Section 8

Copper Series

Grooved Couplings, Fittings & Components for Copper Tubing 164
Pressure Ratings of Copper Tubing 164
Standard Roll Groove for U.S. Standard Copper Tubing 164
Grooved Couplings & Flanges for Copper Tubing
C305 Rigid Coupling 165
C306 / 96 Reducing Coupling & Continuity Clip 166
C307 Transition Coupling 167
C341 Flange Adapter 167
Grooved Fittings for Copper Tubing
C10 / C11 / C20 / C60 Elbows, Tee & Cap 168
C21 / C50 / C26 Reducing Tees & Concentric Reducer 169
C52 / C55 Concentric Reducer & Transition Adapter 170
C55T / DE30-GG Transition Adapters & Dielectric Transition Fitting. 171
Mechanical Tees & Flow Control Components
C723 Mechanical Tee 172
C726 Y-Strainer 173
SJ-C300 Butterfly Valve 174

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 mm - 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 copper alloy per ASTM B584. Materials are in compliance with NSF/ANSI 61 for potable water service applications.

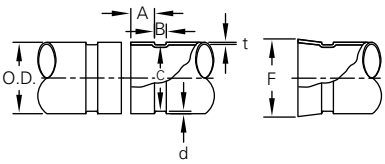
* Bronze fittings marked with C89836 designation are in compliance with NSF/ANSI 61 and NSF/ANSI 372.

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

Nominal Size	Type	D Pipe O.D.	t Thickness		P Max. Pressure	
in / mm		in / mm	in	mm	PSI	Bar
2 / 50	K	2.125 / 54	0.083	2.11	484	33
	L		0.070	1.78	406	28
	M		0.058	1.47	335	23
	DWV		0.042	1.07	241	17
2½ / 65	K	2.625 / 66.7	0.095	2.41	4473	1
	L		0.080	2.03	375	26
	M		0.065	1.65	303	21
	DWV		N/A	N/A	N/A	N/A
3 / 80	K	3.125 / 79.4	0.109	2.77	431	30
	L		0.090	2.29	354	24
	M		0.072	1.83	282	19
	DWV		0.045	1.14	175	12
4 / 100	K	4.125 / 104.8	0.134	3.40	400	28
	L		0.110	2.79	327	23
	M		0.095	2.41	282	19
	DWV		0.058	1.47	171	12
5 / 125	K	5.125 / 130.2	0.160	4.06	384	26
	L		0.123	3.12	294	20
	M		0.109	2.77	260	18
	DWV		0.072	1.83	171	12
6 / 150	K	6.125 / 155.6	0.192	4.88	386	27
	L		0.140	3.56	279	19
	M		0.122	3.10	243	17
	DWV		0.083	2.11	164	11

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

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 O.D.

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 would 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

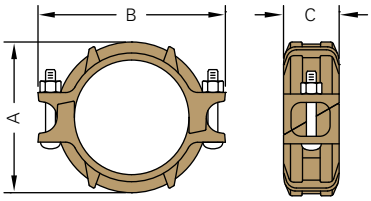
The pipe end that may flare when the groove is rolled shall be within this limit when measured at the extreme end of the pipe.

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

Model

C305 Rigid Coupling for Copper Tubing (CTS)

The Model C305 features angle bolt pad design for a rigid joint and easy swing-over installation. The C305 couplings are comprised of epoxy coated ductile iron housings and EPDM GapSeal gaskets and are rated up to 300 psi (20 Bar), depending on the type and size of copper tubing used.



TYPE K, L, M (ASTM B-88) & TYPE DWV (ASTM B306)

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Pipe End Separation	Dimensions A	Dimensions B	Dimensions C	Bolt Size	Weight
in	in	PSI	in	in	in	in	in	in	Lbs
mm	mm	Bar	mm	mm	mm	mm	mm		Kgs
2	2.125	300	1060	0.06	3.17	4.63	1.89	⅜ x 2⅛	1.8
50	54.0	20	4.58	1.5	81	118	48		0.8
2½	2.625	300	1620	0.06	3.66	5.28	1.89	⅜ x 2⅛	2.0
65	66.7	20	6.98	1.5	93	134	48		0.9
3	3.125	300	2290	0.06	4.21	6.06	1.89	½ x 3	2.8
80	79.4	20	9.90	1.5	107	154	48		1.3
4	4.125	300	4000	0.06	5.20	7.28	1.89	½ x 3	3.5
100	104.8	20	17.24	1.5	132	185	48		1.6
5	5.125	300	6180	0.06	6.26	8.66	1.89	⅝ x 3½	4.6
125	130.2	20	26.61	1.5	159	220	48		2.2
6	6.125	300	8830	0.06	7.24	9.76	1.89	⅝ x 3½	5.5
150	155.6	20	38.01	1.5	184	248	48		2.5

