aalberts integrated piping systems

7041 FLANGE ADAPTER- PN 10 / PN 16

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 7041 Flange Adapter allows for a direct connection of PN 10* and PN 16 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.

* PN10: 2" - 6" (50 mm – 150 mm) only.

Always fasten the bolts to the required torque.

material specification

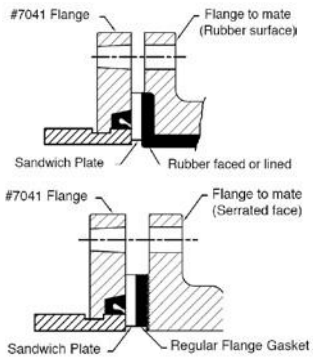
- Housing:
  Ductile Iron to ASTM A536, Gr. 65-45-12, min. tensile strength 65,000 psi (448 MPa).
- Surface Finish:
  Standard painted finishes in orange or RAL3000 red.
  - Hot dip zinc galvanized (Option).
  - Epoxy coatings in RAL3000 red or other colors (Option).
- Rubber Gasket:
  Grade E-pw EPDM (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:
  Screw Rod: Carbon Steel.
  Assembly holders: Ductile Iron.
  Bolts & Nuts: Commercial.

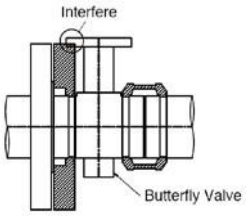
SHURJOINT®

Important Notes

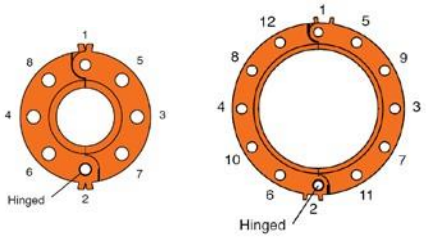
1. The Model 7041 flange adapter requires a hard flat face for effective sealing. Sealing surface D is the maximum inside face requirement, sealing surface E is the minimum outside face requirement. If the mating flange face is outside these dimensions, a flange gasket and model 49 sandwich plate (Model #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.



2. 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 do not interfere with the valve actuator or the mounting pad of the actuator.



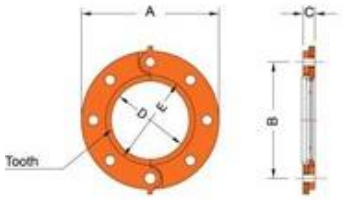
5. Bolt tightening sequence: Like a regular flange joint, it is important to make flange faces contact parallel. Tighten nuts alternately in the sequence of diagonally opposite pairs as shown below until the flange faces meet and make a metal-to-metal contact. When using two model 7041 flange adapters 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 – PN 10 / PN 16				
Nominal Size	Bolt		Required Torque	
in	no	size (in)	lbs-ft	Nm
50	4	M16	110 ~ 140	149 ~ 190
65	4	M16	110 ~ 140	149 ~ 190
80	8	M16	110 ~ 140	149 ~ 190
100	8	M16	110 ~ 140	149 ~ 190
125	8	M20	220 ~ 250	298 ~ 339
150	8	M20	220 ~ 250	298 ~ 339
200	12	M20	220 ~ 250	298 ~ 339
250	12	M24	320 ~ 400	434 ~ 542
300	12	M24	320 ~ 400	434 ~ 542
350	16	M24	320 ~ 400	434 ~ 542
400	16	M27	360 ~ 520	488 ~ 705
450	20	M27	360 ~ 520	488 ~ 705
500	20	M30	450 ~ 725	610 ~ 982
600	20	M33	620 ~ 1000	841 ~ 1356

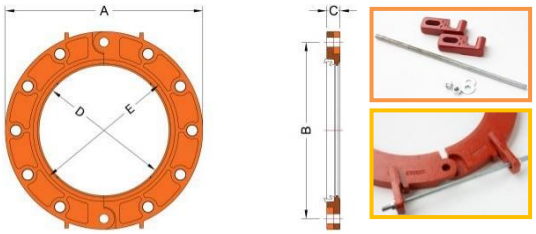


2"~12" (Hinged)

Model 7041 Flange Adapter - PN 10 / PN 16

Normal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max End Load (CWP)	Dimensions			Sealing Surface		Bolt		Weight
				A	B	C	D	E	No.	Size	
in	in	psi	lbf	mm	mm	mm	mm	mm		mm	lbs
mm	mm	bar	kN								kg
2	2.375	300	1000	165	125	22	60	78	4	M16	5.1
50	60.3	20	4.6								2.3
76.1	3.000	300	1590	185	145	22	76	92	4	M16	5.7
	76.1	20	7.3								2.6
3	3.500	300	2165	200	160	24	89	106	8	M16	7.1
80	88.9	20	9.9								3.2
4	4.500	300	3580	220	180	24	114	132	8	M16	7.5
100	114.3	20	16.4								3.4
139.7	5.500	300	5340	250	210	25	140	159	8	M16	9.8
	139.7	20	24.5								4.4
165.1	6.500	300	7460	285	240	24	165	182	8	M20	11.3
	165.1	20	34.2								5.1
6	6.625	300	7750	285	240	24	168	182	8	M20	10.1
150	168.3	20	35.6								4.6
8	8.625	300	13140	340	295	29	219	236	12	M20	17.2
200	219.1	20	60.3								7.8
10	10.750	300	20410	405	355	30	273	295	12	M24	25.2
250	273.0	20	93.6								11.4
12	12.750	300	28710	460	410	32	324	346	12	M24	30.2
300	323.9	20	131.8								13.7

Note: 2" - 6" flange drilling to PN 10 / PN 16 and 8" and above to PN 16.
* Working Pressure is based on roll grooved standard wall carbon steel pipe.



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

Model 7041N Flange Adapter - PN 16

Normal Size	Pipe O.D.	Max. Working Pressure (CWP)*	Max. End Load (CWP)	Dimensions			Sealing Surface		Bolt		Weight
				A	B	C	D	E	No.	Size	
in	in	psi	lbf	mm	mm	mm	mm	mm		mm	lbs
mm	mm	bar	kN								kg
14	14.000	300	34620	520	470	36	356	383	16	M24	48.7
350	355.6	20	158.8								22.1
16	16.000	300	45220	580	525	38	406	431	16	M27	59.7
400	406.4	20	207.4								27.1
18	18.000	300	57230	640	585	40	457	486	20	M27	71.6
450	457.2	20	262.5								32.5
20	20.000	300	70650	715	650	43	508	537	20	M30	103.4
500	508.0	20	324.0								47.0
24	24.000	300	101740	840	770	48	610	635	20	M33	160.6
600	609.6	20	466.7								73.0

* 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.

Aalberts integrated piping systems APAC Inc.
11F-2 No. 175 Zhongzheng 2nd Rd. / Lingya, Kaohsiung
Taiwan
www.aalberts.com/ips