

Style 905 Coupling for Plain End HDPE Pipe



WARNING

- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Always depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear gloves while handling coupling. Retainer teeth are sharp and may cause injury.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

DISASSEMBLY OF STYLE 905 COUPLINGS

1. Verify that the system is depressurized and drained completely before attempting to disassemble any couplings.
2. Be prepared to support the coupling. Loosen and completely unthread the nuts from the bolts. Remove the bolts and washers, then carefully remove both coupling housings from the pipe.

INSPECTION OF RETAINERS AND PIPE ENDS

CAUTION

- If you suspect that any damage or wear has occurred to the retainers and/or pipe ends, the coupling shall be fully disassembled so that the affected components can be inspected.

Failure to follow this instruction will result in joint leakage and property damage.

Inspect retainers and pipe ends. In cases where the retainers remain attached to the pipe (see Figure 1) and there is no visible damage to the retainers or pipe ends (see Image 1), follow **Reinstallation Method 1**.

In cases where one or more retainers are not attached to the pipe (see Figure 2), the retainers are completely unattached, or the retainers have been removed from the pipe, follow **Reinstallation Method 2**.

If retainer ring damage is evident (broken, bent, or missing teeth as seen in Image 2 and/or uncorrectable deformities in shape such as kinks or cracks), or if there are any doubts concerning the condition of the retainers, always replace them with new Victaulic-supplied retainers of the same size. Verify replacement retainer ring size by counting the number of teeth (one side only) and comparing to Table 1, then follow **Reinstallation Method 2**.

If pipe ends are visibly damaged (see Image 2), sealing surfaces are marred or scratched, or there are any doubts concerning the condition of the pipe ends, prepare replacement pipes by following steps 2a through 4 of the Style 905 installation instructions, then follow **Reinstallation Method 2**.

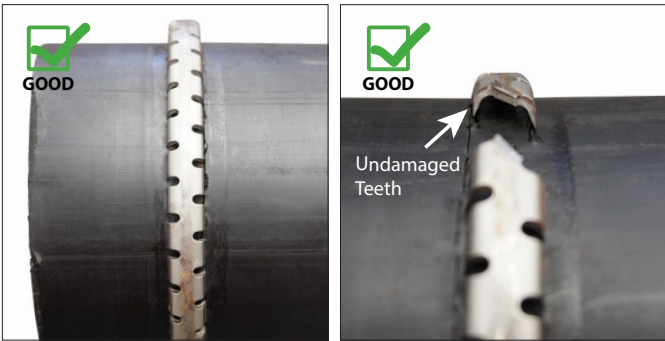
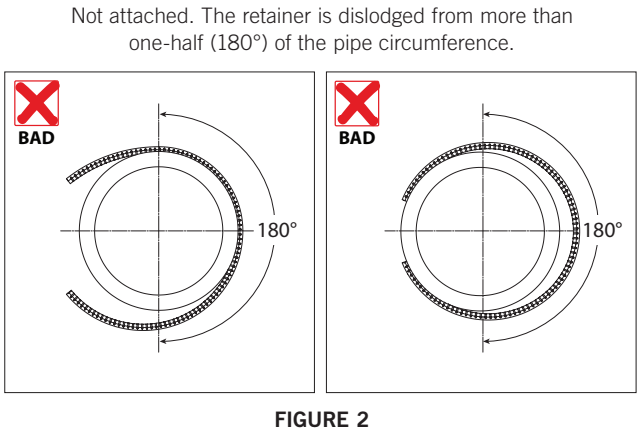
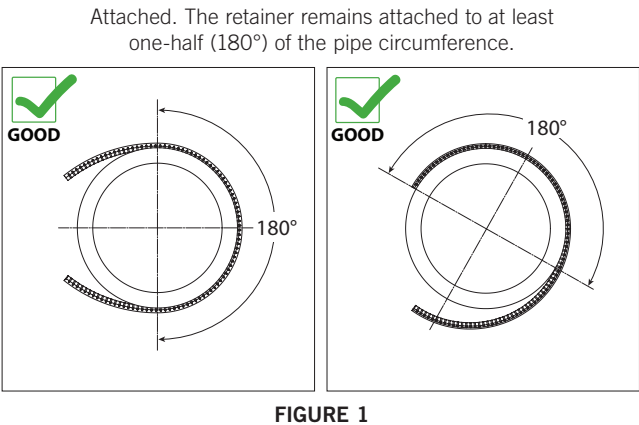


