

# Style 177N QuickVic™ Installation-Ready™ Flexible Coupling



**⚠ 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.

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

**⚠ CAUTION**

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

Use of an incompatible lubricant will cause gasket degradation, resulting in joint leakage and property damage.



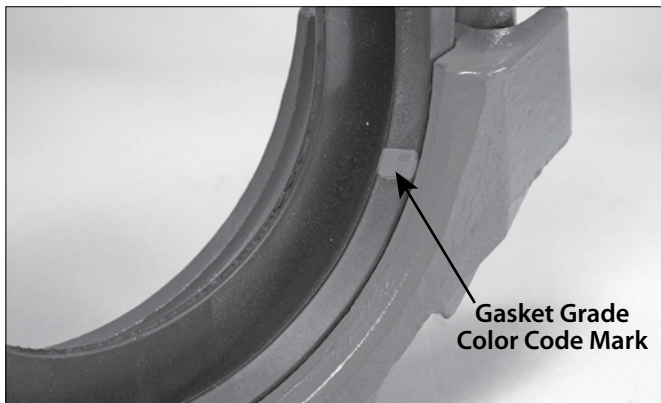
**4. LUBRICATE GASKET:** Apply a thin coat of Victaulic Lubricant or silicone lubricant only to the sealing lips of the gasket interior. **NOTE:** The gasket exterior is supplied with a factory-applied lubricant, so it is not necessary to remove the gasket from the housings to apply additional lubricant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

## INSTRUCTIONS FOR THE INITIAL INSTALLATION OF STYLE 177N COUPLINGS



**1. DO NOT DISASSEMBLE THE COUPLING:** Style 177N QuickVic™ Installation-Ready™ Flexible 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 insert the grooved end of mating components into the coupling.

**2. CHECK MATING COMPONENT ENDS:** The outside surface of the mating component, between the groove and the 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. The mating component OD, groove dimensions, and maximum allowable flare diameter must be within the tolerances published in current Victaulic grooving specifications. **NOTE:** Maximum allowable mating component ovality shall comply with the requirements of ASTM A-999 and API 5L. Greater variations between the major and minor mating component diameters will result in difficult coupling assembly.

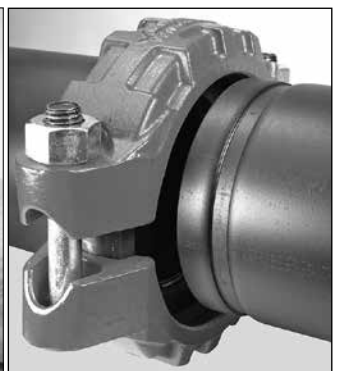


**3. CHECK GASKET:** Check the gasket to make sure it is suitable for the intended service. The color code identifies the gasket grade. Refer to Victaulic publication O5.01 in the G-100 General Catalog for the color code chart.

**⚠ WARNING**

- Never leave a Style 177N Coupling partially assembled. A partially assembled Style 177N Coupling poses a drop hazard or a burst hazard during testing.
- Keep hands away from the mating component ends and the openings of the coupling when attempting to insert the grooved mating component ends into the coupling.

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



**5. ASSEMBLE JOINT:** Assemble the joint by inserting the grooved end of a mating component into each opening of the coupling. The ends of the grooved 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 mating components. **NOTE:** The coupling may be rotated to ensure the gasket is seated properly.

**NOTE:** When assembling Style 177N Couplings onto end caps, take additional care to ensure the end cap is seated fully against the center leg of the gasket. Use only Victaulic No. 60 End Caps containing the "EZ QV" marking on the inside face. **NOTE:** Victaulic recommends the use of Victaulic fittings with Style 177N Couplings.

**WARNING**

- Nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads.
  - Keep hands away from coupling openings during tightening.
- Failure to follow these instructions could cause joint failure, resulting in death or serious personal injury and property damage.



**6. TIGHTEN NUTS:** Tighten the nuts evenly by alternating sides until metal-to-metal contact occurs at the bolt pads. Make sure the housings' keys engage the grooves completely during tightening.

**NOTICE**

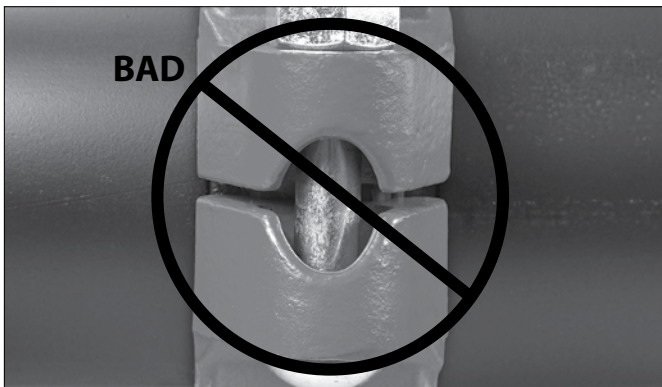
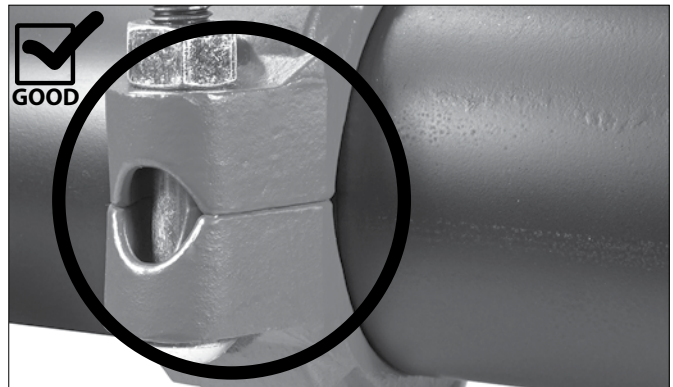
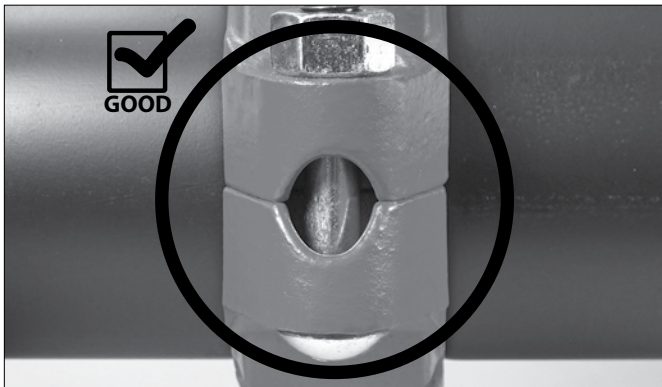
- It is important to tighten the nuts evenly by alternating sides to prevent gasket pinching.
- An impact wrench or standard socket wrench with a deep-well socket can be used to bring the bolt pads into metal-to-metal contact.
- Refer to the "Style 177N Helpful Information" and "Impact Wrench Usage Guidelines" sections.

