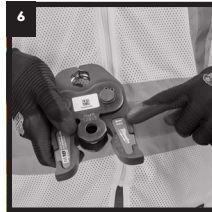
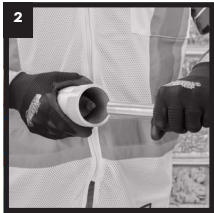


INSTALLATION INSTRUCTIONS

Small Diameter (SD)

WARNING: Copper press fittings must be installed in accordance with this section. Always ensure that the pressing tool and its jaws are appropriate for the copper tubing and size of fitting. Always refer to the pressing tool manufacturer's instructions for operation and maintenance prior to use with copper press fittings. Always wear PPE such as a hardhat, gloves, and safety glasses when making press connections. Failure to follow these instructions may void the warranty and result in extensive property damage, serious injury or death.



1. Cut copper tubing

After selecting the correct size of copper tubing for the job, ensure that it is clean and free from imperfections. Once inspected, cut the copper tubing at right angles using displacement type cutter or fine-toothed steel saw. Avoid jagged edges or scratching the tubing's surface. When cutting tubing, it must be cut all the way through. Never partially cut the copper tubing and break it off as it could cause leakage.

2. Deburr tubing

After the tubing is cut to length, deburr the inside and outside with a file, hand deburrer or an electrical pipe deburrer to remove debris and prevent damage to the sealing element. Once the tubing has been deburred, lightly clean the end of the tubing with a piece of sand cloth or similar material to ensure a smooth, and oil-free surface.

3. Check press fittings

In addition to checking the tubing for any imperfections, check the fitting to ensure that it is free of debris, burrs, etc., and that the sealing element is present and appropriate for the application. If the sealing element is lifted from its bead pocket, gently push it back into place being sure to not transfer dirt or debris to the sealing surface. When checking the seal for the correct fit, do not use oil and lubricants.

4. Measure & mark tubing

With a permanent marker, mark the proper insertion depth at the

appropriate distance from the end of the tubing as indicated in the copper press insertion depth chart.

NOTE: improper insertion depth may result in an improper seal.

5. Insert tubing into fitting

Carefully insert the tubing into the fitting to the prescribed insertion depth. The insertion depth mark must be visible after the tubing is inserted into the fitting to identify any movement that may occur before or after the pressing. In the instance that a fitting does not have a stop, the fitting must be centered between the tubing ends, however, the minimum tubing insertion depth must be maintained and marked.

NOTE: if the tubing is roughly or carelessly inserted into the press fitting, it may cause damage to the sealing element.

6. Verify tool & jaw

Verify that the tool and jaw being used for the application are the appropriate size for the fitting using an approved press tool from the copper press tooling table.

NOTE: failure to follow these instructions may void the warranty.

Copper Press Insertion Depth Chart

Copper Press Insertion Depth Chart					
Tube Size					
0.5"	0.75"	1"	1.25"	1.50"	2"
Insertion Depth					
3/4"	7/8"	7/8"	1"	1-7/16"	1-9/16"

7. Position tool

Ensure the jaw pressing surfaces are clean and free from debris. Once inspected insert the appropriate jaw into the tool and use the pin to lock it in place. Next, open the jaws and place it onto the raised area of the fitting. Be sure to check the insertion depth mark on the tubing to make sure the tubing is still completely inserted into the fitting.

8. Press connection

To begin the pressing process, make sure the jaw is fully engaged with the fitting and squeeze the trigger. The press tool will complete a cycle and then stop. Do not release the trigger until the pressing action is complete. An incomplete press may reduce the pressure retention capabilities of the joint and lead to subsequent system leakage.

9. Remove tool & Inspect press connection

Once the tool has completed a full pressing cycle, release the trigger, and remove the ring from the fitting. Once jaw is removed from the fitting, the Visual Indicator Press Ring (VIPR)™ will break off, indicating a complete press.

NOTE: if the VIPR does not instantly break off, simply remove by hand. Leak testing Unpressed connections can be identified prior to pressurization by the presence of the VIPR on the bead outer diameter.