IMAGE 1



IMAGE 2

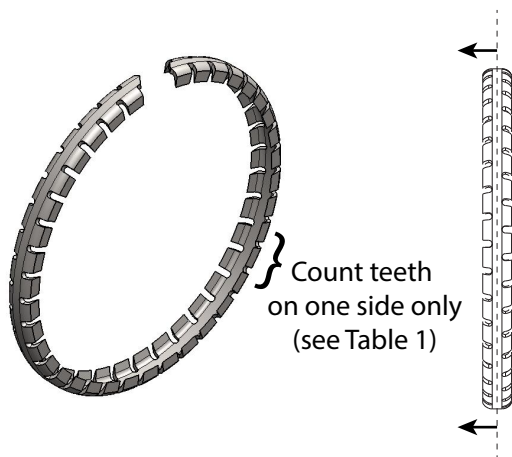


Table 1: Number of Retainer Teeth

Coupling Size inches	Number of Retainer Teeth (one side only)	Coupling Size millimeters	Number of Retainer Teeth (one side only)
2 inch	19	63 mm	20
3 inch	29	75 mm	24
4 inch	37	90 mm	29
5 inch	46	110 mm	35
6 inch	56	125 mm	41
8 inch	66	140 mm	46
10 inch	83	160 mm	53
12 inch	99	180 mm	55
14 inch	108	200 mm	61
		225 mm	68
		250 mm	76
		280 mm	86
		315 mm	96
		355 mm	108

INSPECTION AND PREPARATION OF GASKET

Check the gasket to ensure that it is suitable for the intended service. The color code identifies the gasket grade. For the color code reference, refer to Victaulic publication 05.01, which can be downloaded at victaulic.com.

Inspect the gasket for any damage or wear. If any damage or wear is present, or there is any doubt concerning the condition of the gasket, always replace the gasket with a new Victaulic-supplied gasket of the same grade. It is normal for the gasket surface to have a hazy white appearance after it has been in service.

CAUTION

- A thin coat of a compatible lubricant shall be used to prevent the gasket from pinching, rolling, or tearing during reassembly. Failure to use a compatible lubricant will cause gasket damage, resulting in joint leakage and property damage.



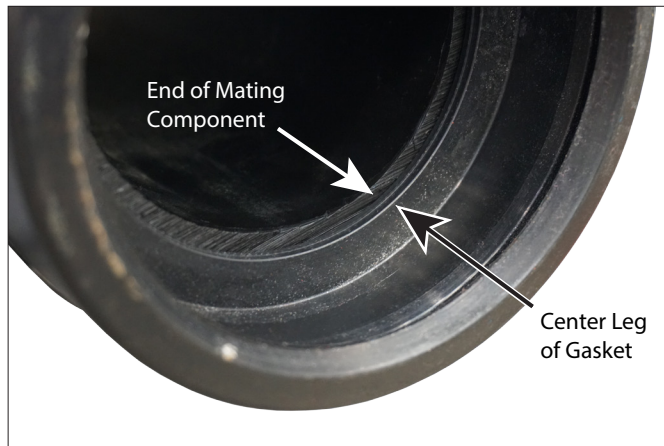
Apply a thin coat of lubricant to the gasket sealing lips and exterior just prior to reinstallation. Lubricate the gasket in accordance with Table 2. Always consult the manufacturer for lubricant compatibility requirements.

Table 2: Lubricant Compatibility for Gaskets

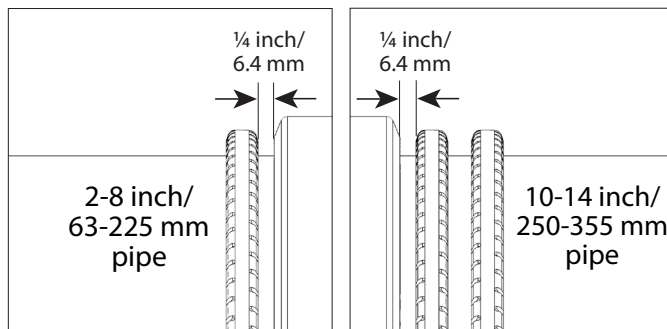
Gasket	Lubricant	
	Victaulic Lubricant, Soap-Based Solutions, Glycerin, Silicone Oil, or Silicone Release Agent	Corn Oil, Soybean Oil, Hydrocarbon-Based Oils, or Petroleum-Based Greases
Compatibility with Grade "E" EPDM Gaskets	Good	Not Recommended
Compatibility with Grade "EF" EPDM Gaskets	Good	Not Recommended
Compatibility with Grade "O" Fluoroelastomer Gaskets	Good	Good
Compatibility with Grade "T" Nitrile Gaskets	Good	Good

