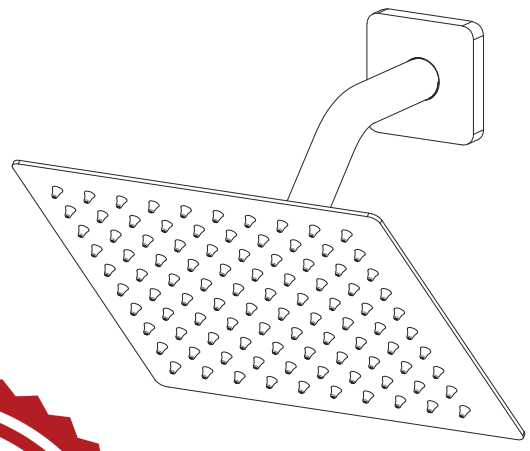
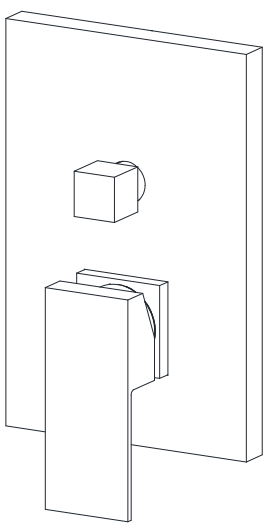
MODEL: S3233XW-B

US Version: V2.2

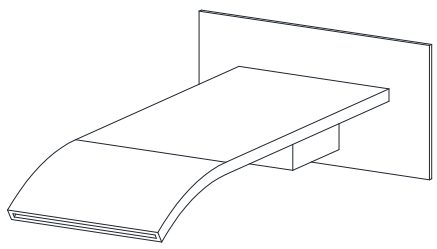
INSTALLATION GUIDE



DOCUMENT CONTROL
PUBLICLY
SUMERAIN FAUCET



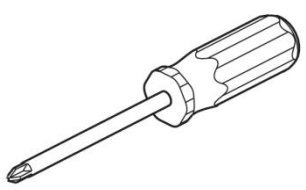




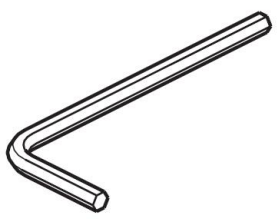
TUB AND SHOWER FAUCET

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

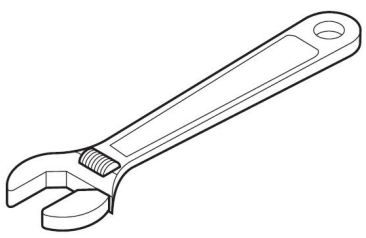
TOOLS RECOMMENDED



Philips screwdriver



Allen wrench



Adjustable wrench



Channel locks



Thread Sealant

INSTALLATION STEPS

1. BEFORE PROCEEDING



WARNING: Before beginning installation or operation, read all instructions carefully. If you are unsure about installing this product, consult a licensed professional. This product should be installed in compliance with all applicable local and national plumbing and building codes. Professional assistance is strongly recommended.

2. SHUT OFF WATER SUPPLY

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

3. CHECKING THE CONTENTS OF THE BOX

Upon opening the box, check to ensure that all the following items are included.
If any of these items are missing, please contact SUMERAIN consumer service via email at: support@sumerain.com

4. PLANNING AND INSTALLATION INSTRUCTIONS

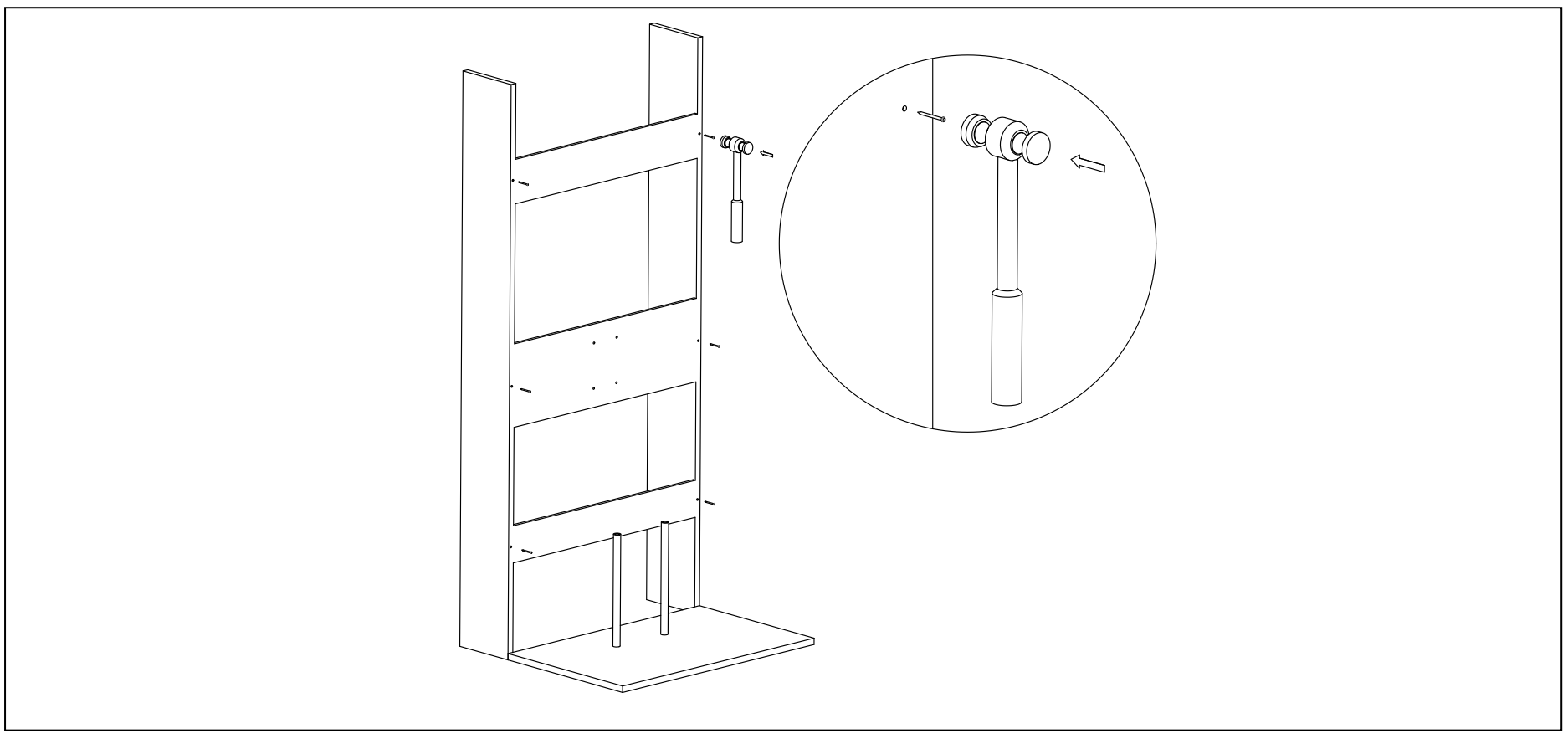


Attention: The shower must be installed, flushed, and inspected according to applicable regulations to ensure proper functionality.

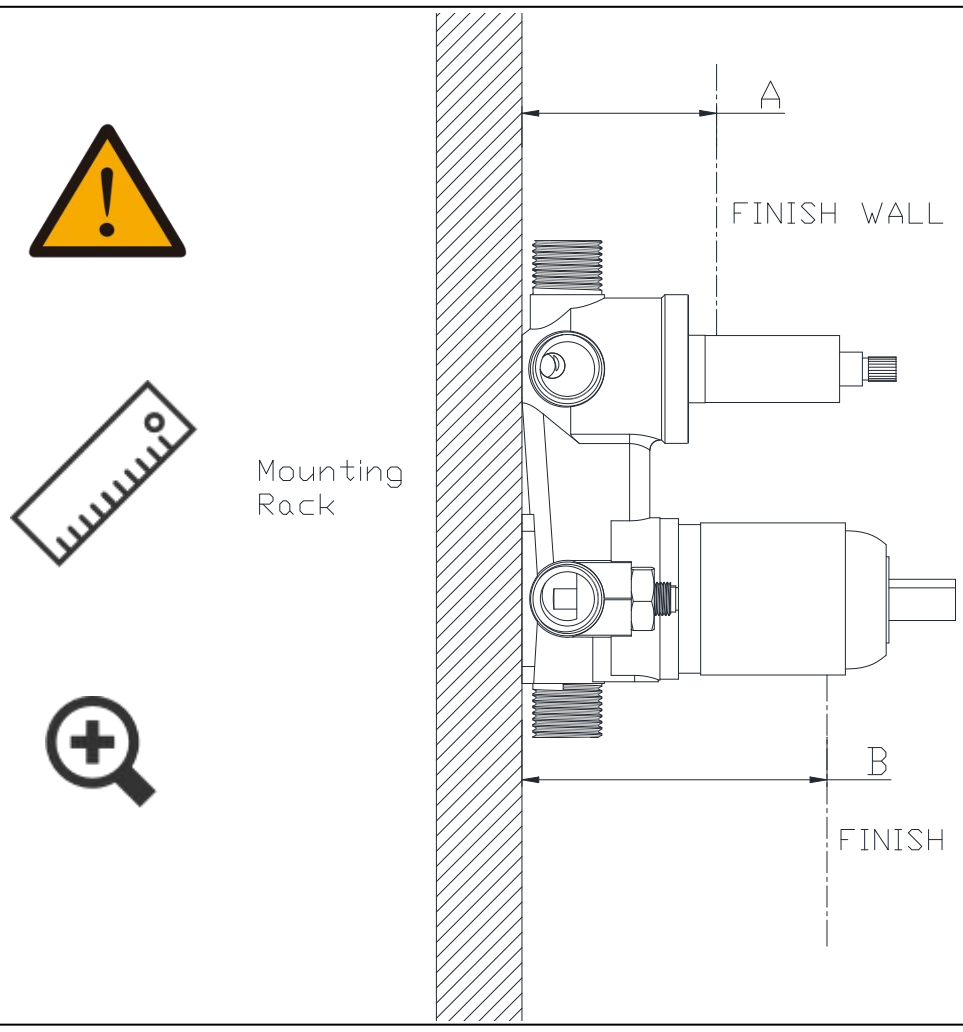
The dimensions of the shower setup must be determined individually based on installation requirements.
Operating pressure at the control valve:
Maximum 145 PSI (1 MPa).
Recommended operating pressure: 43.5 PSI (0.3 MPa).
Maximum hot water temperature: 140°F (60°C).

5. Rough-in Valve Installation

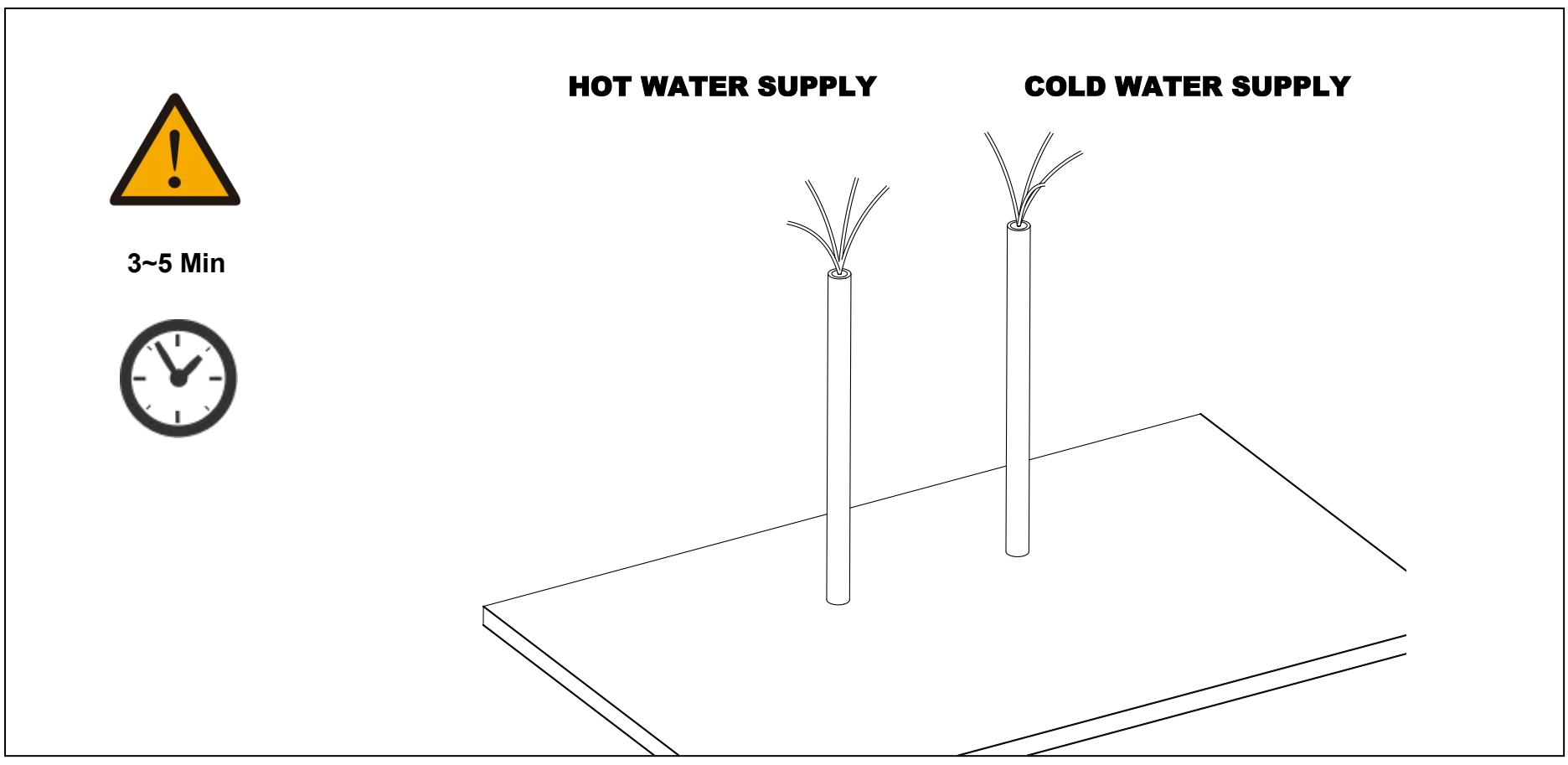
5.1 Build a wooden mounting rack to prepare for the installation of the rough-in valve assembly. Ensure that the face of the mounting board is positioned between 'A' (minimum) and 'B' (maximum) behind the finished wall surface.



