

Victaulic® Rigid Coupling for Potable Water Applications

Style 889



1.0 PRODUCT DESCRIPTION

Available Sizes

- 2 – 12"/DN50 – DN300

Pipe Material

- Schedules 10S and 40S Types 304/304L and 316/316L stainless steel pipe

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 750 psi/5171 kPa
- Working pressure dependent on wall thickness and size of pipe

Operating Temperature

- +0°F to +180°F/-18°C to +82°C

Function

- Intended for use in potable water systems
- Joins Schedules 10S and 40S Types 304/304L and 316/316L stainless steel pipe
- Provides a rigid pipe joint designed to restrict axial or angular movement

NOTE

- For non-potable water systems, refer to [publication 17.24](#): Victaulic Rigid Coupling Style 89.

Codes and Requirements

- Hanger support spacing corresponds to ASME B31.1 Power Piping Code and ASME B31.9 Building Services Piping Code

2.0 CERTIFICATION/LISTINGS



Grounding
Equip.

The Victaulic Grade P gasket supplied with the Style 889 Rigid Coupling is UL Classified in accordance with NSF/ANSI/CAN 61 and NSF/ANSI/CAN 372 as noted in Section 3.0 Specifications – Material.

The Style 889 Rigid Coupling is certified by IAPMO R&T in accordance with the UPC and the IAPMO PS 53 standard for use with Schedules 10 and 40 stainless steel pipe in sizes 2 – 12"/DN50 – DN300.

NOTE

- Reference the specific agency website listings for the most up-to-date certification information.
- See [publication 02.06](#) for Victaulic Potable Water Approvals (ANSI/NSF/CAN), if applicable.
- See [publication 10.01](#) for Fire Protection Certifications/Listings Reference Guide.

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

3.0 SPECIFICATIONS – MATERIAL

Housing: Ductile iron conforming to ASTM A536, Grade 65-45-12. Ductile iron conforming to ASTM A395, Grade 65-45-15, is available upon special request.

Housing Coating: (specify choice)

Standard: Blue coating.

Optional: Hot dipped galvanized conforming to ASTM A123.

Gasket¹: Grade “P” Fluoroelastomer Blend

P (Double blue stripe color code). Temperature range +0°F to +180°F/-18°C to +82°C. Specifically formulated for compatibility with potable water systems. Optimized for improved resistance to chlorine, chloramine and other typical potable water disinfectants. UL Classified in accordance with NSF/ANSI/CAN 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and NSF/ANSI/CAN 372.

¹ Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest Victaulic [Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

NOTE

- Victaulic reserves the right to substitute equivalent and/or higher grade elastomer products.

Bolts/Nuts: (specify choice)²

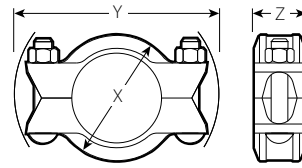
Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 Carbon steel heavy hex nuts meeting the mechanical property requirements of ASTM A563 Grade B. Track bolts and heavy hex nuts are zinc electroplated per ASTM B633 Fe/Zn5, finish Type III (imperial) or Type II (metric).

Optional: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM A193 Grade B8M, Class 2 (316 stainless steel). Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM A194 Grade 8M (316 stainless steel), condition CW, with galling reducing coating.

² Optional bolts/nuts in imperial size only.

