

Stainless Steel Rigid Coupling

STYLE 489

Style 489 is designed for 1 ½ – 12"/40 – 300 mm piping systems and features a heavy stainless steel housing for pressures up to 600 psi/4135 kPa on stainless steel pipe only. Style 489 for sizes 6 – 12" / 150-300 mm and 139.7 and 165.1 mm DIN sizes are designed for pressures up to 1200 psi / 8273 kPa on standard wall or Sch. 40S duplex pipe. The housing key is designed to clamp the bottom of the groove, thus providing an essentially rigid joint. To achieve this rigidity, it is necessary to torque the nuts to the values shown in the table below.

Style 489 will greatly reduce linear or angular movement and is useful for valve connections and other points where rigidity is required. The coupling is provided with stainless steel bolts and nuts and standard C-cross section gasket.

See pressure rating table.

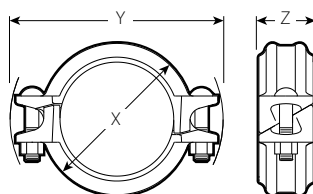


1 ½ – 4"/40 – 100MM SIZES

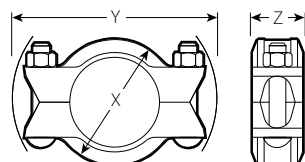


6 – 12"/150 – 300 MM;
139.7 – 318.5 MM
METRIC AND JIS SIZES

DIMENSIONS



1 ½ – 4"/40 – 100MM SIZES



6 – 12"/150 – 300 MM;
139.7 – 318.5 MM
METRIC AND JIS SIZES

Size		Allow. Pipe End Sep. #	@ Bolts/Nuts No. - Size	Nut Torque	Dimensions Inches/millimeters			Approx. Weight Each
Nominal Size Inches mm	Actual Outside Diameter Inches mm	Inches mm	Inches mm	ft-lbs N•m	X	Y	Z	Lbs. kg
1 ½ 40	1.900 48.3	0.05 1.3	2 – ¾ x 2 ½	18 - 22 25 - 30	2.86 73	4.42 118	1.84 47	1.6 0.7
2 50	2.375 60.3	0.05 1.3	2 – ¾ x 2 ½	18 - 22 25 - 30	3.34 85	5.19 132	1.86 47	1.6 0.7
2 ½ 65	2.875 73.0	0.05 1.3	2 – ¾ x 2 ½	18 - 22 25 - 30	3.92 100	5.62 143	1.86 47	1.9 0.9
76.1 mm	3.000 76.1	0.05 1.3	2 – ¾ x 2 ½	18 - 22 25 - 30	4.02 102	5.72 145	1.86 47	2.0 0.9
3 80	3.500 88.9	0.05 1.3	2 – ½ x 2 ¾	45 - 50 60 - 68	4.54 115	6.78 172	1.86 47	2.8 1.3
4 100	4.500 114.3	0.19 4.8	2 – ½ x 2 ¾	45 - 50 60 - 68	5.77 147	7.90 201	2.07 53	4.0 1.8
139.7 mm	5.500 139.7	0.25 6.4	2 – ¾ x 4 ¼	75 - 100 100 - 135	7.07 180	11.13 283	2.38 60	12.0 5.5
165.1 mm	6.500 165.1	0.25 6.4	2 – ¾ x 5 ½	125 - 200 170 - 275	8.16 207	12.68 321	2.50 64	15.5 7.0
6 150	6.625 168.3	0.25 6.4	2 – ¾ x 5 ½	125 - 200 170 - 275	8.16 207	12.68 321	2.50 64	15.5 7.0
216.3 mm	8.515 216.3	0.25 6.4	2 – 1 x 5 ½	200 - 300 275 - 400	10.63 270	15.00 381	2.75 70	24.0 10.9
8 200	8.625 219.1	0.25 6.4	2 – 1 x 5 ½	200 - 300 275 - 400	10.63 270	15.00 381	2.75 70	24.0 10.9
267.4 mm	10.528 267.4	0.25 6.4	2 – 1 x 6 ½	200 - 300 275 - 400	13.09 332	17.25 438	3.00 76	33.0 15.0
10 250	10.750 273.0	0.25 6.4	2 – 1 x 6 ½	200 - 300 275 - 400	13.09 332	17.25 438	3.00 76	33.0 15.0
318.5 mm	12.539 318.5	0.25 6.4	2 – 1 x 6 ½	200 - 300 275 - 400	15.13 384	19.13 486	3.13 80	40.0 18.1
12 300	12.750 323.9	0.25 6.4	2 – 1 x 6 ½	200 - 300 275 - 400	15.13 384	19.13 486	3.13 80	40.0 18.1

For field installation only. Style 489 is essentially rigid and does not permit expansion or contraction.

