

## 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 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.

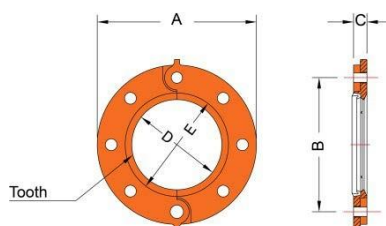


Always fasten the bolts to the required torque. Please refer to page 3.



Full warranty terms can be found on [www.shurjoint.com](http://www.shurjoint.com)

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

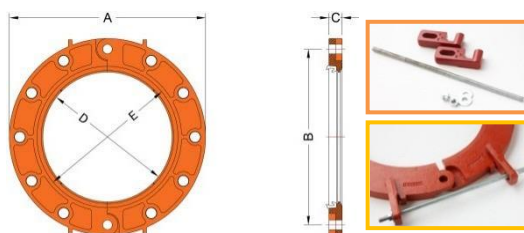


2"~12" (Hinged)

**Model 7041 Flange Adapter BS 10-E**

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Dimensions			Sealing Surface		Bolts		Weight
				A	B	C	D	E	No.	Size	
mm	mm	Bar	kN	mm	mm	mm	mm	mm		in	Kgs
76.1mm	76.1	20	6.36	165	127	22	76	92	4	¾	2.5
80	88.9	20	8.69	184	146	24	89	106	4	¾	2.8
100	114.3	20	14.36	216	178	24	114	132	8	¾	3.4
139.7mm	139.7	20	21.45	254	210	24	140	170	8	¾	4.5
165.1mm	165.1	20	29.96	279	235	24	165	182	8	¾	5.0
200	219.1	20	52.76	343	292	29	219	236	8	¾	8.4
250	273.0	20	81.91	405	356	30	273	295	12	¾	10.8
300	323.9	20	115.30	457	406	32	324	359	12	¾	12.0

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

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


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

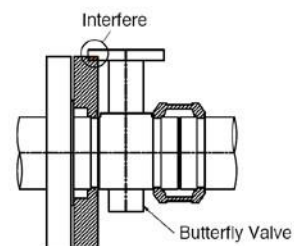
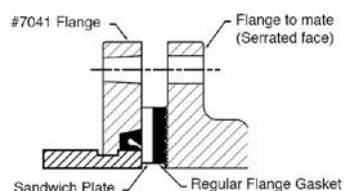
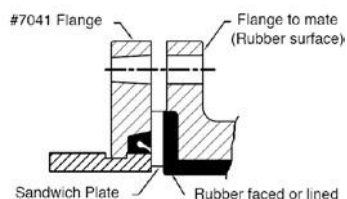
**Model 7041N Flange Adapter - BS 10-E**

Nominal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Dimensions			Sealing Surface		Bolts No.	Bolts Size	Weight
				A	B	C	D	E			
in mm	in mm	PSI Bar	Lbs kN	in mm	in mm	in mm	in mm	in mm		in	Lbs Kgs
14 350	14.000 355.6	300 20	46150 198.53	20.75 527	18.50 470	1.26 32	14.02 356	15.08 383	12	7/8	45.9 20.8
16 400	16.000 406.4	300 20	60280 259.30	22.76 578	20.51 521	1.26 32	15.98 406	16.97 431	12	7/8	46.3 21.0
18 450	18.000 457.2	300 20	76300 328.18	25.24 641	22.99 584	1.42 36	17.99 457	19.13 486	16	7/8	63.7 28.9
20 500	20.000 508.0	300 20	94200 405.16	27.76 705	25.24 641	1.50 38	20.00 508	21.14 537	16	7/8	84.0 38.1
24 600	24.000 609.6	300 20	135640 583.43	32.52 826	29.76 756	1.65 42	24.02 610	25.00 635	16	1 1/8	120.4 54.6

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

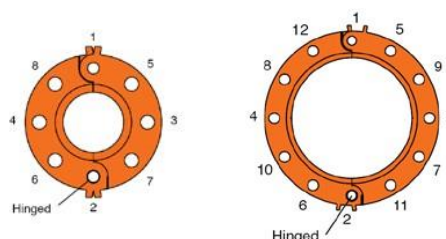

**Important Notes:**

- The Model 7041 flange adapter requires a hard flat face for effective sealing. 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 Models 7041 flange adapter shall not be used as anchor points for tie-rods across non-restrained joints.
- 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.



- 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.

- 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.



## 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.

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

Model 7041 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	300 20	300 20	300 20	250 17	250 17
2½ 65	300 20	300 20	300 20	250 17	250 17
3 80	300 20	300 20	300 20	250 17	250 17
4 100	300 20	300 20	300 20	250 17	250 17
5 125	300 20	300 20	300 20	250 17	200 14
6 150	300 20	300 20	300 20	250 17	200 14
8 200	300 20	300 20	300 20	200 14	NR
10 250	300 20	300 20	300 20	200 14	NR
12 300	300 20	300 20	300 20	200 14	NR

Model 7041 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	300 20	300 20	275 19	275 19	250 17
2½ 65	300 20	300 20	275 19	275 19	250 17
3 80	300 20	300 20	275 19	275 19	250 17
4 100	300 20	300 20	275 19	275 19	250 17
5 125	300 20	300 20	275 19	200 14	200 14
6 150	300 20	300 20	250 17	200 14	200 14
8 200	300 20	300 20	200 14	75 5	NR
10 250	300 20	300 20	200 14	75 5	NR
12 300	300 20	300 20	200 14	50 3	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 7041 Flange Adapter – BS 10-E				
Nom. Size in	Bolt		Required Torque	
	No	Size (in)	Lbs-Ft	Nm
2	4	⅝	110 ~ 140	149 ~ 190
2½	4	⅝	110 ~ 140	149 ~ 190
3	4	⅝	110 ~ 140	149 ~ 190
4	8	⅝	110 ~ 140	149 ~ 190
5	8	¾	220 ~ 250	298 ~ 339
6	8	¾	220 ~ 250	298 ~ 339
8	8	¾	220 ~ 250	298 ~ 339
10	12	⅞	320 ~ 400	434 ~ 542
12	12	⅞	320 ~ 400	434 ~ 542
14	12	1	360 ~ 520	488 ~ 705
16	16	1	360 ~ 520	488 ~ 705
18	16	1⅝	450 ~ 725	610 ~ 982
20	20	1⅝	450 ~ 725	610 ~ 982
24	20	1⅝	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-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, 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.**

- ☐ **Grade "E" EPDM** (Color code: Green stripe) Good for cold & hot water up to +200°F (+93°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 +200°F (+93°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.

### • Draw Kit:

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 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.

**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.