







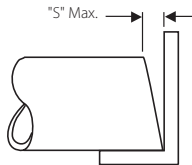
# Style 809N High-Pressure Coupling for Ring Systems

## IMPORTANT INFORMATION

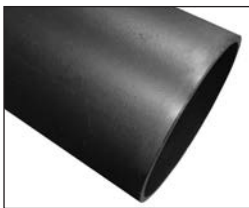
<b>⚠ WARNING</b>					
					
<ul style="list-style-type: none"> <li>• Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.</li> <li>• Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.</li> <li>• Wear required personal protective equipment during the welding process, and follow all jobsite regulations regarding welding safety.</li> <li>• Wear safety glasses, hardhat, and foot protection during the coupling installation process.</li> <li>• <b>DO NOT</b> attempt to install this product on pipe that is grooved (roll or cut) or that contains a weld bevel. Pipe ends shall be square cut.</li> <li>• <b>DO NOT</b> attempt to install this product with rings supplied by other manufacturers.</li> </ul> <p>Failure to follow these instructions could result in death or serious personal injury and property damage.</p>					

The Style 809N High-Pressure Coupling for Ring Systems is designed for installation on pipe that is prepared with rings supplied by Victaulic. Refer to Victaulic publication 15.03 for allowable pipe materials and joint performance.

### PIPE PREPARATION/RING ATTACHMENT



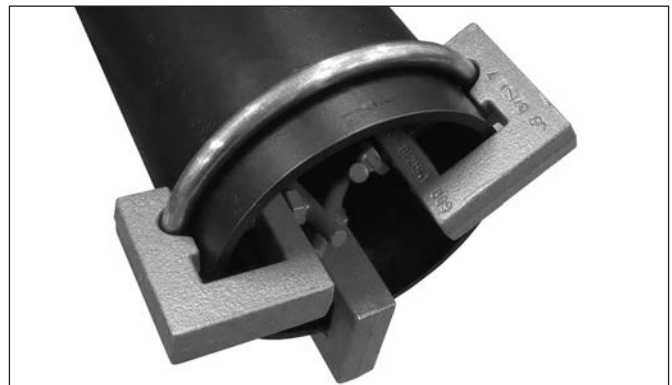
**1a. SQUARE CUT THE PIPE ENDS:** The maximum allowable tolerance from square-cut pipe ends ("S" dimension shown) is 1/16 inch/1.6 mm. This is measured from the true square line.



**1b. INSPECT PIPE ENDS PRIOR TO RING ATTACHMENT:** The outside surface of the pipe ends (approximately 2 inches/51 mm back from the ends) shall be smooth and free from indentations and projections. All oil, grease, loose paint, dirt, and cutting particles shall be removed.

**2a. INSTALL RING ON PIPE:** Spread the ring apart using appropriate tooling at the ring opening (refer to the ring detail on page 2). Slide the ring over the pipe end.

**2b. POSITION RING:** Remove the tooling and position the ring at the required distance (refer to page 2 for the "B" dimension, which is the required distance from the edge of the ring to the pipe end).



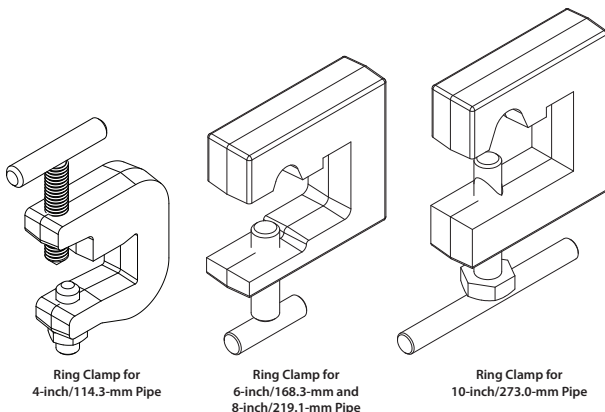
**2c. CLAMP RING IN POSITION:** Hold the ring in position by applying a ring clamp at three locations around the pipe circumference. **DO NOT** cover the butt ends of the ring with a ring clamp.

**2d. TACK WELD THE RING:** Tack weld the ring to the pipe in enough locations so that the ring does not shift out of position when the ring clamps are removed.

**2e. REMOVE RING CLAMPS AND COMPLETE WELD PROCEDURE:** Remove ring clamps. Weld around the entire circumference on both sides of the ring. Refer to page 2 for complete weld requirements.

