

MODEL 725G / 725F SUCTION DIFFUSER



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 725G Suction Diffuser features a space saving design, ductile iron body and integral vanes that effectively reduce turbulence and provide optimum flow conditions at the inlet side of the pump.

The suction diffuser's inlet is supplied with a grooved end to AWWA C606-04. The 725G can be connected directly to grooved end pump or to a flanged end pump if used in combination with a Model 7041 flange or a Model 7180 universal flange adapter.

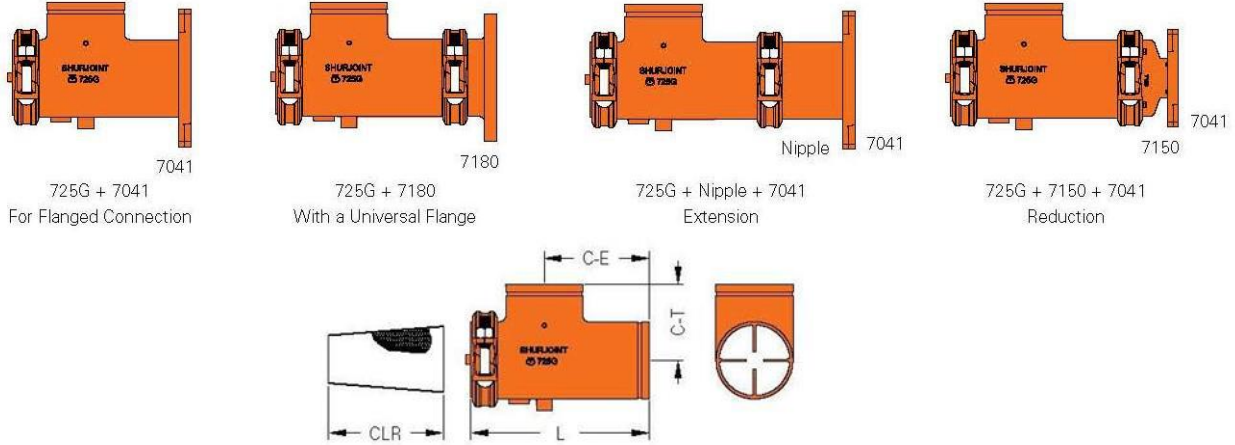
If a distance adjustment is required a nipple adapter can be used between the pump and the suction diffuser. The 725G also allows for a reduction on the outlet when used in combination with a Model 7150 concentric reducer and a Model 7041 flange.

The Model 725G is supplied with a 304 stainless steel running strainer and a disposable fine mesh screen to protect the pump during start-up operation.

material specification

- **Body:**
Ductile Iron to ASTM A536, Gr. 65-45-12, or segment welded steel to ASTM A53 and/or A204.
- **End Cap & Coupling Segments:**
Ductile Iron to ASTM A536, Gr. 65-45-12.
- **Surface Finish:**
Orange color painted.
 - Epoxy coated in black

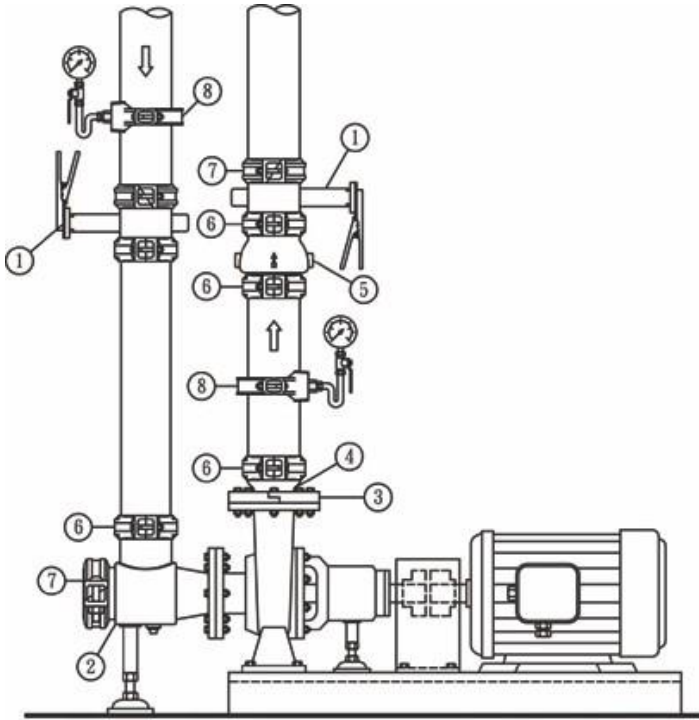
- **Rubber Gasket:**
Grade "E" EPDM (Color code: Green stripe) Good for cold & hot water up to +230°F (+110°C). Also good for services for water with acid, water with chlorine or chloramines, deionized water, seawater and wastewater, dilute acids, oil-free air and many chemicals. Not recommended for petroleum oils, minerals oils, solvents and aromatic hydrocarbons.
Maximum Temperature Range: -30°F (-34°C) to +230°F (+110°C) *.
*EPDM gaskets for water services are not recommended for steam services unless couplings or components are accessible for frequent gasket replacement.
 - Other options: Grade "T" - Nitrile
Grade "O" - Fluoro-elastomer,
Grade "L" - Silicone
Grade "E-pw" - EPDM NSF61
- **Bolts & Nuts:**
Heat treated carbon manganese steel track bolts to ASTM A449-83a (or A183 Gr. 2), minimum tensile strength 110,000 psi (758 MPa), Zinc electroplated, with heavy-duty hexagonal nuts to ASTM A563.
- **Screen:**
Stainless steel Type 304 to ASTM A240. Factory's standard screen perforation is 1/8" (3.2 mm). Other perforations are available upon request.
- **Start-up Screen:**
Stainless steel Type 304, 20 mesh screen.



