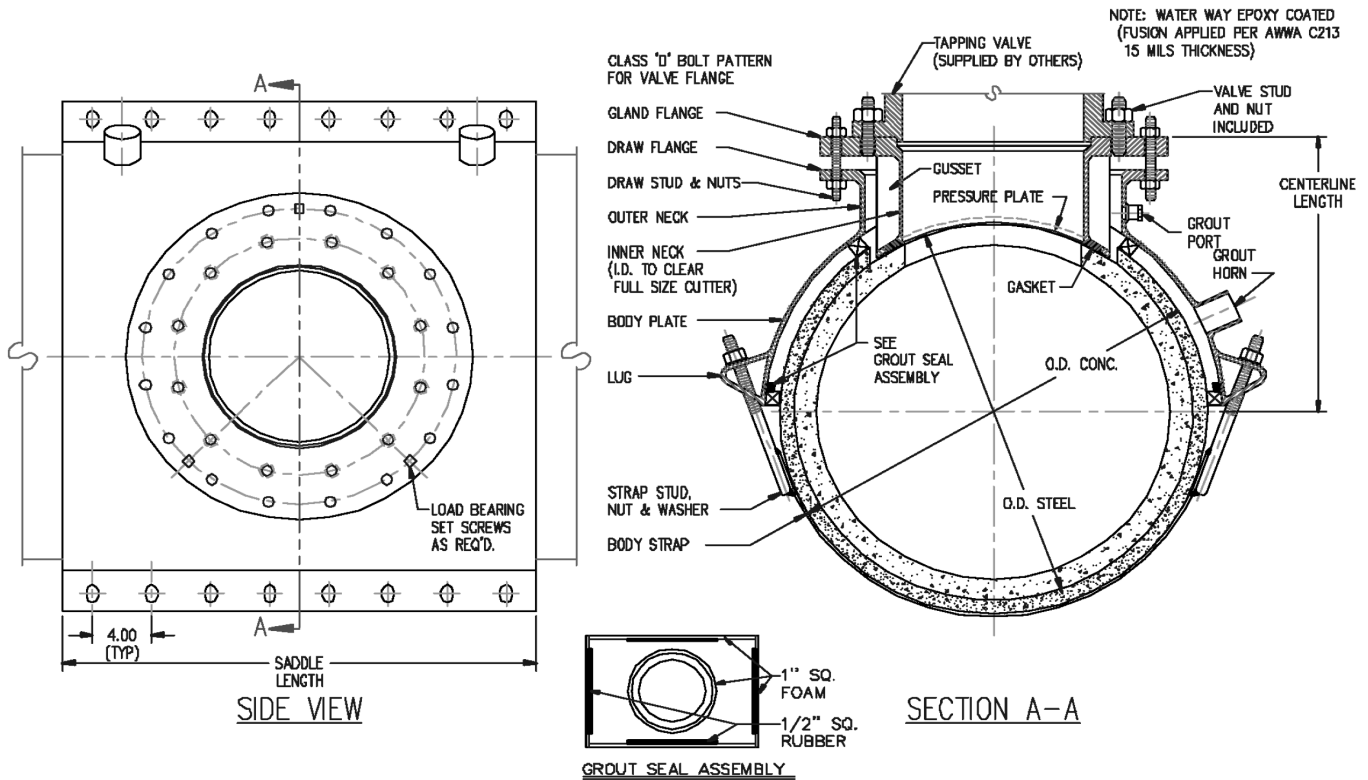


JCM

JCM 415 Tapping Sleeve For Concrete Steel Cylinder Pipe Installation Instructions TYPE I



READ ENTIRE INSTRUCTION SET BEFORE INSTALLING SLEEVE

1. Excavate and clean pipe in area where sleeve is to be installed. Remove any irregularities extending beyond the normal contour of the pipe surface. Check all measurements to be certain sleeve is correct size for the pipe.
2. Position gland on the pipe and mark area where mortar coating is to be removed.
3. Remove gland and set aside. Carefully remove mortar coating from area where tap is to be made - exposing but not damaging the prestress wires and steel cylinder.
4. Check to make certain all grout gaskets are in place around the edge of the sleeve and around the outlet. Place the sleeve on the pipe with the outlet over the opening in the mortar coating (with the grouting horns up) and install the straps. Tighten the straps with only sufficient torque to lightly seal the grout gaskets, alternating from one side of the sleeve to the other - starting at the outside straps and working in toward the center.

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**JCM 415 Tapping Sleeve For
Concrete Steel Cylinder Pipe
Installation Instructions
TYPE I
(Continued)**

5. Pour cement grout into the grout horns in the sleeve filling the space between the sleeve and the pipe. Pound the sleeve with a hammer to vibrate grout into place. After the grout has set, tighten bolts on straps to 80 - 90 ft. lbs. of torque.

(Note: Torque given is based on clean lightly lubricated threads)
6. Carefully cut and remove the exposed prestress wires to provide clearance for the gland to seal against the cylinder. For embedded cylinder pipe, the outer portion of the concrete core must be removed to expose the cylinder. Clean steel cylinder surface of any remaining concrete. (Note: If there is a weld seam on the cylinder of the pipe in the area of the tap, carefully flatten the weld so that the tapping sleeve will seal on it, do not grind the weld). JCM recommends adherence to the AWWA M-44 Manual for proper valve installation, support and trenching.
7. Check the gasket in the gland to make certain it is undamaged and in its retaining groove. Remove any tape used to secure gasket in place during shipment.
8. Install the four (4) threaded studs in the sleeve outlet to assist in properly aligning the gland. Install the gland in the sleeve outlet so that the contour of the gasket seat exactly matches the contour of the steel cylinder. Install the remainder of the draw bolts. Check the gasket seat and all alignments. Tighten the draw bolts evenly to compress the gasket. A feeler gauge can be used to check gasket position during tightening. When completely tightened there should be approximately 1/8" between the gasket seat and pipe cylinder.
9. After installation of the tapping gland, tighten the load bearing set screws located between the draw bolts of the outer bolt circle. This locks the gland in place and transfers any loading from the outlet onto the sleeve and away from the cylinder.
10. Install the tapping valve utilizing the inner circle of studs and nuts. (Furnished on 4" - 12" Outlets.)
11. Use water to pressure test the gland seal (per AWWA C-223), flange gaskets and tapping valve to assure all joints are tight and gaskets properly seated. **Note: For safety purposes do not test above line pressure. Contact pipe manufacturer for possible need to throttle back pressure on larger taps or for special concerns.**
12. On completion of the pressure test, pour cement mortar (2 parts sand, 1 part cement) into the opening between the gland and the saddle and into the grout port(s) in the sleeve neck, completely filling the space around the gland; allow to set. After the tap is complete, encase the saddle in a protective coating of cement mortar or concrete to a minimum thickness of 1" over the entire assembly including straps to further protect the sleeve.