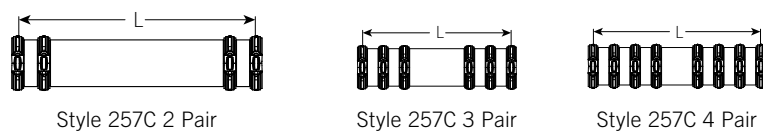


Victaulic® Dynamic Movement Joint

Style 257C



1.0 PRODUCT DESCRIPTION

Available Pipe Sizes

- 3 – 36"/DN80 – DN900

Maximum Working Pressure

- Above Ground Services: Working pressure is equal to the Style 31 coupling on equivalent wall thickness pipe. Reference [publication 23.02](#).
- 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

- Supplied with cut grooves for flexible joints in accordance with ANSI/AWWA C-606
- 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 257C 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](#).
- For field connections on Buried Services Style 257C applications, installers shall refer to the tags on couplings for torque requirements.

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 "M" (Halogenated Butyl) gasket is certified for use in cold (+73°F/+23°C) 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.

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:

3 – 36"/DN80 – DN900: Ductile Iron Class 53 pipe conforming to ANSI/AWWA C151/A21.51.

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):

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

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

Cement/Mortar Type 2 Lining conforming to AWWA C104.

Glass lining in accordance with ASTM B-1000.

Optional: Others, contact Victaulic with your requirements.

Gasket: (specify choice¹)

Grade "M" FlushSeal

Halogenated Butyl (Brown color code). Temperature range –20°F to +200°F/–29°C to +93°C. Specially compounded to conform to ductile pipe surfaces. Recommended for 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 potable water service. NOT RECOMMENDED FOR PETROLEUM SERVICES

Grade "S" FlushSeal™

Nitrile (Red color code). Temperature range –20°F to +180°F/–29°C to +82°C. Specifically compounded to conform to ductile pipe surfaces. Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range; except hot air over +140°F/+60°C and water over +150°F/+66°C. NOT RECOMMENDED FOR HOT WATER 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:

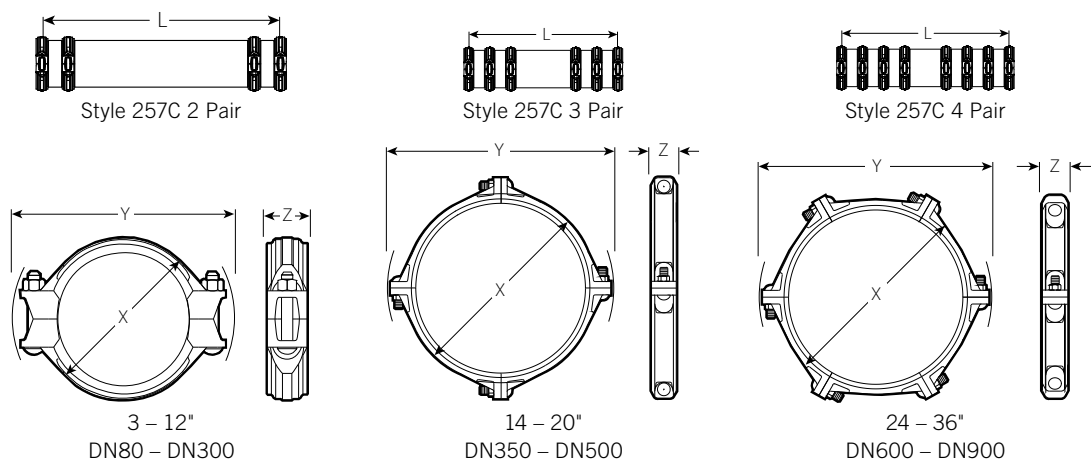
Standard: Stainless steel oval neck track bolts meeting the mechanical property requirements of ASTM F593, Group 2 (316 stainless steel), condition CW. Stainless steel heavy hex nuts meeting the mechanical property requirements of ASTM F594, Group 2 (316 stainless steel), condition CW, with galling reducing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

