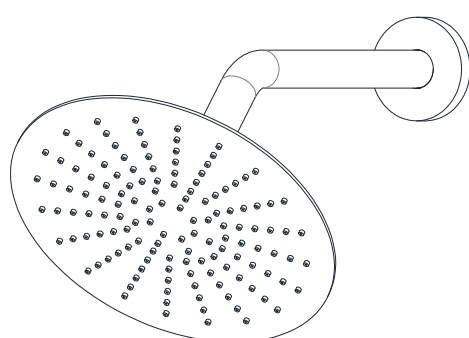
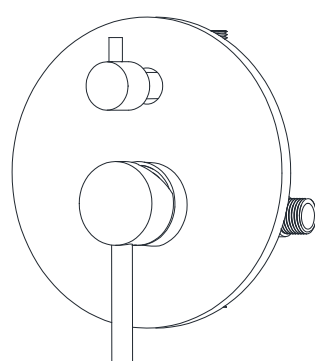
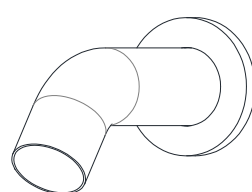


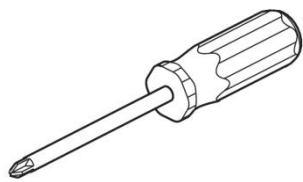
INSTALLATION GUIDE



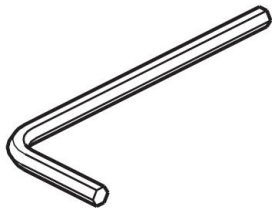
TUB AND SHOWER FAUCET

CUSTOMER CARE LINE: +1-866-203-0866

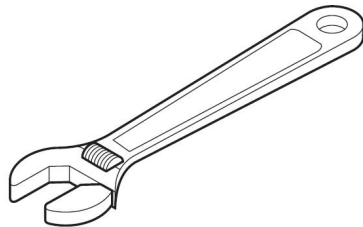
TOOLS RECOMMENDED



Phillips screwdriver



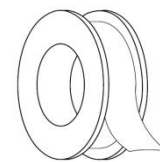
Allen wrench



Adjustable wrench



Channel locks



Teflon tape

1. BEFORE PROCEEDING



WARNING: Before proceeding with any operation, please read all instructions thoroughly. If you are uncertain about installing this product, please consult a professional! This product should be installed in accordance with all local and state plumbing and building codes. It is recommended to seek professional assistance.

2. SHUT OFF WATER SUPPLY

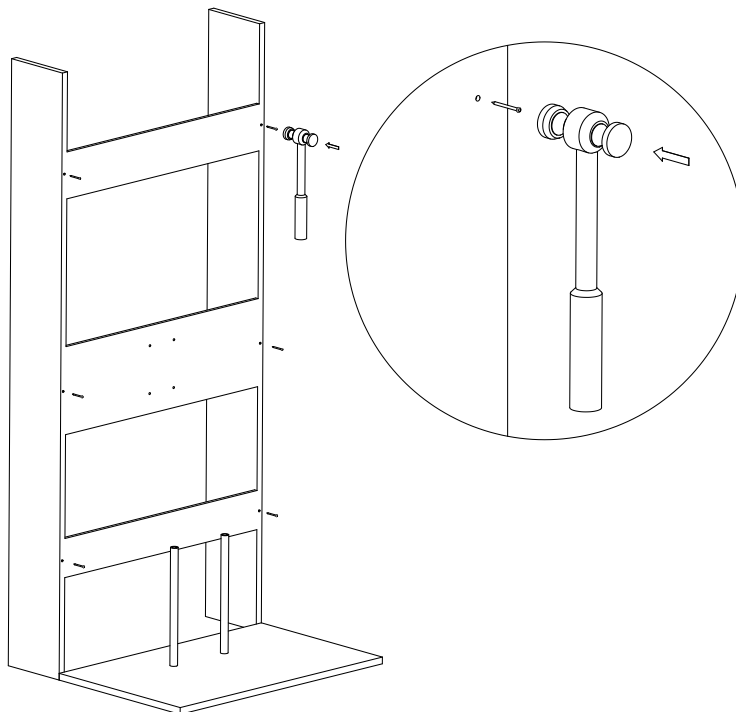
Locate the water supply inlets and shut off the corresponding water supply valves, typically found near the water meter. If replacing an existing unit, remove the old unit and thoroughly clean the mounting surface.

3. CHECKING THE CONTENTS OF THE BOX

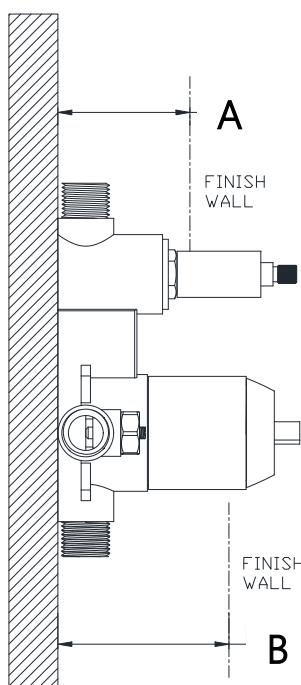
Upon opening the box, check to ensure that all the following items are included.

4. ROUGH-IN VALVE INSTALLATION

4.1 Construct a mounting bracket, typically from wood, to support the installation of the rough-in valve assembly. Position the face of the mounting bracket at a minimum distance of A and a maximum distance of B behind the finished wall surface.

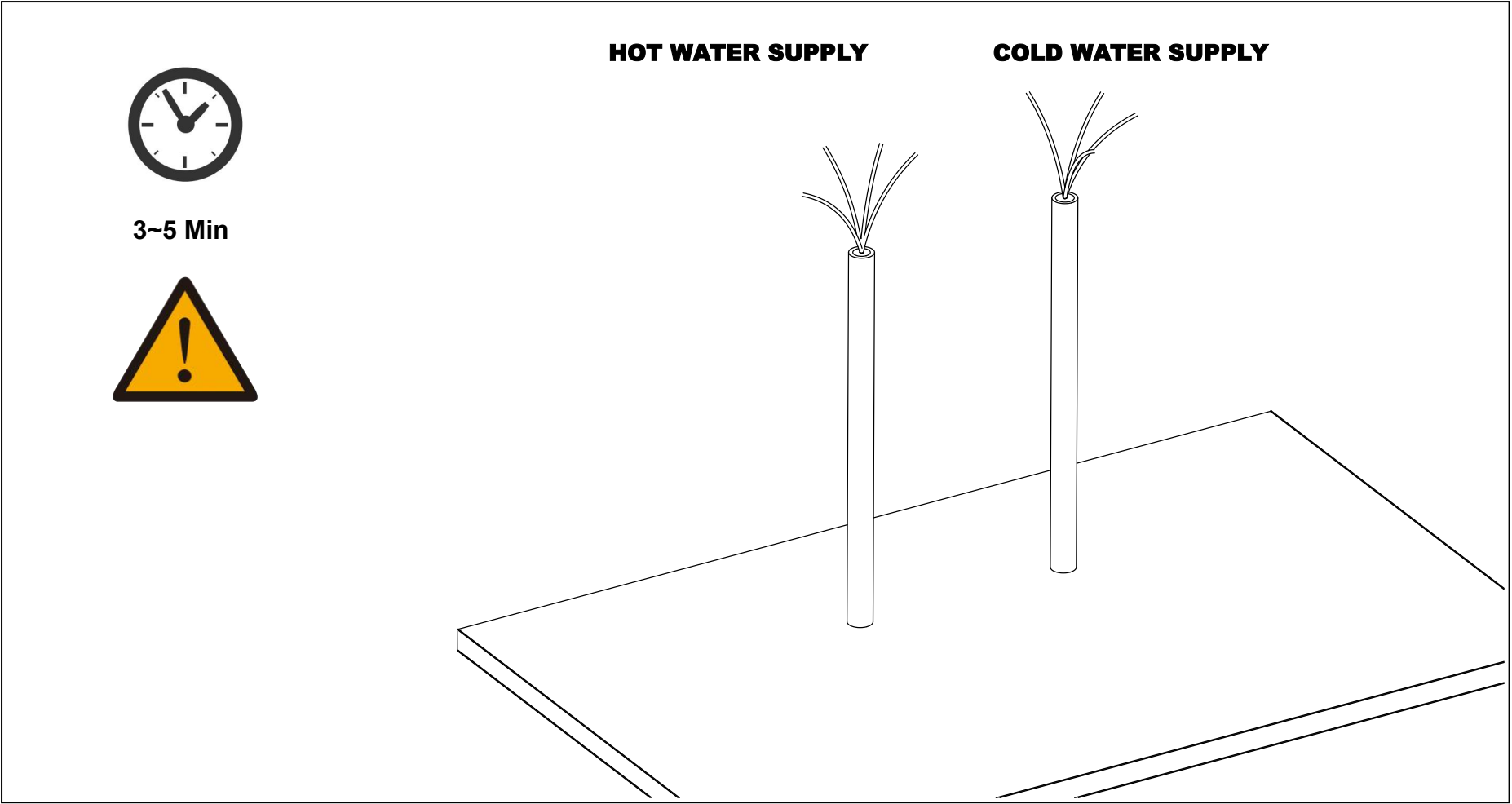


Mounting
Stringer

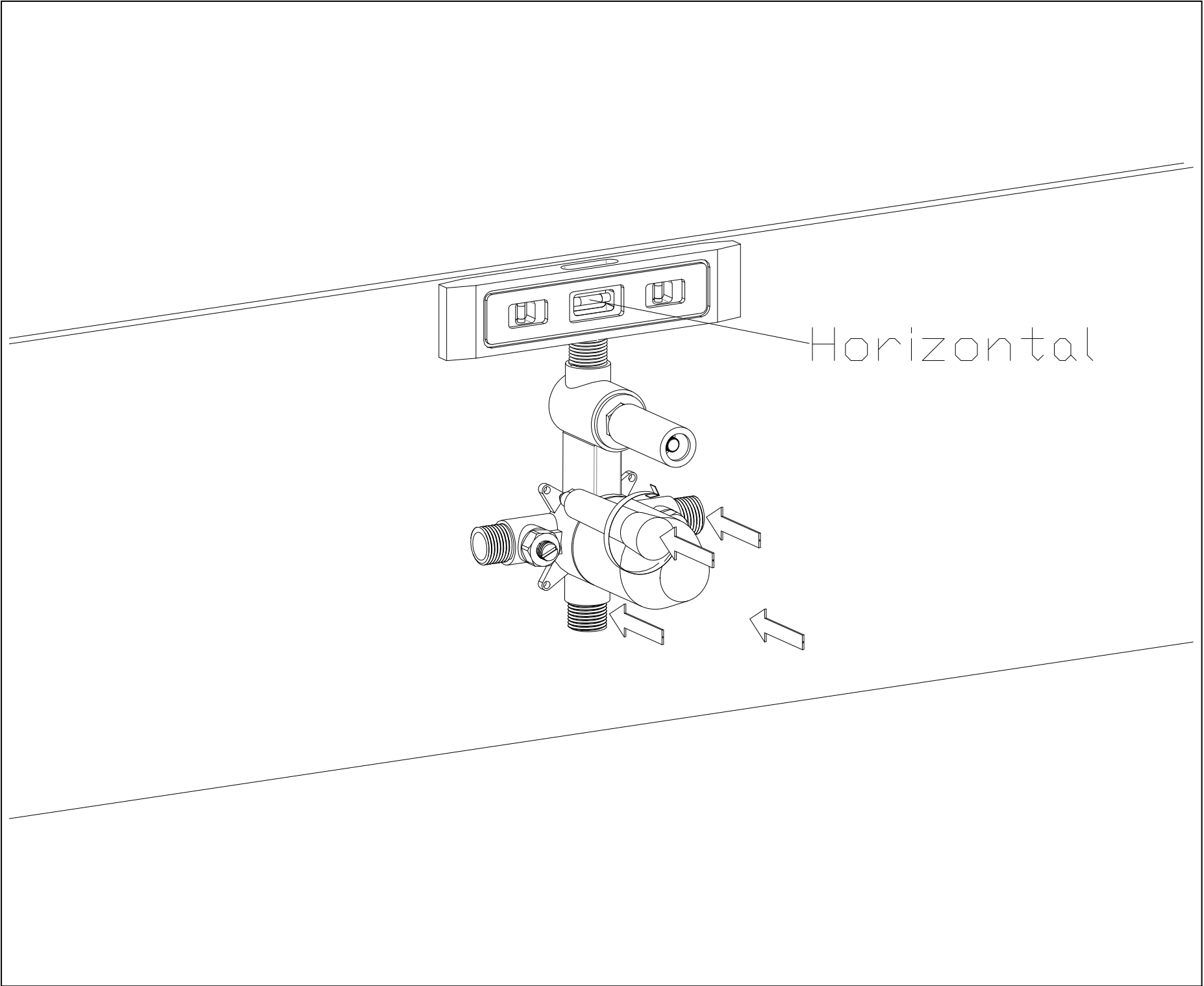


Code	Dimensions - Inch	Dimensions - mm
A	2-5/32"	55
B	2-15/16"	75

4.2 Turn on the shut-off valves to flush the hot and cold water supply pipes before connecting to the valve body. Allow the water to flush for 3 to 5 minutes to remove dirt and debris, and then shut off the water supply again.



4.3 Locate and level the valve assembly with an air level. Mark the mounting hole of the rough-in valve on the mounting bracket.

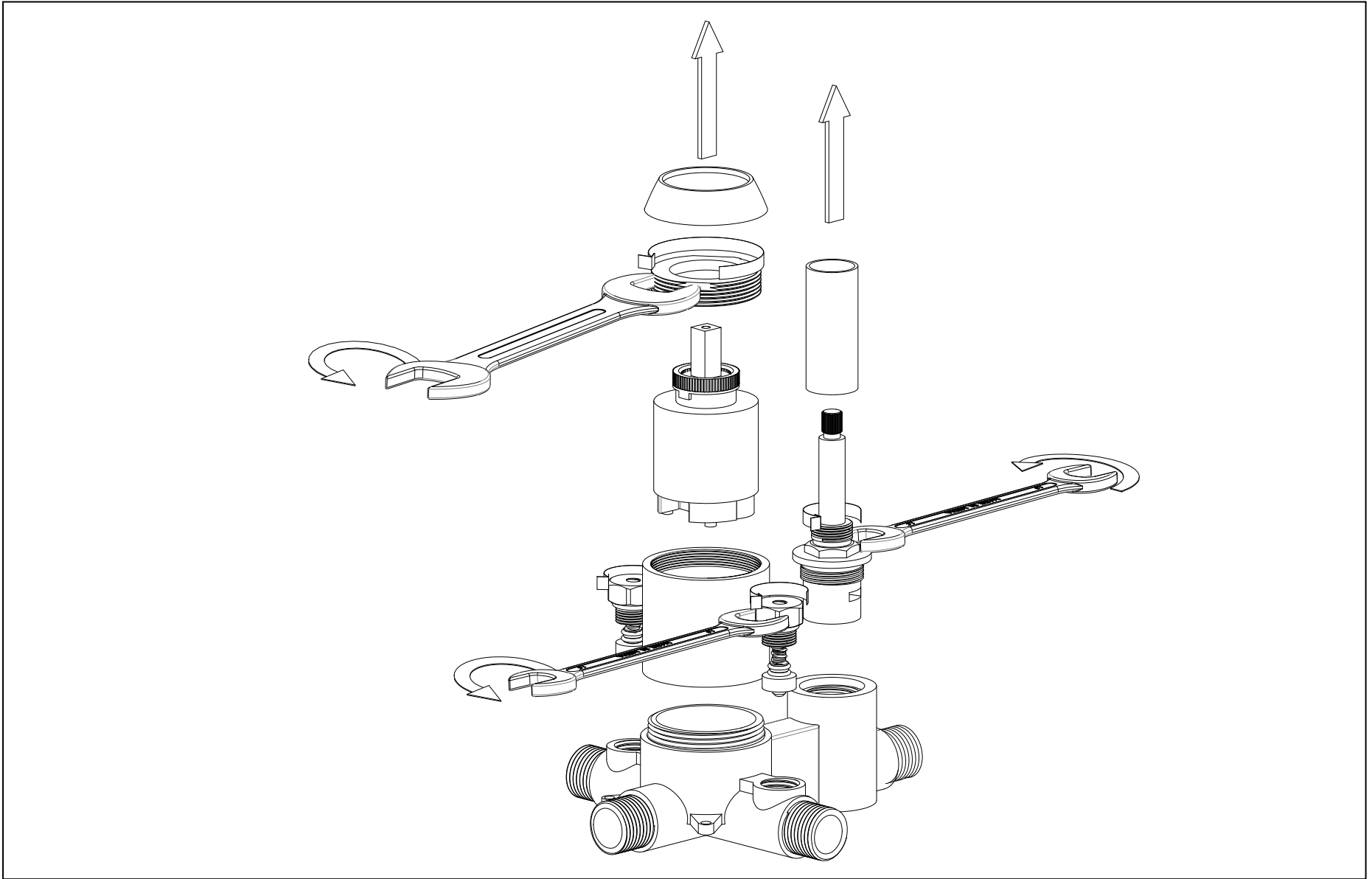


4.4 Connect the valve body to the water supplies using the proper fittings for your valve body type (copper tubing, iron pipe, or PEX).

