

1. SERVICE CONDITIONS

Make sure the expansion joint rating for temperature, pressure, vacuum and movements match the system requirements. Contact the manufacturer for advice if the system requirements exceed those of the expansion joint selected. Check to make sure the elastomer selected is chemically compatible with the process fluid or gas.

2. ALIGNMENT

Expansion joints are normally not designed to compensate for piping misalignment errors. Piping should be lined up within 1/8". Misalignment reduces the rated movements of the expansion joint and can induce severe stress and reduce service life. Pipe guides should be installed to keep the pipe aligned and to prevent undue displacement.

3. ANCHORING

Solid anchoring is required wherever the pipeline changes direction, and expansion joints should be located as close as possible to anchor points. If anchors are not used, the pressure thrust may cause excessive movements and damage the expansion joints.

4. PIPE SUPPORT

Piping must be supported so expansion joints do not carry any pipe weight.

5. MATING FLANGES

Install the expansion joint against the mating pipe flanges and install bolts so that the bolt head and washer are against the retaining rings. If washers are not used, flange leakage can result, particularly at the split in the retaining rings. Flange-to-flange dimensions of the expansion joint must match the breech type opening. Make sure the mating flanges are clean and are flat-face-type or more than 1/16" raised-face-type. Never install expansion joints that utilize split retaining rings next to wafer type check or butterfly valves. Serious damage can result to a rubber joint of this type unless installed against full-face flanges.

6. TIGHTENING BOLTS

Tighten bolts in stages by alternating around the flange. If the joint has integral fabric and rubber flanges, the bolts should be tight enough to make the rubber flange O.D. bulge between the retaining rings and the mating flange. Torque bolts sufficiently to assure leak-free operation at hydrostatic test pressure. Bolt torquing values are available from most manufacturers. If the joint has metal flanges, tighten bolts only enough to achieve a seal and never tighten to the point that there is metal-to-metal contact between the joint flange and the mating flange. When tightening the bolts the following torque limits should not be exceeded:
(1"-3" = 525 Lbs./in.), (3.5" and larger = 700 Lbs./In.).

7. STORAGE

Ideal storage is a warehouse with a relatively dry, cool location. Store flange face down on a pallet or wooden platform. Do not store other heavy items on top of an expansion joint. Ten-year shelf life can be expected with ideal conditions. If storage must be outdoors joints should be placed on wooden platforms and should not be in contact with the ground. Cover with a tarpaulin.

8. LARGE JOINT HANDLING

Do not lift with ropes or bars through the bolt holes. If lifting through the bore, use padding or a saddle to distribute the weight. Make sure cables or forklift tines do not contact the rubber. Do not let expansion joints sit vertically on the edges of the flanges for any period of time.

9. ADDITIONAL TIPS

- » For elevated temperatures, do not insulate over a non-metallic expansion joint.
- » It is acceptable (but not necessary) to lubricate the expansion joint flanges with a thin film of graphite dispersed in glycerin or water to ease disassembly at a later time.
- » Do not weld in the near vicinity of a non-metallic joint.
- » If expansion joints are to be installed underground, or will be submerged in water, contact manufacturer for specific recommendations.
- » If the expansion joint will be installed outdoors, make sure the cover material will withstand ozone, sunlight, etc. Materials such as EPDM and Hypalon® are recommended. Materials painted with weather paint will give additional ozone and sunlight protection.
- » Check the tightness of leak-free flanges two or three weeks after installation and re-tighten if necessary.

10. GUARANTEE

Guarantee is indicated in the edition of „General Business Conditions of FERGO Armaturen GmbH“ valid at the date of delivery or is indicated differing from this in the contract of sale.

For damages, which occur by improper handling or disregard of these fitting and operating instructions, of the standards EN, DIN, VDE and other standards, no guarantee claims can be enforced. Damages which occur during operating caused by working conditions different to those of data sheet or other agreements are also no subject for guarantee. Claims which exceed the guarantee are also concluded. Claims for spare delivery do not exist. The installation of strange parts, changes of the construction as well as natural attrition are also concluded from the guarantee.

Possible transport damages have to be indicated at once not to us but to your competent goods freight depot, the railway or the transporting agent as otherwise the claim for compensation will be lost.