

# QuickVic™ Rigid Couplings for Steel Pipe

STYLES 107H AND 107N



**⚠ WARNING**







- Read and understand all instructions before attempting to install any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection when working with Victaulic piping products.

Failure to follow these instructions could result in death, serious personal injury, improper product installation, or property damage.

**⚠ WARNING**

- A compatible lubricant must be used to prevent the gasket from pinching/tearing during installation.

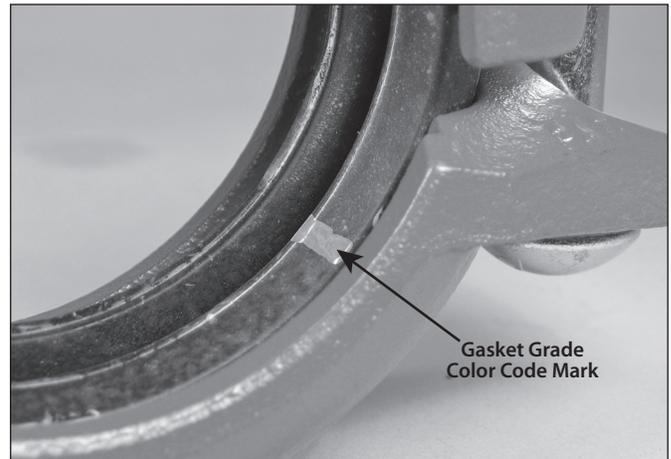
Failure to follow this instruction could cause joint leakage, resulting in property damage.

## INSTRUCTIONS FOR THE INITIAL INSTALLATION OF STYLE 107H/107N COUPLINGS

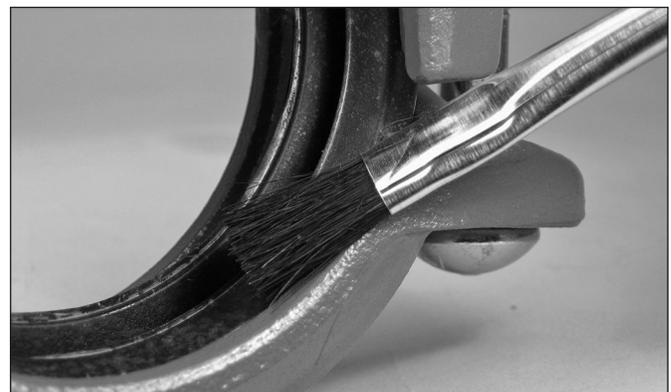


**1. DO NOT DISASSEMBLE THE COUPLING:** Style 107H/107N Couplings are installation ready. These couplings are designed so that the installer does not need to remove the bolts and nuts for installation. This design facilitates installation by allowing the installer to directly install the grooved end of pipe/mating components into the coupling.

**2. CHECK PIPE/MATING COMPONENT ENDS:** The outside surface of the pipe/mating component, between the groove and the pipe/mating component end, must be smooth and free from indentations, projections, weld seams, and roll marks to ensure a leak-tight seal. All oil, grease, loose paint, dirt, and cutting particles must be removed. Measurements taken across grooved pipe/mating component ends must not exceed the maximum allowable flare diameter. The pipe/mating component OD, groove dimensions, and maximum allowable flare diameter must be within the tolerances published in current Victaulic grooving specifications. **NOTE:** Maximum allowable pipe/mating component ovality shall comply with the requirements of ASTM A-999 and API 5L. Greater variations between the major and minor pipe/mating component diameters will result in difficult coupling assembly.



**3. CHECK GASKET:** Check the gasket to make sure it is suitable for the intended service. The color code identifies the gasket grade. Refer to Victaulic publication 05.01 in the G-100 General Catalog or the I-100 Field Installation Handbook for the color code chart.