REINSTALLATION METHOD 1 (RETAINERS ATTACHED TO PIPE)

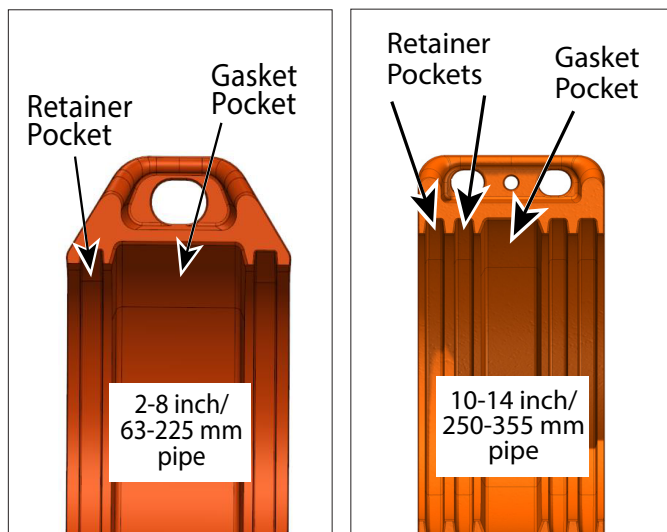
1. Verify that all instructions in the "Inspection and Preparation of Gasket" section have been followed.



2. Insert the end of a mating component (or one pipe) into the gasket until it contacts the center leg of the gasket.



3. Align the two ends of the mating components. Insert the other mating component end into the gasket until it contacts the center leg. Spacing between the gasket and retainers, when both mating components are fully inserted into the gasket (see above), shall be approximately 1/4 inch/6.4 mm.



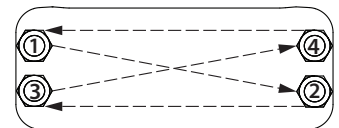
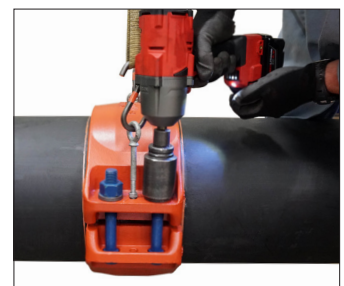
4. Install the housings over the gasket and retainers. Ensure that the retainers engage the retainer pockets properly on both pipes.



5. Install the bolts and washers (one carbon steel washer or two stainless steel washers under each nut for 2–4 inch and 63–110 mm sizes, two washers under each nut for 5–14 inch and 125–355 mm sizes). Thread a nut finger-tight onto each bolt.



2–6" and 63–160 mm

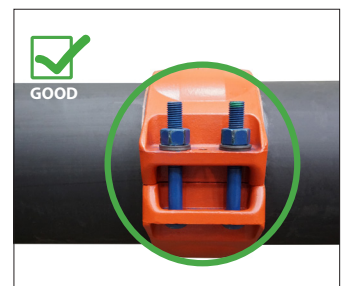
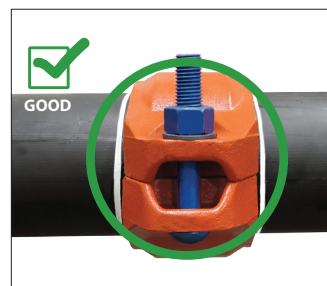


8–14" and 180–355 mm

Lifting hardware not required for 8", 180-225 mm

6. Tighten the nuts evenly by alternating sides (2–6 inch and 63–160 mm) or in a crossing pattern as shown (8–14 inch and 180–355 mm) until metal-to-metal contact occurs at the bolt pads. Ensure that the oval neck of each bolt seats properly in the bolt hole.

