Victaulic® Duplex Stainless Steel Flexible Coupling Style 475DX

17.34

1.0 PRODUCT DESCRIPTION

Available Sizes

- 1 – 4"/25 – 100 mm

Maximum Working Pressure

- Working pressure dependent on material, wall thickness and size of pipe.

Application

- This product joints standard roll grooved and cut grooved pipe
- Provides a flexible pipe joint which allows for expansion, contraction and deflection

Pipe Materials

- Duplex/Super Duplex Stainless Steel

NOTES

- The Style 475DX comes standard with WRAS-certified, Grade "EW" EPDM gasket material with approved microbiological resistance.

2.0 CERTIFICATION/LISTINGS

NOTES

- The Style 475DX 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 Victaulic 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.

Optional Housing:

Super Duplex stainless steel (CE3MN) conforming to ASTM A890.

Housing Coating: None

Gaskets: (specify choice[1])

☐ **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 "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.

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 Gasket Selection Guide for specific gasket service guidelines and for a listing of services which are not compatible.

Hardware:

Bolts: ASTM F-593, Group 2, Type 316 stainless steel oval neck track bolts

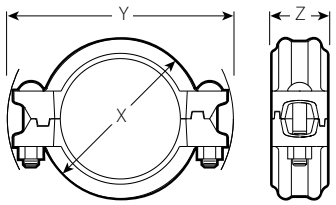
Nuts: ASTM F-594, Group 2, Type 316 stainless steel heavy hex nuts with galling resistant coating

Optional Nuts: ASME/ANSI B18.22, Type 651 silicon bronze heavy hex nut

Washers: None

4.0 DIMENSIONS

Style 475DX



Typical for all sizes

Size		Pipe End Separation[2]	Deflect. From CL[2]		Bolt/Nut[3]		Nut Torque	Dimensions			Weight
Nominal inches DN	Actual Outside Diameter inches mm	Allowable inches mm	Per Cplg. Deg.	Pipe In./Ft. mm	Qty.	Size inches mm	ft-lbs N•m	X inches mm	Y inches mm	Z inches mm	Approximate (Each) lb kg
1 DN25	1.315 33.7	0 – 0.06 0 – 1.6	2° – 43´	0.57 48	2	⅜ x 2	45 - 60 60 - 80	2.13 54	3.98 101	1.63 41	1.3 0.6
1 ¼ DN32	1.660 42.4	0 – 0.06 0 – 1.6	2° – 10´	0.45 38	2	⅜ x 2	60 - 90 80 - 120	2.46 63	4.45 113	1.72 44	1.4 0.6
1 ½ DN40	1.900 48.3	0 – 0.06 0 – 1.6	1° – 56´	0.40 33	2	⅜ x 2	60 - 90 80 - 120	2.72 69	4.52 115	1.72 44	1.5 0.7
2 DN50	2.375 60.3	0 – 0.06 0 – 1.6	1° – 30´	0.32 26	2	⅜ x 2	60 - 90 80 - 120	3.30 84	5.03 128	1.80 46	1.7 0.8
2 ½ DN65	2.875 73.0	0 – 0.06 0 – 1.6	1° – 15´	0.26 22	2	⅜ x 2	85 - 125 115 - 170	3.88 99	5.59 142	1.80 46	1.9 0.9
DN76.1	3.000 76.1	0 – 0.06 0 – 1.6	1° – 12´	0.25 21	2	⅜ x 2	85 - 125 115 - 170	4.00 102	5.73 146	1.80 46	1.9 0.9
3 DN80	3.500 88.9	0 – 0.06 0 – 1.6	1° – 1´	0.21 18	2	½ x 2¾	125 - 200 170 - 275	4.50 114	6.67 169	1.80 46	2.9 1.3
4 DN100	4.500 114.3	0 – 0.13 0 – 3.2	1° – 35´	0.33 28	2	½ x 2¾	250 - 350 339 - 475	5.75 146	7.96 202	2.00 51	4.2 1.9

[2] 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 3/4 – 3 1/2"/20 – 90 mm; 25% for 4"/100 mm and larger.

