# **Global Transmission**

## Flexible Metal Hoses & Assemblies



www.globaltransmission.net

FC

## **BRAIDED FLEXIBLE METAL HOSE ASSEMBLY**

The use of braided metal connectors for applications such as pumps, compressors and other mechanical equipment will enhance the overall operation of a system. The optimum design provides a variety of advantages:

- 1. Greater flexure without fatigue
- Longer service life 2.
- Greater capacity for pressure 3.
- Increased temperature capacity of media Absorption of pump vibration and noise 4.
- 5
- Acceptance of thermal expansion 6.
- 7 Reduction in pipe stress due to minor misalignment and pressure variations
- 8. Reduction of stress on pumps and compressor housings, reducing long term operation and maintenance costs.

#### CONSTRUCTION

Corrugated Metal Hose Assemblies are usually made of stainless steel, bronze or other metals depending upon the environment in which it is being used. The corrugated hose is manufactured by forming a rolled strip into a cylindrical thin walled tube. The seams are joined by butt-welding and profile is impressed into the tube.



An annular configuration is one in which the convolutions on a hose consist of a series of complete circles located at right angles to the longitudinal axis of the hose. This is sometimes referred to as a bellows. An annular hose is better suited for pump connections because it can better sustain torsional stress due to longitudinal expansion from rises in pressure

Helical hose is formed from a continuous spiral corrugation into tubing. This design allows for flexibility of the hose assembly under pressure and also possesses unique self-draining properties.

Metal wire braid on a hose assembly restrains against hose elongation under higher pressures and acts to dampen vibration. A second layer of braid may be used to increase pressure ratings. A heavy braid will also increase abrasion resistance. Optimal braid coverage will contain the core under pressure and reduce the possibility of squirm. Properly designed braid coverage will balance pressure capability with flexing requirements as well as minimize braid wear on the crown of the corrugation.





#### HOSE ASSEMBLY

A welded hose assembly consists of several key components. The cover on a metal hose assembly protects the braid from external abrasion and can be made from many different materials including interlock casing, heat shrink covers or many types of heavy duty elastomers. Reinforced ends are recommended for applications where sharp bends or extreme flexure occurs near the end of the

hose.



CALL today to find out why GLOBAL TRANSMISSION is "the source for solutions."

02

### **INDUSTRIAL METAL HOSES**

#### Annular Corrugated Metal Hose Assemblies

#### **Function:**

Applications include absorbing vibration, compensating for misalignment and accommodating offset motion at equipment connections.

#### Materials:

Alloys of stainless steel, bronze, and monel, and hastelloy with various end fittings alloys available.

#### Sizes:

1/4" to 14" ID

#### **Fittings:**

See pictures and chart:





03

SS Float Flange HOSE DIAMETER 1/2"-18"

SS Hex Male PN **HOSE DIAMETER 1/4"-4"** 



SS Male Pipe Nipple HOSE DIAMETER 1/4"-6" SS Weld End

HOSE DIAMETER 1/2"-20"

### **METAL HOSES**

#### "Exceptional Industrial Hose Assemblies"

Metal hoses are used in a variety of demanding applications throughout industry. Corrugated hose usually comes with a braid, and interlocked hose is available unpacked, packed for pressure retention, or with a liner for smooth material handling.





Corrugated stainless steel hose with a single stainless steel braid. It has a large pressure and temperature capacities, and is resistant to bursting, cracking, and crushing even under accidental exposure to flame, while being quite flexible and resistant to vibration. It is available in a wide range of sizes for a large variety of liquid and gas transfer throughout industry. -320F to 1500F.



A single bronze braid. It has a high pressure capacity at high temperatures. It is resistant to bursting, cracking, and crushing even under accidental exposure to flame, while being quite flexible and resistant to vibration. -50F to 450F.



A corrugated stainless steel hose that can be used at lower pressures at high temperatures. It is quite flexible and resistant to vibration, and is available in a large range of sizes. For higher pressures, see the braided metal hoses options. Applications include liquid and gas transfer at high temperatures and lower pressures. -320F to 1500F.



A stripwound interlocked stainless steel hose. The edge of metal strip is folded so that the joints interlock. It is relatively lightweight but tough, and is resistant to high temperatures. Applications include bulk material handling, fume and dust collection, engine exhaust, and many others. Temperature range is - 50F to 1200F.



### **STAINLESS BRAIDED TEFLON HOSE**

Uniquely flexible smooth high purity tube hose of Teflon starts with an ultra-smooth extruded tube of Teflon made with Dupont T-62 PTFE resin. This tube is reinforced first with a glass braid only for sizes above •" that is applied and bonded to the tube in a patented process. A second braid of stainless steel provides additional pressure capability and desired application properties.

Combines the best material properties in a much more useable form. Smooth Teflon is the most chemically resistant material known. It's the easiest material to clean. Teflon is non-stick and non-aging. it can be cleaned with steam, caustics or sterilized with any method within the temperature rating of the hose.

