METAL HOSE ASSEMBLY

TERMINOLOGY

Specification	According to which the hose assembly is manufactured
Annular Core	Designed so that each convolution is a complete circle or ring
Close Pitch	Less spacing between the corrugations, thereby giving longest fatigue life and minimum bend radius
Braid	Woven wire sheath placed over hose which prevents elongation of the hose under internal pressure
Fittings	Parts attached to the ends of metal hose so that it can be connected to other components like flanges, unions, stub ends, nipples
Constant flexing bend radius	The minimum radius to which a hose can be repeatedly bent and render satisfactory flexure life
Operating conditions	Pressure, Temperature, Media, Motion and application involved
Max. Test Pressure	Max. Pressure for testing purpose. Based on 150% of the max. working / design pressure
Media	Material conveyed by the hose assemblies such as chemicals, gases, liquids
Working temperature	Temperature which hose is subjected to during operation
Corrosion Data	Contact KFI or any NACE standards
Rated Burst Pressure	The pressure at which the hose assembly can be expected to fail
Safety Factor	Difference between working pressure and rated burst pressure

CONSTRUCTION

Specification	BS 6501
Close Pitch Annular Core	SS 304, SS 304L, SS 321, SS 316, SS 316L
Braid	SS 304, SS 316
Size Range	1/4" ID to 12" ID
Temperature	(-)200 to 800°C for SS 321 / SS 316 / SS 316L (-)200 to 400°C for SS 304 / SS 304L

KWIK FLEX INDUSTRIES
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TECHNICAL DATA

Nominal Size		Single Braid				Double Braid			
		W.P.	T.P.	Minimum Bend Radius		W.P.	T.P.	Minimum Bend Radius	
Inch	mm	Bar g	Bar g	Static (mm)	Dynamic (mm)	Bar g	Bar g	Static (mm)	Dynamic (mm)
1/4"	6	80	120	30	100	140	210	40	120
3/8"	10	70	105	40	150	120	180	50	160
1/2"	12	64	96	40	200	100	150	60	220
5/8"	16	60	90	50	200	90	135	60	220
3/4"	20	50	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	32	50	130	260	50	75	160	400
2"	50	26	40	175	350	40	60	180	410
2-1/2"	65	20	30	200	410	32	50	200	450
3"	80	16	25	210	450	25	40	220	560
4"	100	14	21	230	560	20	30	260	660
5"	125	12	18	280	660	18	30	300	815
6"	150	10	15	320	815	15	25	420	1015
8"	200	10	15	440	1015	15	25	540	1220
10"	250	8	12	560	1220	12	20	620	1420
12"	300	6	9	660	1420	9	15	750	1650

* Working Pressure and Test Pressure are at ambient temperature of 30°C. For elevated temperatures, --please refer temperature correction factor.
* Safety Factor 1 : 4
* For other technical details such as pressure drop, weight, no. of convolutions, please contact KFI's --Technical Department.

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TEMPERATURE CORRECTION FACTOR

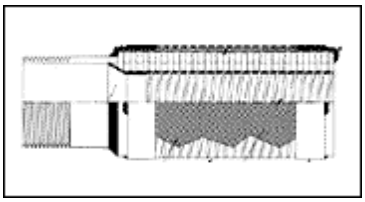
Temp. (°C)	Correction Factor
(-) 200 to 50	1.00
100	0.94
150	0.88
200	0.84
250	0.79
300	0.76
350	0.71
400	0.67
450	0.64
500	0.61
550	0.60
600	0.58
650	0.55
700	0.50
750	0.45
800	0.44

How to apply?

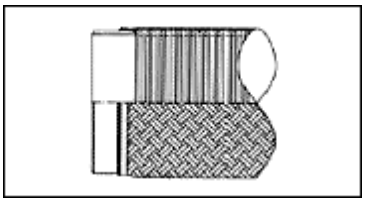
- Determine Max. Working Temperature
- Locate appropriate correction factor on chart
- Multiply the correction factor by max. working pressure

SPECIAL TYPES OF METAL HOSE ASSEMBLY

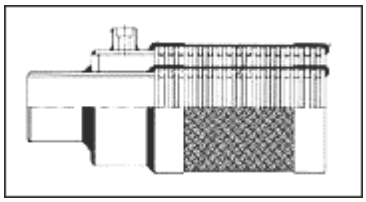
With Inside Liner
(i.e. Interlocked, Rubber, Teflon)



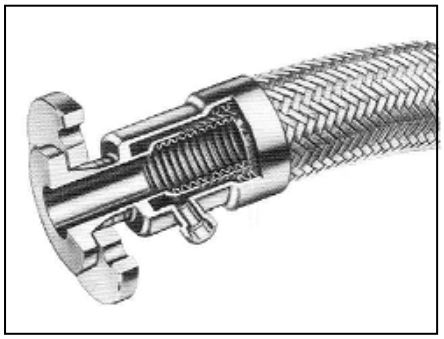
With Outside cover
(i.e. Interlocked, Rubber)



