FLEXIBLE METAL HOSE

Flexible metal hoses are widely used in systems like water, steam, hot oil and gas with their resistance to pressure and excellent flexibility:

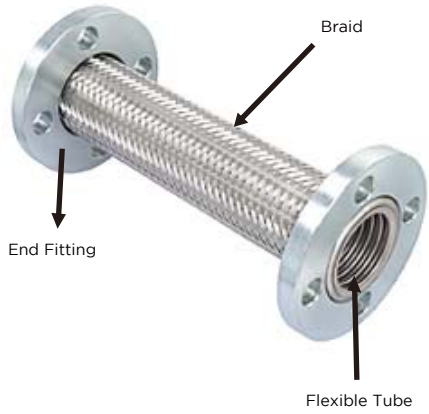
- To absorb heat or pressure-induced expansion of piping system
- To correct problems of misalignment.
- To provide flexibility in manual handling operations.
- To compensate for regular or constant movement.
- To absorb vibration and noise.

Typical Construction of Flexible Metal Hose

Flexible metal hose is generally fabricated of three parts: flexible tube, braid and end fittings such as flanges, unions, nipples, sockets

Flexible Tube

A flexible metal tube, made of stainless steel thin wall pipe, has a good flexibility, high strength, heat resistance and pressure containment. There are two types of flexible tubes-Spiral type and Annular type. Spiral type flexible tube is a helically corrugated hose and is usually used in medium and low pressure application. Annular type flexible tube has annular corrugation so that it does not tend to be twisted when subjected to elongation and contraction. Consequently it is suitable for use in high pressure application.



Braid

A flexible wire sheath surrounding a metal hose that prevents the hose from elongation due to internal pressure. Braid is composed of a number of wires wrapped helically around the hose while at the same time going under and over each other in a basket weave fashion.

End Fitting

Extensive range of end fitting is available. End fitting may have male or female threads. In addition to conventional flanges, unions, nipples, special designs or custom connectors are available. The attachment method: welding, soldering, silver brazing or mechanical, is determined by the appropriate type of hose, alloy and temperature. Contact Kurbo for custom fitting information

Specification of Flexible Tube

Spiral Tube

Spirally corrugated tube, fabricated of stainless steel type 304, 316L, 321 and other alloys.

Nominal Size		Dimension(mm)			Bend Redius (mm)	Weight(kg/m)		Burst Pressure (bar)
DN	Inch	ID	OD	Thick.		Tube	Braid	
8	1/4	7.0	11.7	0.20	80	0.13	0.10	570
10	3/8	10.2	15.6	0.25	95	0.20	0.15	350
15	1/2	12.3	18.6	0.30	130	0.23	0.20	280
20	3/4	18.9	26.0	0.30	160	0.30	0.30	200
25	1	25.4	33.2	0.30	190	0.55	0.30	160
32	1 1/4	31.0	41.5	0.40	240	0.78	0.33	140
40	1 1/2	38.0	49.0	0.40	290	1.13	0.63	110
50	2	50.0	62.0	0.40	340	1.45	0.70	100
65	2 1/2	62.7	78.1	0.40	395	1.88	0.81	80
80	3	76.2	92.5	0.50	440	2.50	0.85	62
100	4	97.0	121.0	0.50	480	3.60	1.12	52

Note : Burst pressure is based on braided tube

Annular Tube

Annularly corrugated tube, fabricated of stainless steel type 304, 316L, 321 and other alloys

Nominal Size		Dimension(mm)			Bend Redius (mm)	Weight(kg/m)		Burst Pressure (bar)
DN	Inch	ID	OD	Thick.		Tube	Braid	
25	1	27.0	38.5	0.35	170	0.48	0.50	170
32	1 1/4	32.5	46.5	0.35	180	0.60	0.63	160
40	1 1/2	41.0	54.5	0.35	200	0.65	0.67	120
50	2	53.5	70.5	0.35	225	1.30	0.75	120
65	2 1/2	67.0	86.5	0.40	250	1.74	0.80	90
80	3	78.5	100.5	0.40	275	2.06	1.10	65
100	4	103.0	126.5	0.40	350	2.90	1.30	55
125	5	128.5	153.5	0.45	425	3.60	1.60	45
150	6	152.0	180.5	0.45	500	4.60	1.90	38
200	8	203.0	233.0	0.50	750	8.00	3.20	35
250	10	251.0	285.0	0.60	900	11.90	4.00	27
300	12	300.5	336.5	0.70	1200	12.40	6.00	22

Note : Burst pressure is based on braided tube