

**Style HP-70** - Rigid Coupling (12-inch/323.9-mm and Smaller Sizes)

**Style 89** - Rigid Coupling for Stainless Steel Pipe

**Style 489** - Rigid Stainless Steel Coupling for Stainless Steel Pipe (139.7-mm and Larger Sizes)

**Style 489DX** - Rigid Stainless Steel Coupling for Duplex and Super Duplex Pipe



## 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 89 Rigid Coupling for stainless steel pipe. However, the same installation steps apply to Styles HP-70, 489, and 489DX Couplings in the size ranges listed above.

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

properly (tongue in recess). Make sure the housings’ keys engage the grooves completely on both pipe ends.

## NOTICE

For Style HP-70 Couplings:

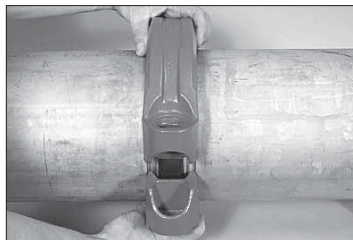
- Always verify the gasket style that is provided with the coupling. If the gasket is an EndSeal® design, the HP-70ES instructions on page 98 of this manual must be followed.



## CAUTION

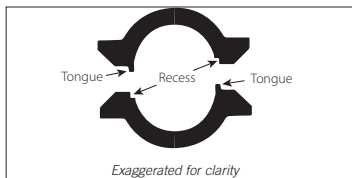
- Make sure the gasket does not become rolled or pinched while installing the housings.

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



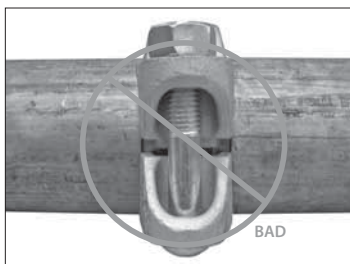
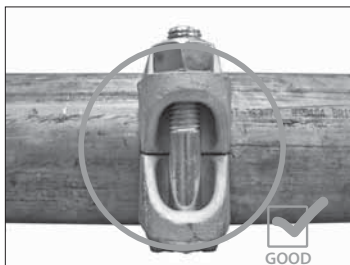
## NOTICE

For Styles 489/489DX Couplings supplied with stainless steel bolts and nuts, apply an anti-seize compound to the bolt threads before tightening the nuts.



**2. INSTALL HOUSINGS:** Install the housings over the gasket with the tongue and recess features mated

**3. 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.



**4. TIGHTEN NUTS:** Tighten all nuts evenly by alternating sides. Make sure the housings' keys engage the grooves completely on both pipe ends. Apply torque to each nut with a torque wrench. Refer to the following table for the torque requirement. **NOTE:** It is important to tighten the nuts evenly to prevent gasket pinching.

### NOTICE

- For 6 – 12-inch/168.3 – 323.9-mm Style HP-70 Couplings, there is no torque requirement. However, the nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads.

**5.** Inspect the bolt pads at each joint to ensure proper assembly is achieved.

### ⚠ WARNING

- The housings' tongue and recess features must be mated properly (tongue in recess).
  - For Victaulic Style HP-70, 89, 489, and 489DX Couplings, the nuts must be tightened to the required torque values, listed in these instructions, for proper assembly.
  - Keep hands away from coupling openings during tightening.
- Failure to follow these instructions could cause joint failure, serious personal injury, and property damage.

## Style HP-70, 89, 489, and 489DX Torque Requirements

Size		Torque Requirements			
Nominal Size inches or mm	Actual Pipe Outside Diameter inches/mm	Style HP-70	Style 89	Style 489	Style 489DX
		ft-lbs N•m	ft-lbs N•m	ft-lbs N•m	ft-lbs N•m
2 – 3	2.375 – 3.500 60.3 – 88.9	60 – 80 81 – 109	60 – 90 80 – 120	—	60 – 90 80 – 120
76.1 mm	3.000 76.1	—	60 – 90 80 – 120	—	60 – 90 80 – 120
4	4.500 114.3	60 – 80 81 – 109	85 – 125 115 – 170	—	85 – 125 115 – 170
139.7 mm	5.500 139.7	—	175 – 250 240 – 340	75 – 100 100 – 137	75 – 100 100 – 135
5	5.563 141.3	—	175 – 250 240 – 340	85 – 125 115 – 170	—
165.1 mm	6.500 165.1	—	175 – 250 240 – 340	125 – 200 170 – 275	125 – 200 170 – 275
6	6.625 168.3	†	175 – 250 240 – 340	125 – 200 170 – 275	125 – 200 170 – 275
216.3 mm	8.515 216.3	—	200 – 300 275 – 400	200 – 300 275 – 400	—
8	8.625 219.1	†	200 – 300 275 – 400	200 – 300 275 – 400	200 – 300 275 – 400
267.4 – 318.5 mm	10.528 – 12.539 267.4 – 318.5	—	250 – 350 340 – 475	200 – 300 275 – 400	—
10 – 12	10.750 – 12.750 273.0 – 323.9	†	250 – 350 340 – 475	200 – 300 275 – 400	200 – 300 275 – 400

† For 6 – 12-inch/168.3 – 323.9-mm Style HP-70 Couplings, there is no torque requirement. However, the nuts must be tightened evenly by alternating sides until metal-to-metal contact occurs at the bolt pads. **NOTE:** It is important to tighten all nuts evenly to prevent gasket pinching.

## Style HP-70, 89, 489, and 489DX Helpful Information

Size		Style HP-70		Style 89		Style 489		Style 489DX	
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	Nut Size inches/ Metric	Socket Size inches/ mm
2 – 3	2.375 – 3.500 60.3 – 88.9	5/8 M16	1 1/16 27	5/8 M16	1 1/16 27	—	—	5/8 M16	1 1/16 27
76.1 mm	3.000 76.1	—	—	5/8 M16	1 1/16 27	—	—	5/8 M16	1 1/16 27
4	4.500 114.3	3/4 M20	1 1/4 32	3/4 M20	1 1/4 32	—	—	3/4 M20	1 1/4 32
139.7 mm	5.500 139.7	—	—	3/4 M20	1 1/4 32	3/4 M20	1 1/4 32	3/4 M20	1 1/4 32
5	5.563 141.3	—	—	3/4 M20	1 1/4 32	3/4 M20	1 1/4 32	—	—
165.1 mm	6.500 165.1	—	—	7/8 M22	1 1/16 36	7/8 M22	1 1/16 36	7/8 M22	1 1/16 36
6	6.625 168.3	7/8 M22	1 1/16 36	7/8 M22	1 1/16 36	7/8 M22	1 1/16 36	7/8 M22	1 1/16 36
216.3 mm	8.515 216.3	—	—	1 M24	1 5/8 41	1 M24	1 5/8 41	—	—
8	8.625 219.1	1 M24	1 5/8 41	1 M24	1 5/8 41	1 M24	1 5/8 41	1 M24	1 5/8 41
267.4 – 318.5 mm	10.528 – 12.539 267.4 – 318.5	—	—	1 M24	1 5/8 41	1 M24	1 5/8 41	—	—
10 – 12	10.750 – 12.750 273.0 – 323.9	1 M24	1 5/8 41	1 M24	1 5/8 41	1 M24	1 5/8 41	1 M24	1 5/8 41