ALFA FLEXITUBES PVT. LTD





SS CORRUGATED HOSE & HOSE ASSEMBLIES

Strength Technology Durability

ALFA FLEXITUBES ABOUT US



ALFA FLEXITUBES was promoted in India in January 1996, by Mr. R.K Sardana a known engineering professional with very rich experience in diversified engineering industries. The company developed total technology indigenously with concepts of Hydroforming Engineering & Tube Technology to produce metal flexible hoses of highest quality standards

• 3 Manufacturing Locations

Expert 300+ Professionals

• Export to 40+ Countries

• **30+** Years of Experience

Focused on Excellence in Hose and Hose assemblies

World Class S.S. Corrugated Hoses & Assemblies





ALFA METAL HOSES SUPERIOR PRODUCT

Alfa Flexitubes gives utmost importance to quality standards and assures that every stage of production is constantly monitored by a qualified team of QC engineers. The infrastructure is complete with in-house testing facilities for various types of tests, as per international standards specified for metallic flexible hoses



Operating Pressures

Works perfect in high as well as low pressure conditions



Cryogenic Applications

Absorbs vibration and noise from pumps, compressors, engines etc



Temperature Range

Suitable for wide temperature range (-200°C to + 750°C)



Suitable For All Conditions

Compensates for thermal expansion of contraction of piping.



Long Lifespan

High physical strength combined with light weight.



Meets all Standards

Good corrosion resistance. Resistance to fire, moisture, abrasion and penetration



HOW THE CORRECT HOSE IS SELECTED?

INSTALLATION TYPE

The selection and installation of a flexible hose depends on the pressure of the circuit to connect, working cycles, continuous or water hammer, the inner diameter of the hose and type of the fluid to use.

WORKING PRESSURE

According to the EN, UNI ISO, DIN and SAE standards, the recommended working pres sure ratio is 1:4.

CHEMICAL RESISTANCE

The Stainless Steel hoses have normally good resistance to the ozone action, solar radiation, other atmospheric agents, water & oil. For any particular use, contact with our technical department.

MADE AS PER ISO 10380

OPERATING TEMPERATURE

The specific working temperature for each hose type is the maximum temperature for the fluid that goes through the hose The constant operation at maximum temperature reduces the hose life.

EXTERNAL TEMPERATURE

Heat sources or excess cold nearby the flexible hose may damage the outer cover and the reinforcement negatively affecting the hose life.

GASEOUS FLUIDS

The hose selection for high pressure gaseous applications must be done carefully. Moreover, for chemical installations, but in this case, could have positive effects to pre vent any accidental break. It is recommen

VOLUME EXPANSION

According to national and international standards.







APPLICATIONS

PETROCHEMICAL Construction plants, Handling of crude oil and gas.



NAVAL INDUSTRY Ships, Yachts, Ferries, Fishing vessels, Oil tankers



CONSTRUCTION Cranes, Stackers, Shears, Compressors



RENEWABLE ENERGIES Wind systems, Solar, Geothermal, Off-shore



PUBLIC WORKS MACHINERY Excavators, Loaders, Dumpers, Forklifts



PAPER INDUSTRY Manufacturing machinery for paper



MACHINE TOOLS Lathes, Milling Machines, Presses, Machining Centres.