* Working pressure is for connection with roll-grooved Type K copper tubing.
Notes / Options: Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the Shurjoint Model 96 Continuity Clip will restore electrical continuity to the system. The continuity clip satisfies IEE Wiring Regulations.

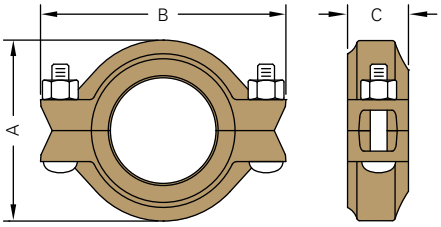
BS EN 1057

Nominal Size	Pipe O.D.	Pipe End Separation	Dimensions A	Dimensions B	Dimensions C	Bolt Size	Weight
mm	mm	mm	mm	mm	mm	mm	Kgs
50	54.0	1.5	81	118	48	M10 x 55	0.8
65	66.7	1.5	93	134	48	M10 x 55	0.9
80	76.1	1.5	104	136	48	M10 x 55	1.3
100	108.0	3.2	138	176	48	M12 x 75	1.6
125	133.0	3.2	165	220	48	M16 x 90	2.2
150	159.0	3.2	190	248	48	M16 x 90	2.5

Model

C306 Reducing Coupling for Copper Tubing (CTS)

The Model C306 Reducing Coupling allows direct reduction on a piping run and eliminates the need for a concentric reducer and couplings. The epoxy coated ductile iron coupling housings help eliminate galvanic local cell and stray current problems. The specially designed rubber gasket prevents the smaller pipe from telescoping into the larger pipe during vertical installation.



Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Pipe End Separation	Deflection		Dimensions			Bolt Size	Weight
					Deg. Per Coupling	Pipe	A	B	C		
in	in	PSI	Lbs	in	(°)	in / ft	in	in	in	in	Lbs
mm	mm	Bar	kN	mm		mm / m	mm	mm	mm		Kgs
2½ x 2	2.625 x 2.215	300	1622	0.06	1° – 22'	0.29	3.70	5.55	1.77	½ x 3	2.9
65 x 50	66.7 x 54.0	20	6.98	1.6		24.0	94	141	45		1.3
3 x 2	3.125 x 2.125	300	2300	0.06	1° – 09'	0.24	4.21	5.98	1.77	½ x 3	3.3
80 x 50	79.4 x 54.0	20	9.89	1.6		20.0	107	152	45		1.5
3 x 2½	3.125 x 2.625	300	2300	0.06	1° – 09'	0.24	4.21	5.98	1.77	½ x 3	3.0
80 x 65	79.4 x 66.7	20	9.89	1.6		20.0	107	152	45		1.4
4 x 2½	4.125 x 2.625	300	4007	0.06	0° – 53'	0.18	5.20	7.20	1.77	½ x 3	4.2
100 x 65	104.8 x 66.7	20	17.23	1.6		15.0	132	183	45		1.9
4 x 3	4.125 x 3.125	300	4007	0.06	0° – 53'	0.18	5.20	7.20	1.77	½ x 3	4.0
100 x 80	104.8 x 79.4	20	17.23	1.6		15.0	132	183	45		1.8
5 x 4	5.125 x 4.125	300	6186	0.06	0° – 42'	0.15	6.30	8.82	1.77	⅝ x 3½	5.5
125 x 100	130.2 x 104.8	20	26.60	1.6		12.0	160	224	45		2.5
6 x 4	6.125 x 4.125	300	8835	0.06	0° – 36'	0.13	7.28	9.88	1.77	⅝ x 3½	7.3
150 x 100	155.6 x 104.8	20	37.99	1.6		10.3	185	251	45		3.3

* Working pressure is for connection with roll-grooved Type K copper tubing.
Notes / Options: Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the Shurjoint Model 96 Continuity Clip will restore electrical continuity to the system. The continuity clip satisfies IEE Wiring Regulations.

