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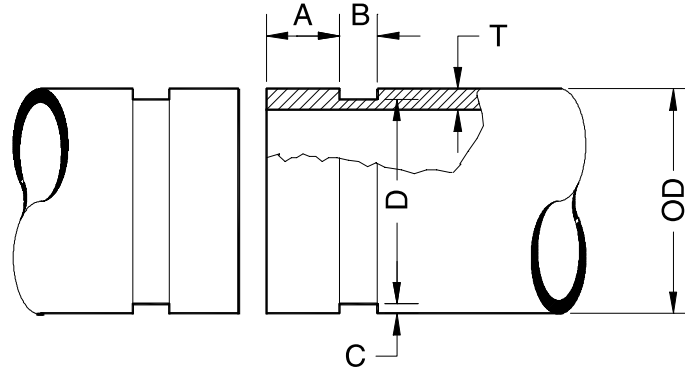


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For fire protection services request submittal GRS 1.3



## STANDARD CUT GROOVE SPECIFICATIONS

NOMINAL SIZE IN. (mm)	PIPE OUTSIDE DIAMETER		GASKET SEAT A IN. +/-0.031 (mm) +/- .79	GROOVE WIDTH B IN. +/-0.031 (mm) +/- .79	GROOVE DEPTH C REF. IN. (mm)	GROOVE DIAMETER D		MINIMUM WALL THICKNESS IN. (mm)
	ACTUAL O.D. IN. (mm)	TOLERANCE IN. (mm)				ACTUAL O.D. IN. (mm)	TOL. +/-0.000 IN. (mm)	
3/4 20	1.050 26.7	+0.010/-0.010 + .25/- .25	0.625 15.9	0.312 7.9	0.056 1.4	0.938 23.8	-0.015 -0.4	0.113 2.9
1 25	1.315 33.4	+0.013/-0.013 + .33/- .33	0.625 15.9	0.312 7.9	0.062 1.6	1.190 30.2	-0.015 -0.4	0.133 3.4
1 1/4 32	1.660 42.2	+0.016/-0.016 + .41/- .41	0.625 15.9	0.312 7.9	0.062 1.6	1.535 39.0	-0.015 -0.4	0.140 3.6
1 1/2 40	1.900 48.3	+0.019/-0.019 + .48/- .48	0.625 15.9	0.312 7.9	0.062 1.6	1.775 45.1	-0.015 -0.4	0.145 3.7
2 50	2.375 60.3	+0.024/-0.024 + .61/- .61	0.625 15.9	0.312 7.9	0.062 1.6	2.250 57.2	-0.015 -0.4	0.154 3.9
2 1/2 65	2.875 73.0	+0.029/-0.029 + .74/- .74	0.625 15.9	0.312 7.9	0.078 2.0	2.720 69.1	-0.018 -0.5	0.188 4.8
3 O.D. 76.1	3.000 76.1	+0.030/-0.030 + .76/- .76	0.625 15.9	0.312 7.9	0.078 2.0	2.845 72.3	-0.018 -0.5	0.188 4.8
3 80	3.500 88.9	+0.034/-0.031 + .86/- .79	0.625 15.9	0.312 7.9	0.078 2.0	3.344 84.9	-0.018 -0.5	0.188 4.8
4 100	4.500 114.3	+0.045/-0.031 + 1.14/- .79	0.625 15.9	0.375 9.5	0.083 2.1	4.334 110.1	-0.020 -0.5	0.203 5.2
5 125	5.563 141.3	+0.056/-0.031 + 1.42/- .79	0.625 15.9	0.375 9.5	0.084 2.1	5.395 137.0	-0.022 -0.6	0.203 5.2
6 150	6.625 168.3	+0.063/-0.031 + 1.60/- .79	0.625 15.9	0.375 9.5	0.085 2.2	6.455 164.0	-0.022 -0.6	0.219 5.6
6.5 O.D. 165.1	6.500 165.1	+0.063/-0.031 + 1.60/- .79	0.625 15.9	0.375 9.5	0.085 2.2	6.330 160.8	-0.022 -0.6	0.219 5.6
8 200	8.625 219.1	+0.063/-0.031 + 1.60/- .79	0.750 19.1	0.437 11.1	0.092 2.3	8.441 214.4	-0.025 -0.6	0.238 6.0
10 250	10.750 273.1	+0.063/-0.031 + 1.60/- .79	0.750 19.1	0.500 12.7	0.094 2.4	10.562 268.3	-0.027 -0.7	0.250 6.4
12 300	12.750 323.9	+0.063/-0.031 + 1.60/- .79	0.750 19.1	0.500 12.7	0.109 2.8	12.531 318.3	-0.030 -0.8	0.279 7.1
14 350	14.000 355.6	+0.063/-0.031 + 1.60/- .79	0.938 23.8	0.500 12.7	0.109 2.8	13.781 350.0	-0.030 -0.8	0.281 7.1
16 400	16.000 406.4	+0.063/-0.031 + 1.60/- .79	0.938 23.8	0.500 12.7	0.109 2.8	15.781 400.8	-0.030 -0.8	0.313 8.0
18 450	18.000 457.2	+0.063/-0.031 + 1.60/- .79	1.000 25.4	0.500 12.7	0.109 2.8	17.781 451.6	-0.030 -0.8	0.313 8.0
20 500	20.000 508.0	+0.063/-0.031 + 1.60/- .79	1.000 25.4	0.500 12.7	0.109 2.8	19.781 502.4	-0.030 -0.8	0.313 8.0
24 600	24.000 609.6	+0.063/-0.031 + 1.60/- .79	1.000 25.4	0.563 14.3	0.172 4.4	23.656 600.9	-0.030 -0.8	0.375 9.5