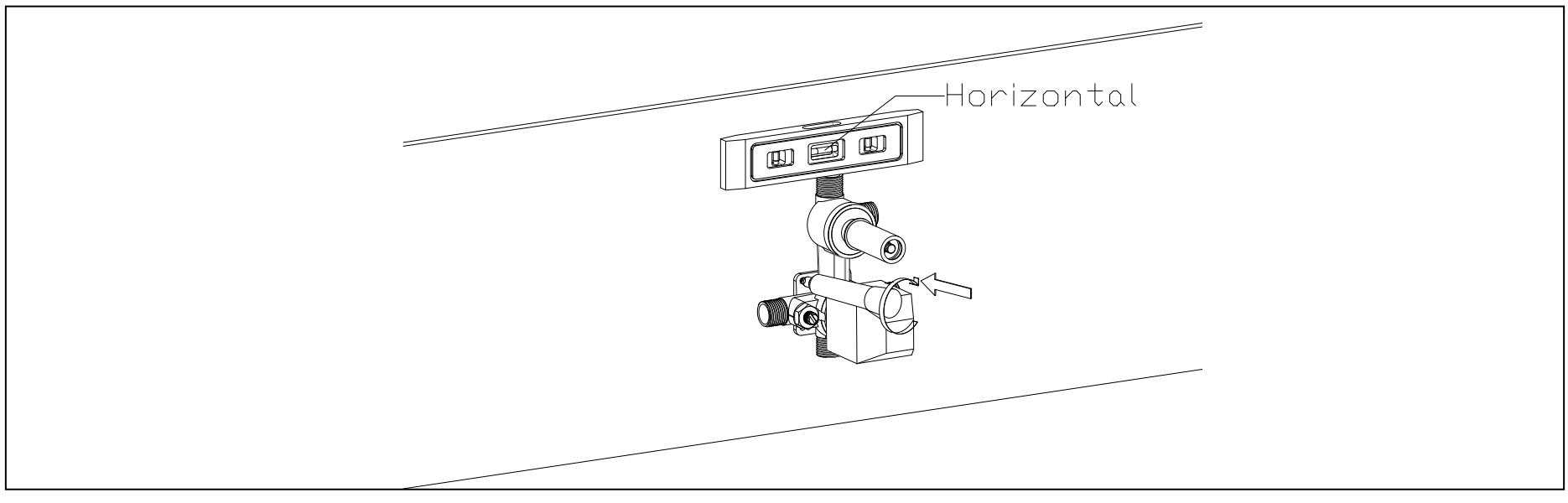
Code	Dimensions - Inch	Dimensions - mm
A	Min 2-3/8″	Min 60
B	Max 3-5/32″	Max 80



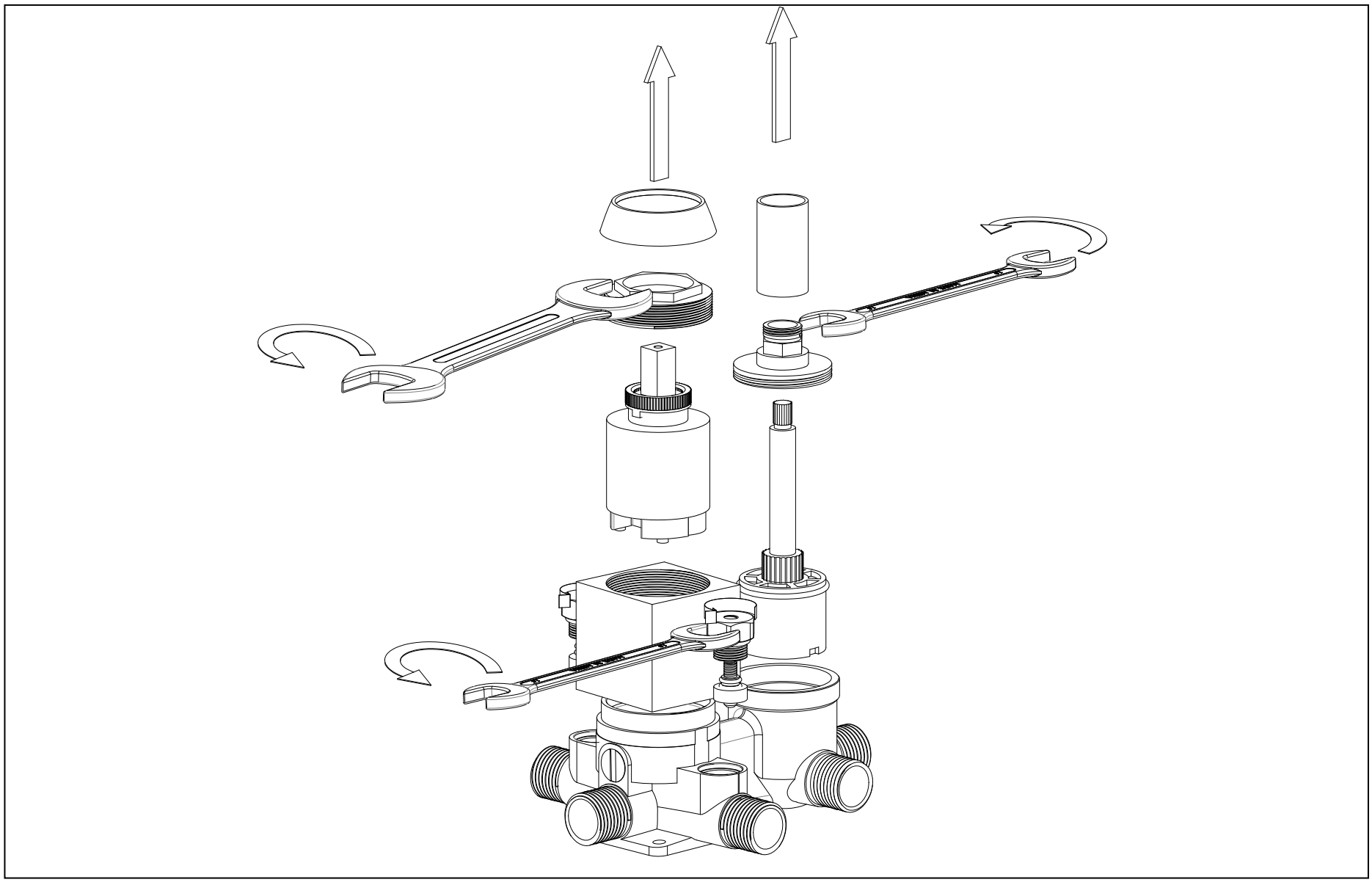
5.2 Turn on the shut-off valve to flush the hot and cold water supply pipes before connecting to the valve body. Allow the water to run for 3-5 minutes to remove dirt and debris. Shut off the water supply again after finishing.



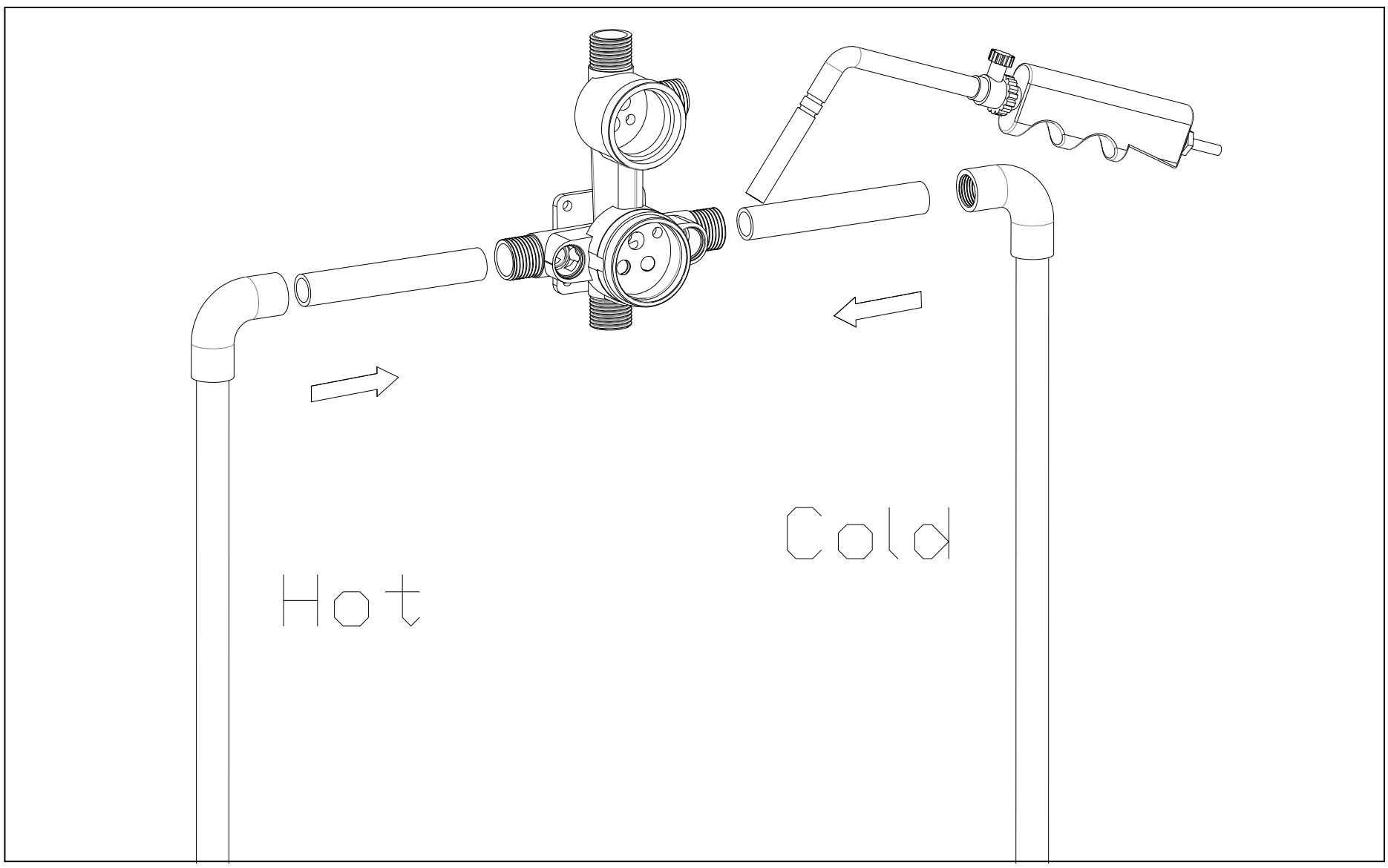
5.3 Align and level the valve assembly with a spirit level. Mark the mounting holes for the rough-in valve on the mounting rack.

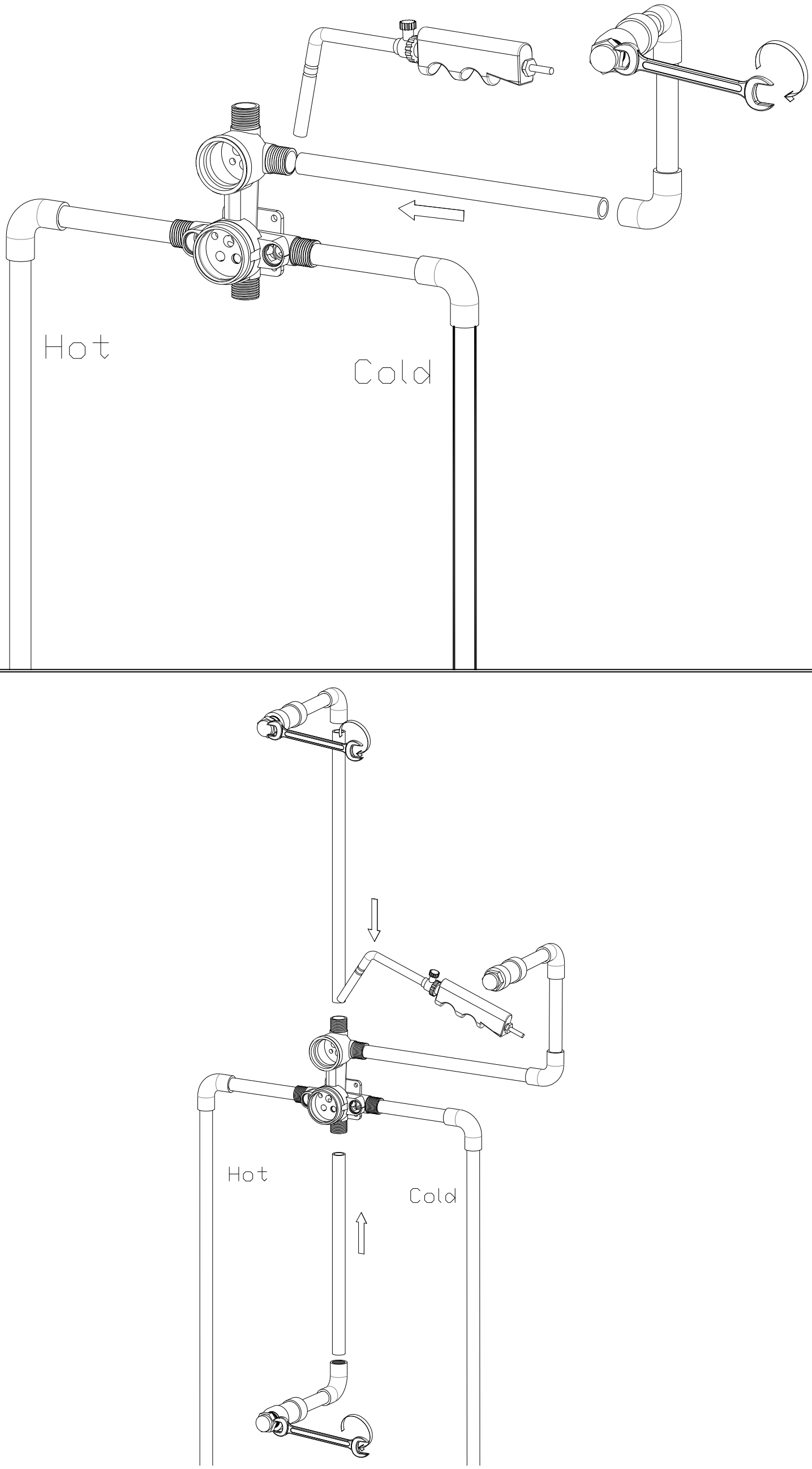


5.4 Connect the valve body to the water supply system using the appropriate fittings based on the valve type (copper, iron, or PEX).
Note: For PEX, use the correct crimp fittings and an appropriate cold expansion tool.
For example, when using copper tubing:
5.4.1(a) Before soldering, remove the cartridge, check valve, and pressure-reducing valve from the valve body to prevent heat damage.

