

7041 FLANGE ADAPTER - ANSI CLASS 125/150



The Model 7041 Flange Adapter allows for a direct connection with ANSI class 125/150 flanges. The specially designed gasket enables the transition from a grooved system to a flanged system or component with this single flange adapter. The two-segment design provides an easy and fast installation. 2" through 12" flange adapters are supplied hinged as a single assembly. 14" - 24" (Model 7041N) are supplied with two separate segments and a draw kit, and 14" - 24" (Model 7041) is supplied with four segments. All include an EPDM rubber gasket and plated hex bolts and nuts. Housing segments are supplied with our standard painted finishes, i.e. orange or RAL3000 red. Optional finishes such as hot dipped zinc galvanized and custom epoxy coatings are available.



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.

material specification

Housing:

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

Surface Finish:

Standard painted finishes in orange or RAL3000 red.

- Hot dip zinc galvanized (Option).
- Epoxy coatings in RAL3000 red or other colors (Option).



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

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.

- Other options: Grade "E" EPDM
 - Grade "T" Nitrile 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.

Draw Kit:

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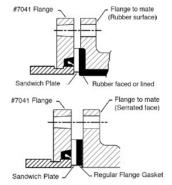
Screw Rod: Carbon Steel. Assembly holders: Ductile Iron. Bolts & Nuts: Commercial.



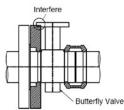


Important Notes

 The Model 7041 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.

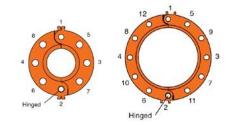


- The Model 7041 flange adapter has small triangular teeth inside the key shoulder to prevent the pipe from rotating. These teeth should be removed when being connected to schedule 5 pipe, plastic pipe or components or surfaces that could be damaged by these teeth.
- 3. The Models 7041 flange adapter shall not be used as anchor points for tie-rods across non-restrained joints.
- 4. When assembling a Model 7041 flange adapter against a butterfly valve or ball valve, make sure that the outside diameter of the flange adapters does 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 7041 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.



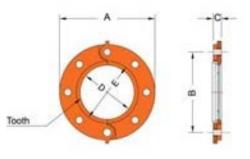
Required Bolt Torque

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 7041 Flange Adapter - ANSI Class 125 /									
Nominal Size	Bo	olt	Required Torque						
in	no size		lbs-ft	Nm					
2	4	5⁄8	110 ~ 140	149 ~ 190					
21/2	4	5⁄8	110 ~ 140	149 ~ 190					
3	4	5⁄8	110 ~ 140	149 ~ 190					
4	8	5⁄8	110 ~ 140	149 ~ 190					
5	8	3/4	220 ~ 250	298 ~ 339					
6	8	3/4	220 ~ 250	298 ~ 339					
8	8	3/4	220 ~ 250	298 ~ 339					
10	12	7⁄8	320 ~ 400	434 ~ 542					
12	12	7⁄8	320 ~ 400	434 ~ 542					
14	12	1	360 ~ 520	488 ~ 705					
16	16	1	360 ~ 520	488 ~ 705					
18	16	11/8	450 ~ 725	610 ~ 982					
20	20	11/8	450 ~ 725	610 ~ 982					
24	20	11/4	620 ~ 1000	841 ~ 1356					







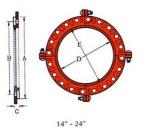
2*~12* (Hinged)

