4. Lubricate the service pipe and jacket with soap or similar material. Lubricate the inside of the end cap.

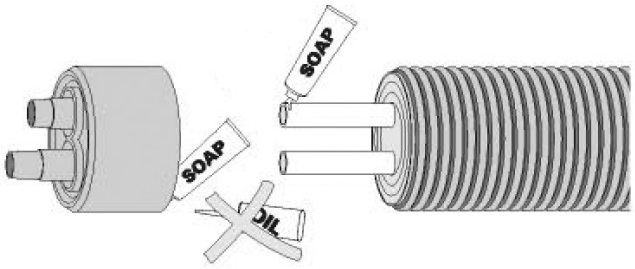


**Figure 4-35: Lubricate pipe**

**Caution:** Do not use oil-based lubricants.

5. Pull the Rubber End Cap over the service pipe and jacket until the end cap base is flush with the end of the jacket material.

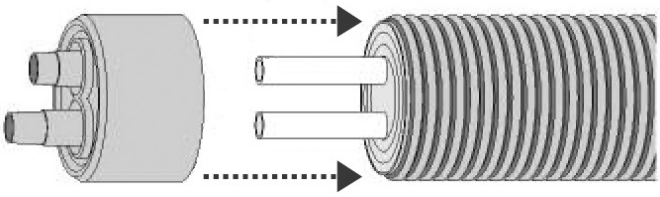

**Figure 4-36: Install End Cap**

6. From the end of the jacket, install the EPDM o-ring in the second groove just past the second full

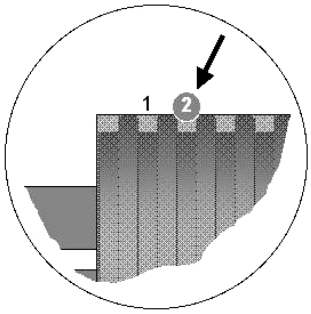


**Figure 4-37: Install O-ring**

7. Install the stainless steel strap over the center of the EPDM o-ring, and tighten using screwdriver until stainless steel shields butt together.

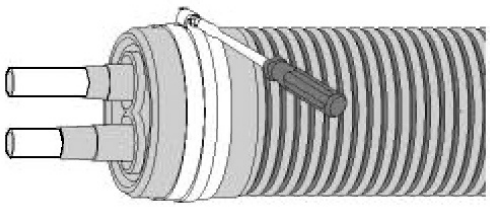

**Figure 4-38: Install steel strap**

## WIPEX Fittings

Uponor WIPEX compression fittings are manufactured from dezincification-resistant brass and are designed for use with 4" Wirsbo hePEX pipe. The unique design of the WIPEX fitting features an eccentric outer sleeve for easier grip and an even force when inserting the pipe. The inner sleeve features a threaded profile and includes an o-ring to ensure a secure, tight seal (see **Figure 4-39**). The maximum operating pressure and temperature for WIPEX fittings is 200°F (93°C) at 80 psi (5.5 bar).

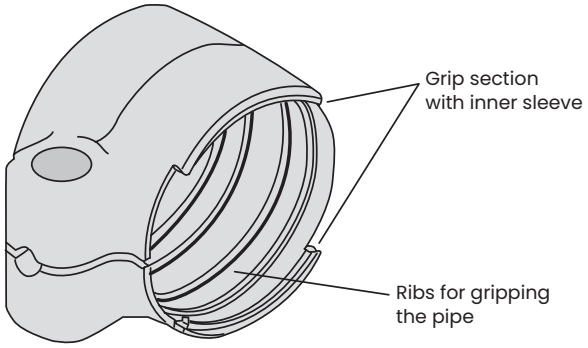


**Figure 4-39: Eccentric design of the WIPEX fitting**

Check the contents of this package. For damaged or missing contents, please contact your Uponor sales representative or distributor for assistance.

Package includes:

- WIPEX fitting(s)
- O-rings
- Bolts, washers and nuts
- WIPEX Fittings Instruction Sheet

**Tools and Parts Required**

- Plastic pipe cutter
- Low-friction lubrication (MoS2)
- De-burring tool or knife
- FD 2 – 24mm wrench

**Installation**

**Important:** Read these instructions completely before beginning installation. If you have any questions about these instructions, please contact your Uponor sales representative or distributor for assistance.

1. Cut the tubing with an appropriate plastic-pipe cutter. If using another method for cutting the tubing, make sure you remove the shavings inside the pipe before installing the fitting to avoid blocking valves.

**Figure 4-40: Cut the pipe**

2. Chamfer the tubing bore with a de-burring tool or knife and remove any external burrs. This prevents the o-ring from damage or dislodging from its groove after installation.

