# the motion abzorber

# **Neoprene Rubber Expansion Joints**

\*\*NEOPRENE/NYLON MEETS ALL REQUIREMENTS OF UNITED STATES COAST GUARD\*\*

#### **FLEXZORBER NNS Single Sphere**

# Simply Like No Other.

There is an epic story to be told. Steel, rubber... bring them together to form the simple curves of the Flexzorber, simply like no other.

So don't be fooled by others who may try to justify premium prices with fancy specs. That's why mere words should never suffice. We put the industry's first and only 2 year product replacement warranty and proudly mark each one with the Flexzorber brand signifying durability and reliability.

So unleash your profits and insist on Flexzorber style rubber connectors and expansions joints, the cost-effective solution to reducing thermal pipe growth and stress.

#### **Applications**

Flexzorber expansion joints are precision molded under high pressure to ensure product integrity. Flexzorber's spherical arch design is ideal for solving motion problems in a piping system because the forces to deflect or move the joint are inherently low since the shape allows pressure to be exerted uniformly in all directions.

The ease of movement exhibited by Flexzorber joints provides an excellent choice for use with plastic piping systems. The molded spherical flowing arch is referred to as self-cleaning and is thus suited for slurries or applications with potential sediment build up or turbulence. The cord reinforcement is bonded within the elastomer to avoid exposure to atmosphere or media.

The elastomeric cover provides excellent resistance to oils, sunlight, ozone, and heat aging. Flexzorber spherical connectors are manufactured with a neoprene or EPDM which provides resistance to a wide variety of media including glycol applications.

Flexzorber spherical expansion joints have ANSI class 150 lb. steel floating flanges or female unions that are zinc-coated for corrosion protection and also allows simple installation. The Flexzorber flange face eliminates the need for a gasket.

Other styles, sizes and elastomers available. Please consult factory.



CSA standard B51 certified. Inspected and tested by the Technical Standards and Safety Authority of Canada.



#### FLEXZORBER NNS Style Neoprene Single Sphere Flanged

I.D. (IN)	LENGTH (IN)			VAC RATING (in Hg.)	COMPRESSION (IN)	MOVEMENT Extension (IN)			
1.5	6	225	150	26	1/2	3/8	1/2	15°	7
2.0	6	225	150	26	1/2	3/8	1/2	15°	9
2.5	6	225	150	26	1/2	3/8	1/2	15°	13
3.0	6	225	150	26	1/2	3/8	1/2	15°	14
4.0	6	225	150	26	5/8	3/8	1/2	15°	18
5.0	6	225	150	26	5/8	3/8	1/2	15°	23
6.0	6	225	150	26	5/8	3/8	1/2	15°	27
8.0	6	225	150	26	5/8	3/8	1/2	15°	38
10.0	8	225	150	26	3/4	1/2	3/4	15°	56
12.0	8	225	150	26	3/4	1/2	3/4	15°	83
14.0	8	125	105	26	3/4	1/2	3/4	15°	115
16.0	8	125	105	26	3/4	1/2	3/4	15°	165
18.0	8	125	105	26	3/4	1/2	3/4	15°	168
20.0	8	125	105	26	3/4	1/2	3/4	15°	170

\*ANSI Class 150 lb. Steel Floating Flanges

#### FLEXZORBER NND Style Neoprene Double Sphere Flanged

I.D. (IN)	LENGTH (IN)			VAC RATING (in Hg.)	COMPRESSION (IN)	MOVEMENT Extension (IN)	CAPABILITY Parallel (IN)	ANGULAR (Deg)	WT. (LBS)
2.0	7	225	150	26	1	3/4	1	30°	9
2.5	7	225	150	26	1	3/4	1	30°	13
3.0	7	225	150	26	1	3/4	1	30°	15
4.0	9	225	150	26	11/4	1	11/4	30°	20
5.0	9	225	150	26	11/4	1	11/4	30°	26
6.0	9	225	150	26	11/4	1	11/4	30°	29
8.0	13	225	150	26	1½	1	1%	30°	45
10.0	13	225	150	26	1½	1	1%	30°	63
12.0	13	225	150	26	1½	1	1%	30°	95

\*ANSI Class 150 lb. Steel Floating Flanges Stock sizes 2"-12". Largers sizes available - please consult factory.

