

### Standard Roll Groove specifications for Steel and other IPS Pipe\*

Roll grooving removes no metal, cold forming a groove by the action of an upper male roll being forced into pipe as it is rotated by a lower female drive roll.

Roll groove configuration has rounded edges which reduce the available pipe end movement (expansion, contraction and deflection).

**Note :** Coatings applied to the interior surfaces, including bolt pad mating surfaces, of our grooved and bolted plain end couplings should 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 should not exceed 0.010"/0.25 mm.

1 Nominal Size Inches/mm	2		3		4		5		6		7		8	
	Dimensions = Inches/millimeters													
	Pipe Outside Dia. O. D.			Gasket Seat - A ± 0.03 ± 0.76	Grv Width -B ± 0.03 ± 0.76	Groove Dia - C		Groove Depth D (ref)	Min. Allow. Wall Thk. T	Max. Allow. Flare Dia.				
	Tolerance					Basic	Tol. + 0.000 + 0.00							
Basic	+	-												
1 25	1.315 33.7	0.013 0.33	0.013 0.33	0.625 15.88	0.281 7.14	1.190 30.23	-0.015 -0.38	0.063 1.60	0.065 1.65	1.43 36.3				
1 ¼ 32	1.660 42.4	0.016 0.41	0.016 0.41	0.625 15.88	0.281 7.14	1.535 38.99	-0.015 -0.38	0.063 1.60	0.065 1.65	1.77 45.0				
1 ½ 40	1.900 48.3	0.019 0.48	0.019 0.48	0.625 15.88	0.281 7.14	1.775 45.09	-0.015 -0.38	0.063 1.60	0.065 1.65	2.01 51.1				
2 50	2.375 60.3	0.024 0.61	0.024 0.61	0.625 15.88	0.344 8.74	2.250 57.15	-0.015 -0.038	0.063 1.60	0.065 1.65	2.48 63.0				
2 ½ 65	2.875 73.0	0.029 0.74	0.029 0.74	0.625 15.88	0.344 8.74	2.720 69.09	-0.018 -0.46	0.078 1.98	0.083 2.11	2.98 75.7				
76.1mm	3.000 76.1	0.030 0.76	0.030 0.76	0.625 15.88	0.344 8.74	2.845 72.26	-0.018 -0.46	0.078 1.98	0.083 2.11	3.10 78.7				
3 80	3.500 88.9	0.035 0.89	0.031 0.89	0.625 15.88	0.344 8.74	3.344 84.94	-0.018 -0.46	0.078 1.98	0.083 2.11	3.60 91.4				
3 ½ 90	4.000 101.6	0.040 1.02	0.031 0.79	0.625 15.88	0.344 8.74	3.834 97.38	-0.020 -0.51	0.083 2.11	0.083 2.11	4.10 104.1				
4 100	4.500 114.3	0.045 1.14	0.031 0.79	0.625 15.88	0.344 8.74	4.334 110.08	-0.020 -0.51	0.083 2.11	0.083 2.11	4.60 116.8				
108.0mm	4.250 108.0	0.043 1.09	0.031 0.79	0.625 15.88	0.344 8.74	4.084 103.73	-0.020 -0.51	0.083 2.11	0.083 2.11	4.35 110.5				
4 ½ 120	5.000 127.0	0.050 1.27	0.031 0.79	0.625 15.88	0.344 8.74	3.834 122.78	-0.020 -0.51	0.083 2.11	0.095 2.41	5.10 129.5				
133.0mm	5.250 133.0	0.053 1.35	0.031 0.79	0.625 15.88	0.344 8.74	5.084 129.13	-0.020 -0.51	0.083 2.11	0.109 2.77	5.35 135.9				
139.7mm	5.500 139.7	0.056 1.42	0.031 0.79	0.625 15.88	0.344 8.74	5.334 135.48	-0.020 -0.51	0.083 2.11	0.109 2.77	5.60 142.2				
5 125	5.563 141.3	0.056 1.42	0.031 0.79	0.625 15.88	0.344 8.74	5.395 137.03	-0.022 -0.56	0.084 2.13	0.109 2.77	5.66 143.8				
152.4mm	6.000 152.4	0.056 1.42	0.031 0.79	0.625 15.88	0.344 8.74	5.830 148.08	-0.022 -0.56	0.085 2.16	0.109 2.77	6.10 154.9				
159.0mm	6.250 159.0	0.063 1.60	0.031 0.79	0.625 15.88	0.344 8.74	6.032 153.21	-0.030 -0.76	0.109 2.77	0.109 2.77	6.35 161.3				
165.1mm	6.500 165.1	0.063 1.60	0.031 0.79	0.625 15.88	0.344 8.74	6.330 160.78	-0.022 -0.56	0.85 2.16	0.109 2.77	6.60 167.6				
6 150	6.625 168.3	0.063 1.60	0.031 0.79	0.625 15.88	0.344 8.74	6.455 163.96	-0.022 -0.56	0.85 2.16	0.109 2.77	6.73 170.9				

# Firefighting & HVAC Applications GROOVED PIPES

Standard Groove Specifications

1 Nominal Size Inches/mm	2		3	4	5		6	7	8	
	Dimensions = Inches/millimeters									
	Pipe Outside Dia. O. D.			Gasket Seat - A ± 0.03 ± 0.76	Grv Width -B ± 0.03 ± 0.76	Groove Dia - C		Groove Depth D (ref)	Min. Allow. Wall Thk. T	Max. Allow. Flare Dia.
	Tolerance					Basic	Tol. + 0.000 + 0.00			
Basic	+	-								
203.2mm	8.000	0.063	0.031	0.750	0.469	7.816	-0.025	0.092	0.109	8.17
	203.2	1.60	0.79	19.05	11.91	198.53	-0.64	2.34	2.77	207.5
8 200	8.625	0.063	0.031	0.750	0.469	8.441	-0.025	0.092	0.109	8.80
	219.1	1.60	0.79	19.05	11.91	214.40	-0.64	2.34	2.77	223.5
254.0mm	10.000	0.063	0.031	0.750	0.469	9.812	-0.027	0.094	0.134	10.17
	254.0	1.60	0.79	19.05	11.91	249.23	-0.69	2.39	3.40	258.3
10 250	10.750	0.063	0.031	0.750	0.469	10.562	-0.027	0.094	0.134	10.92
	273.0	1.60	0.79	19.05	11.91	268.28	-0.69	2.39	3.40	277.4
304.8mm	12.000	0.063	0.031	0.750	0.469	11.781	-0.030	0.109	0.156	12.17
	340.8	1.60	0.79	19.05	11.91	299.24	-0.76	2.77	3.96	309.1
12 300	12.750	0.063	0.031	0.750	0.469	12.531	-0.030	0.109	0.156	12.92
	323.9	1.60	0.79	19.05	11.91	318.29	-0.76	2.77	3.96	328.2

\*On roll grooved pipe, Allowable cap End Separation and Deflection from Centerline will be ½ values listed for cut grooved pipe

**COLUMN 1** : Nominal IPS Pipes size

**COLUMN 2** : IPS outside diameter

**COLUMN 3** : Gasket seat

**COLUMN 4** : Groove width

**COLUMN 5** : Groove outside diameter

**COLUMN 6** : Groove depth

**COLUMN 7** : Minimum allowable wall thickness

**COLUMN 8** : Maximum allowable pipe end flare diameter