# Style 877N QuickVic<sup>™</sup> Installation-Ready<sup>™</sup> Flexible Coupling for Potable Water





- Read and understand all instructions before attempting to install any Victaulic products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

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

#### INSTRUCTIONS FOR THE INITIAL INSTALLATION OF STYLE 877N COUPLINGS



#### 1. DO NOT DISASSEMBLE THE

**COUPLING:** Style 877N QuickVic<sup>™</sup> Installation-Ready<sup>™</sup> Flexible Couplings are designed so that the installer does not need to remove the bolts and nuts for installation. This facilitates installation by allowing the installer to directly insert the grooved end of mating components into the coupling.

## A WARNING

- Style 877N Couplings shall be installed only on stainless steel pipe or galvanized carbon steel pipe prepared to Victaulic Original Groove System (OGS) Specifications.
- Refer to Victaulic publication 17.01 for stainless steel pipe preparation methods, which can be downloaded at victaulic.com.
- Victaulic RX grooving rolls shall be used for stainless steel pipe, as shown in Table 1 in Victaulic publication 17.01. Victaulic RX grooving rolls are silver in color and are identified by the "RX" marking on the face.

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

**2. CHECK MATING COMPONENT ENDS:** The outside surface of the mating components, between the groove and the mating component ends, shall be generally free from indentations, projections, weld seam anomalies, and roll marks to ensure a leak-tight seal. All oil, grease, loose paint, dirt, and cutting particles shall be removed.

The mating components' outside diameter ("OD"), groove dimensions, and maximum allowable flare diameter shall be within the tolerances published in current Victaulic Original Groove System (OGS) specifications, publication 25.01, which can be downloaded at victaulic.com.



**3. CHECK GASKET:** 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.

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 A thin coat of a compatible lubricant shall be applied only to the gasket sealing lips to prevent pinching, rolling, or tearing during installation.

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



4. LUBRICATE GASKET: Apply a thin coat of a compatible lubricant, such as Victaulic Lubricant or silicone lubricant, only to the gasket sealing lips. 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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Never leave a Style 877N Coupling partially assembled on mating component ends. ALWAYS TIGHTEN THE HARDWARE IMMEDIATELY. A partially assembled coupling poses a drop or fall hazard during installation and a burst hazard during testing.

Keep hands away from the mating component ends and the openings of the coupling when attempting to insert grooved mating component ends into the coupling.

 Keep hands away from coupling openings during tightening.

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



**5. ASSEMBLE JOINT:** Assemble the joint by inserting the grooved end of a mating component into each opening of the coupling. The grooved mating component ends shall be inserted into the coupling until contact with the center leg of the gasket occurs.

A visual check is required to verify that the coupling keys align with the groove in each mating component and that the gasket is seated properly. **NOTE:** The coupling may be rotated to verify that the gasket is seated properly on the mating component ends and within the coupling housings.

# IMPORTANT INFORMATION FOR USE OF STYLE 877N COUPLINGS WITH END CAPS AND FITTINGS:

- When assembling Style 877N Couplings onto end caps, take additional time to inspect and verify that the end cap is seated fully against the center leg of the gasket.
- Use only Victaulic End Caps containing the "QV" marking on the inside face.
- Always read and follow the I-ENDCAP instructions, which can be downloaded at victaulic.com.
- Victaulic recommends the use of Victaulic fittings with Style 877N Couplings.



# **WARNING**

- Nuts shall be tightened evenly by alternating sides until metalto-metal contact occurs at the bolt pads.
- DO NOT overtighten coupling hardware.

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

- Personal injury or death
- Bolt damage or fracture
- Damaged or broken bolt pads or coupling fractures
- Joint leakage and property damage
  A negative impact on system integrity

**6. TIGHTEN NUTS:** Using an impact wrench or a standard socket wrench with a deep well socket, tighten the nuts evenly by alternating sides until metal-to-metal contact occurs at the bolt pads. Verify that the oval neck of each bolt seats properly in the bolt holes. DO NOT continue to tighten the nuts after metal-to-metal bolt pad contact is achieved. If you suspect that any hardware has been over-tightened (as indicated by a bend or crack in the bolt, etc.), the coupling assembly shall be replaced immediately. Refer to the "Helpful Information" and "Impact Wrench Usage Guidelines" sections.



BAD

OVAL NECK OF BOLT SEATED PROPERLY OVAL NECK OF BOLT NOT SEATED PROPERLY

### 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 877N Helpful Information" and "Impact Wrench Usage Guidelines" sections.

