

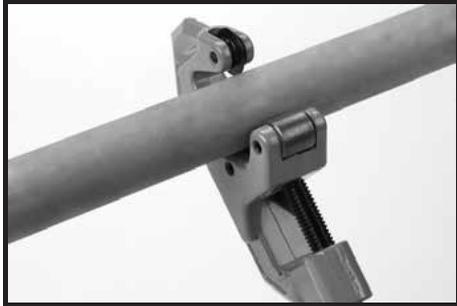
StainlessPress®

IsoTubi-USA, By Merit Brass Co.



INSTALLATION INSTRUCTIONS

IsoTubi-USA Stainless Steel Fittings and Valves must be installed in accordance with this section. Always ensure that the pressing tool and its jaws are appropriate for the schedule of pipe and size of fitting or valve. Always refer to the pressing tool manufacturer's instructions for operation and maintenance prior to use with IsoTubi-USA Stainless Steel Fittings and Valves. *Failure to follow these instructions may void the warranty.*



1. SELECT & CUT PIPE

Select the correct size of pipe, fitting or valve for the job. Ensure that both are clean and free from damage and imperfections. Cut pipe squarely, making sure to avoid jagged edges or scratching and denting pipe surface.



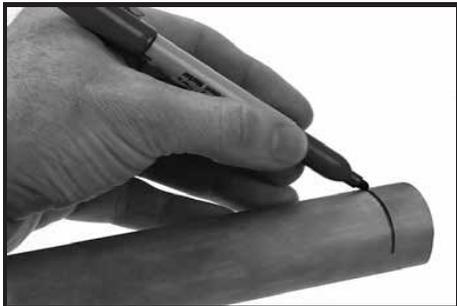
2. DEBURR PIPE

Deburr inside and outside of pipe, removing debris that can impede flow or damage the O-Ring Seal material. Clean pipe surface of oil and debris.



3. CHECK PRESS FITTINGS

Check the press fittings and valves to ensure the O-Ring Seal material is appropriate for the application. The color of the O-Ring Seal indicates the material type. Select the O-Ring Seal based on the intended application.



4. MEASURE & MARK PIPE

With a permanent marker, mark the insertion depth at the appropriate distance from the end of the pipe.

5. INSERT PIPE INTO FITTINGS

Insert the pipe until it contacts the pipe stop of the fitting or valve. With the fitting or valve on the pipe, the insertion mark should be visible.

The Slip Coupling does not have a pipe stop and must be centered between the pipe ends. However, the minimum pipe insertion depth must be maintained and marked.

6. VERIFY TOOL & JAW

Using an approved Press Tool from the Tooling Table, verify the Tool Jaw is the appropriate size for the fitting. For wall and tube clearances, refer to the pressing tool manufacturer's instructions. *Failure to follow these instructions may void the warranty.*

7. POSITION TOOL & SQUEEZE TRIGGER

Position the Tool Jaws on the raised surface of the fitting or valve, then squeeze the trigger until the pressing action is complete. The pressing will complete a cycle and then stop.

Do not release the trigger until the pressing action is complete. Incomplete presses may reduce the pressure retention capabilities of the joint and lead to subsequent system leakage.

8. REMOVE TOOL FROM FITTING & INSPECT

Release the trigger and remove the Jaw from the fitting. Inspect the connection to make sure the fitting or valve insertion mark is in the appropriate place.

INSERTION MARK LOCATION	
Nominal Size	Insertion Mark Distance
1/2	0.875
3/4	1.000
1	1.063
1-1/4	1.16
1-1/2	1.250
2	1.813