IRON AND STEEL Steel Processing, Blast Furnaces, Iron Sheets, Machinery



AUTOMOTIVE Trucks, Trailers, Utility vehicles



AGRICULTURAL MACHINERY Tractors, Harvesters, Seeders, Sprayers





ALFA MEDIUM PRESSURE HOSE TYPE 'B' FLEX



Stailess Steel Convoluted Hose Core Stailess Steel Wire Braid

SPECIFICATIONS - ALFA B - FLEX METAL HOSE

@ Temp -20°C

Norm	al Size		Single	Braid		Double Braid				
				Minimum Bend Radius				Minimum Bend Radius		
Inch	mm	Working Pressure Bar	Test Pressure Bar	Static (mm)	Dynamic (mm)	Working Pressure Bar	Test Pressure Bar	Static (mm)	Dynamic (mm)	
1/4"	6	90	120	30	100	140	210	40	120	
3/8"	10	80	105	40	150	120	180	50	160	
1/2"	12	70	96	44	200	100	150	60	220	
5/8"	16	60	90	56	200	90	135	60	220	
3/4"	20	60	75	70	200	90	135	80	250	
1"	25	50	75	90	200	80	120	100	260	
1-1/4"	32	40	60	110	250	60	90	120	350	
1-1/2"	40	35	52	130	260	50	75	160	400	
2"	50	28	42	175	350	45	60	180	410	
2-1/2"	65	20	30	200	410	32	50	200	450	
3"	80	18	24	210	450	25	40	220	550	
4"	100	14	21	230	560	20	30	260	660	
5"	120	12	18	280	660	18	30	300	815	
6"	150	10	15	320	815	15	25	420	1015	
8"	200	8	12	440	1015	15	25	540	1220	
10"	250	7.5	12	560	1220	12	20	620	1420	
12"	300	6	9	660	1420	9	15	750	1650	



	Iemperature Correction Table													
		Temperature°c												
Material	20	50	100	150	200	250	300	350	400	450	500	550		
						De-rating	factors	5						
SS304	1	0.88	0.73	0.66	0.6	0.56	0.52	0.50	0.48	0.47	0.46	0.42		
SS321	1	0.92	0.83	0.78	0.74	0.71	0.67	0.64	0.62	0.61	0.6	0.59		
SS316L	1	0.88	0.74	0.67	0.62	0.58	0.54	0.52	0.5	0.48	0.47	0.47		

ALFA MEDIUM PRESSURE HOSE TYPE 'C' FLEX



COMMONLY REQUIRED FOR HIGH FLEXING OPERATIONS

Stailess Steel Convoluted Hose Core Stailess Steel Wire Braid

SPECIFICATIONS - ALFA C - FLEX METAL HOSE

Normal Size Single Braid **Double Braid** Minimum Bend Radius Minimum Bend Radius Working Test Working Test Static Dynamic Static Dynamic Pressure Pressure Pressure Pressure (mm) (mm) (mm) (mm) Ваг Ваг Ваг Ваг mm Inch 1/4" 3/8" 1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4" 5" 6" 8" 10" 12"

@ Temp -20°C

PRESSURE LOSS

At a rough es?mate, it can be assumed that the pressure loss in corrugated hoses is 100% higher than in new welded steel pipes. This means that in the case of corrugated hose as increase in diameter of 15% is required to reduce the pressure loss to value of the pressure loss in steel pipes. Because of the nature of the bore of a corrugated hose, the pressure drops due to greater fric?on than that of a smooth size of corrugated hose related to a flow rate where water is a fluid.



To u?lise the chart, Read o ffon the base line the flow rate required. Where a ver?cal line from the selected point on the base line intersects the nominal bore line the pressure drop Is shown on the ver?cal axis, corresponding to the point of intersec?on.

CALCULATION OF MINIMUM HOSE LENGTH FOR FLEXING INSTALLATIONS

Ver?cal loop (short

Horizontal Movement S = 1.2 (R+T/2) + 2P

horizontal travel)



Ver?cal loop

(Maximum travel

about fixed point)

Ver?cal movement S = 1.2 R + T/2 + 2P

Static Flexing

Minimum Overall Length = $L(Sta?c) + (2 \times P)$

P - Dimension of end fi?ngs.

Intermittent Flexing

- Minimum Overall length = L (Fleing) + (2 x P)
- L Dimension from chart below rela?ve to Offset Mo?o
- P- Dimension of the fi?ngs.

