



FLEXIBLE METAL HOSE & BRAID

- **Stainless Steel Hose**
- **Interlocked Hose**
- **Braid**
- **Bitumen Hose**
- **Jacketed Hose**
- **End Fitting**
- **Assemblies**

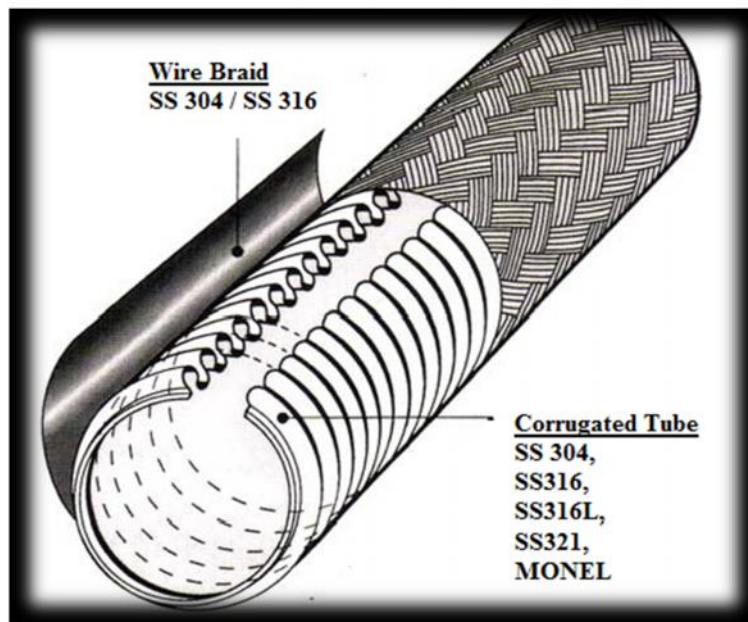


INTRODUCTION

Flytech Stainless Steel Flexible Hose is made from the finest quality stainless steel. Our hose is a close pitch hose with a safety factor of 4:1, ranging from 6mm to 350mm, and a high working temperature range of -200°C to 816°C. The hose is designed to convey superheated steam, liquefied gases and even petroleum and chemical products without affecting its flexibility, vibration absorption ability and fire protection ability.

The hose is annular construction and convoluted formation determines its flexibility. Our standard manufacturing range consists of class B flexibility as per BS6501 Part 1:1991.

Application: Steel Plant , Refineries, Fertiliser Industries, Pulp & Paper, Pharmaceutical, Food & beverages, Automotive exhaust, Coolant System, Lubrication system, Air conditioning, Steam & hot water & etc..



SELECTION OF THE HOSE

✓ PRESSURE

User need to identify the working pressure of the hose in order to prevent the hose to be rupture due to over pressure

✓ TEMPERATURE

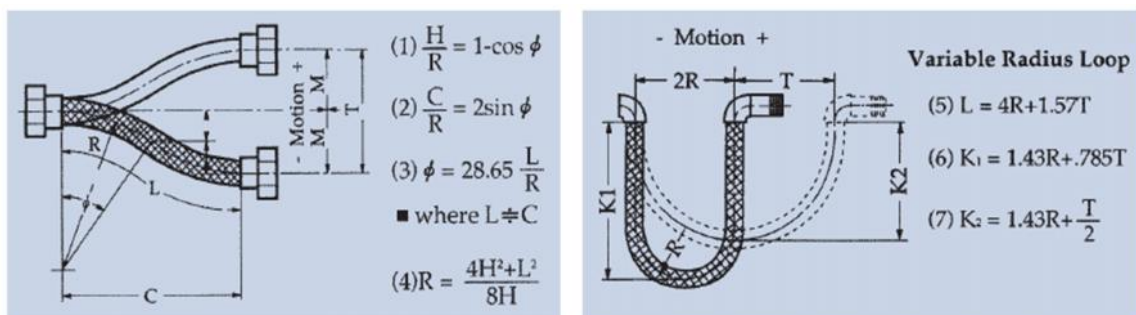
Maximum Services Temperature	
Alloy	Max Temp °C
SS 321	816
SS 316	816
SS 304	500
BRASS	232
MILD STEEL	454

