ACS REGISTRARS Quality Assurance ISO 9001 — UKAS QUALITY MANAGEMENT 229

STOURFLEX

Technically Advanced Flexible Solutions

Type JP18 Twin Sphere Rubber Bellows Union Ends.

Type JP19 Single Sphere Rubber Bellows Union Ends.

Specification

Union ended rubber bellows consisting of nylon reinforced body with E.P.D.M. liner and cover fitted with galvanized malleable iron female B.S.P. union ends.

Application

Stourflex union ended rubber bellows are designed to offer a simple method of connecting small bore pumps and air conditioning equipment and are used to reduce noise and vibration. They are suitable for use on chilled water and low pressure heating systems.

Maximum working temperature 82°C.
Maximum working pressure 10 bar.
Stourflex union ended rubber bellows should not be used at their maximum working temperature and pressure respectively.
Maximum test pressure = 1.5 x working pressure or 1.5 x end connection rating, whichever the lower.

JP18

JP19

Part number	N.B. (mm)	Minimum Installed Length (mm)	Maximum Installed Length (mm)	Minimum Working Cold Pressure (bar)	Maximum Cold Test Pressure (bar)
JP18/19 - 20	20	193	203	10	15
JP18/19 - 25	25	193	203	10	15
JP18/19 - 32	32	193	203	10	15
JP18/19 - 40	40	193	203	10	15
JP18/19 - 50	50	193	203	10	15

Supplied length may vary. Tolerance +/-5%

Where vacuum conditions or temperatures and pressures above those stated exist please check with us the suitability of and effects on service life of Stourflex products.

For applications where larger sizes of equipment require isolation please refer to the Stourflex range of flanged stainless steel pump connectors and rubber bellows.

Stourflex products should be installed in accordance with our fitting instructions.

Stourflex union ended rubber bellows should be periodically inspected and replaced if any deterioration is evident.

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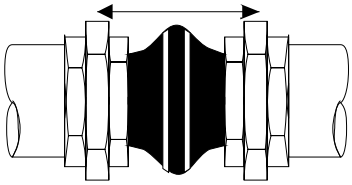
Installation, Operation and Maintenance Instructions For Single & Twin Sphere Rubber Bellows

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)



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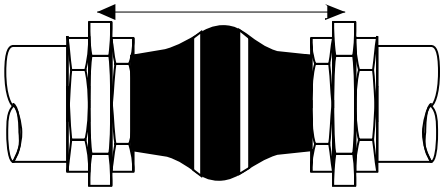
Do not exceed "BL" dimensions (Table overleaf)

Maximum Bellows Length (mm)



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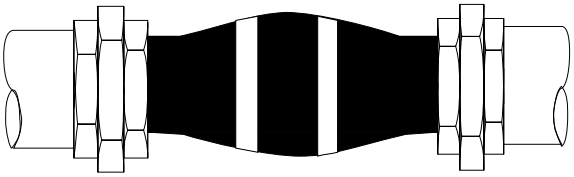
Over Extension



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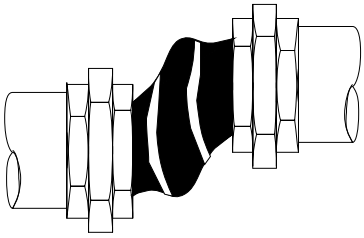
Shear Movement



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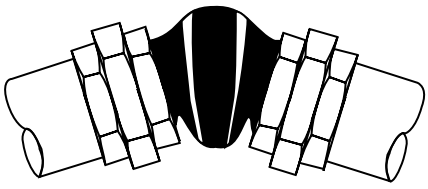
Angulation



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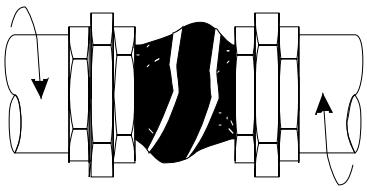
Rotation



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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.

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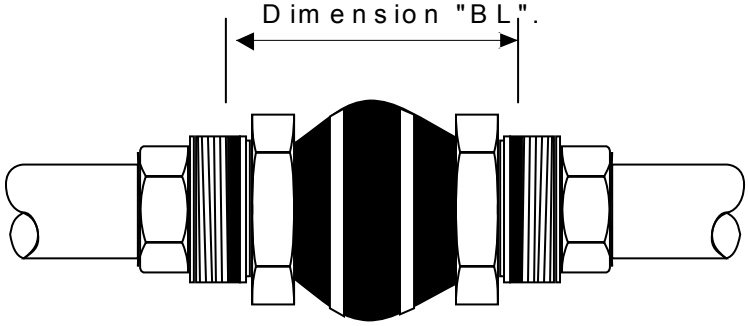
Installation, Operation and Maintenance Instructions For Single & Twin Sphere Rubber Bellows Continued

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.



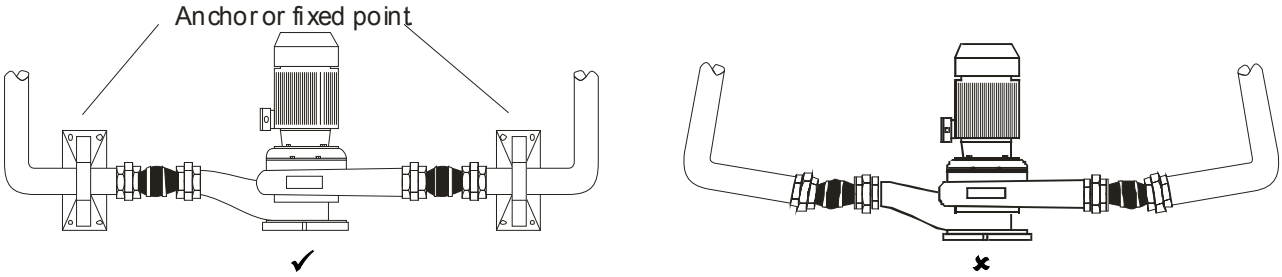
N.B (mm)	Dimension 'BL' (mm)	
	Maximum	Minimum
20	155	145
25	145	135
32	140	130
40	130	120
50	125	115

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.

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