

Water Service Fittings and Curb Stops: Ring compression end connections

Application:

This information is applicable to Models T-5400, T-5400MP, T-4350, T-4370, T-4355, T-4365, T-4351, T-4371, T-4432, T-4433, T-4450, T-4451, T-4500 and T-4501. For other models please see the installation-operation-maintenance sheets for pack joint connections or flared connections. They can be downloaded at www.legendvalve.com or by calling Customer Service at 800-752-2082. Legend ring compression curb stops and fittings are designed and manufactured in accordance with AWWA C-800 specifications and are suitable for installation onto underground cold water service lines only.

NOTE: All ring compression end connections accept the following CTS (Copper Tubing Size) types of tubing or IPS (Iron Pipe Size) types of pipe:

CTS tubing:

Types K or L copper tubing
CTS polyethylene plastic tubing (ASTM D2737 SDR9)

IPS pipe:

Steel pipe
Brass pipe
PVC pipe (ASTM D 1785-06)
IPS polyethylene plastic pipe (ASTM D2239 SDR 7)

Insert stiffeners (sold separately) **MUST** be used when installing fittings or curb stops onto polyethylene plastic tubing or pipe.

Installation instructions for ring compression end connections:

1. Cut tubing or pipe to desired length, using an appropriate tubing or pipe cutter.
2. The cut must be square and round. Correct any out-of-round tubing or pipe using the appropriate tool. The cut end of the tubing or pipe must be free of burrs, dents, nicks, deep scratches, dirt or debris.
3. **If you are installing the Legend ring compression fitting or curb stop onto polyethylene plastic tubing or pipe**, insert the correct stiffener into the cut end of the tubing or pipe (Legend Model T-4500 or T-4501). Make sure to fully insert the stiffener. Partially inserted stiffeners may prevent the ring compression connection from joining or sealing correctly. **NOTE:** Insert stiffeners are not required when installing rigid PVC plastic pipe or metallic tubing or pipe.
4. Ensure the nuts are loose and carefully insert the tubing or pipe end through the ring compression nut assembly and into the fitting or curb stop body until the tubing or pipe contact the internal stop. Some fittings will have an internal stop, others will not. When installing Model T-4351, insert the tubing or pipe only as far as the half-way point of the fitting's body, to allow enough insertion depth for the other tubing or pipe end.

NOTE: If you are installing models T-5400, T-5400MP, T-4351, T-4433 or T-4451 proceed to the final step. If you are installing other Legend ring compression models, proceed to the installation instructions for NPT pipe thread connections shown below:

Installation instructions for male and female NPT (pipe) thread connections:

All pipe thread connections should be made in accordance with standard industry practice, which involves engagement length verses a specific torque rating, as stated in ANSI / ASME B1.20.1:

1. Inspect all male and female tapered pipe threads for damage. DO NOT attempt to assemble damaged threads. Using a stiff wire brush, remove all dirt or debris from the thread surfaces.
2. Apply thread sealing compound or Teflon tape to the male pipe threads. Apply the tape by wrapping the male threads in a clockwise direction.
3. Carefully engage and tighten the threads by hand.
4. Using the appropriate wrench, tighten an additional 1-1/2 to 2 revolutions.

ADDITIONAL WARNINGS AND RECOMMENDATIONS:

WARNING! Pressure-test the system before backfilling. Visually inspect all connections for leakage and correct as necessary. Installation is complete only after a pressure test has been completed.

- While the Legend ring compression nuts utilize a high-quality NBR gasket, which is resistant to most petroleum-based lubricants, it is still recommended that no lubricant be applied to any surface of the fitting or curb stop.
- Do not use thread sealing compounds on any of the fitting's or curb stop's ring compression connections.
- Looping or snaking the service line will minimize line stress during backfilling as well as allow expansion and contraction movement without placing strain on the ring compression connection.
- Use insert stiffeners when installing Legend ring compression fittings or curb stops onto polyethylene plastic tubing or pipe.
- All Legend ring compression nut assemblies are marked for use with copper tubing size tubing (marked CTS) or iron pipe size pipe (marked IPS). Be certain that you are installing the correct curb stop or fitting by verifying that you have either tubing or pipe. Legend ring compression nut assemblies are not interchangeable between tubing and pipe.

Operation, Maintenance and Adjustment:

Legend ring compression fittings and curb stops do not require maintenance or adjustment when properly installed and pressure tested. Should leakage occur during pressure testing, tighten the ring compression nut (turn clockwise) an additional 1/8-turn until the leak stops. Do not over-tighten.