THOMAS PIPE PRODUCTS

Bellows & Strainers

Rubber Expansion Joints (Bellows)

Vibration Absorbtion
Movement Compensation

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Rubber Expansion Joints

Application

BSP Threaded and Flanged Rubber Bellows for Pipeline Protection

Rubber Expansion Joints (Bellows) are commonly used to absorb vibration, compensate for pipeline movement, reduce system noise and compensate for pipeline component misalignment. Additionally, rubber bellows limit electrolysis and counter expansion & contraction against start up and shutdown surge forces.

Typical applications include:
- Suction and delivery pumping lines for air-conditioning and chilled water installations
- Cooling towers
- Fire fighting systems
- Pollution control systems for sewer and water
- Sanitary systems
- Power generation plans
- Marine cooling system & ballast lines etc.

Advantages

Rubber bellows are specially designed in a spherical shape and the rubber ball is reinforced with steel wire and nylon and then finally vulcanised under high pressure. The joint is supplied with floating metallic flanges or BSP unions. Due to the spherical ball shape, it exhibits great resistance to explosion and its elastic structure enables the pipeline system to have superior absorption of vibration, noise and shock.

Working Pressure

As the temperature increases, rated working pressure must be reduced accordingly.

Products must NOT be installed “elongated” in vacuum applications.

The Range

Dn20mm to DN600mm, up to PN16.

Size Range

- DN20mm - DN600mm

Industries

- Water
- Gas
- Industrial

Pipe Materials

- Ductile Iron
- Cast Iron
- Steel
- Stainless Steel
- PVC
- HDPE
- GRP
Rubber Expansion Bellows

Specifications & Dimensions

Working Pressure = 1.6Mpa
Burst Pressure = 4.8MPa
Temperature = -15 to +115°C
Angular Deflection = 45°
Vacuum Degree = 53kPa
BSP Threaded Union

RUBBER EXPANSION JOINTS

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<th>COATING</th>
<th>L (mm)</th>
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Material Specification

Union
Malleable Iron

Union Coating
Hot Dipped Galvanizing

Body
EPDM Rubber
Alternatives are available: NR, NBR.

Body Reinforcing Framework
Polyester Fabric

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## Rubber Expansion Bellows

### Specifications & Dimensions

**Working Pressure:** 1.6Mpa  
**Angular Deflection:** 7.5°  
**Vacuum Degree:** 53kPa

### RUBBER EXPANSION JOINTS

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**Flanged to:** BS10 T/D SANS1123 T1000 SANS1123 T1600  
**Electro Galvanized Flanges**

### Material Specification

**Flange**  
Carbon Steel or Cast Iron

**Flange Coating**  
Electro-galvanizing

**Body**  
EPDM Rubber  
Alternatives are available: NR, NBR.

**Body Reinforcing Framework**  
Polyester Fabric

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