Vacuum / Steam Jacket

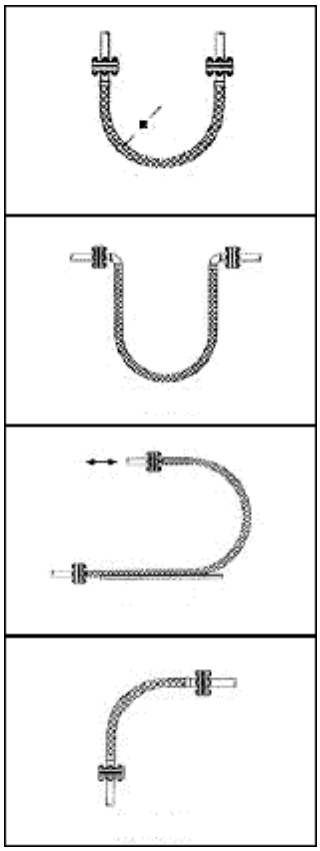


JACKETED HOSE ASSEMBLY



INSTALLATION METHODS

DO



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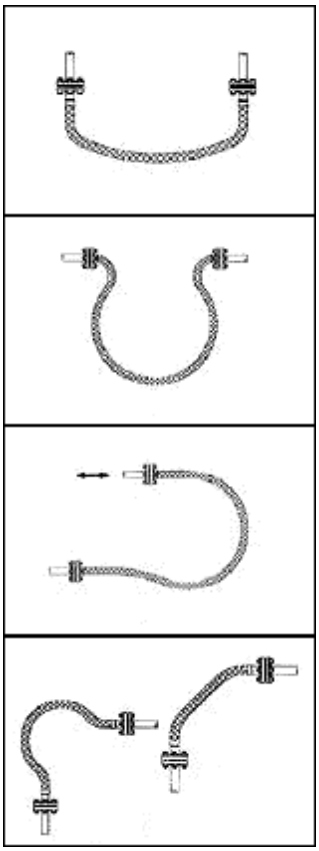
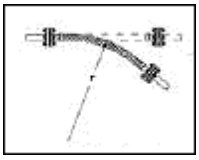
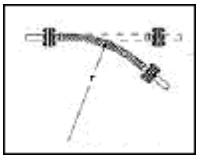


ANGULAR BENDING





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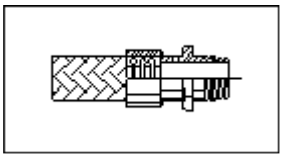
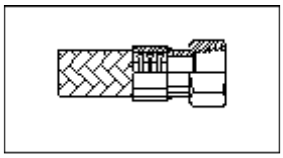
END FITTINGS

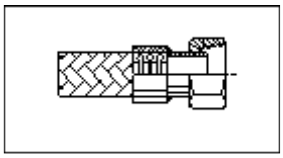
Hex Male Nipple
(BSP/NPT/METRIC)



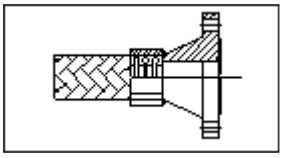
Fixed Female
(BSP/NPT/METRIC)



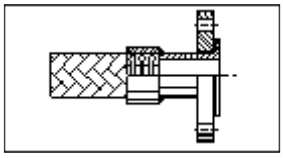
Swivel Female
(BSP/NPT/METRIC)



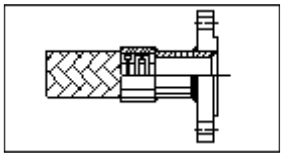
Weld neck Flange
(ASA/DIN/BS)



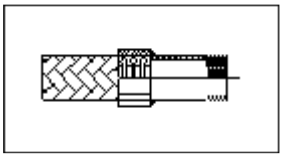
Lap Joint Flange
(ASA/DIN/BS)



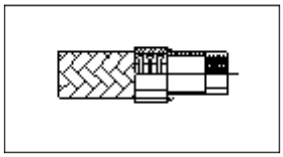
Fixed Flange
(ASA/DIN/BS)



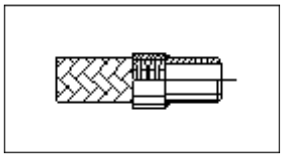
Plain Male Nipple
(BSP/NPT/METRIC)



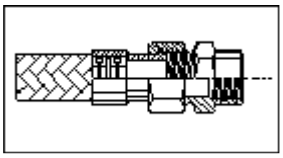
Plain Female Nipple
(BSP/NPT/METRIC)



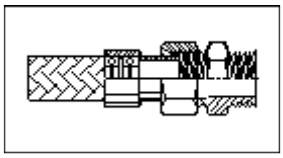
Pipe weld ends
(37 1/2 ° Bevel end)



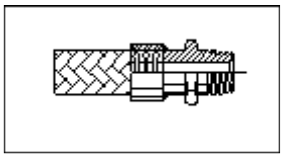
Female Union
(BSP/NPT/METRIC)



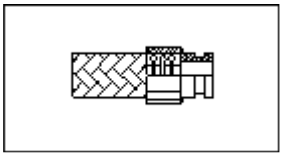
Male Union
(BSP/NPT/METRIC)



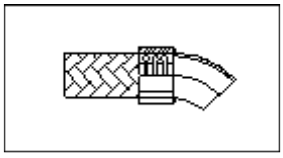
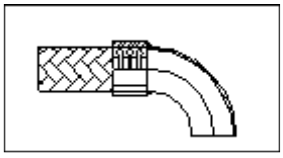
JIC 37° Seat
(UNF)



Victaulic Groove Pipe End



With 45° elbow



With 90° elbow