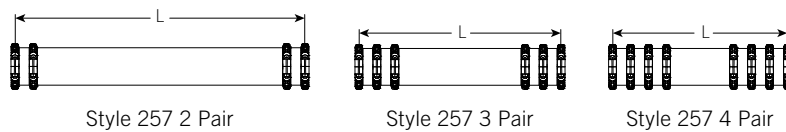


Victaulic® Dynamic Movement Joint

Style 257



1.0 PRODUCT DESCRIPTION

Available Pipe Sizes

- 2" – 12"/DN50 – DN300

Maximum Working Pressure

- Above Ground Services: Working pressure is equal to the Style 77 coupling on equivalent wall thickness pipe. Reference [publication 06.04](#).
- Buried Services: 150 psi

Movement

- Standard movement of 1 – 4"
- For movement requirements greater than 4", contact Victaulic.

Function

- Supports the accommodation of seismic movement, thermal movement and differential settlement

Application

- Meets the design requirements of AWWA M11 for the accommodation of differential settlement
- Coated and lined in accordance with the requirements of AWWA C210 Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines
- For buried applications deeper than 15 feet from the springline (centerline of the pipe) and/or maximum working pressures greater than 150 psi, project specific details are required. Please contact Victaulic for more information.
- At minimum, above ground Style 257 dynamic movement joints shall be supported at the field connections and the center spool. For details on flexible coupling support spacing, please see [publication 26.01](#).

2.0 CERTIFICATION/LISTINGS

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

The Grade "E" EPDM gasket is certified for use in drinking water systems by UL LLC in accordance with ANSI/NSF-61 Drinking Water System Components – Health Effects and ANSI/NSF-372 Drinking Water System Components – Lead Content.

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 available upon special request.

Housing Coating (specify choice):

Standard: Liquid Epoxy conforming with AWWA C210 and NSF certified in accordance with NSF/ANSI/CAN 61 (North America).

Standard: Liquid Epoxy in accordance with EN 10289 (Other Regions).

Optional: Others, contact Victaulic with your requirements.

Spools:

2 – 12"/50 – 300 mm: Schedule 40, carbon steel conforming to ASTM A-53 Grade B, Type E.

External Pipe Coating (specify choice):

Standard: Liquid Epoxy conforming with AWWA C210 and NSF certified in accordance with NSF/ANSI/CAN 61 (North America).

Standard: Liquid Epoxy in accordance with EN 10289 (Other Regions).

Optional: Others, contact Victaulic with your requirements.

Pipe Lining (specify choice):

Standard: Liquid Epoxy conforming with AWWA C210 and NSF certified in accordance with NSF/ANSI/CAN 61 (North America).

Standard: Liquid Epoxy in accordance with EN 10339 (Other Regions).

Optional: Others, contact Victaulic with your requirements.

Gasket: (specify choice¹)

Grade "E" FlushSeal 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 "T" FlushSeal Nitrile

Nitrile (Orange color code). Temperature range –20°F to +180°F/–29°C to +82°C. May be specified for oil related services, including air with oil vapor, this gasket may be specified for temperatures rated up to +180°F/+82°C. For water related services, this gasket may be specified for temperatures rated up to +150°F/+66°C. For oil free, dry air services, this gasket may be specified for temperatures rated up to +140°F/+60°C. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.

Grade "L" FlushSeal Silicone

Silicone (Red color code). Temperature range –30°F to +350°F/–34°C to +177°C. May be specified for dry heat, air without hydrocarbons to +350°F/+177°C and certain chemical 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 Seal Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

Bolts/Nuts:

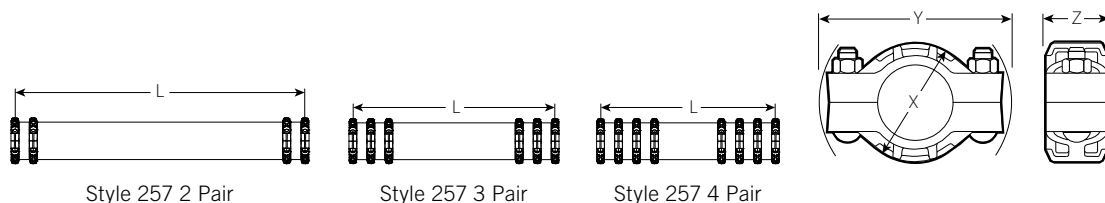
Standard: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW, with galling reducing coating.