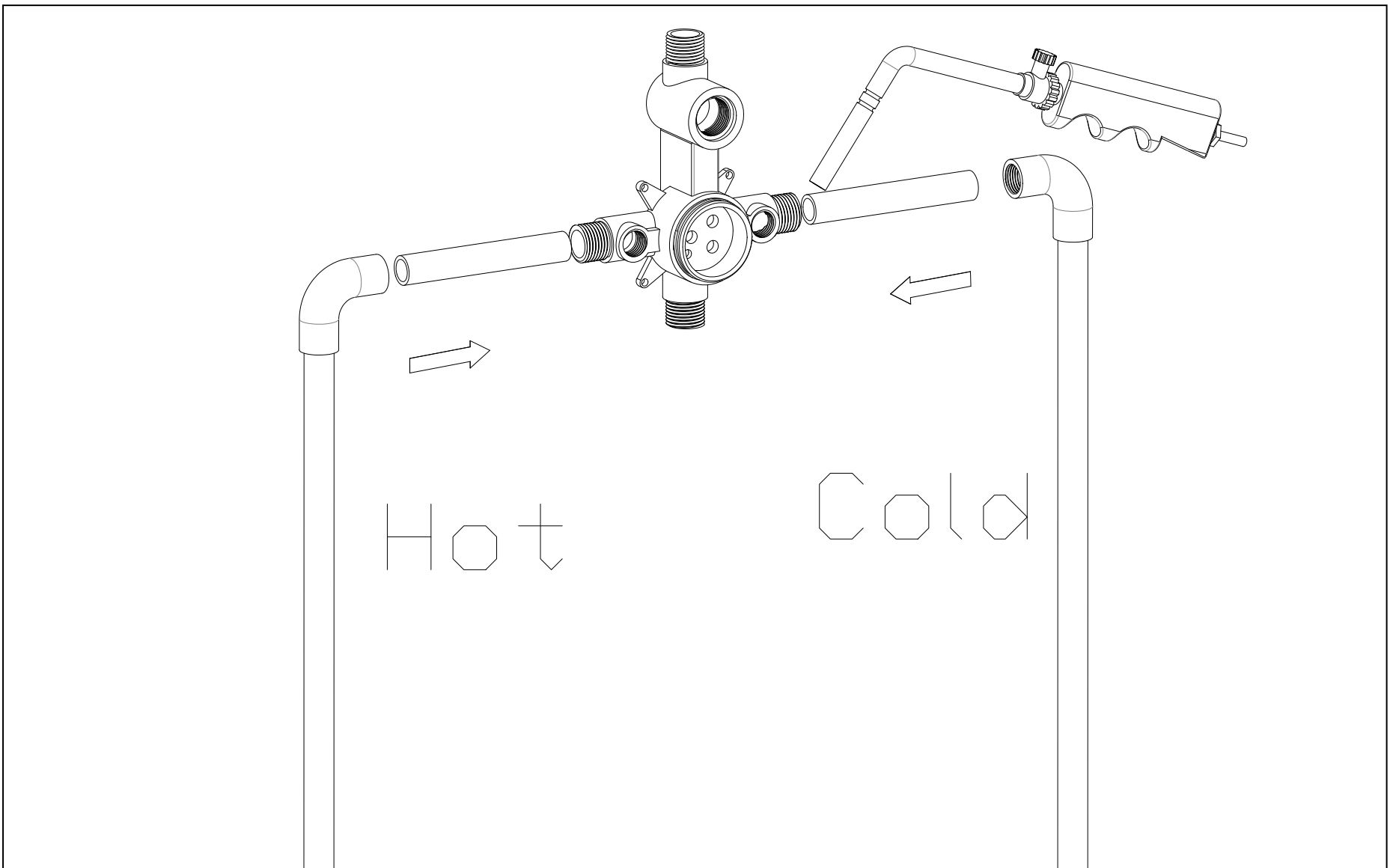
Note: For PEX, be sure to use the correct crimp fittings and the proper cold expansion tool.

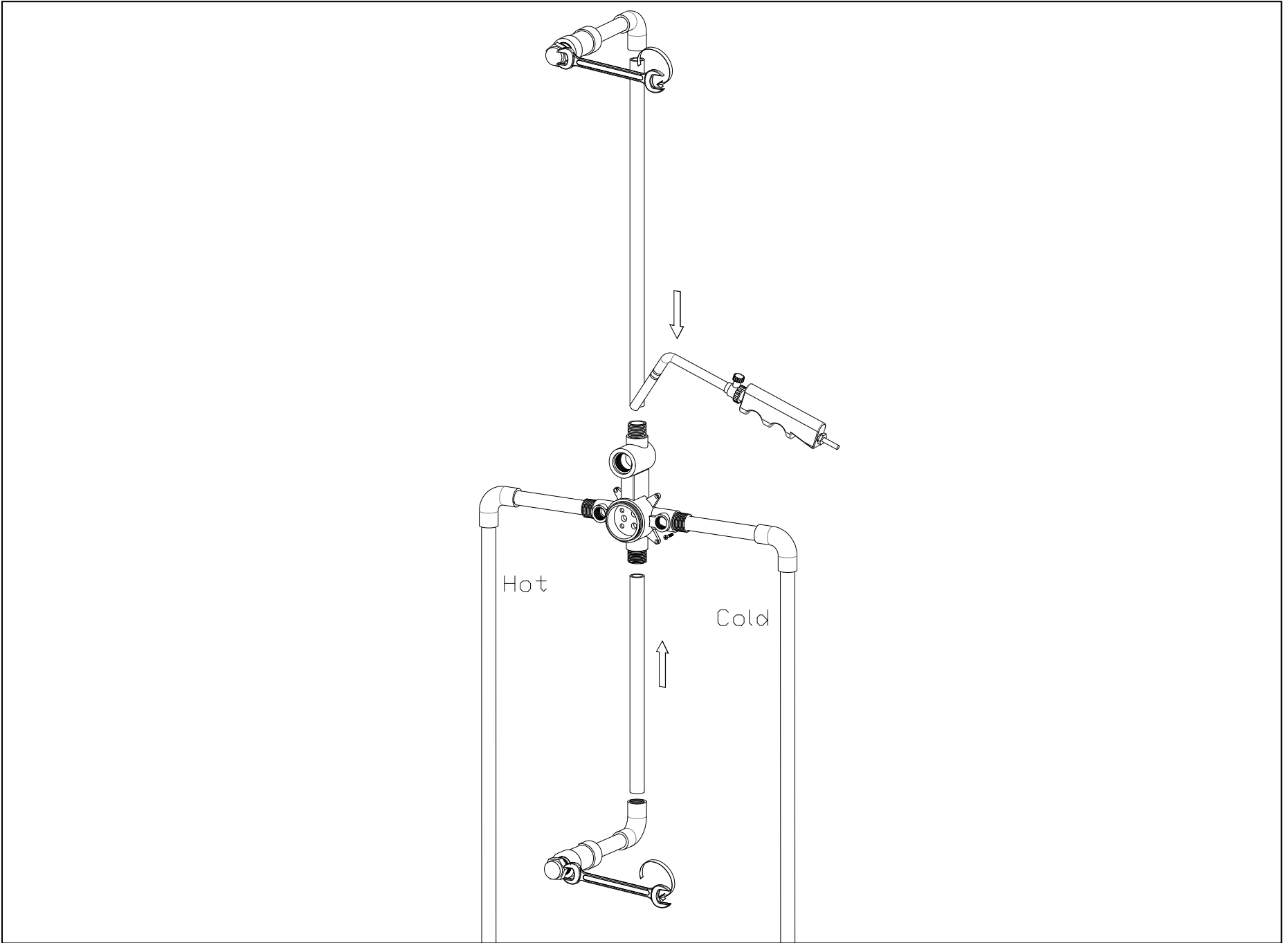
Copper tubing is used as an example below:

4.4.1(a) Remove the cartridge, check valve, and pressure reducing valve from the valve body before soldering.

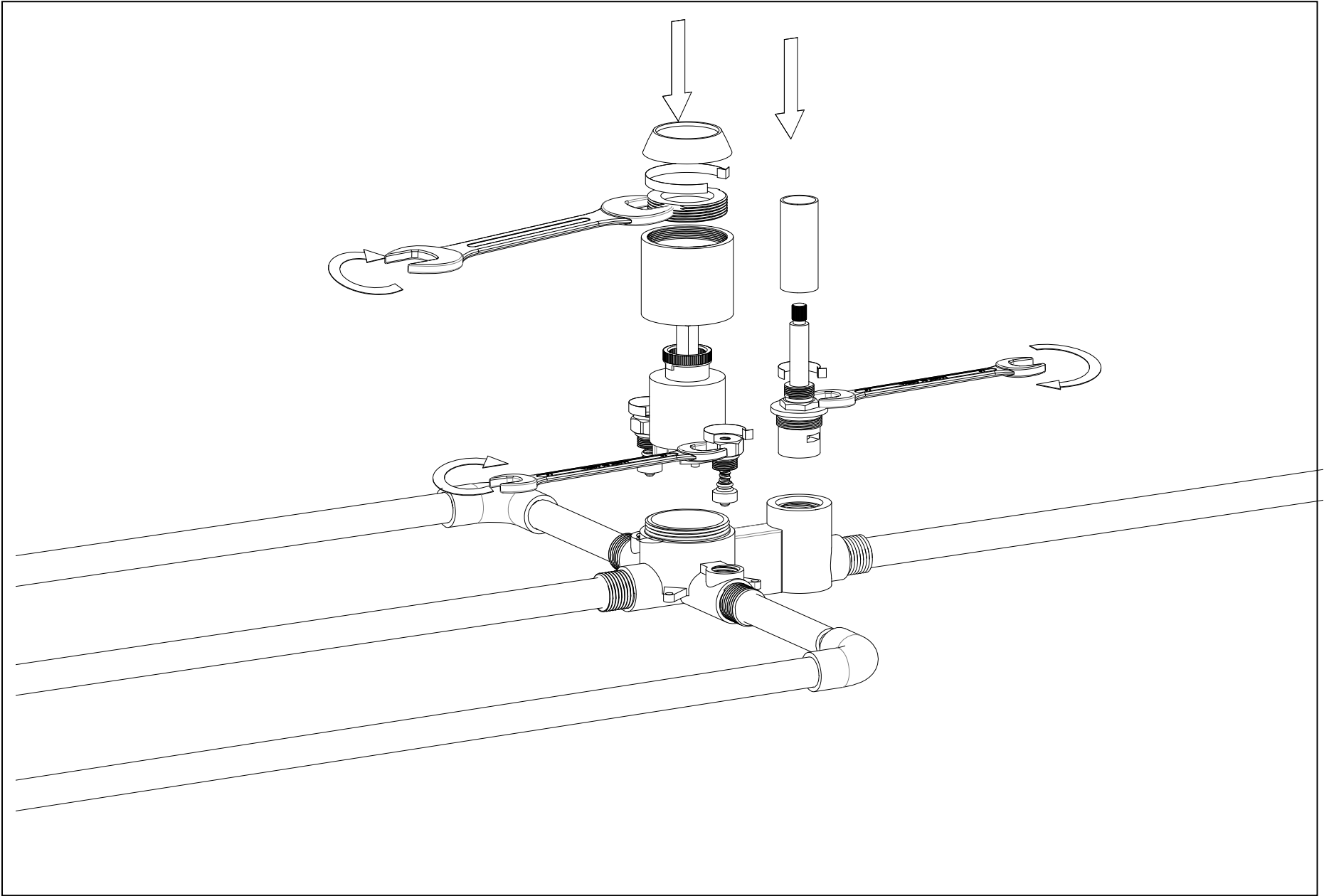


4.4.2(a) Solder the copper tubes to the hot and cold water inlets and the top shower outlet of the valve body.

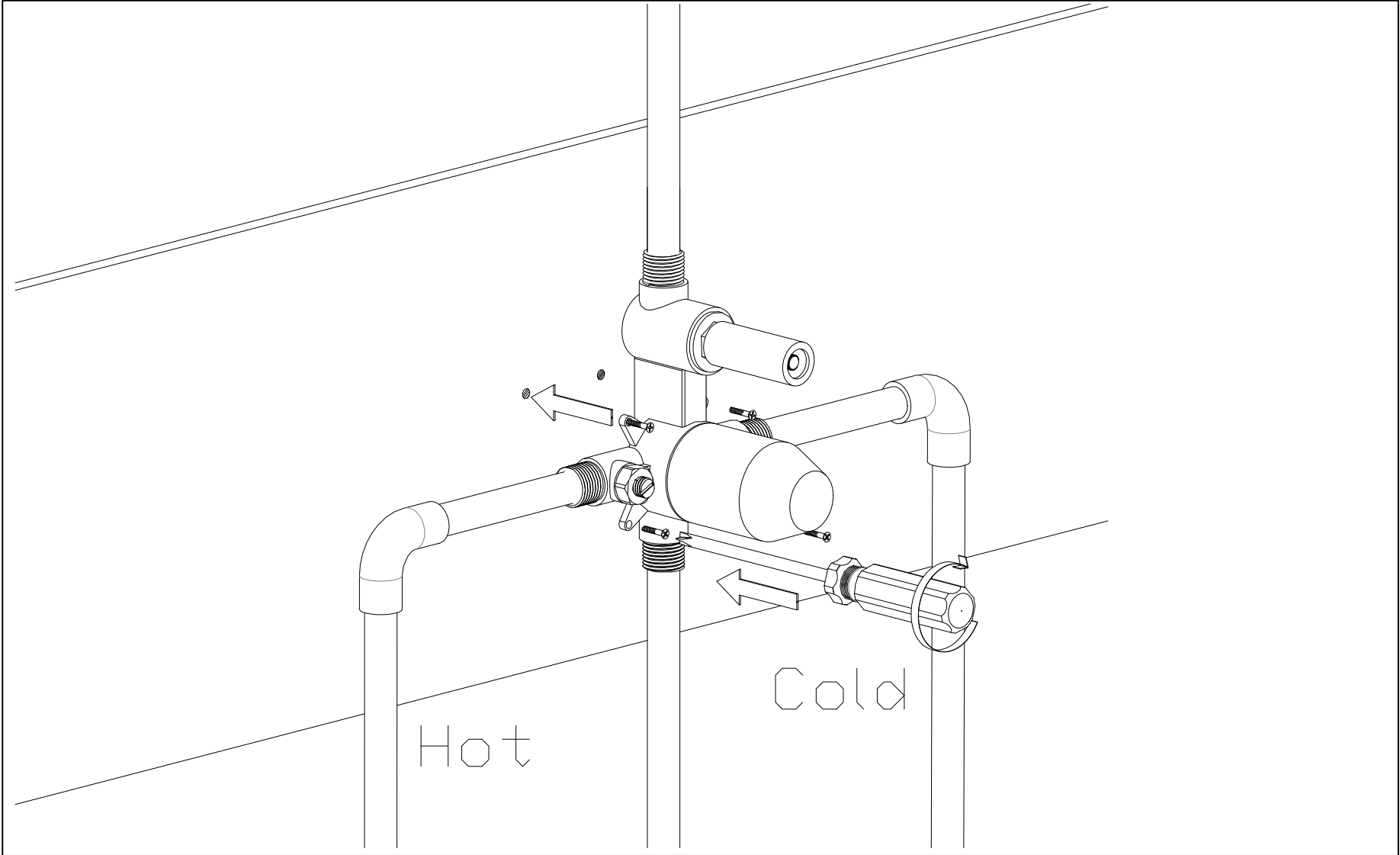




4.4.3(a) Reassemble the rough-in valve.