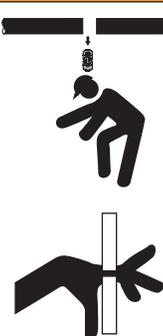


**4. LUBRICATE GASKET:** Apply a thin coat of Victaulic Lubricant or silicone lubricant only to the sealing lips of the gasket interior. **NOTE: The gasket exterior is supplied with a factory-applied lubricant, so it is not necessary to remove the gasket from the housings to apply additional lubricant to the exterior surface.**

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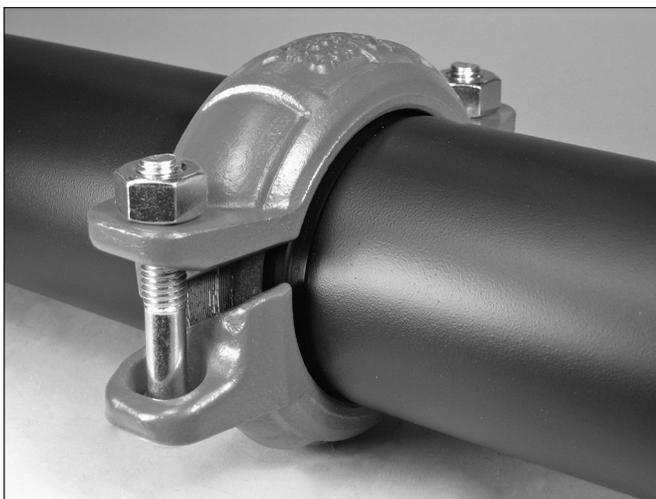
STYLES 107H AND 107N

⚠ **WARNING**



- Never leave a Style 107H/107N Coupling partially assembled. A partially assembled Style 107H/107N Coupling poses a drop hazard or a burst hazard during testing.
- Keep hands away from the pipe/mating component ends and the openings of the coupling when attempting to insert the grooved pipe/mating component ends into the coupling.

Failure to follow these instructions could cause serious personal injury and/or property damage.



**5. ASSEMBLE JOINT:** Assemble the joint by inserting the grooved end of a pipe/mating component into each opening of the coupling. The ends of the grooved pipe/mating components must be inserted into the coupling until contact with the center leg of the gasket occurs. A visual check is required to ensure the coupling keys align with the grooves in the pipe/mating components. **NOTE:** The coupling may be rotated to ensure the gasket is seated properly.

**NOTE:** When assembling Style 107H/107N Couplings onto end caps, take additional care to ensure the end cap is seated fully against the center leg of the gasket. DO NOT use non-Victaulic fittings with Style 107H/107N Couplings. Use only Victaulic No. 60 end caps containing “QV” or “QV/EZ” markings on the inside face. Victaulic No. 460-SS stainless steel end caps shall not be used with Style 107H/107N Couplings. No. 460-SS end caps must be used only with Style 89 Rigid Couplings for stainless steel pipe.

**6. TIGHTEN NUTS:** Tighten the nuts evenly by alternating sides until metal-to-metal contact occurs at the angled bolt pads. Make sure the housings’ keys completely engage the grooves and the offsets are equal at the bolt pads. To ensure a rigid joint, equal and positive offsets are preferred. **NOTE:** It is important to tighten the nuts evenly by alternating sides to prevent gasket pinching. An impact wrench or standard socket wrench can be used to bring the bolt pads into metal-to-metal contact. Refer to the “Impact Wrench Usage Guidelines” section.

**STYLE 107H HELPFUL INFORMATION**

Size		Nut Size	Socket Size
Nominal Size inches or mm	Actual Pipe Outside Diameter inches/mm	inches/ Metric	inches/ mm
2 - 2½	2.375 - 2.875 60.3 - 73.0	¾ M10	1¼ 17
76.1 mm	3.000 76.1	¾ M10	1¼ 17
3 - 5	3.500 - 5.563 88.9 - 141.3	½ M12	¾ 22
108.0 mm - 139.7 mm	4.250 - 5.500 108.0 - 139.7	½ M12	¾ 22
159.0 mm - 216.3 mm	6.250 - 8.515 159.0 - 216.3	¾ M16	1 ¼ 27
6 - 8	6.625 - 8.625 168.3 - 219.1	¾ M16	1 ¼ 27

**STYLE 107N HELPFUL INFORMATION**

Size		Nut Size	Socket Size
Nominal Size inches	Actual Pipe Outside Diameter inches/mm	inches/ Metric	inches/ mm
10 - 12	10.750 - 12.750 273.0 - 323.9	¾ M22	1 ¾ 36