4.0 DIMENSIONS

Style 889 Rigid Coupling for Potable Water Applications



Typical for all sizes

Size		Pipe End Separation ³	Bolt/Nut		Nut Torque ft-lbs N·m	Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Qty.	Size inches		X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
2 DN50	2.375 60.3	0.14 3.6	2	5/8 x 2 3/4	60 – 90 80 – 120	3.50 89	6.68 168	2.00 51	3.1 1.4
2 1/2	2.875 73.0	0.14 3.6	2	5/8 x 3 1/2	60 – 90 80 – 120	4.13 105	7.13 181	2.00 51	4.0 1.8
3 DN80	3.500 88.9	0.14 3.6	2	5/8 x 3 1/2	60 – 90 80 – 120	4.75 121	7.75 197	2.00 51	4.3 2.0
4 DN100	4.500 114.3	0.25 6.4	2	3/4 x 4 1/4	85 – 125 115 – 170	6.00 152	9.63 245	2.13 54	7.5 3.4
6 DN150	6.625 168.3	0.25 6.4	2	7/8 x 5 1/2	175 – 250 237 – 339	8.63 219	12.68 321	2.50 64	16.0 7.3
8 DN200	8.625 219.1	0.25 6.4	2	1 x 5 1/2	500 678	11.00 279	15.25 387	2.75 70	26.1 11.8
10 DN250	10.750 273.0	0.25 6.4	2	1 x 6 1/2	500 678	13.50 343	17.25 438	2.75 70	32.8 14.9
12 DN300	12.750 323.9	0.25 6.4	2	1 x 6 1/2	500 678	15.63 397	19.63 499	2.88 73	46.0 20.9

³ For field installation only. Style 889 couplings, when sufficiently pressurized, will allow pipe ends to separate to maximum point shown before joint acts in a fully restrained manner. Style 889 rigid couplings are considered rigid connections and will not accommodate expansion/contraction or angular movement of the piping system. Contact Victaulic for torsional resistance information.

5.0 PERFORMANCE

Style 889 Rigid Coupling for Potable Water Applications – ANSI Standard Stainless Steel Pipe

Size		Pipe Wall Thickness inches mm	ANSI Schedule Number	Groove Type	Maximum Working Pressure ^{4,5} psi kPa	Maximum End Load ^{4,5} lb N
Nominal inches DN	Actual Outside Diameter inches mm					
2 DN50	2.375 60.3	0.154 3.9	40S	Std/C	750 5171	3323 14780
		0.109 2.8	10S	RX	500 3447	2215 9853
2½	2.875 73.0	0.203 5.2	40S	Std/C	750 5171	4869 21658
		0.120 3.0	10S	RX	500 3447	3246 14438
3 DN80	3.500 88.9	0.216 5.5	40S	Std/C	750 5171	7216 32098
		0.120 3.0	10S	RX	500 3447	4814 21415
4 DN100	4.500 114.3	0.237 6.0	40S	Std/C	750 5171	11928 53059
		0.120 3.0	10S	RX	400 2758	6362 28298
6 DN150	6.625 168.3	0.280 7.1	40S	Std/C	750 5171	25854 115003
		0.134 3.4	10S	RX	400 2758	10324 45925
8 DN200	8.625 219.1	0.322 8.2	40S	Std/C	600 4137	35049 155903
		0.148 3.8	10S	RX	300 2068	17499 77838
10 DN250	10.750 273.0	0.365 9.3	40S	Std/C	600 4137	54446 242188
		0.165 4.2	10S	RX	300 2068	27184 120918
12 DN300	12.750 323.9	0.375 9.5	40S	Std/C	600 4137	76590 340687
		0.180 4.6	10S	RX	300 2068	38239 170097

⁴ Maximum Joint Working Pressures on Schedule 10 stainless steel pipe are based on the use of RX grooving rolls. RX roll sets for light wall stainless steel pipe are marked with the prefix "RX."
⁵ Working Pressure and End Load are total, from all internal and external loads, based on AISI 304/304L and 316/316L stainless steel pipe, roll or cut grooved in accordance with Victaulic specifications.

NOTES

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.
- RX = Roll Set for light wall stainless steel pipe marked with the prefix "RX"
- Std = Standard roll set marked with the prefix "R"
- C = Cut groove

5.1 PERFORMANCE

Style 889 Rigid Coupling for Potable Water Applications – FM Ratings on Stainless Steel Pipe^{6,7}

