

JCM 414 Fabricated Mechanical Joint Tapping Sleeve

This tapping sleeve combines the high strength and versatility of fabricated steel with the traditional side and end gasketed mechanical joint design. These sleeves are ideal for potential problem installations where strength, weight and beam load considerations are critical.

High Strength Steel eliminates stress cracked casting or flange possibility.

Side And End Gaskets provide complete seal around the pipe.

Fabricated Sleeves provide more strength with significantly reduced weight than a cast sleeve. The lighter sleeve reduces the load on the pipe and aids in installation and handling.

Accommodates Non-Standard Pipe Characteristics - Oversize, undersize or irregularities in the pipe O.D. can be accommodated within the fitting increasing performance and safety factor. The JCM 414 is available in larger sizes, non-standard sizes and with many special options (special flanges, special laying lengths, etc.)

Improved Availability - Fabricated sleeves with non-standard sizes have a delivery schedule of three to five weeks, significantly less than a cast sleeve's six to nine months.



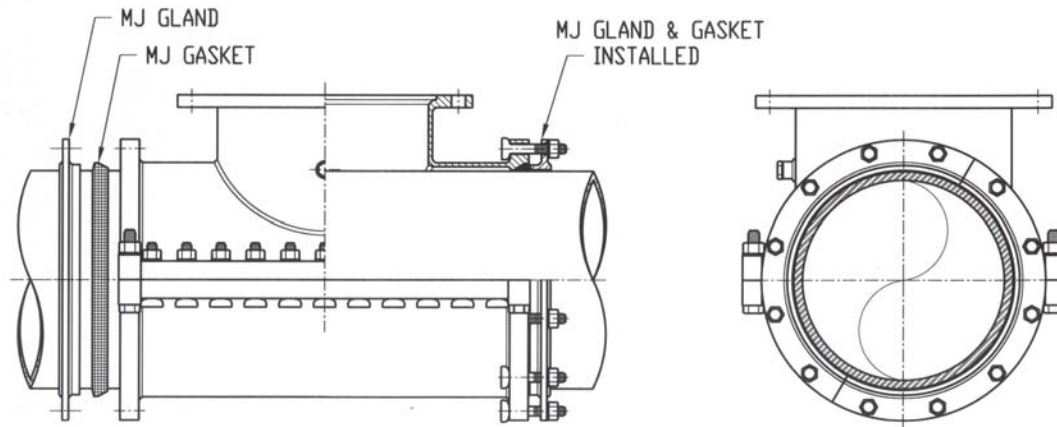
HOW TO ORDER

For pricing and engineering, the following information must be furnished:

- Type of pipe
- Outside diameter of pipe
- Irregular or non-standard pipe characteristics
- Line contents and pressure
- Outlet Size (14" and larger, furnish manufacturer of valve and cutter size)
- Coating
- Special requirements

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The JCM 414 Fabricated Mechanical Joint Tapping Sleeve is recommended for taps on pipe that will not accommodate a direct top seal tapping sleeve. The 414 utilizes a true mechanical joint sleeve design that completely encompasses the tap area, eliminating any potential leaks due to pipe cracks or breaks. Side gaskets are internally and externally trapped in a recessed groove machined into the bolting lug bars that completely compress the gaskets creating the watertight seal on the sides of the sleeve. The end gaskets are compressed into the sleeve housing with mechanical joint end glands, providing the water tight seal on the ends of the sleeve and completing the full encapsulation of the tap area.