Model 725G Suction Diffuser

Nominal Size System Side X Pump Side	Max. Working Pressure (CWP)*	Dimensions				Drain	Weight
		L	C-E	CLR	C-T		
in	PSI	in	in	in	in		lbs
mm	Bar	mm	mm	mm	mm	in	kg
2 x 2	300	8.82	5.00	5.79	3.75		7.9
50 x 50	20	224	127	147	95	½	3.6
2½ x 2½	300	8.82	5.00	5.79	3.75	½	8.8
65 x 65	20	224	127	147	95	½	4.0
3 x 3	300	10.43	6.30	6.93	5.51		13.0
80 x 80	20	265	160	176	140	1	5.9
4 x 4	300	12.28	7.36	8.58	5.00		20.9
100 x 100	20	312	187	218	127	1	9.4
5 x 5	300	13.86	10.24	9.76	9.02		38.9
125 x 125	20	352	260	248	229	1	17.7
6 x 6	300	15.16	9.02	10.43	6.50		43.3
150 x 150	20	385	229	265	165	1	19.7
8 x 8	300	18.27	10.24	12.60	9.02		75.5
200 x 200	20	464	260	320	229	¼	34.3
10 x 10	300	22.11	12.40	16.14	9.02		123.2
250 x 250	20	562	315	410	229	¼	56.0
12 x 12	300	26.30	15.43	19.29	10.00		168.1
300 x 300	20	668	392	490	254	¼	76.4

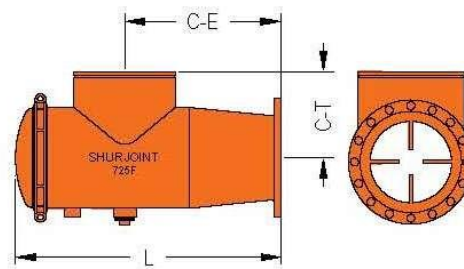
*Working pressure is based on connection with roll- or cut-grooved standard wall carbon steel pipe.



1. SJ-300N Butterfly Valve
2. 725G Suction Diffuser
3. 7041 Flange Adapter
4. 7150 Concentric Reducer
5. SJ-915 Dual Disc Check Valve
6. 7707 Flexible Coupling
7. Z07 Rigid Coupling
8. 7721 Mechanical Tee with Pressure Gage

MODEL 725F SUCTION DIFFUSER (Fabricated)

Shurjoint offers large diameter suction diffusers with reduced outlet sizes that are made of segment welded steel. The factory standard #725F suction diffusers come with a grooved inlet and flanged outlet to ANSI Class 125 /150, PN10, or JIS 10K.



Model 725F Suction Diffuser (Fabricated)

Nominal Size		Max. Working Pressure (CWP)*	Dimensions				Flange Drilling #	Weight
Suction Side	Pump Side		L	C-E	C-T	Drain		
in	in	PSI	in	in	in	in	lbs	
mm	mm	Bar	mm	mm	mm		kg	
14	10	300	35.00	21.50	14.00		420	
	250	20	889	546	356	1½"	191	
	12	300	35.00	21.50	14.00		444	
350	300	20	889	546	356		202	
	14	300	38.00	23.50	16.00	NPT	532	
	350	20	965	597	406		242	
16	12	300	38.00	23.50	16.50		510	
	300	20	965	597	419	2"	232	
	14	300	38.00	23.50	16.50		532	
400	350	20	965	597	419		242	
	16	300	42.00	26.00	17.50	NPT	686	
	400	20	1067	660	445		312	

Model 725F Suction Diffuser (Fabricated)