**STYLE 177N HELPFUL INFORMATION**

Nominal Size inches or mm	Size	Nut Size inches/ Metric	Deep-Well Socket Size
	Actual Pipe Outside Diameter inches/mm		inches/ mm
2 - 3	2.375 - 3.500 60.3 - 88.9	1/2 M12	7/8 22
76.1 mm	3.000 76.1	1/2 M12	7/8 22
108.0 mm	4.250 108.0	5/8 M16	1 1/16 27
4	4.500 114.3	5/8 M16	1 1/16 27
133.0 - 165.1 mm	5.250 - 6.500 133.0 - 165.1	3/4 M20	1 1/4 32
6	6.625 168.3	3/4 M20	1 1/4 32
8	8.625 219.1	7/8 M22	1 7/16 36

**WARNING**

- Visual inspection of each joint is critical.
  - Improperly assembled joints must be corrected before the system is placed in service.
- Failure to follow these instructions could cause joint failure, resulting in death or serious personal injury and property damage.



**7. Visually inspect the bolt pads at each joint to ensure metal-to-metal contact is achieved across the entire bolt pad section.**

## INSTRUCTIONS FOR RE-INSTALLATION OF STYLE 177N COUPLINGS

### ⚠ WARNING



- Make sure the system is depressurized and drained completely before attempting to disassemble any couplings.

Failure to follow this instruction could result in death or serious personal injury and property damage.

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 177N Couplings” section. Inspect the gasket for any damage or wear. If any damage or wear is present, replace the gasket with a new Victaulic-supplied gasket of the same grade.

### ⚠ CAUTION

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

Use of an incompatible lubricant will cause gasket degradation, resulting in joint leakage and property damage.



3. **FOR RE-INSTALLATION OF STYLE 177N 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.

### NOTICE

Two methods can be followed for re-installation of Style 177N Couplings.



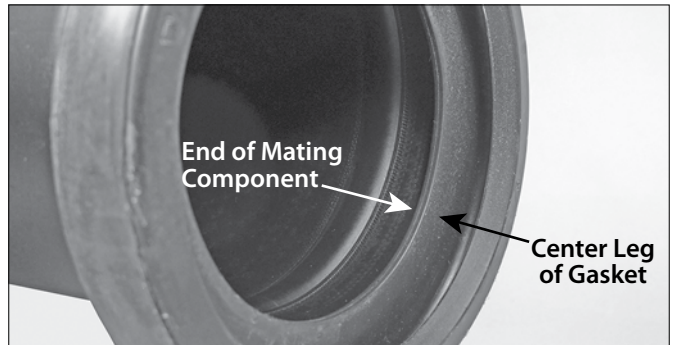
- **METHOD 1 FOR RE-INSTALLATION:** The coupling can be re-assembled into its “installation-ready” condition by installing the gasket into the housings, then inserting the bolts and threading a nut onto each bolt until 2 – 3 threads are exposed, as shown above. If this method is chosen, steps 1 – 3 above, along with steps 5 – 7 on pages 1 and 2, must be followed.

OR

- **METHOD 2 FOR RE-INSTALLATION:** The gasket and housings can be assembled onto the pipe ends by following steps 1 – 3 above, along with steps 2 – 4b in the following column.

## METHOD 2 FOR RE-INSTALLATION

1. Make sure all steps in the “Instructions for Re-installation of Style 177N Couplings” section have been followed.



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



3. **JOIN MATING COMPONENTS:** Align the two grooved ends of the mating components. Insert the other 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 mating component.



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

- 4a. **INSTALL BOLTS/NUTS:** Install the bolts, and thread a nut finger-tight onto each bolt. **NOTE:** Make sure the oval neck of each bolt seats properly in the bolt hole.

- 4b. **TIGHTEN NUTS:** Follow steps 6 – 7 of the “Instructions for the Initial Installation of Style 177N Couplings” section to complete the assembly.

## Style 177N QuickVic™ Installation-Ready™ Flexible Coupling

### IMPACT WRENCH USAGE GUIDELINES

#### WARNING

- It is important to tighten the nuts evenly by alternating sides until metal-to-metal contact occurs at the bolt pads.
- **DO NOT** continue to tighten the nuts 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 the bolts or the coupling bolt pads during installation. **DO NOT continue to tighten the nuts 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.

#### WARNING

**Failure to follow instructions for tightening coupling hardware could result in:**

- Bolt fractures
- Damaged or broken bolt pads or coupling fractures
- Joint leakage