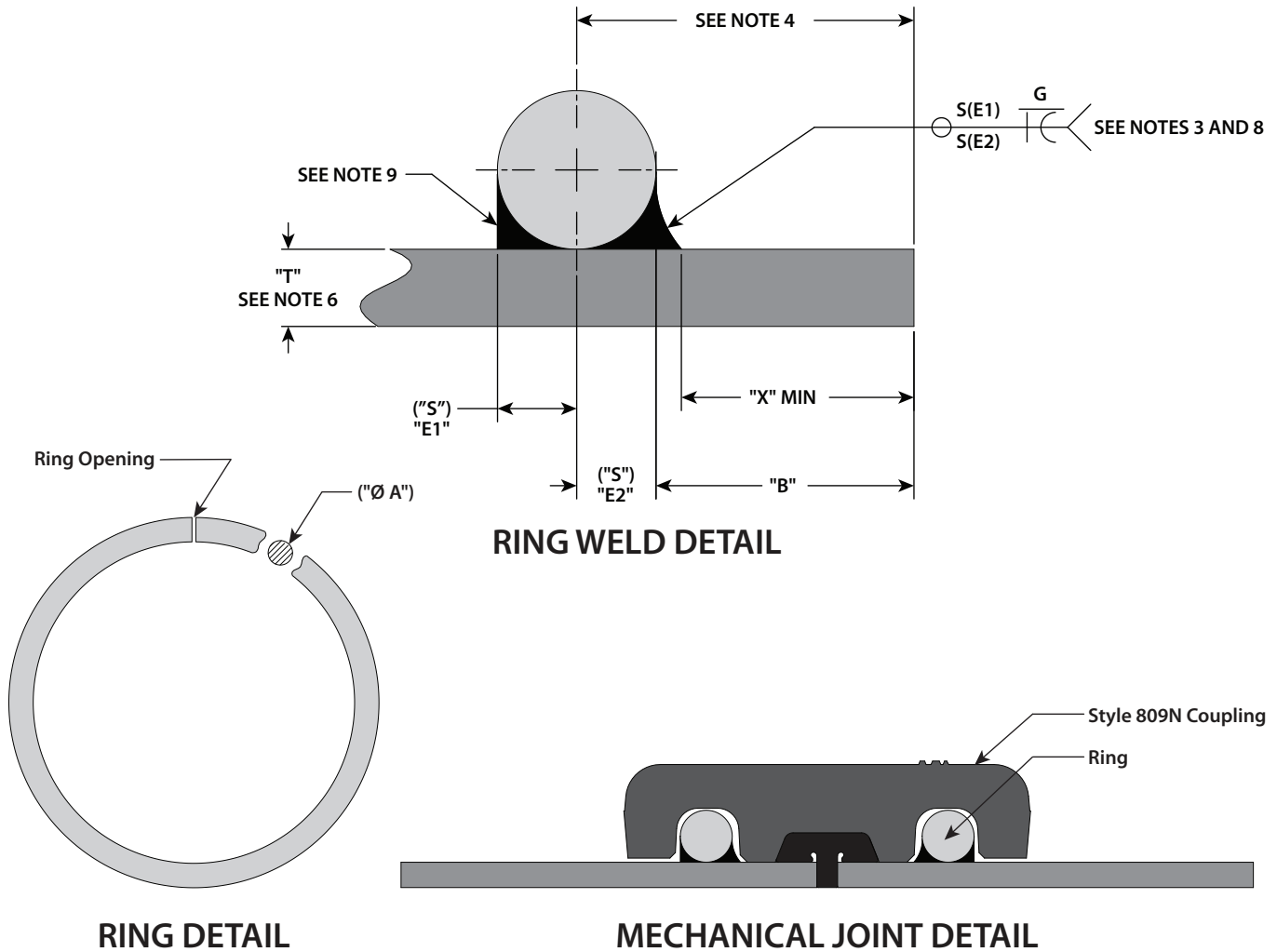
### NOTICE

- Use Victaulic ring clamps to hold the rings at the appropriate location on the pipe during tack welding.