End Connections:

Standard: Victaulic flexible OGS grooved ends

Optional: Others, contact Victaulic with your requirements

4.0 DIMENSIONS



Nominal Pipe Size inches DN	Actual Outside Diameter inches mm		Nominal Overall Length (L) ²				Dimensions			Approximate Weight				Activation Moment ³ FT-LBS N-M
			1" Sett. feet meters	2" Sett. feet meters	3" Sett. feet meters	4" Sett. feet meters	X inches mm	Y inches mm	Z inches mm	1" Sett.	2" Sett.	3" Sett.	4" Sett.	
			For movement requirements greater than 4", contact Victaulic.							lb kg	lb kg	lb kg	lb kg	
2 DN50	2.375 60.3	2	3' 8 1/8" 1.12	6' 10 1/8" 2.09	10' 1/8" 3.05	13' 2 1/8" 4.02	3.81 96	6.06 154	2.06 52	27.0 12.0	44.0 20.0	50.0 22.5	67.0 30.5	440.00 596.56
		3	3' 2 1/8" 0.97	5' 3 1/8" 1.61	7' 4 1/8" 2.24	9' 5 1/8" 2.88	3.81 96	6.06 154	2.06 52	29.0 13.0	39.0 17.5	47.0 21.5	56.0 25.5	
		4	—	4' 8 1/4" 1.43	6' 3 1/4" 1.91	7' 10 1/4" 2.40	3.81 96	6.06 154	2.06 52	— 22.5	50.0 25.0	55.0 27.0	59.0	
2 1/2	2.875 73.0	2	4' 4 1/8" 1.33	8' 2 1/8" 2.50	12' 1/8" 3.66	15' 10 1/8" 4.83	4.38 112	6.63 168	2.06 52	44.0 20.0	67.0 30.5	91.0 41.5	115.0 52.0	780.00 1057.54
		3	3' 7 1/8" 1.10	6' 2 1/8" 1.89	8' 8 1/8" 2.65	11' 3 1/8" 3.44	4.38 112	6.63 168	2.06 52	48.0 22.0	66.0 30.0	73.0 33.0	91.0 41.5	
		4	—	5' 4 1/4" 1.64	7' 3 1/4" 2.22	9' 2 1/4" 2.80	4.38 112	6.63 168	2.06 52	— 31.0	68.0 35.0	77.0 39.0	86.0	
3 DN80	3.500 88.9	2	5' 2 1/8" 1.58	9' 9 1/8" 2.98	14' 5 1/8" 4.40	19' 1/8" 5.80	5.13 130	7.31 186	2.06 52	60.0 27.0	99.0 45.0	140.0 63.5	170.0 77.0	1410.00 1911.70
		3	4' 1 1/8" 1.25	7' 2 1/8" 2.19	10' 3 1/8" 3.13	13' 4 1/8" 4.07	5.13 130	7.31 186	2.06 52	56.0 25.5	82.0 37.0	110.0 50.0	135.0 61.0	
		4	4' 1/4" 1.23	6' 2 1/4" 1.89	8' 6 1/4" 2.60	10' 9 1/4" 3.29	5.13 130	7.31 186	2.06 52	70.0 32.0	87.0 39.5	110.0 50.0	125.0 56.5	
4 DN100	4.500 114.3	2	2' 6 1/8" 0.77	4' 6 1/8" 1.38	6' 6 1/8" 1.99	8' 6 1/8" 2.60	6.31 160	9.06 230	2.31 58	64.0 29.0	88.0 40.0	115.0 52.0	125.0 56.5	2990.00 4053.90
		3	—	3' 8 1/4" 1.13	5' 1/4" 1.54	6' 4 1/4" 1.94	6.31 160	9.06 230	2.31 58	— 39.0	86.0 47.5	105.0 47.5	125.0 56.5	
		4	—	—	4' 6 3/8" 1.39	5' 6 3/8" 1.69	6.31 160	9.06 230	2.31 58	—	—	110.0 50.0	130.0 59.0	
5	5.563 141.3	2	3' 1/8" 0.92	5' 5 1/8" 1.66	7' 11 1/8" 2.42	10' 4 1/8" 3.16	7.88 200	10.81 274	2.31 58	99.0 45.0	130.0 59.0	170.0 77.0	210.0 95.5	5920.00 8026.44
		3	—	4' 4 1/4" 1.33	5' 11 1/4" 1.81	7' 7 1/4" 2.32	7.88 200	10.81 274	2.31 58	— 61.0	135.0 72.5	160.0 72.5	185.0 84.0	
		4	—	4' 3/8" 1.23	5' 2 3/8" 1.59	6' 5 3/8" 1.97	7.88 200	10.81 274	2.31 58	— 72.5	160.0 81.5	180.0 81.5	195.0 88.5	
6 DN150	6.625 168.3	2	3' 6 1/8" 1.07	6' 5 1/8" 1.96	9' 4 1/8" 2.85	12' 3 1/8" 3.74	8.81 224	12.06 306	2.31 58	125.0 56.5	180.0 81.5	240.0 109.0	300.0 136.0	9600.00 13015.85
		3	3' 1/4" 0.93	4' 11 1/4" 1.51	6' 11 1/4" 2.12	8' 10 1/4" 2.70	8.81 224	12.06 306	2.31 58	145.0 66.0	180.0 81.5	215.0 97.5	255.0 115.5	
		4	—	4' 6 3/8" 1.39	6' 5 3/8" 1.82	7' 5 3/8" 2.28	8.81 224	12.06 306	2.31 58	— 90.5	200.0 90.5	225.0 102.0	250.0 113.5	
8 DN200	8.625 219.1	2	4' 4 1/8" 1.33	8' 2 1/8" 2.50	12' 1/8" 3.67	15' 10 1/8" 4.83	11.13 282	15.00 382	2.63 66	215.0 97.5	340.0 154.0	450.0 204.0	560.0 254.0	16800.00 22777.74
		3	3' 7 1/4" 1.10	6' 2 1/4" 1.89	8' 8 1/4" 2.65	11' 3 1/4" 3.44	11.13 282	15.00 382	2.63 66	240.0 109.0	320.0 145.0	400.0 181.5	470.0 213.0	
		4	—	5' 4 3/8" 1.64	7' 3 3/8" 2.22	9' 2 3/8" 2.81	11.13 282	15.00 382	2.63 66	— 149.5	330.0 149.5	400.0 181.5	450.0 204.0	

