



QUARTER-TURN BALL VALVE – Sweat connections IOM MANUAL

▲ For safety purpose, please refer to ASTM B828, ANSI Z49.1 and local standards.

▲ Individuals performing solder process should be skilled installers with knowledge of ASTM B828 standard regarding "Standard Practice Making Capillary Joints by Soldering of Copper Tubes and Fittings".

▲ The valve is bidirectional; this means fluid can flow either from left to right or from right to left, regardless of installed position.

▲ The valve is made of low lead alloy, meeting US law requirements for domestic water applications.

▲ Metal pipes are subject to expansion and contraction during operations. It is important to consider this characteristic prior to installation.

INSTALLATION

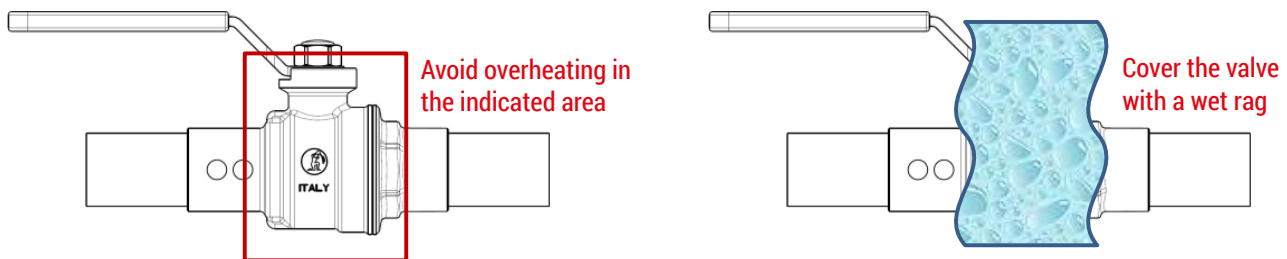
Before starting the installation, following ASTM B828 standard, properly measure and cut the pipes, ream all cut ends to remove any burrs and clean all oxides from tube ends and valve cup surfaces.

Lightly abrade tube ends to promote surface contact.

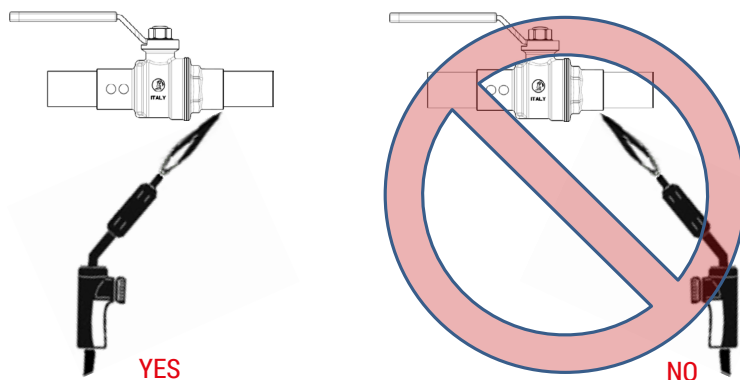
Add flux to both end part of the tube and valve cups; then insert the pipe into the valve.

It is important to assure valve is in open position to allow heat to escape.

It is strongly recommended wrapping the valve with a wet rag. This functions as a cooling technique, and protection from excessive heat that can potentially damage internal seats or O-rings. Always be sure to keep flame away from the rag to avoid risk of fire.

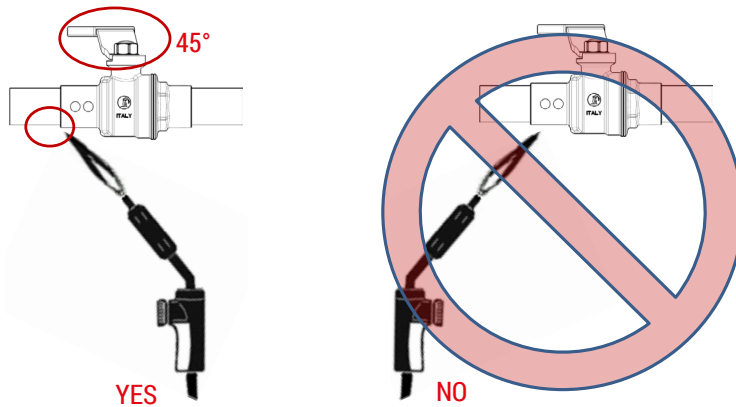


Then heat valve cup near the ends, having care of not heating the body joint. Pre-heating time will vary due to installation characteristics including valve and pipe sizes and ambient temperature and conditions.



Referring to **horizontal installation**, start applying the filler metal at the bottom of the joint then upward. By starting at the lowest position a dam will be created within the joint to reduce run off of filler material throughout sweat process. Assure brazing material is applied to full perimeter of joint.

Repeat this same process for other end. Before this step, slightly move the handle clear of flame area to avoid heating of vinyl grip, but do not completely close valve; **45° angle is perfect**. It's also acceptable to keep the valve in this position for the entire soldering process, if it doesn't create any inconvenience on handling the valve.



For installations in **vertical position**, make a similar sequence.

At the end of the process, it is necessary to allow valve to cool naturally; and not use water or other fluid to expedite cooling.

Always test joint for proper seal prior to service.

OPERATION

For operation, move the handle, accordingly to arrows on the lever handle, to position for the intended open or closed function. The valve handle is marked showing proper rotation direction for "ON" and "OFF" positions. Standard rotation is clockwise for "OFF" (closed) and counterclockwise for "ON" (open).

MAINTENANCE

In closing, it is beneficial to understand that you have now installed a valve designed with double O-Ring stem technology. This design provides **maintenance free operation** and will not require periodic adjustments typical of packing gland ball valves.

▶ Installation video available at the following link: <https://www.youtube.com/watch?v=84saeVzl-mQ>