	LENGTH 'L' mm (FREE HOSE LENGTH)												
NOMINAL	STATIC	DIMENSION 'X' mm (OFFSET MOTION)											
	0	15	25	35	50	75	100	125	150	175	200	225	250
6	85	140	180	215									
10,12	90	150	190	225	290								
20	95	170	220	255	310								
25	105	185	240	280	335	425							
32	110	205	260	305	365	450							
40	140	250	320	370	440	530	610						
50	170	300	380	440	520	630	730	800	870	940			
65	200	340	430	500	590	720	380	920	1000	1070	1130	1190	
80	215	380	500	580	680	820	940	1040	1140	1230	1310	1380	1450
100	230	405	525	610	720	875	1005	1120	1225	1325	1415	1490	1560
125	245	430	550	640	760	930	1070	1200	1310	1420	1520	1590	1670
150	280	510	650	760	910	1100	1270	1420	1560	1690	1800	1900	1990
200	320	560	710	830	990	1210	1400	1560	1720	1860	1990	2100	2210
250	360	620	780	900	1070	1320	1510	1690	1820	2010	2160	2290	1340

S = Overall Length. R = Bend Radius which must not be less than minimum shown in Table I. P = Length over End Fi?ng & F errule. H = Height = 3.142

Important : In loop installa?ons, both connec?ons and travel should be in the same plane as the bend.



Selecting & Installing Hose Assemblies

Installation Do's & Don'ts

Do's	Don'ts	Do's	Don'ts
			6

Thread Allowance

When calculating the overall length (OAL) of a hose assembly that has a pipe thread as one or both end connection(s), consideration must be given to thread engagement.

Example: using the chart below, a hose assembly with a 1" male pipe on one end would have 0.66" added to the OAL to compensate for the length of thread that will be engaged during installation.

Nominal Pipe Size inch	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Thread Allowance	0.40	0.41	0.53	0.55	0.66	0.68	0.68	0.70
inch (mm) -Dim "A"	(10)	(10)	(13)	(14)	(17)	(17)	(17)	(18)

Hose Assembly



OUR PRODUCTS







INTERLOCK HOSES

ALFA interlocked hose is made for a variety of specialized industrial applications and available in a wide range of materials, style and sizes. Different from corrugated hoses in its construction, interlocked hose is manufactured by helically winding performed metal strip over a sizing mandrel and folding together the adjacent edges to form interlocked convolutions.











ALFA intelocked hoses are produced in a wide range of sizes and metals. This range is available to provide the right hose for the application at the most economical cost.

Alfa makes 2S and 3S type interlock hoses.

Size - 1/2" to 12"

Material - GI, SS 304, 321, 316L





We have, India's first and only 124 carrier wire braiding machine We make Braided Braids too.

The stainless steel flexible hose is covered with an external braiding made from stainless steel wire. The wire braiding can be either single or double layer according to pressure rating required. Braiding increases the hoop strength, stabilizes movement and offers a form of protection to inner corrugated tubing We have, India's first and only 124 carrier wire braiding machine









MATERIALS

Wire braids are made of medium tensile bright stainless steel wires of different gauges in 55304 & 316 Steel. ALFA stainless steel corrugated flexible hose assemblies are supplied with single/double braiding but can be supplied without braid also for Low pressure or vacuum applications

ADDITIONAL PROTECTIVE COVERING

Hose assemblies can be supplied with additional coverings such as strip wound hose, PVC Shrinkable tubings, heat insulation.

TECHNOLOGICAL INNOVATIONS



ROBUST MANUFACTURING FACILITY

We are equipped with all the latest machines and technology and manufacture high quality and superior performance products. We are one of the key providers of modern technology in metal hose manufacturing and are committed to maintain our position.





ADVANCE TECHNOLOGIES

Our products are reliable, durable and corrosion resistant. Also, these products give high performance and are available at cost effective prices. That is why, they find their application in diverse industries.



QUALITY ASSESSMENT

Alfa Flexitubes understands the importance of quality products and the long way it goes in establishing a company as a reliable brand. To achieve this goal we have set rigorous quality control processes and methods at various stages of production and supply.



C Timely deliveries across the globe are one of the major reason, why people are drawn towards us.



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