



WRAS Approved Twin Sphere Rubber Bellows Union Ends

- EPDM - 10°C up to 100°C
- Galvanised Iron Union Ends
- PN16 Rated
- WRAS Approved
- Reinforcement - Nylon Cord
- BSP Thread
- NB 20mm - 50mm (¾" - 2")

Description

This WRAS Approved twin sphere rubber bellow is a flexible unit that has galvanised union ends, screwed BSP and is manufactured from EPDM and nylon reinforcement of the bellow. Rubber expansion joints are the perfect solution for pipe systems to absorb movements, vibrations or noise, resulting in the significantly prolonged service life of the pipe work and connected equipment.

Bellows must not be painted or insulated. They are necessary in systems (usually HVAC) that convey high temperature or substances such as steam and exhaust gases, or they are to absorb movement and vibration. A typical joint is a set of metal flanges and a bellow which is often an elastomer such as rubber.



Description

Optimum solution designed to absorb large angular movements due to the flexible nature of the bellows. Proved to reduce water shock and has sound deadening effects. Offered in Screwed BSP galvanised malleable iron union ends.. Note for aggressive fluids please refer to resistance chart.



Beschreibung

Optimale Lösung zur Aufnahme großer Winkelbewegungen aufgrund der flexiblen Beschaffenheit des Faltenbalgs. Reduziert nachweislich Wasserstöße und hat schalldämpfende Effekte. Angeboten in geschraubten BSP-verzinkten Temperguss-Verschraubungsenden. Hinweis für aggressive Flüssigkeiten siehe Beständigkeitstabelle.



Descripción

Solución óptima diseñada para absorber grandes movimientos angulares debido a la naturaleza flexible de los fuelles. Probado para reducir el impacto del agua y tiene efectos de amortiguación del sonido. Se ofrece en extremos de unión rosca BSP de hierro maleable galvanizado. Nota para fluidos agresivos, consulte la tabla de resistencias.

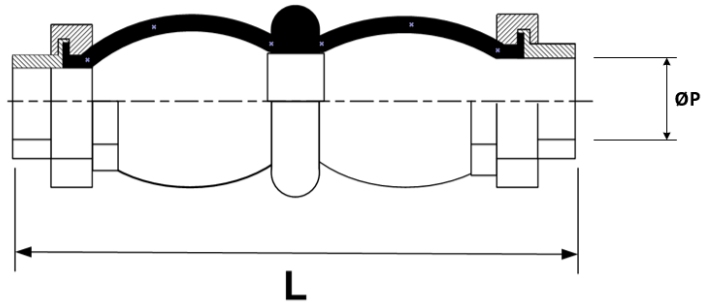


Description

Solution optimale conçue pour absorber les grands mouvements angulaires dus à la nature flexible du soufflet. Prouvé pour réduire le choc hydrique et a des effets insonorisants. Offert dans des raccords vissés en fonte malléable galvanisée BSP. Remarque pour les fluides agressifs, veuillez vous référer au tableau de résistance.



- EPDM up to 100°C
- Galvanised Iron Union Ends
- To BS21
- Reinforcement – Nylon Cord
- WRAS Approved up to 2" Only

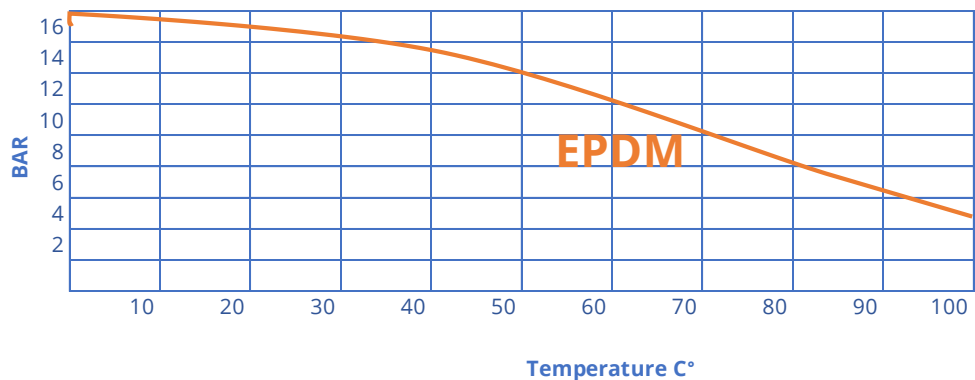
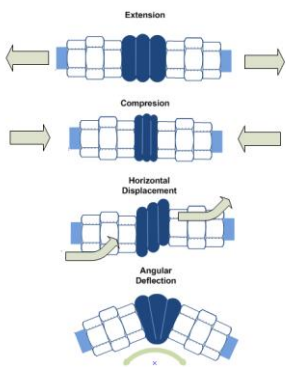