End Connections:

Standard: Flexible cut grooved ends

Optional: Others, contact Victaulic with your requirements

4.0 DIMENSIONS



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. lb kg	2" Sett. lb kg	3" Sett. lb kg	4" Sett. lb kg	
			For movement requirements greater than 4", contact Victaulic.											
3 DN80	3.960 100.6	2	2' 4 1/8" 0.72	4' 1 1/8" 1.25	5' 10 1/8" 1.78	7' 7 1/8" 2.32	5.63 142	7.81 198	2.31 58	54.0 24.5	79.0 36.0	105.0 47.5	130.0 59.0	1020.00 1383.00
		3	–	3' 5 1/4" 1.05	4' 7 1/4" 1.41	5' 9 1/4" 1.76	5.63 142	7.81 198	2.31 58	–	76.0 34.5	93.0 42.0	115.0 52.0	
		4	–	–	4' 2 1/4" 1.28	5' 1 3/8" 1.56	5.63 142	7.81 198	2.31 58	–	–	97.0 44.0	110.0 50.0	
4 DN100	4.800 121.9	2	2' 8 1/8" 0.82	4' 9 1/8" 1.45	6' 10 1/8" 2.09	9' 1 1/8" 2.75	6.38 162	9.38 238	2.25 58	72.0 32.5	102.0 46.5	135.0 61.0	165.0 75.0	1810.00 2454.00
		3	2' 1 1/4" 0.62	3' 10 1/4" 1.18	5' 3 1/4" 1.61	6' 8 1/4" 2.04	6.38 162	9.38 238	2.25 58	93.0 42.0	105.0 47.5	130.0 59.0	150.0 68.0	
		4	–	–	4' 8 1/4" 1.43	5' 9 1/4" 1.76	6.38 162	9.38 238	2.25 58	–	–	135.0 61.0	155.0 70.5	
6 DN150	6.900 175.3	2	3' 7 1/8" 1.10	6' 8 1/8" 2.04	9' 8 1/8" 2.95	12' 9 1/8" 3.89	8.44 214	11.38 288	2.38 60	120.0 54.5	190.0 86.0	260.0 118.0	330.0 149.5	4310.00 5844.00
		3	3' 1 1/4" 0.95	5' 1 1/4" 1.56	7' 2 1/4" 2.19	9' 2 1/4" 2.80	8.44 214	11.38 288	2.38 60	135.0 61.0	175.0 79.5	230.0 104.5	270.0 122.5	
		4	–	4' 7 1/4" 1.41	6' 1 1/4" 1.87	7' 8 1/4" 2.35	8.44 214	11.38 288	2.38 60	–	185.0 84.0	220.0 100.0	255.0 115.5	
8 DN200	9.050 229.9	2	4' 6 1/8" 1.38	8' 6 1/8" 2.60	12' 6 1/8" 3.82	16' 5 1/8" 5.01	10.88 276	14.63 372	2.75 70	215.0 97.5	340.0 154.0	470.0 213.0	590.0 267.5	9710.00 13165.00
		3	3' 8 1/4" 1.13	6' 4 1/4" 1.94	9' 1/4" 2.75	11' 8 1/4" 3.57	10.88 276	14.63 372	2.75 70	225.0 102.0	310.0 140.5	390.0 177.0	480.0 217.5	
		4	–	5' 6 1/4" 1.69	7' 6 1/4" 2.30	9' 6 1/4" 2.91	10.88 276	14.63 372	2.75 70	–	320.0 145.0	380.0 172.5	440.0 199.5	
10 DN250	11.100 281.9	2	3' 6 1/4" 1.08	6' 6 1/4" 1.99	9' 6 1/4" 2.91	12' 6 1/4" 3.82	13.13 334	16.75 426	2.88 74	245.0 111.0	360.0 163.5	480.0 217.5	610.0 276.5	15670.00 21246.00
		3	3' 3/8" 0.93	5' 3/8" 1.54	7' 3/8" 2.15	9' 3/8" 2.76	13.13 334	16.75 426	2.88 74	270.0 122.5	360.0 163.5	430.0 195.0	510.0 231.5	
		4	–	4' 6 1/2" 1.39	6' 1/2" 1.85	7' 6 1/2" 2.30	13.13 334	16.75 426	2.88 74	–	380.0 172.5	440.0 199.5	500.0 227.0	

