

ART 480

Braided / Non-braided Hose



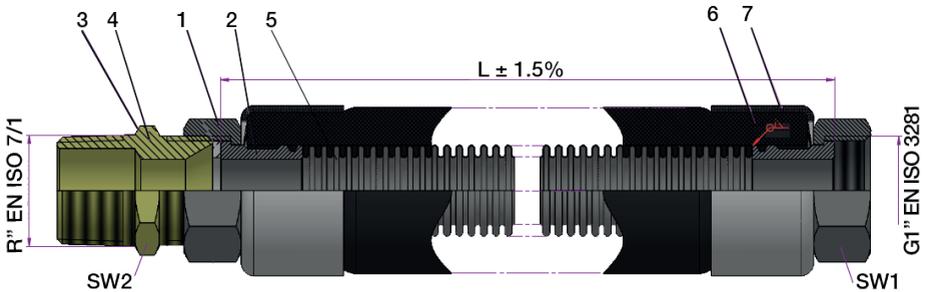
Features

- Female x Female or Male x Male
- Braided and non-braided options available
- Carbon Steel, Stainless Steel, or Brass end connection options available
- Hoses can be made to bespoke lengths, please check available options

Technical data

Braided Hoses: 5 to 200 Bar. See page 3 for further information.

Non-braided Hoses: 0.2 to 24 Bar. See page 4 for further information.



N.	Part Name	Materials	DN	3/4"	1"	1.1/4"
1	Nut	Steel S235JR	SW1	30	36	46
2	Internal Part	Steel S235JR				
3	Nipple	Brass CW614N	SW2	27	36	46
4	Gasket	EPDM				
5	Hose	Stainless Steel 304	L	500	500	500
6	Insulation	Elastomeric Rubber Foam				
7	Thimble	Plastic				

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<p>1. Connect flexible metal hose free from torsion. In the case of rotating threaded connections, use second spanner as a lock spanner.</p>	
<p>2. Please pay attention to the bending radius of the flexible metal hose (See r_n). Dimension the hose adequately. Take care that the flexible length is not too short.</p>	
<p>3. Don't allow the hose to move in one direction only. Centre it to permit absorption of the movement in both directions.</p>	
<p>4. Don't permit axial movement. Install the hose vertically to the direction of the movement.</p>	
<p>5. Avoid excessive bending of the hose. Use pipe bends if necessary.</p>	
<p>6. Avoid extreme lateral movement. Install the hose with a bend of 90°.</p>	
<p>7. Install the hose in one plane only to avoid torsional twist and movements.</p>	
<p>8. Keep the installation plane parallel with the hose planet to avoid inclination.</p>	

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Braided Hose



Table 1 - PNmax (bar) at 20°C

DN	Min. Bend radius r _{min} once-only bending	Nom. Bend radius r _n frequent movement	Permissible operating pressure P _{zul} at 20°C
12	50	140	90
16	60	160	75
20	70	175	60
25	90	200	50
32	110	250	45
40	130	300	40
50	160	350	35
65	200	500	30
80	250	700	25
100	300	750	20

Table 2 - Reduction Factors at Increased Operating Temperatures (Kt)

Temp in °C	Non-corroding steels
	SS 304
	EN 1,4301
20	1.00
50	0.92
100	0.83
150	0.75
200	0.68
250	0.63
300	0.59

Table 3 - Reduction factors at dynamic stress (Kd)		Movement		
		No vibrations: slight, slow movement	Vibrations: frequent, uniform movement	Strong vibrations: rhythmical and intermittent movement
Flow	Static or slow & uniform flow	1	0.8	0.4
	Pulsating & unsteady flow	0.8	0.63	0.32
	Rhythmical & intermittent flow	0.32	0.2	Upon request

$$P = P_{zul.20^{\circ}C} * K_t * K_d$$

Table 1: P_{zul}. Table 2: K_t. Table 3: K_d.

$$\text{Pressure max} = P_{zul @ 20^{\circ}C} * K_t * K_d$$

For example, if you have a DN 25 connection 50°C operating static flow & frequent uniform vibrations

$$P \text{ max} = 50 * 0.92 * 0.8 = 36.8 \text{ bar}$$

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Non-braided Hose



Table 1 - PNmax (bar) at 20°C

DN	Min. Bend radius r _{min} once-only bending	Nom. Bend radius r _n frequent movement	Permissible operating pressure P _{zul} at 20°C
12	25	140	9
16	30	160	7
20	35	175	5
25	40	200	4
32	50	250	3
40	60	300	2.5
50	70	350	2
65	120	500	1.5
80	130	700	1.2
100	160	750	1

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