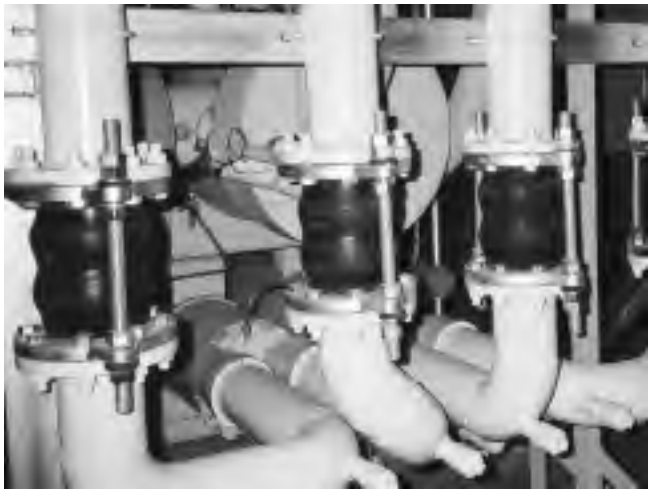
FLEXIBLE RUBBER JOINT

Twin-Sphere Rubber Joint with Floating Flanges

Fig.GFLAX-F2



Features

High pressure resistance
Combining the latest molding techniques and extremely tough synthetic rubber fiber, FLEXIBLE RUBBER JOINT can be safely used up to a working pressure of 240 psi (16 bars) for size 32mm to 200mm and 150 psi (10 bars) for size 250mm and above,
Rapture pressure of of 780 psi (55kgf/cm).
FLEXIBLE RUBBER JOINT can also withstand a considerable vacuum force, making it ideal for use at the suction and delivery ends of a fluid distribution system.

Large Compression, Elongation and Angular Movement

Fit for suction and delivery (discharge)

Additional Features and Benefits
1.Additional gaskets and/or packing are not required.
2.Simplified installation in all piping systems using easy alignment flanges.
3.Ability to absorb considerable elongation and compression of pipes caused by temperature changes prevents piping system breaks and equipment down time.
4.Absorbs the force created by pulsating water and reduces the effect of water hammer.

Typical Applications

1.Cold and warm water pressure piping systems in commercial and industrial buildings and plants.
2.Pump and turbine piping used for power generation plants, industrial machinery and pump blowers.
3.Feed-water and drainage piping for water, wastewater, and sanitary system.

Note: FLEXIBLE RUBBER JOINT is not applicable for use with oil, air gases, hot water supply lines and with pool water.

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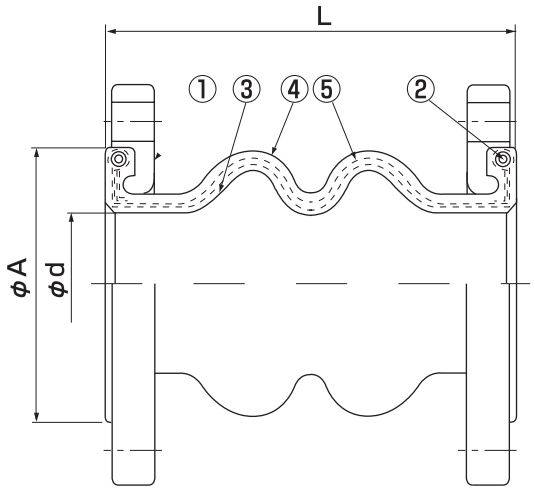

Materials

No.	Parts	Materials
1	Flange	Ductile Iron (32 - 300) Mild Steet (350-600)
2	Reinforcing Ring	Carbon Steel
3	Inner Rubber	Synthetic Rubber
4	Outer Rubber	Synthetic Rubber
5	Reinforcing Cord	Synthetic Fiber

Flanges on ANSI, BS, etc.available.
The flange material can be changed to Mild Steel, SUS304 and SUS316. Please consult us.

Control Unit

Use of the Control Unit option is recommended for the following conditions:

1.Adequate piping support can not be provided to counteract pressure forces.
2.Whenever transverse movement is expected that may exceed design specifications.
3.If there is a possibility that the joint will operate in a compression mode.

Dimensions and Allowable Movements

Nominal Dia. (A)		Dimensions(mm)			Mass(kg)	Allowable Movements (mm)				Installation Tolerances(mm)			
DN	Inch	L	Φ A	Φ D		T.M.	A.E.	A.C.	A.M.(°)	T.M.	A.E.	A.C.	A.M.(°)
32	1-1/4	175	76	40	2.9	20	10	20	30	8	3	6	10
40	1-1/2	175	76	40	3.3	20	10	20	30	8	3	6	10
50	2	175	86	50	3.9	20	10	20	30	8	3	6	10
65	2-1/2	175	106	65	5.2	20	10	20	30	8	3	6	10
80	3	175	120	76	5.3	20	10	20	30	8	3	6	10
100	4	225	150	100	6.8	25	15	30	30	10	3	6	10
125	5	225	180	125	10	25	15	30	30	10	3	6	10
150	6	225	212	150	14	25	15	30	30	10	3	6	10
200	8	325	260	200	18	30	20	40	30	12	3	6	10
250	10	325	324	250	27	30	20	40	30	12	3	6	10
300	12	325	372	300	30	30	20	40	30	12	3	6	10
350	14	345	372	300	36	30	20	40	30	12	3	6	10
400	16	345	372	300	47	30	20	40	30	12	3	6	10
450	18	345	372	300	53	30	20	40	30	12	3	6	10
500	20	345	372	300	63	30	20	40	30	12	3	6	10
600	24	360	372	300	85	30	20	40	30	12	3	6	10
700	28	360	372	300	120	30	20	40	30	12	3	6	10

※T.M.=Transverse Movement
※A.E.=Axial Elongation
A.C.=Axial Compression
A.M.=Angular Movement

Mass is only for reference.
Use the products within the given allowable movements.
Tolerance for installation are included in the allowable movements (Allowable movments=Toleances for installation+Operating movements)
Please note that information in the above table are for single movement only. In case of complex movements. Some correction is required.

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Nomal working pressure:
32mm to 200mm: Max.16 bars at normal temp.
250mm and above : Max.10 bars at normal temp.

Working tempreture:
-10 to 70 deg. C.

vacuum pressure:
- 650 mmhg

Bursting pressure:
55kgf/cm^2 (780p.s.i.) or above at normal temp.

*For high temp. application, please consult us.

Notes

1. Information in the above table is for single movement only. In case of complex movement, follow the below expression.

$$C.EL(C) = A.EL(C) \times \left\{ 1-\left(\frac{A.T.M. - T.M.}{A.T.M.} \times \frac{A.A.M. - A.M.}{A.A.M.} \right) \right\}$$

C.EL(C) =Correct Elongation(Compression)
A.EL(C) =Allowable Elongation(Compression)
A.T.M. = Allowable Transverse Movement
T.M =Transverse Movement
A.A.M. =Allowable Angular Movement
A.M. =Angular Movement

2. Install the joint according to the specified allowable dimensions.
3. Check suitability of joint to operating conditions prior to installation.
4. Prior to installation, check for cracks on the rubber body surface, especially after extended storage.
5. If there is movement in the joint, insure that the rubber joint body is not damaged by external objects.
6. Keep joint away from all sources of heat. If necessary, cover the joint with a protective sheet to restrict damage caused by welding sparks, grinding, etc.
7. Avoid contact of the rubber body with oils, fats, organic solvents (thinner, toluene, etc.), acid or alkali. Wipe immediately if rubber is contaminated with these items.
8. Secure piping before and after joint to limit elongation of the joint during operation.