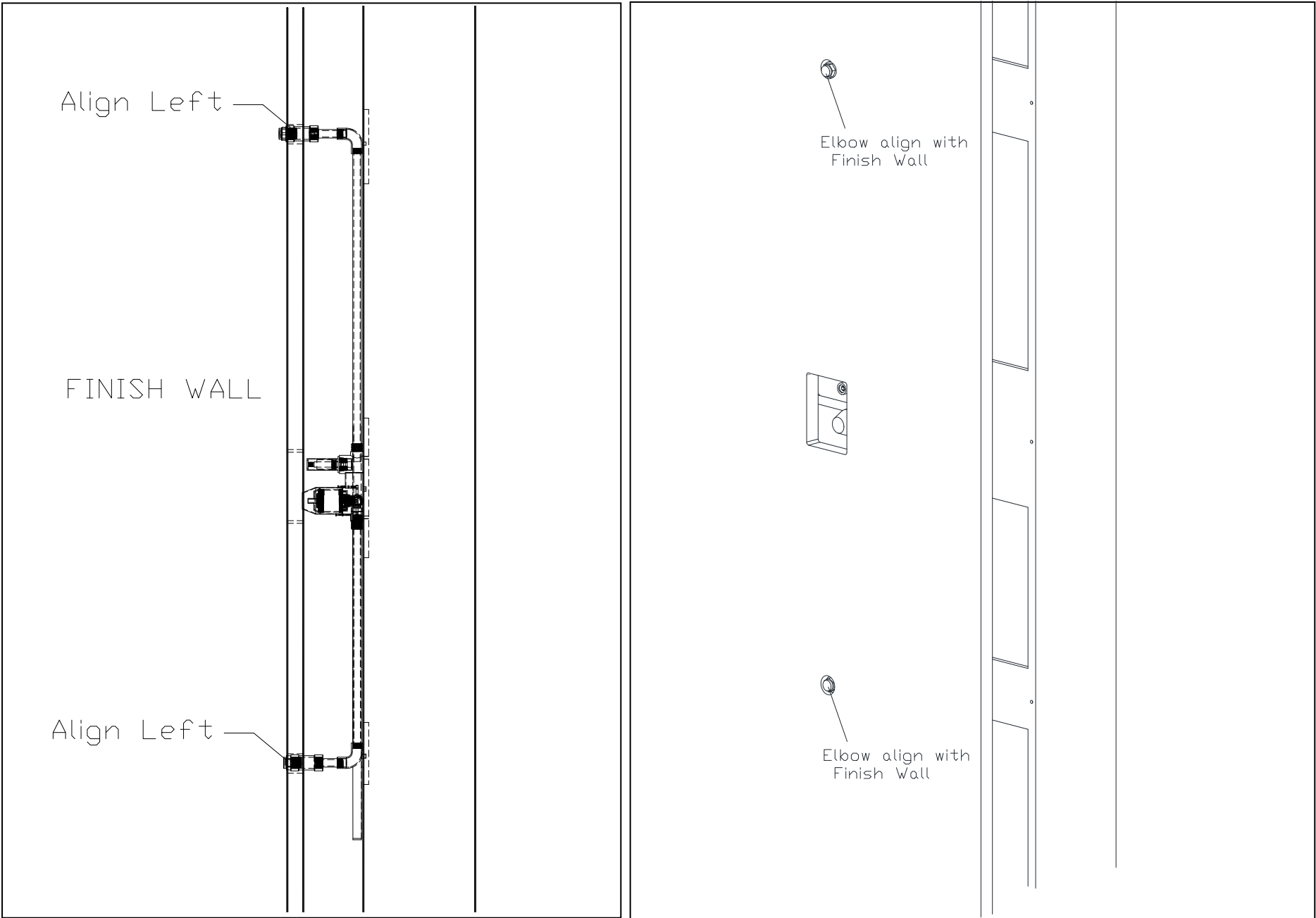


4.4.4(a) Locate and level the valve assembly and secure it to the mounting bracket using screws and anchors.

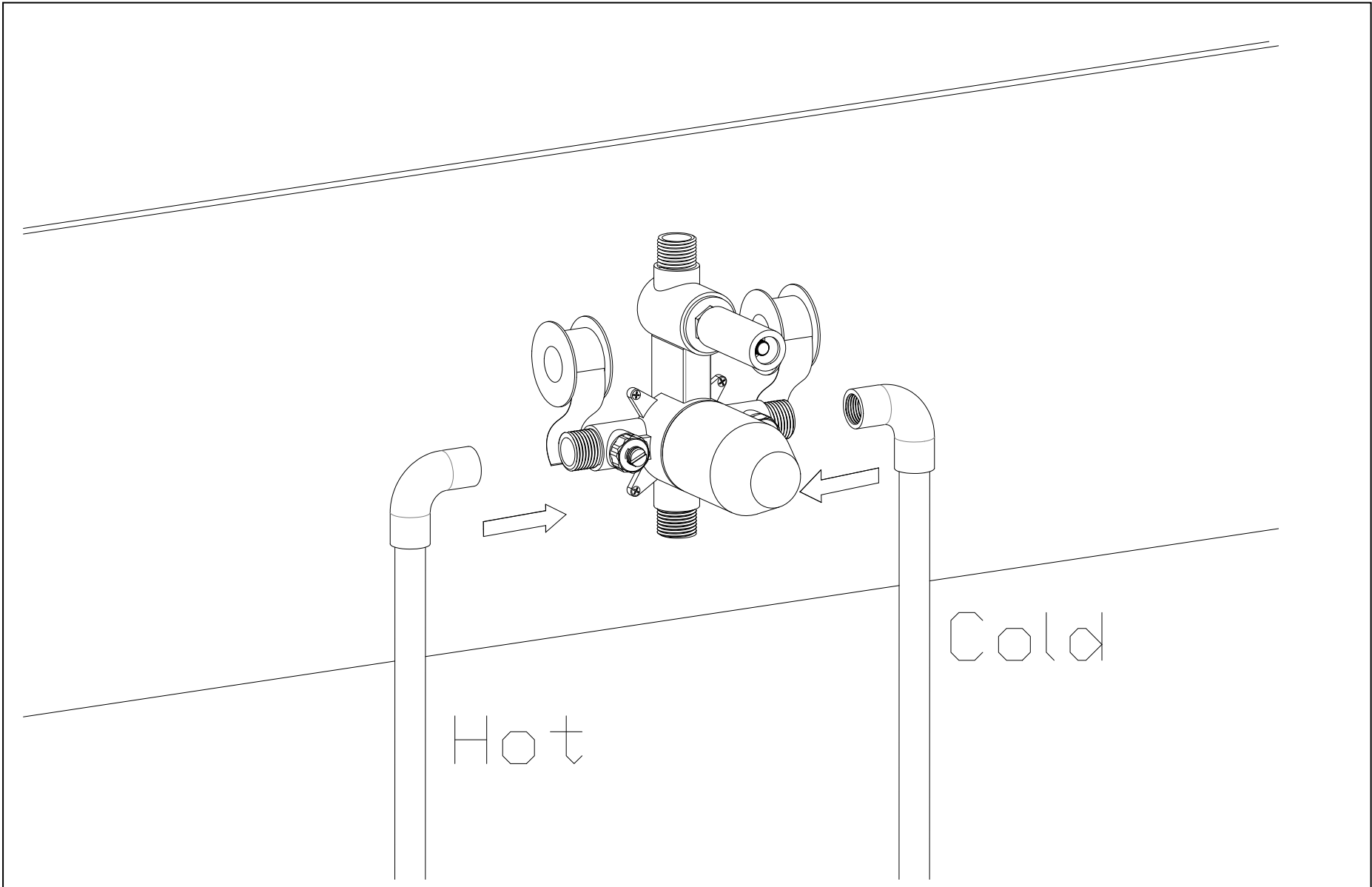


Please align the front of the elbow with the finished wall.

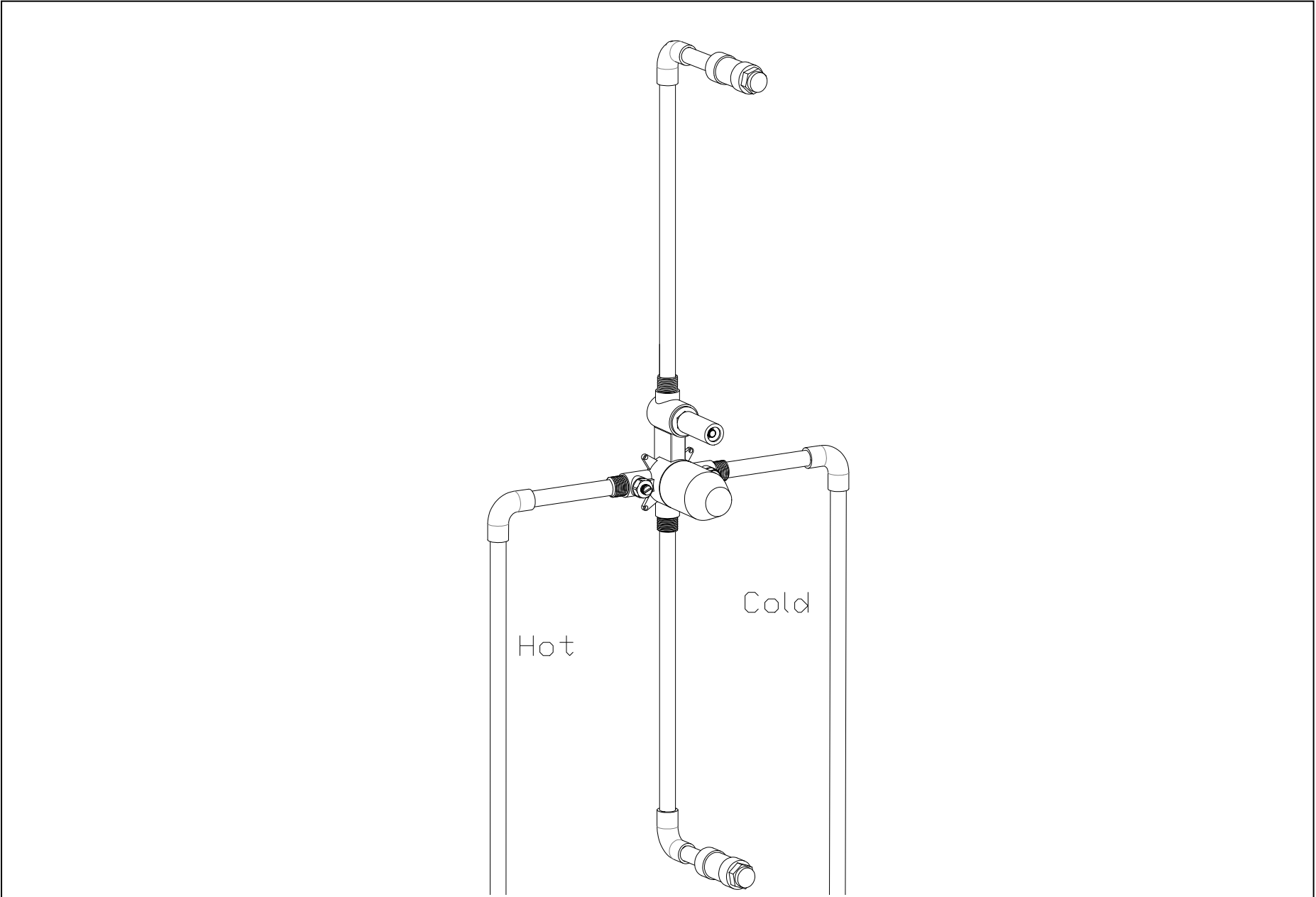
 Improper installation depth of the elbow can result in leaks at the connector or the need for custom extension parts, which will incur additional costs.



4.4.5(b) If using PEX fittings or PVC fittings, skip steps 4.4.1(a) to 4.4.4(a). There is no need to disassemble the valve body. Apply Teflon tape to the threads of the valve body, and connect it to the supply pipes and shower pipe using PEX fittings. [Note: Hot water is on the left; cold water is on the right].

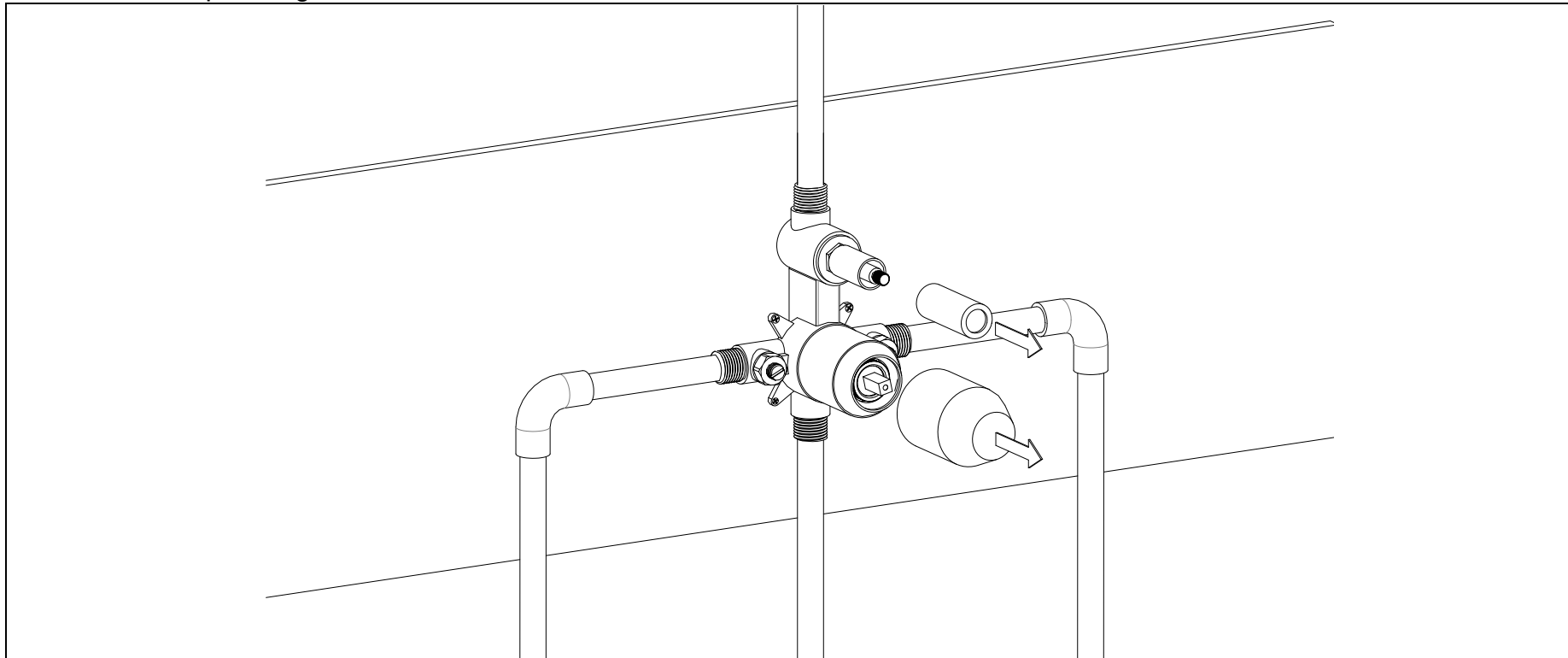


4.4.6 The installation of the rough-in valve is now complete.



5. VALVE TRIM INSTALLATION

5.1 Remove the plaster guard covers and check all connections for leaks.



5.2 Pressure testing & flushing the installation.

Use appropriate fittings to plug the outlets and check for leaks. After testing, remove the shower plug and flush the system again. Reinstall the plaster guard covers after flushing. Set the check valve to full open position.

Note: Use a flathead screwdriver to adjust the stem clockwise to close and counterclockwise to open.

(a.) Water Pressure Testing Standards

Test Pressure:

- The test pressure shall be 1.5 times the working pressure of the piping system, but not less than 60 PSI (pounds per square inch).
- If the design working pressure of the piping system is less than 60 PSI, the test pressure shall be 60 PSI.
- Recommended test pressure: 100 PSI to 120 PSI (approximately 6.9 to 8.2 bar).

Test Duration:

- The test duration is typically 15 minutes.
- During the test, the pressure should remain stable with no significant drop.

Testing Method:

1. Seal the piping system, ensuring all openings (e.g., faucets, valves) are closed.
2. Use a manual pump or pressure testing equipment to pressurize the system to the specified test pressure.
3. Observe the pressure gauge to ensure the pressure remains stable during the test.
4. Inspect all connections, joints, and faucets for any signs of leakage.

