

Style 005 - FireLock® Rigid Coupling

Style 07 - Zero-Flex® Rigid Coupling (12-inch/323.9-mm and Smaller Sizes)

Style 489 - Rigid Stainless Steel Coupling for Stainless Steel Pipe (4-inch/114.3-mm and Smaller Sizes)

⚠ 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, or adjust any Victaulic piping products.
- Wear safety glasses, hardhat, and foot protection.

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

NOTICE

- The following installation steps feature photos of a Style 005 Coupling. However, the same installation steps apply to Style 489 Rigid Stainless Steel Couplings and Style 07 Zero-Flex Rigid Couplings in the size ranges listed above.

1. Follow steps 1 – 4 of the “Preparatory Steps for Coupling Installation” section.



2. **ASSEMBLE HOUSINGS:** Insert one bolt into the housings, and thread the nut 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.

⚠ CAUTION

- Make sure the gasket does not become rolled or pinched while installing the housings.

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



3. **INSTALL HOUSINGS:** Using the “swing-over” feature, install the housings over the gasket. Make sure the housings’ keys engage the grooves completely on both pipe ends.

NOTICE

For Style 489 Couplings Supplied with Stainless Steel Bolts and Nuts:

- Apply an anti-seize compound to the bolt threads before tightening the nuts.

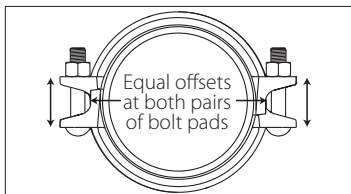
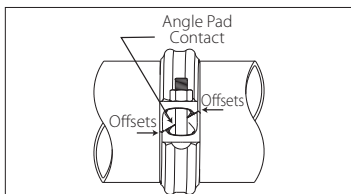




4. INSTALL REMAINING BOLT/

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.



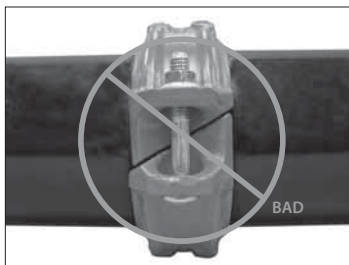
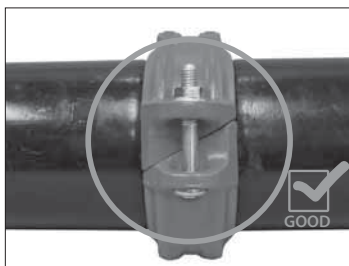
Exaggerated for clarity

5. TIGHTEN NUTS: Tighten all nuts evenly by alternating sides until metal-to-metal contact occurs at the angle bolt pads. Make sure the housings' keys engage the grooves completely on both pipe ends and that the offsets are equal at the bolt pads. Equal, positive offsets are necessary to ensure a rigid joint (refer to the example above). **NOTE:** It is important to tighten all nuts evenly to prevent gasket pinching.

⚠ WARNING

- For Victaulic rigid, angle-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, angle-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.



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

6a. FOR STYLE 489 COUPLINGS

ONLY: The Style 489 coupling assembly has a torque requirement (refer to the table below).

Style 489 Torque Requirements

Size		Torque Requirements
Nominal Size inches or mm	Actual Pipe Outside Diameter inches/mm	ft-lbs N•m
1½ – 2½	1,900 – 2,875 48.3 – 73.0	18 25
76.1 mm	3,000 76.1	18 25
3 – 4	3,500 – 4,500 88.9 – 114.3	45 61

Style 005, 07, and 489 Helpful Information

Size		Style 005		Style 07		Style 489	
Nominal Size inches or mm	Actual Pipe Outside Diameter inches/mm	Nut Size inches/Metric	Socket Size inches/mm	Nut Size inches/Metric	Socket Size inches/mm	Nut Size inches/Metric	Socket Size inches/mm
1	1.315 33.7	—	—	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17	—	—
1 ¼	1.660 42.4	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17	—	—
1 ½	1.900 48.3	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17
2	2.375 60.3	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17
2 ½	2.875 73.0	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17
76.1 mm	3.000 76.1	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	$\frac{3}{8}$ M10	$\frac{1}{16}$ 17
3	3.500 88.9	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22
3 ½	4.000 101.6	—	—	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	—	—
4	4.500 114.3	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22
108.0 mm	4.250 108.0	$\frac{3}{8}$ M10	$\frac{9}{16}$ 15	$\frac{1}{2}$ M12	$\frac{7}{8}$ 22	—	—
5	5.563 141.3	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
133.0 mm	5.250 133.0	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
139.7 mm	5.500 139.7	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
6	6.625 168.3	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
159.0 mm	6.250 159.0	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
165.1 mm	6.500 165.1	$\frac{1}{2}$ M12	$\frac{3}{4}$ 18	$\frac{5}{8}$ M16	$1\frac{1}{16}$ 27	—	—
8	8.625 219.1	$\frac{3}{4}$ M20	$1\frac{1}{4}$ 32	$\frac{3}{4}$ M20	$1\frac{1}{4}$ 32	—	—
8 (005H)	8.625 219.1	$\frac{5}{8}$ M16	$1\frac{5}{16}$ 24	—	—	—	—
10	10.750 273.0	—	—	$\frac{7}{8}$ M22	$1\frac{7}{16}$ 36	—	—
12	12.750 323.9	—	—	$\frac{7}{8}$ M22	$1\frac{7}{16}$ 36	—	—
200A (JIS)	— 216.3	$\frac{5}{8}$ M16	$1\frac{5}{16}$ 24	$\frac{3}{4}$ M20	$1\frac{1}{4}$ 32	—	—
250A (JIS)	— 267.4	—	—	$\frac{7}{8}$ M22	$1\frac{7}{16}$ 36	—	—
300A (JIS)	— 318.5	—	—	$\frac{7}{8}$ M22	$1\frac{7}{16}$ 36	—	—