Model 7041 Flange Adapter - ANSI Class 125/150											
										Normal Pipe Size O.D.	D. Pressure
Load (CWP)	А	В	С	D	E	No.	Size	-			
in	in	psi	lbf	in	in	in	in	in		in	lbs
mm	mm	bar	kN	mm	mm	mm	mm	mm		in	kg
2	2.375	300	1330	6.00	4.75	0.87	2.38	3.07	- 4	5⁄8	4.0
50	60.3	20	5.71	152	121	22	60	78			1.8
21/2	2.875	300	1950	7.00	5.50	0.87	2.88	3.54	4	5/8	5.1
65	73.0	20	8.37	178	140	22	73	90			2.3
3	3.500	300	2880	7.52	6.00	0.94	3.50	4.17	4	5⁄8	6.2
80	88.9	20	12.41	191	152	24	89	106			2.8
4	4.500	300	4770	9.00	7.50	0.94	4.50	5.20	8	5/8	8.3
100	114.3	20	20.51	229	191	24	114	132			3.8
5	5.563	300	7290	10.00	8.50	1.00	5.56	6.26	0	3/4	10.3
125	141.3	20	31.35	254	216	25	141	159	8		4.7
6	6.625	300	10340	11.00	9.50	1.00	6.63	7.32	0	3/4	11.1
150	168.3	20	44.47	279	241	25	168	186	8		5.0
8	8.625	300	17520	13.50	11.75	1.14	8.63	9.29	8	3/4	17.2
200	219.1	20	75.37	343	298	29	219	236			7.8
10	10.750	300	27210	16.00	14.25	1.18	10.75	11.61	12	7⁄8	25.7
250	273.0	20	117.01	406	362	30	273	295			11.7
12	12.750	300	38280	19.02	17.00	1.25	12.75	13.62	12	7⁄8	37.6
300	323.9	20	164.71	483	432	32	324	346			17.1

* Working Pressure is based on roll grooved standard wall carbon steel pipe. Pressure ratings for use on cut grooved pipe, thin wall carbon steel pipe, and on stainless steel pipe can be found on Shurjoint publication <u>B-33</u>.







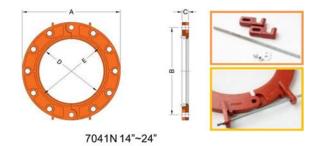
14" ~ 24": 4-segment design

Model 7041 Flange Adapter - ANSI Class 125 / 150 Max. Max. Bolt Dimensions Sealing Surface Normal Pipe Working End Weight Size O.D. Pressure Load А В С D Ε No. Size (CWP)* (CWP) in in psi lbf in in in in in lbs in kΝ mm mm bar mm mm mm mm mm kg 14 14.000 300 46160 21.00 18.75 1.42 14.00 15.08 61.7 12 1 36 350 355.6 20 198.5 533 356 383 28.0 476 16 16.000 300 60290 23.50 21.25 1.42 16.00 16.97 77.1 16 1 400 406.4 20 259.3 597 540 406 431 35.0 36 18 18.000 300 25.00 22.75 1.56 18.00 19.13 86.0 76300 11⁄8 16 450 457.2 20 328.2 635 578 40 457 486 39.0 20.00 20 20.000 300 94200 27.50 25.00 1.73 21.14 109.1 11⁄8 20 500 20 49.5 508.0 405.2 699 635 44 508 537 24 24.000 135650 32.00 29.50 25.00 157.6 300 1.89 24.00 20 11⁄4 600 609.6 20 583.4 749 48 610 635 71.5 813

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







14" ~ 24": Supplied with a draw kit.

Model 7041 Flange Adapter - ANSI Class 125 / 150											
Normal Pipe Size O.D.	e Working En D. Pressure Loa	Max. End	C	Dimensions		Sealing Surface		Bolt		Weight	
		Load (CWP)	А	В	С	D	E	No.	Size		
in	in	psi	lbf	in	in	in	in	in		in	lbs
mm	mm	bar	kN	mm	mm	mm	mm	mm			kg
14	14.000	300	46160	21.00	18.75	1.42	14.00	15.08	12	1	61.7
350	355.6	20	198.5	533	476	36	356	383			28.0
16	16.000	300	60290	23.50	21.25	1.42	16.00	16.97	16	1	77.1
400	406.4	20	259.3	597	540	36	406	431			35.0
18	18.000	300	76300	25.00	22.75	1.56	18.00	19.13	16	11/8	86.0
450	457.2	20	328.2	635	578	40	457	486			39.0
20	20.000	300	94200	27.50	25.00	1.73	20.00	21.14	20	11⁄8	109.1
500	508.0	20	405.2	699	635	44	508	537			49.5
24	24.000	300	135650	32.00	29.50	1.89	24.00	25.00	20	11⁄4	157.6
600	609.6	20	583.4	813	749	48	610	635			71.5

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

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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