Nominal Size		Max. Working Pressure (CWP)*	Dimensions				Flange Drilling#	Weight
Suction Side	Pump Side		L	C-E	C-T	Drain		
in	in	PSI	in	in	in	in	lbs	
mm	mm	Bar	mm	mm	mm		kg	
18	14	300	42.00	25.00	17.50	2"	673	
	350	20	1067	635	445		306	
	16	300	42.00	25.00	17.50		686	
450	400	20	1067	635	445	NPT	312	
	18	300	50.00	31.50	20.00		893	
	450	20	1270	800	508		406	
20	16	300	50.00	31.50	20.00	2"	862	
	400	20	1270	800	508		392	
	18	300	50.00	31.50	20.00		893	
500	450	20	1270	800	508	NPT	406	
	20	300	53.00	33.00	23.50		1195	
	500	20	1346	838	597		543	
24	18	300	54.00	32.50	20.50	2"	1217	
	450	20	1372	826	521		553	
	20	300	54.00	32.50	20.50		1256	
600	500	20	1372	826	521	NPT	571	
	22	300	63.00	40.00	23.88		1494	
	550	20	1600	1016	606		679	

* Working pressure is based on connection with roll- or cut-grooved standard wall carbon steel pipe.

When ordering, specify the desired flange drilling.

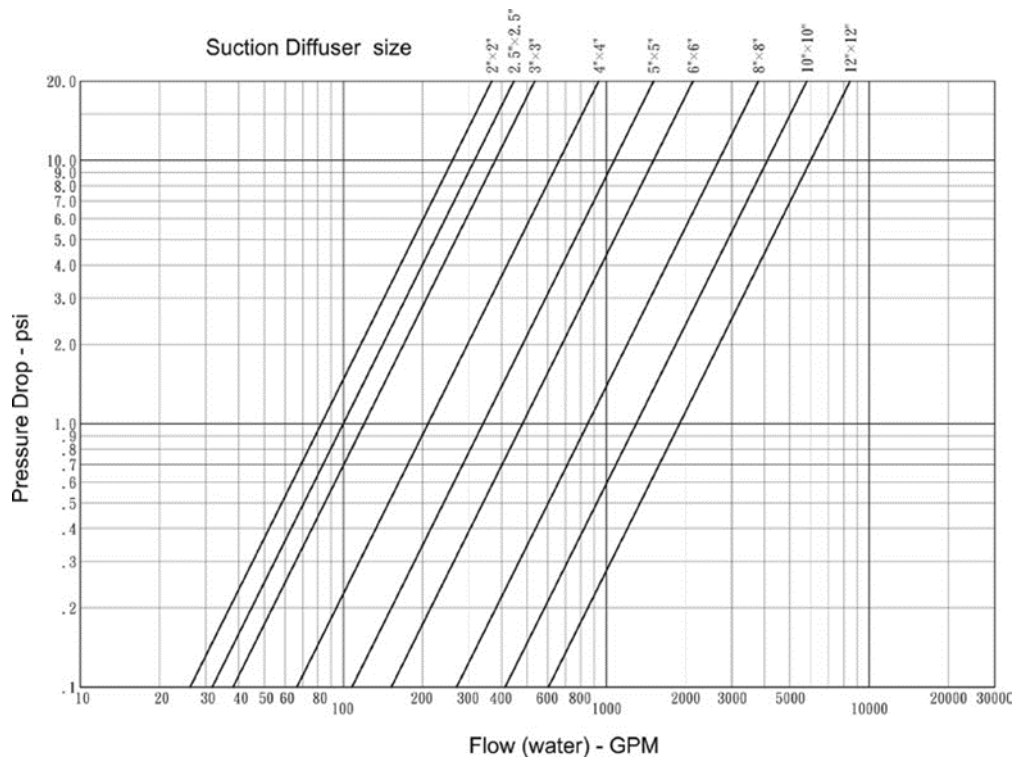
Flow Data - Cv Values

Values for flow of water at +60°F (+16°C).

$$Cv = \frac{Q}{\sqrt{\Delta P}}$$

Where: Cv = Flow coefficient
 Q = Flow (GPM)
 ΔP = Pressure drop (psi)

Model #725G Cv (Fully Open)					
Valve Size	Actual O.D.	Cv Value	Valve Size	Actual O.D.	Cv Value
In	In		In	In	
mm	mm		mm	mm	
2 x 2	2.375	82	8 x 8	8.625	850
50 x 50	60.3		200 x 200	219.1	
2½ x 2½	2.875	100	10 x 10	10.750	1300
65 x 65	73.0		250 x 250	273.0	
3 x 3	3.500	120	12 x 12	12.750	1900
80 x 80	88.9		300 x 300	323.9	
4 x 4	4.500	210			
100 x 100	114.3				
5 x 5	5.563	340			
125 x 125	141.3				
6 x 6	6.625	480			
150 x 150	168.3				



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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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