NOTES:

- Gasket seat "A" must be smooth and free scores, seams, loose paint, scale, dirt, grease and rust to assure a leak tight seal.
- Pipe end squareness (ends must be square cut) - Maximum allowable tolerance from square - cut ends is 0.30" for sizes 1 1/4" through 3", 0.045" for sizes 4" through 8" and 0.060" for sizes 10" through 24".
- Pipe out of roundness - difference between maximum O.D. and minimum O.D. measured at 90... must not exceed total O.D. tolerance listed.
- Groove diameter must have uniform depth for entire circumference.



# PIPE PREPERATION

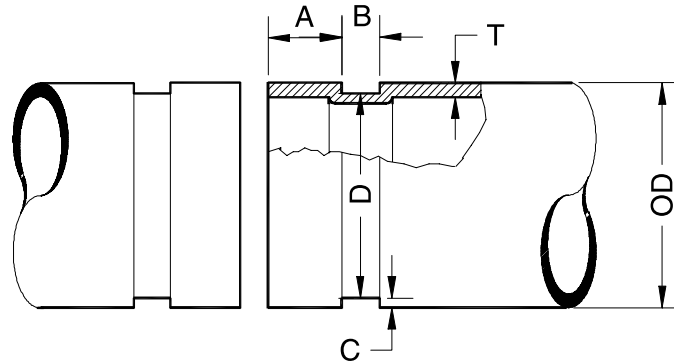


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For fire protection services request submittal GRS 1.3



