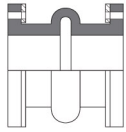


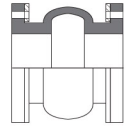
Redflex® Expansion Joints

Types of Expansion Joints

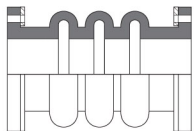
Many types of joints, connectors, and pipe are available to meet almost any installation requirement.



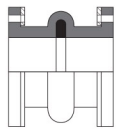
Standard — Single Arch for use where the initial misalignment of the pipes to be connected does not exceed 1/8". Flanges must be parallel.



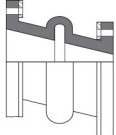
Wide Arch — Same face-to-face as standard Expansion Joint, but with greater movement capability. Can be used in place of multiple arches.



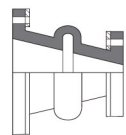
Multiple Arch — Standard joint with two or three arches. Recommended for greater movement where face to face dimensions are not limited.



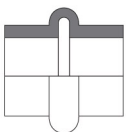
Filled Arch — Joints can be provided with filled arches to create a smooth bore to eliminate the possibility of buildup. The soft rubber filler restricts the movement of the joint to 50% of what the would be with open arches.



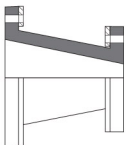
Offset — Used where initial misalignment of the axis of two pipes exceed 1/8" and where flanges are out of parallel.



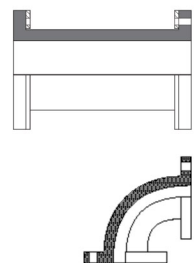
Tapered — Concentric or eccentric configurations are used to connect flanges with different diameters — whether parallel or offset — with initial alignment less than 1/8". Particularly suited for centrifugal pump installations.



Slip-on — All standard joints are available with sleeve ends. Designed for slipping over pipe ends, special F-to-F dimensions are available.



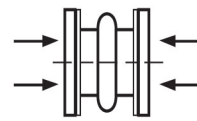
Reducers — Concentric or eccentric reducers are used to connect flanges with different diameters — whether parallel or offset — where expansion or contraction of the joint will not occur.



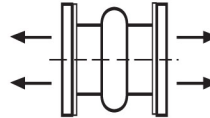
Rubber Pipe & Fittings — Replaces steel or cast iron pipe in straight runs or specified bends in working pressures up to 250 psi. Vibration pipe is used to control vibration and reduce noise from pumps and compressors. Rubber and Vibration Pipe are both available in slip-on ends for low pressures. Fittings are available in 45° and 90° elbows, Y connectors, and T's.

Joint Movements

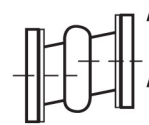
Expansion Joints compensate for movements caused by thermal expansion and contraction, seismic events, machinery, and line pressure.



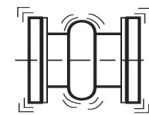
Axial Compression — The dimensional reduction or shortening in the face-to-face parallel length of the joint measured along the longitudinal axis.



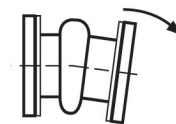
Axial Elongation — The dimensional increase or lengthening of face-to-face parallel length of the joint measured along the longitudinal axis.



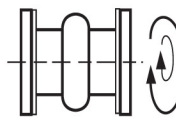
Lateral or Transverse Deflection — The movement or relating displacement of the two ends of the joint perpendicular to its longitudinal axis.



Vibration — The ability of a flexible connector to absorb mechanical oscillations in the system, usually high frequency.



Angular Movement — The angular displacement of the longitudinal axis of the expansion joint from its initial straight line position, measured in degrees. This is a combination of axial elongation and axial compression.



Torsional Movement — The twisting of one end of an expansion joint with respect to the other end about its longitudinal axis. Such movement is measured in degrees.

Materials of Construction

▶ ELASTOMERS

Pure Gum Rubber, Neoprene, Hypalon®, Chlorobutyl, Buna-N, EPDM, and Viton®

▶ Class I — to 180°F

Pure Gum Rubber, Neoprene, Hypalon®, Buna-N

Class II — to 250°F

Chlorobutyl, EPDM, Viton-lined®, Teflon®-lined

Class III — to 400°F

Solid Viton®