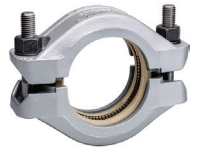


Style 870 Rigid Coupling



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⚠ WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain 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.
- The Style 870 Coupling is suitable for use in saturated steam service. Use extreme caution when working around steam systems.
- **DO NOT** impact any couplings or mating components when the system is pressurized.
- The Style 870 Coupling shall be installed **ONLY** on carbon steel or stainless steel mating components that are prepared to Victaulic OGS-200 Specifications. **DO NOT** install the Style 870 Coupling on mating components that are prepared to any other groove specification.
- **DO NOT** attempt to install the Style 870 Coupling on non-metallic mating components.

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

NOTICE

- **THIS COUPLING ASSEMBLY HAS A TORQUE REQUIREMENT. REFER TO PAGE 2 OF THIS INSTRUCTION SHEET OR THE MARKINGS ON THE HOUSINGS FOR THE SPECIFIC TORQUE REQUIREMENT.**
- Piping system support shall be maintained throughout the entire installation process to prevent damage to the seal assembly.
- Seal assemblies are intended for one-time use only.
- A new seal assembly shall be installed any time the coupling is disassembled, even if the joint has not been in service.



- Items Provided:**
- One "1 of 2" Housing
 - One "2 of 2" Housing
 - One Seal Assembly Containing Two Spring Energizers
 - Two Specialized Bolts
 - Two Flat Washers
 - Two Nuts

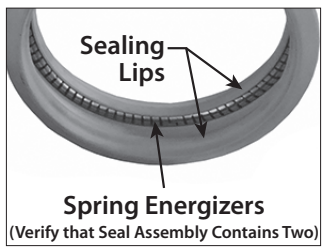


- Additional Items Required:**
- **Extra-Deep Socket Set**
 - Torque Wrench with a Range of 100–500 ft-lbs/136–675 N•m

1. PREPARE MATING COMPONENT ENDS: Victaulic R9S roll sets (for carbon steel) or RXS roll sets (for stainless steel) shall be used to prepare mating component ends.
 The mating components' outside diameter ("OD"), groove dimensions, and maximum allowable flare diameter shall be within the tolerances published in current Victaulic OGS-200 specifications, publication 25.12, which can be downloaded at victaulic.com. **DO NOT install the Style 870 Coupling on mating components that are prepared to any other groove specification.**



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.



3. CHECK SEAL ASSEMBLY: Verify that the seal assembly style number matches that of the housing (S/870). For complete information regarding seal assembly capabilities, refer to Victaulic publications 05.10 and 100.02, which can be downloaded at victaulic.com. The seal assembly shall contain two spring energizers. **DO NOT** attempt to use a seal assembly that does not contain both spring energizers. **Apply a thin coat of PTFE sealant/paste to the sealing lips of the seal assembly if the system will be subjected to air tests prior to service.**

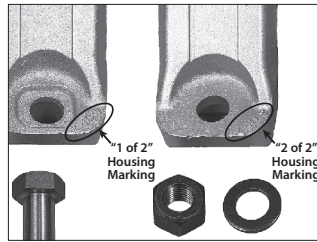


4. POSITION SEAL ASSEMBLY: Position the seal assembly over the mating component end. Verify that the seal assembly does not overhang the mating component end. **NOTE:** Seal assembly temperature shall be equal to or greater than that of the mating component to ensure proper installation and to prevent damage to the seal assembly.

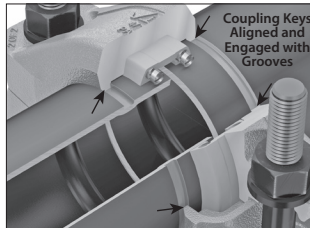
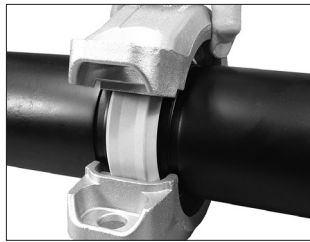
Style 870 Rigid Coupling



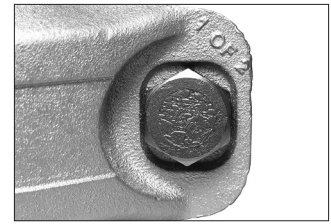
5. JOIN MATING COMPONENTS: Align and bring the two mating component ends together. Slide the seal assembly into position by centering it between the groove in each mating component end.
NOTE: Verify that no portion of the seal assembly extends into the groove of either mating component.



6. CHECK HOUSINGS: Verify that the housing assembly consists of one "1 of 2" housing and one "2 of 2" housing. Markings are located on the bolt pad, as shown.
NOTE: The "1 of 2" housing contains a recess for the bolt head, and the "2 of 2" housing has a flat surface to accommodate the flat washer and nut.



7. INSTALL HOUSINGS: Install the housings over the seal assembly. A visual check is required to verify that the coupling keys align with the groove in each mating component. **NOTE:** Verify that the seal assembly remains seated properly during installation of the housings. If any damage occurs, the seal assembly shall be replaced.

