

Cycle-Motion: The movement from normal to extreme position and return.

Developed Length: The length of a hose plus fitting (overall) required to meet the conditions of a specific application.

Diamond Weave: A braid pattern in which the strands alternately cross over one and under one of the strands (one over – one under). Also known as plain weave.

Dye Penetrant Inspection or Test: A method for detecting surface irregularities, such as cracks, voids, porosity, etc. The surface to be checked is coated with a red dye that will penetrate existing defects. Dye is removed from surface and a white developer is applied. If there is a defect in the surface being checked, the red dye remaining in it causes the white developer to be stained, thereby locating the defective area.

Displacement: The amount of motion applied to a hose defined as inches for parallel offset and degrees for radial misalignment.

Dog-Leg Assembly: Two hose assemblies joined by a common elbow.

Duplex Assembly: An assembly consisting of two hose assemblies – one inside the other – and connected at the ends.

Effective Thrust Area – Hose and Bellows: The cross-sectional area described by the outside diameter (at the tops of the convolutions) less two times the metal thickness of the hose or bellows.

Elastic (Intermittent Flexure): The smallest radius that a given hose can be bent to without permanent deformation of the metal in its flexing members (convolutions or corrugations).

Erosion: The wearing away of the inside convolutions of a hose caused by the flow of the media conveyed, such as wet steam, abrasive particles, etc.

Exposed Length: The amount of active (exposed) hose in an assembly. Does not include the length of fittings and ferrules.

Fatigue: Failure of the metal structure associated with, or due to, the flexing of metal hose or bellows.

Ferrule: (See definition for Braid Sleeve)

Fitting: A loose term applied to the nipple, flange, union, etc., attached to the end of a metal hose.

Flat Braid: Has a braid angle greater than 45° (See Braid Angle).

Flow Rate: Pertains to a volume of media being conveyed in a given time period, e.g., cubic feet per hour, pounds per second, gallons per minute, etc.

Frequency: The rate of vibration or flexure of a hose in a given time period, e.g., cycles per second (CPS), cycles per minute (CPM), cycles per day (CPD), etc.

Galvanic Corrosion: Corrosion that occurs on the less noble of two dissimilar metals in direct contact with each other in an electrolyte, e.g., water, sodium chloride in solution, sulphuric acid, etc.

Guide (For Piping): A device that supports a pipe radially in all directions, but allows free longitudinal movement.

Hardware: A loose term used to describe parts of a hose assembly other than the hose and braid, e.g., fittings, collars, valves, etc.

Helical: Used to describe a type of corrugated hose having one continuous convolution resembling a screw thread.

Helical Wire Armor: To provide additional protection against abrasion under rough operating conditions, metal hoses can be supplied with an external round or oval section wire spiral.

Inside Diameter: This refers to the free cross section of the hose and (in most cases) is identical to the nominal diameter.

Installation: Referring to the installed geometry of a hose assembly.

Interlocked Hose: Formed from profiled strip and wound into flexible metal tubing with no subsequent welding, brazing, or soldering. May be made pressure-tight by winding in strands of packing.

Intermittent Bend Radius: The designation for a radius used for non-continuous operation. Usually an elastic radius.

Lap Weld (LW): Type of weld in which the ends or edges of the metal overlap each other and are welded together.

Liner: Flexible sleeve used to line the I.D. of hose when the velocity of gaseous media is in excess of 180 ft. per second.

Loop Installation: The assembly is installed in a loop or "U" shape, and is most often used when frequent and/or large amounts of motion are involved.