

FLEXIBLE METAL **HOSES**

FEATURES AND PARTICULARS

The flexible metal hoses with braid are used in much industrial applications, thermoidraulic and mechanic industry and in all other fluid usage or antivibrations.

The corrugated hoses in stainless steel with 1 or 2 braid also in stainless steel, is guarantee for high flexibility and strong resistance to pressure, also for high pressure (for any DN beyond 80 bar!!).

TEMPERATURE AND PRESSURE

The flexible metal hoses with braid, can to work with range temperature from -270°C to +550°C.

But with temperatures beyond 50° C is necessary to multiply the nominal pressure “PN” with corrective factor “Kt”, in this manner you obtain the max pressure at that temperature (see table).

TABLE 1: CORRECTIVE FACTOR “Kt” IN FUNCTION TO TEMPERATURE		
Temp. °C	Kt AISI 321	KT AISI 316L
21	1	1
50	0,92	0,89
100	0,86	0,80
150	0,83	0,75
200	0,79	0,69
250	0,74	0,65
300	0,71	0,62
350	0,68	0,60
400	0,67	0,58
450	0,66	0,56
500	0,65	0,55
550	0,56	0,47

<p><u>Example:</u> Hose DN 25 with temperature 100° C. (PN hose with 1 braid) 55 bars x (“Kt” at 100° C) 0,86 = 47,30 bar</p>
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Test Pressure = 1,5 x PN

Burst Pressure = 4 x PN

Hose’s materials:

- (standard) Stainless Steel AISI 321
- Stainless Steel AISI 316L

Fittings’s materials:

- (standard) Carbon Steel
- Stainless Steel AISI 304
- Stainless Steel AISI 316

Curving ray:

- The static curving ray “RS” is valid for only one movement.
- The dynamic curving ray “RD” is valid for 50.000 movements.

THECNICAL / DIMENSIONAL TABLE

INDEX:

With 1 braid: TMF1 (model) -006 (diameter) - **T1 (N° of braids)**

With 2 braids: TMF1 (model) -006 (diameter) - **T2 (N° of braids)**

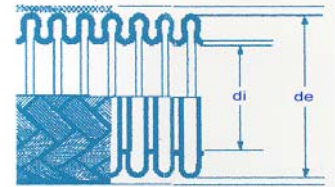


Table 2

DN		MODEL (code)	INTERNAL DIAMETER (di)	EXTERNAL DIAMETER (de)	CURVING RAY		PN*
					Static (RS)	Dyynamic (RD)	
mm	inch	TMF 1	mm	mm	mm	mm	bar
6	1/8"	TMF1-006-T1	6,2	10,8	25	80	132
		TMF1-006-T2					158,4
8	1/4"	TMF1-008-T1	8,3	13,7	35	125	125
		TMF1-008-T2					150
10	3/8"	TMF1-010-T1	10,2	15,7	40	130	98
		TMF1-010-T2					117,6
12	1/2"	TMF1-012-T1	12,2	18,2	45	140	73
		TMF1-012-T2					87,6
20	3/4"	TMF1-020-T1	20,2	28,3	70	170	43
		TMF1-020-T2					51,6
25	1"	TMF1-025-T1	25,5	34,2	85	190	55
		TMF1-025-T2					66
32	1 1/4"	TMF1-032-T1	34,2	43,0	105	260	38
		TMF1-032-T2					45,6
40	1 1/2"	TMF1-040-T1	40,1	52,0	130	300	38
		TMF1-040-T2					45,6
50	2"	TMF1-050-T1	50,4	62,6	160	320	28
		TMF1-050-T2					33,6
65	2 1/2"	TMF1-065-T1	65,4	83,2	200	440	25
		TMF1-065-T2					30
80	3"	TMF1-080-T1	80,2	101,2	240	700	25
		TMF1-080-T2					30
100	4"	TMF1-100-T1	100,2	121,2	290	750	19
		TMF1-100-T2					22,8
125	5"	TMF1-125-T1	126,2	148,2	500	1000	16
		TMF1-125-T2					18
150	6"	TMF1-150-T1	149,8	178,8	700	1300	12,5
		TMF1-150-T2					16

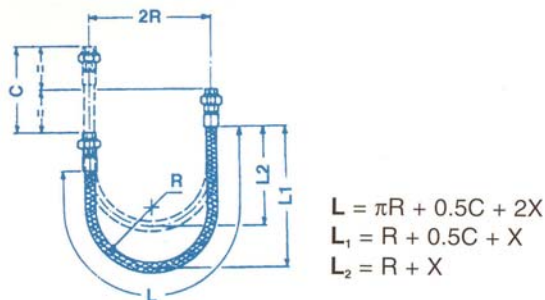
(*) = Max allowable pressure at 21° C

LENGTHS AND FITTINGS FREE TO ASK!

