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MODEL 7041 FLANGE ADAPTER - BS 10-E

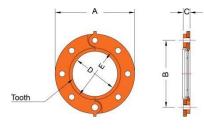
The Model 7041 Flange Adapter allows for a direct connection of BS 10 Table E flanges. The specially designed gasket enables the transition from a grooved system to a flanged system or component with this single flange adapter. The two-segment design provides an easy and fast installation. 2" through 12" (50 mm - 300 mm) flange adapters are supplied hinged as a single assembly, while 14" - 24" (Model 7041N) are supplied with two separate segments and a draw kit. All include an EPDM rubber gasket and plated track 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 fasten the bolts to the required torque. Please refer to page 3.

MODEL 7041 FLANGE ADAPTER - BS 10-E, 2" ~ 12"





can be found on www.shurjoint.com

2"~12" (Hinged)

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Model 7041 Flange Adapter BS 10-E											
Nominal		Max. Working Pressure	Max. End Load –	Dimensions			Sealing Surface		Bolts		_
Size	Pipe O.D.	(CWP)*	(CWP)	Α	В	C	D	E	No.	Size	Weight
mm	mm	Bar	kN	mm	mm	mm	mm	mm		in	Kgs
76.1mm	76.1	20	6.36	165	127	22	76	92	4	5/8	2.5
80	88.9	20	8.69	184	146	24	89	106	4	5/8	2.8
100	114.3	20	14.36	216	178	24	114	132	8	5/8	3.4
139.7mm	139.7	20	21.45	254	210	24	140	170	8	5/8	4.5
165.1mm	165.1	20	29.96	279	235	24	165	182	8	3⁄4	5.0
200	219.1	20	52.76	343	292	29	219	236	8	3⁄4	8.4
250	273.0	20	81.91	405	356	30	273	295	12	3⁄4	10.8
300	323.9	20	115.30	457	406	32	324	359	12	7/8	12.0

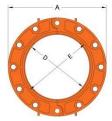
* Working Pressure is based on roll grooved standard wall carbon steel pipe.



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MODEL 7041N FLANGE ADAPTER - BS 10-E, 14" ~ 24"





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

Model 7041N Flange Adapter - BS 10-E

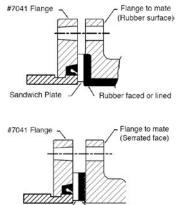
Nominal	Pipe	Max. Working Pressure	Max. End Load		Dimensions	i	Sealing	Surface	В	olts	
Size	0.D.	(CWP)*	(CWP)	Α	В	c	D	E	No.	Size	Weight
in	in	PSI	Lbs	in	in	in	in	in		in	Lbs
mm	mm	Bar	kN	mm	mm	mm	mm	mm			Kgs
14	14.000	300	46150	20.75	18.50	1.26	14.02	15.08	12	7/8	45.9
350	355.6	20	198.53	527	470	32	356	383			20.8
16	16.000	300	60280	22.76	20.51	1.26	15.98	16.97	12	7⁄8	46.3
400	406.4	20	259.30	578	521	32	406	431			21.0
18	18.000	300	76300	25.24	22.99	1.42	17.99	19.13	16	7/8	63.7
450	457.2	20	328.18	641	584	36	457	486			28.9
20	20.000	300	94200	27.76	25.24	1.50	20.00	21.14	16	7⁄8	84.0
500	508.0	20	405.16	705	641	38	508	537			38.1
24	24.000	300	135640	32.52	29.76	1.65	24.02	25.00			120.4
600	609.6	20	583.43	826	756	42	610	635	16	11⁄8	54.6

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



Important Notes:

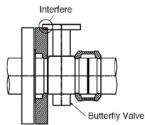
 The Model 7041 flange adapter requires a hard flat face for effective sealing. When the mating surface is not adequate as with the serrated faces of some valves or the rubber-faced wafer valves, a sandwich plate (Model #49, See cut sheet #V-03) must be used.





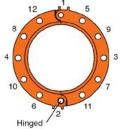
2. The Model 7041 flange adapter has small triangular teeth inside the key shoulder to prevent the pipe from rotating. The teeth should be ground off when mating to a rubber-lined flange.

- 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 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.







Performance Data

The following tables show the maximum working pressures (CWP) of *Shurjoint* Model 7041 Flange Adapter BS 10-E 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 7041 on Carbon Steel Pipe									
Nom. Size	Cut-G	rooved	Roll-Grooved						
in / mm	XS	STD	STD	Sch. 10	Sch. 7				
III / //////	PSI / Bar	PSI / Bar	PSI / Bar	PSI / Bar	PSI / Bar				
2	300	300	300	250	NR				
50	20	20	20	17					
21/2 65	300 20	300 20	300 20	250 17	NR				
3	300	300	300	250	NR				
80	20	20	20	17					
4	300	300	300	250	NR				
100	20	20	20	17					
5	300	300	300	250	NR				
125	20	20	20	17					
6	300	300	300	250	NR				
150	20	20	20	17					
8	300	300	300	200	NR				
200	20	20	20	14					
10	300	300	300	200	NR				
250	20	20	20	14					
12 300	300 20	300 20	300 20	200 14	NR				

N	Model 7041 on Stainless Steel Pipe									
Nom. Size	Cut-G	irooved	Roll-Grooved							
in / mm	Sch. 80S	Sch. 40S	Sch. 40S	Sch. 10S	Sch. 5S					
In 7 mm	PSI / Bar	PSI / Bar	PSI / Bar	PSI / Bar	PSI / Bar					
2	300	300	275	275	175					
50	20	20	19	19	12					
21/2	300	300	275	275	175					
65	20	20	19	19	12					
3	300	300	275	275	175					
80	20	20	19	19	12					
4	300	300	275	275	175					
100	20	20	19	19	12					
5	300	300	275	200	175					
125	20	20	19	14	12					
6	300	300	250	200	125					
150	20	20	17	14	9					
8	300	300	200	NR	NR					
200	20	20	14							
10	300	300	200	NR	NR					
250	20	20	14							
12 300	300 20	300 20	200 14	NR	NR					

Note: Hydrostatic shell test: 450 psi (30 Bar) per ANSI B16.5

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 – BS 10-E								
Nom. Size	B	Bolt	Required Torque					
in	No	Size (in)	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	1¼	620 ~ 1000	841 ~ 1356				



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

• Rubber Gasket:

Grade "E" EPDM (Color code: Green stripe) Good for cold & hotwater 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: - $30^{\circ}F(-34^{\circ}C)$ to +230°F (+110°C)*.

*EPDM gaskets for water services are not recommended for steam services unless couplings or components are accessible for frequent gasket 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 ASTMA307 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.



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

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).
- Field Joint Test: For one time only the system may be tested hydrostatically at 11/2 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.

Shurjoint product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact **Shurjoint** Technical Service. **Shurjoint** reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligations to make such changes and modifications on **Shurjoint** products previously subsequently sold.

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