Installation Instructions for Z-Bite Fittings

 Using a tube cutter, cut the end of the tubing square. For PEX and CPVC, blade type cutters are preferred as they do not flange or burr the cut ends.



A wheel type of cutter works well for copper tube.

- 2. Examine the end of the tube for any scratches, gouges or lines that might prevent the o-ring from sealing on the surface of the tube.
- 3. Using the deburring tool, chamfer the outer edge of the cut tube end and mark the insertion depth on the tube.



- 4. Examine the fitting to be sure that the tube liner is present. This liner is required when using PEX tube. If using copper or CPVC tube, the liner may be removed. See Tube Liner Removal instructions.
- 5. Using a slight twisting motion, insert the tube into the Z-Bite fitting until it bottoms out in the fitting socket. Some resistance can be expected as the end of the tube moves past the teeth on the retaining ring and o-ring seal. The mark for insertion depth should be visible approximately 1/8"from the end of the fitting.



- 6. Ensure tube is properly installed by pulling on pipe to check for restraint.
- 7. Once all fittings have been installed, pressurize the system and check for leaks.
- 8. Please refer to the Zurn PEX Plumbing Installation Guide for additional information on the installation of PEX plumbing systems.

Z-Bite Fitting Removal

- Turn off the system water supply and relieve the pressure by opening faucets or valves to allow as much water to drain from the system as possible. The piping may still contain water that can drain out when the fitting is removed. Be prepared to contain or absorb the water to prevent damage to flooring or other surfaces
- 2. Place the appropriate sized Z-Bite removal clip on the tube with the grooved side facing the fitting.
- 3. Slide the removal clip up to the end of the fitting.



- 4. With one hand, hold the fitting and press the removal clip against the end of the fitting. This action spreads the teeth on the stainless steel retaining ring.
- 5. With the other hand, pull the tube out of the fitting while keeping the teeth of the retaining ring spread.
- 6. Before reuse of the fitting, check the following items:
 - a. If using PEX tube, be sure the liner is in the fitting. If not, retrieve it from the end of the tube or replace it.
 - b. Inspect the tube end to be sure it was not damaged, gouged or scratched as it was removed from the fitting. If necessary, trim the tube end so that a smooth sealing surface is available.

Tube Liner Removal from a Z-Bite Fitting

Z-Bite fittings are supplied with the tube liner installed in the fitting. Use of this liner is mandatory when using PEX tube in a Z-Bite fitting. This liner may be removed if the fitting is being used with CPVC or copper tubing.

- 1. Needle nose pliers are needed to remove the liner.
- 2. Using the pliers, gently wiggle the tube liner and pull it past the o-ring seal.
- Using the appropriate size removal clip, press the grooved side of the clip against the release ring on the end of the fitting to expand the teeth of the retaining ring.
- 4. While keeping the teeth expanded, pull the liner out of the fitting with the pliers.

Slip Coupling Installation

A Slip Coupling is a special fitting used when it is not possible to move the ends of the tube far enough apart to install a regular coupling. The slip coupling can be installed by deflecting the tube instead of moving the ends apart.

1. First, cut the ends of the tube to create a gap between the ends of the tube measuring approximately 1/4" larger than the distance from the indicating ring on the body of the fitting to the short end of the fitting. This gap should not be larger than 2".



2. Chamfer and deburr the ends of both tubes and mark the insertion depth on both tubes.



3. Deflect one of the tubes and slide the long end of the slip coupling into place until it hits the tube stop.



- 4. Line the tubes up.
- 5. Place the appropriate sized Z-Bite removal clip on the tube with the grooved side toward the long end of the fitting.
- 6. Press the removal clip against the long end of the fitting to spread the teeth on the stainless steel retaining ring and slide the coupling so the short end is installed on the other tube to the proper insertion depth.



- 7. Release and remove the removal clip.
- 8. Check to see that the long side of the coupling still has sufficient engagement with the tube. The depth mark will either be non-visible because it is inside the fitting or it will be within ¼" of the end of the fitting if it is visible.

Installing the Polybutylene (PB) Transition Coupling

The Polybutylene Transition Coupling is a fitting designed to allow transition from polybutylene tube in an existing installation to PEX, CPVC or copper. Like PEX, a Z-Bite connection for polybutylene tube requires a tube liner. The portion of the liner that fits inside the tube for polybutylene will be slightly larger than the liner for the same size PEX tube. Use of a PEX liner in the polybutylene tube may cause a failure of the connection and subsequent water damage.

1. The end of the coupling containing gray polymer insert is the end to be used with the polybutylene tube.



- 2. Using a blade-type tube cutter, cut the end of the polybutylene tube square.
- 3. Examine the end of the tube for any scratches, gouges, or lines that might prevent the o-ring from sealing on the surface of the tube.
- 4. Using the deburring tool, chamfer the outer edge of the cut tube end and mark the insertion depth on the tube.





5. Insert the polybutylene tube into the polybutylene end of the Z-Bite fitting until it bottoms out in the fitting socket. Some resistance can be expected as the end of the tube moves past the teeth on the retaining ring and o-ring seal. The mark for insertion depth should visible approximately 1/8" from the end of the fitting.





6. Follow the earlier instructions for making Z-Bite connections with PEX, CPVC or copper on the other end of the transition coupling.

Warning and Limitations

Zurn Z-Bite fittings are not intended for and must not be used in the following situations:

- 1. Any application for any type of fuel, either liquid or gas.
- With any tube of multi-layer construction including barrier tubes for radiant heating. Z-Bite fittings do not seal the ends of the tube and liquids may penetrate between the layers and cause a failure.

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