Model

96 Continuity Clip

Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the **Shurjoint** continuity clip will restore electrical continuity to the system. The electrical continuity clip satisfies IEE Wiring Regulations. Material: Copper or Brass plate.

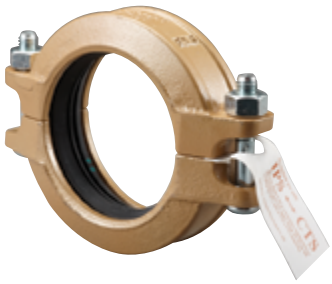
Note: The pipe surface where continuity clips come in contact must be conductive. If the surface is painted, the paint should be removed to expose bare metal.

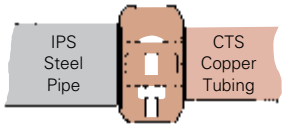
Model	Coupling Size	Box Q'ty/pcs
96-1	1" - 3"	125
96-2	4" - 6"	125
96-3	8" - 12"	100

Model

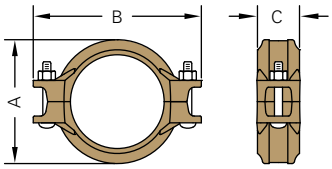
C307 Transition Coupling (IPS X CTS)

The Model C307 Transition Coupling provides for a direct connection and transition between grooved end IPS steel pipe, fittings or valves and grooved end CTS copper tubing. The rubber gasket isolates the fluid from coupling housings and the epoxy coated housings help eliminate galvanic local cell and stray current problems. The C307 is rated to 300 psi (20 Bar).





C307



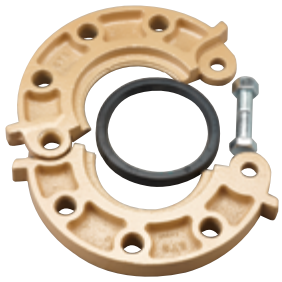
Nominal Size	Pipe O.D. IPS X CTS	Max. Working Pressure (CWP)*	Axial Displacement	Deflection	Dimensions A	Dimensions B	Dimensions C	Bolt Size	Weight
in	in	PSI	in	(°)	in	in	in	in	Lbs
mm	mm	Bar	mm		mm	mm	mm		Kgs
2	2.375 x 2.125	300	0 - 0.06	1° – 31'	3.31	5.00	1.81	½ x 2⅛	2.0
50	60.3 x 54.0	20	0 - 1.6		84	127	46		0.9
2½	2.875 x 2.625	300	0 - 0.06	1° – 15'	3.90	5.59	1.81	⅜ x 2⅛	2.2
65	73.0 x 66.7	20	0 - 1.6		99	142	46		1.0
3	3.500 x 3.125	300	0 - 0.06	1° – 02'	4.57	6.38	1.81	½ x 3	3.0
80	88.9 x 79.4	20	0 - 1.6		116	162	46		1.4
4	4.500 x 4.125	300	0 - 0.06	1° – 36'	5.71	6.69	1.85	½ x 3	4.2
100	114.3 x 104.8	20	0 - 1.6		145	170	47		1.9

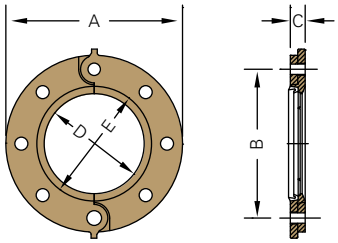
* Working pressure is for connection with roll-grooved Type K copper tubing.
Notes / Options: Couplings with rubber gaskets are likely to function as an insulator. Where electrical continuity is required, the Shurjoint Model 96 Continuity Clip will restore electrical continuity to the system. The continuity clip satisfies IEE Wiring Regulations.

Model

C341 Flange Adapter for Copper Tubing (CTS)

The **Shurjoint** Model C341 Flange Adapter allows for the direct connection of grooved-end copper tubing with ANSI Class 125/150 (steel) or ASME B16.24 (copper) Class 150 flanged components without the need for heat or solder. The pressure responsive gasket seals on the outside diameter of the copper tubing and isolates the flange segments from the internal fluid.





