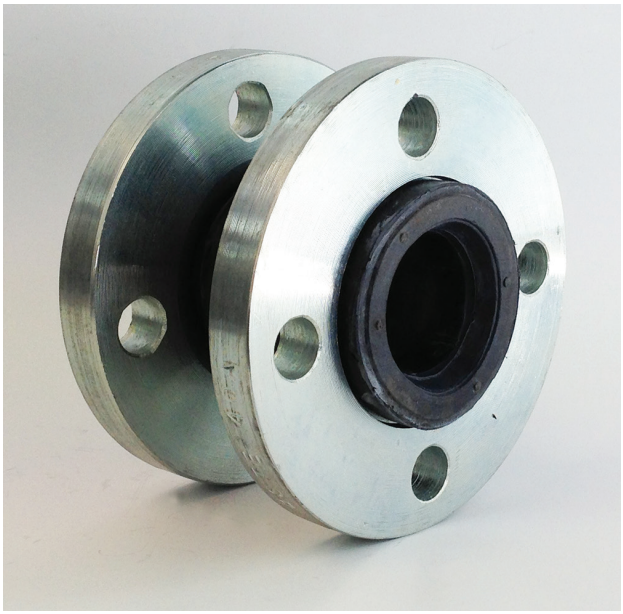
Hand Built Rubber Joints

Single Sphere Connectors with Floating Flange



Features

May be used both for suction and delivery

Because of the excellent moulding technique combined with tough chemical fibres, it may be used at a bursting pressure of over 850 p.s.i. and with a normal internal pressure of 225 p.s.i. In addition, since it can satisfactorily withstand the force for creating a vacuum it may be used on both the delivery and the suction sides. Also, since its carcass is of special spherical type, and it will not come in contact with the connecting bolt head even if it expands, this connector may be used with a sense of security even when subjected to high pressures.

Easy installation on piping

Since its carcass is soft and can be readily deformed, pipe connections can be quickly and readily completed despite some misalignment.

Excellent ability to isolate sound and vibration

The highly soft carcass isolates vibration and solid sound in all directions and prevents the production of noise.

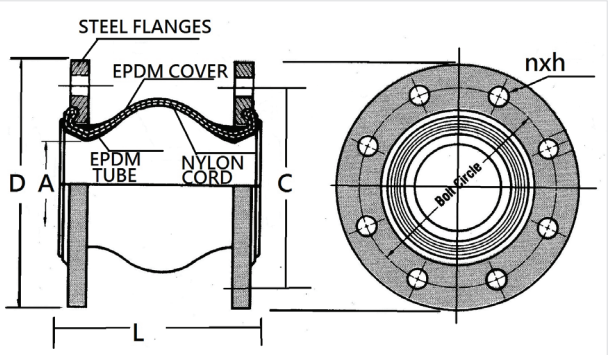
Other advantages and effects

1. Need neither gasket nor packing.
2. Since the flange is a sort of loose fit type, it can be installed on pipes without difficulty.
3. Since it absorbs the elongation and contraction of pipes caused by variations in temperature, it prevents the piping system and equipment from breaking down.
4. It absorbs the pulsation of water and prevents water hammering to some extent.
5. When pipes made of different engineering materials are connected with this connector, it prevents them from developing electrolytic corrosion.

Typical applications

1. Pressure piping systems for water and warm water used in building equipment and general industrial plants, etc.
2. Pump lines and turbine lines used for power generation plants, industrial machinery, universal pump blowers, etc.
3. Feed-water and drainage lines for waterworks, sewerage, sanitary piping systems, etc.
4. Oil lines for industrial plants, shipbuilding yards, etc.
5. Loading and unloading lines to and from ships for harbour facilities etc.

Others: This connector has a wide range of applications in waste disposal plants, mines chemical plants, etc.



Nominal Diam		100 PSI	150 PSI	200 PSI	225 PSI
1¼"	32 mm			⊗	⊗
1½"	40 mm			⊗	⊗
2"	50 mm			⊗	⊗
2½"	65 mm			⊗	⊗
3"	80 mm			⊗	⊗
4"	100 mm			⊗	⊗
5"	125 mm			⊗	⊗
6"	150 mm		⊗	⊗	⊗
8"	200 mm	⊗	⊗	⊗	⊗
10"	250 mm	⊗	⊗	⊗	⊗
12"	300 mm	⊗	⊗	⊗	⊗
14"	350 mm	⊗	⊗		
16"	400 mm	⊗			

*** NOTE:** ⊗ = Use Control Rods

Available Styles/ Materials

Material Code	Cover Elastomer	Tube Elastomer	Maximum 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°

Press/ Temp Correction Factor	Operating Temperatures					
	80°C	85°C	90°C	95°C	100°C	105°C
Maximum Working Pressure (x factor)	x1.0	x.92	x.83	x.75	x.67	0.60

Single Sphere Connectors

FSF Type

HCD Product Code	Nominal Diameter		Installed Length (mm)		Travel (mm)	Allowable Movements from Neutral				Working Pressures	
Style NN	in	mm	Natural Length	Min – Max Installed	Total Compressed Extended	Axial Compression	Axial Extension	Lateral Deflection	Angular Degrees	Positive P.S.I.G at 80°C	Vacuum Rating mm
42 FSF032	1¼"	32	95	89 – 97	87 – 99	8	4	8	15°	225	660
42 FSF038	1½"	40	95	89 – 97	87 – 99	8	4	8	15°	225	660
42 FSF051	2"	50	105	99 – 107	99 – 110	8	5	8	15°	225	660
42 FSF064	2½"	65	115	107 – 118	103 – 121	12	6	10	15°	225	660
42 FSF076	3"	80	130	122 – 133	118 – 133	12	6	10	15°	225	660
42 FSF102	4"	100	135	122 – 140	117 – 145	18	10	12	15°	225	660
42 FSF125	5"	125	170	156 – 175	152 – 180	18	10	12	15°	225	660
42 FSF152	6"	150	180	167 – 185	162 – 190	18	10	12	15°	225	660
42 FSF203	8"	200	205	186 – 212	180 – 220	25	14	22	15°	225	660
42 FSF254	10"	250	240	221 – 247	215 – 254	25	14	22	15°	225	660
42 FSF300	12"	300	260	241 – 267	235 – 274	25	14	22	15°	225	660
42 FSF350	14"	350	265	246 – 273	240 – 281	25	14	22	15°	150	660
42 FSF400	16"	400	265	246 – 273	240 – 281	25	14	22	15°	125	660

*** NOTE:** Flange available with DIN Standard, ANSI Standard, BS Standard, and JIS Standard.