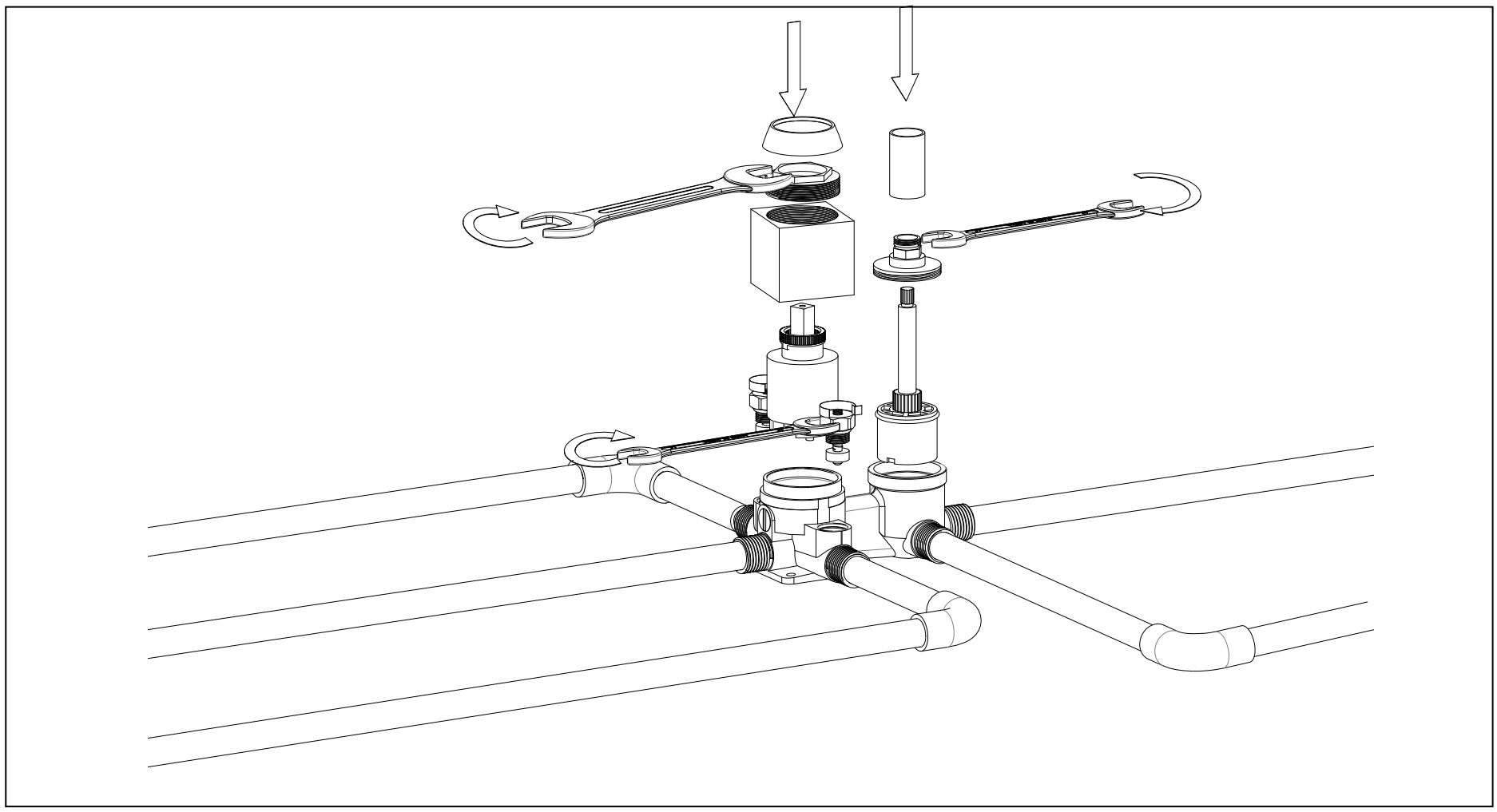


5.4.2(a) Solder the copper tubing to the hot and cold inlets and the top shower outlet of the valve body. Ensure proper alignment and avoid excessive heat to prevent damage.

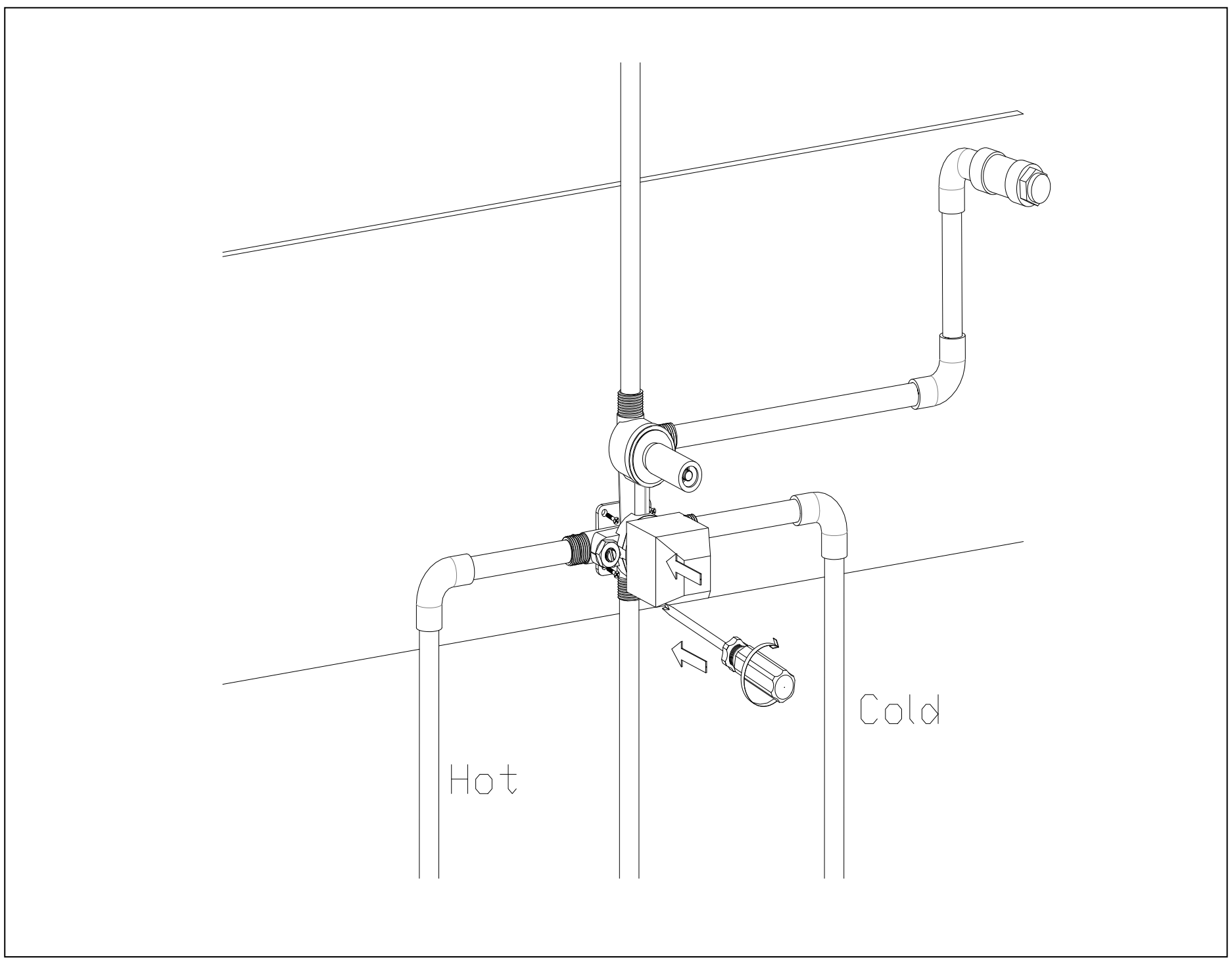



Hot
Cold
Hot
Cold

5.4.3(a) Reassemble the rough-in valve.



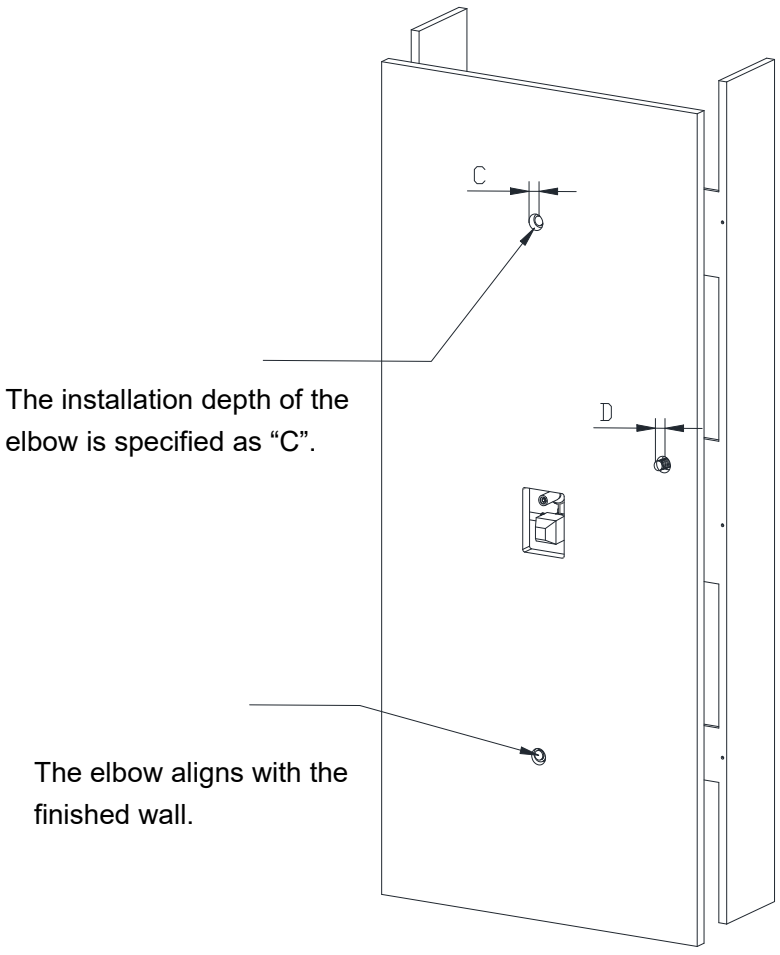
5.4.4(a) Align and level the valve assembly with a leveling tool, then secure it to the mounting bracket using the appropriate screws and anchors.



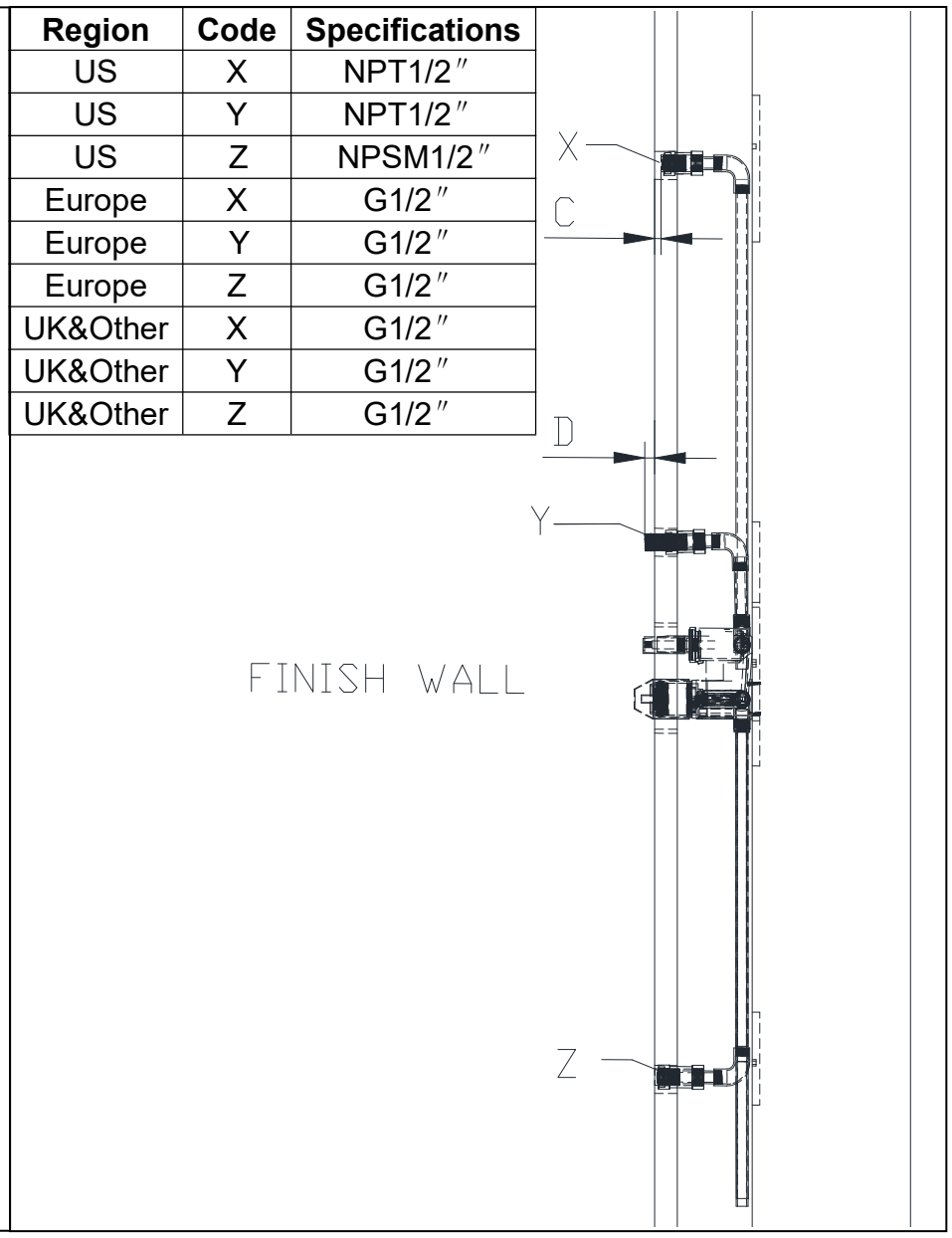
5.4.5 Install the elbow and finished wall as shown in the image.
Align the front face of the spout elbow with the finished wall.

