

### SPECIFICATION

Model	Size (inch)	Overall Length (mm)
EFTSC 20	3/4"	150
EFTSC 25	1"	155
EFTSC 32	1 1/4"	155
EFTSC 40	1 1/2"	165
EFTSC 50	2"	165

### Performance Data

Max. Pressure	16 kg/cm <sup>2</sup>
Vaccum	700mm Hg.
Temperature	-20 to 82°C
Burst Pressure	50 kg/cm <sup>2</sup> App.
Working Fluids	Water, Air, Weak Acids & Alkalies

Flexible Joints for Special Applications Available on Order

### Features

- ⇒ Connects To Any Pipe Material GI, MS, Copper, Brass, SS or PVC
- ⇒ Minimizes Transmission Of Vibration And Noise
- ⇒ Guards Against Damage Due To Water Hammer And Pressure Surge
- ⇒ Prevents Contact Between Dissimilar Metals And Eliminates Electrolytic Corrosion
- ⇒ Absorbs Expansion, Contraction And Misalignment
- ⇒ Serves As Flexible Pipe Joint or Expansion Joint
- ⇒ Convenient To Align And Install, Saves Labor

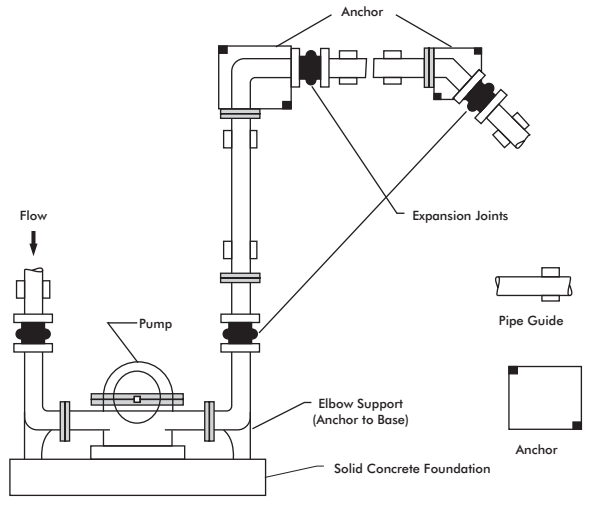
### Option Available / Ordering

- ⇒ Standard – Neoprene bellow with threaded Steel Ends for connection to steel pipe.
- ⇒ Connection Options – Bronze Couplers for brazed Connection to copper pipe (suffix 'BC') Full Bronze Flanges with BSPT Male threads (suffix 'BSM'), full Bronze Flanges with BSPT Female threads (suffix 'BSF').
- ⇒ SS 304 Couplers (suffix 'SS').
- ⇒ Any combination of the above can also be supplied.
- ⇒ Material Options – EPDM, SBR, Natural Rubber, Hypalon, Chloro-Butyl, Nitrile Rubber.
- ⇒ To Order – Please state type of pipe, actual pipe OD and type of Connection required.

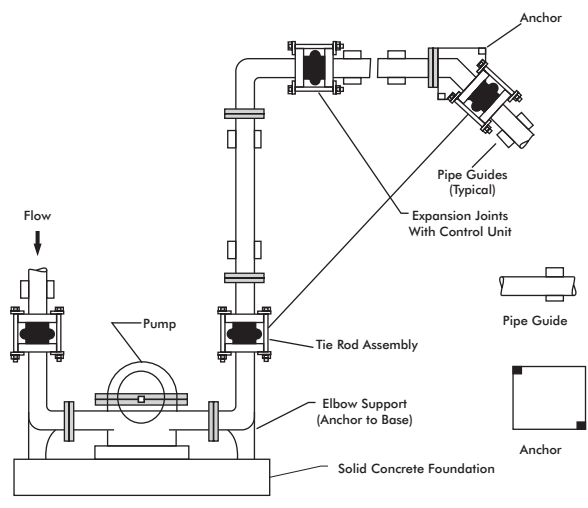
**Compliance** - ASTM F 1123-87 (2004). Testing as per Fluid Sealing Association standard FSA-PSJ-701-06.

- Due to policy of continual improvement, the specifications are subject to change without prior notice.
- Measurements are subject to 5% tolerance.
- To achieve good results do not over load
- Compliance - As per FSA Standards USA.

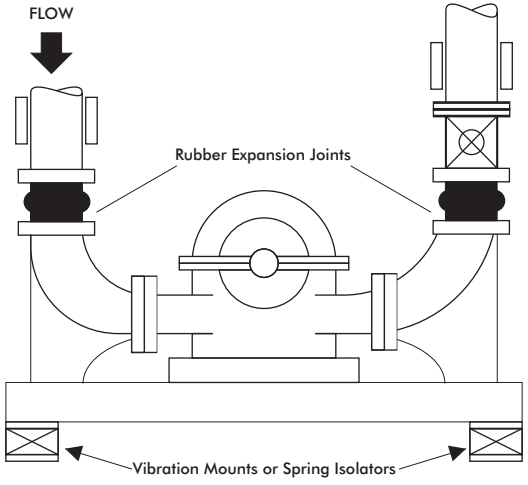
Typical Piping Layout Utilizing Expansion Joint When Equipment and Piping are properly Anchored



