## Style 356 Installation-Ready<sup>™</sup> Transition Coupling





- 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.

#### **IMPORTANT INFORMATION**

PGS<sup>™</sup>-300 Groove Profile for CPVC/PVC Mating Components

**OGS Groove Profile for IPS Grooved Mating Components** 



The opening of the Style 356 Installation-Ready<sup>™</sup> Transition Coupling that is marked "CPVC/PVC" shall be used **ONLY** with CPVC/PVC mating components that are prepared to Victaulic PGS<sup>™</sup>-300 groove specifications. The opening of the coupling that is marked "STEEL" shall be used **ONLY** with IPS mating components that are prepared to Victaulic Original Groove System (OGS) Specifications. Refer to Victaulic publication 25.18 for the PGS<sup>™</sup>-300 groove specifications and 25.01 for the OGS groove specifications, which can be downloaded at victaulic.com.

#### INSTRUCTIONS FOR THE INITIAL INSTALLATION **OF STYLE 356 COUPLINGS**



1. DO NOT DISASSEMBLE THE COUPLING: Style 356 Installation-Ready<sup>™</sup> Transition 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 CPVC/PVC MATING COMPONENT END: The outside surface of the CPVC/PVC mating component, between the groove and the mating component end, shall be smooth and free from indentations and projections to ensure a leak-tight seal. All oil, grease, dirt, and cutting particles shall be removed.

The CPVC/PVC mating components' outside diameter ("OD") and groove dimensions shall be within the tolerances published in current Victaulic PGS<sup>™</sup>-300 grooving specifications, publication 25.18, which can be downloaded at victaulic.com.

2a. CHECK IPS MATING COMPONENT END: The outside surface of the IPS mating component, between the groove and the mating component end, shall 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 shall be removed.

The IPS mating components' outside diameter ("OD") and groove dimensions shall be within the tolerances published in current Victaulic 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 Victaulic Lubricant shall be used on the sealing lips to prevent the gasket from pinching/tearing during installation.
- The pipe manufacturer and Victaulic shall review any alternative lubricants to determine compatibility with the pipe and gasket.

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



4. LUBRICATE GASKET: Apply a thin coat of Victaulic Lubricant only to the sealing lips of the gasket. 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 356 Coupling partially installed on mating component ends. A partially-installed coupling poses a drop or 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 CPVC/PVC mating component into the coupling opening that is marked "CPVC/PVC" and an IPS mating component into the coupling opening that is marked "STEEL". The ends of the grooved mating components 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 grooves in the mating components. The coupling may be rotated to verify that the gasket is seated properly.

**NOTE:** When assembling Style 356 Couplings onto end caps, use only Victaulic No. 60 End Caps containing the "EZ QV" marking on the inside face. The end cap shall be used only on the side of the coupling that is marked "STEEL". Take additional care to verify that the end cap is seated fully against the center leg of the gasket.

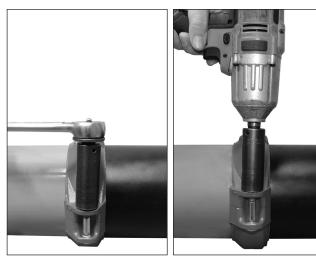
The "CPVC/PVC" side of the Style 356 Coupling is designed specifically for use with Victaulic CPVC/PVC fittings. **DO NOT** use other manufacturer's CPVC/PVC fittings on the "CPVC/PVC" side.

Victaulic recommends the use of Victaulic fittings and valves on the "STEEL" side of the Style 356 Coupling.

## **WARNING**

• Nuts shall be tightened evenly by alternating sides until metalto-metal contact occurs at the bolt pads.

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



**6. TIGHTEN NUTS:** Tighten nuts evenly by alternating sides until metalto-metal contact occurs at the bolt pads. Verify that the oval neck of each bolt seats properly in the bolt hole and that housings' keys engage the grooves completely on both mating components.

### 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 356 Helpful Information" and "Impact Wrench Usage Guidelines" sections.