² Due to manufacturing tolerances, the actual overall nominal length of assemblies can vary depending upon configuration:

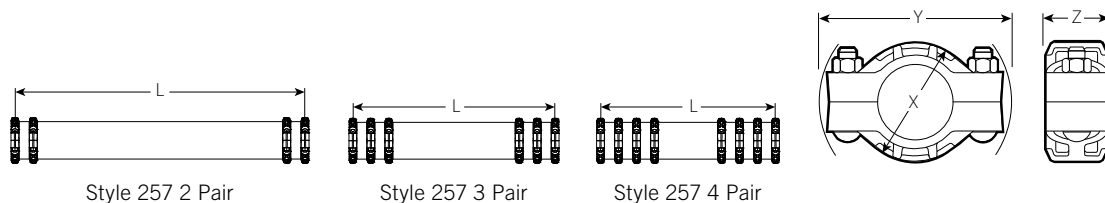
2 Pair: +/- 1/2"

3 Pair: +/- 3/8"

4 Pair: +/- 1 1/2"

³ Victaulic 257 Dynamic Settlement Joints require an activation moment resulting in reaction forces and moments in the system. This moment is linearly proportional to the system Coupling Above Ground Service MAWP (Maximum Allowable Working Pressure) and can be determined for system design pressure through this linear relationship. The design activation moment shall be used for piping system and structural design purposes.

