

# INSTALLATION INSTRUCTIONS Small Diameter (SD)

WARNING: CopperPress® 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 CopperPress® 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 pipe

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 CopperPress<sup>®</sup> Insertion Depth Chart.

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



5. Insert pipe 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 & 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 CopperPress® Tooling Table.

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





### 7. Position tool

Ensure jaw pressing surfaces are free from debris. Once inspected, insert the approved jaw into the pressing tool and push in, hold the pin until it locks in placed. Next, open the jaws and visually check the insertion depth using the mark on the tubing.







### 8. Press connection

To begin the pressing process, position the tool jaws on the raised portion at the fitting end(s) then squeeze until the trigger has engaged the sealing element or VIPR® (Visual Indicator Press Ring®). The press tool will complete a cycle then stop. Do no 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 jaw from the fitting. Once the jaw is removed from the fitting, the VIPR<sup>®</sup> 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<sup>®</sup> on the bead outer diameter. The **CopperPress<sup>®</sup>** 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.



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### 2. Deburr pipe

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 **CopperPress**<sup>®</sup> Insertion Depth Chartt.

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



### 5. Insert pipe 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<sup>®</sup> Tooling Table.

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





CopperPress® Insertion Depth Chart		
Tube Size		
2.5"	3''	4''
Insertion Depth		
1-11/16"	1-15/16"	2 - 3/8"

### 7. Position tool

Ensure jaw pressing surfaces and ring are free from debris. Once inspected, insert the approved jaw into the pressing tool and push in, hold the pin until it locks in placed. Open the jaw on the press tool and close on the appropriate location on the ring. Next, open the ring and visually check the insertion depth using the mark on the tubing. Place the press ring onto the fitting, being sure to align it with the raised, grip-ring, portion of the fitting.







### 8. Press connection

To begin the pressing process, position the tool rings on the raised portion at the fitting end(s) then squeeze until the trigger has engaged the sealing element. The press tool will complete a cycle then stop. Do no 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

Unpressed connections can be identified prior to pressurization by the presence of the VIPR<sup>®</sup> on the bead outer diameter. The **CopperPress**<sup>®</sup> 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.