## FLEXZORBER NNDFU Style Neoprene Double Sphere Union

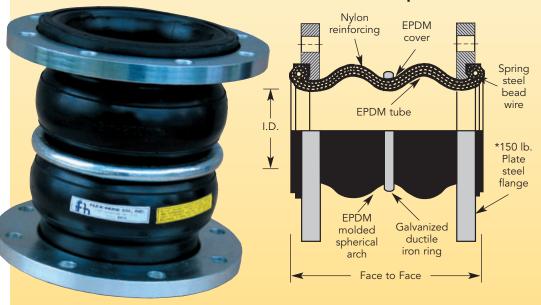
I.D. (IN)	LENGTH (IN)			VAC RATING (in Hg.)	COMPRESSION (IN)	MOVEMENT Extension (IN)	CAPABILITY Parallel (IN)	WT. (LBS)	
3/4	8	150	150	16	7/8	1/4	7/8	45°	2
1.0	8	150	150	16	7/8	1/4	7/8	45°	3
1.25	8	150	150	16	7/8	1/4	7/8	45°	3
1.5	8	150	150	16	7/8	1/4	7/8	45°	4
2.0	8	150	150	16	7/8	1/4	7/8	45°	6

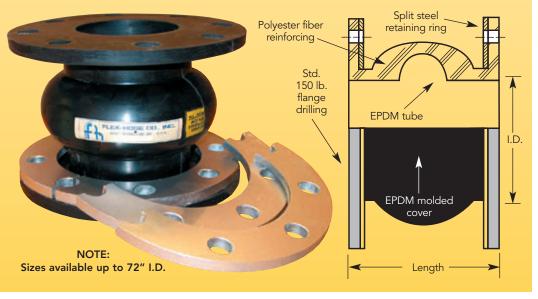
\*ANSI Class 150 lb. Steel Floating Flanges

## **EPDM Rubber Expansion Joints**



#### **FLEXZORBER EED Double Sphere**





#### FLEXZORBER EES Style EPDM Single Sphere Flanged

The Flexzorber EPDM double sphere is the answer if your application requires greater temperatures up to 250°F combined with large movement capabilities.

The EPDM cover provides excellent resistance to ozone as well as a wide variety of medias.

Please consult factory for a specific elastomer recommendation for your media.

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I.D. (IN)	LENGTH (IN)	PRES (PS 170°F		VAC RATING (in Hg.)	COMPRESSION (IN)	MOVEMENT Extension (IN)	CAPABILITY Parallel (IN)	ANGULAR (Deg)	WT. (LBS)
1.5	6	225	150	26	1/2	<b>3</b> %	1/2	15°	7
2.0	6	225	150	26	1/2	<b>¾</b>	1/2	15°	9
2.5	6	225	150	26	1/2	3%	1/2	15°	13
3.0	6	225	150	26	1/2	3%	1/2	15°	14
4.0	6	225	150	26	5/8	3%	1/2	15°	18
5.0	6	225	150	26	5/8	3%	1/2	15°	23
6.0	6	225	150	26	5/8	<b>¾</b>	1/2	15°	27
8.0	6	225	150	26	5/8	3%	1/2	15°	38
10.0	8	225	150	26	3/4	1/2	3/4	15°	56
12.0	8	225	150	26	3/4	1/2	3/4	15°	83
14.0	8	125	105	26	3/4	1/2	3/4	15°	115

\*ANSI Class 150 lb. Steel Floating Flanges Other sizes available - please consult factory.