**3a. INSPECT RING:** The ring shall not contain any weld splatter or arc strikes.

**3b. INSPECT WELDS:** Weld size and geometry shall meet the requirements on page 2.



**WELD SIZE TABLE**

Nominal Pipe Size inches/ Actual mm	Dimensions - inches/millimeters							
	Ring ("Ø A")	"B"			"S"	Weld Size		"X" Minimum
		Basic	Maximum	Minimum		"E1"	"E2"	
4 114.3	3/8 9.5	1.00 25.4	1.03 26.2	0.97 24.6	3/16 4.8	3/16 4.8	3/16 4.8	0.91 23.0
6 168.3	1/2 12.7	1.22 31.0	1.25 31.8	1.19 30.2	1/4 6.4	1/4 6.4	1/4 6.4	1.10 27.8
8 219.1	5/8 15.9	1.22 31.0	1.25 31.8	1.19 30.2	5/16 7.9	5/16 7.9	5/16 7.9	1.10 27.8
10 273.0	3/4 19.1	1.22 31.0	1.25 31.8	1.19 30.2	3/8 9.5	3/8 9.5	3/8 9.5	1.10 27.8

**NOTES:**

1. Victaulic ring to be supplied unpainted with a rust-inhibiting coating applied. Check rings to verify that all oil, grease, and dirt is removed prior to welding.
2. Victaulic ring material: ASTM A108 Grade 1018, cold-rolled carbon steel
3. Weld metal: E70XX or greater
4. This area shall be free from indentations, projections, and weld splatter to ensure a leak-tight seal for the gasket. All oil, grease, and dirt shall be removed.
5. Pipe material: Refer to Victaulic publication 15.03, which can be downloaded at victaulic.com
6. Pipe thickness: Refer to Victaulic publication 15.03, which can be downloaded at victaulic.com
7. Weld procedure by others
8. Take precautions during welding to keep heat buildup low. Excessive heat buildup can result in ring diameter shrinkage after cooling to ambient temperature.
9. Final weld shall not extend past the edge of the ring. Excess weld material will compromise the joint.



**COUPLING INSTALLATION**

**⚠ CAUTION**

- A thin coat of Victaulic Lubricant shall be used on the gasket sealing lips and exterior to prevent the gasket from pinching/tearing during installation.

Failure to use a compatible lubricant will cause gasket damage, resulting in joint leakage and property damage.



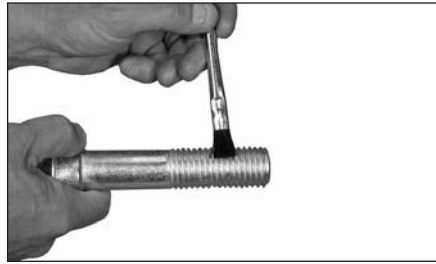
**1. CHECK GASKET AND LUBRICATE:** Check the gasket to verify that it is suitable for the intended service. The color code identifies the material grade. Refer to Victaulic publication 05.01 for the color code chart, which can be downloaded at victaulic.com. Apply a thin coat of Victaulic Lubricant or silicone lubricant to the gasket sealing lips and exterior.



**2. POSITION GASKET:** Position the gasket over one pipe end until the gasket's center leg contacts the pipe end.



**3. JOIN PIPE ENDS:** Align and bring the other pipe end into position until contact with the gasket's center leg occurs.

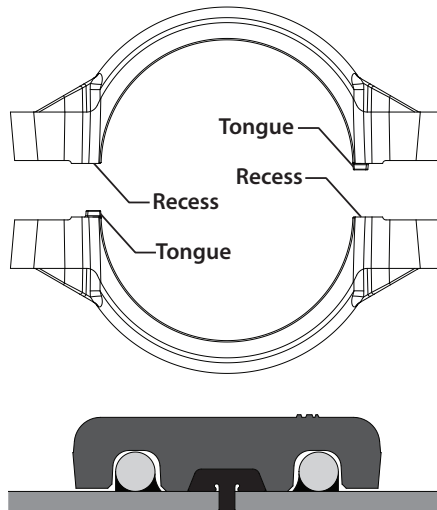
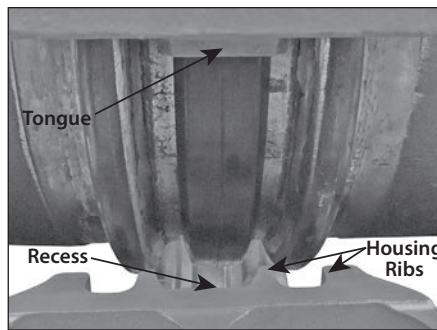


**4. LUBRICATE BOLT THREADS:** Lubricate the bolt threads with a thin coat of Victaulic Lubricant or silicone lubricant.

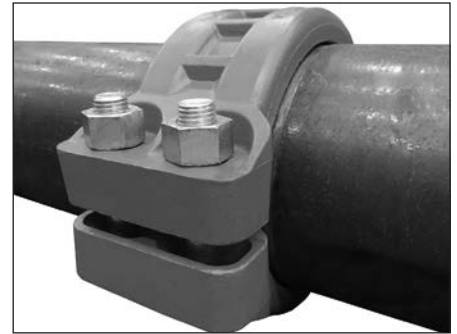
**⚠ WARNING**

- Verify that the gasket does not become rolled or pinched while installing the housings.
- Verify that the housings' tongue and recess features are mated properly (tongue in recess), as shown below.