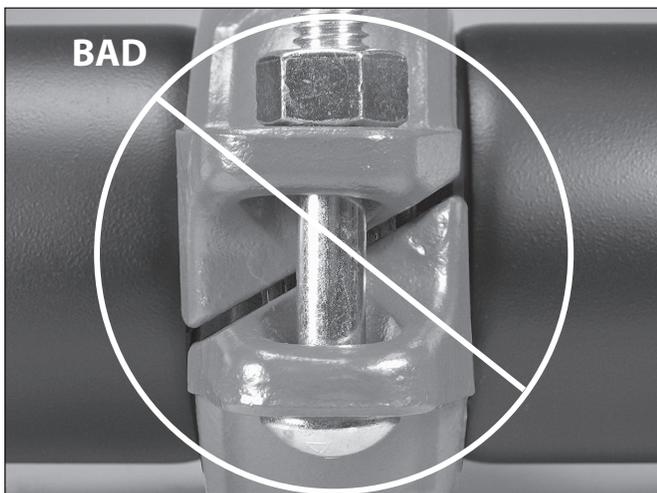
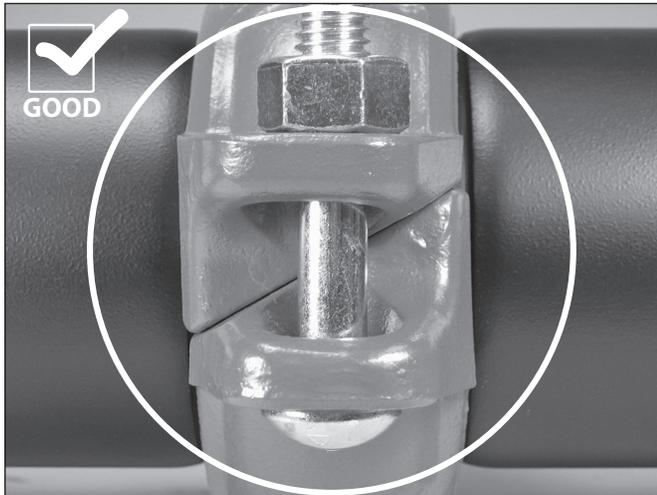
⚠ **WARNING**

- For Victaulic rigid, angled-bolt-pad couplings, the nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads.
- For Victaulic rigid, angled-bolt-pad couplings, equal offsets must be present at the bolt pads.
- Keep hands away from coupling openings during tightening.

Failure to follow these instructions could cause joint failure, serious personal injury, and property damage.

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7. Visually inspect the bolt pads at each joint to ensure metal-to-metal contact is achieved.

<b>NOTICE</b>			
Visual inspection of each joint is critical. Improperly assembled joints must be corrected before the system is placed in service.			
<b>GOOD</b>		<b>BAD</b>	
PROPERLY ASSEMBLED JOINT POSITIVE OFF-SET WITH BOLT PAD CONTACT (PREFERRED)	PROPERLY ASSEMBLED JOINT NEUTRAL OFFSET WITH BOLT PAD CONTACT	IMPROPERLY ASSEMBLED JOINT NEGATIVE OFFSET	IMPROPERLY ASSEMBLED JOINT BOLT PAD GAP
<i>Drawings are exaggerated for clarity</i>			
<ul style="list-style-type: none"> <li>• “Negative” bolt pad offsets can occur when the nuts are not tightened evenly, which produces over-tightening of one side and under-tightening of the other side. In addition, “negative” offsets can occur if both nuts are under-tightened.</li> </ul>			

## INSTRUCTIONS FOR RE-INSTALLATION OF STYLE 107H/107N COUPLINGS

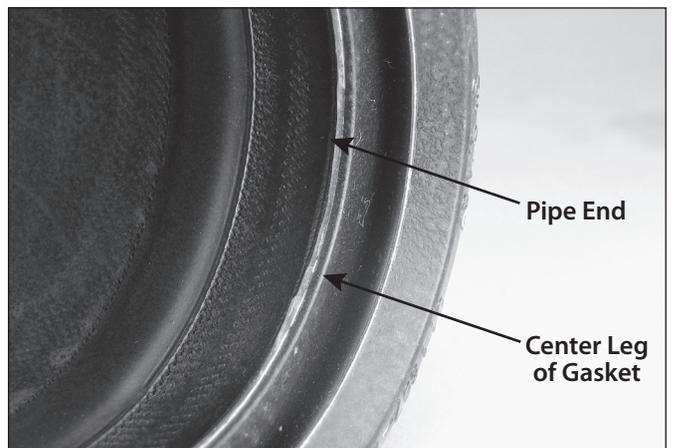
<b>⚠ WARNING</b>	
	<ul style="list-style-type: none"> <li>• Make sure the system is depressurized and drained completely before attempting to disassemble any couplings.</li> </ul> <p>Failure to follow this instruction could cause serious personal injury and/or property damage.</p>

Since the coupling housings conform to the outside diameter of the pipe/mating component during an initial installation, direct installation of the pipe/mating components into the coupling may not be possible upon re-installation. If this is the case, refer to the following steps for re-installing the coupling.

