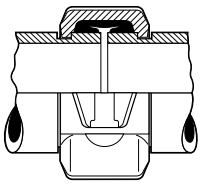
Victaulic® Flexible Coupling
Style 75

1 – 8"/DN25 – DN200



Exaggerated for clarity

1.0 PRODUCT DESCRIPTION

Available Sizes

- 1 – 8"/DN25 – DN200

Pipe Material

- Carbon steel
- Stainless steel
- For exceptions see section 6.0 Notifications

Maximum Working Pressure

- Accommodates pressures ranging from full vacuum (29.9 in Hg/760 mm Hg) up to 500 psi/3447 kPa/34 bar
- Working pressure dependent on material, wall thickness and size of pipe

Application

- Joins standard roll grooved and cut grooved pipe, as well as grooved fittings, valves and accessories
- Provides a flexible pipe joint which allows for expansion, contraction and deflection
- Up to 50% lighter in weight than standard Victaulic Style 77 or Style 177N flexible couplings

2.0 CERTIFICATIONS/LISTINGS

104-1a/03

EN 10311
CPR (EU)
No. 305/2011

NOTES

- Download publication 10.01 for Fire Protection Certifications/Listings Reference Guide.
- See publication 02.06: Victaulic Potable Water Approvals ANSI/NSF for potable water approvals if applicable.

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: Orange enamel
- ☐ Optional: Hot dipped galvanized
- ☐ Optional: Contact Victaulic with your requirements for other coatings.

Gasket: (specify choice[1])

☐ **Grade "E" EPDM**

EPDM (Green stripe color code). Temperature range –30ºF to +230ºF/–34ºC to +110ºC. 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 "T" Nitrile**

Nitrile (Orange stripe color code). Temperature range –20ºF to +180ºF/–29ºC to +82ºC. May be specified for petroleum products, 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.

☐ **Others**

For alternate gasket selection, reference publication 05.01: Victaulic Seal Selection Guide - Elastomeric Seal Construction.

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.

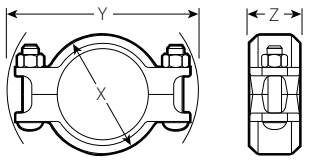
Bolts/Nuts: (specify choice[2])

- ☐ Standard: Carbon steel oval neck track bolts meeting the mechanical property requirements of ASTM A449 (imperial) and ISO 898-1 Class 9.8 (M10-M16) Class 8.8 (M20 and greater). Carbon steel hex nuts meeting the mechanical property requirements of ASTM A563 Grade B (imperial - Heavy Hex nuts) and ASTM A563M Class 9 (metric - hex nuts). Track bolts and hex nuts are zinc electroplated per ASTM B633 ZN/FE5, finish Type III (imperial) or Type II (metric).
- ☐ Optional (imperial): Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW, with galling reducing coating.

2 Optional bolts/nuts are available in imperial sizes only.

4.0 DIMENSIONS

Style 75 Flexible Coupling



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 Cplg. Degrees	Pipe inches/ft. mm/m	Qty.	Size imperial metric	X inches mm	Y inches mm	Z inches mm	Approx. (Each) lb kg
1 DN25	1.315 33.7	0–0.06 0–1.6	2º–43′	0.57 47	2	⅜ x 2 M10 x 51	2.38 61	4.27 108	1.77 45	1.3 0.5
1 ¼ DN32	1.660 42.4	0–0.06 0–1.6	2º–10′	0.45 37	2	⅜ x 2 M10 x 51	2.68 68	4.61 117	1.77 45	1.4 0.5
1 ½ DN40	1.900 48.3	0–0.06 0–1.6	1º–56′	0.40 33	2	⅜ x 2 M10 x 51	2.91 74	4.82 122	1.77 45	1.5 0.5
2 DN50	2.375 60.3	0–0.06 0–1.6	1º–31′	0.32 27	2	⅜ x 2 M10 x 51	3.43 87	5.22 133	1.88 48	1.7 1.0
2 ½	2.875 73.0	0–0.06 0–1.6	1º–15′	0.26 22	2	⅜ x 2 M10 x 51	3.88 98	5.68 144	1.88 48	1.9 1.0
DN65	3.000 76.1	0–0.06 0–1.6	1º–12′	0.26 22	2	⅜ x 2 M10 x 51	4.00 102	5.90 150	1.88 48	1.9 1.0
3 DN80	3.500 88.9	0–0.06 0–1.6	1º–2′	0.22 18	2	½ x 2 ¾ M12 x 70	4.50 114	7.00 178	1.88 48	2.9 1.5
3 ½ DN90	4.000 101.6	0–0.06 0–1.6	0º–54′	0.19 16	2	½ x 2 ¾ M12 x 70	5.00 127	7.50 191	1.88 48	2.9 1.5
4 DN100	4.500 114.3	0–0.13 0–3.2	1º–36′	0.34 28	2	½ x 2 ¾ M12 x 70	5.80 147	8.03 204	2.13 54	4.1 2.0
	4.250 108.0	0–0.13 0–3.2	1º–41′	0.35 29	2	½ x 2 ¾ M12 x 70	5.55 141	7.79 198	2.13 54	3.7 1.5
	5.000 127.0	0–0.13 0–3.2	1º–26′	0.25 21	2	⅝ x 3 ¼ M16 x 83	6.13 156	9.43 240	2.13 54	5.5 2.5
	5.250 133.0	0–0.13 0–3.2	1º–21′	0.28 23	2	⅝ x 3 ¼ M16 x 83	6.55 166	9.37 238	2.13 54	6.0 2.5
DN125	5.500 139.7	0–0.13 0–3.2	1º–18′	0.28 23	2	⅝ x 3 ¼ M16 x 83	6.80 173	9.59 244	2.13 54	6.3 3.0
5	5.563 141.3	0–0.13 0–3.2	1º–18′	0.27 22	2	⅝ x 3 ¼ M16 x 83	6.88 175	10.07 256	2.13 54	5.8 2.5
	6.000 152.4	0–0.13 0–3.2	1º–12′	0.21 17	2	⅝x 3 ¼ M16 x 83	7.38 187	10.48 266	1.88 48	6.2 3.0
	6.250 159.0	0–0.13 0–3.2	1º–9′	0.24 20	2	⅝ x 3 ¼ M16 x 83	7.63 194	10.49 266	2.13 54	6.8 3.0
	6.500 165.1	0–0.13 0–3.2	1º–7′	0.23 19	2	⅝ x 3 ¼ M16 x 83	7.84 199	10.66 271	2.08 53	6.6 3.0
6 DN150	6.625 168.3	0–0.13 0–3.2	1º–5′	0.23 19	2	⅝ x 3 ¼ M16 x 83	8.00 203	11.07 281	2.13 54	7.0 3.0
200A[4]	216.3	0–0.13 0–3.2	0º–51′	0.18 15	2	¾ x 5 M20 x 127	10.19 259	13.75 350	2.32 59	13.2 6.0
8 DN200	8.625 219.1	0–0.13 0–3.2	0º–50′	0.18 15	2	¾ x 5 M20 x 127	10.34 263	13.97 355	2.13 59	12.4 5.5

