

## Grooved Couplings, Fittings & Components for Copper Tubing

The **Shurjoint** copper series is the most complete line of grooved components available for installation on copper tubing (CTS) in sizes 2" - 6" (50 - 150 mm). Shurjoint grooved mechanical components provide a fast, easy, economical and durable joining method of copper tubing without the use of heat or solder.

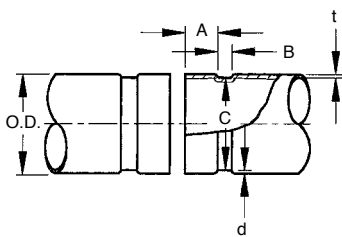
Grooved-end fittings are produced from wrought copper and or bronze castings. Wrought copper conforms to ASTM B75 UNC C12200 (99.9% copper). Bronze castings are produced from lead-free alloys C90500 and or C89836 Bismuth bronze per ASTM B584. Materials are in compliance with ANSI/NSF 61 for potable water service applications.

### Copper Tubing - Dimensions & Pressure Ratings (ASTM B88 & B306)

Nominal Size mm / in	Type	D Pipe OD mm / in	t Thickness		P Max. Pressure	
			mm	in	Bar	psi
50 2	K	54 2.125	2.11	0.083	33	484
	L		1.78	0.070	28	406
	M		1.47	0.058	23	335
	DWV		1.07	0.042	17	241
65 2½	K	66.7 2.625	2.41	0.095	31	447
	L		2.03	0.080	26	375
	M		1.65	0.065	21	303
	DWV		N/A	N/A	N/A	N/A
80 3	K	79.4 3.125	2.77	0.109	30	431
	L		2.29	0.090	24	354
	M		1.83	0.072	19	282
	DWV		1.14	0.045	12	175
100 4	K	104.8 4.125	3.40	0.134	28	400
	L		2.79	0.110	23	327
	M		2.41	0.095	19	282
	DWV		1.47	0.058	12	171
125 5	K	130.2 5.125	4.06	0.160	26	384
	L		3.12	0.123	20	294
	M		2.77	0.109	18	260
	DWV		1.83	0.072	12	171
150 6	K	155.6 6.125	4.88	0.192	27	386
	L		3.56	0.140	19	279
	M		3.10	0.122	17	243
	DWV		2.11	0.083	11	164

Notes: 1. Design stress: 6000 psi (41.4 MPa)  
2. Pressures are based on water at 23°C (73.4°F).

## Standard Roll Groove for U.S. Standard Copper Tubing



### Roll Set

As copper tubing is thinner than carbon steel pipe, always use a roll set specifically designed for use on copper tubing.

#### Pipe OD

Maximum allowable tolerances from square cut ends is 0.03" for 2" thru 3"; 0.045" for 4" thru 6"; and 0.060" for sizes 8".

#### Gasket Seating Surface

The gasket seating surface shall be free from deep scores, marks, or ridges that could prevent a positive seal.

#### Groove Width

Groove width is to be measured between vertical flanks of the groove side walls.

#### Groove Diameter

The 'C' diameters are average values. The groove must be of uniform depth around the entire pipe circumference.

#### Groove Depth

The 'd' is for reference use only. The groove dimension shall be determined by the groove diameter 'C'.

#### Minimum Wall Thickness

The DWV pipe (ASTM B-306) is minimum wall thickness that may be roll grooved.

#### Flare Diameter

The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

Nominal Size mm / in	Pipe O. D. mm / in	Gasket Seat A ±0.79 mm ±0.03 in	Groove Width B ±0.79 mm ±0.03 in	Groove Dia. C +0/-0.51 mm +0/-0.02 in	Groove Depth d (ref) mm / in	Min. Allow Wall Thick t mm / in	Max. Allowed Flare Dia. mm / in
50	54.0	15.5	7.6	51.5	1.2	1.6	56.4
2	2.125	0.610	0.300	2.029	0.048	0.064	2.220
65	66.7	15.5	7.6	64.1	1.3	1.7	69.1
2½	2.625	0.610	0.300	2.525	0.050	0.065	2.720
80	79.4	15.5	7.6	76.8	1.3	DWV	81.8
3	3.125	0.610	0.300	3.025	0.050		3.220
100	104.8	15.5	7.6	102.1	1.4	DWV	107.2
4	4.125	0.610	0.300	4.019	0.053		4.220
125	130.2	15.5	7.6	127.0	1.4	DWV	132.6
5	5.125	0.610	0.300	4.999	0.053		5.220
150	155.6	15.5	7.6	152.3	1.6	DWV	158.0
6	6.125	0.610	0.300	5.999	0.063		6.220