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**CarbonPress®**  
By Merit Brass Co.

# INSTALLATION INSTRUCTIONS



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**Merit Brass Co.**

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# INSTALLATION INSTRUCTIONS

## Small Diameter (SD)

**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 result in extensive property damage, serious injury or death.

### 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 and an electrical pipe deburrer to remove debris and 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, and oil-free surface.



### 3. Check press fittings

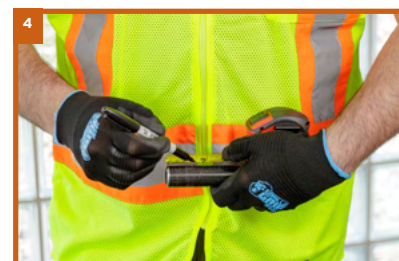
In addition to checking the pipe for any imperfections, check the fitting to ensure that it is free of debris, burrs, etc., and that the sealing element is present and appropriate for the application. If the sealing element is lifted from its bead pocket, gently push it back into place being sure to 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.

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



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

### 5. Insert pipe into fitting

Carefully insert the pipe into the fitting to the prescribed insertion depth. The insertion depth mark must be visible after the pipe 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 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.

#### 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.

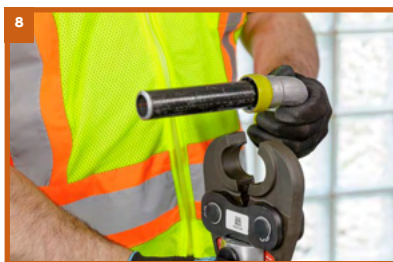
#### 7. Position tool

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 place.



#### 8. Press connection

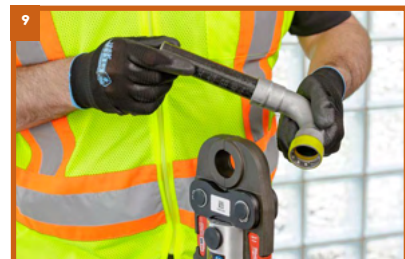
To begin the pressing process, position the tool jaws on the raised portion at the fitting end(s) then squeeze until the trigger has engaged the sealing element or VIPR® (Visual Indicator Press Ring®). The press tool will complete a cycle then stop. Do not release the trigger until the pressing action 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 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.

#### 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 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:** 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 result in extensive property damage, serious injury or death.

### 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 and an electrical pipe deburrer to remove debris and 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, 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.

CarbonPress® Insertion Depth Chart		
Nominal Pipe Size		
2-1/2"	3"	4"
Insertion Depth Size		
1.89"	2.32"	3.15"

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

### 5. Insert pipe into fitting

Carefully insert the pipe into the fitting to the prescribed insertion depth. The insertion depth mark must be visible after the pipe 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 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.

## 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 **CarbonPress® 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 place. 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 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 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.

## 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 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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## LOCATIONS

**SPARKS DISTRIBUTION CENTER**  
200 Vista Boulevard Suite #106  
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**LONG BEACH PIPE DEPOT**  
2396 E. Artesia Blvd  
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