Pass Criteria:

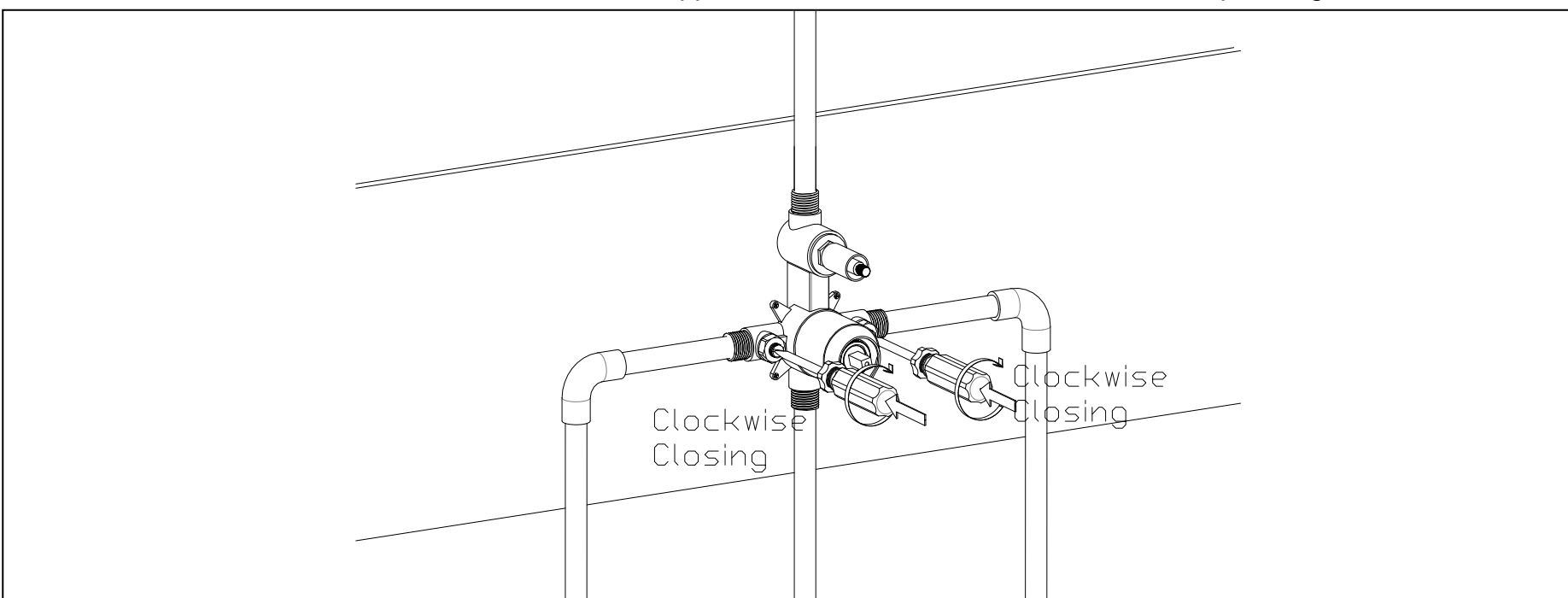
- If the pressure remains stable with no significant drop and no leakage is observed during the test, the piping system passes the test.
- If the pressure drops or leakage is detected, repair the issue and retest.

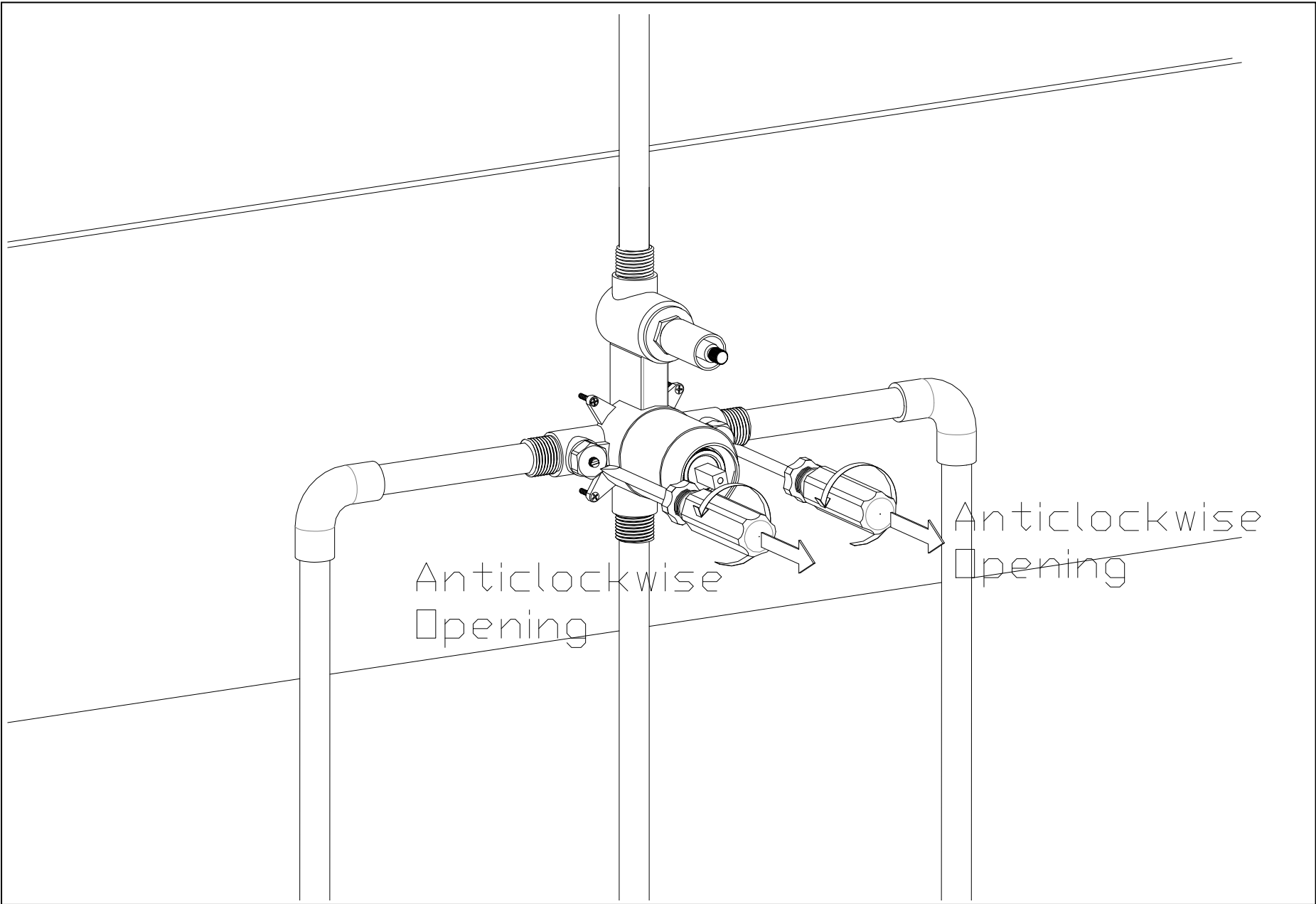
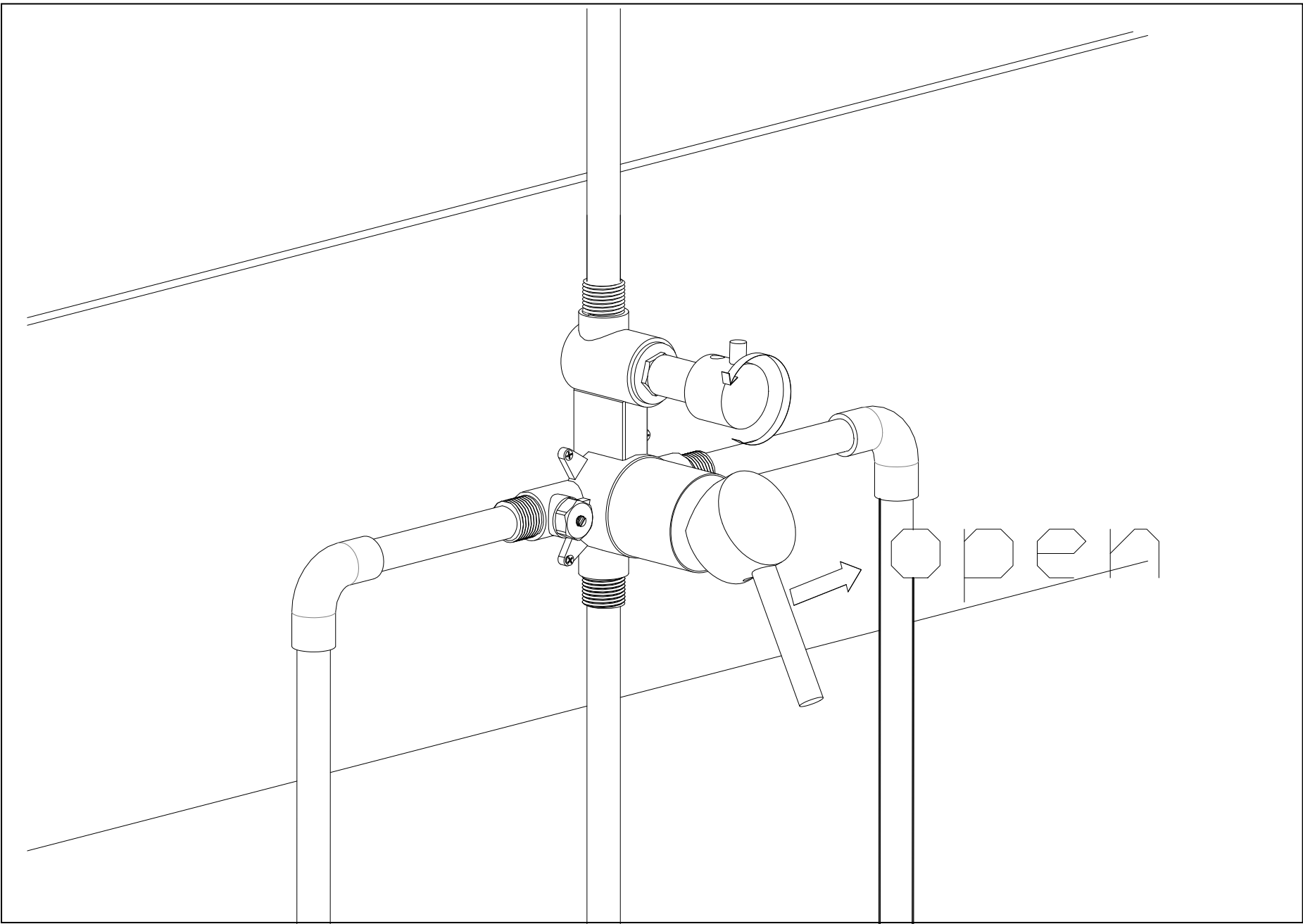


Precautions:

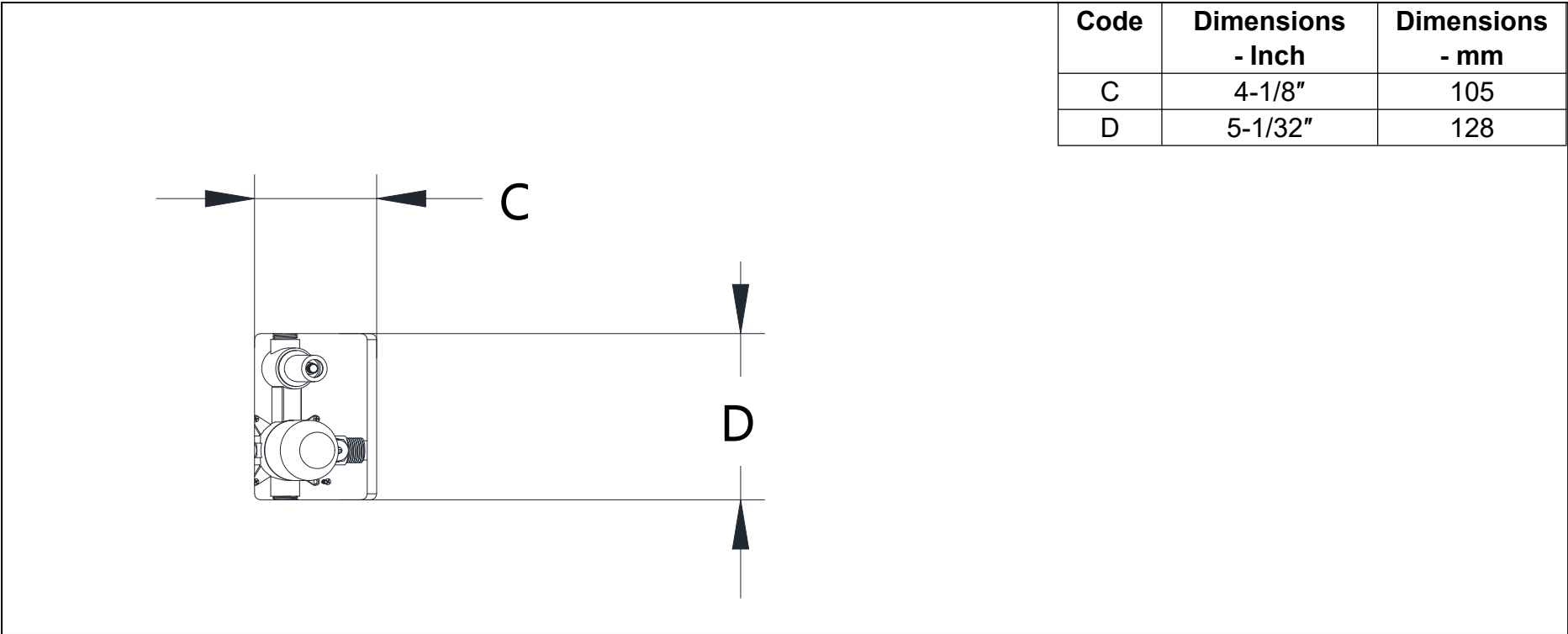
- Safety: The test pressure should not exceed the rated pressure of the pipes and fittings to avoid damage.
- Record: Record the test pressure, duration, and results for future inspection or maintenance purposes.

(b.) Leak Testing: After completing the plumbing pressure test, turn on the hot and cold water supply again and check all connections for leaks. shut off the hot and cold water supplies if no leaks are found, and reinstall the plaster guard covers.

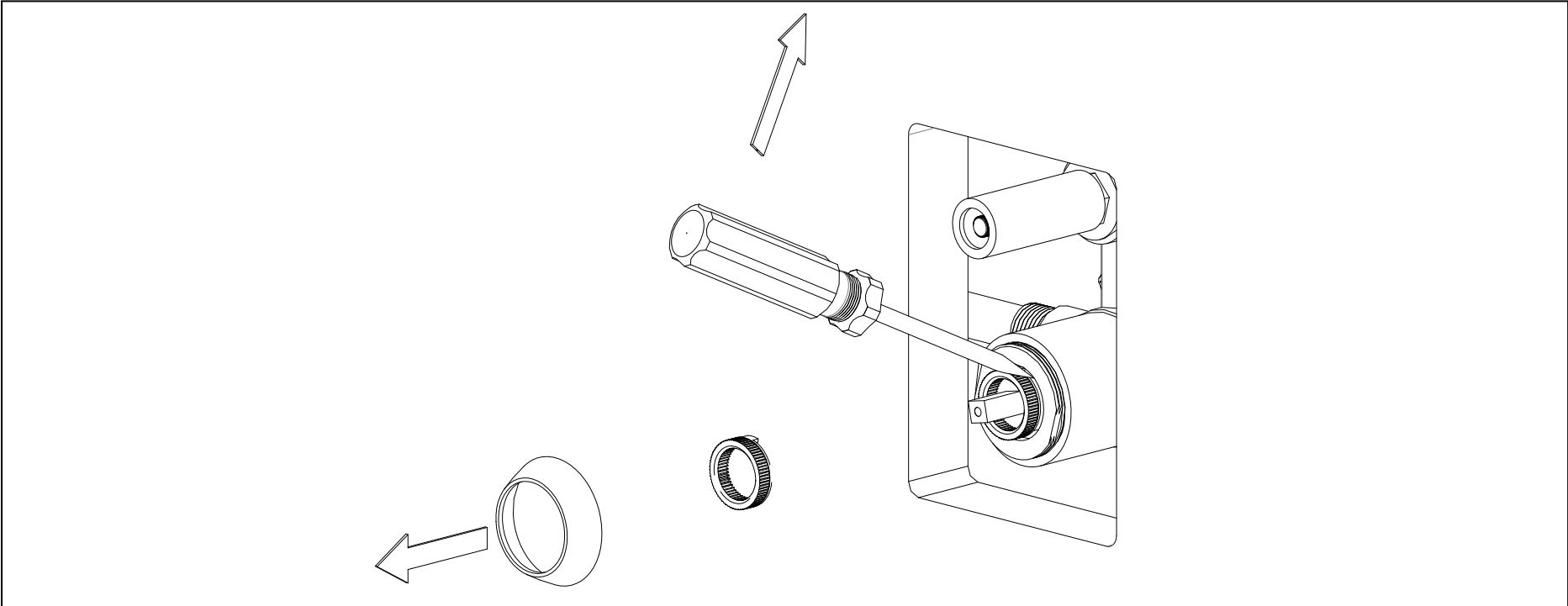




5.3 Complete the finished wall and create an access point, if necessary, to allow for future maintenance.



5.4 Remove the bonnet cap and the temperature limit ring from the valve assembly.



5.5 Turn on and adjust the cartridge to achieve the desired desired maximum shower water temperature.

Anti-scald protection: It is important to regularly test the mixing valve to prevent scalding risks and ensure user safety. This can be done as follows: Set the mixing temperature of the mixing valve to 100.4°F [38°C], isolating the cold water supply. The flow rate at the outlet will be reduced to a safe level.

Recommended Outlet Temperatures.