2"~12"(hinged)

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Dimensions E	Bolt No.	Bolt Size	Weight
in	in	PSI	in	in	in	in	in		in	Lbs
mm	mm	Bar	mm	mm	mm	mm	mm			Kgs
2	2.125	300	6.00	4.75	0.75	2.13	3.20	4	⅝ x 3	4.6
50	54.0	20	152	121	19	54	81			2.1
2½	2.625	300	7.00	5.50	0.87	2.63	3.91	4	⅝ x 3	6.6
65	66.7	20	178	140	22	67	99			3.0
3	3.125	300	7.50	6.00	0.94	3.13	4.53	4	⅝ x 3	7.7
80	79.4	20	190	152	24	80	115			3.5
4	4.125	300	9.00	7.50	0.94	4.13	5.53	4	⅝ x 3	9.5
100	104.8	20	229	191	24	105	140			4.3
5	5.125	300	10.00	8.50	0.94	5.13	6.71	8	¾ x 3½	12.8
125	130.2	20	254	216	24	130	170			5.8
6	6.125	300	11.00	9.50	1.00	6.13	7.79	8	¾ x 3½	13.6
150	155.6	20	279	241	25	156	198			6.2

* Working Pressure is for connection with roll-grooved Type K copper tubing
** Please note that 2", 2½", and 3" Model C341 Flanges cannot be used for making direct connections to Model SJ-C300 Butterfly Valves due to bolt pad interference with the valve.

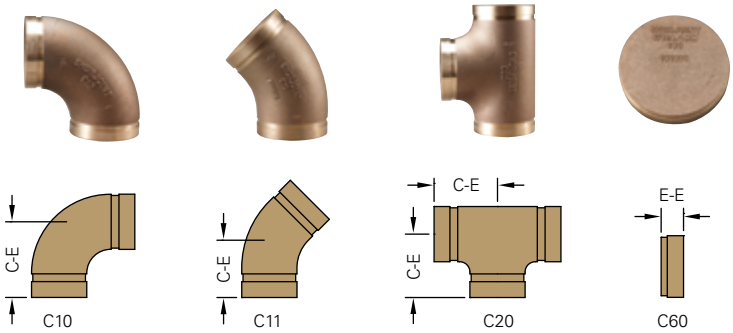
Grooved Fittings for Copper Tubing

Shurjoint Grooved-end fittings are produced from bronze castings. Bronze castings are produced from lead-free alloys C90500 and or C89836* Bismuth copper alloy per ASTM B584. Materials are in compliance with NSF/ANSI 61 for potable water service applications. **Shurjoint** fittings are designed for use with **Shurjoint** CTS couplings, components and ASTM B88 roll grooved copper tubing type K, L, M and ASTM B-306 DWV.

* Products marked with "C89836" designation are in compliance with NSF/ANSI 61 and NSF/ANSI 372.

Model

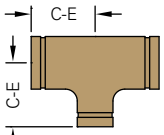
C10 90º Elbow
C11 45º Elbow
C20 Tee
C60 Cap



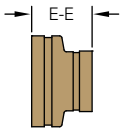
Nominal Size	Pipe O.D.	C10 90° Elbow		C11 45° Elbow		C20 Tee		C60 Cap	
		C-E	Weight	C-E	Weight	C-E	Weight	E-E	Weight
in	in	in	Lbs	in	Lbs	in	Lbs	in	Lbs
mm	mm	mm	Kgs	mm	Kgs	mm	Kgs	mm	Kgs
2	2.125	2.91	1.5	2.19	1.7	2.44	1.8	0.96	0.6
50	54.0	74	0.7	56	0.8	62	0.8	24	0.3
2½	2.625	3.31	2.0	2.31	2.1	3.20	2.9	0.96	0.9
65	66.7	84	0.9	59	1.0	81	1.3	24	0.4
3	3.125	3.81	2.6	2.59	3.2	3.50	3.7	0.96	1.2
80	79.4	97	1.2	66	1.4	89	1.7	24	0.6
4	4.125	4.75	5.5	3.19	5.5	4.25	7.3	0.96	2.1
100	104.8	121	2.5	81	2.5	108	3.3	24	1.0
5	5.125	5.94	11.5	3.25	7.9	5.94	17.2	0.96	3.5
125	130.2	151	5.2	83	3.6	151	7.8	24	1.6
6	6.125	6.94	16.5	3.63	10.2	6.94	26.2	0.96	4.4
150	155.6	176	7.5	92	4.6	176	11.9	24	2.0