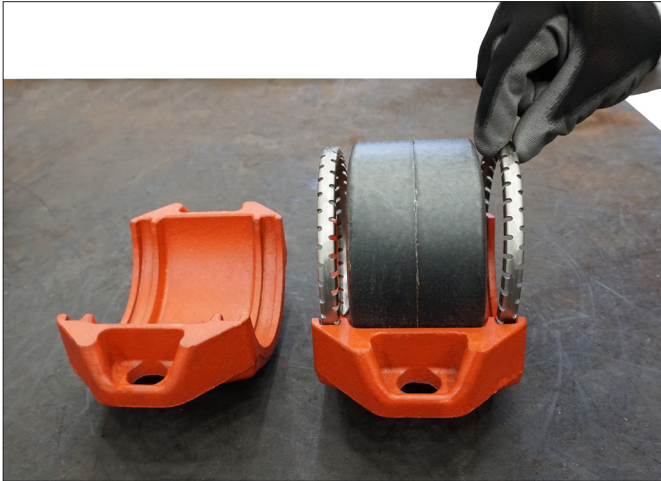
NOTE: Tightening the nuts evenly is important to prevent gasket pinching. An impact wrench or deep-well socket wrench can be used to obtain metal-to-metal contact.



7. Before pressurizing the system, inspect the bolt pads at each joint to ensure proper assembly. Refer to the Style 905 installation instructions for more information.

REINSTALLATION METHOD 2 (RETAINERS REMOVED FROM PIPE)

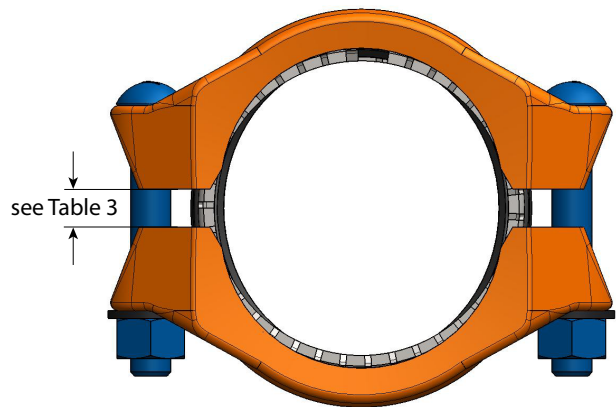
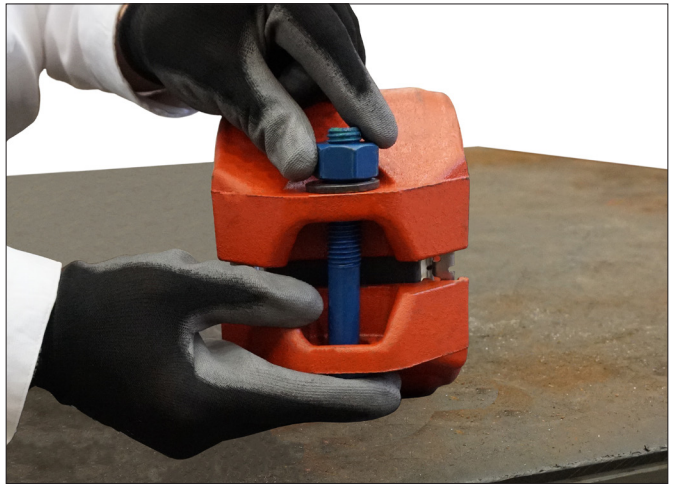
1. Remove all retainer rings.
2. Used retainer rings that are not round in shape shall be bent back to as round as possible prior to reuse. When re-rounding by hand, wear suitably protective gloves. The resulting inside diameter of the retainer ring shall be no smaller than the outside diameter of the mating pipe end. As an alternative to re-rounding used retainers, replace them with new Victaulic-supplied retainers of the same size. Verify replacement retainer ring size by counting the number of teeth (one side only) and comparing to Table 1.
3. Ensure that the requirements of the 'Inspection and Preparation of Gasket' section have been followed.



4a. Reassemble the coupling into its 'Installation Ready' configuration by installing the gasket and retainers into one housing, as shown above, and placing the second housing on top of the assembly. Ensure that the gasket and retainers are nested into their respective pockets.



4b. For 10 inch/250 mm and larger sizes, the paired retainer rings must be installed with the gaps at 180 degrees from each other, in the 6:00 and 12:00 positions, as shown.