An improper installation depth of the elbow may cause leaks at the connector or necessitate custom extension parts, which will incur additional costs.

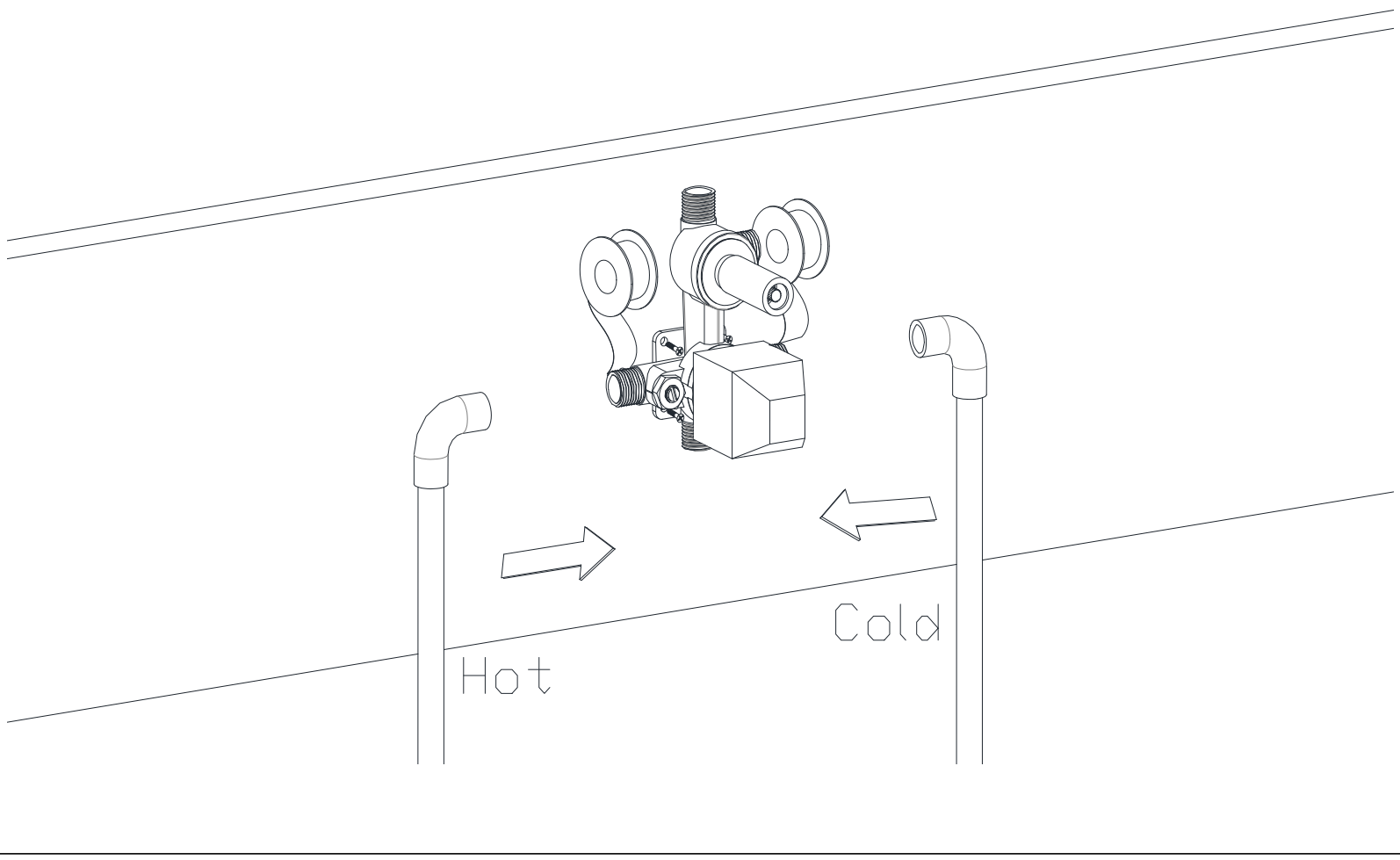
Code	Dimensions - Inch	Dimensions - mm
C	1/4″	6.35
D	Min 3/8″ Max 13/16″	Min:10 Max:20



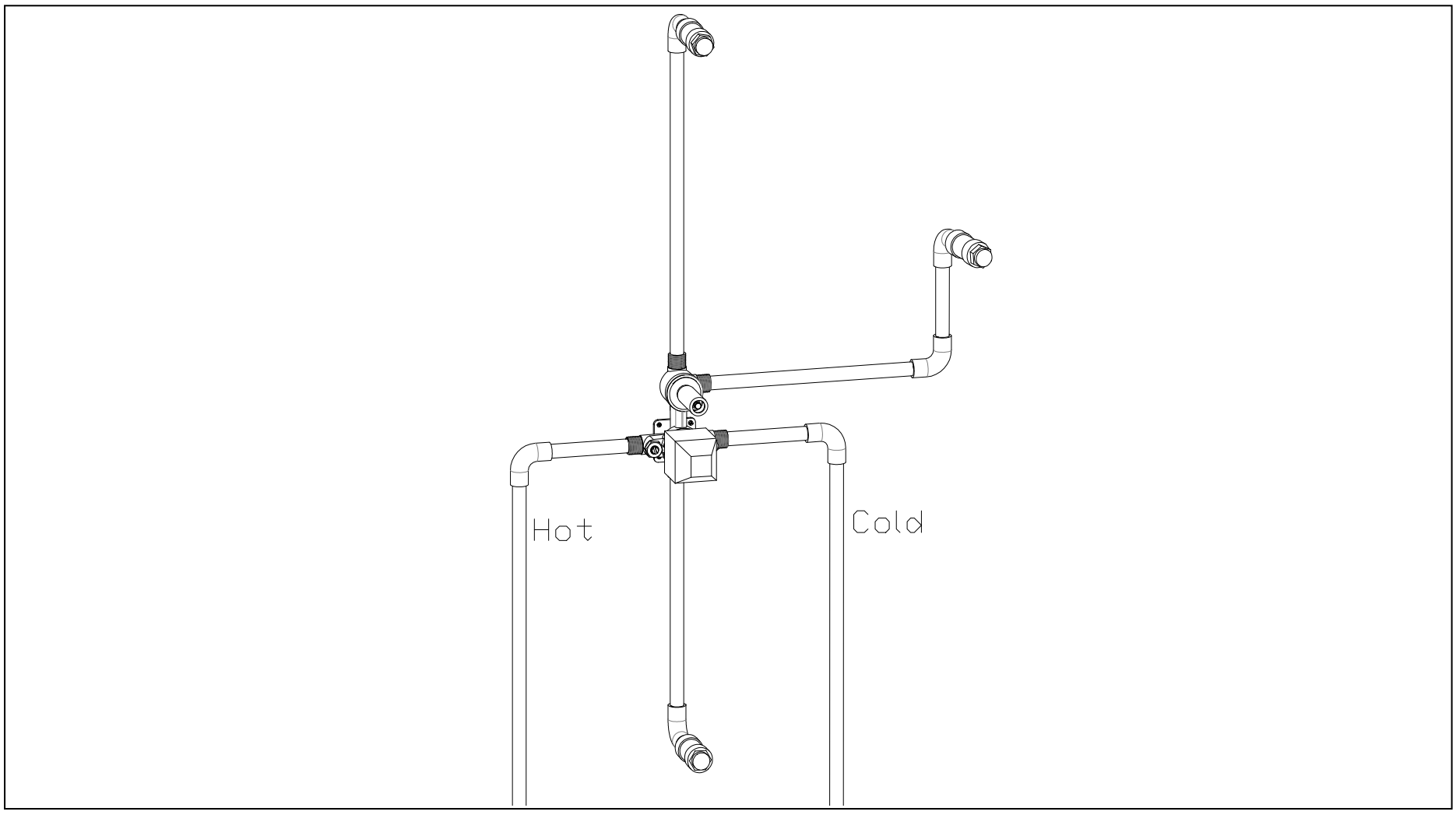
Region	Code	Specifications
US	X	NPT1/2″
US	Y	NPT1/2″
US	Z	NPSM1/2″
Europe	X	G1/2″
Europe	Y	G1/2″
Europe	Z	G1/2″
UK&Other	X	G1/2″
UK&Other	Y	G1/2″
UK&Other	Z	G1/2″



5.4.6 Skip steps 5.4.1(a) to 5.4.4(a) if using PEX or PVC fittings. The valve does not need to be disassembled. Apply Teflon tape to the threads on the valve body, then connect it to the supply lines and shower pipe using PEX fittings. Ensure the left connection is for hot water and the right connection is for cold water.

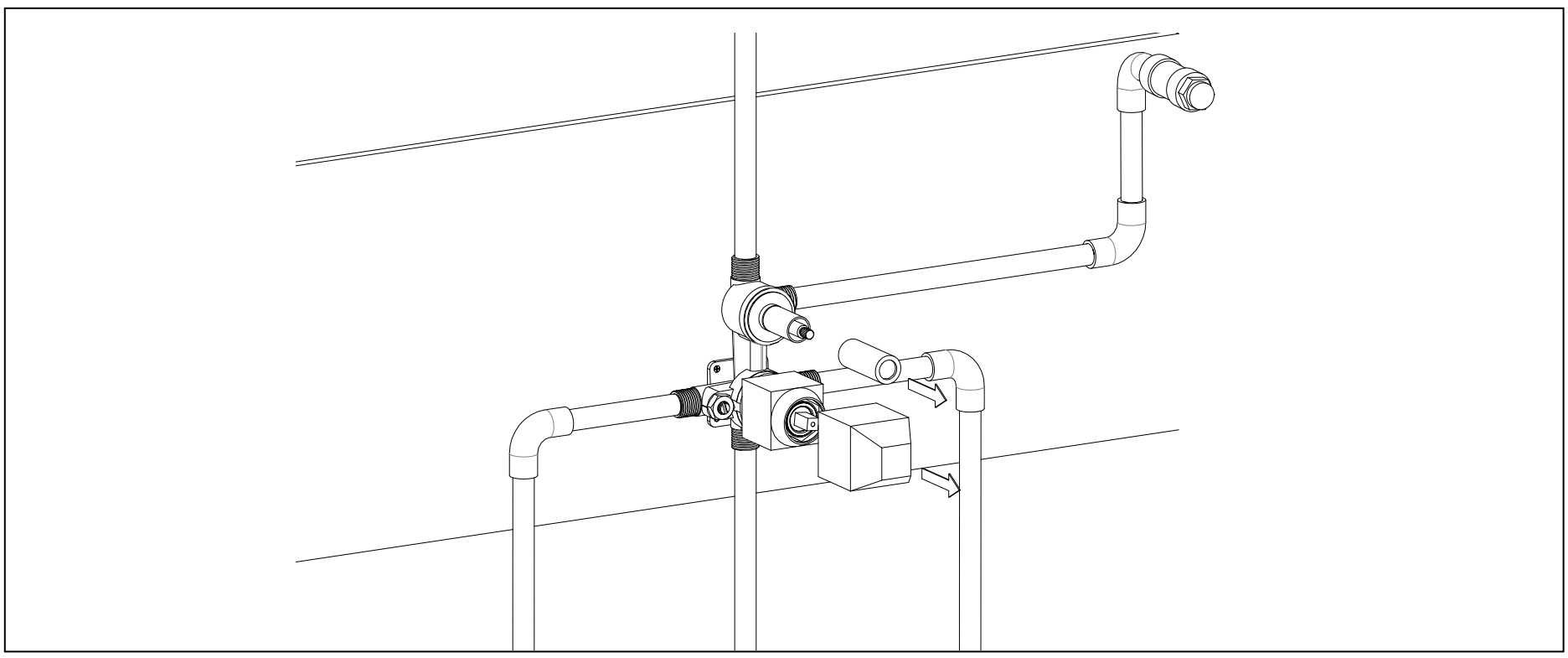


5.4.7 The rough-in valve installation is complete.



6. VALVE TRIM INSTALLATION

6.1 Remove the plaster guard cover and check all connections for leaks.



6.2 Plumbing Pressure Testing and Leak Testing.

(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.

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.