Model

C21 Reducing Tee C50 Concentric Reducer



C21

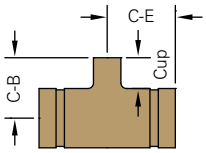


C50

Nominal Size	Pipe O.D.	C21 Reducing Tee		C50 Concentric Reducer	
		C-E	Weight	E-E	Weight
in	in	in	Lbs	in	Lbs
mm	mm	mm	Kgs	mm	Kgs
2½ x 2	2.625 x 2.125	3.20	3.6	2.50	1.2
65 x 50	66.7 x 54.0	81	1.6	64	0.6
3 x 2	3.125 x 2.125	3.50	4.8	2.50	1.5
80 x 50	79.4 x 54.0	89	2.2	64	0.7
3 x 2½	3.125 x 2.625	3.50	4.8	2.50	1.5
80 x 65	79.4 x 66.7	89	2.2	64	0.7
4 x 2	4.125 x 2.125	4.25	7.7	3.00	2.5
100 x 50	104.8 x 54.0	108	3.5	76	1.2
4 x 2½	4.125 x 2.625	4.25	7.9	3.00	2.6
100 x 65	104.8 x 66.7	108	3.6	76	1.2
4 x 3	4.125 x 3.125	4.25	8.1	3.00	2.5
100 x 80	104.8 x 79.4	108	3.7	76	1.1
5 x 3	5.125 x 3.125	5.94	16.7	3.50	4.4
125 x 80	130.2 x 79.4	151	7.6	89	2.0
5 x 4	5.125 x 4.125	5.94	17.2	3.50	4.4
125 x 100	130.2 x 104.8	151	7.8	89	2.0
6 x 2½	6.125 x 2.625	6.94	22.9	4.00	6.0
150 x 65	155.6 x 66.7	176	10.4	102	2.7
6 x 3	6.125 x 3.125	6.94	23.5	4.00	6.0
150 x 80	155.6 x 79.4	176	10.7	102	2.7
6 x 4	6.125 x 4.125	6.94	23.5	4.00	5.8
150 x 100	155.6 x 104.8	176	10.7	102	2.7
6 x 5	6.125 x 5.125	6.94	26.2	4.00	5.9
150 x 125	155.6 x 130.2	176	11.9	102	2.7

Model

C26 Reducing Tee (GR X GR X CUP)

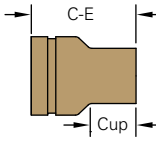


C26

Nominal Size	C26 Red. Tee (Gr X Gr X Cup)			Weight
	C-E	C-B	Cup	
in	in	in	in	Lbs
mm	mm	mm	mm	Kgs
2 x 2 x ¾	2.20	2.00	0.75	1.6
50 x 50 x 20	56	51	19	0.7
2 x 2 x 1	2.33	2.16	0.91	1.6
50 x 50 x 25	59	55	23	0.7
2 x 2 x 1¼	2.48	2.22	0.97	1.7
50 x 50 x 32	63	56	25	0.8
2 x 2 x 1½	2.60	2.34	1.09	2.0
50 x 50 x 40	66	59	28	0.9
2½ x 2½ x ¾	2.28	2.25	0.75	1.9
65 x 65 x 20	58	57	19	0.9
2½ x 2½ x 1	2.40	2.41	0.91	2.2
65 x 65 x 25	61	61	23	1.0
2½ x 2½ x 1¼	2.52	2.47	0.97	2.3
65 x 65 x 32	64	63	25	1.1
2½ x 2½ x 1½	2.70	2.59	1.09	2.6
65 x 65 x 40	69	66	28	1.2
2½ x 2½ x 2	2.95	2.84	1.34	3.0
65 x 65 x 50	75	72	34	1.4
3 x 3 x ¾	2.44	2.50	0.75	2.9
80 x 80 x 20	62	64	19	1.3
3 x 3 x 1	2.54	2.60	0.91	2.9
80 x 80 x 25	65	66	23	1.3
3 x 3 x 1¼	2.63	2.72	0.97	3.1
80 x 80 x 32	67	69	25	1.4
3 x 3 x 1½	2.85	2.84	1.09	3.3
80 x 80 x 40	72	72	28	1.5
3 x 3 x 2	3.11	3.09	1.34	3.7
80 x 80 x 50	79	78	34	1.7
4 x 4 x ¾	3.00	3.00	0.75	4.8
100 x 100 x 20	76	76	19	2.2
4 x 4 x 1	3.10	3.16	0.91	5.1
100 x 100 x 25	79	80	23	2.3
4 x 4 x 1¼	3.25	3.22	0.97	5.5
100 x 100 x 32	83	82	25	2.5
4 x 4 x 1½	3.35	3.34	1.09	5.6
100 x 100 x 40	85	85	28	2.5
4 x 4 x 2	3.62	3.59	1.34	5.9
100 x 100 x 50	92	91	34	2.7