Size		Pipe Wall Thickness inches mm	ANSI Schedule Number	Groove Type	Maximum Working Pressure ^{8,9} psi kPa
Nominal inches DN	Actual Outside Diameter inches mm				
2 DN50	2.375 60.3	0.154 3.9	40S	Std/C	500 3447
		0.109 2.8	10S	RX	300 2068
2½	2.875 73.0	0.203 5.2	40S	Std/C	500 3447
		0.120 3.0	10S	RX	300 2068
3 DN80	3.500 88.9	0.216 5.5	40S	Std/C	500 3447
		0.120 3.0	10S	RX	300 2068
4 DN100	4.500 114.3	0.237 6.0	40S	Std/C	500 3447
		0.120 3.0	10S	RX	300 2068
6 DN150	6.625 168.3	0.280 7.1	40S	Std/C	500 3447
		0.134 3.4	10S	RX	300 2068
8 DN200	8.625 219.1	0.322 8.2	40S	Std/C	400 2758
		0.188 4.8	–	RX	300 2068
		0.148 3.8	10S	RX	–
10 DN250	10.750 273.0	0.365 9.3	40S	Std/C	400 2758
		0.188 4.8	–	RX	–
		0.165 4.2	10S	RX	–
12 DN300	12.750 323.9	0.375 9.5	40S	Std/C	400 2758
		0.180 4.6	10S	RX	–

⁶ FM approved with standard blue enamel housing coating and standard carbon steel fasteners. Optional housing coatings and optional bolts/nuts not FM approved.

⁷ FM approved for use in wet sprinkler systems only.

⁸ Maximum Joint Working Pressures on Schedule 10 stainless steel pipe are based on the use of RX grooving rolls. RX roll sets for light wall stainless steel pipe are marked with the prefix "RX."

⁹ Working Pressure is total, from all internal and external loads, based on AISI 304/304L and 316/316L stainless steel pipe, roll or cut grooved in accordance with Victaulic specifications.

NOTES

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.
- RX = Roll Set for light wall stainless steel pipe marked with the prefix "RX"
- Std = Standard roll set marked with the prefix "R"
- C = Cut groove

6.0 NOTIFICATIONS

⚠ WARNING



- 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.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Always read and follow the I-ENDCAP, Victaulic End Cap Installation Safety Instructions, which can be downloaded at Victaulic.com.
- Wear safety glasses, hardhat, foot protection, and hearing protection.
- It is the system designer's responsibility to verify suitability of stainless steel components for use with the intended fluid media within the piping system and external environment.
- The material specifier shall evaluate the effect of chemical composition, pH level, operating temperature, chloride level, oxygen level, and flow rate on stainless steel components to confirm system life will be acceptable for the intended service.
- Always reference Victaulic publication 17.01 for stainless steel pipe end preparation and grooving roll set requirements. Grooving roll sets for stainless steel pipe must be ordered separately.

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

⚠ WARNING

- Victaulic RX roll sets must be used when grooving light-wall/thin-wall stainless steel pipe for use with Victaulic Couplings.

Failure to use Victaulic RX roll sets when grooving light-wall/thin-wall stainless steel pipe may cause joint failure, resulting in serious personal injury and/or property damage.

NOTICE

- Victaulic RX grooving rolls must be ordered separately. They are identified by a silver color and the designation RX on the front of the roll sets.

7.0 REFERENCE MATERIALS

[02.06: Victaulic Potable Water Approvals](#)

[05.01: Victaulic Seal Selection Guide](#)

[17.01: Victaulic Pipe Preparation for Use on Stainless Steel Pipe With Victaulic Products](#)

[17.24: Victaulic Rigid Coupling Style 89](#)

[24.01: Pipe Preparation Tool Specifications](#)

[25.01: Victaulic Original Groove System \(OGS\) Groove Specifications](#)

[26.01: Victaulic Design Data](#)

[29.01: Victaulic Terms and Conditions/Warranty](#)

[I-100: Victaulic Field Installation Handbook](#)

[I-ENDCAP: Victaulic End Caps Installation Instructions](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at victaulic.com.

Warranty

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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Note

All products bearing a Victaulic trademark are manufactured by Victaulic or to Victaulic specifications. All products are to be installed only in accordance with the applicable Victaulic installation instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.