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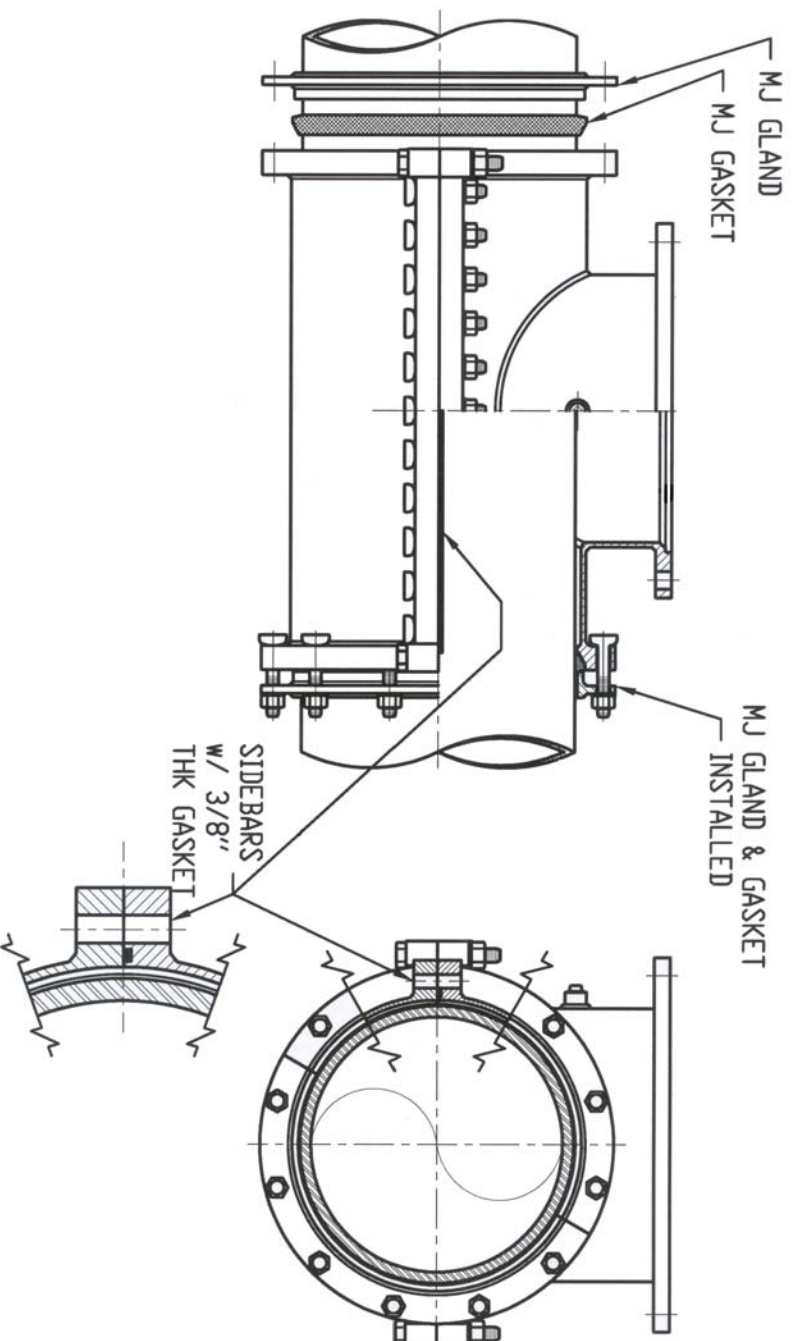
JCM 414 Fabricated Mechanical Joint Tapping Sleeve - Typical Specification

Tapping Sleeve shall be of split mechanical joint design with separate end and side gaskets. The fitting shall be constructed of high strength steel, ASTM 283 Grade C or ASTM A-36. The mechanical joint end dimensions shall conform to AWWA Standard C-110. Split coupling designs are not acceptable. Tapping Sleeves shall be JCM 414 Mechanical Joint Tapping Sleeve or approved equal. Tapping Sleeve shall be ANSI/NSF 61 Standard Certified.

JCM 414 Fabricated Mechanical Joint Tapping Sleeve - Material Specification

- BODY:** ASTM 283 Grade C or ASTM A-36 Steel. Optional Stainless Steel 304.
- FLANGE:** AWWA C207 Class D, ANSI 150 lb. Drilling, recessed for tapping valve MSS-SP60.
- GLAND:** ASTM A-36 or Ductile Iron.
- BOLTS:** Corrosion resistant, high strength low alloy (AWWA C-111, ANSI A21.11). Optional Stainless Steel available.
- GASKET:** Compounded for use with water, salt solutions, mild acids and bases.
- COATING:** Heavy coat of corrosion resistant shop coat primer which is an excellent base for bitumastic coal tar or similar field coatings. Optional Fusion Epoxy Coating available.

For applications in corrosive environments, the JCM 414 is available fabricated in all stainless steel.



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Technical and Engineered Sales

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JCM 414 Mechanical Joint Tapping Sleeve Installation Instructions

This split tapping sleeve with mechanical joint ends is designed for a quick, simple installation with a minimum of equipment. To assure a proper installation, please follow these steps:

1. Check sleeve, bolts and gaskets to make sure all parts are included and undamaged.
NOTE: If end gasket and bolts are damaged, standard mechanical joint gaskets and tee bolts (3/4 x 4-1/2) may be used.
2. Clean pipe in area where sleeve is to be installed. Check pipe dimension to be certain it is correct for the size sleeve.
3. Check to be sure that the round side gaskets are properly seated in side bar grooves.
DO NOT CUT SIDE GASKETS. Install sleeve in proper position on pipe and match color marks on body.
NOTE: 7/8" x 3-1/2" bolts are to be installed on side bars. Longer 7/8" x 4-1/2" bolts are to be installed in rings on ends of the side bars. Tighten bolts evenly to 80 ft. lbs. of torque.
4. Tighten shorter side bar bolts first, starting in the center and working toward the ends. Next, tighten the longer end bolts so that the sleeve halves are butted together evenly and squarely.
NOTE: At this point the round side gasket should protrude slightly into where end gasket will seat.
5. **Block under sleeve to center it on pipe.** Install end gaskets, placing lap 90° (1/4 turn) from side bars.
NOTE 1: Sleeves for Asbestos Cement Pipe 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. Install end flanges so that joints are 45° (1/8 turn) from side bars. End flanges have color match marks indicating the proper end and location of each segment of the end flanges. Install end flanges so color match marks line up.
7. Test sleeve and valve seals prior to making tap. A test plug is provided on the sleeve for this purpose.