

APOLLOPRESS® BALL VALVE INSTALLATION, OPERATION, & MAINTENANCE GUIDE

INSTALLATION

APOLLOPRESS® ball valves are bi-directional and are a quick, convenient way to connect mating tube or pipe. They are compatible with all standard press tools and jaws. They may be installed in vertical or horizontal pipe runs without regard to flow direction and without regard to stem orientation. Special considerations must be taken with respect to pipe line expansions and contractions and the media expansions and contractions within the piping system. Adequate clearance for the press tools must also be considered when planning an installation.

APOLLOPRESS® ball valves contain “LEAK BEFORE PRESS” EPDM sealing elements with SILICONE FREE NSF61 lubricant. Please confirm service complies with the ratings listed for the valve. Corrosive service conditions may damage or cause material failure so review of valve materials is recommended prior to installation.

Preparing the Tube

- 1.) Cut the desired length of tubing using a tubing cutter positioned squarely.
- 2.) De-burr the inside and outside diameter edges of the tube with a rounded file or de-burring tool. This will prevent damage to the sealing element during insertion.
- 3.) Clean the tube of all dirt, chips, oil, grease or foreign matter.

Note: Tubing with stamping marks or scratches on the OD, as shown in figures 1 and 2, may cause leakage past the valve sealing element and should be avoided. Use of a fine grade sand cloth or Scotch-Brite™ pad can remove minor surface imperfections.



Figure 2 - Roll Stamped Tubing



Figure 1 - Tube scratch damage

Inserting the Tube

Make sure that the sealing elements are in place and free of dirt, oil, grease or other foreign matter. Insert the tube into the valve using a twisting motion. Make sure that the tube is fully inserted until it stops.

Warning: Do not lubricate the seal in the valve with petroleum based lubricants as this will cause damage to the EPDM sealing elements.

Pressing the Valve

1. Place open jaws around valve connection. Make sure the contour of the jaw set is properly aligned with the seal bead of the valve connection
2. Actuate press tool. The pressing cycle varies depending on the press tool. Once a press cycle begins, and the rollers contact the jaw arms, the tool will lock-on and automatically complete the press cycle.
3. Press the jaw arms to open jaw set. If tool malfunctions, please refer to specific tool operator's manual.
4. Remove the press tool from the pressed connection.

Caution: Jaw set must be square to the tube and properly aligned with the contour of the valve. Inspect the press tool to verify it is in good working condition. Inspect the ring/jaw sets and verify that they are clean and do not display excessive wear. For battery operated units, verify that the battery has an adequate charge. See press tool manufacturer's operating instructions.



Warning: To avoid pinch point injury, keep hands and fingers away from jaws. Avoid sharp edges that may have formed on the valves during the pressing operation.

Inspecting the Connection

1. Inspect the press connection for the following: Misaligned tubes, tubes not fully inserted, check depth marks, loose connection, incorrect jaw alignment with the fitting.
2. If one or more of these problems are found, then a new section of tubing and a new valve will have to be prepared, inserted and pressed.

3. Test the system for leaks in accordance with normal practice and local codes.

Troubleshooting

SYMPTOM	POSSIBLE REASONS	SOLUTION
Press cycles produced are not complete.	Wrong jaw set or press ring for the tube size or material.	Install correct jaw set.
	The jaw set or ring was not square to the tube.	Redo the joint with new tube and valve and make sure that the jaw set or ring is square to the valve.
	Jaw contour was not aligned with the valve contour.	Redo the joint with new tube and valve and make sure that the jaw set or ring is square to the valve.
	The jaw set or ring has exceeded life expectations and may have failed.	If cracked, replace old jaw set with a new jaw set and redo the joint using a new tube and valve.
Excessively large or sharp fins present at press joint parting line where jaw or ring tips come together.	Copper material build-up on jaws or rings in the contoured profile area near jaw or ring tips.	Clean jaw sets or rings in the contoured area using metal polishing pads such as Scotch-Brite®. Refer to the press tool's maintenance section for proper instructions
	Excessively worn or damaged jaw sets or rings.	Discard jaws or press ring and replace with a new jaw set.
Jaws stick to valve excessively after completing joint.	Copper material build-up on jaws or rings in the contoured profile area near jaw or ring tips.	Clean jaw sets or rings in the contoured area using metal polishing pads such as Scotch-Brite®. Refer to the press tool's maintenance section for proper instructions

OPERATION

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

Normal stem packing wear can be compensated for by tightening the packing gland nut. The top nut and the lever may need to be removed for easy access to the packing nut. Tighten the packing nut clockwise in 1/8 turn increments until observed leakage stops. (Packing wrench part number H371400 is available to ease this operation.) Reinstall the handle and handle nut after adjustment.

ADDITIONAL RESOURCES

ApolloPress® Installation and Pressing Instructions

http://cdn.conbraco.com/apollopress/documents/APOLLOPRESS_Installation_Instructions.pdf

ApolloPress® Approved Applications

http://cdn.conbraco.com/apollopress/documents/APOLLOPRESS_Approved_Applications_Sheet.pdf

ApolloPress Jaw Compatibility

http://cdn.conbraco.com/apollopress/documents/APOLLOPRESS_Jaw_Compatibility.pdf

ApolloPress FAQ's

http://cdn.conbraco.com/apollopress/documents/APOLLOPRESS_FAQs.pdf

FOR NON-LEAD FREE VALVES: It is illegal to use this product in the United States for potable water services (water intended for human consumption).

FOR LEAD FREE VALVES: This product complies with U.S. Safe Drinking Water Act (SDWA). Suitable for potable water applications intended for human consumption.

Amendment Register

Date	ECN	Revision	Page	Description	Initiator	Reviewed
8/7/18	M17047	E	1-2	Updated format, Added potable water warning	DRP	WGH
10/22/21		F	All	Removed Conbraco reference, added tube surface cautions.	BKG	GDG