

MODEL 7043 FLANGE ADAPTER - ANSI CLASS 300

The Model 7043 flange adapter allows for a direct connection with ANSI Class 300 flanges. The specially designed gasket enables the transition from a grooved system to a flanged system or component with this single flange. 2" through 8" Model 7043 flange adapters are supplied hinged as a single assembly, while larger sizes are supplied with separate segments. The Model 7043 flange adapters are comprised of two identical ductile iron segments complete with an EPDM gasket and two pairs of bolts and nuts. The flange segments are painted black.

The Model 7043 flange adapter has been designed with small projections on the outside face of the flange for mating with 1/16" (1.6 mm) raised face flanges. For mating with flat-face flanges these projections must be removed, this can be accomplished with a grinder or other tool.



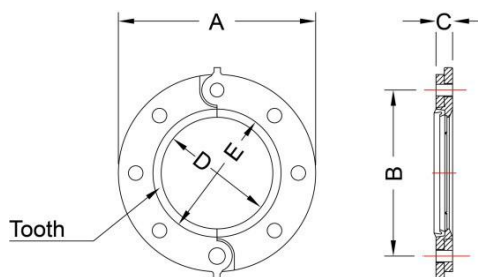
Always use factory-supplied bolts and nuts to assemble flange segments. The use of other bolts may cause joint failure. If the factory supplied bolts cannot be used for the component that is being connected consult Shurjoint technical services for further guidance.



Always fasten the bolts to the required torque. Please refer to page 3.



For Fire Protection pressure rating, listing, and approval information, refer to Data Sheet B-42 or visit **SHURJOINT** website, www.shurjoint.com for details or contact your **SHURJOINT** Representative.



Full warranty terms can be found on www.shurjoint.com

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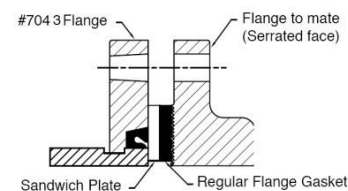
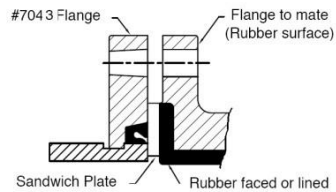
Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Dimensions			Sealing Surface		Bolt No.	Bolt Size	Weight
				A	B	C	D	E			
in	in	PSI	Lbs	in	in	in	in	in		in	Lbs
mm	mm	Bar	kN	mm	mm	mm	mm	mm			Kgs
2	2.375	750	3320	6.50	5.00	0.94	2.38	3.07	8	3/8	5.3
50	60.3	52	14.84	165	127	24	60	78	8	3/8	2.4
2½	2.875	750	4860	7.50	5.88	1.06	2.88	3.54	8	3/8	7.9
65	73.0	52	21.75	191	149	27	73	90	8	3/8	3.6
3	3.500	750	7210	8.25	6.63	1.19	3.50	4.17	8	3/8	10.0
80	88.9	52	32.26	210	168	30	89	106	8	3/8	4.6
4	4.500	750	11920	10.00	7.95	1.31	4.50	5.20	8	3/8	17.3
100	114.3	52	53.33	254	202	33	114	132	8	3/8	7.8
5	5.563	750	18220	11.00	9.25	1.44	5.56	5.55	8	3/8	21.3
125	141.3	52	81.50	279	235	37	141	141	8	3/8	9.7
6	6.625	750	25840	12.50	10.63	1.50	6.63	7.32	12	3/8	26.9
150	168.3	52	115.62	318	270	38	168	186	12	3/8	12.2
8	8.625	750	43790	15.00	13.00	1.61	8.63	9.29	12	7/8	36.2
200	219.1	52	195.96	381	330	41	219	236	12	7/8	16.4
10	10.750	750	68030	17.68	15.25	1.89	10.75	11.61	16	1	56.9
250	273.0	52	304.23	449	387	48	273	295	16	1	25.8
12	12.750	750	95700	20.50	17.75	1.93	12.75	13.62	16	1½	77.7
300	323.9	52	428.25	521	451	49	324	346	16	1½	35.2

* Working Pressure is based on roll grooved standard wall carbon steel pipe.



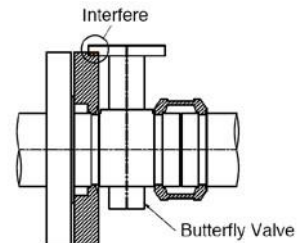
Important Notes:

1. The Model 7043 flange adapter requires a hard flat face for effective sealing. Sealing surface D is the maximum inside face requirement, sealing surface E is the minimum outside face requirement. If the mating flange face is outside these dimensions, a flange gasket and model 49 sandwich plate (Model #49, see cut sheet #V-03) must be used. With the serrated faces of some valves or rubber-faced wafer valves, the mating surface might also be inadequate and a sandwich plate must be used.

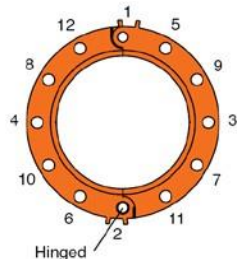
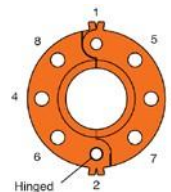


2. The Model 7043 flange adapter has small triangular teeth inside the key shoulder to prevent the pipe from rotating. These teeth should be removed when being connected to schedule 5 pipe, plastic pipe or components or surfaces that could be damaged by these teeth.
3. The Model 7043 flange adapter shall not be used as anchor points for tie-rods across non-restrained joints.