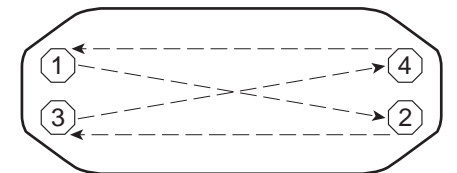
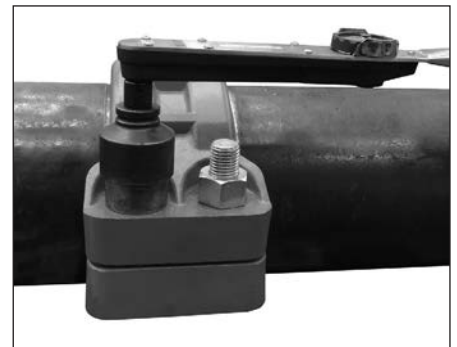
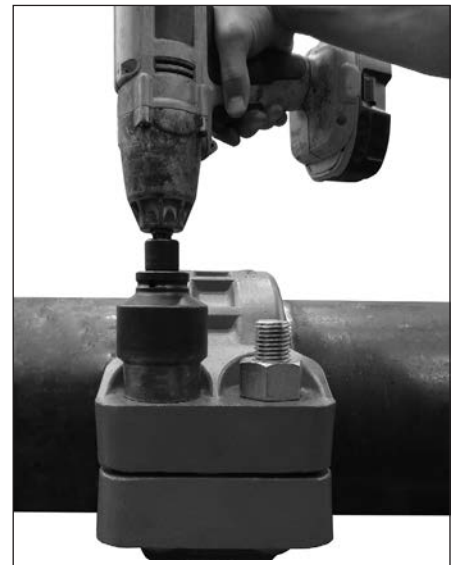
Failure to follow these instructions will cause joint failure, resulting in death or serious personal injury and property damage.



**5a. INSTALL HOUSINGS:** Install the housings over the gasket and rings with the tongue and recess features mated properly (tongue in recess). Verify that the housings' ribs engage the rings completely on both pipe ends without interference from the applied welds. Grind welds, if necessary, in accordance with the specifications on page 2.



**5b. INSTALL BOLTS/NUTS:** Install the bolts. Thread a nut finger-tight onto each bolt. Verify that the oval neck of each bolt seats properly in the bolt hole.