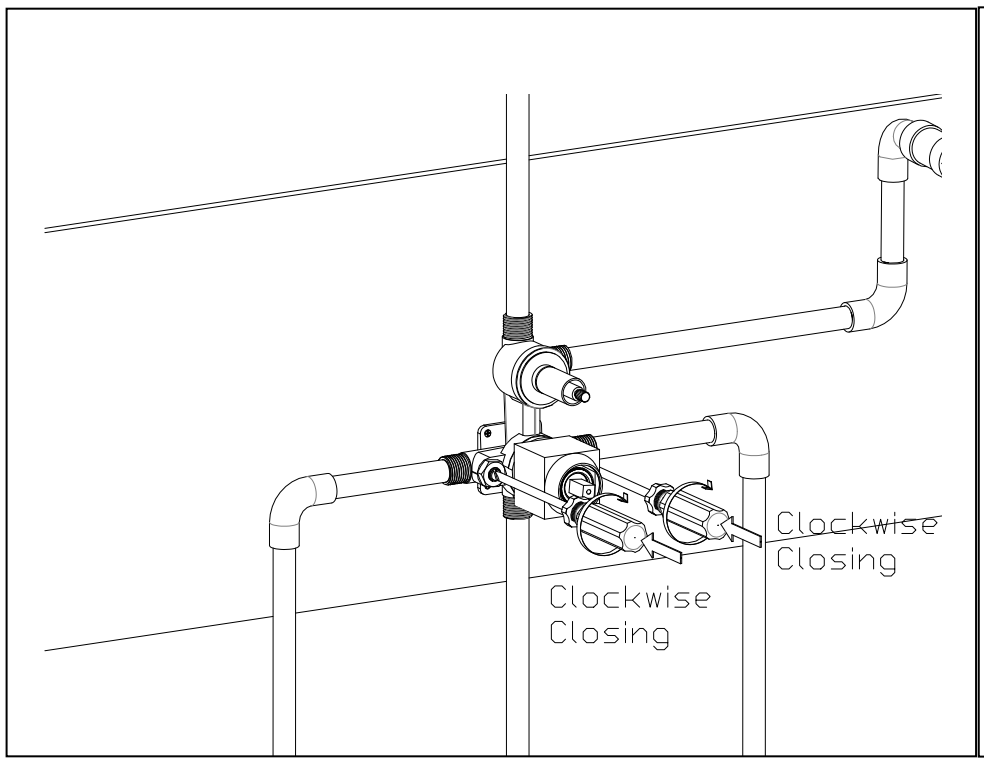
Pass Criteria:

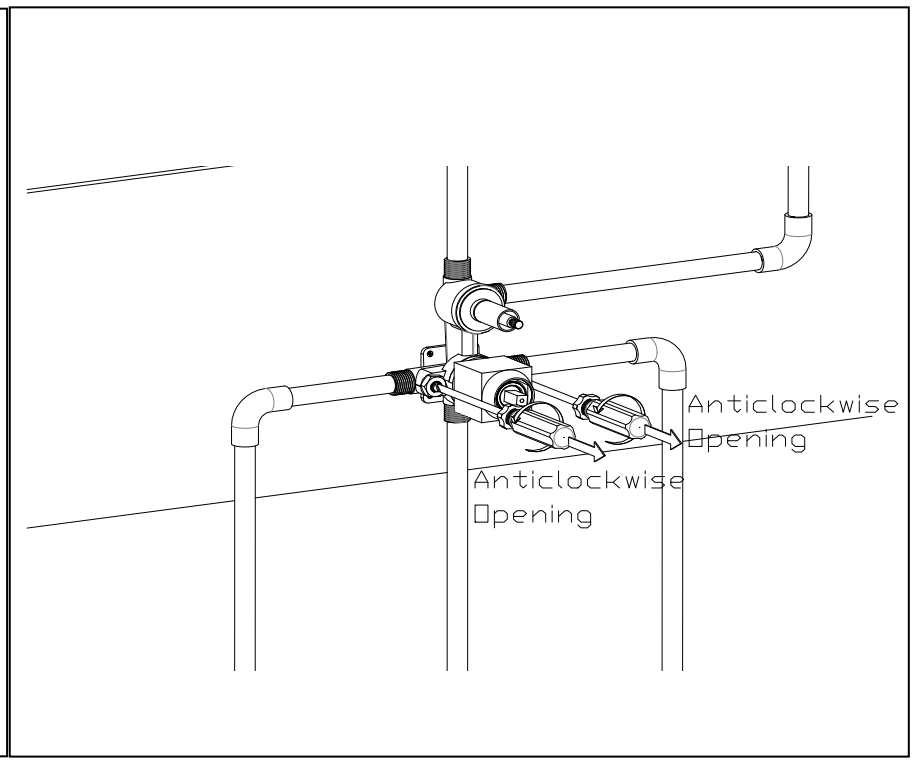
- If the pressure remains stable with no significant drop and no leakage is observed during the test, the piping system passes the test.
- If the pressure drops or leakage is detected, repair the issue and retest.

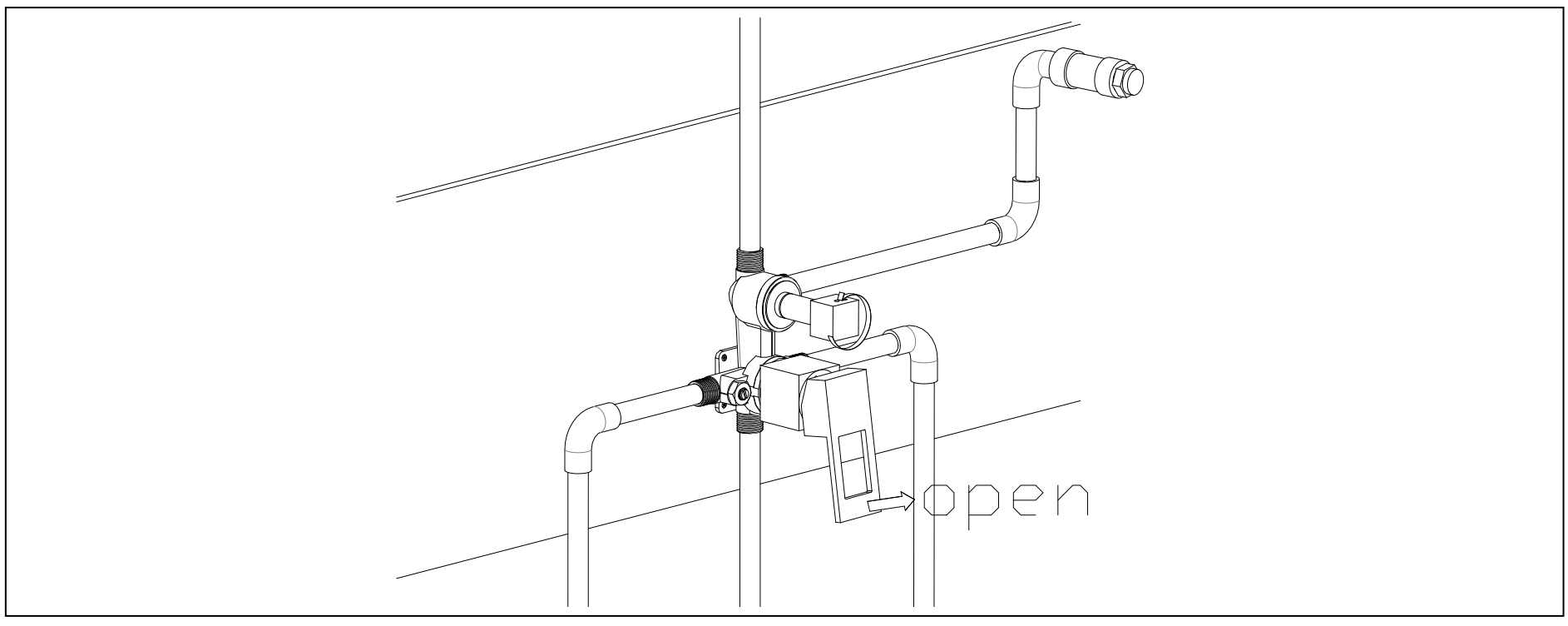
Precautions:

- 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. If no leaks are detected, shut off the hot and cold water supply and reinstall the plaster guard covers.

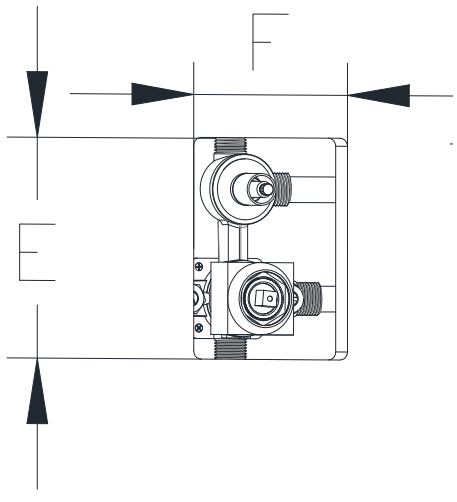




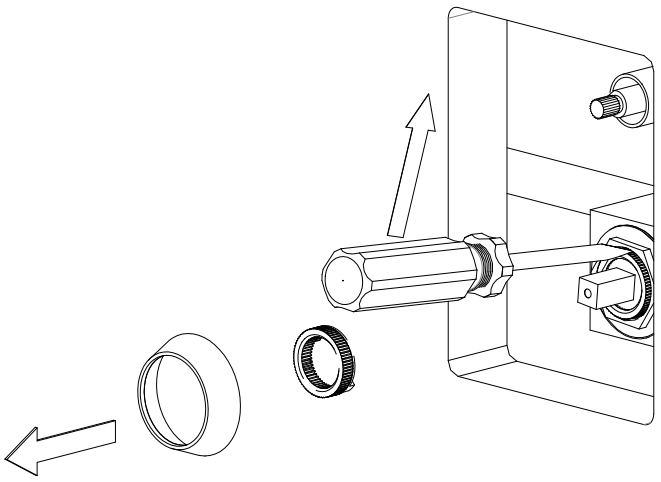


6.3 Complete the finished wall and, if required, provide an access panel for future maintenance. (Note: Position the hand shower holder connector 1/4" from the finished wall).

Code	Dimensions - Inch	Dimensions - mm
F	4-1/8″	105
E	5″	127



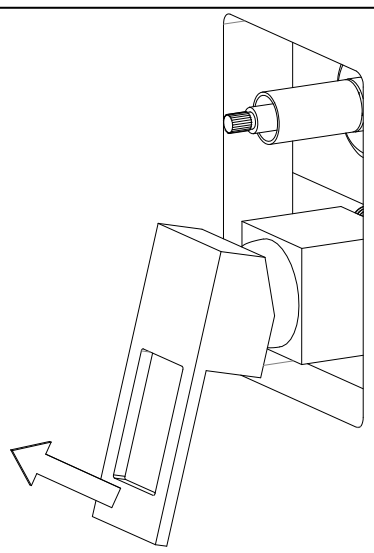
6.4 Remove the bonnet cap, bonnet nut, and temperature limit ring from the valve assembly in order.



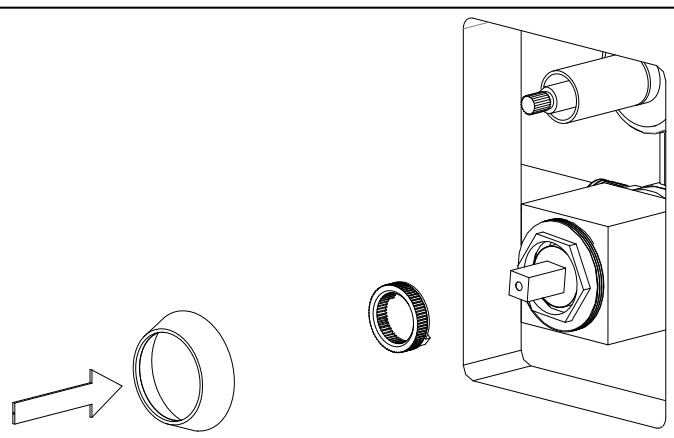
6.5 Anti-scald Protection: To ensure safe operation and prevent scalding, regularly test the mixing valve. Set the mixing valve temperature to 38°C (100.4°F) while isolating the cold water supply. This will reduce the outlet flow rate to a safe level.
Recommended Maximum Outlet Temperatures:

- 111.2°F (44°C): For filling bathtubs (see note below).
- 105.8°F (41°C): For showers.
- 105.8°F (41°C): For washbasins.
- 100.4°F (38°C): For bidets.

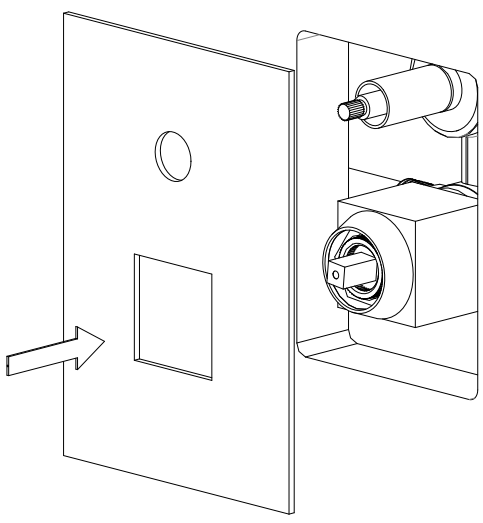
Note: The mixed water temperature must never exceed 114.8°F (46°C) at the terminal fitting.