[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.

[4] Japanese Industrial Standard (JIS) size

NOTE

- Metric thread size bolts are available (color coded gold) for all coupling sizes upon request. Contact Victaulic for details.

5.0 PERFORMANCE

Style 75 Flexible Coupling

Size		Maximum Working Pressure[5]	Maximum End Load[5]
Nominal inches DN	**Actual Outside Diameter** inches mm	psi kPa	lb N
1 DN25	1.315 33.7	500 3447	680 3024
1 ¼ DN32	1.660 42.4	500 3447	1080 4804
1 ½ DN40	1.900 48.3	500 3447	1420 6316
2 DN50	2.375 60.3	500 3447	2215 9852
2 ½	2.875 73.0	500 3447	3245 14434
DN65	3.000 76.1	500 3447	3535 15724
3 DN80	3.500 88.9	500 3447	4800 21352
3 ½ DN90	4.000 101.6	500 3447	6300 28024
4 DN100	4.500 114.3	500 3447	7950 35364
	4.250 108.0	450 3103	6380 28380
	5.000 127.0	450 3103	8820 39234
	5.250 133.0	450 3103	9735 43304
DN125	5.500 139.7	450 3103	10665 47440
5	5.563 141.3	450 3103	10935 48642
	6.000 152.4	450 3103	12735 56648
	6.250 159.0	450 3103	13800 61386
	6.500 165.1	450 3103	14930 66412
6 DN150	6.625 168.3	450 3103	15525 69058
200A[4]	216.3	450 3103	25625 113986
8 DN200	8.625 219.1	450 3103	26280 116900

[4] Japanese Industrial Standard (JIS) size

[5] Working Pressure and End Load are total, from all internal and external loads, based on ANSI B36.10 sized carbon steel pipe, grooved in accordance with Victaulic specifications. Contact Victaulic for performance on other pipe.

NOTE

- WARNING: FOR ONE TIME FIELD TEST ONLY, the Maximum Joint Working Pressure may be increased to 1½ times the figures shown.

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.**
- **Wear safety glasses, hardhat, foot protection, and hearing protection.**
- **Always read and follow the I-ENDCAP, Victaulic® End Cap Installation Safety Instructions, which can be downloaded at Victaulic.com.**

Failure to follow these instructions could result in death or serious personal injury and property damage.

⚠ WARNING

FOR STYLE 75 COUPLINGS USED ON STAINLESS STEEL:

- **Victaulic® RX roll sets shall be used when grooving light-wall/thin-wall stainless steel pipe. 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.**
- **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.**

Failure to follow these instructions may cause joint failure, resulting in death or serious personal injury and property damage.

7.0 REFERENCE MATERIALS

02.06: Victaulic Potable Water Approvals ANSI/NSF
05.01: Victaulic Seal Selection Guide - Elastomeric Seal Construction
06.15: Victaulic Pressure Ratings and End Loads for Victaulic Couplings on Steel Pipe
10.01: Victaulic Products for Fire Protection Pipings Systems - Regulatory Approval Reference Guide
17.01: Victaulic Pipe Preparation for Use on Stainless Steel Pipe With Victaulic Products
17.09: Victaulic Ductile Iron Grooved Couplings Performance Data for Stainless Steel Pipe
25.01: Victaulic Standard Groove Specifications
26.01: Victaulic Design Data
29.01: Victaulic Terms and Conditions of Sale
I-100: Victaulic Field Installation Handbook
I-ENDCAP: Victaulic End Cap Installation Safety Instructions