## STANDARD ROLL GROOVE SPECIFICATIONS

NOMINAL SIZE IN. (mm)	PIPE OUTSIDE DIAMETER		GASKET SEAT A IN. +/-0.031 (mm) +/- .79	GROOVE WIDTH B IN. +/-0.031 (mm) +/- .79	GROOVE DEPTH C REF. IN. (mm)	GROOVE DIAMETER D		MINIMUM WALL THICKNESS IN. (mm)	MAXIMUM ALLOW. FLARE O.D. IN. (mm)
	ACTUAL O.D. IN. (mm)	TOLERANCE IN. (mm)				ACTUAL O.D. IN. (mm)	TOL. +.000 IN. (mm)		
3/4 20	1.050 26.9	+0.010/-0.010 +.25/- .25	0.625 15.9	0.281 7.1	0.056 1.4	0.938 23.8	-0.015 -0.4	0.065 1.65	1.150 29.2
1 25	1.315 33.4	+0.013/-0.013 +.33/- .33	0.625 15.9	0.281 7.1	0.063 1.6	1.190 30.2	-0.015 -0.4	0.015 1.7	1.430 36.3
1 1/4 32	1.660 42.2	+0.016/-0.016 +.41/- .41	0.625 15.9	0.281 7.1	0.063 1.6	1.535 39.0	-0.015 -0.4	0.065 1.7	1.770 45.0
1 1/2 40	1.900 48.3	+0.019/-0.019 +.48/- .48	0.625 15.9	0.281 7.1	0.063 1.6	1.775 45.1	-0.015 -0.4	0.065 1.7	2.010 51.1
2 50	2.375 60.3	+0.024/-0.024 +.61/- .61	0.625 15.9	0.344 8.7	0.063 1.6	2.250 57.2	-0.015 -0.4	0.065 1.7	2.480 63.0
2 1/2 65	2.875 73.0	+0.029/-0.029 +.74/- .74	0.625 15.9	0.344 8.7	0.078 2.0	2.720 69.1	-0.018 -0.5	0.083 2.1	2.980 75.7
3 O.D. 65	3.000 76.1	+0.030/-0.030 +.76/- .76	0.625 15.9	0.344 8.7	0.078 2.0	2.845 72.3	-0.018 -0.5	0.083 2.1	3.100 78.7
3 76.1	3.500 88.9	+0.034/-0.031 +.86/- .79	0.625 15.9	0.344 8.7	0.078 2.0	3.344 84.9	-0.018 -0.5	0.083 2.1	3.600 91.4
4 100	4.500 114.3	+0.045/-0.031 +.14/- .79	0.625 15.9	0.344 8.7	0.083 2.1	4.334 110.1	-0.020 -0.5	0.083 2.1	4.600 116.8
5 125	5.563 141.3	+0.056/-0.031 +.42/- .79	0.625 15.9	0.344 8.7	0.084 2.1	5.395 137.0	-0.022 -0.6	0.109 2.8	5.660 143.8
6 150	6.625 168.3	+0.063/-0.031 +.60/- .79	0.625 15.9	0.344 8.7	0.085 2.2	6.455 164.0	-0.022 -0.6	0.109 2.8	6.730 170.9
6.5 O.D. 165.1	6.500 165.1	+0.063/-0.031 +.60/- .79	0.625 15.9	0.344 8.7	0.085 2.2	6.330 160.8	-0.022 -0.6	0.109 2.8	6.600 167.6
8 200	8.625 219.1	+0.063/-0.031 +.60/- .79	0.750 19.1	0.469 11.9	0.092 2.3	8.441 214.4	-0.025 -0.6	0.109 2.8	8.800 223.5
10 250	10.750 273.1	+0.063/-0.031 +.60/- .79	0.750 19.1	0.469 11.9	0.094 2.4	10.562 268.3	-0.027 -0.7	0.134 3.4	10.920 277.4
12 300	12.750 323.9	+0.063/-0.031 +.60/- .79	0.750 19.1	0.469 11.9	0.109 2.8	12.531 318.3	-0.030 -0.8	0.156 4.0	12.920 328.2
14 350	14.000 355.6	+0.063/-0.031 +.60/- .79	0.938 23.8	0.469 11.9	0.109 2.8	13.781 350.0	-0.030 -0.8	0.156 4.0	14.100 358.1
16 400	16.000 406.4	+0.063/-0.031 +.60/- .79	0.938 23.8	0.469 11.9	0.109 2.8	15.781 400.8	-0.030 -0.8	0.165 4.2	16.100 408.9
18 450	18.000 457.2	+0.063/-0.031 +.60/- .79	1.000 25.4	0.469 11.9	0.109 2.8	17.781 451.6	-0.030 -0.8	0.165 4.2	18.160 461.3
20 500	20.000 508.0	+0.063/-0.031 +.60/- .79	1.000 25.4	0.469 11.9	0.109 2.8	19.781 502.4	-0.030 -0.8	0.188 4.8	20.160 512.1
24 600	24.000 609.6	+0.063/-0.031 +.60/- .79	1.000 25.4	0.500 12.7	0.172 4.4	23.656 600.9	-0.030 -0.8	0.218 5.5	24.200 614.7

### NOTES:

- Gasket seat "A" must be smooth and free from scored, seams, loose paint, scale, dirt, grease and rust to assure a leak tight seal.
- Pipe end squareness (ends must be square cut) - maximum allowable tolerance from square - cut ends is 0.30" for sizes 1 1/4" through 3", 0.045" for sizes 4" through 8" and 0.060" for sizes 10" through 24".
- Pipe out of roundness - difference between maximum O.D. and minimum O.D. measured at 90... must not exceed total O.D. tolerance listed.
- Groove diameter must have uniform depth for entire circumference.
- Maximum allowable pipe end flare diameter is measured at extreme pipe end.