We recommend the following maximum mixed water outlet temperatures for use in all premises:

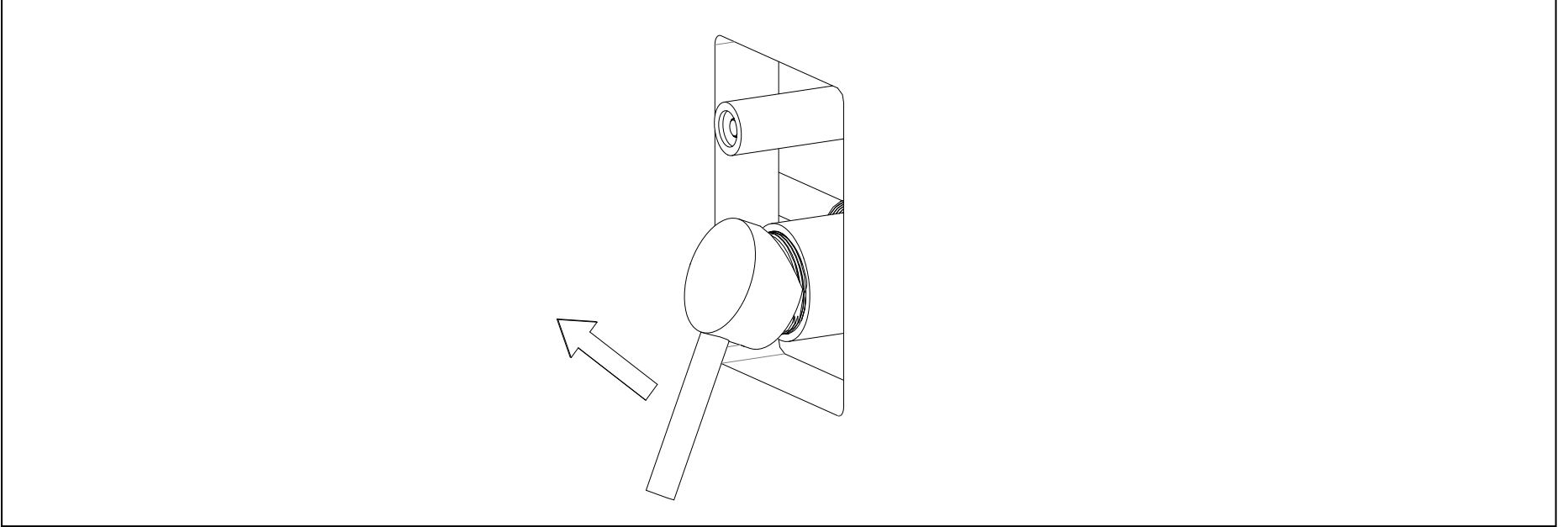
111.2°F [44°C] - for filling bathtubs, but see the note below.

105.8°F [41°C] - for showers.

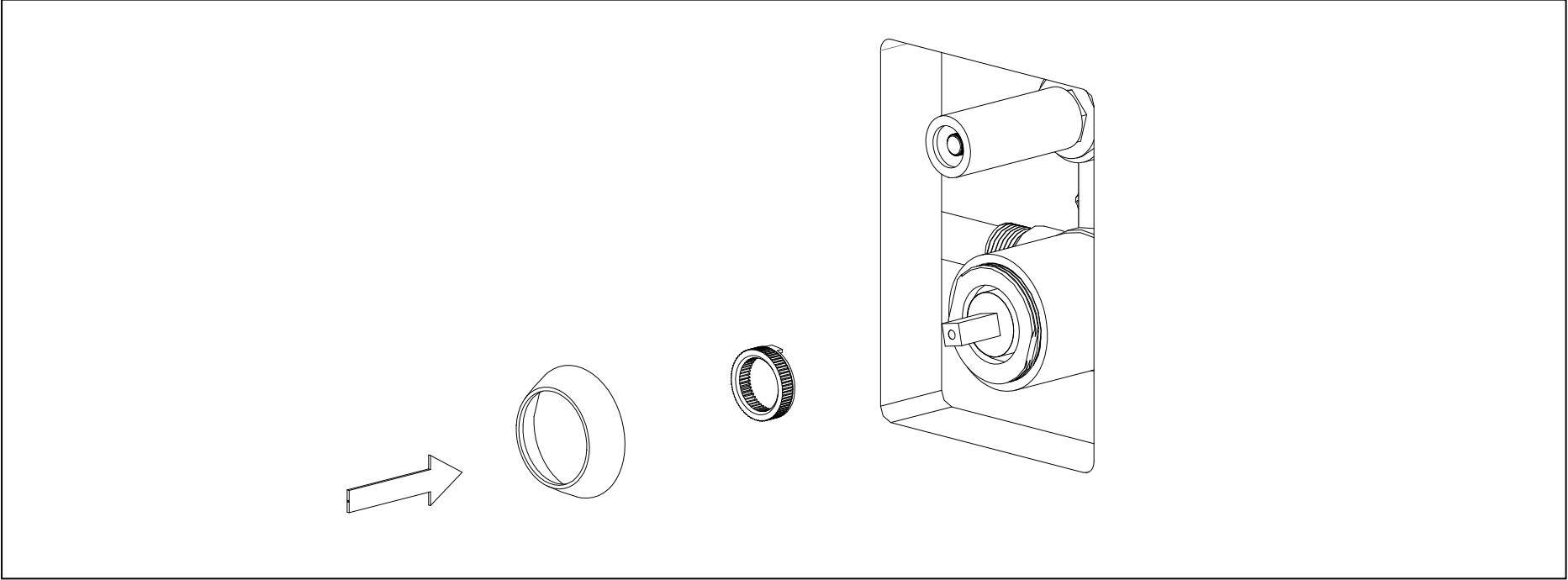
105.8°F [41°C] - for washbasins.

100.4°F [38°C] - for bidets.

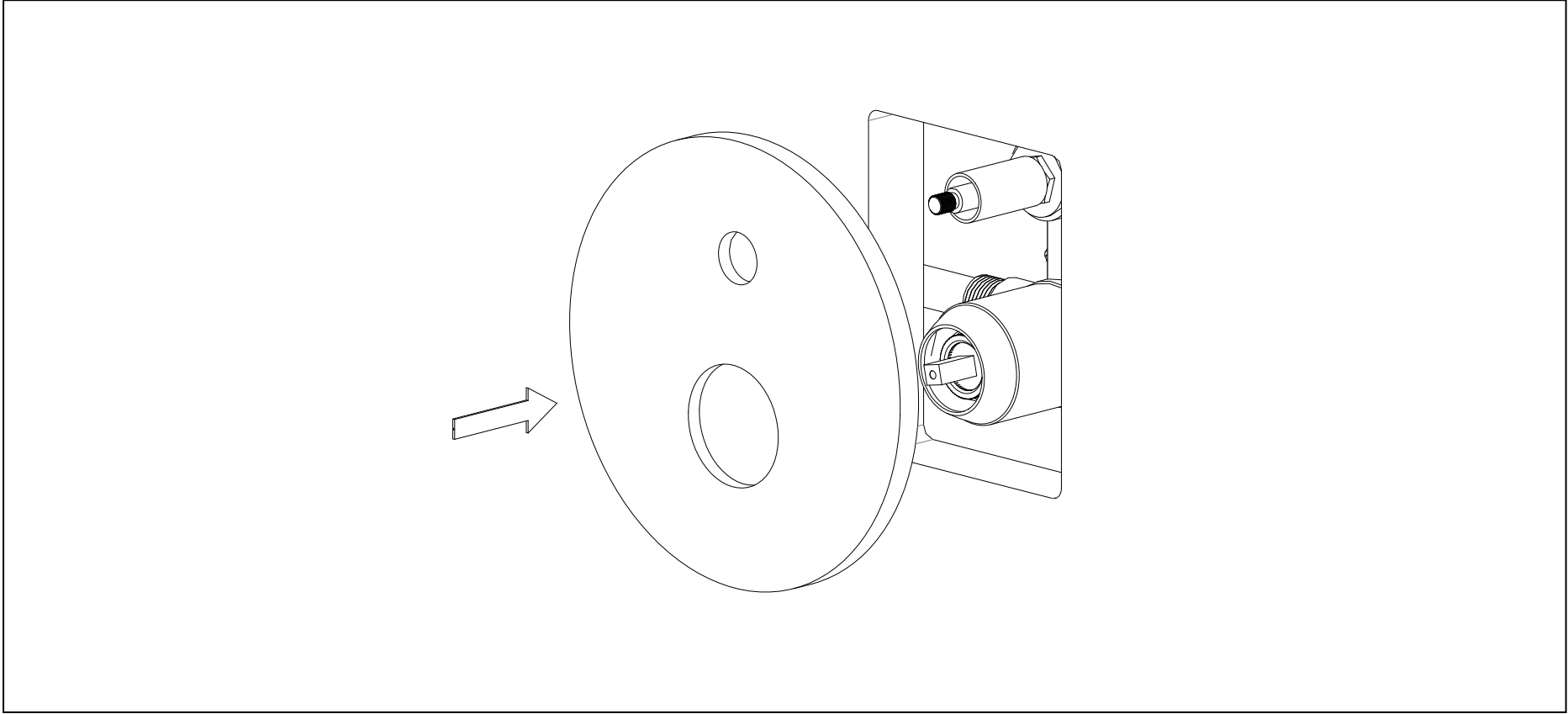
The mixed water temperatures at any terminal fitting must not exceed 114.8°F [46°C].



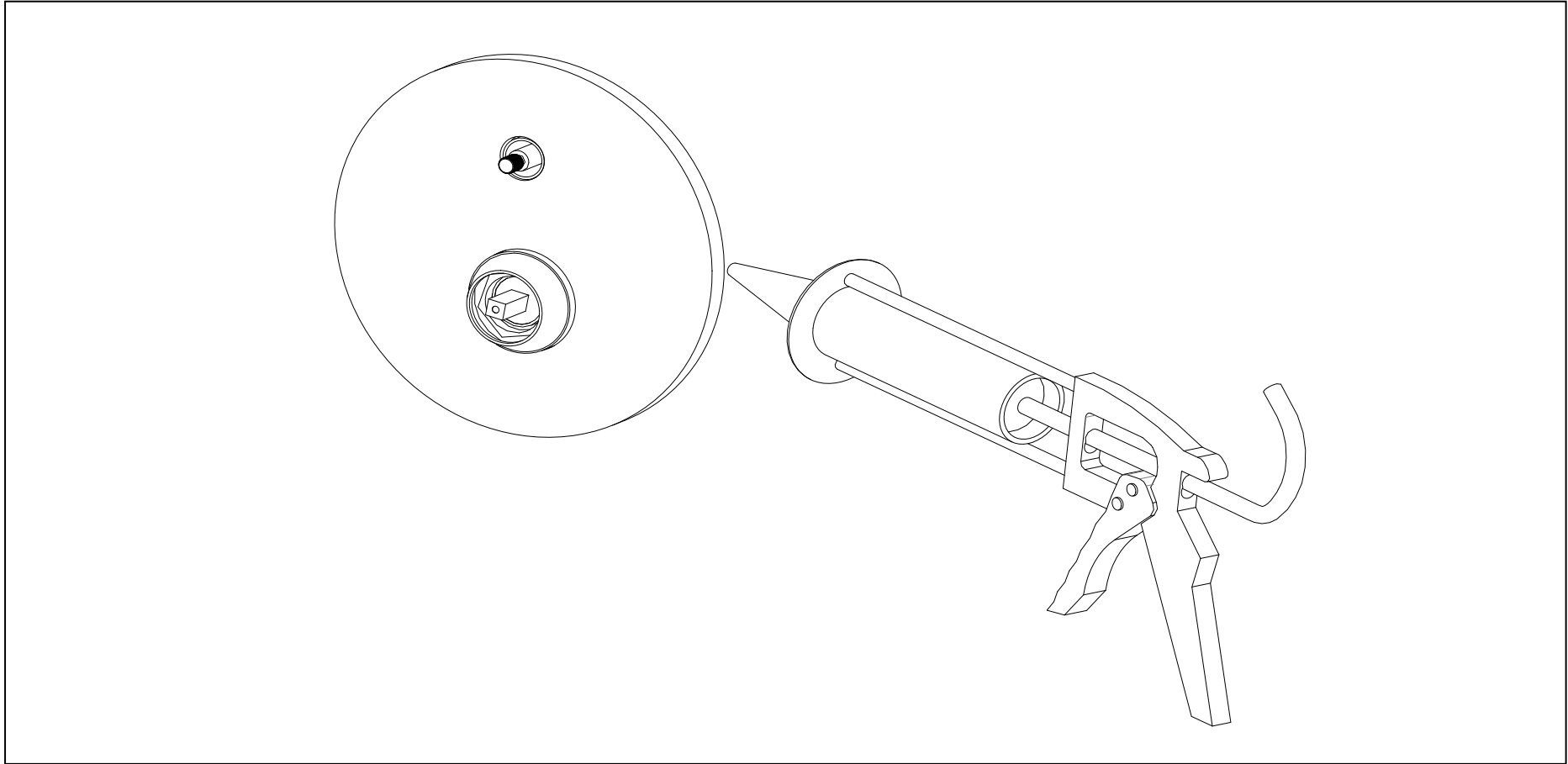
5.6 Install the temperature limit ring onto the cartridge to lock in the maximum temperature. Then, reinstall the bonnet cap onto the bonnet.



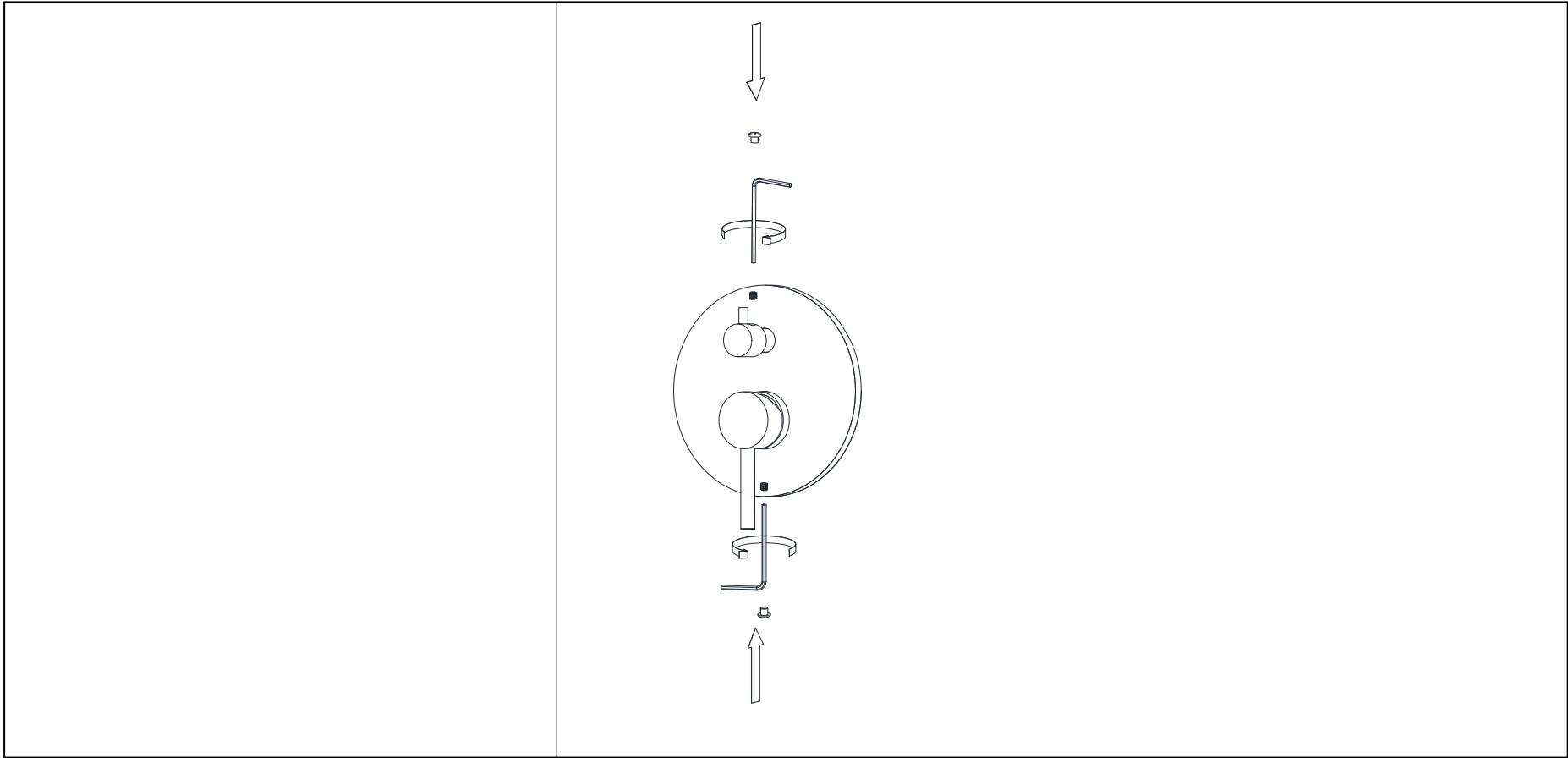
5.7 Install the escutcheon onto the valve body.