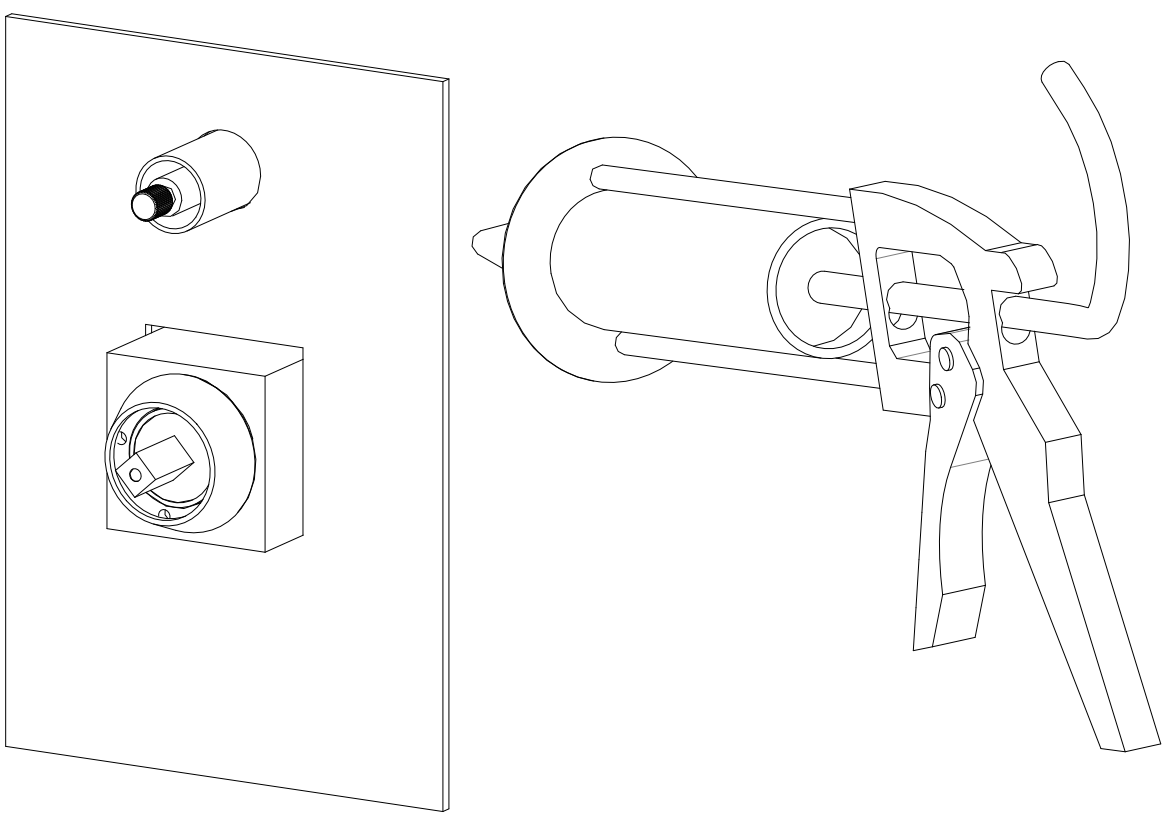
6.6 Attach the temperature limit ring to the cartridge to set the maximum temperature. Securely reinstall the bonnet cap and bonnet nut onto the valve body.



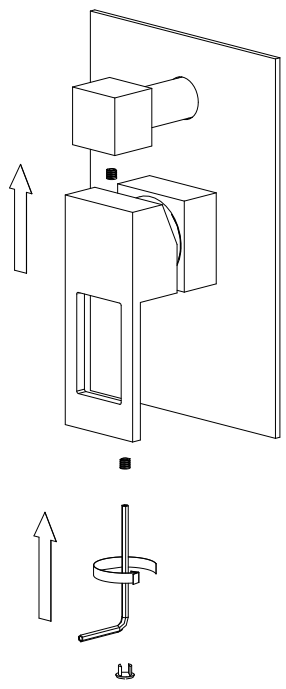
6.7 Place the escutcheon onto the valve body and secure it as needed.



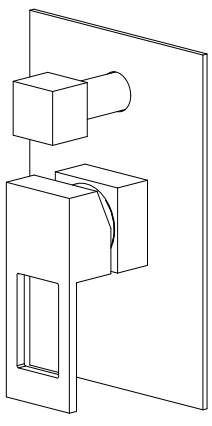
6.8 Apply silicone sealant around the edge of the escutcheon to ensure a watertight seal against the wall.



6.9 Secure the handle onto the valve stem using the provided Allen wrench to tighten the set screws. Avoid overtightening. Press the screw covers firmly into place to complete installation.



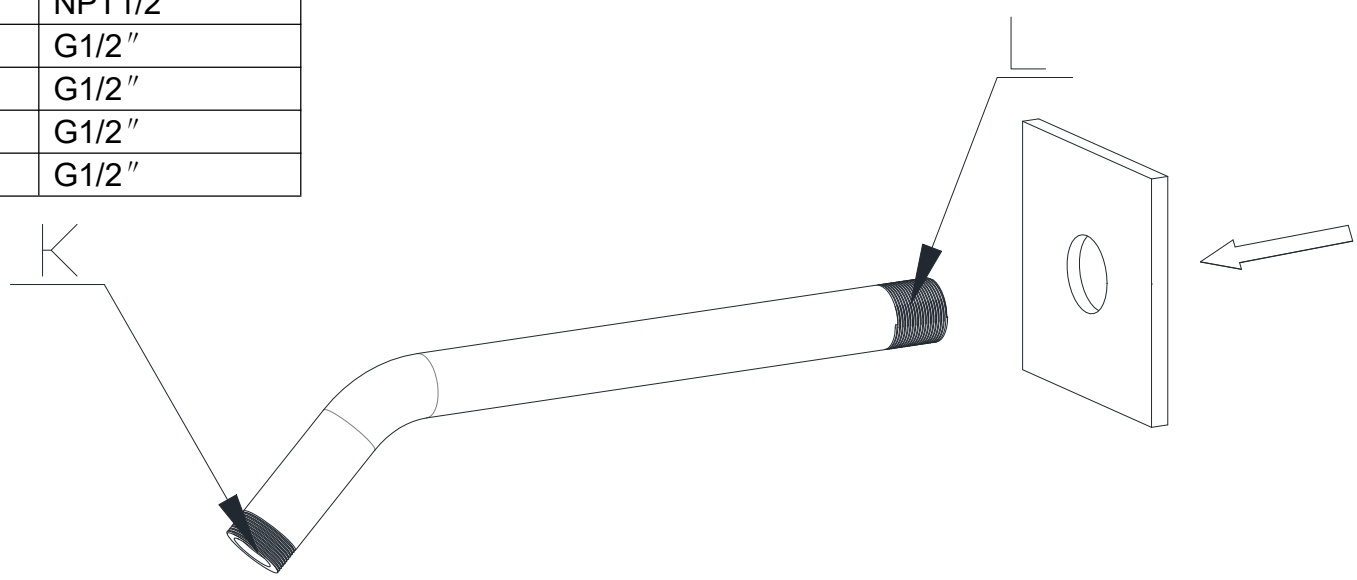
6.10 The valve trim installation is complete.

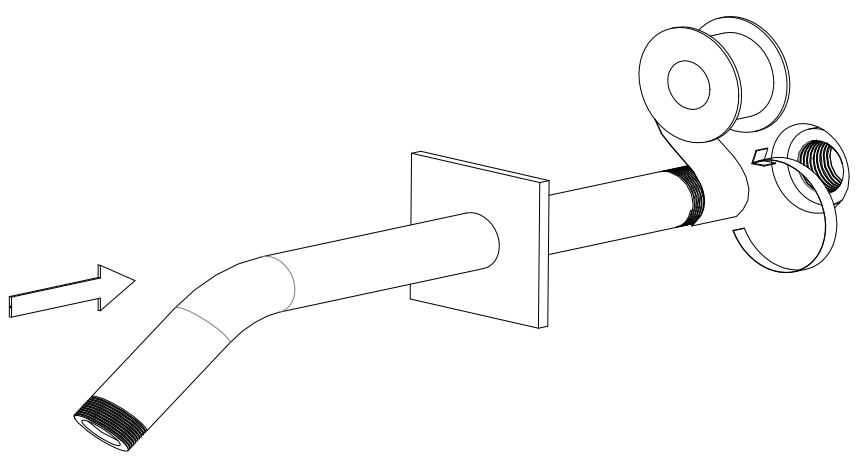


7. SHOWERHEAD INSTALLATION

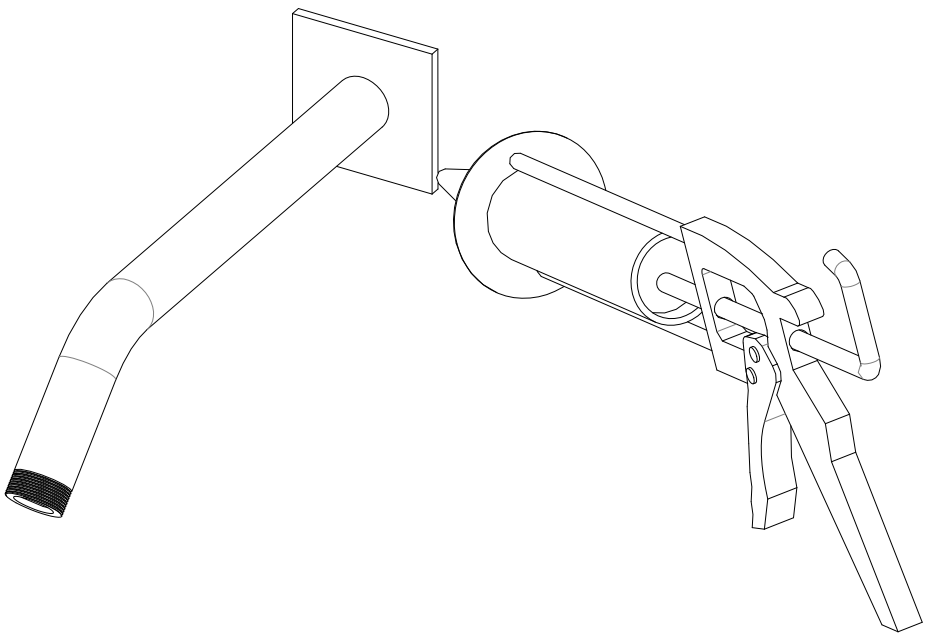
7.1 Slide the shower arm escutcheon onto the shower arm. Apply Teflon tape evenly around the shower arm threads. Thread the shower arm clockwise into the pipe elbow inside the wall until secure. Ensure the connection is tight but avoid overtightening. Standard connection thread for the shower arm inlet: NPT 1/2" (US, CA).

Region	Code	Specifications
US	K	G1/2″
US	L	NPT1/2″
Europe	K	G1/2″
Europe	L	G1/2″
UK&Other	K	G1/2″
UK&Other	L	G1/2″



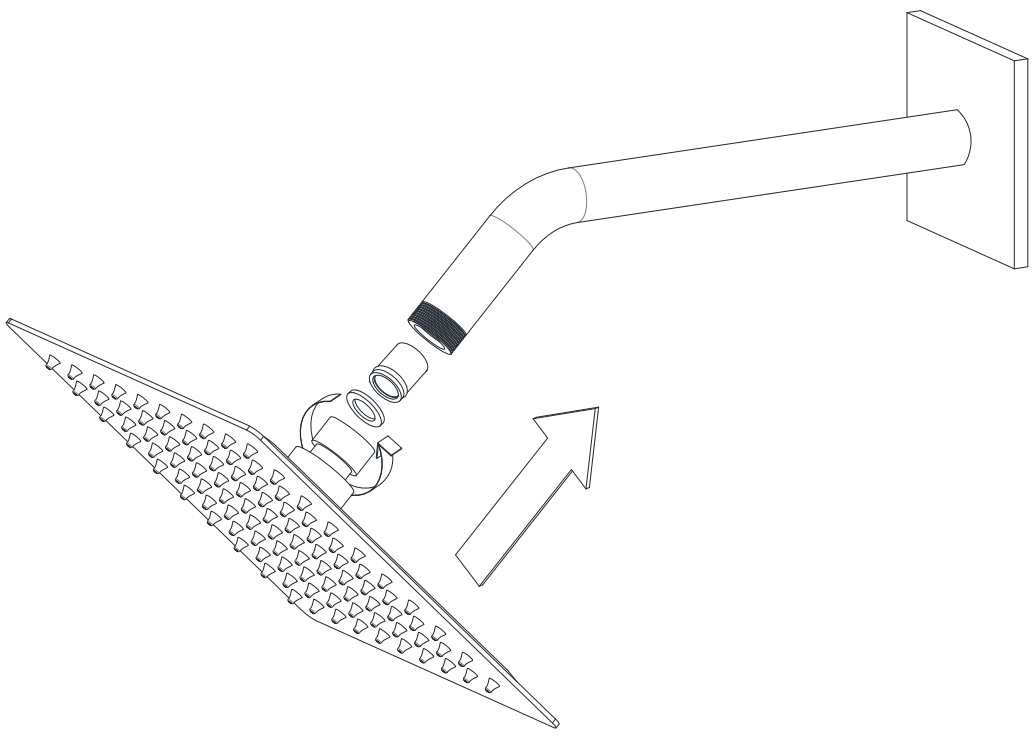


7.2 Apply waterproof sealant around the edge of the shower arm escutcheon to create a watertight seal against the wall.



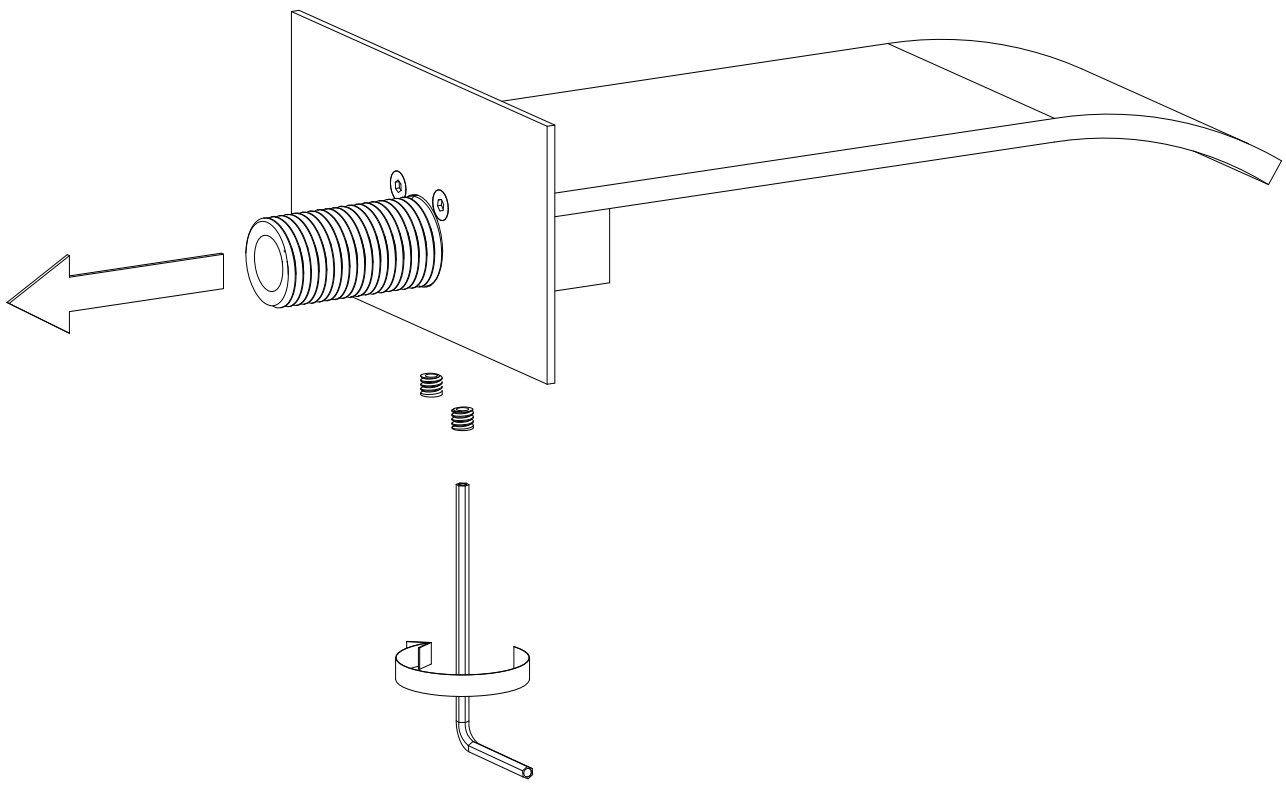
7.3 Insert the screen washer into the showerhead connector and place the check valve into the shower arm. Carefully hand-tighten the showerhead onto the shower arm by rotating it clockwise to ensure a proper seal.