Model

C52 Concentric Reducer (GR X CUP)



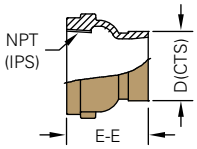
C52

Nominal Size	C52 Conc. Reducer (Gr X Cup)		
	E-E	Cup	Weight
in	in	in	Lbs
mm	mm	mm	Kgs
2 x ¾	—	—	—
50 x 20	—	—	—
2 x 1	2.70	0.91	0.7
50 x 25	69	23	0.3
2 x 1¼	3.00	0.97	0.8
50 x 32	76	25	0.4
2 x 1½	2.94	1.09	0.8
50 x 40	75	28	0.4
2½ x ¾	—	—	—
65 x 20	—	—	—
2½ x 1	3.25	0.91	1.2
65 x 25	83	23	0.5
2½ x 1¼	3.52	0.97	1.2
65 x 32	89	25	0.5
2½ x 1½	3.45	1.09	1.2
65 x 40	88	28	0.5
2½ x 2	3.30	1.34	1.2
65 x 50	84	34	0.5
3 x ¾	—	—	—
80 x 20	—	—	—
3 x 1	—	—	—
80 x 25	—	—	—
3 x 1¼	—	—	—
80 x 32	—	—	—
3 x 1½	3.68	1.09	1.7
80 x 40	93	28	0.8
3 x 2	4.10	1.34	1.9
80 x 50	104	34	0.9
4 x ¾	—	—	—
100 x 20	—	—	—
4 x 1	—	—	—
100 x 25	—	—	—
4 x 1¼	—	—	—
100 x 32	—	—	—
4 x 1½	—	—	—
100 x 40	—	—	—
4 x 2	4.75	1.34	3.2
100 x 50	121	34	1.4

Model

C55 Transition Adapter (IPS X CTS)

The **Shurjoint** Model C55 Transition Adapter provides a direct transition between male threaded-end steel pipe (IPS) and grooved-end copper tubing. The C55 is UL classified to NSF/ANSI 61 and NSF/ANSI 372 for use in potable water systems.



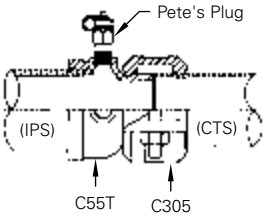
C55

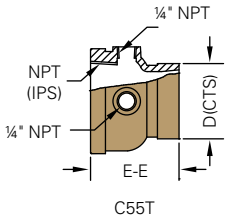
Nominal Size IPS (NPT) X CTS (GRV)	Actual Pipe O.D.		E-E	Weight
	Steel Pipe (IPS) O.D.	Copper Tubing (CTS) D		
in	in	in	in	Lbs
mm	mm	mm	mm	Kgs
1½ x 2	1.900	2.125	2.50	1.3
40 x 50	48.3	54.0	63	0.6
2 x 2	2.375	2.125	2.50	1.4
50 x 50	60.3	54.0	63	0.7
2½ x 2½	2.875	2.625	2.75	2.4
65 x 65	73.0	66.7	70	1.1
3 x 3	3.500	3.125	3.00	3.3
80 x 80	88.9	79.4	76	1.5

Model

C55T Transition Adapter (IPS/FT X CTS/GR) with ¼" Taps

Allows for the installation of gauges or Pete's Plugs for measuring temperature and or pressure.





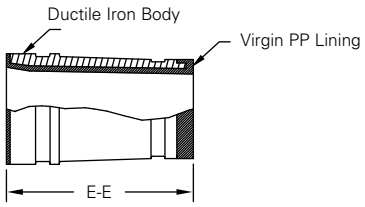
Nominal Size IPS (NPT) X CTS (GRV)	Steel Pipe (IPS) O.D.	Copper Tubing (CTS)		Weight
		D	E-E	
in	in	in	in	Lbs
mm	mm	mm	mm	Kgs
1½ x 2	1.900	2.125	2.50	1.1
40 x 50	48.3	54.0	63	0.5
2 x 2	2.375	2.125	2.50	1.3
50 x 50	60.3	54.0	63	0.6
2½ x 2½	2.875	2.625	2.75	2.0
65 x 65	73.0	66.7	70	0.9
3 x 3*	3.500	3.125	3.00	3.3
80 x 80	88.9	79.4	76	1.5

*Non-standard/stock items may require longer lead time.

Model

DE30-GG Dielectric Transition Fitting (IPS X CTS)

The Model DE30-GG Dielectric Transition Fitting provides a direct transition between grooved-end steel pipe (IPS) and grooved-end copper tubing (CTS). The internal PP lining effectively eliminates galvanic local cell and stray current problems.

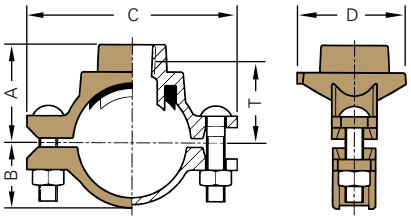


Nominal Size	Actual Pipe O.D.		E-E	Weight
	Steel Pipe	Copper Tubing		
in	in	in	in	Lbs
mm	mm	mm	mm	Kgs
2	2.375	2.125	4.00	1.3
50	60.3	54.0	102	0.6
2½	2.875	2.625	4.00	1.9
65	73.0	66.7	102	0.9
3	3.500	3.125	4.00	2.9
80	88.9	79.4	102	1.3
4	4.500	4.125	4.00	3.3
100	114.3	104.8	102	1.5
5	5.563	5.125	4.00	5.2
125	141.3	130.2	102	2.4
6	6.625	6.125	4.00	6.9
150	168.3	155.6	102	3.1
8	8.625	8.125	4.00	9.4
200	219.1	206.4	102	4.3

Model

C723 Bronze Mechanical Tee for Copper Tubing (CTS)

The **Shurjoint** Model C723 provides a fast, easy and reliable branch connection from copper tubing (CTS). The fitting consists of a bronze upper housing, ductile iron lower housing, o-ring and carbon steel track bolts and nuts. The fitting is available with a female threaded outlet, NPT or BSPT.



Nominal CTS X NPT	Max. Working Pressure (CWP)*	Hole Dia. +0.063, -0 / +1.6, -0	Dimensions					Bolt Size	Weight
			A	B	C	D	T**		
in	PSI	in	in	in	in	in	in	in	Lbs
mm	Bar	mm	mm	mm	mm	mm	mm		Kgs
2½ x ½	200	1.18	2.56	1.61	4.65	1.89	2.09	⅜ x 2⅛	1.5
65 x 15	14	30	65	41	118	48	53		0.7
2½ x ¾	200	1.18	2.56	1.61	4.65	2.01	2.05	⅜ x 2⅛	1.5
65 x 20	14	30	65	41	118	51	52		0.7
2½x 1	200	1.18	2.56	1.61	4.65	1.89	1.93	⅜ x 2⅛	1.5
65 x 25	14	30	65	41	118	48	49		0.7
2½ x 1¼	200	1.77	2.68	1.61	4.65	2.64	2.15	⅜ x 2⅛	2.2
65 x 32	14	45	68	41	118	67	55		1.0
3 x ¾	200	1.18	2.80	1.89	5.16	2.01	2.28	⅜ x 2⅛	1.5
80 x 20	14	30	71	48	131	51	58		0.7
3 x 1	200	1.18	2.80	1.89	5.16	1.89	2.20	⅜ x 2⅛	1.8
80 x 25	14	30	71	48	131	48	56		0.8
3 x 1¼	200	1.77	2.95	1.89	5.16	2.64	2.59	⅜ x 2⅛	2.2
80 x 32	14	45	75	48	131	67	66		1.0
4 x ¾	200	1.18	3.35	2.36	6.22	2.01	2.80	⅜ x 2⅛	1.8
100 x 20	14	30	85	60	158	51	71		0.8
4 x 1	200	1.18	3.35	2.36	6.22	1.89	3.11	⅜ x 2⅛	1.8
100 x 25	14	30	85	60	158	48	79		0.8
4 x 1¼	200	1.77	3.35	2.36	6.22	2.64	3.11	⅜ x 2⅛	1.9
100 x 32	14	45	85	60	158	67	79		0.9