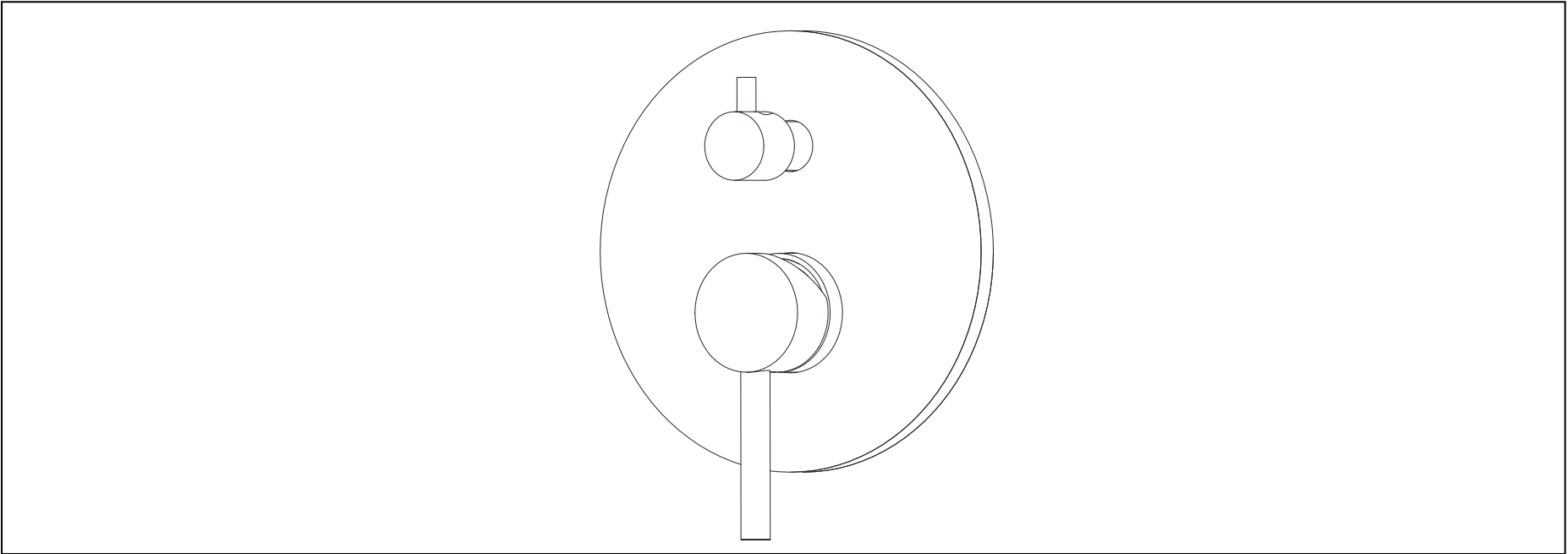
5.8 Seal the wall around the escutcheon with a waterproof sealant.



5.9 Install the handle and knob onto the valve stems, and use the provided Allen wrench to tighten the set screws. Do not over tighten.Finally, snap in the screw covers.



5.10 Valve trim installation complete.

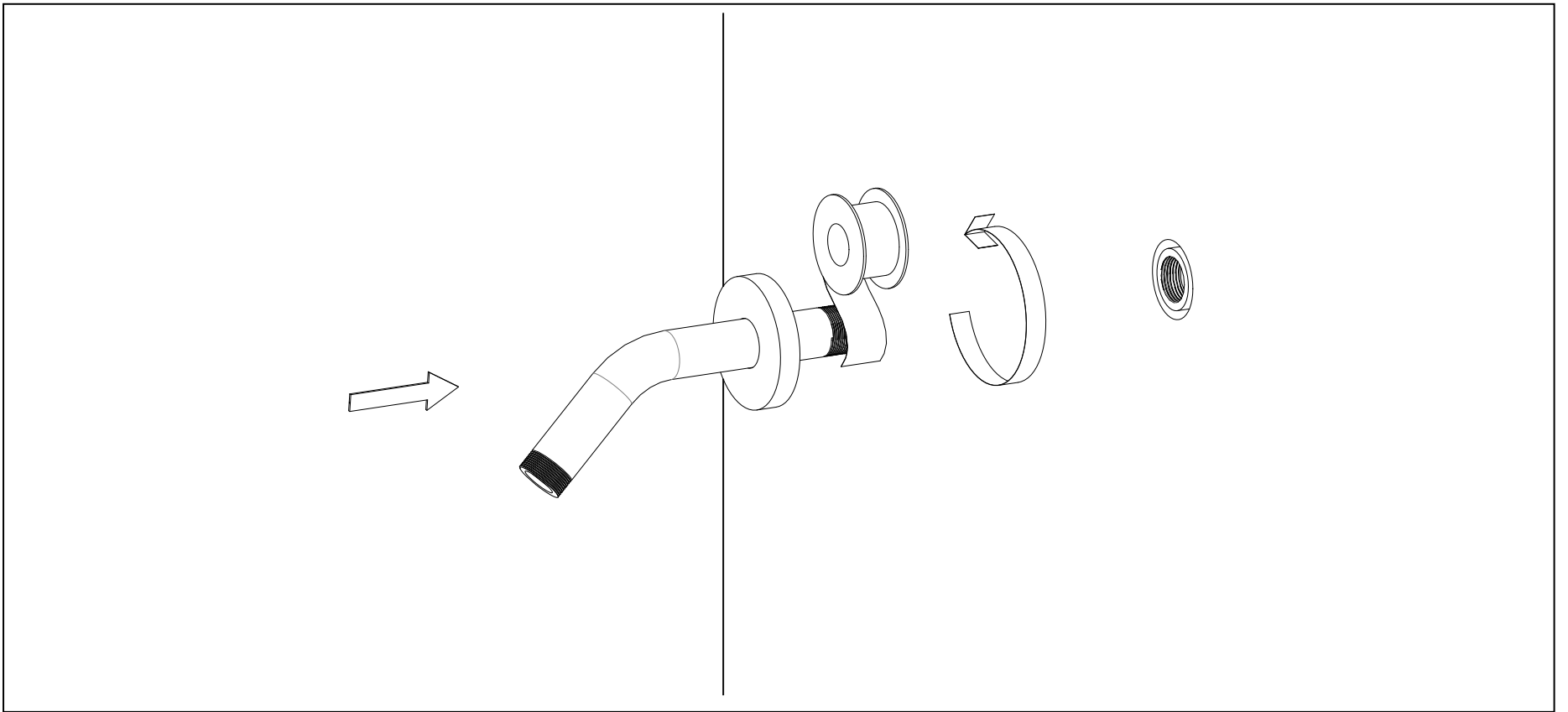


6. SHOWERHEAD INSTALLATION

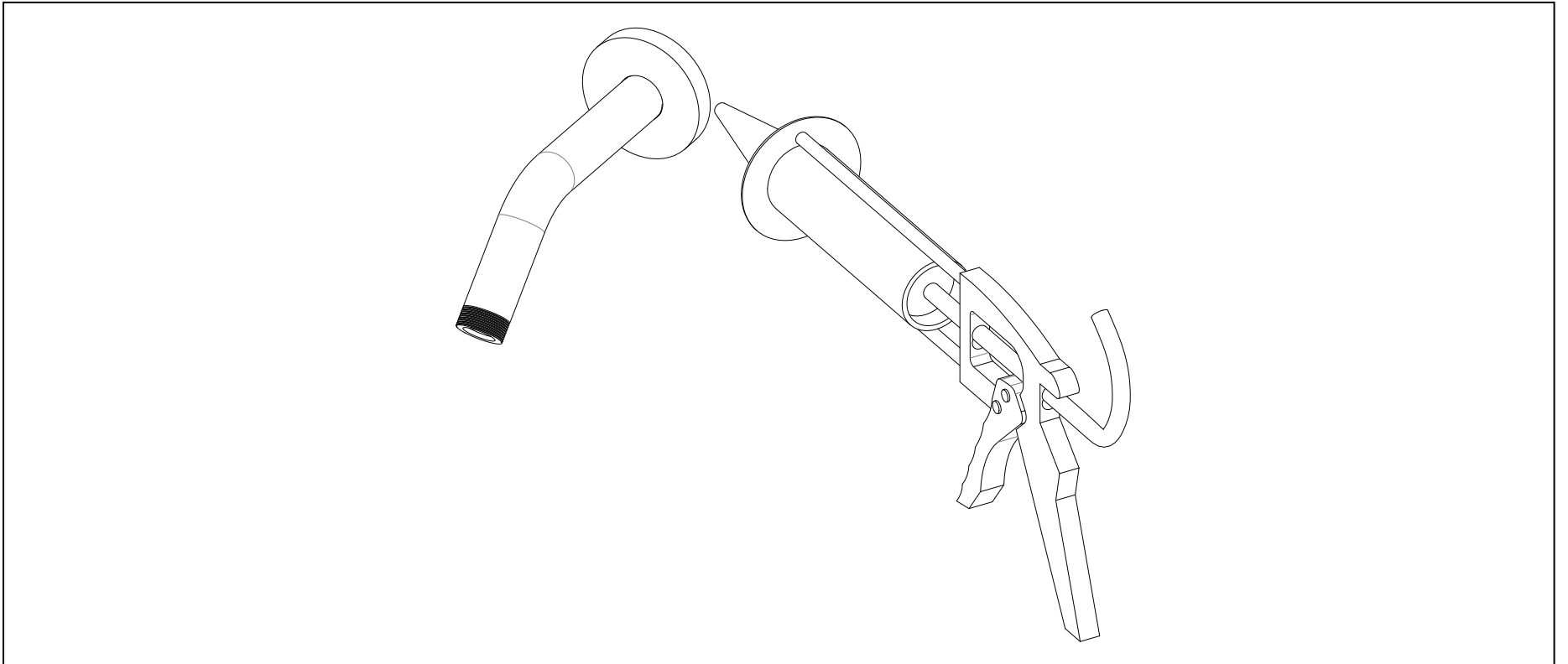
6.1 Install the shower arm escutcheon onto the shower arm and apply Teflon tape to the threads of the shower arm. Rotate clockwise to attach the shower arm to the pipe elbow inside the wall.
Standard inlet connection threads for the shower arm: NPT 1/2 (US, CA).

A technical diagram showing a shower arm with a curved section. The arm has two threaded sections labeled 'X' and 'Y'. To the right of the arm is a circular escutcheon plate. An arrow points from the escutcheon towards the 'Y' section of the shower arm, indicating that it should be slid onto the arm's threads.

Region	Code	Specifications
US	X	G1/2"
Europe	X	G1/2"
UK&Other	X	G1/2"
US	Y	NPT 1/2"
Europe	Y	G1/2"
UK&Other	Y	G1/2"



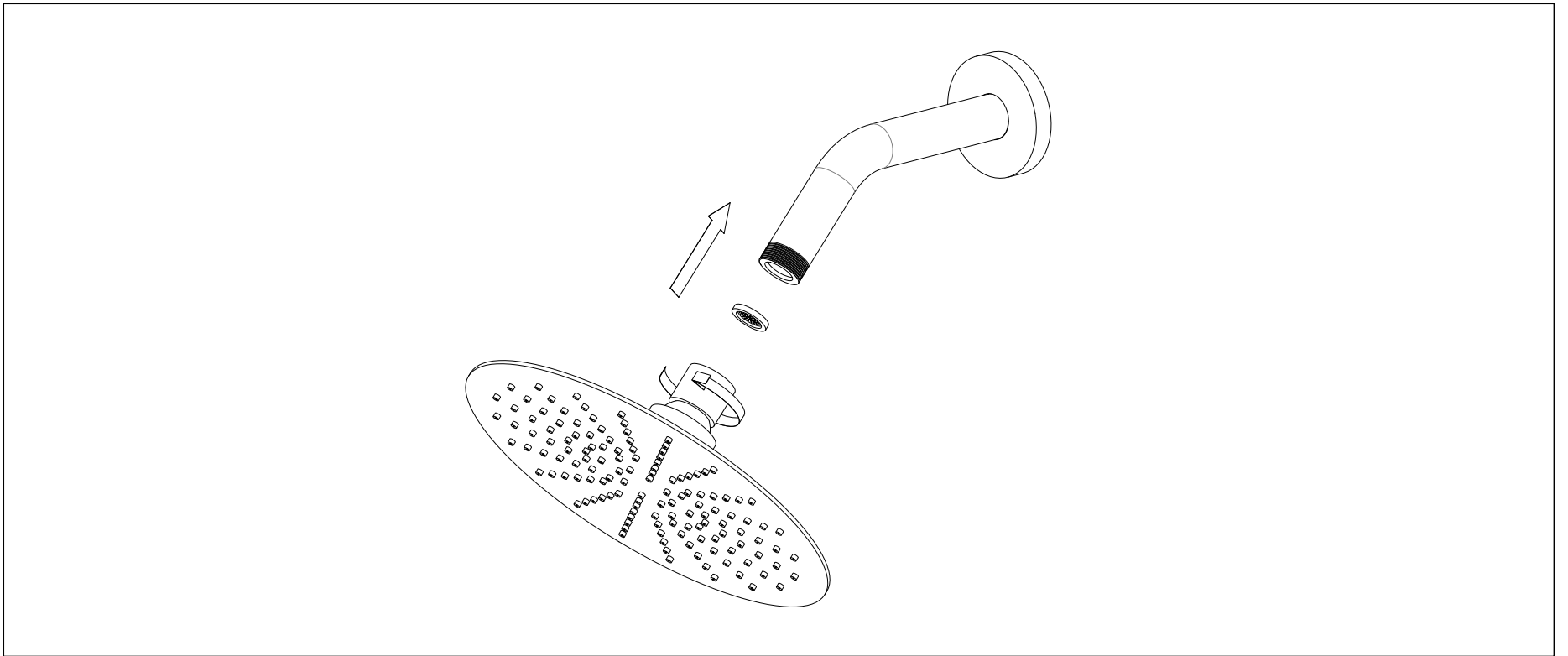
6.2 Seal the wall around the shower arm escutcheon with a waterproof sealant.

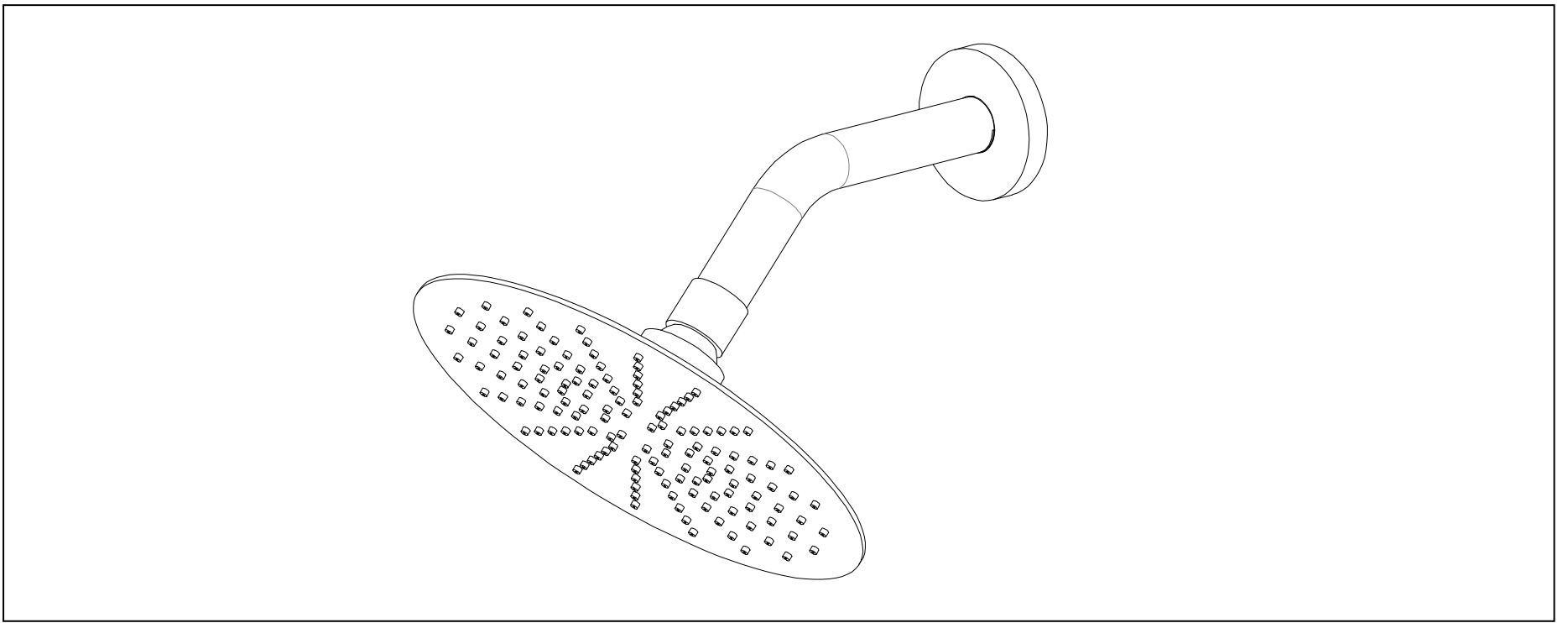


6.3 Place the screen washer into the connection of the shower head and manually rotate clockwise to secure the shower head onto the shower arm.



