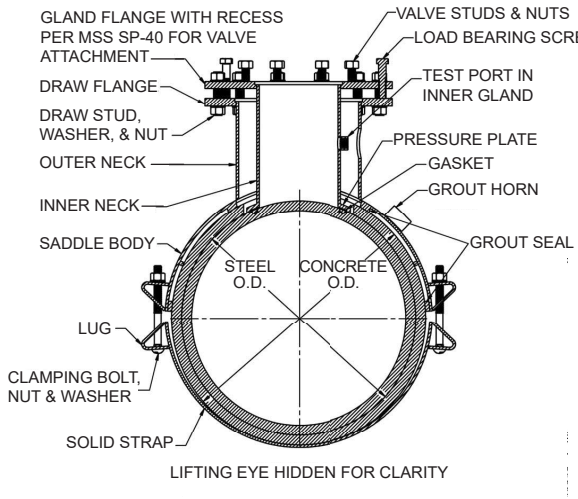
FRCTS, FRCTSC, and FRCTS2 Installation Instructions
Ford® Tapping Sleeves for Reinforced Concrete Cylinder Pipe

Follow pipe manufacturer's tapping and safety recommendations

Refer to the Ford® website (www.fordmeterbox.com) for additional and most recent installation instructions and product information.

1. Excavate and clean the pipe in the area where the sleeve will be installed. Remove any irregularities that extend beyond the normal contour of the pipe surface. Measure the pipe diameter to ensure the tapping sleeve is the correct size for the pipe. Visually inspect before installation to ensure no damage has occurred during shipment or storage.
2. Place and firmly hold the gland on the concrete pipe surface in the location where the tap is to be made. Make a mark around the Pressure Plate on the concrete for removal of the mortar coating. Set the gland aside.
3. Carefully remove the mortar coating inside the mark made in Step 2, exposing the wires and steel cylinder, taking precautions not to damage either. Each tapping sleeve has been manufactured specifically to all of the required dimensions previously provided. Before proceeding with the installation, verify all required and previously-provided pipe dimensions are correct.
4. Ensure the grout-retaining foam is in place around the edge of the saddle and around the outlet hole. Place the saddle on the pipe (Grout Horns up), orienting so the outlet is over the opening in the mortar. Take care not to rotate or drag the saddle on the pipe, which could pull the grout retaining foam out of place. Block and shim as needed to keep the saddle stable. Install the band or straps. Tighten the band/straps with the minimal torque required to lightly compress the grout-retaining foam. Starting with outside studs/bolts, alternate from side-to-side and work towards the center studs/bolts.
5. While pouring cement grout into the Grout Horns on the sleeve, filling the space between the sleeve and the pipe, continually vibrate the sleeve with a hammer to help evenly distribute the grout around/between the sleeve and pipe. After the grout has set, evenly tighten the nuts on band/straps to 75 ft-lb of torque. The use of a torque wrench is highly recommended and required to ensure proper torque.
6. Carefully cut and remove the exposed pre-stressed wires to allow 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. Thoroughly clean the 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 and uniformly flatten the weld so the gasket will seal on it, do not grind the weld).
7. Verify the gasket is undamaged and remains attached to the Pressure Plate. Lightly lubricate the gland gasket with a water-based lubricant. Install the gland into the outlet of the sleeve, aligning the contour of the Pressure Plate with the contour of the steel cylinder. Ensure the outer bolt holes of the gland align with the bolt holes of the flange on the outlet. Install the flange draw studs/bolts and tighten alternately and evenly to properly compress the gasket. The Gland Flange will pull down within ~1" of the Draw Flange when the gasket is compressed.
8. Once the gland is installed, tighten the Load Bearing Screws (located between the drawing bolts/studs in the outer bolt circle) against the Draw Flange to transfer load to the main sleeve body.



9. Attach the tapping valve to the Gland Flange using the inner circle of studs and nuts. (Provided with 4" - 12" Outlets.) Block and shim to support the valve's weight.
10. Test the valve, gland seal, and flange gaskets to ensure proper installation. Per AWWA C223, "… the installer should hydrostatically (water) test the seal…". For safety reasons, do not use a compressible fluid medium, such as air, to test for water tightness. For safety purposes, and to maintain the integrity of the pipe, do not test above the operating internal line pressure.
11. Once the test is complete, pour cement grout into the grout port on the neck of the outlet, completely filling the space around the gland. Allow the grout to set.
12. After the grout has set, attach the drilling machine to the valve, block and shim to support the machine's weight, and check for proper mating and alignment. Follow tapping machine protocol to make the tap.
13. After completion of the tap, encase the saddle in a protective coating of cement mortar/concrete to a minimum thickness of 1" over the entire assembly including band/straps to further protect the sleeve.
14. To prevent undue stress on the Tapping Sleeve and Valve assembly, make sure the new watermain will rest on a well compacted bed with its center line axis matching the center line axis of the Tapping Valve and Sleeve Outlet.

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