✓ FLOW VELOCITY

Flow velocity is important to know the loss of the pressure. A Interlocked hose flexible metal hose is required when the flow velocity exceeds 30.5m/sec(gas) / 15.25m/sec (liquid)

✓ MOTION

Operating & installation condition is important to pro long metal hose life. **A few** factor to consider such as offset motion, radial motion, axial motion, permanent bend & random motion.



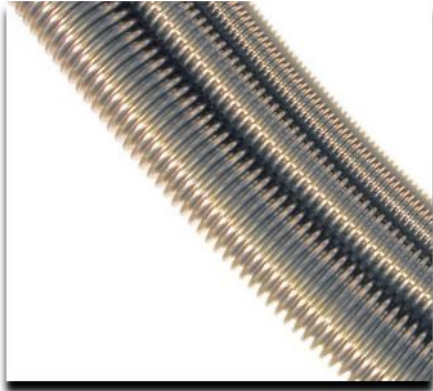
✓ MOTION FREQUENCY

A flexible metal hose is subjected to repeated flexing or bending. Generally, these are separated into basic categories, vibration, and intermittent, continuous antistatic bend.

✓ CYCLE LIFE

The cycle life is affected by several factor such as operating pressure, operating temperature, bend radius, material used etc. The cycle life is also proportional to the sum of the pressure stress range and deflection stress range.

TYPES & APPLICATIONS



Corrugated Metal Hose & Braid

Our complete range is widely used for conveying high pressure and temperature, corrosive and non-corrosive liquids, searching gases and dry material.

- Size Available : ¼" to 16"
- Model : "A" Series, special request is available
- Material: SS 304, SS 316 , SS 321, Monel

Interlocking Metal Hose

Interlocked metal hose constricted by helically winding and folding together the edges of specifically pre-formed metal strip. For low pressure application or where pressure loss is to be held at a minimum, a pre-formed groove inside the interlocked joint is packed with asbestos cord.

Size: 2" to 8"

Material: SS 304, SS 316



Braid

Our complete range is widely used for conveying high pressure and temperature, corrosive and non-corrosive liquids, searching gases and dry material.

- Size Available : ¼" to 16"
- Normal Braid, Braided braid
- Material: SS 304, SS 316 , SS 321, Monel

Bitumen Metal Hose

Used for handling dangerous hot tar, asphalt and oil because of their great strength and dependability, Flytech Bitumen Hose incorporates a special helical winding with a non-metal high temperature packing. External is protection by rope lagging.

Size: 4" to 6"

Material: SS 304



"A" SERIES HOSE



Specifications

Characteristic: Medium weight / Medium Flexibility

Construction: Annular, Open Pitch

Hose Material: SS 304, SS 316, SS 321

Braid: Single Braid, Double Braid (1.6 x Working Pressure)

Part Number	Nominal I.D (inch)	Internal dia. (mm)	Outer dia. (mm)	Minimum Bending Radius (mm)		Pressure (Bar)		Weight (Kg/m)
				Static	Dynamic	Working	Burst	
13-SSH-1006	1/4"	6.00	10.80	50	124	100	400	0.18
13-SSH-1010	3/8"	10.10	15.50	50	152	90	360	0.25
13-SSH-1012	1/2"	12.20	18.00	60	175	80	320	0.26
13-SSH-1020	3/4"	20.30	27.80	70	180	64	256	0.56
13-SSH-1025	1"	25.40	33.50	104	229	50	200	0.68
13-SSH-1032	1 1/4"	32.20	43.60	117	267	40	160	1.10
13-SSH-1040	1 1/2"	42.20	53.20	152	292	30	120	1.33
13-SSH-1050	2"	52.00	62.30	160	318	28	112	1.55
13-SSH-1065	2 1/2"	66.00	79.00	175	508	24	96	2.35
13-SSH-1075	3"	75.50	93.00	231	610	18	72	2.60
13-SSH-1100	4"	103.00	119.50	250	750	15	64	3.35
13-SSH-1125	5"	125.00	151.00	318	900	12	48	6.30
13-SSH-1150	6"	151.00	180.00	353	1050	10	40	6.90
13-SSH-1200	8"	197.50	230.40	456	1180	8	32	11.10
13-SSH-1250	10"	249.00	280.80	560	1220	6	24	16.50
13-SSH-1300	12"	300.00	335.80	660	1420	5	20	19.40