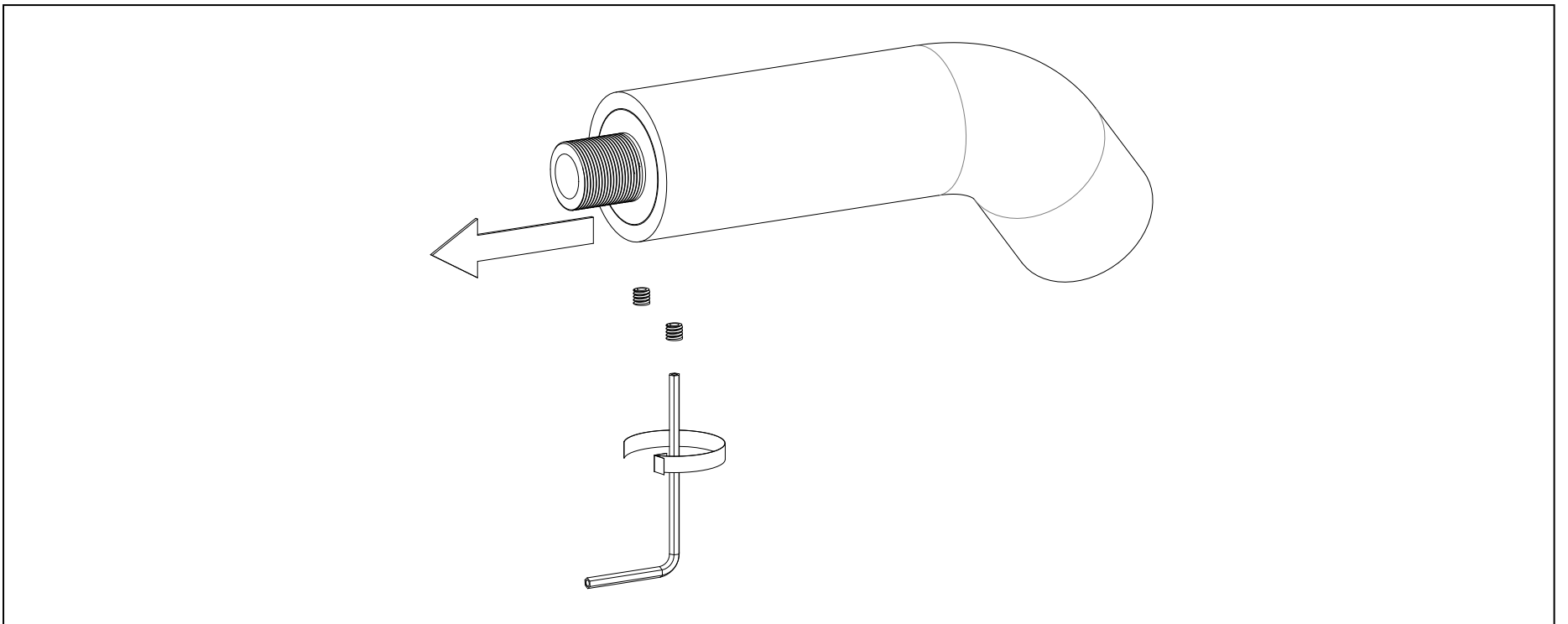
Lack of the screen washer may result in improper operation of the shower.



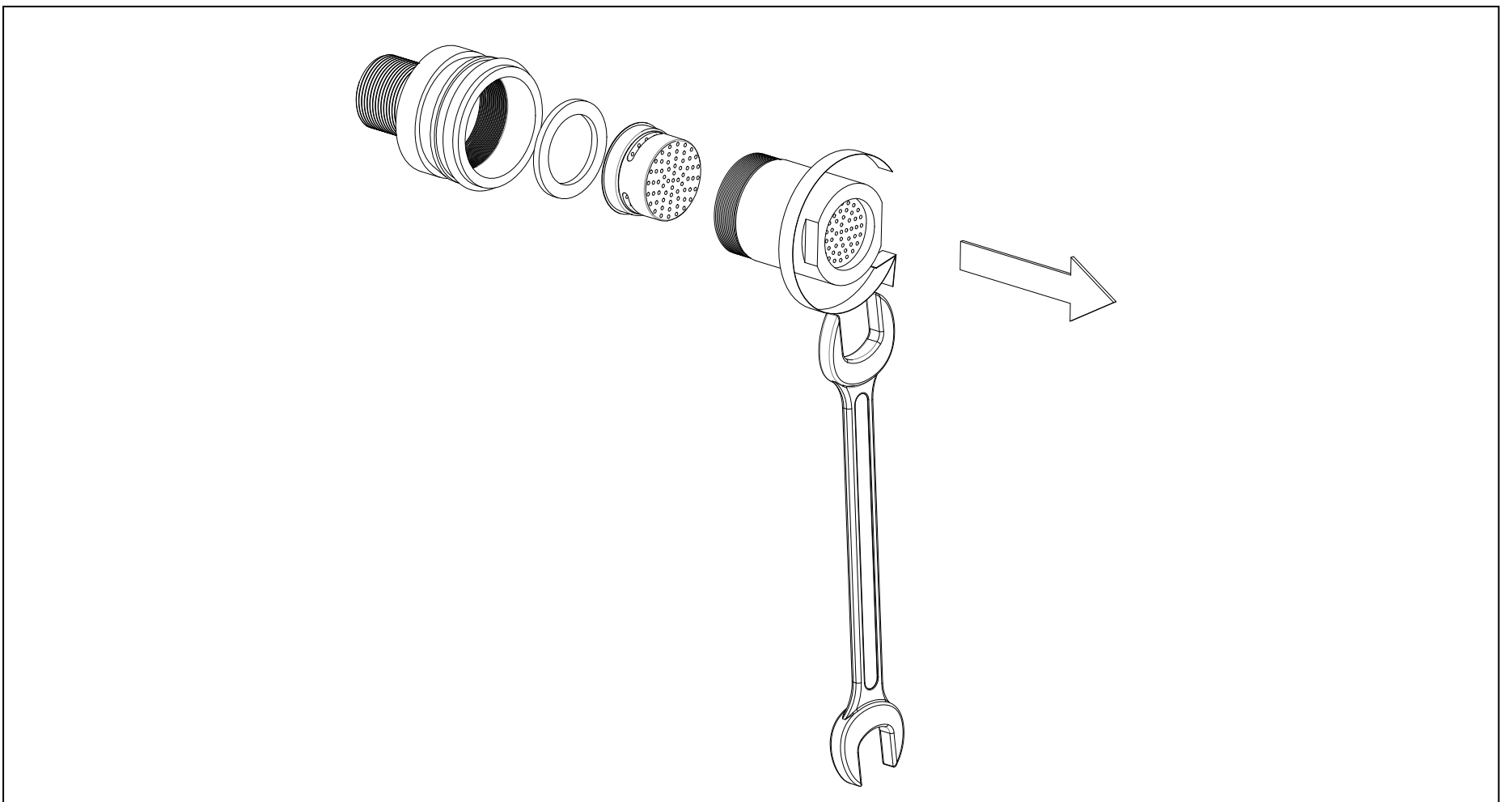


7. TUB SPOUT INSTALLATION

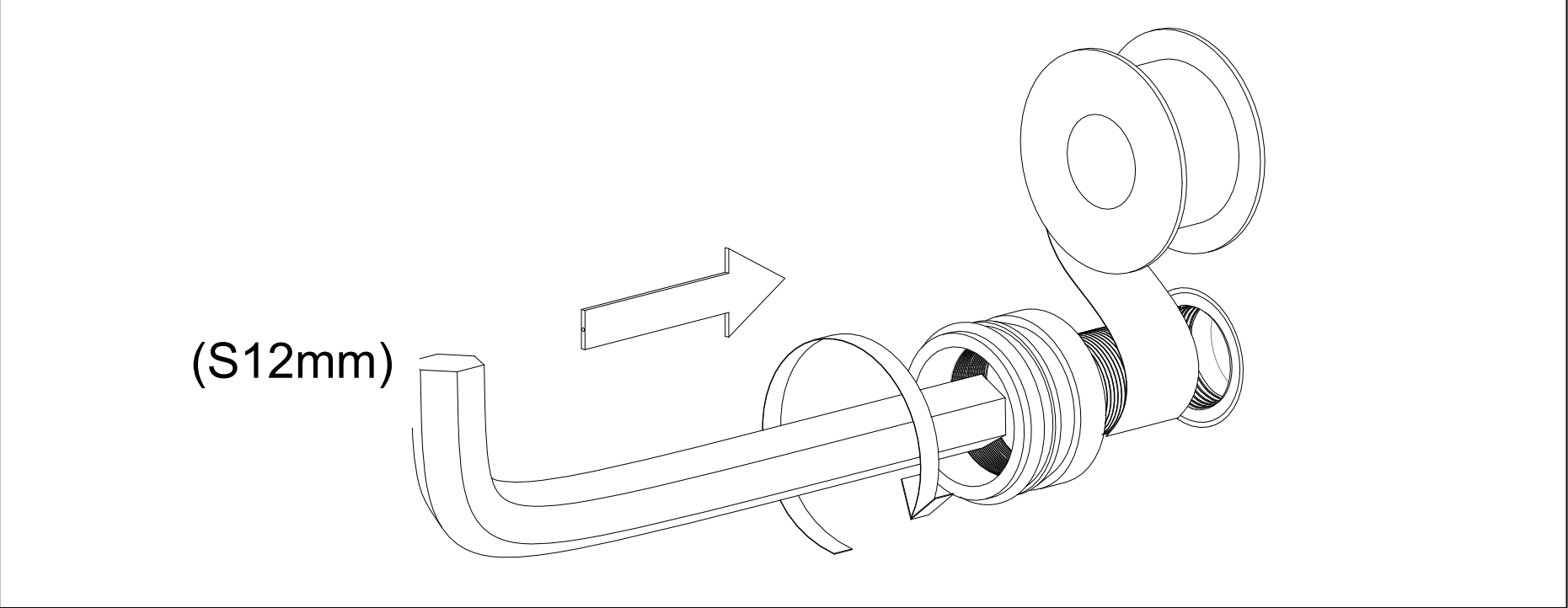
7.1 Loosen the set screws using an Allen wrench and remove the spout nipple assembly from tub spout assembly.



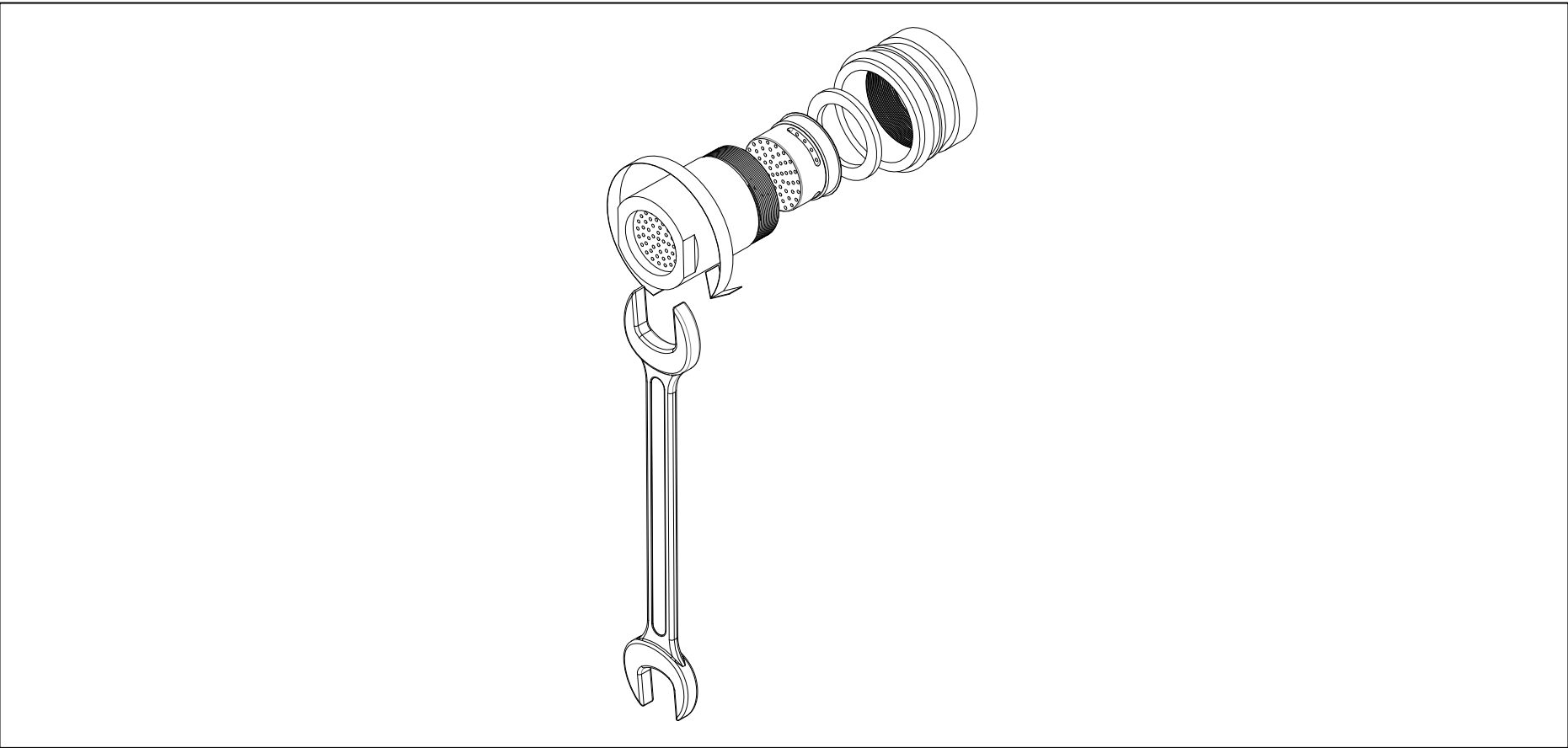
7.2 Remove the aerator lock nut using an adjustable wrench and disassemble all internal parts from the spout nipple supply.



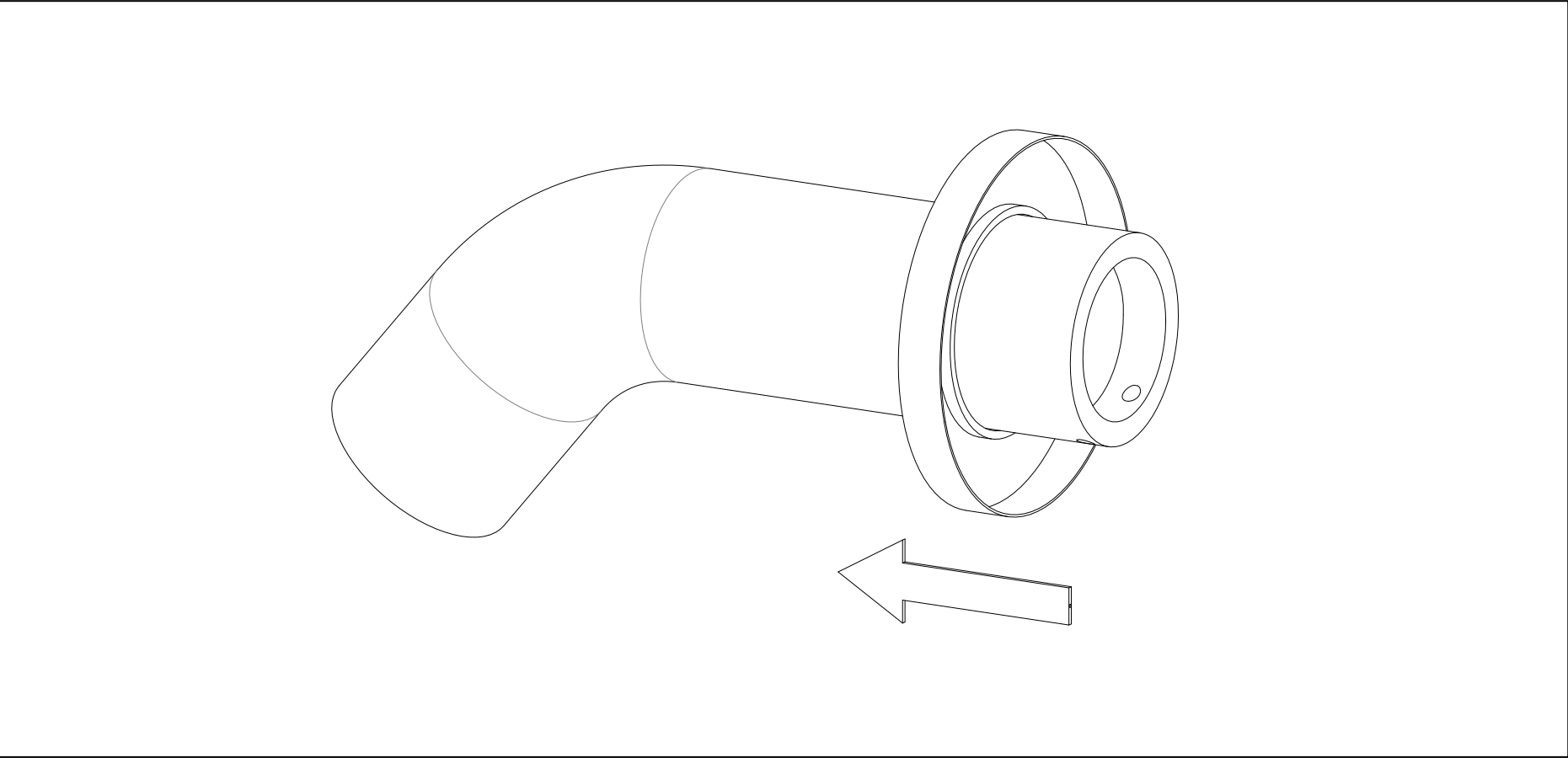
7.3 Apply Teflon tape to the threads of the spout nipple supply and screw it into the pipe elbow inside the wall.



