

Victaulic® EndSeal™ Pipe Groove Specifications

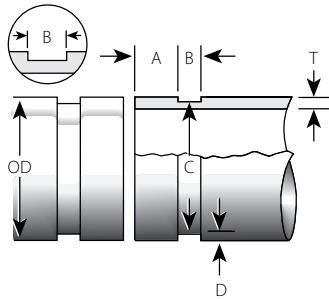


Designed for standard or heavier wall thickness pipe or plastic-coated pipe joined with HP-70ES couplings

25.02

DIMENSIONS

"ES" CUT GROOVE SPECIFICATIONS



Exaggerated for Clarity

Size	Pipe Outside Diameter ¹			Gasket Seat "A" ²		Groove Width "B" ³		Groove Diameter "C" ⁴		Groove Depth "D" ⁵	Minimum Nominal Allowable Wall Thickness "T" ⁶
	Nominal inches DN	Actual inches mm	Tolerance Max inches mm	Min inches mm	Basic inches mm	Tolerance inches mm	Basic inches mm	Tolerance +0.010 (+0.25) inches mm	Basic inches mm		
2 DN50	2.375 60.3	+0.024 +0.61	-0.024 -0.58	0.562 14.27	±0.010 ±0.25	0.255 6.48	-0.005 -0.13	2.250 57.15	-0.015 -0.38	0.063 1.60	0.154 3.91
2½	2.875 73.0	+0.029 +0.74	-0.029 -0.71	0.562 14.27	±0.010 ±0.25	0.255 6.48	-0.005 -0.13	2.720 69.09	-0.018 -0.46	0.078 1.98	0.203 5.16
3 DN80	3.500 88.9	+0.035 +0.89	-0.031 -0.79	0.562 14.27	±0.010 ±0.25	0.255 6.48	-0.005 -0.13	3.344 84.94	-0.018 -0.46	0.078 1.98	0.216 5.49
4 DN100	4.500 114.3	+0.045 +1.14	-0.031 -0.79	0.605 15.37	±0.015 ±0.38	0.305 7.75	-0.005 -0.13	4.334 110.08	-0.020 -0.51	0.083 2.11	0.237 6.02
6 DN150	6.625 168.3	+0.063 +1.60	-0.031 -0.79	0.605 15.37	±0.015 ±0.38	0.305 7.75	-0.005 -0.13	6.455 163.96	-0.022 -0.56	0.085 2.16	0.280 7.11
8 DN200	8.625 219.1	+0.063 +1.60	-0.031 -0.79	0.714 18.14	±0.015 ±0.38	0.400 10.16	-0.010 -0.25	8.441 214.40	-0.025 -0.64	0.092 2.34	0.322 8.18
10 DN250	10.750 273.0	+0.063 +1.60	-0.031 -0.79	0.714 18.14	±0.015 ±0.38	0.400 10.16	-0.010 -0.25	10.562 268.28	-0.027 -0.69	0.094 2.39	0.365 9.27
12 DN300	12.750 323.9	+0.063 +1.60	-0.031 -0.79	0.714 18.14	±0.015 ±0.38	0.400 10.16	-0.010 -0.25	12.531 318.29	-0.030 -0.76	0.109 2.77	0.375 9.53

- 1 Outside diameter: The outside diameter of cut grooved pipe shall not vary more than the tolerance listed.
- 2 Gasket seat "A": The pipe surface shall be free from indentations, roll marks, and projections from the end of the pipe to the groove to provide a leak-tight seal for the gasket. All loose paint, scale, dirt, chips, grease and rust must be removed. Gasket seat "A" is measured from the end of the pipe.
- 3 Groove width "B": The bottom of the groove shall be free of loose dirt, chips, rust and scale that may interfere with proper coupling assembly. Maximum permissible radius at the bottom of the groove is 0.015".
- 4 Groove diameter "C": The groove shall be a uniform depth for the entire pipe circumference. The groove shall be maintained within the "C" diameter tolerance listed.
- 5 Groove depth "D": For reference only. Groove shall conform to the groove diameter "C" listed.
- 6 Nominal allowable wall thickness "T": This is the nominal wall thickness which may be grooved.

NOTES

- Coatings applied to the interior surfaces including bolt pad mating surfaces of our bolted grooved and bolted plain end couplings shall not exceed 0.010" (0.25 mm). Also the coating thickness applied to the gasket seating surface and within the groove on the pipe exterior shall not exceed 0.010" (0.25 mm).
- Cut grooving standard steel pipe removes less metal, to less depth, than threading, maintaining the desired integrity of the pipe.
- Square cut pipe must be used with EndSeal™ gaskets.

