

style fsf single sphere rubber expansion joints

description

A flexible joint made of heat resisting synthetic elastomers and moulded in a spherical shape with vanstoned metal floating flanges.

manufacture

Manufactured from heat and chemical resisting elastomers of special composition superior to natural or chloroprene rubber, reinforced with tough nylon fibre cord. The moulded vanstone flange has imbedded in its wall a high tensile steel wire to ensure rigidity.

principal applications

Ideal for air conditioning and sanitary equipment, pumps, refrigerators, blowers, marine piping systems, feed water, drainage systems and such industries as chemical plants, shipbuilding, power generation, building and waste disposal plants.

pressure and temperature

Please refer to the 'technical aspects' and 'limit and control rods' data sheets.

flanges

These joints are fitted with metal floating flanges drilled to ANSI, BS Tables, JIS and DIN. The most common drillings are ANSI 150, BS Table E and DIN 16.

Note: the flange thicknesses are all basically the same and are not necessarily in accordance with the relevant flange standard.

The standard joint is fitted with plated carbon steel flanges. Hot dip galvanised and stainless steel flanges are also available on special order.

- 1 Body - Heat resisting rubber
- 2 Reinforcement - Nylon tyre cord
- 3 Wire - High tensile steel
- 4 Flanges - Mild steel

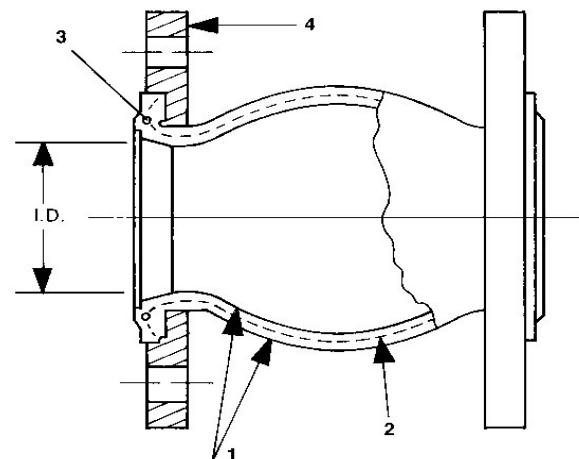
joint lengths

The moulded spherical rubber expansion joints are available in three ranges of lengths. These three ranges are identified as styles FSF, FSFA and FSFB as per the attached specifications.

Although there is no specific standard on the lengths the styles are generally used in different parts of the world as follows:

- Style FSF - Asia, Australasia, Japan, Pacific
- Style FSFA - Americas
- Style FSFB - Europe

standard elastomer combinations			
material code	outer cover elastomer	inner tube elastomer	maximum recommended operating temp. °C
BB	chloro butyl	chloro butyl	105
EE	EPDM	EPDM	105
NH	neoprene	hypalon	100
NN	neoprene	neoprene	105
NP	neoprene	nitrile (buna)	100

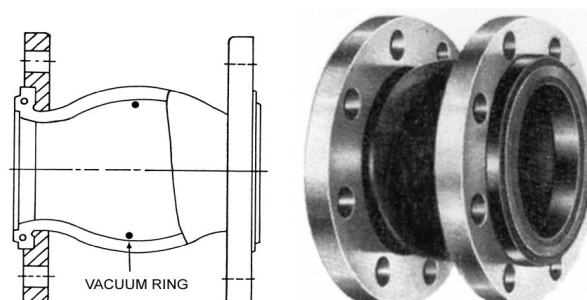


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vacuum applications

The vacuum ratings in the data sheets are based on neutral (free) installed length without external load. Joints should not be installed 'extended' on vacuum applications.

The standard joints have a rating of 600mm H.g. This rating can be increased to 760mm H.g. by inserting a reinforcing ring into the crown of the arch. Refer Radcoflex for details.



style FSF

nominal bore	length installed mm			allowable movements from free length				pressure @ 80°C	
	inside inches	free	min	max	axial mm comp	lateral mm elong	angular deg	positive kPa	vacuum mm H.g.
1 1/4	95	89	97	8	4	8	15	1550	600
1 1/2	95	89	97	8	4	8	15	1550	600
2	105	99	107	8	5	8	15	1550	600
2 1/2	115	107	118	12	6	10	15	1550	600
3	130	122	133	12	6	10	15	1550	600
4	135	122	140	18	10	12	15	1550	600
5	170	156	175	18	10	12	15	1550	600
6	180	167	185	18	10	12	15	1550	600
8	205	186	212	25	14	22	15	1550	600
10	240	221	247	25	14	22	15	1550	600
12	260	241	267	25	14	22	15	1550	600
14	265	246	273	25	14	22	15	1034	600
16	265	246	273	25	14	22	15	860	600
18	265	246	273	25	14	22	15	860	600
20	265	246	273	25	14	22	15	860	600
24	265	246	273	25	14	22	15	860	600

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style FSFA

nominal bore		length installed mm			allowable movements from free length				pressure @ 80°C		weight per unit
inside mm	inches	free	min	max	axial mm comp	axial mm elong	lateral mm	angular deg	positive kPa	vacuum mm H.g.	kgs
25	1	152	143	157	13	9	13	15	1550	600	1.7
32	1 1/4	152	143	157	13	9	13	15	1550	600	2.3
40	1 1/2	152	143	157	13	9	13	15	1550	600	2.7
50	2	152	143	157	13	9	13	15	1550	600	4.1
65	2 1/2	152	143	157	13	9	13	15	1550	600	5.6
80	3	152	143	157	13	9	13	15	1550	600	6.8
100	4	152	138	159	19	13	13	15	1550	600	8.3
125	5	152	138	159	19	13	13	15	1550	600	10.4
150	6	152	138	159	19	13	13	15	1550	600	12.2
200	8	152	138	159	19	13	13	15	1550	600	18.5
250	10	203	184	211	25	16	19	15	1550	600	25.7
300	12	203	184	211	25	16	19	15	1550	600	32.7
350	14	203	184	211	25	16	19	15	1034	600	52.3
400	16	203	184	211	25	16	19	15	860	600	75.0
450	18	203	184	211	25	16	19	15	860	600	77.0
500	20	203	184	211	25	16	19	15	860	600	78.0
550	22	254	235	262	22	16	19	15	790	600	95.0
600	24	254	235	262	25	16	19	15	758	600	116.0
650	26	254	235	262	25	16	19	10	758	600	123.0
700	28	254	235	262	25	16	19	10	758	600	129.0
750	30	254	235	262	25	16	19	10	758	600	135.0

style FSFB

nominal bore		length installed mm			allowable movements from free length				pressure @ 80°C		weight per unit
inside mm	inches	free	min	max	axial mm comp	axial mm elong	lateral mm	angular deg	positive kPa	vacuum mm H.g.	kgs
32	1 1/4	125	116	130	13	9	13	15	1550	600	2.3
40	1 1/2	125	116	130	13	9	13	15	1550	600	2.6
50	2	125	116	130	13	9	13	15	1550	600	4.0
65	2 1/2	125	116	130	13	9	13	15	1550	600	5.5
80	3	125	116	130	13	9	13	15	1550	600	6.4
100	4	125	116	130	13	9	13	15	1550	600	7.7
125	5	125	116	130	13	9	13	15	1550	600	10.0
150	6	125	116	130	13	9	13	15	1550	600	11.8
200	8	125	116	130	13	9	13	15	1550	600	18.1
250	10	125	116	130	13	9	13	10	1550	600	22.0
300	12	125	116	130	13	9	13	10	1550	600	33.6

data sheet - RJ 005