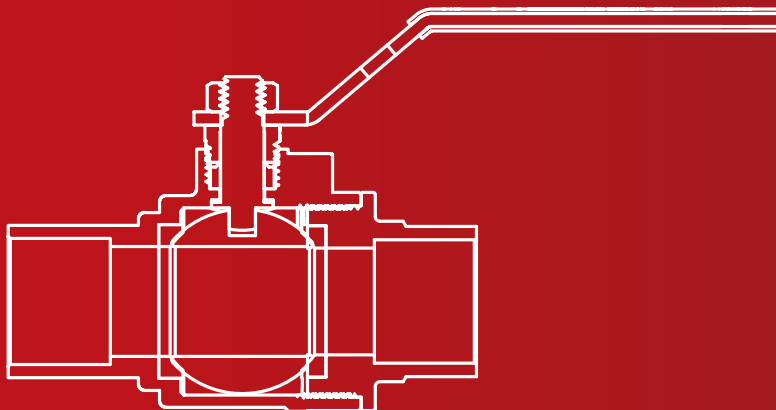




INSTALLATION, OPERATION, & MAINTENANCE GUIDE

BRONZE BALL VALVES

2 Piece, Solder Connection



MODELS
S-200CSS
S-200CSSG



IMPORTANT

For safe and proper operation, please read the enclosed installation, operation, and maintenance instructions prior to using any Jomar Valve product. Save this document for reference.

Only licensed professional plumbers should undertake the procedures outlined in this document. Jomar Valve, its agents, representatives, and employees assume no liability for the use of these procedures. These procedures are offered as suggestions only.

Note that failure to follow the enclosed instructions may damage the product and/or void any applicable warranties.



Bronze Ball Valves

2 Piece, Solder Connection

Models: S-200CSS, S-200CSSG



S-200CSS



S-200CSSG

IMPORTANT

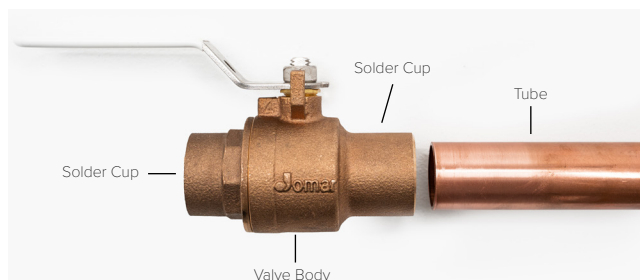
NOTE: Jomar bronze valves do not contain silicon alloys and therefore do not require extra heat.

PREPARATION

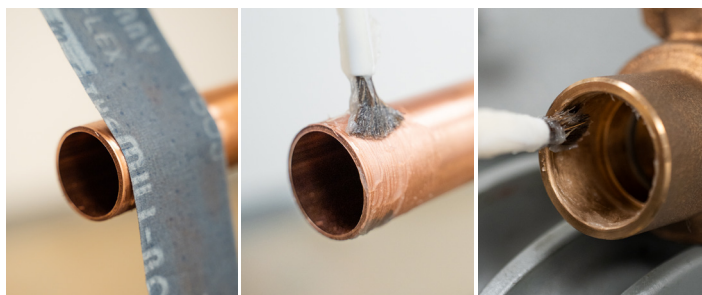
1. Operate valve prior to installation; be sure that the travel-stops allow full operating range-of-motion between the open and closed positions.
2. Solder connection ball valves are bidirectional and can generally be installed in whichever orientation is practical for the piping system, regardless of flow direction.
3. Valves must be rated for their intended use, media, temperature, and pressure.
4. Protect valves from extreme hot/cold/corrosive environments, which could damage the valve and lead to failure.
5. Installation should be performed by a licensed professional plumber and adhere to all applicable codes and standards.

INSTALLATION

1. **Measuring and Cutting:** Measure tube length to ensure full insertion into the valve solder cup. Cut the tube square using appropriate tools (tube cutter, hacksaw, abrasive wheel, or band saw). Avoid deforming the tube; if deformation occurs, restore roundness using proper sizing tools.
2. **Reaming:** Ream all cut tube ends to remove internal burrs. Remove internal and external burrs to ensure proper fit. Use suitable tools such as reaming blades, files, or deburring tools.



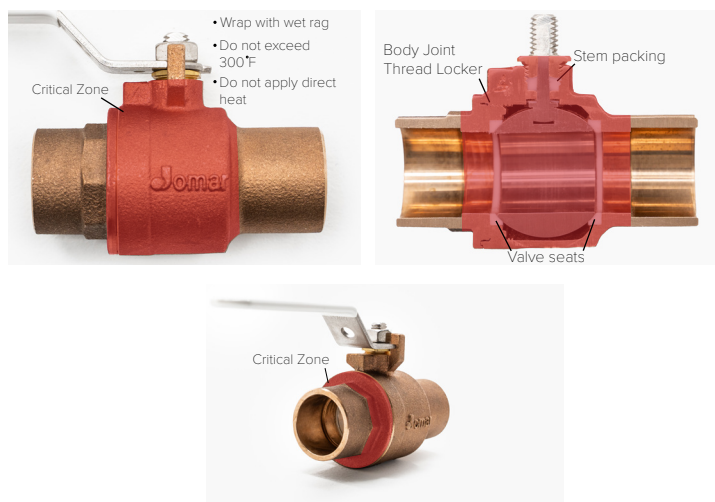
3. **Cleaning:** Clean all oxides and contamination from tube ends and solder cups. Lightly abrade tube ends beyond the depth of the solder cup. Use abrasive cloth, pads, or fitting brushes.
4. **Fluxing:** Apply a thin, even coat of ASTM B813 compliant flux to the tube exterior and valve solder cup immediately after cleaning. Do not apply flux inside the tube.