4.0 DIMENSIONS (CONTINUED)



Nominal Pipe Size inches DN	Actual Outside Diameter inches mm	# Pairs	Nominal Overall Length (L) ²				Dimensions			Approximate Weight				Activation Moment ³ FT-LBS N-M
			1" Sett. feet meters	2" Sett. feet meters	3" Sett. feet meters	4" Sett. feet meters	X inches mm	Y inches mm	Z inches mm	1" Sett.	2" Sett.	3" Sett.	4" Sett.	
										lb	lb	lb	lb	
			For movement requirements greater than 4", contact Victaulic.							kg	kg	kg	kg	
10 DN250	10.750 273.0	2	5' 4 1/8" 1.63	10' 1 1/8" 3.08	14' 10 1/8" 4.53	19' 8 1/8" 6.00	14.00 356	17.50 444	2.81 72	340.0 154.0	550.0 249.5	750.0 340.0	950.0 431.0	32600.00 44199.67
		3	4' 3 1/4" 1.31	7' 5 1/4" 2.27	10' 7 1/4" 3.24	13' 9 1/4" 4.20	14.00 356	17.50 444	2.81 72	360.0 163.5	490.0 222.5	620.0 281.0	760.0 344.5	
		4	4' 3/8" 1.23	6' 4 3/8" 1.94	8' 8 3/8" 2.66	11' 1 1/8" 3.39	14.00 356	17.50 444	2.81 72	410.0 186.0	510.0 231.5	600.0 272.0	700.0 317.5	
12 DN300	12.750 323.9	2	6' 2 1/8" 1.89	11' 9 1/8" 3.59	17' 5 1/8" 5.32	23' 1/8" 7.02	16.00 406	19.50 496	2.81 72	450.0 204.0	750.0 340.0	1030.0 467.0	1320.0 598.5	54300.00 73620.91
		3	4' 9 1/4" 1.46	8' 6 1/4" 2.60	12' 3 1/4" 3.75	16' 1/4" 4.89	16.00 406	19.50 496	2.81 72	450.0 204.0	640.0 290.5	830.0 376.5	1030.0 467.0	
		4	4' 4 3/8" 1.34	7' 2 3/8" 2.20	9' 11 3/8" 3.04	12' 9 3/8" 3.90	16.00 406	19.50 496	2.81 72	490.0 222.5	640.0 290.5	770.0 349.5	920.0 417.5	

² Due to manufacturing tolerances, the actual overall nominal length of assemblies can vary depending upon configuration:

2 Pair: +/- 1/2"

3 Pair: +/- 3/8"


4 Pair: +/- 1 1/2"







³ Victaulic 257 Dynamic Settlement Joints require an activation moment resulting in reaction forces and moments in the system. This moment is linearly proportional to the system Coupling Above Ground Service MAWP (Maximum Allowable Working Pressure) and can be determined for system design pressure through this linear relationship. The design activation moment shall be used for piping system and structural design purposes.

5.0 PERFORMANCE

For performance data reference [publication 06.04](#): Victaulic® Flexible Coupling Style 77.

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.

7.0 REFERENCE MATERIALS

- [05.01: Seal Selection Guide](#)
- [06.04: Style 77 Coupling](#)
- [26.01: Design Data](#)
- [I-DMJ: Victaulic Dynamic Movement Joints Installation Instructions](#)
- [26.12: Design Data for Seismic Applications Of Victaulic Grooved Systems](#)
- [29.01: Terms and Conditions/Warranty](#)
- [I-100: Field Installation Handbook](#)

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, and the applicable building codes and related regulations 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](#).

Warranty

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

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