1. Make sure the system is depressurized and drained completely before attempting to disassemble any couplings.
2. Follow steps 2 – 3 of the “Instructions for the Initial Installation of Style 107H/107N Couplings” section.



**3. FOR RE-INSTALLATION OF STYLE 107H/107N COUPLINGS, LUBRICATE GASKET:** Apply a thin coat of Victaulic Lubricant or silicone lubricant to the gasket sealing lips and exterior. It is normal for the gasket surface to have a hazy white appearance after it has been in service.



**4. INSTALL GASKET:** Insert the grooved end of a pipe/mating component into the gasket until it contacts the center leg of the gasket.

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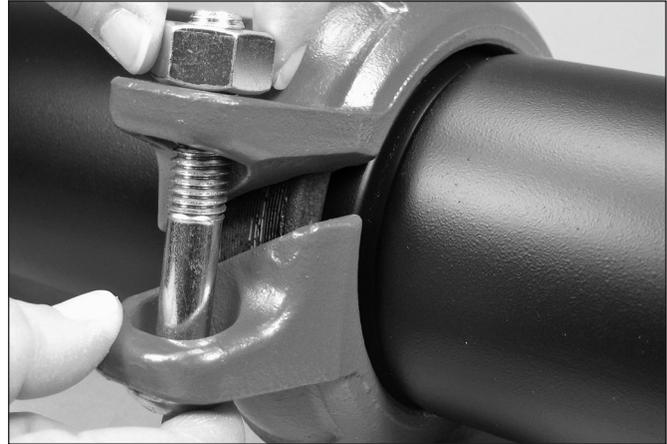
**5. JOIN PIPE/MATING COMPONENTS:** Align the two grooved ends of the pipe/mating components. Insert the other pipe/mating component end into the gasket until it contacts the center leg of the gasket. **NOTE:** Make sure no portion of the gasket extends into the groove of either pipe/mating component.



**6. TO FACILITATE RE-ASSEMBLY:** One bolt can be inserted into the housings with the nut threaded loosely onto the bolt to allow for the “swing-over” feature, as shown above. **NOTE:** The nut should be backed off no further than flush with the end of the bolt.



**7. INSTALL HOUSINGS:** Install the housings over the gasket. Make sure the housings' keys engage the grooves properly on both pipes/mating components.



**8. INSTALL REMAINING BOLT/NUT:** Install the remaining bolt, and thread the nut finger-tight onto the bolt. **NOTE:** Make sure the oval neck of each bolt seats properly in the bolt hole.

**9. TIGHTEN NUTS:** Follow steps 6 and 7 of the “Instructions for the Initial Installation of Style 107H/107N Couplings” section to complete the assembly.

## IMPACT WRENCH USAGE GUIDELINES

### WARNING

- Nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads. For angled-bolt-pad couplings, even offsets must be present at the bolts pads to obtain pipe-joint rigidity.
- DO NOT continue to use an impact wrench after the visual installation guidelines for the coupling are achieved.

Failure to follow these instructions could cause gasket pinching and coupling damage, resulting in joint failure, serious personal injury, and property damage.

Due to the speed of assembly when using an impact wrench, the installer should take extra care to ensure nuts are tightened evenly by alternating sides until proper assembly is complete. Always refer to the specific product installation instructions for complete installation requirements.

Impact wrenches do not provide the installer with direct “wrench feel” or torque to judge nut tightness. Since some impact wrenches are capable of high output, it is important to develop a familiarity with the impact wrench to avoid damaging or fracturing bolts or coupling bolt pads during installation. **DO NOT** continue to use an impact wrench after the visual installation guidelines for the coupling are achieved.

If the battery is drained or if the impact wrench is under-powered, a new impact wrench or a new battery pack must be used to ensure the visual installation guidelines for the coupling are achieved.

Perform trial assemblies with the impact wrench and check the assemblies with socket or torque wrenches to help determine the capability of the impact wrench. Using the same method, periodically check additional nuts throughout the system installation.

For safe and proper use of impact wrenches, always refer to the impact wrench manufacturer’s operating instructions. In addition, verify that proper impact grade sockets are being used for coupling installation.

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

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