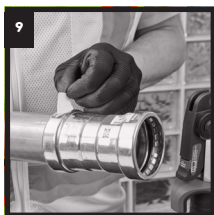
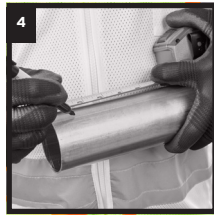
Leak testing

Unpressed connections can be identified prior to pressurization by the presence of the VIPR on the bead outer diameter. The copper press sealing element is designed to physically leak while unpressed when the system is pressurized with air (45 psi max) or water (85 psi max) or per local codes, giving redundant assurance of installation integrity.

INSTALLATION INSTRUCTIONS

Large Diameter (XL)

WARNING: Copper press fittings must be installed in accordance with this section. Always ensure that the pressing tool and its jaws are appropriate for the copper tubing and size of fitting. Always refer to the pressing tool manufacturer's instructions for operation and maintenance prior to use with copper press fittings. Always wear PPE such as a hardhat, gloves, and safety glasses when making press connections. Failure to follow these instructions may void the warranty and result in extensive property damage, serious injury or death.



1. Cut copper tubing

After selecting the correct size of copper tubing for the job, ensure that it is clean and free from imperfections. Once inspected, cut the copper tubing at right angles using displacement type cutter or fine-toothed steel saw. Avoid jagged edges or scratching the tubing's surface. When cutting tubing, it must be cut all the way through. Never partially cut the copper tubing and break it off as it could cause leakage.

2. Deburr tubing

After the tubing is cut to length, deburr the inside and outside with a file, hand deburrer or an electrical pipe deburrer to remove debris and prevent damage to the sealing element. Once the tubing has been deburred, lightly clean the end of the tubing with a piece of sand cloth or similar material to ensure a smooth, and oil-free surface.

3. Check press fittings

In addition to checking the tubing for any imperfections, check the fitting to ensure that it is free of debris, burrs, etc., and that the sealing element is present and appropriate for the application. If the sealing element is lifted from its bead pocket, gently push it back into place being sure to not transfer dirt or debris to the sealing surface. When checking the seal for the correct fit, do not use oil and lubricants.

4. Measure & mark tubing

With a permanent marker, mark the proper insertion depth at the appropriate distance from the end of the tubing as indicated in the copper press insertion depth chart.

NOTE: improper insertion depth may result in an improper seal.

5. Insert tubing into fitting

Carefully insert the tubing into the fitting to the prescribed insertion depth. The insertion depth mark must be visible after the tubing is inserted in to the fitting to identify any movement that may occur before or after the pressing. In the instance that a fitting does not have a stop, the fitting must be centered between the tubing ends, however, the minimum tubing insertion depth must be maintained and marked.

NOTE: if the tubing is roughly or carelessly inserted into the press fitting, it may cause damage to the sealing element.

6. Verify tool, ring & jaw

Verify that the tool, ring and jaw being used for the application are the appropriate size for the fitting using an approved press tool from the copper press tooling table.

NOTE: failure to follow these instructions may void the warranty.

Copper Press Insertion Depth Chart

Tube Size		
2-1/2"	3"	4"
Insertion Depth		
1-11/16"	1-15/16"	2-3/8"

7. Position tool

Ensure the ring pressing surfaces are clean and free from debris. Once inspected, insert the appropriate jaw into the tool and use the pin to lock it in place. Next, open the ring and place it onto the raised area of the fitting. Be sure to check the insertion depth mark on the tubing to make sure the tubing is completely inserted into the fitting.

8. Press connection

To begin the pressing process, make sure the jaw is fully engaged with the ring and squeeze the trigger. The press tool will complete a cycle and then stop. Do not release the trigger until the pressing action is complete. An incomplete press may reduce the pressure retention capabilities of the joint and lead to subsequent system leakage.

9. Remove tool & Inspect press connection

Once the tool has completed a full pressing cycle, release the trigger, and remove the ring from the fitting. Once the ring is removed from the fitting, remove the application label sticker to complete the process.

Leak testing

The copper press sealing element is designed to physically leak while unpressed when the system is pressurized with air (45 psi max) or water (85 psi max) or per local codes, giving redundant assurance of installation integrity.