Materials

Body	EPDM
Reinforcement	Nylon
Union Flange	Galvanised iron
Screw and Ring Nut	Galvanised iron

Dimensions

DN	L	P	KV	Com	Ext	Lat	Ang	Kg
3/4"	165	16	12	22	6	22	30	0.58
1"	175	16	22	22	6	22	30	0.9
1 1/4"	186	21	40	22	6	22	30	1.25
1 1/2"	186	34	57	22	6	22	30	1.72
2"	200	40	75	22	6	22	20	2.75
2 1/2"	218	54	140	22	6	22	15	3.6
3"	260	63	175	22	6	22	15	5.2



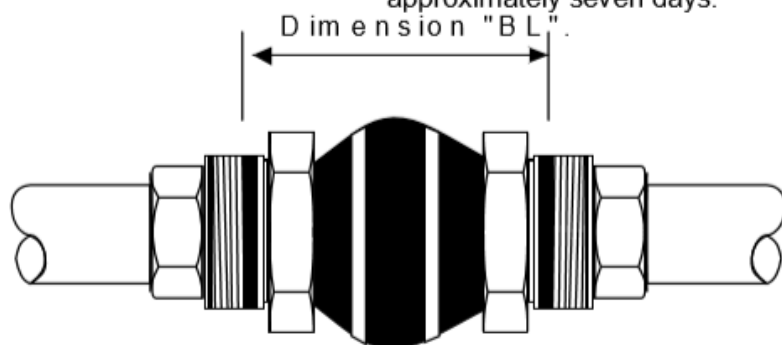
Com = Compression in mm
 Ext = Extension in mm
 Lat = Lateral Deflection in mm
 Ang = Angular Deflection in degrees



Installation, Operation and Maintenance Instructions For Single & Twin Sphere Rubber Bellows Continued

Installation Continued

The union ends should be removed from the bellows assembly and fitted to the pipework or pump with the correct dimension "BL" left to position the bellows. The unions should then be tightened evenly with care being taken not to rotate the bellows membrane or over tighten the rubber sealing face. Unions should be rechecked after approximately seven days.



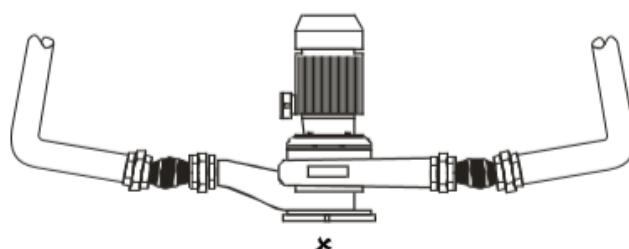
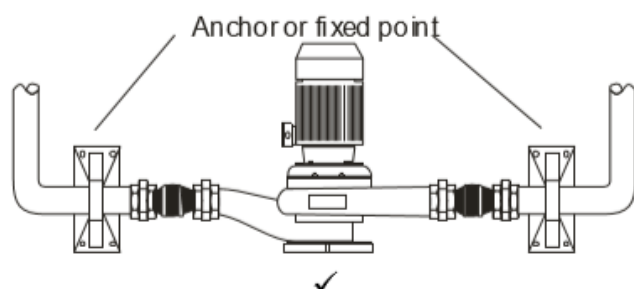
N.B (mm)	Dimension BL (mm)	
	Maximum	Minimum
20	155	145
25	145	135
32	140	130
40	130	120
50	125	115

Pressure Test

If a hydraulic pressure test is to be carried out on a system containing rubber bellows ensure that anchors are correctly fitted before the test is carried out. Also ensure that the test pressure (usually 1.5 x working) does not exceed the test pressure of the rubber bellows

Anchoring

Rubber bellows must be anchored to ensure their correct performance.