**Figure 4-41: Chamfering**

3. Use a suitable pair of pliers to dismount the outer sleeve. For an example of suitable pliers, see **Figure 4-43**.

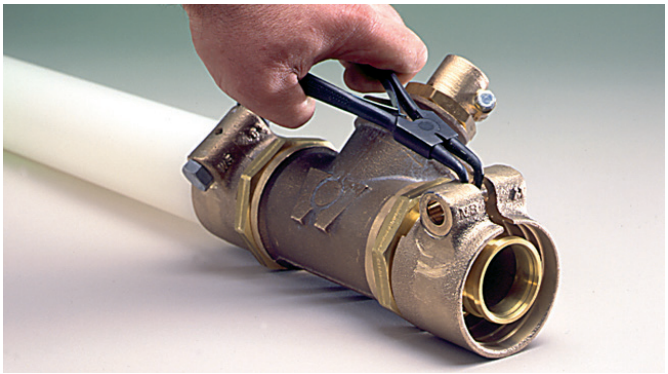

**Figure 4-42: Dismounting outer sleeve**

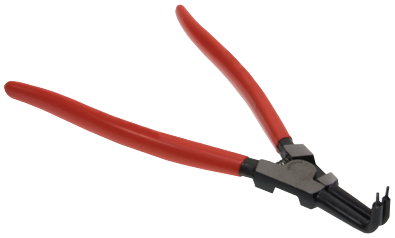

**Figure 4-43: Example of suitable pliers**

4. Place a bolt head between the pads and remove the outer sleeve.

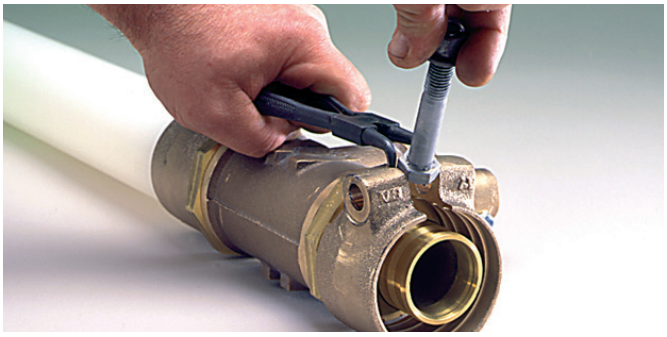

**Figure 4-44: Insert bolt head**

5. Mount the outer sleeve onto the tubing. Make sure you position the outer sleeve correctly toward the inner sleeve so the locking grooves engage.

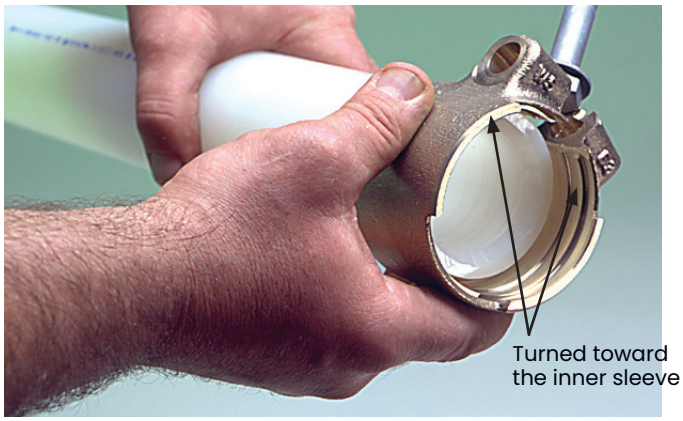


**Figure 4-45: Mount the outer sleeve**

6. To ensure easy mounting of the pipe onto the inner sleeve, lubricate the o-ring, preferably with an environmentally friendly silicone spray or soap.

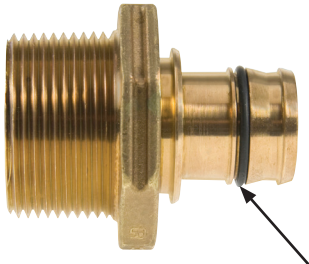

**Figure 4-46: Lubricate the O-ring**

7. Mount the pipe on the insert sleeve and push the outer sleeve until you reach the stop support for the pipe.

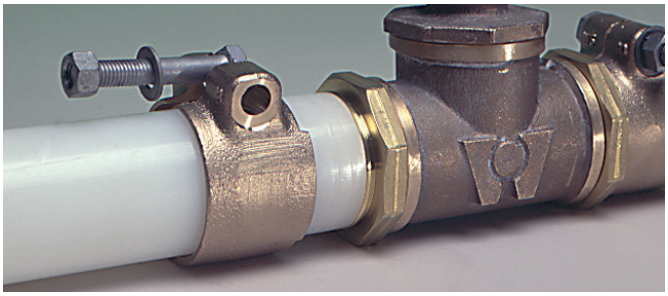

**Figure 4-47: Push outer sleeve to stop support**

**Important:** Lubricate the bolt threads and washer with suitable low friction lubrication (MoS2) before tightening.

8. Tighten the WIPEX fitting slowly by hand to avoid thread problems when assembling acid-resistant stainless steel bolts in a screw joint. If using a tightening machine, only use a low number of revolutions. Use open-ended or ring spanners and slowly tighten until the pads of the clamping sleeve are in contact with one another (see **Figure 4-48**).