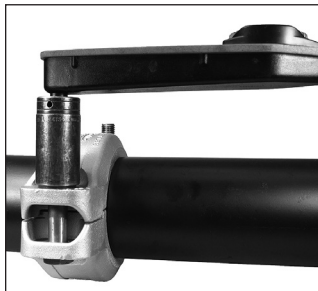


8. INSTALL BOLTS/FLAT WASHERS/NUTS: Lubricant or anti-seize shall be applied to bolt and nut threads and nut and flat washer mating surfaces prior to assembly. Install bolts, place a flat washer under each nut, and thread a nut finger-tight onto each bolt. **NOTE:** Verify that each bolt head seats properly in the "1 of 2" housing's bolt head recess.

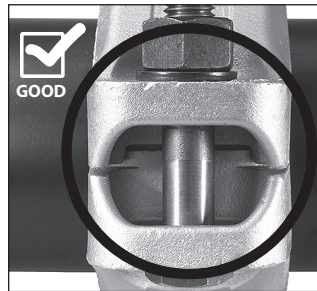
⚠ WARNING

- Inspection of each joint is required. Nuts shall be torqued to the values listed in the table below with even gaps at the bolt pads.
- Improperly assembled joints shall be corrected before the system is tested or placed into service. A new seal assembly shall be installed any time the coupling is disassembled, even if the joint has not been in service.

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



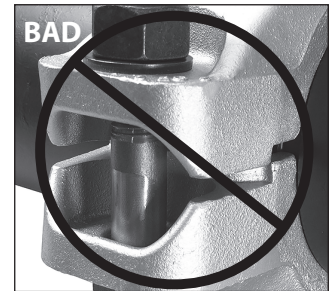
9. TIGHTEN NUTS: Tighten the nuts evenly by alternating sides to prevent seal assembly damage (extra-deep sockets are required). Verify that the housings' keys engage the grooves completely on both mating component ends. Apply torque to each nut with a torque wrench. Refer to the markings on the housings or the table on this page for the torque requirement.
NOTE: It is important to tighten the nuts evenly to prevent pinching of the seal assembly and to achieve even gaps at the bolt pads.



10. INSPECT BOLT PADS: Inspect the bolt pads at each joint to verify that proper assembly is achieved. The nuts shall be torqued to the values listed in the table below. In addition, the gap at each set of bolt pads shall be relatively even (the sum of the gap at both bolt pad locations shall not exceed the dimension listed in the table below).

Style 870 Torque Requirements, Helpful Information, and Inspection Dimensions

| Size | Carbon Steel Hardware (B7) Torque Requirement ft-lbs/N•m | Stainless Steel Hardware (B8M) Torque Requirement ft-lbs/N•m | Nut Size inches/Metric | Extra-Deep Socket Size inches/mm | Maximum Bolt Pad Gap (Sum of BOTH Sides) inches/mm |
|--------------|--|--|------------------------|----------------------------------|--|
| 2 inch DN50 | 100 – 110 136 – 149 | 85 – 95 115 – 129 | 5/8 M16 | 1 1/16 27 | 0.160 4 |
| 2 1/2 inch | 100 – 110 136 – 149 | 85 – 95 115 – 129 | 5/8 M16 | 1 1/16 27 | 0.160 4 |
| DN65 | 100 – 110 136 – 149 | 85 – 95 115 – 129 | 5/8 M16 | 1 1/16 27 | 0.160 4 |
| 3 inch DN80 | 100 – 110 136 – 149 | 85 – 95 115 – 129 | 5/8 M16 | 1 1/16 27 | 0.160 4 |
| 4 inch DN100 | 190 – 200 258 – 271 | 160 – 170 217 – 231 | 3/4 M20 | 1 1/4 34 | 0.160 4 |
| DN125 | 255 – 265 346 – 359 | 230 – 240 312 – 325 | 7/8 M22 | 1 1/16 36 | 0.200 5 |
| 6 inch DN150 | 255 – 265 346 – 359 | 230 – 240 312 – 325 | 7/8 M22 | 1 1/16 36 | 0.200 5 |
| 165.1 mm | 255 – 265 346 – 359 | 230 – 240 312 – 325 | 7/8 M22 | 1 1/16 36 | 0.200 5 |
| 8 inch DN200 | 255 – 265 346 – 359 | 255 – 265 346 – 359 | 1 M24 | 1 3/8 41 | 0.200 5 |



GAP AT BOLT PADS TOO LARGE (BOLT PADS ON OPPOSITE SIDE MAY BE TIGHTENED DOWN TOO FAR – CAUSED WHEN BOLT PADS ARE NOT TIGHTENED EVENLY BY ALTERNATING SIDES)



NO GAP AT BOLT PADS (BOLT PADS ON OPPOSITE SIDE MAY CONTAIN A LARGE GAP – CAUSED WHEN BOLT PADS ARE NOT TIGHTENED EVENLY BY ALTERNATING SIDES)

For complete contact information, visit victaulic.com

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