@ Metric thread size bolts are available for all coupling sizes upon request. Contact Victaulic for details.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

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PERFORMANCE

Size		Schedule 40S			Schedule 40S††			Schedule 10S			Schedule 5S		
Nominal Dia. Inches mm	Actual Outside Dia. Inches mm	Max. Joint Work. Press.* psi kPa	Max. Perm. End Load Lbs. N	Nom. Wall Thick. Inches mm	Max. Joint Work. Press.* psi kPa	Max. Perm. End Load Lbs. N	Nom. Wall Thick. Inches mm	Max. Joint Work. Press.* psi kPa	Max. Perm. End Load Lbs. N	Nom. Wall Thick. Inches mm	Max. Joint Work. Press.* psi kPa	Max. Perm. End Load Lbs. N	Nom. Wall Thick. Inches mm
1 ½ 40	1.900 48.3	600 4136	1700 7565	0.145 3.7	– –	– –	– –	300 2065	850 3783	0.109 2.8	200 1379	570 2537	0.065 1.7
2 50	2.375 60.3	600 4136	2660 11837	0.154 3.9	– –	– –	– –	300 2065	1330 5919	0.109 2.8	200 1379	890 3961	0.065 1.7
2 ½ 65	2.875 73.0	600 4136	3900 17355	0.203 5.1	– –	– –	– –	300 2065	1950 8678	0.120 3.1	200 1379	1300 5785	0.083 2.1
76.1 mm	3.000 76.1	600 4136	4240 18868	0.203 5.1	– –	– –	– –	300 2065	2120 9434	0.120 3.1	200 1379	1415 6297	0.083 2.1
3 80	3.500 88.9	600 4136	5775 25699	0.216 5.5	– –	– –	– –	300 2065	2890 12861	0.120 3.1	200 1379	1925 8566	0.083 2.1
4 100	4.500 114.3	600 4136	9540 42453	0.237 6.0	– –	– –	– –	300 2065	4775 21249	0.120 3.1	200 1379	3180 14151	0.083 2.1
139.7 mm	5.500 139.7	600 4136	14250 63413	0.258 6.6	1200†† 8273	28500†† 126826	0.258 6.6	300 2065	7130 31729	0.134 3.4	200 1379	4750 21138	0.109 2.8
165.1 mm	6.500 165.1	600 4136	19910 88600	0.280 7.1	1200†† 8273	39820†† 177200	0.280 7.1	300 2065	9955 44300	0.134 3.4	200 1379	6640 29548	0.109 2.8
6 150	6.625 168.3	600 4136	20680 92026	0.280 7.1	1200†† 8273	41370†† 184030	0.280 7.1	300 2065	10340 46015	0.134 3.4	200 1379	6895 30685	0.109 2.8
216.3 mm	8.515 216.3	600 4136	34175 152079	0.322 8.2	– –	– –	– –	300 2065	17090 76051	0.148 3.8	200 1379	11390 50686	0.109 2.8
8 200	8.625 219.1	600 4136	35055 155995	0.322 8.2	1200†† 8273	70110†† 311870	0.322 8.2	300 2065	17530 78010	0.148 3.8	200 1379	11685 52000	0.109 2.8
267.4 mm	10.528 267.4	600 4136	52230 232424	0.365 9.3	– –	– –	– –	300 2065	26115 116212	0.165 4.2	200 1379	17410 77475	0.134 3.4
10 250	10.750 273.0	600 4136	54460 242345	0.365 9.3	1200†† 8273	108920†† 484500	0.365 9.3	300 2065	27230 121175	0.165 4.2	200 1379	18150 80770	0.134 3.4
318.5 mm	12.539 318.5	600 4136	74100 329745	0.375 9.5	– –	– –	– –	300 2065	37050 164873	0.180 4.6	200 1379	24700 109915	0.156 4.0
12 300	12.750 323.9	600 4136	76605 340890	0.375 9.5	1200†† 8273	153210†† 681520	0.375 9.5	300 2065	38300 170435	0.180 4.6	200 1379	25535 113630	0.156 4.0

* Working Pressure and End Load are total, from all internal and external loads, based on stainless steel pipe, roll grooved with Victaulic rolls in accordance with Victaulic specifications. "RX" rolls must be used for Schedules 5S, 10S and 10. Standard rolls should be used for Schedule 40S and Standard Weight pipe. Contact Victaulic for performance on other pipe or cut grooved pipe.

WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1 ½ times the figures shown.

†† Cut grooved, standard wall or sch. 40S duplex.

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MATERIAL SPECIFICATIONS

Housing: Type 316 stainless steel, conforming to ASTM-A351, A743, and A744 Grade CF-8M.

Housing Coating: None

Gaskets:

* Services listed are General Service Recommendations only. It should be noted that there are services for which these gaskets are not recommended. Reference should always be made to the latest Victaulic Gasket Selection Guide (05.01) for specific gasket service recommendations and for a listing of services which are not recommended.

- **Grade “E” EPDM**

EPDM (Green color code). Temperature range –30°F to +230°F/–34°C to +110°C.

Recommended 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 to ANSI/NSF 61 for cold +86°F/+30°C and hot +180°F/+82°C potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES.

- **Grade “T” nitrile**

Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°C.

Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Not recommended for hot water services over +150°F/+66°C or for hot dry air over +140°F/+60°C.

- **Grade “O” fluoroelastomer**

Fluoroelastomer (Blue color code). Temperature range +20°F to +300°F/–7°C to +149°C.

Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons.

- **Grade “A” white nitrile**

White nitrile (White gasket). Temperature range +20°F to +180°F/–7°C to +82 °C. No carbon black content. May be used for food services. Meets FDA requirements and conforms to CFR Title 21 Part 177.2600.

Other gaskets are available. Please refer to 05.01.

Bolts/Nuts: Type 316 stainless steel, oval neck track bolts and special anti-galling coating heavy hex nuts with chemical and physical properties of ASTM F-593, Group 2, Condition CW.

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WARRANTY

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

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.



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For complete contact information, visit www.victaulic.com

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