#### FLEXZORBER EED Style EPDM Double Sphere Flanged

The Flexzorber EPDM double sphere is the answer if your application requires greater temperatures up to 250°F combined with large movement capabilities.

The EPDM cover provides excellent resistance to ozone as well as a wide variety of medias.

Please consult factory for a specific elastomer recommendation for your media.

	I.D. (IN)	LENGTH (IN)	PRES: (PS 170°F		VAC RATING (in Hg.)	COMPRESSION (IN)	MOVEMENT Extension (IN)	PARALLEL (IN)	ANGULAR (Deg)	FLANGE NO. BOLT HOLES		(LBS)
	2.0	7	225	150	26	1	3/4	1	30°	4	3/4	9
	2.5	7	225	150	26	1	3/4	1	30°	4	3/4	13
	3.0	7	225	150	26	1	3/4	1	30°	4	3/4	15
	4.0	9	225	150	26	11/4	1	11/4	30°	8	3/4	20
è	5.0	9	225	150	26	11/4	1	11/4	30°	8	7/8	26
	6.0	9	225	150	26	11/4	1	11/4	30°	8	7/8	29
	8.0	13	225	150	26	1½	1	1%	30°	8	7/8	45
	10.0	13	225	150	26	1½	1	1%	30°	12	1	63
	12.0	13	225	150	26	1½	1	1%	30°	12	1	95

\*ANSI Class 150 lb. Steel Floating Flanges Stock sizes 2"-12". Largers sizes available - please consult factory.

#### FLEXZORBER Maxi-Flex Style HPV

Flex-Hose Co.'s MAXI-FLEX widearch molded rubber expansion joint provides greater motion capability than single sphere and conventional spool type rubber expansion joints.

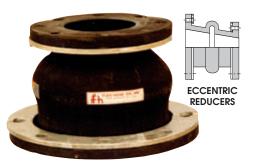
The Maxi-Flex EPDM construction, combined with high strength fabric reinforcement, provides working pressures up to 200 PSI and service temperatures up to 250°F.

The integral rubber flanges utilize metal retaining rings to assure uniform sealing against mating flanges. Contact Flex-Hose Co. for current product specification.

#### **Design Variations**

#### **Tapered**

Flex-Hose Co.'s Tapered expansion joints can be designed to connect piping of unequal diameters.



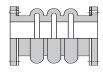


CONCENTRIC REDUCERS

#### Multiple Arch



Standard joint with two or three arches. Recommended for greater movement where face-to-face dimensions are not limited.



#### Flexible Rubber Pipe

Replaces steel or cast iron pipe in straight runs or specified bends in working pressures up to 250 psi. Rubber pipe is used to control vibration and reduce noise from pumps, compressors, etc.

Also available in slip-on ends for low pressures.





#### StopLink<sup>™</sup> Control Cables

Flex-Hose Co. recommends the use of StopLink control cables in all rubber expansion joint applications.

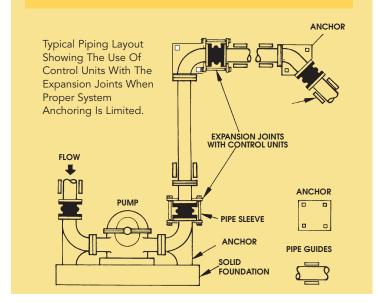
- StopLink<sup>TM</sup> control cables consist of two or more cables connecting the mating flanges
- Control cables prevent damage due to excessive movement.
- Units are not designed as replacement for proper pipe line anchoring.
- Additional protection against over-compression may be controlled by installation of pipe sleeves over

  the cobles.

Each control unit end plate (gusset) is triangular with three hole drilling. Two holes to bolt the plate securely to the back side of the mating flange. The final hole accommodates the plate connection to the cable. (Cable units may have two holes, for two cables, depending on nominal ID size.)



#### **Installation Guidelines**



#### **FLEXZORBER MOVEMENTS**

Flex-Hose Co.'s FLEXZORBER rubber expansion joints are capable of handling the following movements:

