



**Installation Instructions
Series 440 Stainless Steel
Line Stop Sleeve
Type 1, Type 11, Type 4, Type 14**

Read instructions before starting installation*

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

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

JCM full circumferential gasket tapping sleeves are not recommended for HDPE Pipe.

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, correct outside diameter and surface irregularities. Confirm the proper size and range of tapping sleeve for the pipe. Inspect fitting to ensure all parts are included. **Fitting is 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. NOTE: If pre-assembling valve to tapping sleeve before installing sleeve on pipe, for size on size sleeve install center bolts before installing the valve.
4. Position back half of body over tapered gasket edges extending from outlet half of body, making certain the tapered edges of the gasket lay smooth 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.
5. 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:

Rigid pipe (DI, CI, A/C, Steel), C-900/905 PVC

4" - 8" Nominal Pipe Sizes	85 ft. lbs. minimum - 125 ft. lbs. maximum
10" - 12" Nominal Pipe Sizes	100 ft. lbs. minimum - 125 ft. lbs. maximum
Thin wall, flexible, class PVC (SDR 21, 26) pipe	50 ft. lbs. minimum - 55 ft. lbs. maximum

6. Check inside of sleeve neck to make certain gasket is properly seated and not protruding where tapping cutter may damage it.
7. Install line stopping equipment. Ensure proper equipment support. Improper support can result in undue stress.
8. Test assembly (see reverse). When assured that all seals are tight and test is completed, re-check bolt torques after 15 minutes and proceed with the tapping operation. Follow applicable line stop procedures or consult line stop equipment manufacturer.

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.

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 C223). 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.

*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



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





Tricks of the Trade for Installation Series 440 Stainless Steel Line Stop Sleeve Type 1, Type 11, Type 4, Type 14

Testing of Fitting Prior to Tap/Stop Procedure

Test specifics (i.e. PSI, time duration, etc.) is set forth by the Authorizing Inspector.

JCM remands adherence to the AWWA Standard C223, Section 4.6. Tests ensure the proper installation of the fitting and confirms all seals are water tight prior to the technician wet/hot tapping the main. JCM does not recommend hydrostatic testing above the mainline pressure.

The test is performed using the test port (typically) in the neck of the line stop fitting. A standard test tree, wrapped with Teflon tape and using a 300lb. liquid filled guage is screwed into the test port. A hydrostatic test is conducted by attaching a water hose to the barbed end of the test tree and using a hand pump, the technician achieves the desired pressure.

Line Stop fittings are available with two types of completion plugs, threaded or push-pin. Threaded plugs: loosen the plug to remove the air and then tighten using the completion tool. Push Plug: all cap screws should be removed, wrapped in Teflon tape and then tightened. The Blind/Blank flange will be installed and after the air is out, it should be bolted down with the provided blind flange bolts until the pressure test is performed successfully.

Once the test is verified by the inspecting authority, the test tree can be removed, the test plug wrapped in Teflon tape installed and tightened.

Encasement of the line stop fitting in concrete is recommended.

JCM Quality Fitting Equipped With 18-8 Stainless Steel Bolts and Nuts

When not properly handled it is the nature of stainless steel fasteners to gall and freeze (seize up). This is due to the inherent properties of the stainless material. Galling and freezing is often triggered by the presence of metal chips, burrs and grains of sand on the threads of the bolts and nuts. Extra care has been taken by JCM prior to assembly and packing of this fitting to assure a trouble-free installation.

The nuts and bolts are made from material of different hardness so that they have different strengths. They are coated with a special anti-seize coating. Additional lubricant may be needed. **A Molybdenum-Base lubricant is recommended. We assembled each nut by hand to be sure that it went on the bolt freely and are handled carefully to avoid damage to the threads.** The bolts and nuts are made to exacting specifications to assure that the correct material is used and that the thread form is correct.

Stainless hardware is especially susceptible to galling. JCM supplies specially coated nuts to eliminate the galling caused by over-torquing, but **the bolt threads must be kept clean, free from nicks and not pitched or thrown into the tool bucket during the installation process.** Use of pneumatic wrench for installation could cause hardware to seize and is not recommended.

To ensure a successful, trouble free installation of this JCM Tapping/Line Stop Sleeve, the following Tips/Tricks are offered:

Lubricate the pipe with soap-water or water. Oil based pipe lubricants produce a film between the gasket and pipe surface that is not water soluble and can interfere with the gasket/pipe water tight seal.

Do not rotate the sleeve on the pipe. Rotation of the sleeve on the pipe can result in the gasket being ripped from the groove and damaging the gasket beyond repair. Some manufacturers recommend rotation - JCM does not.

Tighten the bolts in the sequence provided in the instructions. Fittings are engineered to "load" the gasket in a certain fashion. Instructions provide the "sequence" of tightening bolts. Ensure the gap between sleeve halves is equal on both sides

Confirm bolt torques with a torque wrench. Proper compression of the gasket is critical to the success of the tapping sleeve installation. A torque wrench should be used to ensure recommended levels are achieved. Most field problems are directly related to lack of proper torque levels.