



# installation instructions

## rubber expansion joints

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To ensure a long service life, elastomer expansion joints require careful installation procedures.

### **anchors and guides**

Rubber expansion joints should be installed between two fixed anchor points in a piping system. The pipe system needs to be rigidly anchored on both sides of the expansion joint to control expansion or contraction. The pipe anchors must be capable of withstanding the significant movements imposed on the system by internal pressure and temperature fluctuations.

Where correct and adequate anchoring is not possible, the rubber joints must be fitted with Control Rods - see 'limit and control rods' data sheet.

### **gaskets**

Rubber expansion joints when mated to flat face plate flanges do not need gaskets, however a gasket may be required if the mating flange is raised face to ensure a proper seal and to prevent the metal flange from damaging the rubber vanstone face seal.

Ensure mating flanges are clean and reasonably smooth before installation.

It is advisable to apply a thin film of graphite dispersed in glycerine or water to the rubber face of style HS and WA joints before installing the joint. This makes the initial installation and any subsequent removal of the joint easier to perform.

### **vacuum applications**

Rubber expansion joints should not be installed extended on vacuum applications.

### **spring mounted installation**

Control rods should always be used when the joints are used in conjunction with spring mounted equipment.

### **maintenance**

It is recommended to check bolt tightness one week after installation. For systems with significant temperature changes, the bolt tightness should be regularly checked.

At the same time, the outer cover of the joint should be examined for signs of damage or failure.

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## guide to correct installation

To ensure a long service life, elastomer expansion joints require careful installation procedures.

- Install the nut and spring washer on the side opposite the elastomer element (on the piping system side).
- Always use spring washers to avoid nuts working loose when expansion joints are vibrating.
- Always install expansion joints at proper length.
- When bolting the expansion joint to the pipe work flanges, follow the diagrams on this page.
- When installing nuts to bolts tighten as per (1) (2) (3) (4) procedure and tighten diagonally.
- Determine T dimension in free state and tighten bolts till dimension is half of T i.e. T/2 - do not overtighten as this will damage the vanstone face seal.
- The installed F/F tolerance is  $\pm 3\text{mm}$  (1/8")

