

technical aspects rubber expansion joints

types of movement

Flexible rubber joints are installed in a piping system to absorb movements in three directions:-

- Axial - the movement of elongation and compression along the centre line
- Lateral - offset movement from the centre line
- Angular - offset bending about the centre line

Style FSF, FTF and UTU joints are not capable of absorbing more than one movement at a time (i.e. non-concurrent), nor absorbing torsional (i.e. twisting) movement.

Styles WA and HS can absorb different movements concurrently and can accept torsional movement of 1°-2° when the joint is at its free or neutral length, however every effort should be made to design such movement out of the system.

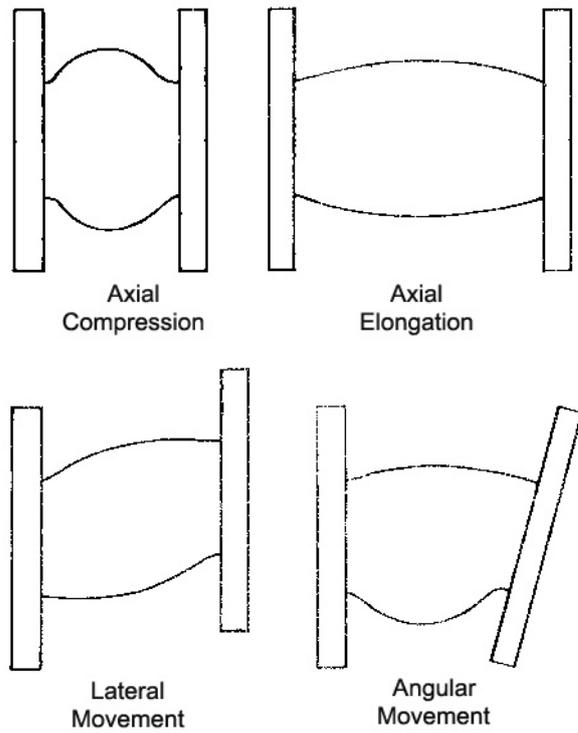
pressure and temperature

The pressures listed in the product data sheets are the nominal operating (working) pressures at a temperature of 80°C (170°F) for correctly anchored and guided expansion joints.

The test pressure is 1.5 times the positive nominal operating pressure held for 10 minutes.

The burst pressure is approximately 4 times the operating pressure on diameters up to 300mm, and approximately 3 times for larger diameters.

The pressure rating of the joint is reduced as the temperature rises above 80°C. Below is the correction factor to be applied.



force required to move

The force required to move a rubber expansion joint is defined as the total load required to deflect the joint a distance equal to the maximum rated movement of the joint. This force is expressed in kgs for compression, elongation and lateral movements and is based upon zero pressure conditions. Refer Radcoflex for details on style HS joints.

| press/temp correction factor | operating temperatures | | | | | |
|---|------------------------|-------|-------|-------|-------|-------|
| | 80°C | 85°C | 90°C | 95°C | 100°C | 105°C |
| maximum working pressure (x factor) | x 1.0 | x .92 | x .83 | x .75 | x .67 | x .60 |