INTERLOCKING HOSE



Interlocked metal hose is also referred to as strip wound hose and consists of successive turns of profile strip, with the edges of adjacent turns interlocked.

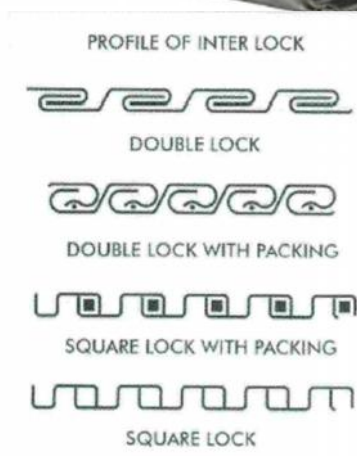
Interlock hoses are made with a packing so that filaments of cotton, asbestos, rubber or metals like copper can be fed into the interlock to make it pressure tight.

It is mostly used as a protective/ conduit. It is also used as a liner inside the hose based on the profile formation. Locking methods are called

- ~ Square lock
- ~ Double lock
- ~ Square lock with packing
- ~ Double lock with packing

Applications as armour

- ~ For telephone & electrical cables
- ~ control instrument & thermo couplers
- ~ For conveying non penetrating fluid such as tar, naphtha, furnace oil



Part Number	Internal dia. (mm)	Outer dia. (mm)	Minimum Bending Radius (mm)
13-SSI-1040	40-41	46-47	150
13-SSI-1050	49-50	55-56	180
13-SSI-1065	65-66	72-73	240
13-SSI-1075	75-76	83-84	325
13-SSI-1100	100-101	108-109	45
13-SSI-1125	126-127	133-135	525
13-SSI-1150	150-152	158-169	650
13-SSI-175	175-177	183-185	680
13-SSI-1200	200-201	208-210	750

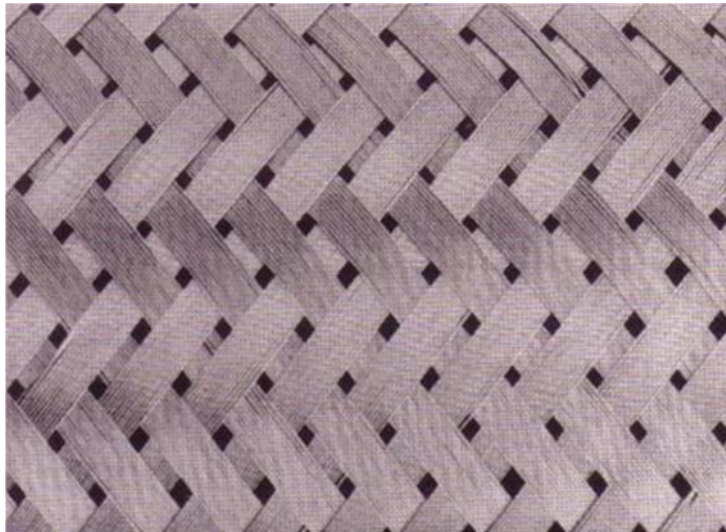
BRAID



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.