5.0 PERFORMANCE

Performance on ANSI wall thicknesses

Pipe Diameter		Style 475DX				
		Pipe Wall Thickness			Maximum	
Nominal Size inches DN	Actual Outside Diameter inches mm	inches mm	ANSI Schedule Number	Groove Type	Working Pressure psi kPa	End Load lb N
1 DN25	1.315 33.7	0.133 3.4	Duplex/Super Duplex 40S	C	500 3447	680 3026
1 ¼ DN32	1.660 42.4	0.140 3.6	Duplex/Super Duplex 40S	C	500 3447	1080 4806
1 ½ DN40	1.900 48.3	0.145 3.7	Duplex/Super Duplex 40S	C	500 3447	1415 6295
2 DN50	2.375 60.3	0.154 3.9	Duplex/Super Duplex 40S	C	500 3447	2215 9857
2 ½ DN65	2.875 73.0	0.203 5.2	Duplex/Super Duplex 40S	C	500 3447	3535 15731
3 DN80	3.500 88.9	0.216 5.5	Duplex/Super Duplex 40S	C	500 3447	4810 21405
4 DN100	4.500 114.3	0.237 6.0	Duplex/Super Duplex 40S	C	500 3447	5170 23007

NOTE

- 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

Performance on ISO wall thicknesses

Pipe Diameter		Style 475DX			
				Maximum	
Nominal Size inches DN	Actual Outside Diameter inches mm	Pipe Wall Thickness inches mm	Groove Type	Working Pressure kPa psi	End Load N lb
1 DN25	1.315 33.7	0.177 4.5	C	3447 500	3021 679
		0.126 3.2	Std	2930 425	2567 577
		0.102 2.6	RX	2241 325	1963 441
		0.091 2.3	RX	2068 300	1812 407
		0.079 2,0	RX	1724 250	1510 340
		0.063 1.6	RX	1551 225	1359 306
1 ¼ DN32	1.660 42.4	0.197 5.0	C	3447 500	4813 1082
		0.142 3.6	Std/C	3447 500	4813 1082
		0.126 3.2	Std	2930 425	4091 920
		0.102 2.6	RX	2241 325	3129 703
		0.079 2.0	RX	1724 250	2407 541
		0.063 1.6	RX	1551 225	2166 487
1 ½ DN40	1.900 48.3	0.197 5.0	C	3447 500	6306 1418
		0.142 3.6	Std/C	3275 475	5991 1347
		0.126 3.2	Std	2930 425	5360 1205
		0.102 2.6	RX	2241 325	4099 921
		0.079 2.0	RX	1724 250	3153 709
		0.063 1.6	RX	1551 225	2837 638
2 DN50	2.375 60.3	0.220 5.6	C	3447 500	9853 2215
		0.157 4.0	Std/C	3447 500	9853 2215
		0.142 3.6	St	3103 450	8868 1994
		0.126 3.2	St	2758 400	7882 1772
		0.114 2.9	St	2586 375	7390 1661
		0.102 2.6	RX	2241 325	6404 1440
		0.091 2.3	RX	2068 300	5912 1329
		0.079 2.0	RX	1724 250	4927 1108
		0.063 1.6	RX	1551 225	4433 997

Pipe Diameter		Style 475DX			
				Maximum	
Nominal Size inches DN	Actual Outside Diameter inches mm	Pipe Wall Thickness inches mm	Groove Type	Working Pressure kPa psi	End Load N lb
DN76.1	3.00 76.1	0.280 7.1	C	3447 500	15721 3534
		0.252 6.4	C	3447 500	15721 3534
		0.197 5.0	Std/C	2930 425	13363 3004
		0.157 4.0	Std	2758 400	12577 2827
		0.142 3.6	Std	2586 375	11791 2651
		0.122 3.1	Std	2413 350	11004 2474
		0.114 2.9	RX	2241 325	10219 2297
		0.102 2.6	RX	2068 300	9433 2121
		0.091 2.3	RX	1724 250	7861 1767
		0.083 2.1	RX	1600 232	7295 1640
		0.079 2.0	RX	1600 232	7295 1640
3 DN80	3.500 88.9	0.315 8.0	C	3447 500	21398 4811
		0.220 5.6	Std/C	3447 500	21398 4811
		0.157 4.0	Std	2758 400	17119 3848
		0.142 3.6	Std	2586 375	16049 3608
		0.126 3.2	Std	2241 325	13909 3127
		0.114 2.9	RX	2241 325	13909 3127
		0.102 2.6	RX	2068 300	12839 2886
		0.091 2.3	RX	1724 250	10699 2405
		0.079 2.0	RX	1600 232	9929 2232
4 DN100	4.500 114.3	0.346 8.8	C	2241 325	22994 5169
		0.248 6.3	C	2241 325	22994 5169
		0.177 4.5	Std	2068 300	21224 4771
		0.142 3.6	Std	2068 300	21224 4771
		0.114 2.9	RX	1896 275	19455 4374
		0.102 2.6	RX	1724 250	17686 3976
		0.079 2.0	RX	1600 232	16413 3690

NOTE

- 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

- **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.**

General Notes

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. 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.

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

WARNING: Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.

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.

7.0 REFERENCE MATERIALS

05.01: Gasket Selection Guide

