



**Grinnell**  
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## **GRINNELL Mechanical Products Standard Specifications Roll Groove for Copper Tubing**

### **General Description**

GRINNELL Grooved Fittings provide an economical and efficient method of changing direction, adding an outlet, and reducing or capping piping systems.

#### **WARNING**

*Never remove any piping component nor correct or modify any piping deficiencies without first de-pressurizing and draining the system. Failure to do so may result in serious personal injury, property damage, and/or impaired device performance.*

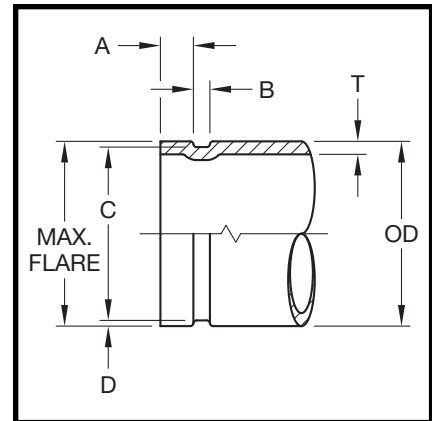
*It is the Designer's responsibility to select products suitable for the intended service and to ensure that pressure ratings and performance data are not exceeded. Material and gasket selection should be verified to be compatible for the specific application. Always read and understand the installation instructions.*

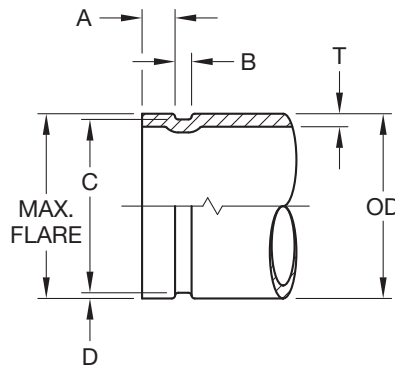
*The products described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the Approval agency, in addition to the standards of any other authorities having jurisdiction. Failure to do so may result in serious personal injury or impair the performance of these devices.*

*Owners are responsible for maintaining their mechanical system and devices in proper operating condition. The installing contractor or device manufacturer should be contacted with any questions.*

### **Technical Data**

- Nominal Tubing, ASTM B-88 drawn copper tubing size.
- The maximum allowable tolerances for Tubing from square cut ends are:
  - For sizes 2 to 3 inch  
0.030" (0,76 mm)
  - For sizes 4 to 6 inch  
0.045" (1,14 mm) measured from true square line
- Gasket Seating Surface "A" must be free from roll marks, indentations, projections, loose scale, dirt, chips, grease, etc. that would prevent a positive seal.
- Groove Width Bottom must be free of loose dirt, chips and scale that may interfere with proper coupling assembly.
- The Groove Diameter "C" must be uniform in depth for the entire circumference of the tubing. Groove must be maintained within the tolerance listed.
- Groove Depth "D" is a reference dimension only. The Groove Diameter "C" must be maintained.
- Minimum Wall Thickness "T" per ASTM B-306 drain waste and vent (DWV) is minimum wall thickness copper tubing, which may be roll grooved.
- Maximum flare diameter is the OD at the most extreme tubing diameter.





Nominal Tubing Size ANSI Inches	Tubing O.D. Inches (mm)			A ± 0.030" ± 0.76 Inches (mm)	B ± 0.030" ± 0.76 Inches (mm)	C Groove Diameter Inches/mm		D Nominal Groove Depth Inches (mm)	T Minimum Wall Inches (mm)	Maximum Flare Diameter Inches (mm)
	O.D. Inches (mm)	Tolerance				Actual	Tol. +0.000			
		+	-							
2	2.125 (54,0)	0.002 (0,05)	0.002 (0,05)	0.610 (15,5)	0.300 (7,6)	2.029 (51,5)	-0.020 (-0,51)	0.048 (1,2)	0.058 (1,5)	2.220 (56,4)
2-1/2	2.625 (66,7)	0.002 (0,05)	0.002 0.05	0.610 (15,5)	0.300 (7,6)	2.525 (64,1)	-0.020 (-0,51)	0.050 (1,2)	0.065 (1,7)	2.720 (69,1)
3	3.125 (79,4)	0.002 (0,05)	0.002 (0,05)	0.610 (15,5)	0.300 (7,6)	3.025 (76,8)	-0.020 (-0,51)	0.050 (1,2)	DWV	3.220 (81,8)
4	4.125 (104,8)	0.002 (0,05)	0.002 (0,05)	0.610 (15,5)	0.300 (7,6)	4.019 (102,1)	-0.020 (-0,51)	0.053 (1,4)	DWV	4.220 (107,2)
5	5.125 130.2	0.002 (0,05)	0.002 (0,05)	0.610 (15,5)	0.300 (7,6)	4.999 (127,0)	-0.020 (-0,51)	0.053 (1,4)	DWV	5.220 (132,6)
6	6.125 (155,6)	0.002 (0,05)	0.002 (0,05)	0.610 (15,5)	0.300 (7,6)	5.999 (152,3)	-0.020 (-0,51)	0.063 (1,6)	DWV	6.220 (158,0)
8	8.125 (206,4)	0.002 (0,05)	0.004 (0,10)	0.610 (15,5)	0.300 (7,6)	7.959 (202,2)	-0.020 (-0,51)	0.083 (2,1)	DWV	8.220 (208,8)

Tolerances for 8" (206.4mm) are +0.002 (0.5mm); -0.004 (-0.10mm).

**FIGURE 1**  
**STANDARD ROLL GROOVE**  
**COPPER TUBING SPECIFICATIONS**