#### Key Benefits PTFE Tubing:

- Safest Hose Assembly Available Pays for itself through Reduced Labor Cost
- No human attendance requirement
- No Car Modifications
- No New Maintenance Requirements
- User Friendly

### **SUPERFLEXIBLE WIRE BRAIDED HOSES**

#### MATERIAL

- Electro galvanised steel (a)
- (b) Brass
- (C)Copper
- Phosphor bronze (d)
- Stainless steel (e)

#### WIRE BRAIDING

- (a) Steel
- (b) Copper Tinned Copper (C)

A heavy gauge metallic core with an extruded rubber covering subsequently wire braided upon for reinforcement and added strength. It can withstand temperature up to 210° C. A light in weight pressure hose with superflexibility and high strength.



## **STAINLESS STEEL OUTER WIRE TANKER HOSES**





### **TECHNICAL DATA**

INSIDE DIAMETER		WORKING PRESSURE		MIN. BEND Radius		APPROX WEIGHT		MAXIMUM LENGTH	
INCH	ММ	PSI	BAR	INCH	ММ	LBS/FT	KG/M	FT	MTR
1	38	100	7	4	100	0.65	1.00	65	20
2	50	100	7	5	125	1.20	1.80	65	20
2	65	100	7	6	150	1.60	2.40	65	20
3	80	100	7	7	175	1.90	2.80	65	20
4	100	100	7	11	275	2.70	4.00	65	20

(05)

• The Length and Contact Flange can be made to order according to user request.

• The hose can be covering wire braided according to user request.



### **Bellows Compensators**

### **Expansion joints**

#### Features:

- Balances and compensates to prevent displacement or vibrations in extreme temperatures, pressure, or thrust.
- Used extensively in all facets of the high-tech steel industry as well as other industries.
- Have good flexibility and handle extreme temperature and pressure well.
- They can play an important role in hose reciprocating motion, thermal expansion absorption, vibration absorption and adjusting compound tube center.
- Important connector for gas, oil and water with modern equipment pipeline systems and piping projects.
- Axis direction compensate: 10 100mm.
- Angle direction compensate: 10 40 degrees.
- Work temperature: -20 450 degrees.
- Length: 100 2,000mm or custom request.

We offer world-class Expansion Bellows that are designed and built to last. These expansion bellows offer greater security & variety in meeting customer needs. These are generally used to absorb movement in piping caused by thermal changes. Our Expansion Joint Bellows are produced from fully annealed type 321 stainless steel sheet stock rolled into a tube and seam welded. We employ the latest technology in forming the corrugations of our bellows.



#### Usage:

- Diesel Generator Exit and Boiler Fuel
- High and Low-Pressure Turbine Piping
- Main Feed Pump Suction
- Propeller Shaft Air System
- Condensate Pump Suction
- Saturated and Superheated Steam



06

### Stainless steel corrugated Flexible Metallic Hoses Product Specification

We are a recognized leader serving the entire state of INDIA, high quality Our products at a competitive price. Together we have built a reputable and trusted name providing quick, personalized service for our customers.

We are committed to stocking the largest and most complete line of Metalik hose, couplings, adapters and accessories in this area. Our courteous and highly trained personnel can help to determine your exact specifications and needs.



### **TECHNICAL DATA**

NOMINAL DIAMETER	WITHOUT BRAID Pressure in KG/CM	1 <sup>2</sup>	WITH SINGLE BRAII Pressure in Kg/CM		WITH DOUBLE BRAID Pressure in Kg/cm <sup>2</sup>	
	Max. Working Pressure	Test	Max. Working Pressure	Test	Max. Working Pressure	Test
6	4	6	100	150	160	240
10	4	6	90	135	144	216
12	3	4.5	80	120	128	192
16	3	4.5	70	105	112	168
20	2	3	64	96	102	153
25	2	3	50	75	80	120
32	1.5	2.3	40	60	64	96
40	1.5	2.3	30	45	48	72
50	1	1.5	28	42	44	66
65	1	1.5	24	36	38	57
80	1	1.5	18	27	28	42
100	0.8	1.2	16	24	26	39
125	0.6	0.9	12	18	20	30
150	0.6	0.9	10	15	16	24
200	0.5	0.75	8	12	12	18

 $\Sigma$  The above Technical details are subject to change without notice.

Manufactured with Carbon Steel, S.S. and Brass of type 321, 304, 304L, 316, 316L and flexible tubes of Stainless Steel .

#### Call us now for hose assemblies, made while you wait!



The Perfect Solution for Solutions .....Your search ends here.

# **Global Transmission**

37, Strand Road, 1st Floor, Kolkata-700 001, (INDIA) Ph. : 033-2248 2780, 2248 4296 • T/Fax : 2248 4296 E-mail : info@globaltransmission.net www.globaltransmission.net

WE ALSO OFFERS SEVERAL OTHER HOSES FOR SPECIAL APPLICATION

ВС