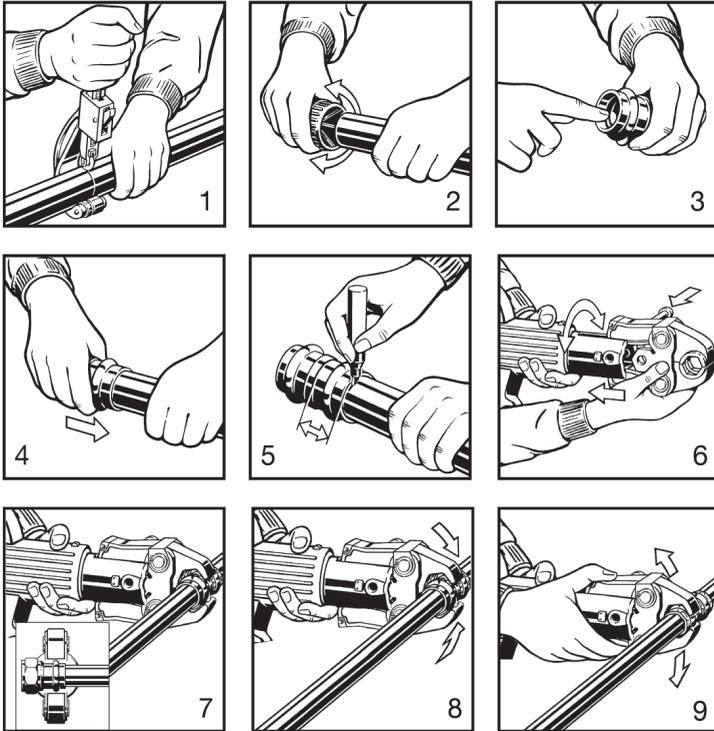


PRESSING TOOLS

The IsoTubi-USA system uses only Type M press configuration and can be installed using any of the press tools shown in the table above and on page 8. Tools are powered with a rechargeable battery. Each tool has a unique set of easily interchangeable jaws/collars for each pipe size.

PRESSING TOOLS
Milwaukee's M18 Force Logic Long Throw Press Tool
See Tooling PDF for Associated Jaws and Rings

INSTALLATION INSTRUCTIONS



CopperPress[®] 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"

Small Diameter (SD)

WARNING. Read and understand all instructions for installing CopperPress[®]. Failure to follow all instructions may result in extensive property damage, serious injury or death.

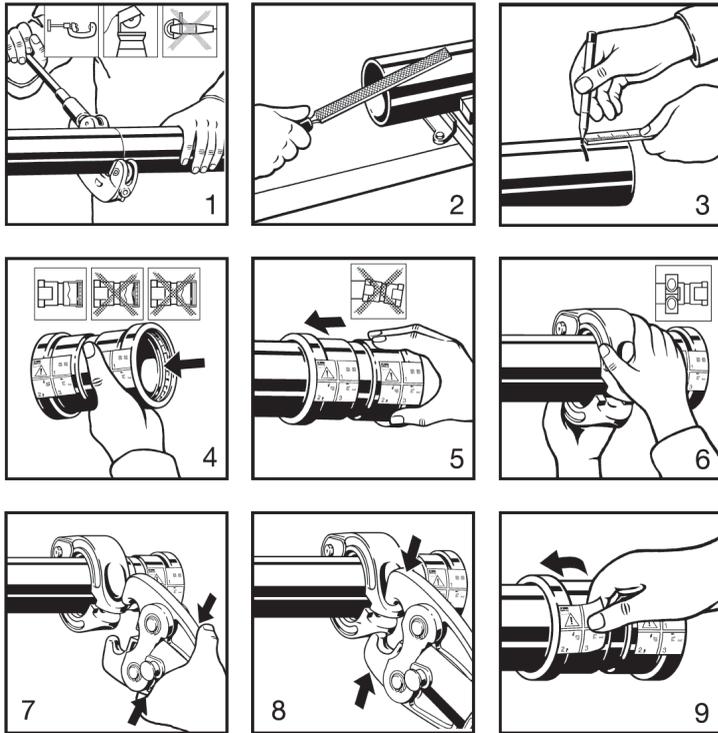
1. Cut copper tubing at right angles using displacement type cutter or fine-toothed steel saw.
2. Remove burr from inside and outside of tubing to prevent cutting sealing element. Then lightly clean the end of the tube with a piece of sand cloth, or similar material.
3. Check seal for correct fit. Do not use oils or lubricants. Use only CopperPress[®] sealing elements.
4. Mark proper insertion depth as indicated by the CopperPress[®] Insertion Depth Chart.
Note: Improper insertion depth may result in improper seal.
5. While turning slightly, slide press fitting onto tubing to the marked depth.
Note: End of tubing must contact stop.
6. Insert approved jaw into the pressing tool and push in, holding pin until it locks in place.
7. Open the jaw and place at right angles on the fitting. Visually check insertion depth using mark on tubing.
8. Start pressing process and hold the trigger until the jaw has engaged the fitting.
9. After pressing cycle is completed, the jaw can be opened again.

LEAK TESTING



Unpressed connections are located by pressurizing the system with air or water. When testing with water, the proper pressure range is 15 PSI to 85 PSI maximum. Leak testing with air can be dangerous at high pressures. When testing with compressed air, the proper pressure range is 1/2 PSI to 45 PSI maximum. Following a successful leak test, the system may be pressure tested up to 300 PSI with air, or up to 600 PSI with water, if required by local code requirements or project specifications.

INSTALLATION INSTRUCTIONS



CopperPress® Insertion Depth Chart

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

Extra Large Diameter (XL)

WARNING. Read and understand all instructions for installing CopperPress®. Failure to follow all instructions may result in extensive property damage, serious injury or death.