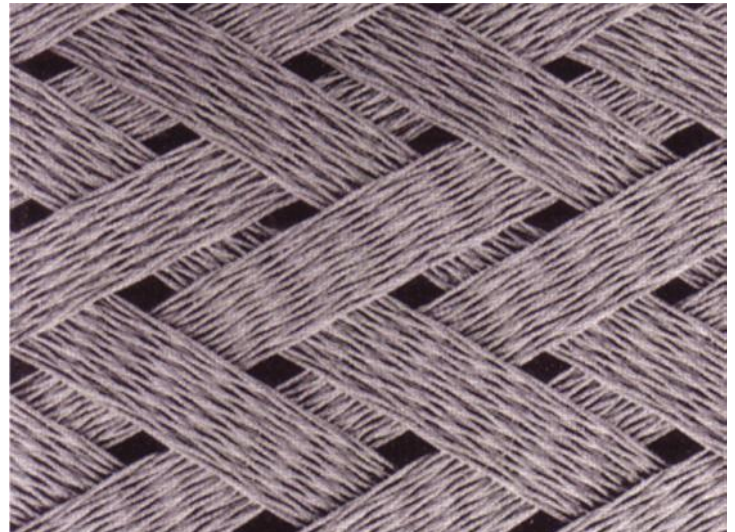
To increase the pressure ratings further, two or even three layers of braiding are provided. Unless specified, braiding in high tensile stainless steel AISI 304 wire, will be supplied. Braiding can also be supplied in copper, tinned copper or stainless steel AISI 316 in case of bulk requirements.

Flat Wire Braid



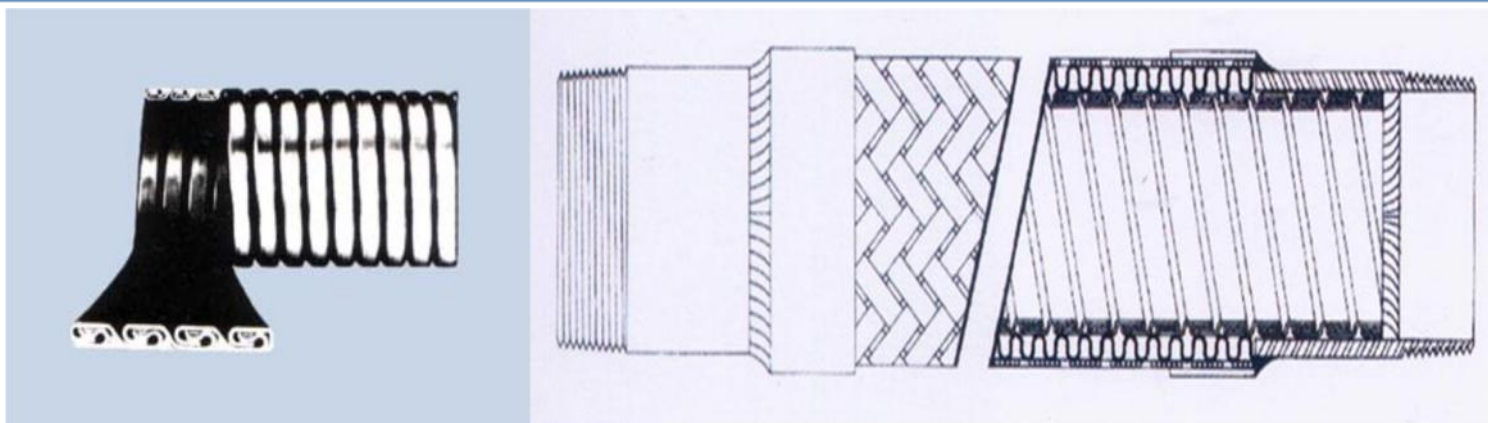
- ~ Used most frequently
- ~ Used primarily for moving pipe
- ~ Excels in flexible resistance and pressure resistance
- ~ Double Braid Pressure (1.6 x Working Pressure)

