

## Standard Specifications Roll and Cut Groove For Steel Pipe

Tyco Fire Products --- www.tyco-grooved.com  
451 North Cannon Avenue, Lansdale, Pennsylvania 19446 --- USA  
Customer Service/Sales: Tel: (215) 362-0700 / Fax: (215) 362-5385  
Technical Services: Tel: (800) 381-9312 / Fax: (800) 791-5500



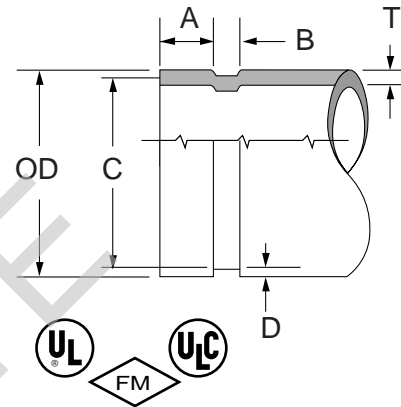
**Grooved Piping Products**



### Technical Data

- 1 - The maximum allowable tolerances for IPS pipe from square cut ends is: 0.030" (0.76mm) for sizes 1" thru 3"; 0.045" (1.14mm) for sizes 4" thru 6"; and 0.060" (1.52mm) for sizes 8" and above.
- 2 - Gasket Seating Surface "A" must be free from score marks, ridges, indentations, projections, loose paint, scale, dirt chips, grease, rust, etc. that would prevent a positive seal.

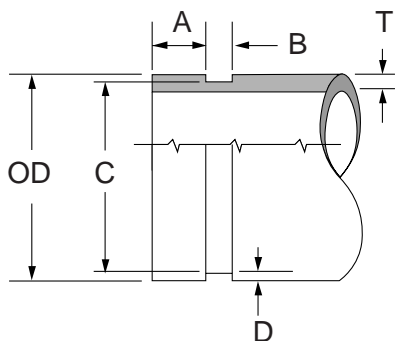
- 3 - Groove Diameter "C" must be of uniform depth around the circumference of the pipe.
- 4 - Groove Depth "D" is a reference dimension only. The Groove Diameter "C" must be maintained.
- 5 - Minimum Wall Thickness "T" is the minimum wall thickness that should be roll grooved.
- 6 - Maximum allowable pipe end flare diameter is measured at the pipe end diameter.



See Fire Protection Submittal Sheet for pressure rating and Listing and Approval information

### Standard Roll Groove Specifications

Nominal Pipe Size	Pipe O.D.			A ±0.030" ±0.76mm Inches mm	B ±0.030" ±0.76mm Inches mm	C Groove Diameter		D Groove Depth Inches mm	T Minimum Wall Inches mm	Maximum Allow. Flare Diameter Inches mm
	O.D.	Tolerance				Inches mm				
		+	-			Actual	Tol.+0.000			
1¼"	1.660	0.016	0.016	0.625	0.281	1.535	-0.015	0.062	0.065	1.77
	42.2	0.41	0.41	15.88	7.14	38.99	-0.38	1.60	1.65	44.96
1½"	1.900	0.019	0.019	0.625	0.281	1.775	-0.015	0.062	0.065	2.01
	48.3	0.48	0.48	15.88	7.14	45.09	-0.38	1.60	1.65	51.05
2"	2.375	0.024	0.024	0.625	0.344	2.250	-0.015	0.062	0.065	2.48
	60.3	0.61	0.61	15.88	8.74	57.15	-0.38	1.60	1.65	62.99
2½"	2.875	0.029	0.029	0.625	0.344	2.720	-0.018	0.078	0.083	2.98
	73.0	0.74	0.74	15.88	8.74	69.09	-0.46	1.98	2.11	75.69
76.1mm	3.000	0.030	0.030	0.625	0.344	2.845	-0.018	0.076	0.083	3.10
	76.1	0.76	0.76	15.88	8.74	72.26	-0.46	1.93	2.11	78.74
3"	3.500	0.035	0.031	0.625	0.344	3.344	-0.018	0.078	0.083	3.60
	88.9	0.89	0.79	15.88	8.74	84.94	-0.46	1.98	2.11	91.44
4"	4.500	0.045	0.031	0.625	0.344	4.334	-0.020	0.083	0.083	4.60
	114.3	1.14	0.79	15.88	8.74	110.08	-0.51	2.11	2.11	116.84
5"	5.563	0.056	0.031	0.625	0.344	5.395	-0.022	0.084	0.109	5.66
	141.3	1.42	0.79	15.88	8.74	137.03	-0.56	2.13	2.77	143.76
165.1mm	6.500	0.063	0.031	0.625	0.344	6.330	-0.022	0.085	0.109	6.60
	165.1	1.60	0.79	15.88	8.74	160.78	-0.56	2.16	2.77	167.64
6"	6.625	0.063	0.031	0.625	0.344	6.455	-0.022	0.085	0.109	6.73
	168.3	1.60	0.79	15.88	8.74	163.96	-0.56	2.16	2.77	170.94
8"	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	223.52
10"	10.750	0.063	0.031	0.750	0.469	10.562	-0.027	0.094	0.134	10.92
	273.1	1.60	0.79	19.05	11.91	268.27	-0.69	2.39	3.40	277.37
12"	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	328.17