1. Cut copper tubing at right angles using displacement type cutter or fine-toothed steel saw.
2. Remove burr from inside and outside of tubing to prevent cutting sealing element. Then lightly clean the end of the tube with a piece of sand cloth, or similar material.
3. Measure and mark proper installation depth as indicated by the CopperPress® Insertion Depth Chart.
Note: Improper insertion may result in improper seal.
4. Check sealing element in CopperPress® product for correct fit. Do not use oils or lubricants. Use only CopperPress® sealing elements.
5. While turning slightly, slide press fitting onto tubing to the marked depth or until fully seated on stop.
6. Using approved CopperPress® Press tool and jaw/rings sets place the ring over the fitting at the bead to be pressed.
7. Open the jaw on the press tool and close on the appropriate location on the ring.
8. Start the pressing process by holding the trigger continuously until the tool has made a complete press cycle.
9. After tool has completed a full press cycle, the jaw and ring can be opened and removed. Remove the application label sticker to complete the process.

LEAK TESTING



Unpressed connections are located by pressurizing the system with air or water. When testing with water, the proper pressure range is 15 PSI to 85 PSI maximum. Leak testing with air can be dangerous at high pressures. When testing with compressed air, the proper pressure range is 1/2 PSI to 45 PSI maximum. Following a successful leak test, the system may be pressure tested up to 300 PSI with air, or up to 600 PSI with water, if required by local code requirements or project specifications.

WARNING: CarbonPress® fittings must be installed in accordance with this section. Always ensure that the pressing tool and its jaws are appropriate for the schedule of pipe and size of fitting. Always refer to the pressing tool manufacturer's instructions for operation and maintenance prior to use with CarbonPress® 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 may result in extensive property damage, serious injury or death.

INSTALLATION INSTRUCTIONS

1. CUT PIPE

After selecting the correct size of pipe for the job, ensure that it is clean and free from imperfections. Once inspected, cut the pipe squarely to length using a pipe cutter, fine-toothed steel saw or an electrical mechanical saw to avoid jagged edges or scratching the pipe's surface. When cutting pipe, it must be cut all the way through. Never partially cut the pipe and break it off as it could cause leakage.

2. DEBURR PIPE

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

3. CHECK PRESS FITTINGS

In addition to checking the pipe 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 PIPE

With a permanent marker, mark the proper insertion depth at the appropriate distance from the end of the pipe as indicated in the **CarbonPress® Insertion Depth Chart**. **NOTE:** improper insertion depth may result in an improper seal.

Nominal Pipe Size	Insertion Size
1/2"	1.06"
3/4"	1.19"
1"	1.38"
1-1/4"	1.81"
1-1/2"	1.88"
2"	2"

Milwaukee Part #	Tooling Name
49-16-2697	Black Iron Press Kit with 1/2" - 2" Jaws
49-16-2650B	M18 1/2" Black Iron Jaw
49-16-2651B	M18 3/4" Black Iron Jaw
49-16-2652B	M18 1" Black Iron Jaw
49-16-2653B	M18 1-1/4" Black Iron Ring
49-16-2654B	M18 1-1/2" Black Iron Ring
49-16-2655B	M18 2" Black Iron Ring
49-16-2659	Ring Jaw 1
49-16-2698	Black Iron Press Kit with 2-1/2" - 4" Jaws
49-16-2656B	M18 2-1/2" IPS XL Ring
49-16-2657B	M18 3" IPS XL Ring
49-16-2658B	M18 4" IPS XL Ring
49-16-2659S	Ring Jaw 2

Note: CarbonPress®, by Merit Brass Co. products can be used with Milwaukee, REMS, Rigid, and Rothenberger tools with the associated Jaws for Carbon Steel/Black Iron Pipe. Please contact Merit Brass Co. for additional information.

5. INSERT PIPE INTO FITTING

Carefully insert the pipe into the fitting until it contacts the pipe stop. The insertion depth mark must be visible after the pipe 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 pipe ends, however, the minimum pipe insertion depth must be maintained and marked. **NOTE:** if the pipe is roughly or carelessly inserted into the press fitting, it may cause damage to the sealing element which won't be permitted.

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 **CarbonPress® Tooling Table**. **NOTE:** failure to follow these instructions may void the warranty.

7. POSITION TOOL

Before pressing the connection, the tool and jaws must be checked for any debris and removed if visible. Once inspected, insert the approved jaw into the pressing tool and push in, hold the pin until it locks in place. Next, open the jaws and visually check the insertion depth using the mark on the pipe.

8. PRESS CONNECTION

To begin the pressing process, position the tool jaws on the grooved surface of the fitting then squeeze until the trigger has engaged the sealing element or VIPR® (Visual Indicator Press Ring®). The pressing will complete a cycle 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 leads to subsequent system leakage. **NOTE:** it is not permitted to press a connection more than once.

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® will break off, indicating a complete press. **NOTE:** if the VIPR® does not instantly break off, simply remove by hand; it does not mean that the fitting was unpressed nor does it factor into the performance of the connection.

LEAK TESTING

Unpressed connections can be identified prior to pressurization by the presence of the VIPR® on the bead outer diameter. The CarbonPress® sealing element is designed to physically leak when 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.