Braided Braid



- ~ Resistance to pressure significantly increase without sacrificing flex resistance
- ~ Increase in stretch ability
- ~ Maximum of 20 ply's (2.5 times x Working Pressure)
- ~ Used primarily for moving pipe

BITUMEN METAL HOSE

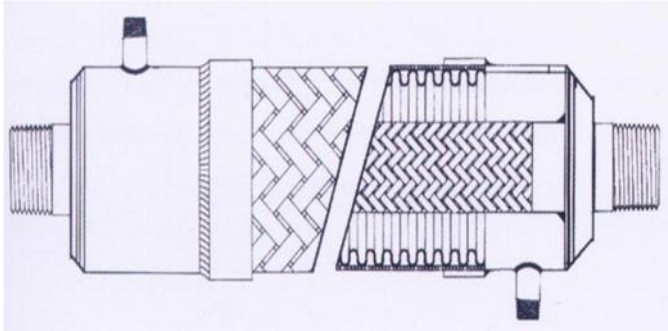


Specification

- ~ Compliance to BS 6130-1:1993
- ~ Working Temperature: 400 ° C
- ~ Inner Tube: Smoothbore SS304 Hose
- ~ Outer Layer: Corrugated SS304 Hose
- ~ Braid: Single SS 304 Braid as reinforcement
- ~ Insulation : Manila Rope

Part Number	Nominal I.D (inch)	Internal dia. (mm)	Outer dia. (mm)	Minimum Bending Radius (mm)	Pressure (Mpa)	
					Working	Burst
13-SBH-1075	3"	126.49	81.03	650.0	22	66
13-SBH-1100	4"	153.16	110.50	820.0	20	60
13-SBH-1125	5"	180.34	135.90	1250.0	18	54
13-SBH-1150	6"	233.42	161.29	1600.0	16	48
13-SBH-1200	8"	126.49	214.63	2000.0	14	42

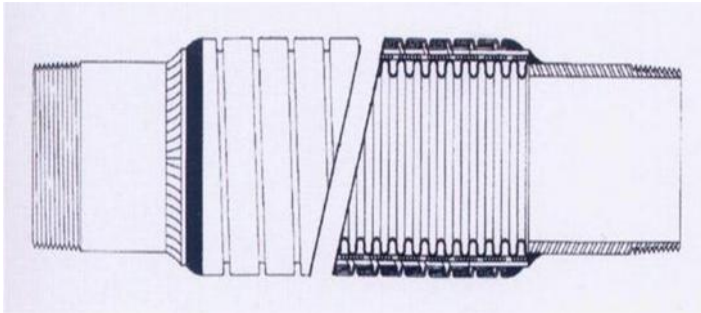
SPECIAL ASSEMBLY HOSE



Jacketed Duplex Hose

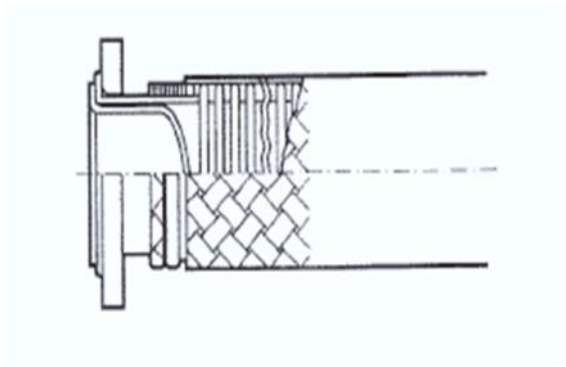
When conveyants must be maintained at a specified temperature steam jacketing is used frequently, often in lieu of electric tracing.

This assembly consists of corrugated stainless steel inner tube and outer one. The jacketed area between the inner and outer tube assemblies contains steam or other heat mediums to heat highly viscous fluid such as heavy oil or asphalt conveyed through inner corrugated tube in order to avoid solidification and clogging.