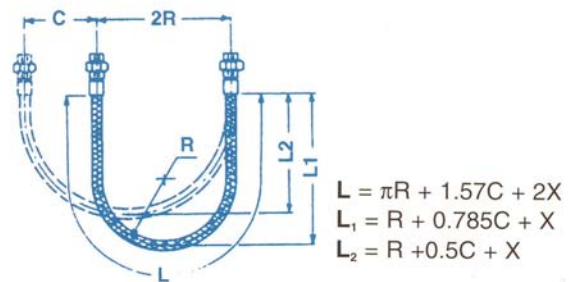
METAL HOSES'S INSTALLATION

INDEX: L = Flexible part length. R = Installation ray. C = Total movement.
X = Hose's part not flexible

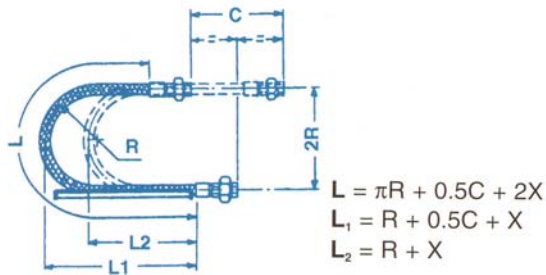
Installazione ad "U" per movimenti verticali



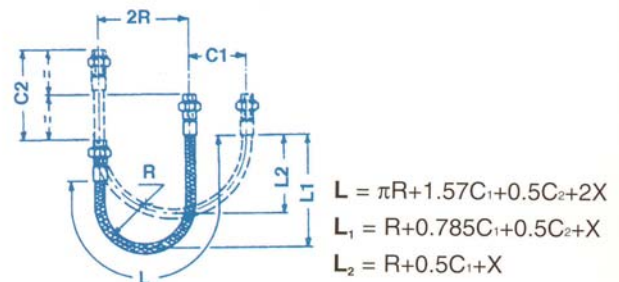
Installazione ad "U" per movimenti orizzontali



Installazione a "C" per movimenti orizzontali



Installazione ad "U" per movimenti combinati



DN	8 ÷ 10	12 ÷ 16	20 ÷ 25	32 ÷ 40	50 ÷ 65	80 ÷ 100	125 ÷ 150
X	50	75	100	150	200	250	350

ISTRUCTION FOR CORRECT INSTALLATION

During the installation it is necessary to ensure itself of not to submit ever the tube to twistings long its board to ensure itself of not to submit ever the tube to twistings long its board, because this movement, it could cause a damage the hose's corrugations.

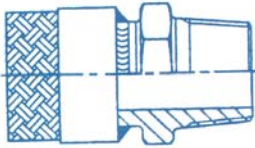
It is very important not to exceed the smaller curving ray, static or dynamic (see table 2 sheet "B"); in case of installation at "C" for horizontal movements, we suggest to use anything similar circle support with add support plane, to maintain costing the ray of curving and to avoid that the same weight of the tube, can crush the outsider part of the bends formed from the tube (see follow).



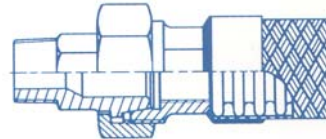
FLEXIBLE METAL HOSES			
Item	1	Sheet	D

FITTINGS AVAILABLE

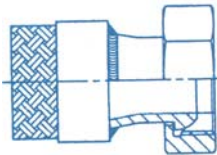
Fixed Male (MF)



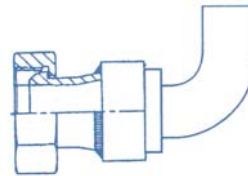
Male Union Thread (BM3)



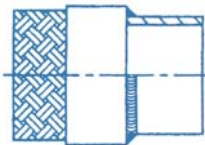
Floating Female (FGSO)



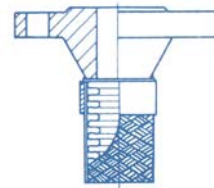
Bending 90° + Floating Female (C90°+FGSO)



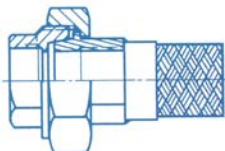
Welding End (MTO)



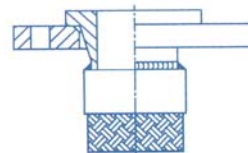
Fixed Flange (FLGF)



Female Union Thread (BF3)



Floating Flange (FLGG)



IF YOU NEED OTHER FITTINGS, IS NECESSARY TO SUBMIT YOUR RQUEST TO OUR TECHNICAL OFFICE.