

Groove Dimensions for Rubber Lining for corrosive services

RUBBER OR URETHANE LINED PIPE

Rubber or urethane lined pipe, connected with Victaulic couplings, has proven to be a most practical and economical method of conveying corrosive fluids and slurries, showing savings in maintenance cost over unlined metal pipe in such services. The use of rubber-lined metal pipe combines the high-corrosive and abrasive-resistant properties of rubber or urethane with the rigidity and strength of metal.

Urethane or rubber-lined pipe is available with Victaulic grooved ends from leading companies in different types of linings for corrosive services. The type of lining selected for a particular operation is determined by the conditions under which the system will operate. Request publication 25.03 for use of rubber lined fittings on abrasive services.

Job/Owner

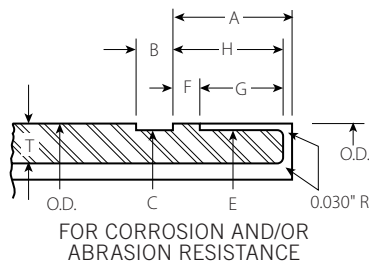
System No.	
Location	

Contractor

Submitted By	
Date	

Engineer

Spec Section	
Paragraph	
Approved	
Date	



NOTE: Dimensions apply to steel pipe and Victaulic fittings. *Based on nominal dimensions (without tolerances).

Column 1 – Nominal IPS Pipe Size.

Nominal Metric (ISO) Pipe Size.

Column 2 – IPS Outside Diameter. Metric (ISO) Outside Diameter. The outside diameter of cut grooved pipe shall not vary more than the tolerance listed.

For IPS pipe, the maximum allowable tolerance from square cut ends is 0.030" for 2 - 3 1/2"; 0.045" for 4 - 6"; and 0.060" for sizes 8" O.D. and above measured from true square line. For (ISO) metric pipe, the maximum allowable tolerance from square cut ends is 0,76 mm for sizes 20 - 80 mm; 1,14 mm for sizes 100 - 150 mm; and 1,52 mm for sizes 200 mm and above, measured from the true square line.

Column 3 – Gasket Seat. The pipe surface shall be free from indentations and projections from the end of the pipe to the groove, to provide a leak-tight seat for the gasket. All loose paint, scale, dirt, chips, grease, and rust must be removed. Rubber lining must be ground flush with pipe O.D. to a smooth finish for proper gasket seating. It continues to be Victaulic's recommendation that pipe be square cut. Beveled pipe may not be used. Gasket seat "A" is measured from the end of the rubber lining.

Column 4 – Groove Width. Bottom of groove to be free of loose dirt, chips, rust and scale that may interfere with proper coupling assembly. Maximum permissible radius at bottom of groove is 0.025" (0,64 mm).

Column 5 – Groove Diameter. The groove must be of uniform depth for the entire pipe circumference. Groove must be maintained within the "C" diameter tolerance listed.

Column 6 – Lead edge of groove to end of pipe after machining to allow rubber lining.

Column 7 – Diameter of undercut at the pipe end provided for lining overlap. (Corrosion and/ or abrasion only).

Column 8 – Metal thickness between groove and lining undercut. (This dimension must be maintained for proper joint strength.)

Column 9 – Length of undercut provided for lining overlap. (Corrosion and/ or abrasion only). For reference only. Dimension "F" must be maintained.