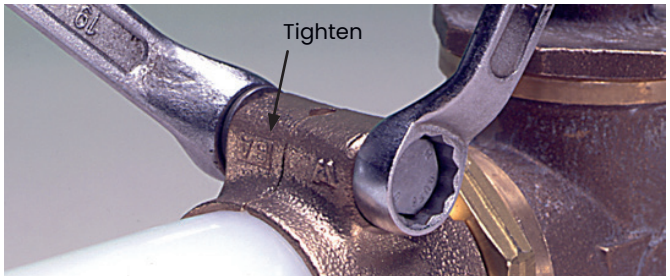


**Figure 4-48: Tighten the fitting**

**Caution:** If the pads do not come in contact, wait at least 30 minutes and tighten until the pads are in contact with one another (see **Figure 4-49**).

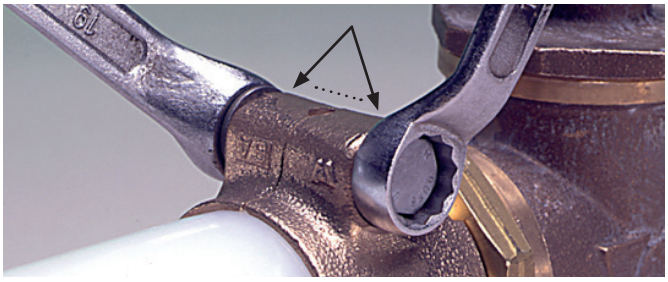

**Figure 4-49: Grip and seal between fitting and pipe**

9. Perform tightness testing according to current norms prior to using the system. If standards for tightness testing are not available, refer to the following instructions.
   a. Vent all air from the system and apply 1½ times the normal operating pressure.
   b. Maintain this pressure for 30 minutes and visually inspect the joints.
   c. Quickly drain off water until the pressure falls to half the operating pressure, and close the drain valve.
   d. If the pressure rises to a constant level higher than half the normal operating pressure, the system is tight.
   e. Maintain this pressure for 90 minutes and visually inspect the fittings during this time. A drop in pressure indicates leakage in the system.

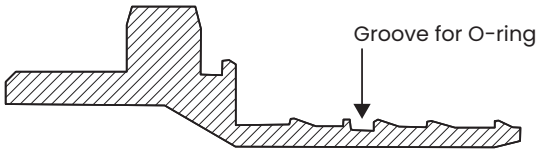


**Figure 4-50: Grooves for O-ring placement**

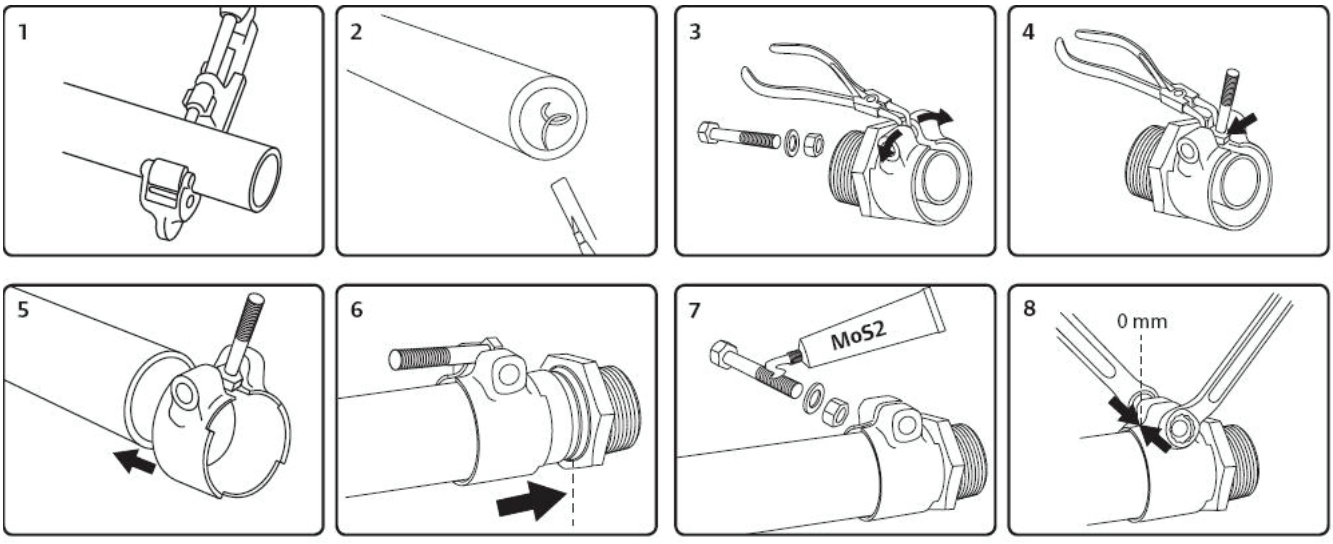


**Figure 4-51: Visual summary of installation steps**