4. When assembling a Model 7043 flange adapter against a butterfly valve or ball valve, make sure that the outside diameter of the flange adapters do not interfere with the valve actuator or the mounting pad of the actuator.



5. 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 7043 flange adapters to mate pipe, or wafer / lug valves, the hinge point locations must be staggered 90° to each other, a model 49 sandwich plate must be used where appropriate, and flange adapter segment housings must remain parallel during nut tightening sequence



Performance Data

The following tables show the maximum working pressures (CWP) of **Shurjoint** Model 7043 Flange Adapter ANSI Class 300 used on both carbon steel and stainless steel pipes. **Shurjoint** ductile iron couplings can be used in conjunction with stainless steel pipe in non-corrosive environment as the flow media does not come in direct contact with the coupling housings but rather only the gasket.

Model 7043 on Carbon Steel Pipe					
Nom. Size in / mm	Cut-Grooved		Roll-Grooved		
	XS PSI / Bar	STD PSI / Bar	STD PSI / Bar	Sch. 10 PSI / Bar	Sch. 7 PSI / Bar
2 50	750 52	750 52	750 52	500 35	NR
2½ 65	750 52	750 52	750 52	500 35	NR
3 80	750 52	750 52	750 52	500 35	NR
4 100	750 52	750 52	750 52	500 35	NR
5 125	750 52	750 52	750 52	450 31	NR
6 150	750 52	750 52	750 52	450 31	NR
8 200	750 52	750 52	750 52	300 20	NR
10 250	750 52	750 52	750 52	300 20	NR
12 300	750 52	750 52	750 52	250 17	NR

Note: Hydrostatic shell test: 1125 psi (77 Bar) per ANSI B16.5

Model 7043 on Stainless Steel Pipe					
Nom. Size in / mm	Cut-Grooved		Roll-Grooved		
	Sch. 80S PSI / Bar	Sch. 40S PSI / Bar	Sch. 40S PSI / Bar	Sch. 10S PSI / Bar	Sch. 5S PSI / Bar
2 50	400 28	400 28	400 28	NR	NR
2½ 65	400 28	400 28	400 28	NR	NR
3 80	400 28	400 28	400 28	NR	NR
4 100	300 20	300 20	300 20	NR	NR
5 125	300 20	300 20	250 17	NR	NR
6 150	300 20	300 20	200 14	NR	NR
8 200	250 17	250 17	150 10	NR	NR
10 250	250 17	250 17	150 10	NR	NR
12 300	250 17	250 17	150 10	NR	NR

Required Bolt Torque

The table below provides the standard torque values for proper assembly of **Shurjoint** flange adapters. Use a torque wrench so that all the nuts are tightened equally with a same torque value. **Shurjoint** flange adapters are sealed with elastic (rubber) gaskets, which require much lower torques than those that utilize metallic gaskets.

Model 7043 Flange Adapter - ANSI Class 300				
Nom. Size in	Bolt		Required Torque	
	No	Size (in)	Lbs-Ft	Nm
2	8	$\frac{5}{8}$	110 ~ 140	149 ~ 190
2½	8	$\frac{3}{4}$	220 ~ 250	298 ~ 339
3	8	$\frac{3}{4}$	220 ~ 250	298 ~ 339
4	8	$\frac{3}{4}$	220 ~ 250	298 ~ 339
5	8	$\frac{3}{4}$	220 ~ 250	298 ~ 339
6	12	$\frac{3}{4}$	220 ~ 250	298 ~ 339
8	12	$\frac{7}{8}$	320 ~ 400	434 ~ 542
10	16	1	360 ~ 520	488 ~ 705
12	16	1½	450 ~ 725	610 ~ 982

MODEL 7043 MATERIAL SPECIFICATIONS

• Housing:

Ductile Iron to ASTM A536, Gr. 65-45-12 and or ASTM A395, Gr. 65-45-15, min. tensile strength 65,000 psi (448 MPa).

• Surface Finish:

Standard painted finishes in black painted.
☐ Hot dip zinc galvanized (Option).

☐ Epoxy coatings in RAL3000 red or other colors (Option)

• Rubber Gasket:

Grade E-pw EPDM (Color code: Double Green stripe) approved 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.

Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.

Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*.

*EPDM seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement.

☐ (Option) **Grade "E" EPDM** (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine, deionized water, seawater and waste water, dilute acids, oil-free air and many chemicals. **Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.**

Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C)*.

***EPDM seat for water services are not recommended for steam services unless valves or components are accessible for frequent replacement**

☐ (Option) **Grade "T" Nitrile** (Color code: Orange stripe) Recommended for petroleum products, air with oil vapors, vegetable and mineral oils within the specified temperature range. Also good for water services under +150°F (+66 °C). Temperature range: -20 °F to +180 °F (-29 °C to +82 °C).

Do not use for HOT WATER above +150 F (+66 C) or HOT DRY AIR above +140 °F (+60 °C)

☐ Other options: Grade "O" - Fluoroelastomer.
 Grade "L" - Silicone.

For additional details contact **Shurjoint**.

• Standard Hex Bolts & Nuts:

Plated hex bolts conforming to ASTM A307 with hex nuts. (2 nuts and bolts are supplied). Bolts and nuts for the flange connection to be supplied by installer.

General Notes:

- **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.