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

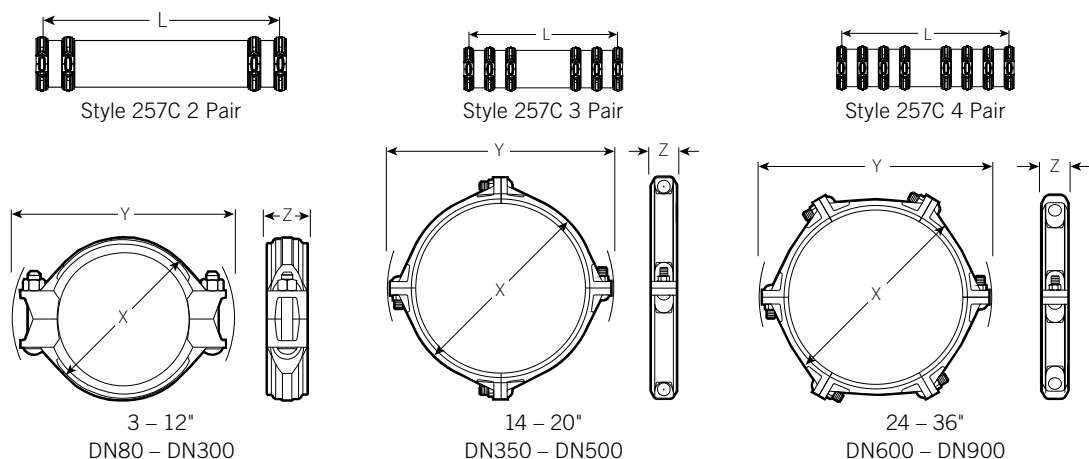
2 Pair: +/- 7/8"

