly to approximately 80 ft. lbs. (more if required).

Install tapping valve. JCM recommends adherence to the AWWA M-44 Manual recommendations for proper valve installation, support and trenching. Improper support can result in undo stress.

7. Test assembly seals with water (per ANSI/AWWA C-223) using test port provided on sleeve or test connection on tapping machines. When testing the assembly against the pipe to pressures greater than the internal pressure of the host pipe, application should be treated with caution to prevent imploding or damaging the pipe wall due to thin wall, flexible or brittle conditions. Inspection and verification of the pipe integrity is the responsibility of the end user. For inquires, contact JCM Industries, Inc.
8. When assured that all seals are tight and test is completed, re-check bolt torques after 15 minutes and proceed with the tapping operation. JCM Industries endorses the ANSI/AWWA C105/A21.5 and ASTM A674 for polyethylene encasement for corrosion protection.

Note:

Size on size tapping cutter must not be larger than recommended by pipe manufacturer. Tapping operation must not force the pipe away from the gasket seal.

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