Rubber bellows will exert a pressure thrust in service and must be anchored to protect adjacent pipework and equipment. Rubber bellows will extend under pressure and must be anchored to prevent this happening.

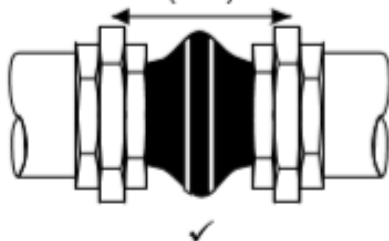
Maintenance

When properly installed and used at their correct operating temperature and pressure Single and Twin Sphere rubber bellows will give many years of trouble free service. However rubber bellows should be periodically inspected for signs of deterioration. If insulation is to be used this should be removable to allow inspection to be carried out. Unions should be checked and retightened if required. Rubber bellows should not be painted as this may reduce the bellows service life. If fine hair cracks become evident in the bellows membrane this is a sign that the bellows is nearing the end of its service life and should be replaced at the next convenient opportunity. Rubber bellows are an important part of any heating or chilled water system and consideration should be given to keeping a quantity of spares that would prevent a long term shutdown of the system.

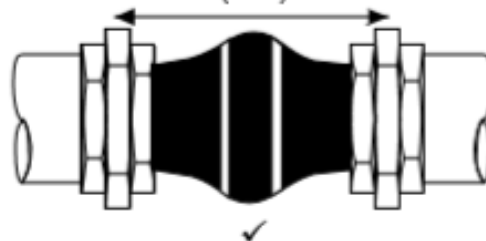
Installation, Operation and Maintenance Instructions For Single & Twin Sphere Rubber Bellows

- Storage** Rubber bellows should be stored in a cool, dark, clean area and be protected from damage caused by other items of plant and equipment.
- Inspection** Rubber bellows should be inspected for internal and external damage prior to installation. Both the rubber bellows sealing surface and the union sealing face should be clean and free from any debris that would prevent a seal or cause damage to the bellows in service.
- Selection** Check that the correct rubber bellows has been selected for the operating conditions that exist. Temperature, pressure and movement should all be confirmed as the wrong selection may result in failure of the system.

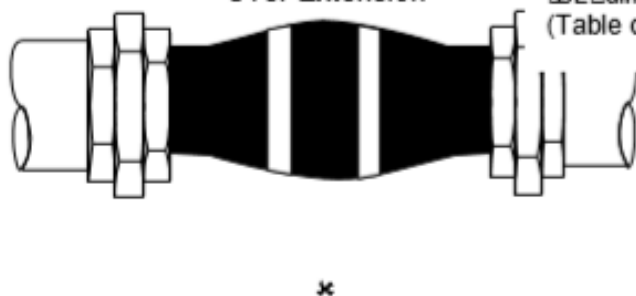
Minimum Bellows Length
(mm)



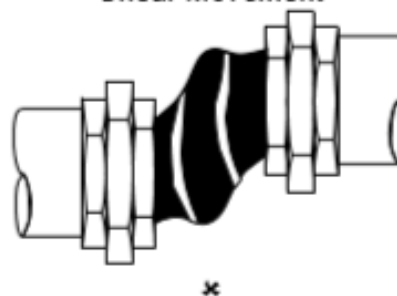
Maximum Bellows Length
(mm)



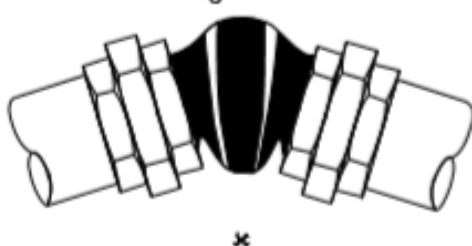
Over Extension



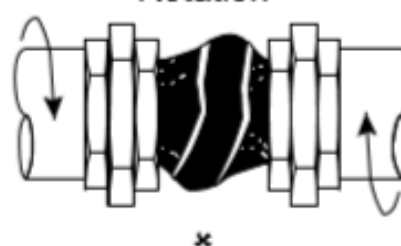
Shear Movement



Angulation



Rotation



- Installation** Rubber bellows should be installed at their neutral length and pipework should be true and straight. Adjustments should be made to the pipework if dimensions exceed the movement capabilities of the bellows being installed.