

C341 FLANGE FOR COPPER TUBING



For pressure rating, listing, and approval information, refer to data sheet or visit SHURJOINT website www.shurjoint.com for details or contact your SHURJOINT representatives.

The Model C341 Flange 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 lead. Available in sizes 2" – 6" (50 mm – 150 mm) the Model C341 is supplied hinged as a single assembly with a set of hex-head bolt and nut and a pressure responsive gasket. The pressure responsive gasket seals on the outside diameter of the copper tubing and isolates the flange segments from the internal fluid. Pressure rating: up to 300 psi (20 bar) depending on the size and type of copper tubing being used.



Roll Set

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

NOTES

- **Sealing Surface (D & E):**
The sealing surface of the mating flange, the area shown in the illustration between D & E shall be free from gouges, undulations or deformities of any type to ensure optimum sealing.
- **Gasket Insertion:**
Make sure that the bottom of the gasket (the mating side) is positioned and seated against the bottom of the flange recess.
- **Sandwich plates:**
The Model C341 flange requires a hard flat face for effective gasket sealing. A sandwich plate is required and should always be used when the mating surface is not adequate, as with the serrated faces of some valves or the rubber faced or rubber lined flange of a wafer valve.

- **Bolt tightening sequence:**

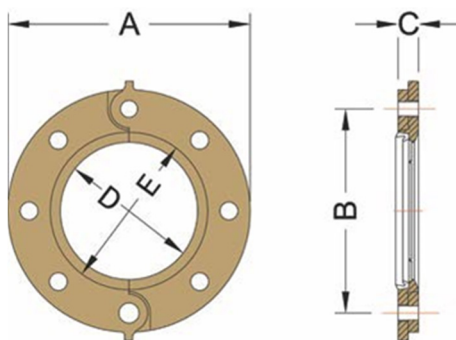
Like a regular flange joint, it is important to make flange faces contact parallel. Tighten nuts alternately in the sequence of diagonally opposite pairs as shown below until the flange faces meet and make a metal-to-metal contact. When using two model 7041 flange adapters to mate pipe, or wafer / lug valves, the hinge point locations must be staggered 90° to each other, and flange adapter housing segments must remain parallel.

- **Caution:**

The Model C341 flanges shall not be used as anchor points for tie-rods across non-restrained joints. Do not use Model C341 flanges within 90 degrees of one another on a standard fitting when the outside dimensions cause interference.

material specification

- **Housing:**
Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448MPa).
- **Coating:**
Epoxy coated in copper color.
- **Rubber Gasket:**
Grade E-pw EPDM (Color code: Double Green stripe) certified under NSF/ANSI 61 and NSF/ANSI 372 for potable water service to +180°F (+82°C). Also good for services for water with acid, water with chlorine or chloramines, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals.
Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C).
- **Standard Hex Bolts & Nuts:**
Plated hex bolt conforming to ASTM A307 with hex nut (1 set of nut and bolt is supplied). Bolts and nuts for the flange connection to be supplied by installer.



Model C341 Flange for Copper Tubing

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Dimensions			Sealing Surface		Bolts		Weight
			A	B	C	D	E	No.	Size	
in	in	PSI	in	in	in	in	in			lbs
mm	mm	Bar	mm	mm	mm	mm	mm		in	kg
2	2.125	300	6.00	4.75	0.88	2.13	3.20	4	5/8 x 3	4.6
50	54.0	20	152	121	22	54	81			2.1
2½	2.625	300	7.00	5.50	0.88	2.63	3.91	4	5/8 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	5/8 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	5/8 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. Pressure ratings for use on Type L, Type M, and Type DWV copper tubing can be found on Shurjoint publication [B-43](#).

** 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.

Performance Data

Model C341 Flange for Copper Tubing

Nominal Size	Pipe O.D.	Type "K" ASTM B-88			Type "L" ASTM B-88			Type "M" ASTM B-88			DWV ASTM B-88		
		Wall Thick	Max. Joint Working Pressure	Max. Permis. End Load	Wall Thick	Max. Joint Working Pressure	Max. Permis. End Load	Wall Thick	Max. Joint Working Pressure	Max. Permis. End Load	Wall Thick	Max. Joint Working Pressure	Max. Permis. End Load
in	in	in	PSI	lbs	in	PSI	lbs	in	PSI	lbs	in	PSI	lbs
mm	mm	mm	Bar	kN	mm	Bar	kN	mm	Bar	kN	mm	Bar	kN
2	2.125	0.083	300	1,065	0.070	300	1,065	0.058	250	890	--	--	--
50	54.0	2.1	20	4.7	1.8	20	4.7	1.5	17	3.9	--	--	--
2½	2.625	0.095	300	1,625	0.080	300	1,625	0.065	250	1,350	--	--	--
65	66.7	2.4	20	7.2	2.0	20	7.23	1.7	17	6.0	--	--	--
3	3.125	0.109	300	2,300	0.090	300	2,300	0.072	250	1,415	0.045	100	765
80	79.4	2.8	20	10.2	2.3	20	10.2	1.8	17	6.3	1.1	7	3.4
4	4.125	0.134	300	4,005	0.110	300	4,005	0.095	250	3,340	0.058	100	1,335
100	104.8	3.4	20	17.8	2.8	20	17.8	2.4	17	14.9	1.5	7	5.9
5	5.125	0.160	300	6,190	0.125	300	6,190	0.109	200	4,125	0.072	100	2,060
125	130.2	4.1	20	27.6	3.2	20	27.6	2.8	14	18.4	1.8	7	9.2
6	6.125	0.192	300	8,840	0.140	300	8,840	0.122	200	5,890	0.083	100	2,945
150	155.6	4.9	20	3.93	3.6	20	3.93	3.2	14	26.2	2.1	7	1.31

General note

- Maximum Working Pressure (CWP) listed is the maximum cold water pressure for general piping services tested to ASTM F1476 and or AWWA C606 methods. Figures listed are based on roll- or cut-grooved standard wall carbon steel pipe. For other pipe schedules or pipe materials, contact Shurjoint for additional information.
- Max. End Load is calculated based on the maximum working pressure (CWP).
- Listed and or Approved Pressures are pressure ratings for fire protection systems, tested and approved by various approval bodies. Please always refer to the latest approval data posted on the Shurjoint website.
- Field Joint Test: For one time only, the system may be tested hydrostatically at 1½ times the maximum working pressure listed (AWWA C606 5.2.3).
- Warning: Piping systems must always be depressurized and drained before attempting disassembly and or removal of any components.
- The 10 Year Limited Warranty applies to manufacturing defects only and does not cover severe service/temperature applications or wear parts.
- Shurjoint reserves the right to change specifications, designs and or standard without notice and without incurring any obligations.

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