



Installation Instructions

Model 471 Plain Outlet Tapping Sleeve

Read instructions before starting installation*

For purposes other than water, contact JCM Industries for application and product assistance.

1. Clean and scrape pipe. Remove any scale, pipe wrap, debris or dirt that may interfere with the complete sealing of the gasket. Inspect pipe for integrity, size, outside diameter and surface irregularities. Confirm the proper size and range of tapping sleeve. Inspect fitting to ensure all parts are included.

For fittings furnished with stainless steel hardware, see reverse for fastener management.

2. Lubricate the pipe and the fitting gasket with soapy water. **Do not use oil base pipe lubricant.**
3. Position outlet half of body on pipe, making sure outlet is aligned with branch line to be connected. Do Not position so that rotation is required. Rotation can result in gasket dislocation.
4. Position back half of body and install bolts. **NOTE:** For fittings with hardware furnished with double washer sets, to assure ease of installation and obtain optimum bolt torque levels, install the double set of washers under each nut.

Tighten outside bolts first, working toward the center. Tighten bolts evenly. Alternate from one side of sleeve to the other. The gap between sleeve halves should be equal on both sides. JCM recommends the use of a torque wrench to ensure proper torque levels. Improper torque levels can result in leaking assembly or damage to the pipe wall. Tighten bolts to the following torque levels:

Pipe sizes 6" - 12" 100 ft. lbs. of torque

Pipe sizes 14" & larger 125 ft. lbs. of torque

NOTE: For test or working pressure above 250 PSI contact JCM for proper application. Bolts must be tightened to 125 - 150 ft. lbs. of torque.

On Thin Wall, PVC (SDR21, 26), and Flexible Pipe	50 - 55 ft. lbs. minimum
HDPE SDR11, SDR17 - 6" - 12"	60 ft. lbs. minimum
HDPE SDR11, SDR17 - 14" and Larger	90 ft. lbs. minimum

5. Check inside of sleeve neck to make certain gasket is properly seated and not protruding where tapping cutter may damage it. Complete installation of fitting, return after approximately 15 minutes and confirm minimum bolt torque levels have been maintained. Test assembly seals using test plug provided on sleeve or test connection on tapping machine.

Alignment and support of the tapping sleeve is the responsibility of the end user, per best engineering practice, industry standard practice, or local code. For water applications: if applicable, test assembly seals with water (per ANSI/AWWA C-223). 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. No more than 10% above line pressure. 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. For inquires, contact JCM Industries, Inc.

INT471-0115

*Ensure fitting is suitable for application (confirm size, materials, pressure ratings, line content, meets local governing & association standards, etc.). Pipeline operation forces, including pressure fluctuations, thermal expansion/contraction, movement/shifting, etc. will influence the success of the application. Proper anchorage, restraint, harnessing, thrust blocks or other devices must be provided to prevent pipe movement (lateral, angular, axial) or pipe pullout from the bolt-on fitting. Inspection of the pipe integrity is the responsibility of the end user. JCM recommends the use of calibrated torque wrench. Failure to follow installation instructions will result in voided product warranty.

For application review or questions contact JCM Industries at 1-800-527-8482, 903-832-2581