5. **Assembly and Support:** Place valve in the fully open position. Insert tubing fully into the solder cup until seated. Use a slight twisting motion for even flux distribution. Remove excess flux and properly support the assembly to prevent movement.
6. **Heating:** Acetylene shall be avoided when soldering. Acetylene burns at a higher temperature than typical soldering gases like MAPP gas, which can cause excessive heat that leads to damaging the valve.

NOTE: TO PREVENT DAMAGE TO VALVE SEATS, THREAD LOCKER, AND STEM PACKING WHILE SOLDERING, WRAP THE VALVE BODY WITH A WET RAG.

Preheat the tube first, then alternate the flame between the tube and solder cup, being sure to angle the torch away from the center of the valve body. Never apply direct heat in Critical Zones indicated in the images below.



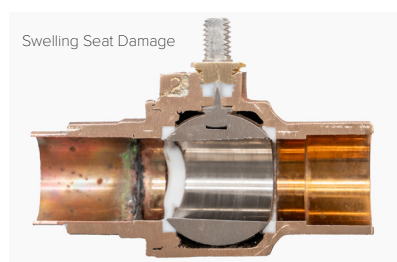
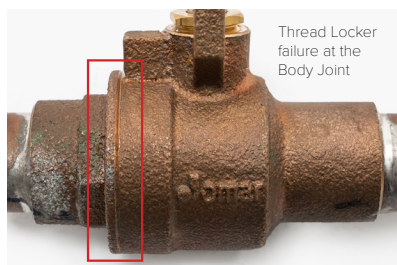
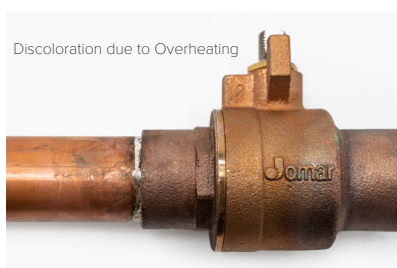


INSTALLATION, CONT'D

Keep the flame moving to evenly distribute heat to all surfaces of the solder cup and avoid overheating. Do not direct the flame into the solder cup.

Periodically touch solder to the joint to check temperature. If it does not melt, continue heating. Once proper temperature is reached, concentrate the heat at the base of the fitting cup.

NOTE: Overheating can damage valve seats, cause a leak at the body joint, or cause a body fracture due to thermal expansion in critical zones. Limit valve body temperature exposure to 300°F maximum. If the valve begins discoloring from the heat, the valve is likely overheated.



7. **Applying Solder:** Soft solder with melting points below 500°F must be used to prevent overheating.

Touch solder to the heated joint, beginning at the bottom of the joint and moving upward to the top center position. Return down and overlap the starting point, then proceed up the incomplete side to the top to overlap the solder. Maintain heat at the base of the cup to promote capillary flow.

Use only the amount of solder necessary and remove heat immediately once the joint is filled.

8. **Cooling and Cleaning:** Allow the joint to cool naturally. Do not use water or forced cooling as this could cause unwanted internal stresses and lead to cracking of the valve body. After cooling, remove any remaining flux residue with a damp rag. Inspect the joint and repeat the process for the opposite side.

For proper soldering technique, please view the below video:

bit.ly/3SGM9mf



OPERATION

1. Rotate the valve handle in the direction indicated for open or close. Applying excessive force or impact to open or close the valve can result in damage to the valve, and can lead to failure.

MAINTENANCE

1. It is recommended that valves be inspected and physically operated between the open and close position at least six (6) times per year, when the piping system allows. This will help to reduce build-up and corrosion on the interior of the valve. Inspect for signs of leakage or body damage and make repairs as soon as the piping system allows. Leaks occurring at the valve stem can often be sealed by tightening the packing nut. If handles become damaged, they can be replaced by removing the handle nut. Be sure to use replacement handles that are compatible with the valve's stem and hard-stops.

NOTE: If problems occur, contact csr@jomar.com to determine if a Return Goods Authorization (RGA) is required. If RGA is approved, valves shall be cut from the pipe with at least one (1) inch of remaining pipe on each side of the sample so that root causes of issues can be determined. Valves that have been de-soldered for removal cannot be properly evaluated and therefore are not eligible for root cause analysis, voiding authorization of returns.

DISASSEMBLY FOR REPAIRS IS NOT RECOMMENDED BY JOMAR. REPAIR PARTS FOR THIS VALVE ARE NOT OFFERED.