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- 5 - Minimum Wall Thickness "T" is the minimum wall thickness that should be cut grooved.

### Standard Cut Groove Specifications

Nom Pipe Size	Pipe O.D.			A ±0.030" ±0.76mm Inches mm	B ±0.030" ±0.76mm Inches mm	C Groove Diameter Inches mm		D Groove Depth Inches mm	T Minimum Wall Inches mm
	O.D.	Tolerance				Actual	Tol.+0.000		
		+	-						
1 1/4"	1.660 42.2	0.016 0.41	0.016 0.41	0.625 15.88	0.313 7.95	1.535 38.99	-0.015 -0.38	0.062 1.57	0.140 3.56
1 1/2"	1.900 48.3	0.019 0.48	0.019 0.48	0.625 15.88	0.313 7.95	1.775 45.09	-0.015 -0.38	0.062 1.57	0.145 3.68
2"	2.375 60.3	0.024 0.61	0.024 0.61	0.625 15.88	0.313 7.95	2.250 57.15	-0.015 -0.38	0.062 1.57	0.154 3.91
2 1/2"	2.875 73.0	0.029 0.74	0.029 0.74	0.625 15.88	0.313 7.95	2.720 69.09	-0.018 -0.46	0.078 1.98	0.188 4.78
76.1mm	3.000 76.1	0.030 0.76	0.030 0.76	0.625 15.88	0.313 7.95	2.845 72.26	-0.018 -0.46	0.076 1.93	0.188 4.78
3"	3.500 88.9	0.035 0.89	0.031 0.79	0.625 15.88	0.313 7.95	3.344 84.94	-0.018 -0.46	0.078 1.98	0.188 4.78
4"	4.500 114.3	0.045 1.14	0.031 0.79	0.625 15.88	0.375 9.53	4.334 110.08	-0.020 -0.51	0.083 2.11	0.203 5.16
5"	5.563 141.3	0.056 1.42	0.031 0.79	0.625 15.88	0.375 9.53	5.395 137.03	-0.022 -0.56	0.084 2.13	0.203 5.16
165.1mm	6.500 165.1	0.063 1.60	0.031 0.79	0.625 15.88	0.375 9.53	6.330 160.78	-0.022 -0.56	0.085 2.16	0.219 5.56
6"	6.625 168.3	0.063 1.60	0.031 0.79	0.625 15.88	0.375 9.53	6.455 163.96	-0.022 -0.56	0.085 2.16	0.219 5.56
8"	8.625 219.1	0.063 1.60	0.031 0.79	0.750 19.05	0.438 11.13	8.441 214.40	-0.025 -0.64	0.092 2.34	0.238 6.05
10"	10.750 273.1	0.063 1.60	0.031 0.79	0.750 19.05	0.500 12.70	10.562 268.27	-0.027 -0.69	0.094 2.39	0.250 6.35
12"	12.750 323.9	0.063 1.60	0.031 0.79	0.750 19.05	0.500 12.70	12.531 318.29	-0.030 -0.76	0.109 2.77	0.279 7.09

General Notes: It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data is not exceeded. Always read and understand the installation instructions (IH-1000). Never remove any piping component nor correct or modify any piping deficiencies without first depressurizing and draining the system. Material and gasket selection should be verified to be compatible for the specific application.

