

A large, close-up photograph of a stainless steel braided hose, showing the intricate woven pattern of the metal strands. The hose is coiled and runs diagonally across the frame from the top left towards the bottom left. The background is white with orange accents.

Lifeline of the Industrial World

STAINLESS STEEL CORRUGATED
FLEXIBLE HOSE • BRAID • HOSE ASSEMBLIES
& RELATED END FITTINGS

About Us

ESSEM WORKS manufactures Corrugated Hoses and Hoses Assemblies at an ultra-modern facility in the National Capital Region of Gujarat, under the supervision of a highly qualified team of engineers and technocrats who have been trained in India and abroad. A large variety of Metallic Flexible Hoses & Hoses Assemblies, manufactured in austenitic steel are, AISI 304 L, 321, 316, and 316 L grades and braid in 304 & 316 grades conforming to international quality standards. Assemblies made by **ESSEM WORKS**, conform to BS : 6501 part - 1 & ISO 10380 standard and are supplied as per type A, B And C flexibility. Hence a wide choice can be made depending upon the application. Unless and otherwise specifies, the Hoses and Hose Assemblies of type B flexibility with single wire braid will be supplied as this being a medium pitch, medium pressure hose is used for general industrial applications where normal flexing and vibration conditions exist.

Pressure Range

The recommended working pressure ratings for type B flexibility, medium pressure hose, are given in Table 1 which also gives the permissible bend radii and the test pressure data for all size up to 8" (200mm). Hoses and Hose Assemblies can be supplied with single or double ply braids, depending upon the working pressure requirements.

These can be supplied without Braiding as well, for low pressure and vacuum applications.

Flow Velocity

Corrugated Metal Flexible Hoses have limitations in case of fluids with high flow velocities, as the high velocity causes resonant vibrations, resulting in premature failures. Whenever flow velocity exceeds 50m/sec for gas and 25 m/sec for liquids, an interlock hose liner should be used in the Hose Assemblies. The above flow velocity values get reduces to 50% for 90° degree bends and 25% for 45° degree bends.

Life of Hoses

It should be remembered that all flexible Hoses, particularly those used under flexing and moving conditions have a finite life. When they are used in applications where dangerous chemicals or hot and inflammable fluids are passed through them, they should be examined periodically.

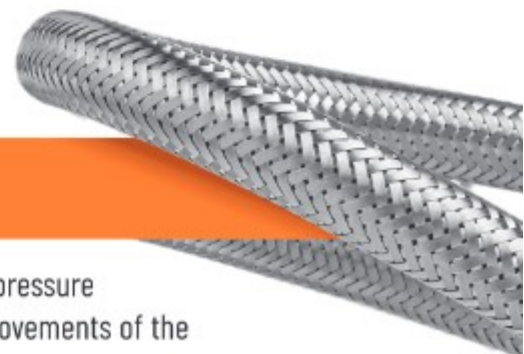


HOSE

Corrugated Flexible Hoses are offered in 6mm (1/4 ") to 200 mm (8") nominal bore.

Unbraided Corrugated Hoses tend to elongate when pressurised above a certain level. To restrain this, an external layer of Stainless Steel wire braiding is provided on the Hose. Braiding prevents longitudinal expansion of Corrugated Hose and thus increases the internal pressure strength of the Hose many fold. Braiding is highly flexible and exactly follows the movements of the Hose. To increase the pressure ratings further, two or even three layers of braiding are provided.

BRAID



ASSEMBLIES



Assembles are made by TIG welding of Stainless Steel and Carbon Steel end connections or by Silver Braizing in case of Copper and Brass end connections.

This hose assemblies are used for transferring air, gas & liquids from one place to another place.

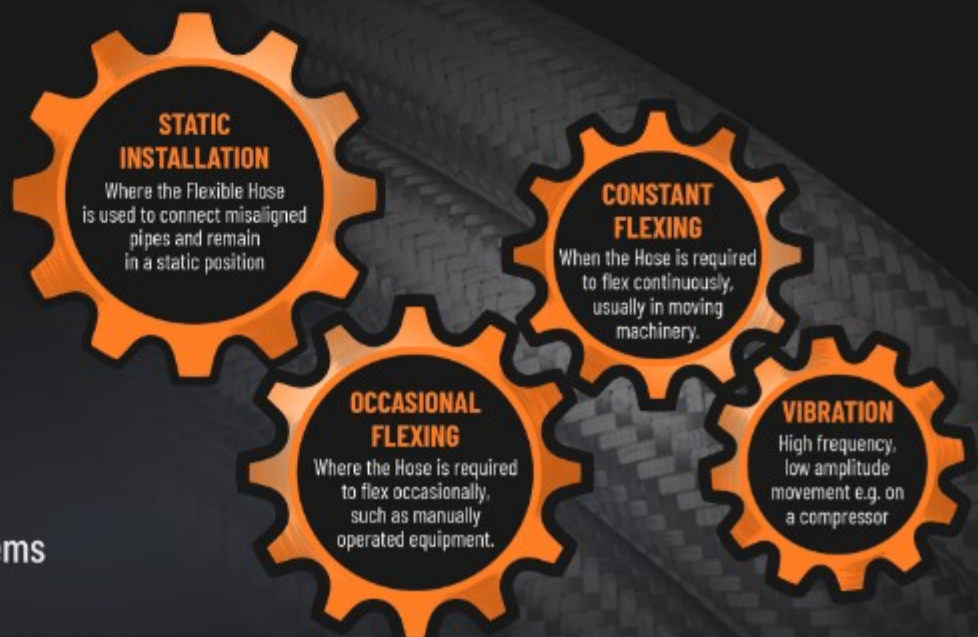
Advantages Of Flexible Metal Hoses

- Suitable for temperature range (-270°C to 700°C)
- Compensates for thermal expansion or contraction in the piping system.
- High Physical Strength
- Good Corrosion Characteristics
- Fire & Moisture Resistant
- Long Life Resistant to abrasion, penetration and damage.
- Absorbs or dampens vibration and noise from pumps, compressors, engines and similar equipment
- Connects misaligned rigid piping.
- Connects moving parts of machinery and equipments.
- Permits a very economical installation against rigid piping in difficult locations.

APPLICATIONS

- Cryogenic Equipment
- Nuclear Plants
- Steam & Hot Water
- Lubrication Systems
- Chemical Industry
- Steel Industry
- Food & Beverage Industry
- Fertilizer Industry
- Sugar & Paper Industry
- Automotive Exhaust Systems
- Ships & Air Crafts
- Air Conditioning & Refrigeration Systems

MODES OF MOVEMENT





ESSEM WORKS PVT. LTD.

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