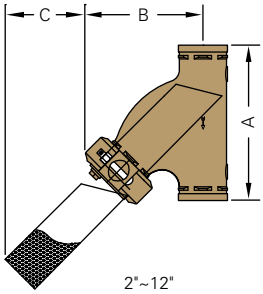
* Working pressure is for connection with Type K copper tubing.
**T: Center of run to engaged pipe end (approx.).

Use a torque wrench and tighten the nuts to an approximate torque value of 5 Lbs-Ft ~ 9 Lbs-Ft (20 Nm ~ 30 Nm). Excess torque may cause joint failure.

Model

C726 Y-Strainer for Copper Tubing (CTS)

The **Shurjoint** Model C726 Y-Strainer can be installed quickly and easily with two mechanical couplings and the straight flow through design provides for lower pressure drop.



Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Dimensions			Drain Plug Size	Weight
			A	B	C		
in	in	PSI	in	in	in	in	Lbs
mm	mm	Bar	mm	mm	mm	mm	Kgs
2	2.125	300	8.75	6.38	3.18	½	8.8
50	54.0	20	222	162	81	15	4.0
2½	2.625	300	9.75	6.97	4.72	½	11.3
65	66.7	20	248	177	120	15	5.1
3	3.125	300	10.63	7.71	4.50	½	15.0
80	79.4	20	270	196	114	15	6.8
4	4.125	300	13.00	9.60	6.00	1	27.5
100	104.8	20	330	244	152	25	12.5
6	6.125	300	17.00	12.91	8.00	1	59.3
150	155.6	20	432	328	203	25	26.9

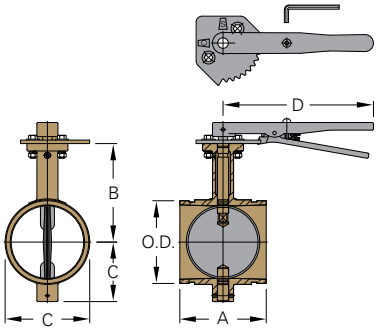
* Working pressure is for connection with roll-grooved Type K copper tubing.

SHURJOINT®

Model

SJ-C300 Butterfly Valve for Copper Tubing (CTS)

The **Shurjoint** Model SJ-C300 is a lever handle bronze body butterfly valve designed for use with grooved copper tubing (CTS), fittings and couplings. The lead-free bronze body conforms to ASTM B584 copper alloy C90500 (88-10-0-2) or C89836 Bismuth copper alloy which are UL classified in accordance with NSF/ANSI 61 and NSF/ANSI 372 for potable water use.



Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Dimensions				Weight
			A	B	C	D	
in	in	PSI	in	in	in	in	Lbs
mm	mm	Bar	mm	mm	mm	mm	Kgs
2	2.125	300	3.19	5.31	2.45	10.0	5.9
50	54	20	81	135	57	254	2.7
2½	2.625	300	3.78	5.87	2.87	10.0	7.3
65	66.7	20	96	149	73	254	3.3
3	3.125	300	3.78	6.42	3.27	10.0	7.7
80	79.4	20	96	163	83	254	3.5
4	4.125	300	4.65	8.19	4.29	10.0	11.0
100	104.8	20	118	208	109	254	5.0
5	5.125	300	5.28	9.80	5.36	10.0	16.9
125	130.2	20	134	249	136	254	7.7
6	6.125	300	5.28	10.79	6.42	10.0	16.9
150	155.6	20	134	274	163	254	7.7

*Working pressure is for connection with roll-grooved Type K copper tubing.
** Please note that 2", 2½", and 3" Model C341 Flanges cannot be used for making direct connections to Model SJ-C300 Butterfly Valves due to bolt pad interference with the valve.