

# Victaulic® Duplex Stainless Steel Rigid Coupling

## Style 489DX



### 1.0 PRODUCT DESCRIPTION

#### Available Sizes:

- 2 – 12"/DN50 – DN300

#### Maximum Working Pressure:

- 1200 psi/8273 kPa/83 bar

#### Application:

- Provides a rigid pipe joint designed to restrict axial or angular movement. Contact Victaulic for information on torsional resistance.
- This product joins Original Groove System (OGS) roll grooved and cut grooved pipe, as well as grooved fittings, valves and accessories

#### Pipe Material

- Stainless steel
  - Austenitic: 304, 316
  - Super Austenitic: 254SMO, AL6XN
  - Duplex: 2205
  - Super Duplex: 2507, Zeron 100

### 2.0 CERTIFICATION/LISTINGS

Product designed and manufactured under the Victaulic Quality Management System, as certified by LPCB in accordance with ISO-9001:2015.

#### NOTES

- The Style 489DX is NSF Certified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372.
- See [publication 02.06](#) for potable water approvals if applicable.

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

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

### 3.0 SPECIFICATIONS – MATERIAL

**Housing:** Duplex stainless steel (CE8MN) conforming to ASTM A890. Super Duplex stainless steel (CE3MN) conforming to ASTM A890 is available upon special request.

**Gaskets: (specify choice<sup>1</sup>)**

**Grade “EW” EPDM**

EPDM (Green W color code). Temperature range -30°F to +230°F/ -34°C to +110°C. May be specified for hot water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. WRAS-certified material with approved microbiological resistance to BS 6920 for cold and hot potable water service up to +149°F/+65°C. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. **NOT COMPATIBLE FOR PETROLEUM SERVICES.**

**Grade “EF” EPDM<sup>2</sup>**

EPDM (Green “X” color code). Temperature range -30°F to +230°F/-34°C to +110°C. May be specified for hot and cold water service within the specified temperature range plus a variety of dilute acids, oil-free air and many chemical services. WRAS approved material to BS 6920 for cold and hot potable water service up to +149°F/+65°C. DVGW approved material per DVGW W 270, KTW 1.3.13, and EN 681-1 Type WA cold potable and Type WB hot potable water service. **NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.**

**Grade “E” EPDM**

EPDM (Green stripe color code). Temperature range -30°F to +250°F/-34°C to +110°C. May be specified for cold and hot water service within the specified temperature range plus a variety of dilute acids, oil free air and many chemical services. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. **NOT COMPATIBLE FOR PETROLEUM SERVICES.**

<sup>1</sup> 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.

<sup>2</sup> Available exclusively in Europe

**Bolts/Nuts: (specify choice)**

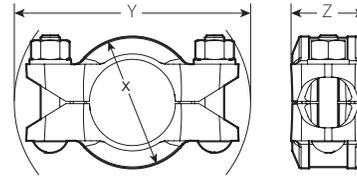
**Standard:** Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW, with galling reducing coating. Silicon bronze heavy hex nuts meeting the requirements of ASME/ANSI B18.22, Type 651.

