

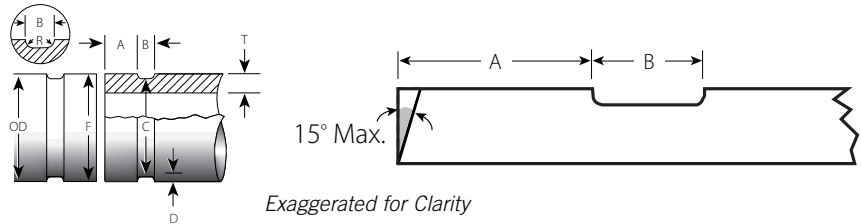
CPVC and PVC Pipe Groove Specifications

Standard Radius Cut Grooving Specifications



25.11

For Schedule 40 or Schedule 80 CPVC and PVC plastic pipe¹⁻²



1	2		3	4	5		6	7
Size			Dimensions					
Nominal inches mm	Actual Outside Diameter		Gasket Seat A ±0.03 ±0.79 inches mm	Groove Width B ±0.03 ±0.79 inches mm	Groove Diameter C		Groove Depth D inches mm	Groove Radius R inches mm
	Basic inches mm	Tolerance (+/-) inches mm			Basic inches mm	Tolerance +0.000 inches mm		
¾ 20	1.050 26.7	0.004 0.10	0.625 15.9	0.312 7.9	0.938 23.8	-0.015 -0.38	0.056 1.4	0.078 2.0
1 25	1.315 33.7	0.005 0.13	0.625 15.9	0.312 7.9	1.190 30.2	-0.015 -0.38	0.062 1.6	0.078 2.0
1 ¼ 32	1.660 42.4	0.005 0.13	0.625 15.9	0.312 7.9	1.535 39.0	-0.015 -0.38	0.062 1.6	0.078 2.0
1 ½ 40	1.900 48.3	0.006 0.15	0.625 15.9	0.312 7.9	1.775 45.1	-0.015 -0.38	0.062 1.6	0.078 2.0
2 50	2.375 60.3	0.006 0.15	0.625 15.9	0.344 8.7	2.250 57.2	-0.015 -0.38	0.062 1.6	0.078 2.0
2 ½ 65	2.875 73.0	0.007 0.18	0.625 15.9	0.344 8.7	2.720 69.1	-0.018 -0.46	0.078 2.0	0.078 2.0
3 80	3.500 88.9	0.008 0.20	0.625 15.9	0.344 8.7	3.344 84.9	-0.018 -0.46	0.078 2.0	0.078 2.0
4 100	4.500 114.3	0.009 0.20	0.625 15.9	0.344 8.7	4.334 110.1	-0.020 -0.51	0.083 2.1	0.078 2.0
5 125	5.563 141.3	0.010 0.25	0.625 15.9	0.344 8.7	5.395 137.03	-0.022 -0.56	0.083 2.1	0.078 2.0
6 150	6.625 168.3	0.011 0.28	0.625 15.9	0.344 8.7	6.455 164.0	-0.022 -0.56	0.085 2.2	0.078 2.0
8 200	8.625 219.1	0.015 0.38	0.750 19.1	0.469 11.9	8.441 214.4	-0.025 -0.64	0.092 2.3	0.078 2.0
10 250	10.750 273.0	0.015 0.38	0.750 19.1	0.469 11.9	10.562 268.2	-0.027 -0.69	0.094 2.4	0.078 2.0
12 300	12.750 323.9	0.015 0.38	0.750 19.1	0.469 11.9	12.531 318.2	-0.030 -0.76	0.109 2.8	0.078 2.0
14 350	14.000 355.6	0.015 0.38	0.938 23.8	0.500 12.7	13.781 350.0	-0.030 -0.76	0.109 2.8	0.078 2.0
16 400	16.000 406.4	0.019 0.48	0.938 23.8	0.500 12.7	15.781 400.8	-0.030 -0.76	0.109 2.8	0.078 2.0

NOTES

COLUMN 1 – Nominal pipe size.

COLUMN 2 – IPS outside diameter. The nominal outside diameter of grooved pipe shall not vary more than the tolerance listed. Maximum allowable tolerance from square cut ends is 0.030" (0.8 mm) for sizes ¾ – 3 ½" (20 – 90 mm); 0.045" (1.1 mm) for sizes 4 – 6" (100 – 150 mm); and 0.060" (1.5 mm) for sizes 8" (200 mm) and above. Measured from true square line.

COLUMN 3 – Gasket seat. The pipe shall be free from indentations, projections and/or grooving tool marks from the end of the pipe to the groove to provide a leak tight seat for the gasket. It is acceptable to groove and join pipe with chamfers up to 15°. Pipe end chamfers greater than 15° are not recommended for use with Victaulic grooved mechanical couplings.

COLUMN 4 – Groove width. (Prior to August 2016, the 2 – 3" groove width was 0.312"; the 4 – 6" groove width was 0.375"; the 8" groove width was 0.437"; and the 10 – 12" groove width was 0.500". Continued use of prior groove widths will not effect the pipe joint performance with Victaulic grooved mechanical couplings.)

COLUMN 5 – Groove diameter. The groove must be uniform depth for the entire pipe circumference. The "C" diameter must be maintained.

COLUMN 6 – Groove depth. Reference only. GROOVE MUST CONFORM TO "C" DIAMETER SHOWN.

COLUMN 7 – Groove radius. The radius necessary at the bottom of the groove to eliminate point loaded stress concentrations.

¹ CPVC pipe manufactured to ASTM F441 with material conforming to Type IV, Grade 1 CPVC compound with a cell classification of 23447 or 24448 per ASTM D1784.

² PVC plastic pipe – Based on modified PVC plastic pipe conforming to ASTM D1785-70, Type I, Grade I-PVC 1120 or Grade II-PVC 1220 at a maximum operating temperature of +75°F/+24°C. For other types of PVC pipe and other operating temperatures, contact Victaulic.

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	



ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

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.

Intellectual Property Rights

No statement contained herein concerning a possible or suggested use of any material, product, service, or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Victaulic or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service, or design in the infringement of any patent or other intellectual property right. The terms "Patented" or "Patent Pending" refer to design or utility patents or patent applications for articles and/or methods of use in the United States and/or other countries.

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.

Trademarks

Victaulic and all other Victaulic marks are the trademarks or registered trademarks of Victaulic Company, and/or its affiliated entities, in the U.S. and/or other countries.