3 Pair: +/- 1 1/8"

4 Pair: +/- 2 3/8"

³ Victaulic 257C Dynamic Movement 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 design 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. lb kg	2" Sett. lb kg	3" Sett. lb kg	4" Sett. lb kg	
			For movement requirements greater than 4", contact Victaulic.											
12 DN300	13.200 335.3	2	4' ¼" 1.23	7' 6 ¼" 2.30	11' ¼" 3.36	14' 6 ¼" 4.43	15.63 396	19.50 496	2.88 74	340.0 154.0	520.0 236.0	690.0 313.0	870.0 394.5	26400.00 35794.00
		3	3' 4 ⅜" 1.03	5' 8 ⅜" 1.74	8' ⅝" 2.45	10' ⅝" 3.06	15.63 396	19.50 496	2.88 74	360.0 163.5	480.0 217.5	600.0 272.0	720.0 326.5	
		4	–	5' ½" 1.54	6' 9 ½" 2.08	8' 6 ½" 2.61	15.63 396	19.50 496	2.88 74	–	510.0 231.5	600.0 272.0	680.0 308.5	
14 DN350	15.300 388.6	2	4' 8 ¼" 1.43	8' 9 ¼" 2.68	12' 10 ¼" 3.92	16' 11 ¼" 5.17	17.50 444	22.25 566	2.88 74	470.0 213.0	720.0 326.5	970.0 440.0	1220.0 553.5	29400.00 39861.00
		3	3' 9 ⅜" 1.16	6' 6 ⅜" 1.99	9' 3 ⅜" 2.83	11' 11 ⅜" 3.65	17.50 444	22.25 566	2.88 74	490.0 222.5	670.0 304.0	840.0 381.0	1000.0 453.5	
		4	–	5' 7 ½" 1.72	7' 8 ½" 2.35	9' 9 ½" 2.99	17.50 444	22.25 566	2.88 74	–	700.0 317.5	820.0 372.0	950.0 431.0	
16 DN400	17.400 442.0	2	3' 5 ¼" 1.05	6' 5 ¼" 1.97	9' 4 ¼" 2.86	12' 3 ¼" 3.75	20.25 514	24.25 616	3.63 92	510.0 231.5	730.0 331.0	940.0 426.5	1150.0 521.5	43100.00 58436.00
		3	3' ½" 0.93	4' 11 ½" 1.52	6' 10 ½" 2.10	8' 10 ½" 2.71	20.25 514	24.25 616	3.63 92	600.0 272.0	750.0 340.0	880.0 399.0	1020.0 462.5	
		4	–	4' 5 ¾" 1.37	5' 11 ¾" 1.83	7' 4 ¾" 2.26	20.25 514	24.25 616	3.63 92	–	830.0 376.5	940.0 426.5	1050.0 476.5	
18 DN450	19.500 495.3	2	3' 9 ¼" 1.15	7' 1 ¼" 2.17	10' 4 ¼" 3.16	13' 7 ¼" 4.15	22.38 568	27.00 686	3.63 92	650.0 295.0	920.0 417.5	1190.0 540.0	1460.0 662.0	60700.00 82298.00
		3	3' 2 ½" 0.98	5' 4 ½" 1.64	7' 6 ½" 2.30	9' 9 ½" 2.99	22.38 568	27.00 686	3.63 92	760.0 344.5	950.0 431.0	1130.0 512.5	1320.0 598.5	
		4	–	4' 9 ¾" 1.47	6' 5 ¾" 1.98	8' ¾" 2.46	22.38 568	27.00 686	3.63 92	–	1070.0 485.5	1210.0 549.0	1330.0 603.5	
20 DN500	21.600 548.6	2	4' 1 ¼" 1.26	7' 8 ¼" 2.35	11' 3 ¼" 3.44	14' 10 ¼" 4.53	24.50 622	29.25 742	3.63 92	710.0 322.0	1050.0 476.5	1380.0 626.0	1720.0 780.0	49500.00 67113.00
		3	3' 5 ½" 1.06	5' 10 ½" 1.80	8' 2 ½" 2.51	10' 7 ½" 3.24	24.50 622	29.25 742	3.63 92	800.0 363.0	1030.0 467.0	1250.0 567.0	1480.0 671.5	
		4	–	5' 1 ¾" 1.57	6' 11 ¾" 2.13	8' 8 ¾" 2.67	24.50 622	29.25 742	3.63 92	–	1120.0 508.0	1290.0 585.0	1450.0 657.5	

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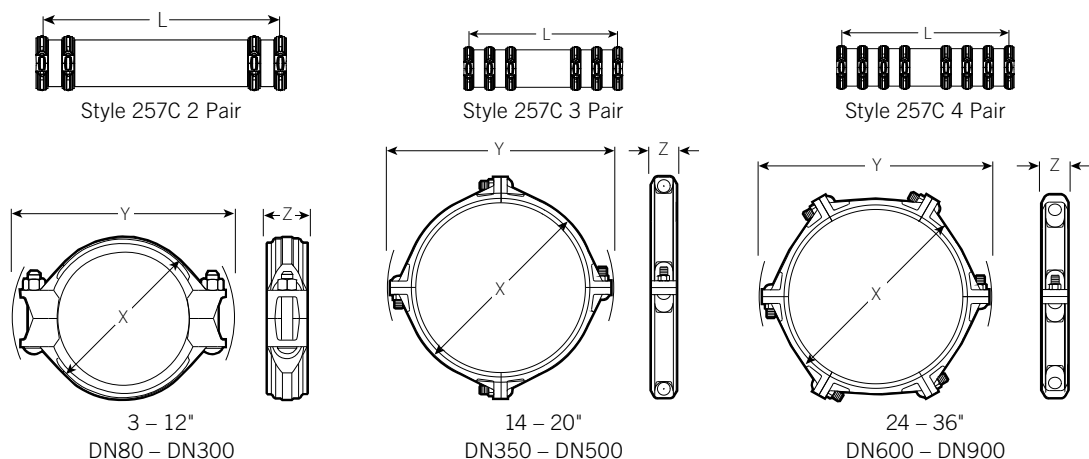
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4.0 DIMENSIONS (CONTINUED)