Note: Missing the screen washer or check valve may result in improper shower function.

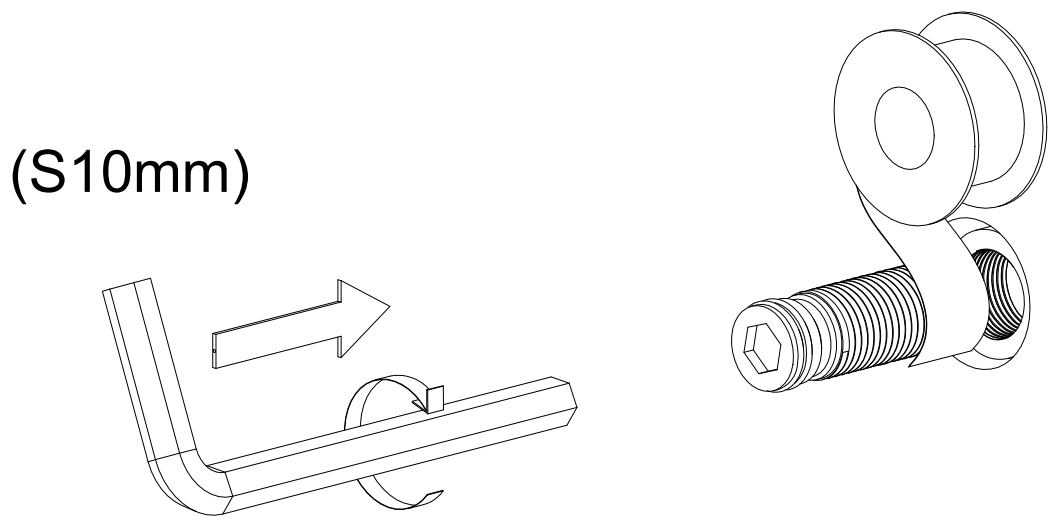


8. TUB SPOUT INSTALLATION

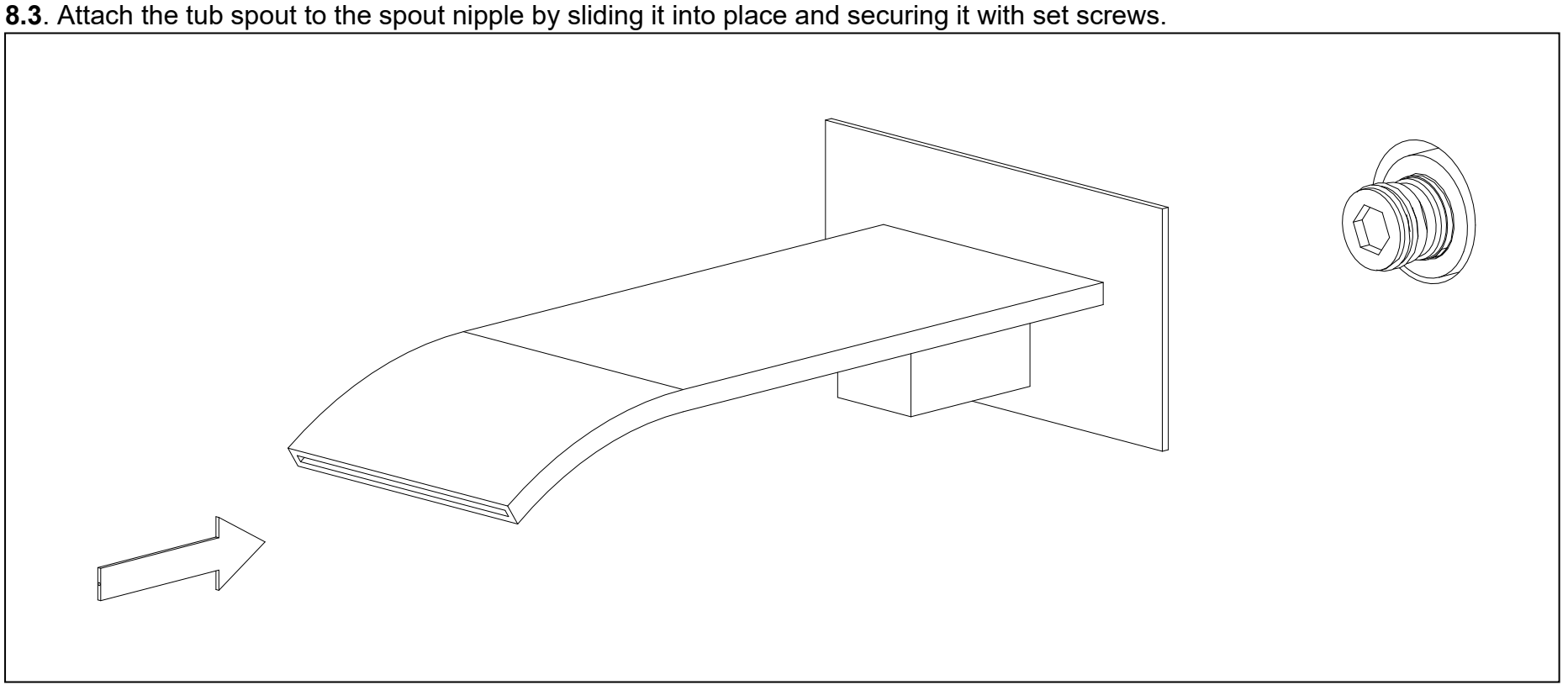
8.1 Wrap Teflon tape around the threads of the spout, then thread it securely into the pipe elbow inside the wall.



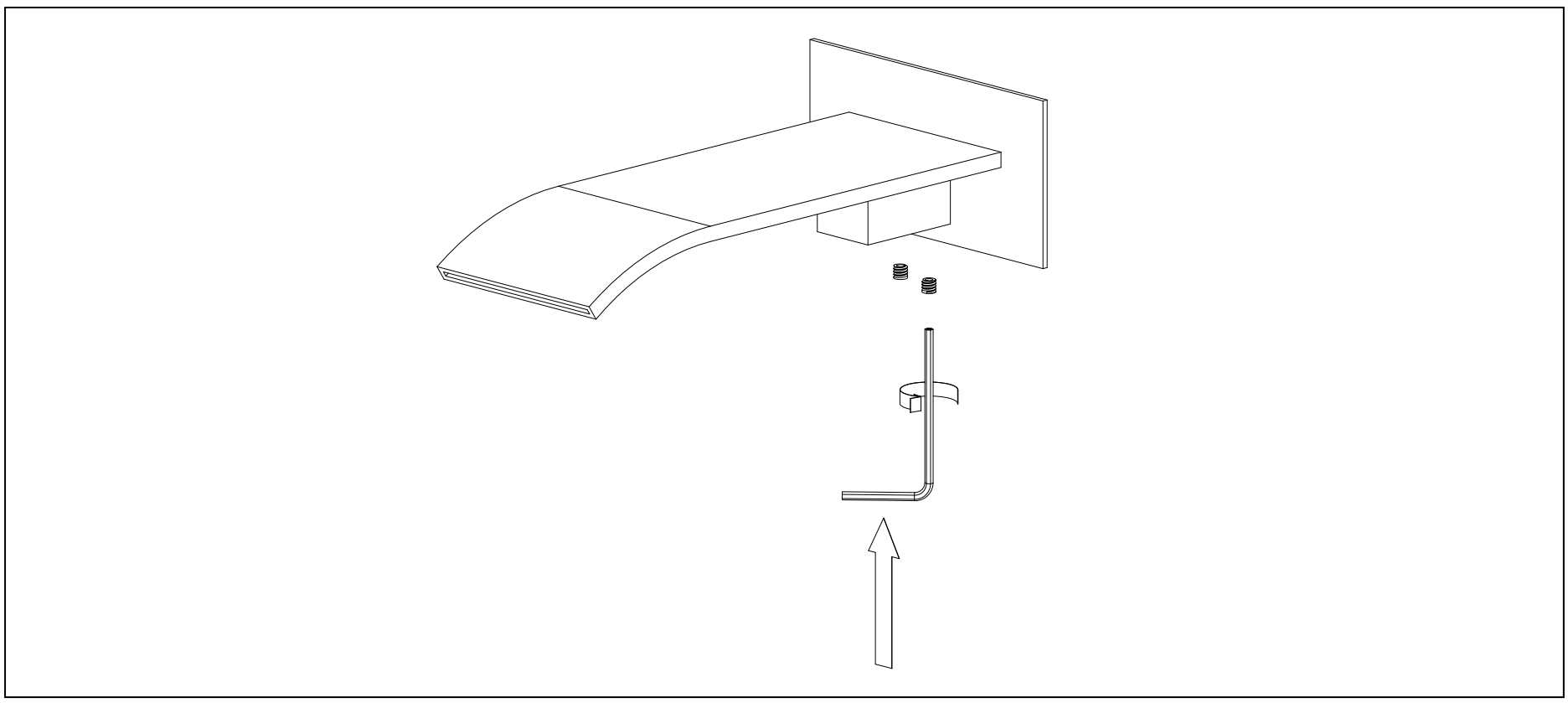
8.2 Apply Teflon tape to the threads of the spout nipple, then thread it into the pipe elbow inside the wall and tighten securely.



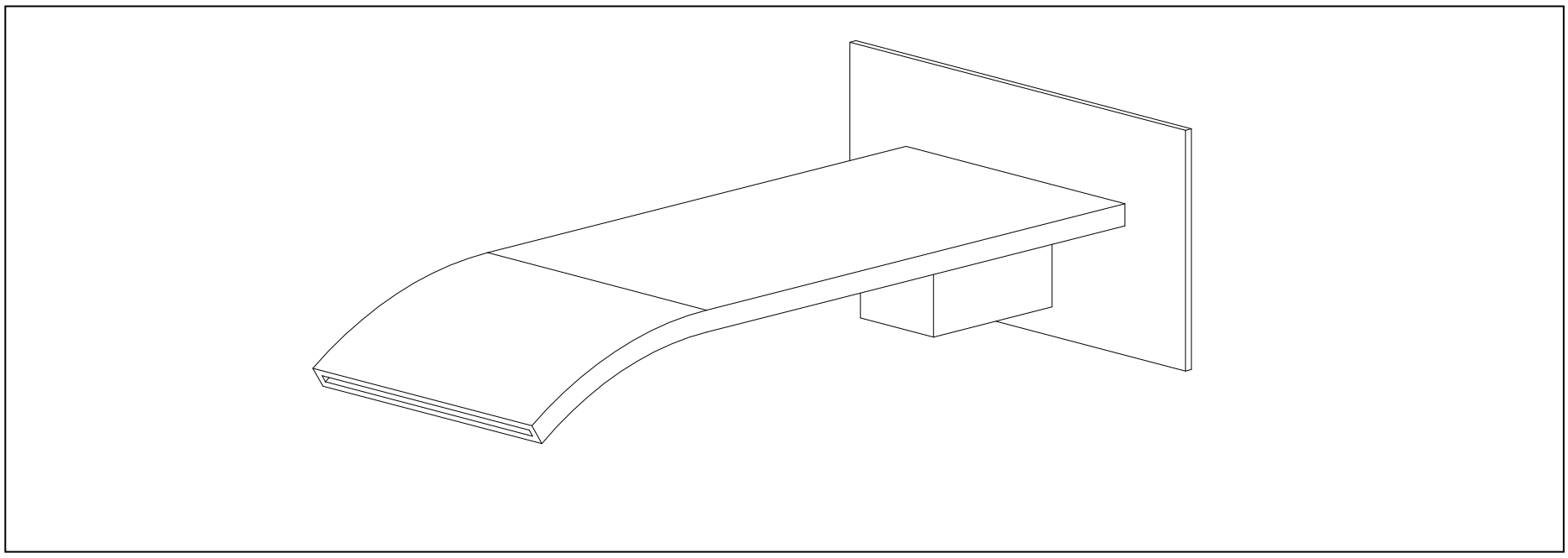
8.3. Attach the tub spout to the spout nipple by sliding it into place and securing it with set screws.