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

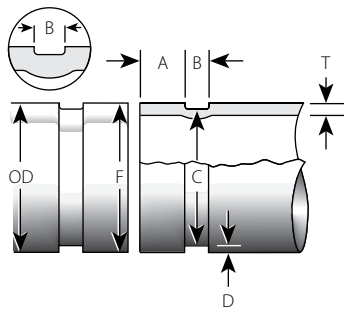
System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	



DIMENSIONS

"ES" ROLL GROOVE SPECIFICATIONS



Exaggerated for clarity

Size	Pipe Outside Diameter ¹			Gasket Seat "A" ²		Groove Width "B" ³		Groove Diameter "C" ⁴		Groove Depth "D" ⁵	Minimum Nominal Allowable Wall Thickness "T" ⁶	Max Allowable Flare Diameter "F" ⁷
	Nominal inches DN	Actual inches mm	Tolerance Max inches mm Min inches mm	Basic inches mm	Tolerance inches mm	Basic inches mm	Tolerance +0.010 (+0.25) inches mm	Basic inches mm	Tolerance +0.000 inches mm			
2 DN50	2.375 60.3	+0.024 +0.61	-0.024 -0.61	0.572 14.53	-0.020 -0.51	0.250 6.35	+0.015 +0.38	2.250 57.15	-0.015 -0.38	0.063 1.60	0.065 1.65	2.48 63.0
2½	2.875 73.0	+0.029 +0.74	-0.029 -0.74	0.572 14.53	-0.020 -0.51	0.250 6.35	+0.015 +0.38	2.720 69.09	-0.018 -0.46	0.078 1.98	0.083 2.11	2.98 75.7
3 DN80	3.500 88.9	+0.035 +0.89	-0.031 -0.79	0.572 14.53	-0.020 -0.51	0.250 6.35	+0.015 +0.38	3.344 84.94	-0.018 -0.46	0.083 2.11	0.083 2.11	3.60 91.4
4 DN100	4.500 114.3	+0.045 +1.14	-0.031 -0.79	0.610 15.49	-0.020 -0.51	0.300 7.62	+0.020 +0.51	4.334 110.08	-0.020 -0.51	0.083 2.11	0.083 2.11	4.60 116.8
6 DN150	6.625 168.3	+0.063 +1.60	-0.031 -0.79	0.610 15.49	-0.020 -0.51	0.300 7.62	+0.020 +0.51	6.455 163.96	-0.022 -0.56	0.085 2.16	0.109 2.77	6.73 170.9
8 DN200	8.625 219.1	+0.063 +1.60	-0.031 -0.79	0.719 18.26	-0.020 -0.51	0.390 9.91	+0.020 +0.51	8.441 214.40	-0.025 -0.64	0.092 2.34	0.109 2.77	8.80 223.5
10 DN250	10.750 273.0	+0.063 +1.60	-0.031 -0.79	0.719 18.26	-0.020 -0.51	0.390 9.91	+0.020 +0.51	10.562 268.28	-0.027 -0.69	0.094 2.39	0.134 3.40	10.92 277.4
12 DN300	12.750 323.9	+0.063 +1.60	-0.031 -0.79	0.719 18.26	-0.020 -0.51	0.390 9.91	+0.020 +0.51	12.531 318.29	-0.030 -0.76	0.109 2.77	0.156 3.96	12.92 328.2

- ¹ Outside diameter: The outside diameter of roll grooved pipe shall not vary more than the tolerance listed.
- ² Gasket seat "A": The pipe surface shall be free from indentations, roll marks, and projections from the end of the pipe to the groove to provide a leak-tight seal for the gasket. All loose paint, scale, dirt, chips, grease and rust must be removed. Gasket seat "A" is measured from the end of the pipe.
- ³ Groove width "B": The bottom of the groove shall be free of loose dirt, chips, rust and scale that may interfere with proper coupling assembly. Corners at bottom of groove must be radiused. For IPS pipe, 0.04"R on 2 – 12" (DN50 – DN300).
- ⁴ Groove diameter "C": The groove shall be a uniform depth for the entire pipe circumference. The groove shall be maintained within the "C" diameter tolerance listed.
- ⁵ Groove depth "D": For reference only. Groove shall conform to the groove diameter "C" listed.
- ⁶ Nominal allowable wall thickness "T": This is the nominal wall thickness which may be grooved.
- ⁷ Maximum allowable end flare diameter "F". Measured at the most extreme pipe end diameter square cut or beveled.

NOTES

- The coating thickness applied to the gasket seating surface and within the groove on the pipe exterior shall not exceed 0.010" (0.25 mm). Also, coatings applied to the interior surfaces including bolt pad mating surfaces of our bolted grooved and bolted plain end couplings shall not exceed 0.010" (0.25 mm).
- Roll grooving removes no metal, cold forming a groove by the action of an outer grooving roll being forced into pipe as it is rotated by an inner support roll.
- Square cut pipe must be used with EndSeal™ gaskets.

REFERENCE MATERIALS

[06.13: Victaulic® EndSeal™ Coupling Style HP-70ES](#)

[24.01: Victaulic® Pipe Preparation Tools](#)

[26.01: Victaulic® Design Data](#)

[29.01: Victaulic® Terms and Conditions of Sale](#)

[I-100: Victaulic® Field Installation Handbook](#)

User Responsibility for Product Selection and Suitability

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