

Victaulic® Duplex Grooved Couplings

Style 77DX Duplex Stainless Steel Flexible Coupling



1.0 PRODUCT DESCRIPTION

Available Sizes:

- ¾ – 6"/DN20 – DN150

NOTE

- For 8 – 18"/DN200 – DN450 sizes, Victaulic offers stainless steel couplings. See [publication 17.03](#) for the Style 77S Stainless Steel Flexible Coupling.

Maximum Working Pressure:

- Up to 1200 psi/8273 kPa on ANSI wall thickness
- Up to 750 psi/5171 kPa on ISO wall thickness

Application:

- Joins standard roll grooved and cut grooved pipe, as well as grooved fittings, valves and accessories

Pipe Material:

- Roll grooved Type 304/316 stainless steel
- Cut grooved duplex/super duplex stainless steel

2.0 CERTIFICATION/LISTINGS

Product designed and manufactured under the Victaulic Quality Management System, as certified by LPCB in accordance with ISO-9001:2008.

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.

Gasket (specify choice)¹:

Grade “E” EPDM

EPDM (Green Stripe 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. 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 USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

Grade “EF” EPDM²

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. Also meets hot and cold potable water requirements per DVGW W270, UBA Elastomer Guideline, ÖVGW, SVGW, and French ACS approved for EN681-1 Type WA cold potable, and Type WB hot potable water service. WRAS approved material to BS 6920:2014 for cold and hot potable water service up to +149°F/+65°C. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

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 approved material 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 USE WITH PETROLEUM SERVICES OR STEAM SERVICES.

Grade “T” Nitrile

Nitrile (Orange Stripe color code). Temperature range –20°F to +180°F/–29°C to +82°C. May be specified for petroleum products, hydrocarbons, air with oil vapors, vegetable and mineral oils within the specified temperature range; not compatible for hot dry air over +140°F/+60°C and water over +150°F/+66°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

Grade “O” fluoroelastomer

Fluoroelastomer (Blue Stripe color code). Temperature range +20°F to + 300°F/–7°C to +149°C. May be specified for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

Grade “A” White nitrile

White nitrile (White gasket). Temperature range +20°F to +180°F/–7°C to +82°C. No carbon black content. Meets FDA requirements. Conforms to CFR Title 21 Part 177.2600. Not compatible for hot water services over +150°F/+66°C or for hot, dry air over+140°F/+60°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES.

Other

For alternate gasket selection, reference [publication 05.01](#): Victaulic Seal Selection Guide.

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.
² Available exclusively in Europe.

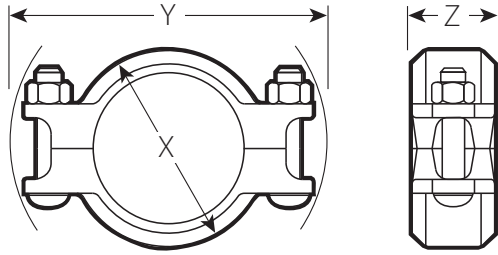
Bolts/Nuts: (specify choice)³:

Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Silicon bronze heavy hex nut meeting the requirements of ASME/ANSI B18.2.2 and ASTM F467 Type 651. Stainless steel flat washer meeting the requirements of ASME/ANSI B18.21.1, Type 316.

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.

³ Bolts/nuts are available in imperial size only.

4.0 DIMENSIONS



Size		Pipe End Separation ³	Deflection from Centerline ³		Bolt/Nut		Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Per Coupling degrees	Pipe inches/ft mm/m	Qty.	Size inches	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
¾ DN20	1.050 26.9	0 – 0.06 0 – 1.6	3° - 24'	0.72 60	2	¾ X 2	2.08 53	3.89 99	1.70 43	1.2 0.6
1 DN25	1.315 33.7	0 – 0.06 0 – 1.6	2° - 43'	0.57 48	2	¾ X 2	2.54 65	4.50 114	1.66 42	1.6 0.7
1 ¼ DN32	1.660 42.4	0 – 0.06 0 – 1.6	2° - 10'	0.45 38	2	¾ X 2	2.87 73	4.79 122	1.76 45	1.9 0.9
1 ½ DN40	1.900 48.3	0 – 0.06 0 – 1.6	1° - 56'	0.40 33	2	¾ X 2	3.24 82	4.80 122	1.76 45	2.1 1.0
2 DN50	2.375 60.3	0 – 0.06 0 – 1.6	1° - 31'	0.32 26	2	¾ X 2	3.70 94	5.33 135	1.84 47	2.5 1.1
2 ½ DN60	2.875 73.0	0 – 0.06 0 – 1.6	1° - 15'	0.26 22	2	¾ X 2	4.20 107	5.79 147	1.84 47	2.9 1.3
3 DN80	3.500 88.9	0 – 0.06 0 – 1.6	1° - 2'	0.22 18	2	½ X 2 ¾	4.83 123	6.99 178	1.84 47	4.1 1.9
4 DN100	4.500 114.3	0 – 0.13 0 – 3.2	1° - 36'	0.34 28	2	⅝ X 3 ½	5.93 151	9.00 229	2.06 52	6.7 3.0
6 DN150	6.625 168.3	0 – 0.13 0 – 3.2	1° - 12'	0.21 18	2	⅝ X 3 ¼	8.30 211	11.06 281	2.06 52	8.5 3.9
8 – 18 DN200 – DN450	For 8 – 18"/DN200 – DN450 sizes Victaulic offers stainless steel couplings. See publication 17.03 for the Style 77S Stainless Steel Flexible Coupling.									

³ Allowable Pipe End Separation and Deflection figures show the maximum nominal range of movement available at each joint for standard roll grooved pipe. Figures for standard cut grooved pipe may be doubled. These figures are maximums; for design and installation purposes these figures should be reduced by: 50% for ¾ – 3 ½"/DN20 – DN90; 25% for 4"/DN100 and larger.