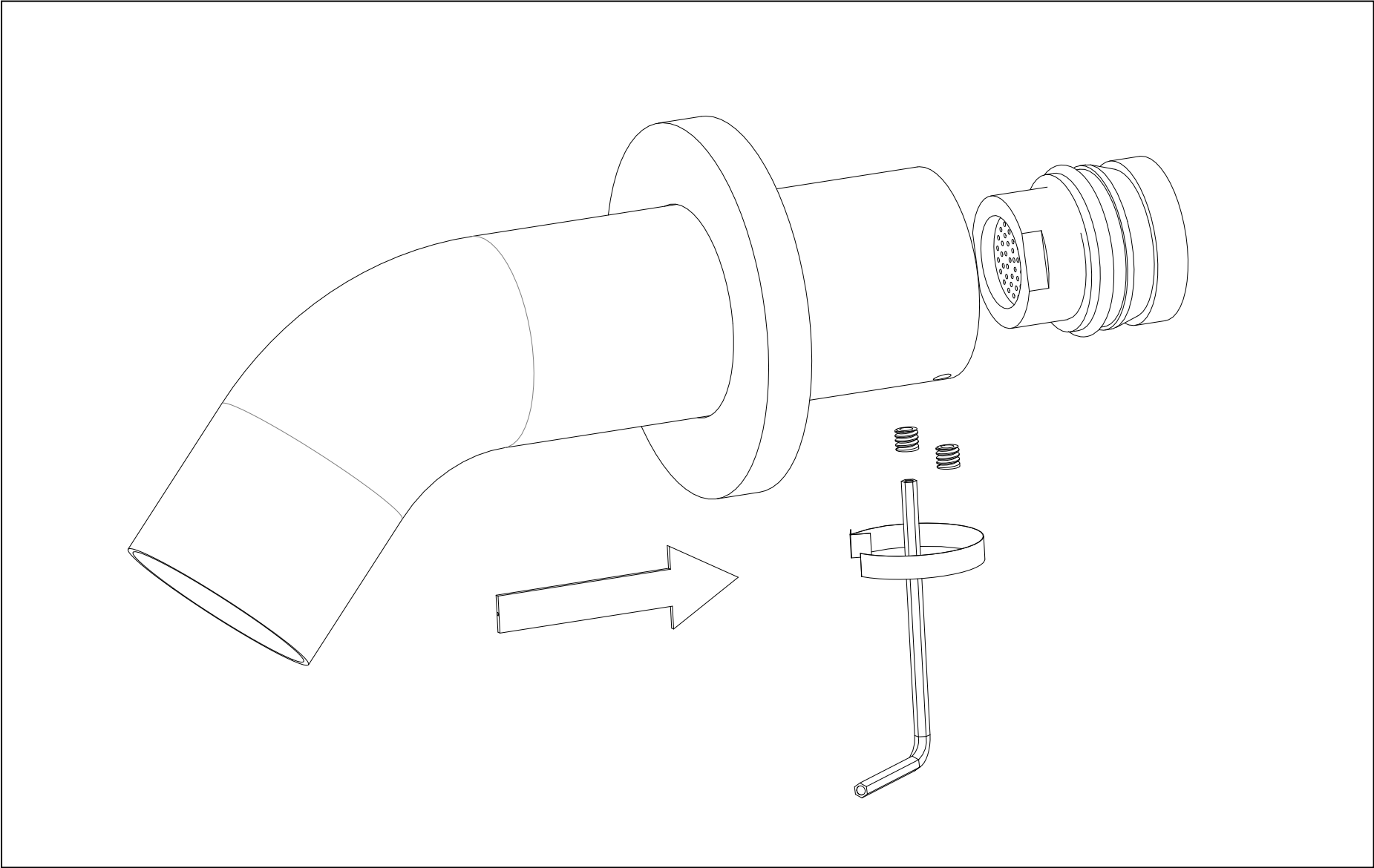
7.4. Reinstall the aerator lock nut and all internal parts into the spout nipple supply using an adjustable wrench.



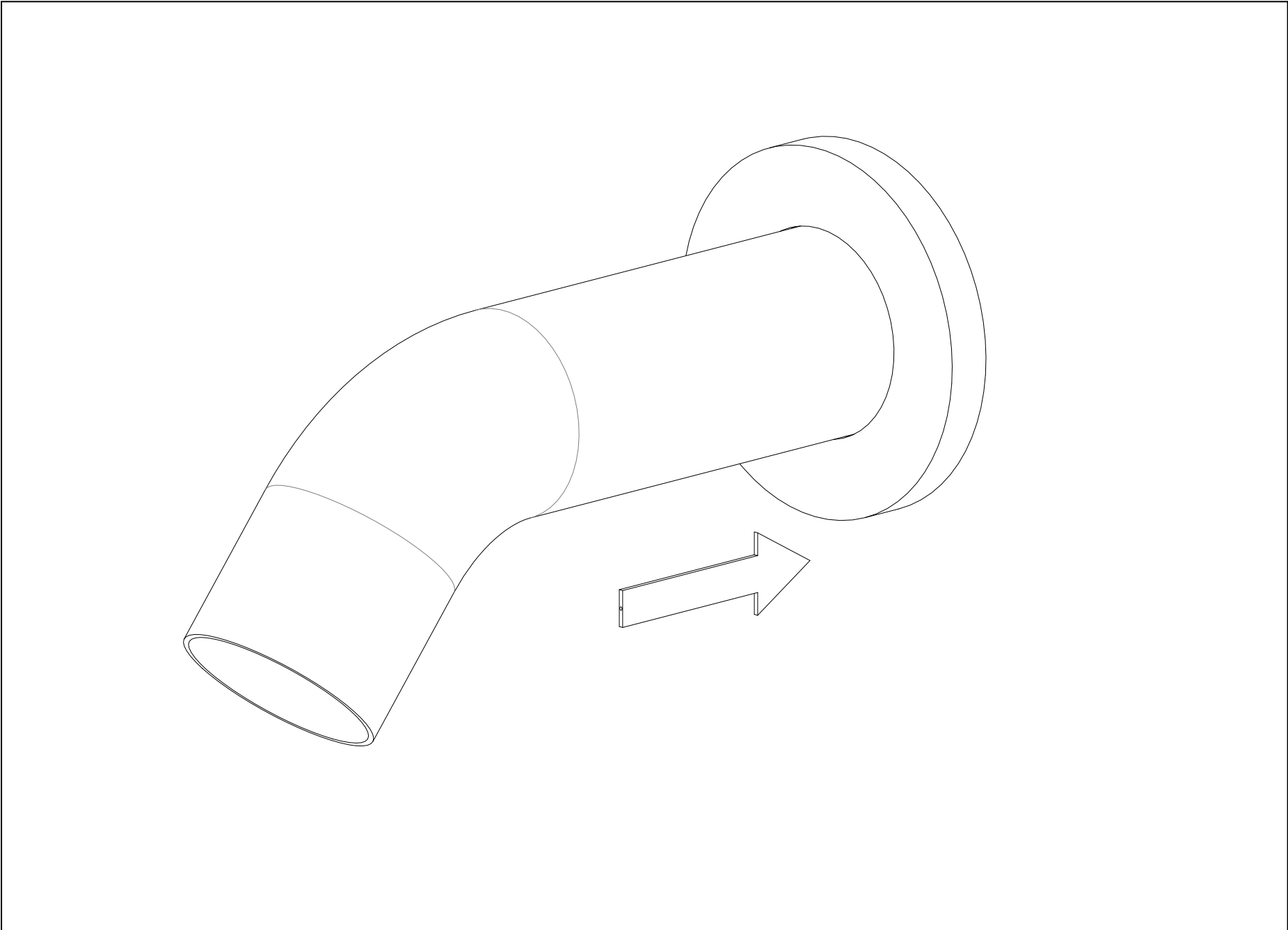
7.5. Push the escutcheon to the tub spout from behind.



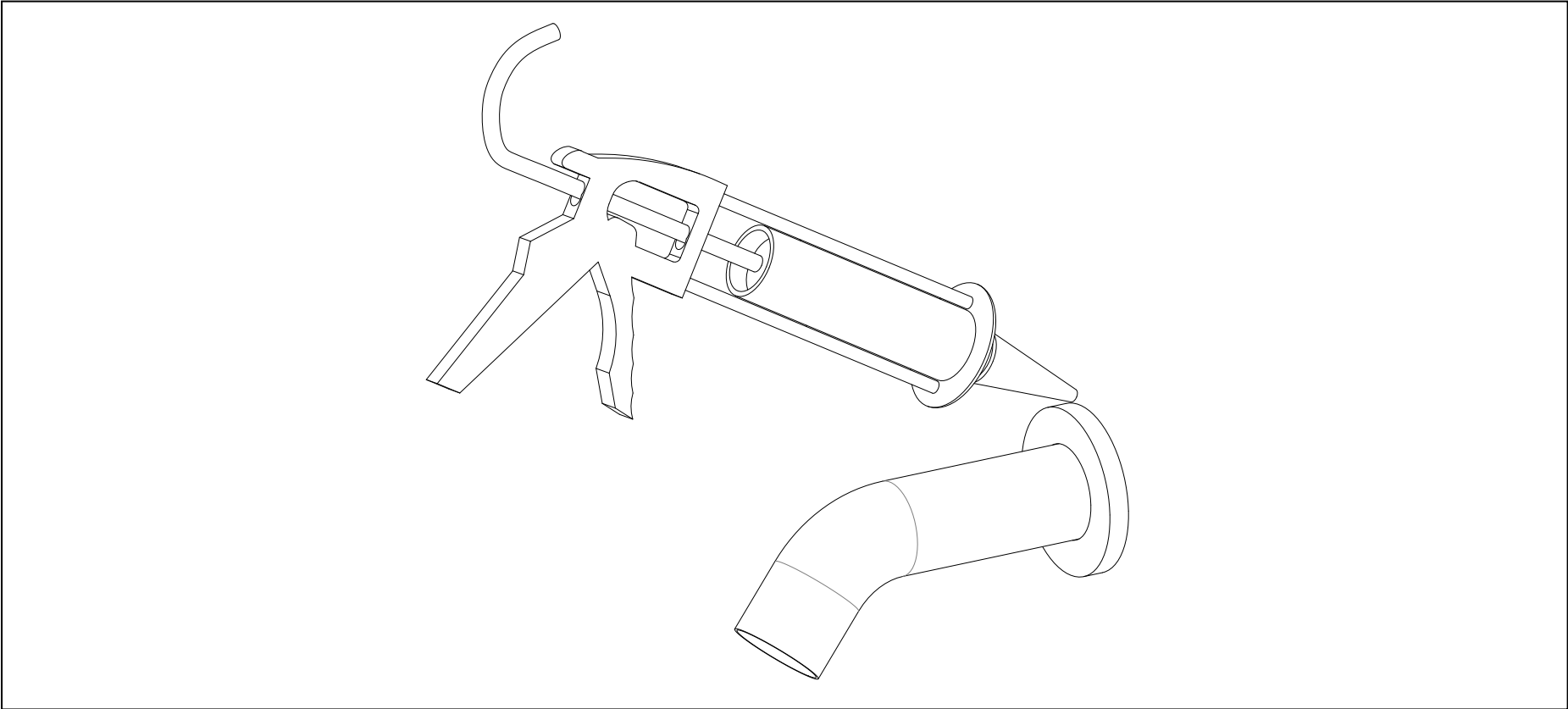
7.6 Attach the tub spout to the spout nipple and secure it using the set screws with an Allen wrench.



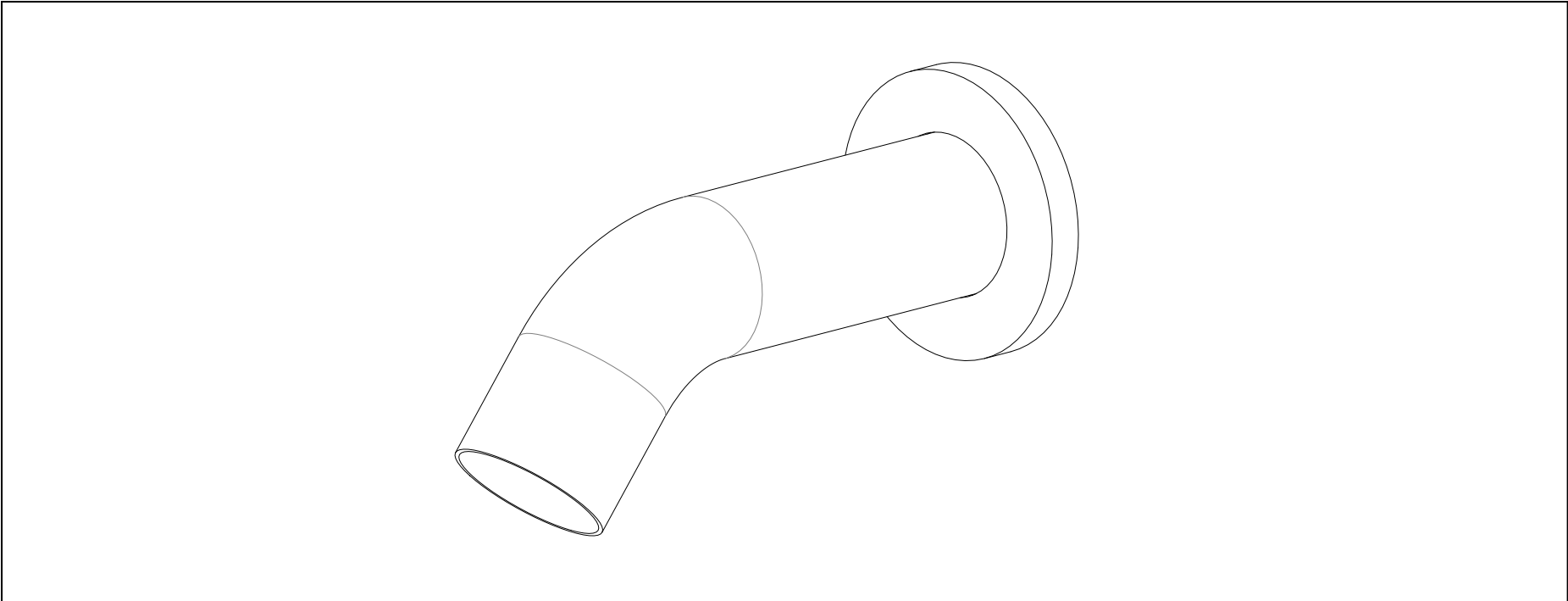
7.7. Attach the escutcheon to the finished wall.



7.8 Seal the wall around the escutcheon with a waterproof sealant.



7.9 Installation complete.



8. INSPECTION

8.1 Turn on the hot and cold water supplies and inspect all connections to ensure there are no leaks.

9. FUNCTION INSPECTION

9.1 Turn on the hot or cold knob respectively; the water outflow will come from the shower head in turn.

9.2 Switch the diverter knob, and the water will flow from the tub spout.

INSTALLATION COMPLETED



North America	Asia	Europe
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Tel: +1-866-203-0866	Tel: +86-750-2731579	Tel: +49 (0)30/23975898
E-mail: support@sumerain.com	E-mail: support@sumerain.com	E-mail: support@sumerain.com