Guarded Assembly Hose

Use of external flexible armour protects metal hose from abuse due to rough handling, abrasion and bending below its limit. Often a rubber cover can accomplish this as well as armour if temperature will permit.



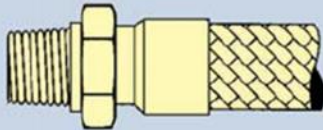
Flexible Tube Assembly with PTFE Tube

This assembly consist of corrugated stainless steel outer tube and PTFE inner plain tube. PTFE tube is inserted along the inner surface of outer tube to protect it from chemical and corrosive gasses. As it has excellent properties in not only corrosion resistance but also sanitation, it can be used to convey foodstuff, it provides you with advantages brought from both stainless steel and PTFE. Also available in convoluted fully lined antistatic.

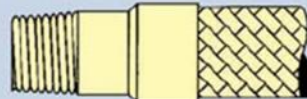
TYPE OF FITTING

Welding or silver brazing is method used to attach the end connector to corrugated flexible hose. These flexible hose are suitable for temperature up to 250°C

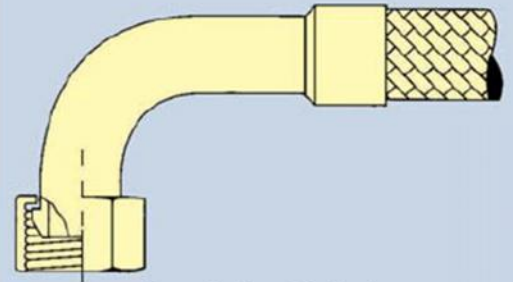
Material available: Carbon Steel / SS 304 / SS 316



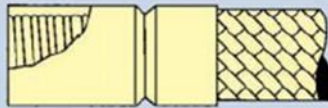
Male Hex Nipple



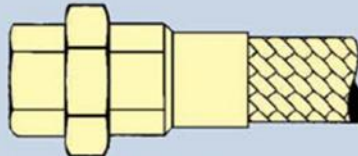
Male Pipe Nipple



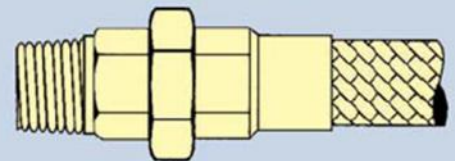
Female Bent Swivel



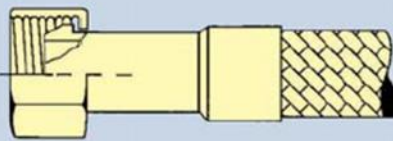
Female Coupling



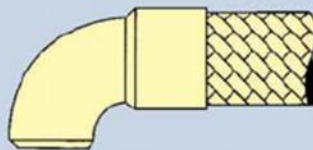
Female Union



Male Union



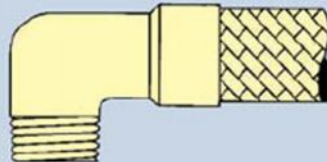
Female Swivel



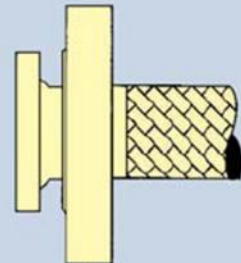
90° Welded Elbows



Male Camlock Coupling



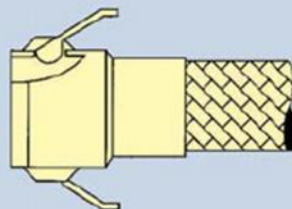
Male Elbows



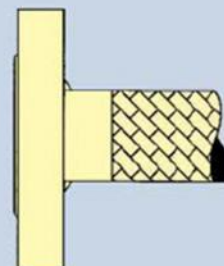
Swivel Flange



Weld Ends



Female Camlock Coupling



Fixed Flange