8.4 Secure the spout using the set screw and the provided Allen key.

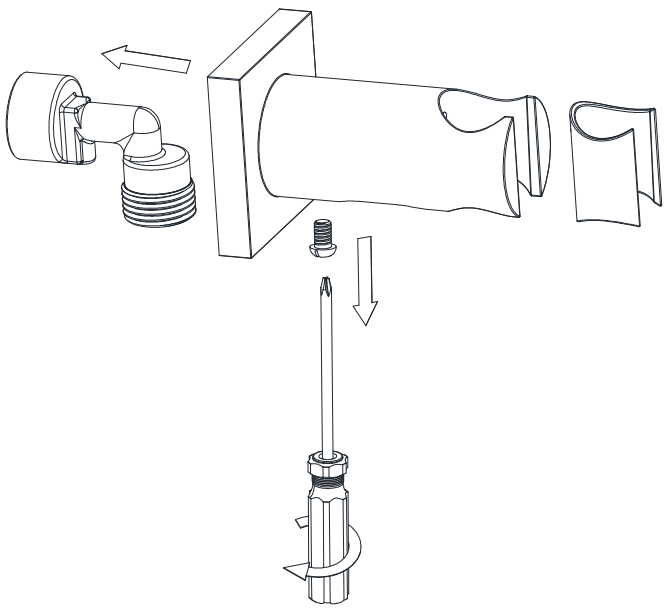


8.5 The bathtub spout installation is complete.

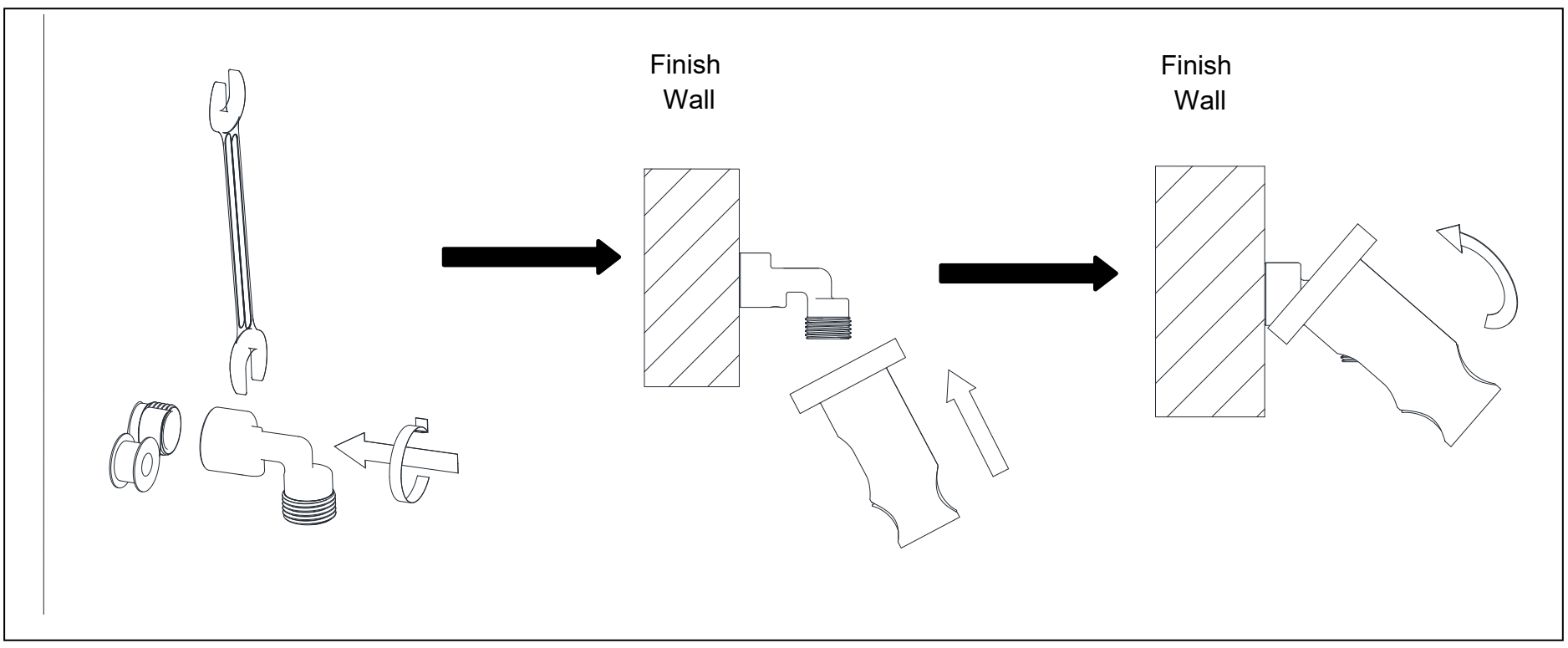


9. HAND SHOWER INSTALLATION

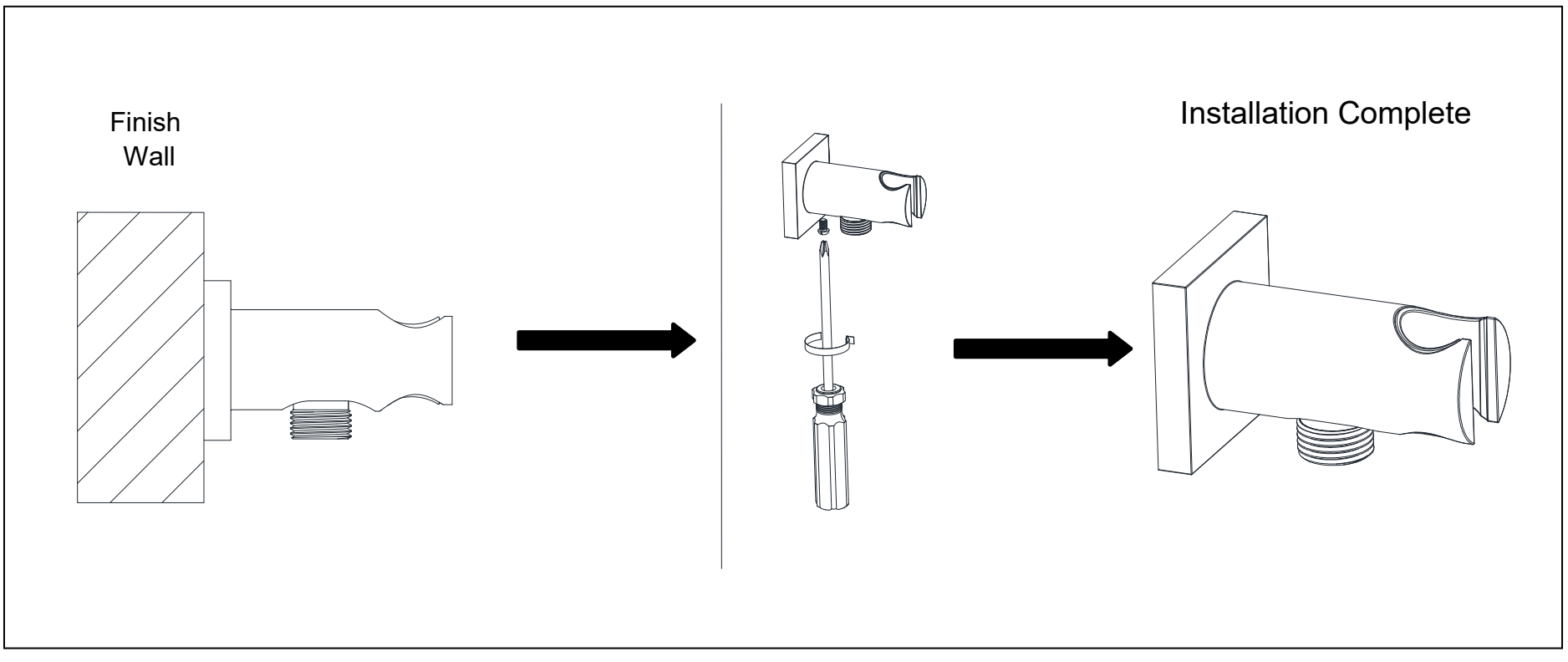
9.1 Disassemble the wall elbow.



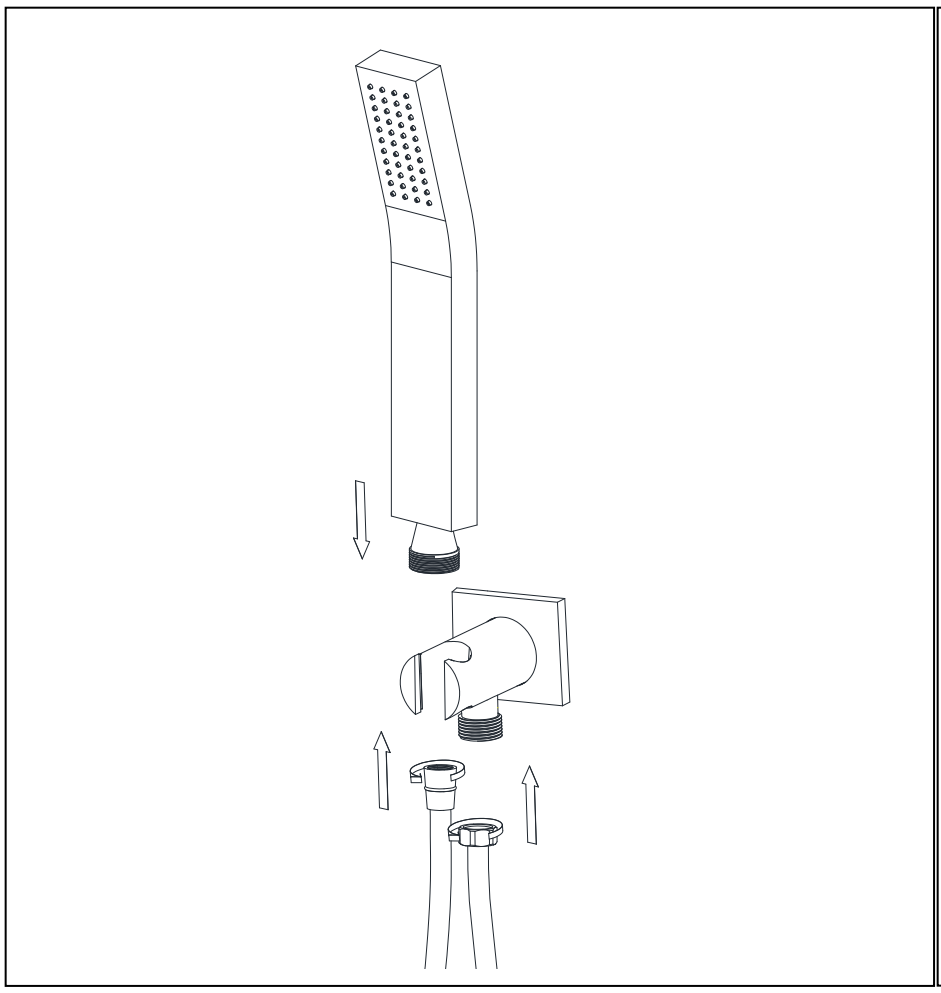
9.2 Tighten the wall elbow onto the water outlet using a wrench, then slide the trim into place.

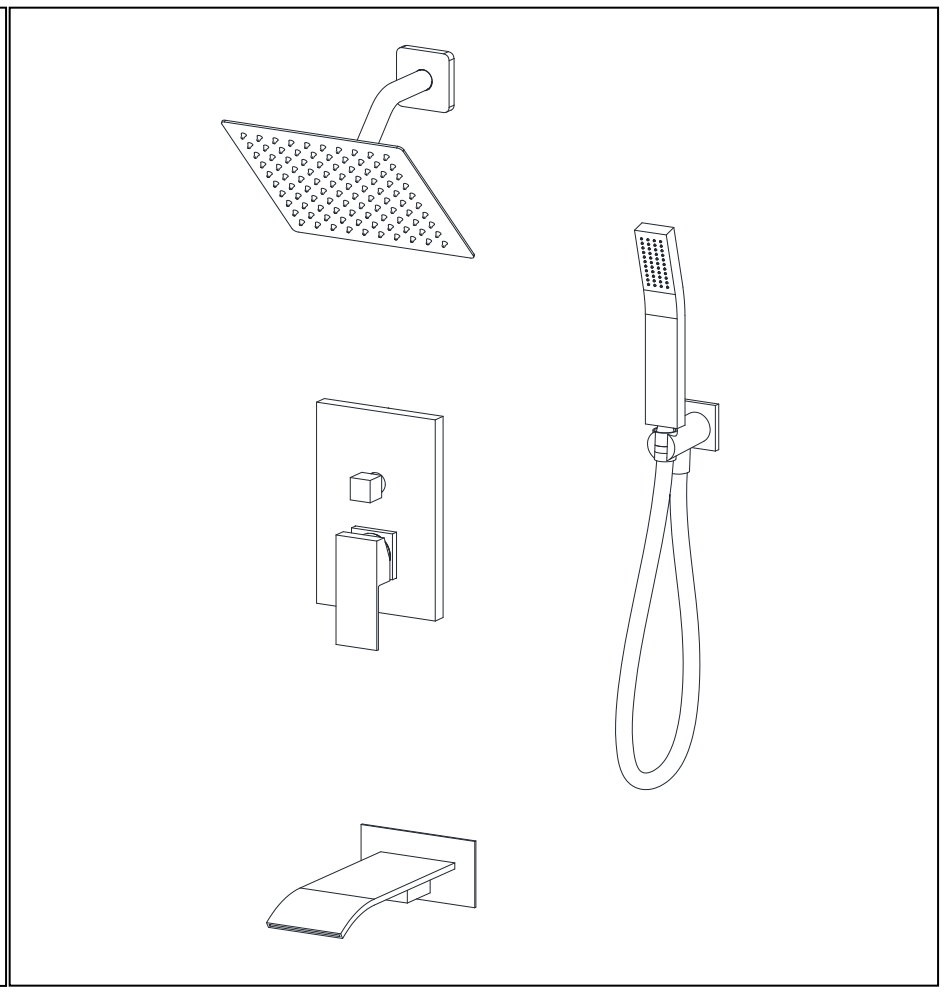


9.3 Position the trim flush against the finished wall, then secure the trim to the wall elbow valve by tightening the screw from the bottom.



9.4. Attach the hand shower to the supply elbow using the flexible hose, ensuring all connections are secure.





10. INSPECTION

10.1 Turn on the hot and cold water supply valves and check all connections to ensure there are no leaks.

11. FUNCTION INSPECTION

11.1 Turn the handle to activate water flow from the showerhead.
11.2 Turn the diverter knob to direct water flow to the hand shower.

INSTALLATION COMPLETED

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