1 Nominal Size	2 Pipe Outside Diameter inches mm		Dimensions - inches/millimeters											
			3 Gasket Seat A		4 Groove Width B		5 Groove Dia. C		6 H	7 E	8 F	9 G	10 T	
	inches	mm	Basic	Tolerance	Basic	Tol. +0.000 (+0.000)	Basic	Tol. +0.000 (+0.000)	Basic	Tol. +0.000 (+0.000)	+0.000 -0.030	(Mean Dia.) +0.030 -0.000	(Ref.)	Min. Allow. Wall Thick.
1 25	1.315 33.4	+0.013 +0.33	-0.013 -0.33	0.562 14.27	-0.015 -0.76	0.312 7.92	-0.015 -0.76	1.190 30.23	-0.015 -0.38	0.437 11.10	1.190 30.23	0.188 4.78	0.250 6.35	0.133 3.38
1 1/4 32	1.660 42.2	+0.016 +0.41	-0.013 -0.33	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	1.535 38.99	-0.015 -0.38	0.437 11.10	1.535 38.99	0.188 4.78	0.250 6.35	0.140 3.56
1 1/2 40	1.900 48.3	+0.019 +0.48	-0.019 -0.48	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	1.775 45.09	-0.015 -0.38	0.437 11.10	1.775 45.09	0.188 4.78	0.250 6.35	0.145 3.68
2 50	2.375 60.3	+0.024 +0.61	-0.024 -0.61	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	2.250 57.15	-0.015 -0.38	0.437 11.10	2.250 57.15	0.188 4.78	0.250 6.35	0.154 3.91
2 1/2 65	2.875 73.0	+0.029 +0.74	-0.029 -0.74	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	2.720 69.09	-0.018 -0.46	0.437 11.10	2.720 69.09	0.188 4.78	0.250 6.35	0.188 4.78
3 O.D.	3.000 76.1	+0.030 +0.76	-0.030 -0.76	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	2.845 72.26	-0.018 -0.46	0.437 11.10	2.845 72.26	0.188 4.78	0.250 6.35	0.188 4.78
3 80	3.500 88.9	+0.035 +0.89	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	3.344 84.94	-0.018 -0.46	0.437 11.10	3.344 84.94	0.188 4.78	0.250 6.35	0.188 4.78
3 1/2 90	4.000 101.6	+0.040 +1.02	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.312 7.92	-0.030 -0.76	3.834 97.38	-0.020 -0.51	0.437 11.10	3.834 97.38	0.188 4.78	0.250 6.35	0.188 4.78
4 100	4.500 114.3	+0.045 +1.14	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.344 8.73	-0.030 -0.76	4.334 110.08	-0.020 -0.51	0.437 11.10	4.334 110.08	0.188 4.78	0.250 6.35	0.203 5.16
5 125	5.563 141.3	+0.056 +1.42	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.344 8.73	-0.030 -0.76	5.395 137.03	-0.022 -0.56	0.437 11.10	5.395 137.03	0.188 4.78	0.250 6.35	0.203 5.16
6 1/2 O.D.	6.500 165.1	+0.063 +1.60	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.344 8.73	-0.030 -0.76	6.330 160.78	-0.022 -0.56	0.437 11.10	6.330 160.78	0.188 4.78	0.250 6.35	0.219 5.56
6 150	6.625 168.3	+0.063 +1.60	-0.031 -0.79	0.562 14.27	-0.030 -0.76	0.344 8.73	-0.030 -0.76	6.455 163.96	-0.022 -0.56	0.437 11.10	6.455 163.96	0.188 4.78	0.250 6.35	0.219 5.56
8 200	8.625 219.1	+0.063 +1.60	-0.031 -0.79	0.625 15.88	-0.030 -0.76	0.469 11.91	-0.030 -0.76	8.441 214.40	-0.025 -0.64	0.500 12.70	8.441 214.40	0.219 5.56	0.281 7.14	0.238 6.05
10 250	10.750 273.0	+0.063 +1.60	-0.031 -0.79	0.625 15.88	-0.030 -0.76	0.469 11.91	-0.030 -0.76	10.562 268.28	-0.027 -0.69	0.500 12.70	10.562 268.28	0.219 5.56	0.281 7.14	0.250 6.35
12 300	12.750 323.9	+0.063 +1.60	-0.031 -0.79	0.625 15.88	-0.030 -0.76	0.469 11.91	-0.030 -0.76	12.531 318.29	-0.030 -0.76	0.500 12.70	12.531 318.29	0.219 5.56	0.281 7.14	0.279 7.09
14 350	14.000 355.6	+0.063 +1.60	-0.031 -0.79	0.938 23.83	-0.030 -0.76	0.500 12.70	-0.030 -0.76	13.781 350.04	-0.030 -0.76	0.813 20.65	13.781 350.04	0.344 8.74	0.469 11.91	0.281 7.14
16 400	16.000 406.4	+0.063 +1.60	-0.031 -0.79	0.938 23.83	-0.030 -0.76	0.500 12.70	-0.030 -0.76	15.781 400.84	-0.030 -0.76	0.813 20.65	15.781 400.84	0.344 8.74	0.469 11.91	0.312 7.92
18 450	18.000 457.2	+0.063 +1.60	-0.031 -0.79	1.000 25.40	-0.030 -0.76	0.500 12.70	-0.030 -0.76	17.781 451.64	-0.030 -0.76	0.875 22.23	17.781 451.64	0.344 8.74	0.531 13.49	0.312 7.92
20 500	20.000 508.0	+0.063 +1.60	-0.031 -0.79	1.000 25.40	-0.030 -0.76	0.500 12.70	-0.030 -0.76	19.781 502.44	-0.030 -0.76	0.875 22.23	19.781 502.44	0.344 8.74	0.531 13.49	0.312 7.92
22 550	22.000 559.0	+0.063 +1.60	-0.031 -0.79	1.000 25.40	-0.060 -1.52	0.500 12.70	-0.030 -0.76	21.656 550.06	-0.030 -0.76	0.875 22.23	21.656 550.06	0.344 8.74	0.531 13.49	0.375 9.53
24 600	24.000 610.0	+0.063 +1.60	-0.031 -0.79	1.000 25.40	-0.060 -1.52	0.500 12.70	-0.030 -0.76	23.656 600.86	-0.030 -0.76	0.875 22.23	23.656 600.86	0.344 8.74	0.531 13.49	0.375 9.53

Installation

Reference should always be made to the I-100 Victaulic Field Installation Handbook for the product you are installing. Handbooks are included with each shipment of Victaulic products for 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.

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.

Trademarks

Victaulic and Zero-Flex are registered trademarks of Victaulic Company.