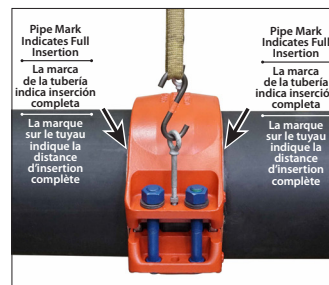
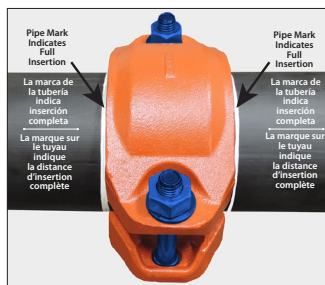


5. Install the bolts and washers (one carbon steel washer or two stainless steel washers under each nut for 2-4 inch and 63-110mm sizes, two washers under each nut for 5-14 inch and 125-355 mm sizes). Thread a nut onto each bolt until the housings are evenly spaced at the values listed in Table 3 that follows.

NOTE: Ensure that the oval neck of each bolt seats properly into the bolt hole.

Table 3: Bolt Pad Gap

Coupling Size inches	Bolt Pad Gap	Coupling Size millimeters	Bolt Pad Gap
2 inch	½ inch 12.7 mm	63 mm	¾ inch 11.1 mm
3 inch	¾ inch 14.3 mm	75 mm	¾ inch 14.3 mm
4 inch	¾ inch 15.9 mm	90 mm	½ inch 12.7 mm
5 inch	1 ¼ inch 17.5 mm	110 mm	¾ inch 15.9 mm
6 inch	¾ inch 19.1 mm	125 mm	1 ¼ inch 17.5 mm
8 inch	1 inch 25.4 mm	140 mm	1 ¼ inch 17.5 mm
10 inch	1 inch 25.4 mm	160 mm	¾ inch 15.9 mm
12 inch	1 inch 25.4 mm	180 mm	1 inch 25.4 mm
14 inch	1 inch 25.4 mm	200 mm	1 inch 25.4 mm
		225 mm	1 inch 25.4 mm
		250 mm	1 inch 25.4 mm
		280 mm	1 inch 25.4 mm
		315 mm	1 inch 25.4 mm
		355 mm	1 inch 25.4 mm



2–6" and 63–160 mm

8–14" and 180–355 mm

Lifting hardware not required
for 8", 180–225 mm

6. If previously applied insertion marks are not visible, or if pipes have been replaced, place a mark on each HDPE pipe end using a paint stick and ruler or measuring tape. If a full circumferential mark cannot be achieved, make at least four marks equally-spaced around the circumference of each HDPE pipe end:

- 1 ⅞ inches/48 mm for 2–3-inch and 63–90-mm pipe sizes
- 2 ¼ inches/57 mm for 4–8-inch and 110–225-mm pipe sizes
- 3 ⅜ inches/86 mm for 10–12-inch and 250–315-mm pipe sizes
- 4 inches/102 mm for 14-inch and 355-mm pipe sizes

7. Wear gloves while handling coupling housings. Retainer teeth are sharp and may cause injury. Assemble the joint by inserting the marked HDPE pipe end into each opening of the coupling. The HDPE pipe ends must be inserted into the coupling until (1) contact with the center leg of the gasket occurs AND (2) the mark on the HDPE pipe ends indicate full insertion into the coupling.

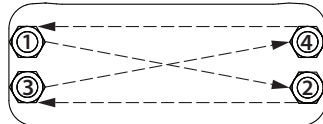
Style 905 Coupling for Plain End HDPE Pipe



2–6" and 63–160 mm



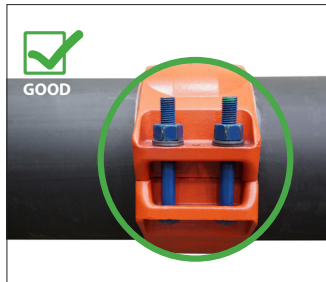
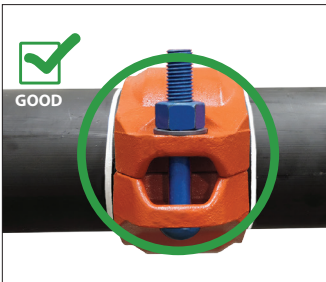
8–14" and 180–355 mm



Lifting hardware not required
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8. Tighten the nuts evenly by alternating sides (2–6 inch and 63–160 mm) or in a crossing pattern as shown (8–14 inch and 180–355 mm) until metal-to-metal contact occurs at the bolt pads. Ensure that the oval neck of each bolt seats properly in the bolt hole.

NOTE: Tightening the nuts evenly is important to prevent gasket pinching. An impact wrench or deep-well socket wrench can be used to obtain metal-to-metal contact.



7. Before pressurizing the system, inspect the bolt pads at each joint to ensure proper assembly. Refer to the Style 905 installation instructions for more information.