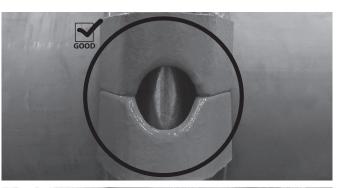
#### STYLE 877N HELPFUL INFORMATION

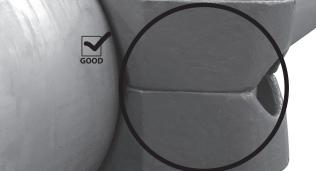
Nominal Size inches/DN	Actual Pipe Outside Diameter inches/mm	Nut Size inches/Metric	Deep-Well Socket Size inches/mm
2 – 3	2.375 - 3.500	<sup>1</sup> / <sub>2</sub>	<sup>7</sup> / <sub>8</sub>
DN50 – DN80	60.3 - 88.9	M12	22
4	4.500	5⁄8	1 ½16
DN100	114.3	M16	27
6	6.625	<sup>3</sup> ⁄ <sub>4</sub>	1 ¼
DN150	168.3	M20	32
8	8.625	7⁄8	1 7⁄16
DN200	219.1	M22	36

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- Visual inspection of each joint is required.
- Improperly assembled joints shall be corrected before the system is tested or placed into service.
- Any components that exhibit physical damage due to improper assembly shall be replaced before the system is tested or placed into 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 verify that metalto-metal contact is achieved across the entire bolt pad section, in accordance with step 6.



# INSTRUCTIONS FOR REASSEMBLY OF STYLE 877N COUPLINGS

A WARNING



 Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.

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

**1.** Verify that the system is depressurized and drained completely before attempting to disassemble any couplings.

**2.** Loosen the nuts of the coupling assembly to permit removal of the coupling from the mating component ends.

**3.** Remove the nuts, bolts, and gasket from the housings. Inspect all components for any damage or wear. If any damage or wear is present, use a new Victaulic-supplied coupling assembly.

4. Check mating component ends, as described in step 2 on page 1.

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• 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 may cause gasket damage, resulting in joint leakage and property damage.





**5. FOR REASSEMBLY OF STYLE 877N COUPLINGS, LUBRICATE GASKET:** Apply a thin coat of a compatible lubricant, such as Victaulic Lubricant or silicone lubricant, to the gasket sealing lips and exterior. For gaskets that are being reused, 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 reassembly of Style 877N Couplings.



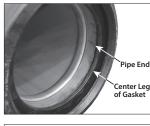
 METHOD 1 FOR REASSEMBLY: The coupling can be reassembled into its "installation-ready" condition by installing the gasket into the housings, then inserting the bolts and threading a nut onto each bolt until 2 – 3 threads are exposed, as shown above. If this method is chosen, steps 1 – 5 on this page,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

#### OR

 METHOD 2 FOR REASSEMBLY: The gasket and housings can be assembled onto the mating component ends by following steps 1 – 5 on this page, along with all steps in the "Method 2 for Reassembly" section.

#### **METHOD 2 FOR REASSEMBLY**

1. Verify that steps 1-5 in the "Instructions for Reassembly of Style 877N Couplings" section have been followed.



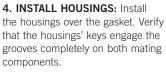
**2. INSTALL GASKET:** Insert the grooved end of a mating component into the gasket until it contacts the center leg of the gasket.





3. JOIN MATING COMPONENTS:

Align the two grooved mating component ends. Insert the other mating component end into the gasket until it contacts the center leg of the gasket. **NOTE:** Verify that no portion of the gasket extends into the groove of either mating component.



**4a. INSTALL BOLTS/NUTS:** Install the bolts and thread a nut finger-tight onto each bolt. **NOTE:** Verify that 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 877N Couplings" section to complete the assembly.



# Style 877N QuickVic<sup>™</sup> Installation-Ready<sup>™</sup> Flexible Coupling for Potable Water

#### IMPACT WRENCH USAGE GUIDELINES

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- Nuts shall be tightened evenly by alternating sides until metalto-metal contact occurs at the bolt pads.
- DO NOT continue to tighten the nuts after the visual installation guidelines for the coupling, described in steps 6 7 on page 2, are achieved.

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

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's bolt pads during installation. Always choose the right size impact wrench that has enough power, but **DO NOT continue to tighten the nuts after the visual installation guidelines for the coupling, described in steps 6 – 7 on page 2, are achieved. If you suspect that any hardware has been over-tightened (as indicated by a bend or crack in the bolt, etc.), the entire coupling assembly shall be replaced immediately.** 

If the battery is drained or if the impact wrench is under-powered, a new battery pack or new impact wrench shall be used to ensure that the visual installation guidelines for the coupling, described in steps 6-7 on page 2, are achieved. **Visual inspection of each joint is required for verification of proper assembly.** 

Perform trial assemblies with the impact wrench and check the assemblies with a torque wrench to help determine the suitability of the impact wrench. Using the same method, periodically check assemblies 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.

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Failure to follow instructions for tightening hardware could result in:

- Personal injury or death
- Bolt damage or fracture
- Damaged or broken bolt pads or fractures to housings
- Joint leakage and property damage
- A negative impact on system integrity



For complete contact information, visit victaulic.com

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