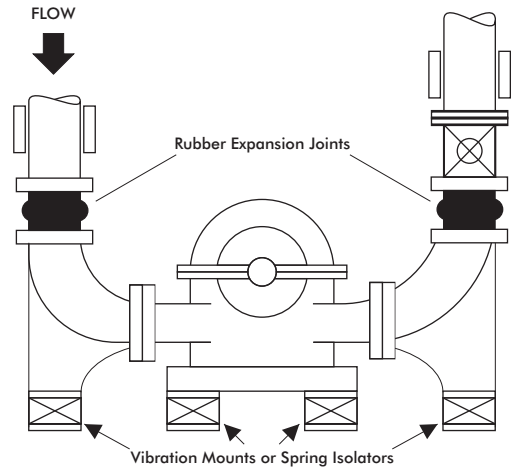
Typical Piping Layout showing the use of Control Units with the Expansion Joint when proper System Anchoring is Limited



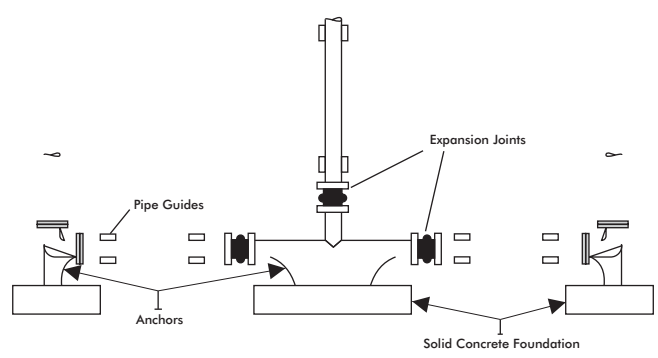
Use of an Inertia Base for Pump and Piping



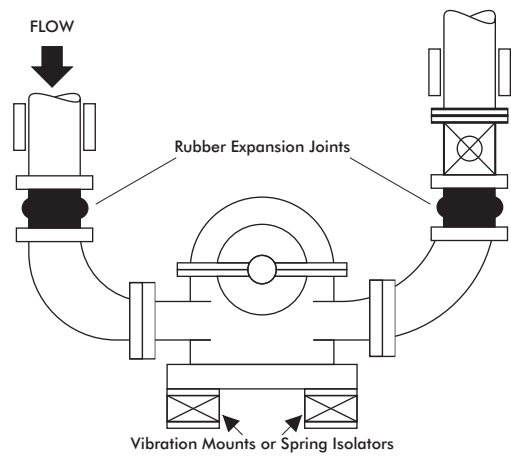
Superior Installation With Pump Base Independently Supported by Anchors



Typical Piping Layout Utilizing Expansion Joints and proper use of Anchors in Branch Locations



Typical Pump Installation With Expansion Joints Utilizing Vibration Mounts



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- Compliance - As per FSA Standards USA.

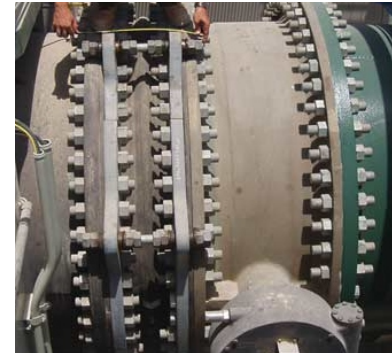
## Site Pre Installation Check & Instructions

- Is type of Bellow/Joint correct for application.
- Check maximum service temperature does not exceed maximum temperature specified in catalogue.
- Are anchors suitable for the thrust generated.
- Does pipework have adequate guiding and support.
- Cold test pressure must not exceed 1.5 times the working pressure.
- Area of movement of the joint must be free from obstruction.
- Do not paint the rubber bellows/expansion joints (the outer cover is fully waterproof.)

## Fitting Instructions

The necessary steps for installing all expansion joints should be pre-planned. The installers should be made aware of these steps as well as the special instructions furnished with the expansion joint by the manufacturer, which will provide information necessary for proper handling and installation of expansion joints. The most critical phases of the expansion joint installation are as follows :

- The installed length of the bellow in between the companion flanges should be equivalent to the over all length as per the Invoice.
  - No movement of the expansion joint (compression, extension, lateral offset, rotation) due to piping misalignment, for example, shall be imposed which has not been anticipated and designed into the movement capability of the expansion joint. Imposing such movements can result in systems malfunction or damage to the bellows or other components in the system. Specifically cycle life can be substantially reduced where forces imposed by attached equipment may exceed their designed limits, internal sleeve clearances may be adversely affected, and the pressure capacity and stability of the bellow may be reduced.
  - Anchors, guides, and pipe supports shall be installed in strict accordance with the piping systems drawings. Any field variances from planned installation may affect proper functioning of the expansion joint and must be brought to the attention of competent design authority for resolution.
- Mating flanges must be smooth and must extend to the bore of the bellow/joint e.g. 100mm NB must be 100mm internal bore. There must be no grooves, protrusions or sharp edges applied to the rubber bellows/joint face.
- Flange bolts should be located with their heads on the expansion joint side of the flange. If this location is not possible 10mm clearance must be made between the bolt and bellow/joint body.
  - Tighten bolts crosswise (not in rotation).
  - Protection for the body must be provided when welding in the vicinity of the rubber bellow/joint.



## Post Installation inspection :

A careful inspection of the entire piping system shall be made with particular emphasis on the following:

- Are anchors, guides and supports installed in accordance with the system drawings.
  - Is the expansion joint in the proper location and is the installed length correct and have the control units been installed properly (Please refer to our catalogue).
  - Are all guides, pipe supports and the expansion joints free to permit pipe movement.
  - Are any expansion joints misaligned? Measuring the joint overall length and checking clearances at critical points on the expansion joint and at other points in the system can determine this.
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  - Compliance - As per FSA Standards USA.