Water Service Fitting and Curb Stops:
Flared end connections

Application:
This information is applicable to Models T-5200, T-5200MP, T-5201, T-4100, T-4105, T-4201, T-4200, T-4211, T-4400, T-4401, T-4430, T-4431 and T-4110. For other models, please see the installation-operation-maintenance sheets for pack joint connections or ring compression connections. They can be downloaded at www.legendvalve.com or by calling Customer Service at 800-752-2082. Legend flared-end 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 flared end connections are designed to join Types K or L copper tubing only.

Installation Instructions for flared end connections:

1. Cut copper tubing to desired length, using an appropriate tubing cutter.
2. The cut must be square and round. Correct any out-of-round tubing using the appropriate tool. The cut end of the tubing must be free of burrs, dents, nicks, deep scratches, dirt or debris.
3. Remove the flare nut from the fitting or curb stop body.
4. Place the flare nut over the end of the tubing, with the female threads toward the tubing end. Slide the flare nut down the tubing approximately six inches.
5. Flare the copper tubing end using the appropriate flaring tool.

Note: Copper tubing end must be flared to the correct 45-degree angle in order to achieve the correct mechanical joint and seal. Over-flaring the tubing could allow the tubing's edge to protrude into the flare nut's threads, preventing the tubing from sealing against the male flare nose properly.

6. Slide the flare nut over the flared end of the tubing and engage the nut onto curb stop or fitting body by turning clockwise by hand.
7. Place a drop of oil (thread-cutting, light machine or equivalent) on the fitting's or curb stop's male AWWA straight threads. This will minimize the chance of thread binding.

Note: The underside of the flared tubing should completely contact the inside radius of the flare nut and the nut should turn freely. Binding of any type indicates out-of-round or over-flared tubing.

8. Using the correct wrenches, tighten the flare nut at least 2-1/2 revolutions.

CAUTION! Make sure the wrenches fit tightly. Loose-fitting wrenches can cause injury or damage the curb stop or fitting.

NOTE: If you are installing models T-5200, T-5200MP, T-4200, T-4201 or T-4431 proceed to the final step. If you are installing other flared-end models that incorporate threaded or pack-joint end connections, please proceed to the installation instructions for NPT pipe thread connections shown below or visit www.legendvalve.com for pack-joint installation instructions:

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.

Final step: Pressure-test the system in accordance with local code requirements before backfilling. Visually inspect all connections for leakage. Installation is complete.

ADDITIONAL WARNINGS AND RECOMMENDATIONS:

- A flared connection is a metal-to-metal joint. The flared tubing is softer than the fitting's body and conforms to it, to create the seal. Make sure the tubing and body are free of debris and damage, which could severely affect the integrity of the connection.
- Looping or snaking the service line in the trench will minimize line stress during backfilling as well as allow expansion and contraction movement without placing strain on the flared connection.