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. lb kg	2" Sett. lb kg	3" Sett. lb kg	4" Sett. lb kg	
			For movement requirements greater than 4", contact Victaulic.											
24 DN600	25.800 655.3	2	4' 10 ¼" 1.48	9' 3 ¼" 2.83	13' 7 ¼" 4.15	17' 11 ¼" 5.47	29.00 736	33.75 858	3.63 92	1000.0 453.5	1530.0 694.0	2040.0 925.5	2550.0 1156.5	84400.00 114431.00
		3	3' 11 ½" 1.21	6' 10 ½" 2.10	9' 8 ½" 2.96	12' 7 ½" 3.85	29.00 736	33.75 858	3.63 92	1110.0 503.5	1450.0 657.5	1790.0 812.0	2130.0 966.0	
		4	–	5' 10 ¾" 1.80	8' ¾" 2.46	10' 2 ¾" 3.12	29.00 736	33.75 858	3.63 92	–	1560.0 707.5	1810.0 821.0	2060.0 934.5	
30 DN750	32.000 812.8	2	3' 4 ½" 1.03	6' 2 ½" 1.90	8' 11 ½" 2.74	11' 9 ½" 3.60	35.75 908	40.00 1016	4.75 120	1200.0 544.5	1650.0 748.5	2090.0 948.0	2540.0 1152.0	160900.00 218151.00
		3	3' 1" 0.94	4' 10" 1.48	6' 9" 2.06	8' 7" 2.62	35.75 908	40.00 1016	4.75 120	1490.0 676.0	1760.0 798.5	2400.0 1088.5	2370.0 1075.0	
		4	–	4' 5 ½" 1.36	5' 10 ½" 1.79	7' 2 ½" 2.20	35.75 908	40.00 1016	4.75 120	–	2030.0 921.0	2250.0 1020.5	2470.0 1120.5	
36 DN900	38.300 972.2	2	3' 7 ½" 1.11	6' 7 ½" 2.02	9' 8 ½" 2.96	12' 9 ½" 3.90	42.25 1074	46.75 1188	4.75 120	1610.0 730.5	2260.0 1025.0	2920.0 1324.5	3590.0 1628.5	275800.00 373935.00
		3	3' 2" 0.97	5' 2" 1.58	7' 2" 2.19	9' 3" 2.82	42.25 1074	46.75 1188	4.75 120	1920.0 871.0	2340.0 1061.5	2780.0 1261.0	3230.0 1465.0	
		4	–	4' 8 ½" 1.44	6' 2 ½" 1.90	7' 8 ½" 2.35	42.25 1074	46.75 1188	4.75 120	–	2650.0 1202.0	2980.0 1351.5	3300.0 1497.0	

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








2 Pair: +/- 7/8"
3 Pair: +/- 1 1/8"
4 Pair: +/- 2 3/8"

³ Victaulic 257C Dynamic Movement 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 design and structural design purposes.

5.0 PERFORMANCE

For performance data reference [publication 23.02](#): Style 31 Victaulic Grooved Coupling.

6.0 NOTIFICATIONS

 WARNING					
					
<ul style="list-style-type: none"> • 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. <p>Failure to follow these instructions could result in death or serious personal injury and property damage.</p>					

7.0 REFERENCE MATERIALS

[05.01: Seal Selection Guide](#)

[23.02: Style 31 Coupling](#)

[25.05 Radius Cut Groove Specifications](#)

[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-300 Field Installation Manual](#)

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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