**Optional:** Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW, with galling reducing coating.

**Washers:** ASME/ANSI B18.22.1, Type 316 stainless steel flat washer

## 4.0 DIMENSIONS

### Style 489DX Rigid Coupling



Size		Pipe End Separation <sup>3</sup>	Bolt/Nut <sup>4</sup>		Nut Torque	Dimensions			Weight
Nominal	Actual Outside Diameter	Allowable	Qty.	Size		X	Y	Z	Approximate (Each)
inches DN	inches mm	inches mm		inches mm	inches mm	inches mm	inches mm	inches mm	lb kg
2 DN50	2.375 60.3	0.05 1.3	2	1/2 x 2 3/4	45 - 60 60 - 80	3.44 87.4	6.18 157.0	1.95 49.5	3.0 1.4
2 1/2	2.875 73.0	0.05 1.3	2	5/8 x 3 1/2	60 - 90 80 - 120	4.00 101.6	7.22 183.4	1.95 49.5	3.9 1.8
DN65	3.000 76.1	0.05 1.3	2	5/8 x 3 1/2	60 - 90 80 - 120	3.96 100.6	7.42 188.5	1.95 49.5	3.9 1.8
3 DN80	3.500 88.9	0.05 1.3	2	5/8 x 3 1/2	60 - 90 80 - 120	4.69 119.1	7.84 199.1	1.95 49.5	4.6 2.1
4 DN100	4.500 114.3	0.19 4.8	2	3/4 x 4 1/4	85 - 125 115 - 170	5.94 150.9	9.68 245.9	2.09 53.1	8.5 3.9
DN125	5.500 139.7	0.25 6.4	2	3/4 x 4 1/4	85 - 125 115 - 170	7.01 178.1	10.94 277.9	2.31 58.7	11.8 5.3
6 DN150	6.625 168.3	0.25 6.4	2	7/8 x 5 1/2	125 - 200 170 - 275	8.16 207.3	12.70 322.6	2.31 58.7	15.5 7.0
	6.500 165.1	0.25 6.4	2	7/8 x 5 1/2	125 - 200 170 - 275	8.03 204.0	12.70 322.6	2.31 58.7	15.5 7.0
8 DN200	8.625 219.1	0.25 6.4	2	1 x 5 1/2	200 - 300 275 - 400	10.62 269.7	15.04 382.0	2.62 66.5	24.0 10.9
10 DN250	10.750 273.0	0.25 6.4	2	1 x 6 1/2	250 - 350 339 - 475	13.09 332.5	17.29 439.2	2.69 68.3	33.0 15.0
12 DN300	12.750 323.9	0.25 6.4	2	1 x 6 1/2	250 - 350 339 - 475	15.13 384.3	19.13 485.9	2.81 71.4	40.0 18.1

<sup>3</sup> For field installation only. Style 489DX is essentially rigid and does not permit expansion or contraction.

<sup>4</sup> Metric thread size bolts are available (color coded gold) for all coupling sizes upon request. Contact Victaulic for details.

## 5.0 PERFORMANCE (CONTINUED)

### Performance on ANSI wall thicknesses (Austenitic Pipe Materials)

Size		Pipe Wall Thickness		Groove Type	Maximum	
Nominal inches DN	Actual Outside Diameter inches mm	inches mm	ANSI Schedule Number		Working Pressure <sup>5</sup> psi kPa	End Load <sup>5</sup> lb N
8 DN200	8.625 219.1	0.322 8.2	40S	Std/C	600 4136	35049 155903
		0.148 3.8	10S	RX	300 2068	17499 77838
		0.109 2.8	5S	RX	200 1379	11686 51980
10 DN250	10.750 273.0	0.365 9.3	40S	Std/C	600 4136	54446 242188
		0.165 4.2	10S	RX	300 2068	27184 120918
		0.134 3.4	5S	RX	250 1724	22691 100933
12 DN300	12.750 323.9	0.375 9.5	40S	Std/C	600 4136	76590 340687
		0.181 4.6	10S	RX	300 2068	38239 170097
		0.156 4.0	5S	RX	200 1379	25536 113590

<sup>5</sup> Working Pressure and End Load are total, from all internal and external loads, roll or cut grooved in accordance with Victaulic specifications. Roll grooving shall use Victaulic roll sets.

#### NOTES

- 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
- Contact Victaulic for performance on other pipe. See [publication 24.01](#) for more information pertaining to tools.
- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.

## 6.0 NOTIFICATIONS

### WARNING



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping 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.

Failure to follow these instructions could result 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

[17.25: Victaulic Stainless Steel Rigid Coupling Style 489](#)

[24.01: Victaulic Pipe Preparation Tool Specifications](#)

[26.01: Victaulic Design Data](#)

[29.01: Victaulic Terms and Conditions of Sale](#)

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

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

#### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning 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, installation guide, or this disclaimer.

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#### Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

#### Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of 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 [www.victaulic.com](http://www.victaulic.com).

#### Warranty

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

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