

EXPANSION JOINTS

Expansion Joint vs. Metal Hose

Braided metal hose assemblies and expansion joints share many similar attributes, but it is their differences in construction that determine which is best for a specific application. Braided metal hose assemblies are constructed from flexible, corrugated hose typically formed using a single layer of strip. The number of corrugations per foot dictates the flexibility of the hose, while the outer braid layer provides its pressure bearing capability. Braided metal hoses are designed to accommodate one plane of movement: either lateral (side to side), or angular (one end moving, or bending, relative to the other). Axial movement (compression or extension) is to be avoided, as it can cause the braid to loosen from the hose, thus reducing its pressure bearing capability and leaving the hose susceptible to squirm.

Because expansion joints are designed to accommodate pressure and movements without the need for braid, they are capable of handling all three planes of movement: lateral, angular, and axial. Expansion joint movement and pressure bearing capabilities are determined by the number of convolutions, as well as material thickness, number of plies, and wall height specified by the product's individual design.

Multi-ply expansion joints are ideally suited for applications where vibration may be present. Additionally, multi-ply designs feature lower spring rates which reduces stress on piping components, and increases cycle life for a given installation.

Size Range

- From 2" - 120" nominal diameter (tube sizes also available), single and multi-ply

Alloys

- Stainless steels - T304, T304L, T309, T310, T321, T316, T316L
- Nickel - 400, 600, 625, 625LCF, 800, 800H, Nickel 200, C276
- Other alloys available upon request

Pressure

- From full vacuum to 3000 psi

Temperature

- Range from -450° F to 2000° F