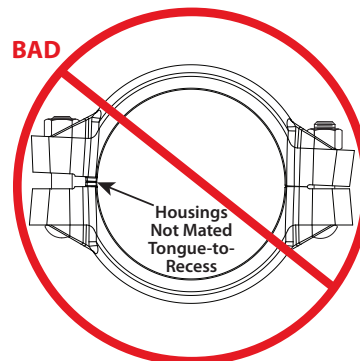
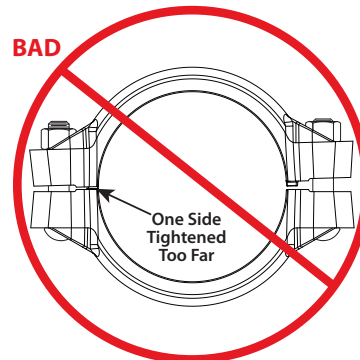
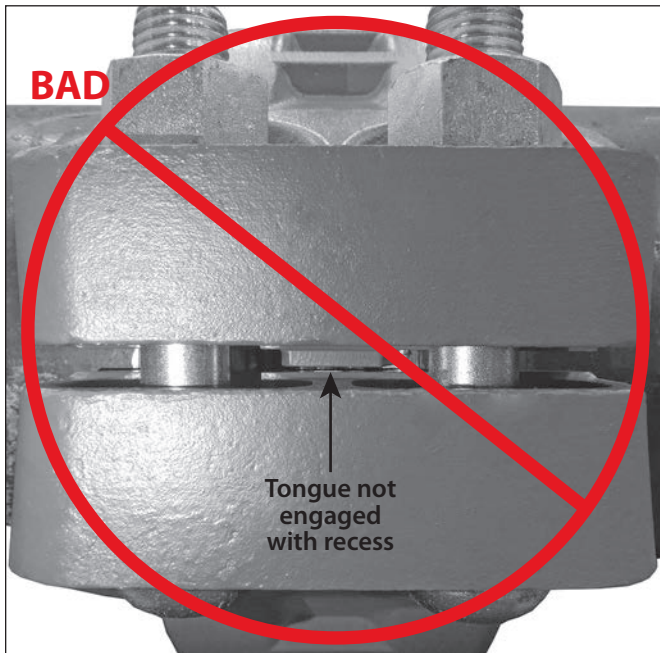
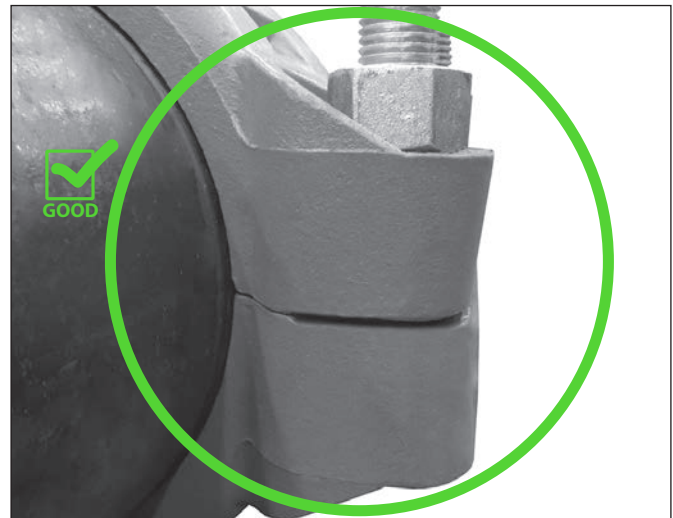
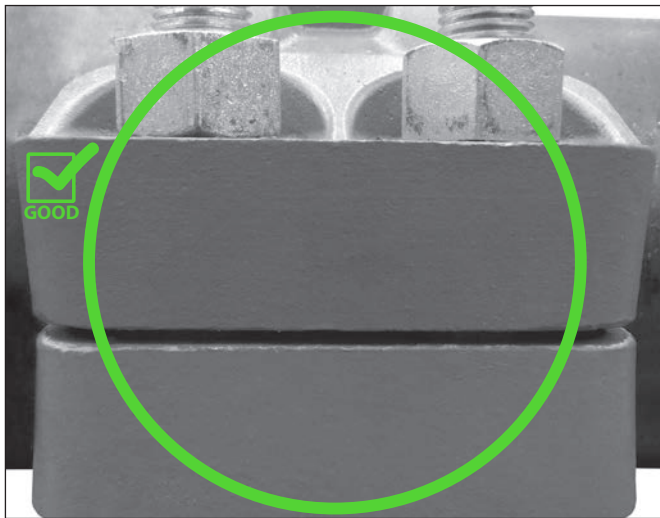
**6. TIGHTEN NUTS:** Tighten all nuts evenly by alternating sides (follow the sequence shown above) until the gaps are equal at the bolt pads. Apply torque to each nut with a torque wrench. Refer to the "Style 809N Required Assembly Torques and Helpful Information" table on the following page for the torque requirement.

**NOTE:** It is important to tighten all nuts evenly to prevent gasket pinching.

# Style 809N High-Pressure Coupling for Ring Systems

## STYLE 809N REQUIRED ASSEMBLY TORQUES AND HELPFUL INFORMATION

Nominal Size inches DN	Required Torque ft-lbs/N•m	Bolt Size inches/Metric	Socket Size inches/mm
4 DN100	250 339	3/4 M20	1 1/4 30
6 DN150	450 610	1 M24	1 5/8 36
8 DN200	500 678	1 1/8 M27	1 13/16 41
10 DN250	750 1017	1 1/4 M30	2 46



- INSPECT BOLT PADS:** Before pressurizing the system, inspect the bolt pads at each joint to verify that proper assembly is achieved. If the installation requirements in step 6 on the previous page cannot be achieved, the coupling shall be removed so that the welds can be inspected. Any weld interference shall be corrected to ensure proper coupling assembly.

For complete contact information, visit [victaulic.com](http://victaulic.com)

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