

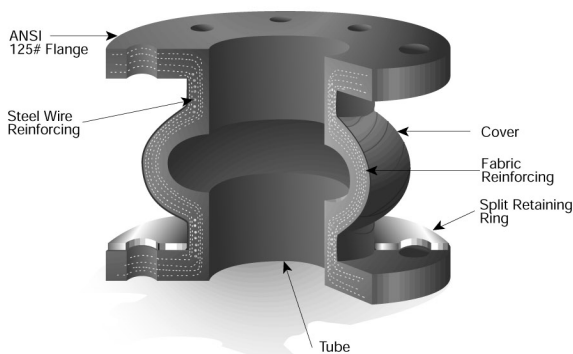
J-1 Expansion Joints

- ▶ **Single, or multiple arches available**
- ▶ **Full face integral flanges, no gaskets necessary**
- ▶ **Sizes 1" to 108"**
- ▶ **Heavy-duty, steel wire reinforced construction**
- ▶ **Made in U.S.A.**



Materials of Construction

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



The J-1 Expansion Joint is the most common type of joint used to compensate for pipeline movement and vibration. The construction of the J-1 is very much like a heavy-duty truck tire: layers of high-quality elastomers are reinforced with steel wires and synthetic fabrics. The inner layer forms a tube that extends through the inside of the joint, and across the face of the end flanges. This layer is chosen based on its chemical compatibility and abrasion resistance and temperature rating to the process material. The middle layer of the joint contains the bias-ply synthetic fabric reinforcement that gives the joint its form and pressure rating, and a layer(s) of wire reinforcement for added strength. The outer layer of the joint is chosen to be compatible with the environment in which the joint is to be installed, usually Neoprene or Butyl. This allows the joint to stand up to occasional contact with oils, corrosion, and weathering.

The J-1 features full-face integral flanges that eliminate the need for additional gaskets when installing the joint. The flanges are drilled to mate with ANSI 125/150 flanges, with special drilling available upon request. Galvanized or stainless steel retaining rings can be provided to protect the flange and distribute forces evenly. Redflex® J-1 Joints can also be manufactured to meet Coast Guard and Military standards as well.

J-1 Expansion Joints are available with a single arch, double arches, or triple arches to meet the face-to-face and movement requirements of the installation. The arches, along with the flexibility of the elastomer construction, allows the J-1 to provide stress relief in piping systems due to the thermal expansion and contraction, and mechanical movements and vibration.

Specifications for J-1 Expansion Joint

The Expansion Joint shall consist of an inner tube, body, and outer cover, and shall have flanged ends. The tube shall be natural rubber or synthetic material as specified in the Purchase Order. The body shall consist of fabric and rubber compounds reinforced with steel wire for strength. The body materials shall be compatible with the tube and shall be suitable for the specified service conditions. The cover shall be formed from natural or synthetic rubber suitable to external service to resist weather, ozone, and corrosive fumes. Flanges shall be constructed integrally with the body to resist stresses. Flanges shall be full-pattern so that gaskets are not necessary. Flanges shall be drilled to ANSI B 16.5, Class 150#, or as specified in the Purchase Order. The Expansion Joint shall be available with a single arch or multiple arches, and open arch or filled arch construction. Joint shall be manufactured in the U.S.A., and manufacturer must be a member of the Fluid Sealing Association.

All Expansion Joints shall be Redflex Type J-1 as manufactured by the Red Valve Company, Inc. of Carnegie, PA 15106.