#### STYLE 356 HELPFUL INFORMATION

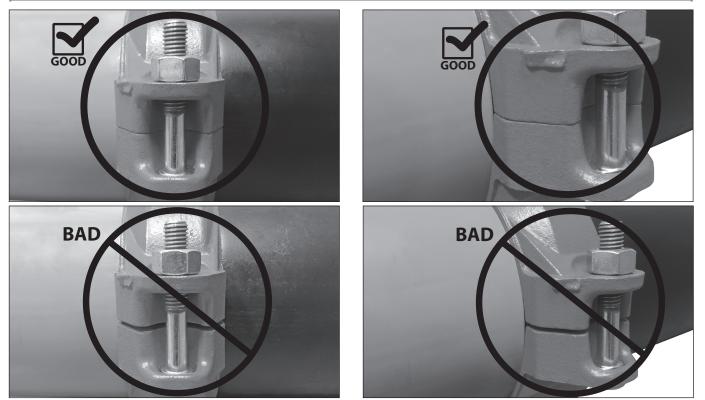
Size		Nut Size	Deep-Well Socket Size
Nominal Size inches	Actual Pipe Outside Diameter inches/mm	inches/ Metric	inches/ mm
21/2	2.875	3%	<sup>11</sup> / <sub>16</sub>
	73.0	M10	17
3 – 6	3.500 – 6.625	<sup>1/2</sup>	7⁄8
	88.9 – 168.3	M12	18
8 – 12	8.625 – 12.750	<sup>3</sup> ⁄ <sub>4</sub>	1 ¼
	219.1 – 323.9	M20	30

#### **WARNING**

- Visual inspection of each joint is critical.
- Improperly assembled joints shall 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 verify that metal-to-metal contact is achieved across the entire bolt pad section.

# INSTRUCTIONS FOR REASSEMBLY OF STYLE 356 COUPLINGS

#### A WARNING

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

**2.** Follow steps 2 – 3 on page 1. 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 material grade.

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- A thin coat of Victaulic Lubricant shall be used to prevent the gasket from pinching/tearing during reassembly.
- The pipe manufacturer and Victaulic shall review any alternative lubricants to determine compatibility with the pipe and gasket.

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





**3. FOR REASSEMBLY OF STYLE 356 COUPLINGS, LUBRICATE GASKET:** Apply a thin coat of Victaulic 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 reassembly of Style 356 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. Verify that the sides of the two housings marked "CPVC/PVC" are facing the same direction. If this method is chosen, steps 1 – 3 in the left column, along with all steps on page 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 – 3 in the left column, along with all steps in the "Method 2 for Reassembly" section.



## Style 356 Installation-Ready<sup>™</sup> Transition Coupling

#### METHOD 2 FOR REASSEMBLY

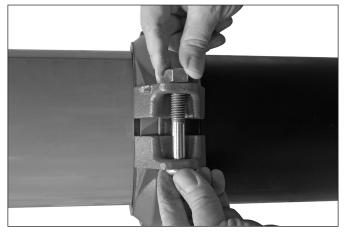
1. Verify that steps 1 - 3 in the "Instructions for Reassembly of Style 356 Couplings" section have been followed.



**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.



**4. INSTALL HOUSINGS:** Install the housings over the gasket. Verify that the sides of the two housings marked "CPVC/PVC" are facing the CPVC/ PVC pipe and that the housings' keys engage the grooves completely on both mating components.

**4a. INSTALL BOLTS/NUTS:** Install the bolts and thread a nut fingertight 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 on pages 2 – 3 to complete the assembly.

## IMPACT WRENCH USAGE GUIDELINES

#### A WARNING

- 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 pages 2 – 3, are achieved.

Failure to follow these instructions could cause gasket pinching and coupling damage, 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. **DO NOT continue to tighten the nuts after the visual installation guidelines for the coupling, described in steps 6 – 7 on pages 2 – 3, are achieved.** 

If the battery is drained or if the impact wrench is under-powered, a new impact wrench or a new battery pack shall be used to ensure that the visual installation guidelines for the coupling, described in steps 6 - 7 on pages 2 - 3, 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.

#### A WARNING

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

- Personal injury or death
- Bolt fractures
- Damaged or broken bolt pads or coupling fractures
- Joint leakage



For complete contact information, visit victaulic.com

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