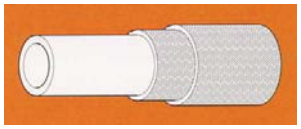
CONTROLLING
PRESSURE & VACUUM

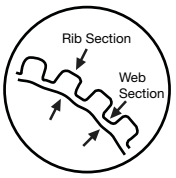
Smoothflex Hose

FTI's *Smoothflex* hose is available in two main categories: *Smoothflex-S* & *Smoothflex-R*. Our hose range offers the user a high quality PTFE lined hose with an option of single or double stainless steel overbraid and a selection of end connections to suit most applications.

Smoothflex-S
A smooth bore seamless PTFE liner. Has excellent dynamic flex life. Performs well at high pressures in flexing or vibrating applications.



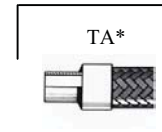
Smoothflex-R
A smooth bore, highly flexible PTFE liner, with a ribbed support. Integral 'rib' sections supports tube against kinking, vacuum and pressure.



Ordering Information – Example:

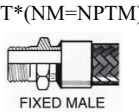
S – S – 04 – TA04 – NM04 – SS – 500

- **Hose Series**: S = Smoothflex-S; R = Smoothflex-R
- **Single/Double Braid**: S = Single; D = Double
- **Hose I/D**: 04 = 1/4" (6mm); 06 = 3/8" (10mm); 08 = 1/2" (12mm); 12 = 3/4" (20mm); 16 = 1" (25mm)
- **End Connection-1**
- **End Connection-2**
- **End Connection Material**: SS = 316 Stainless Steel; CS = Carbon Steel
- **Live Length (MM)**: Please specify; NB – approx within 25mm

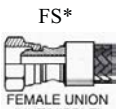

TA* — TUBE STUB

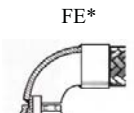

PW* — WELDING STUB


RG* — FIXED MALE (BARREL) B.S.P.T.

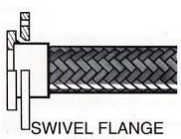

RT*(NM=NPTM) — FIXED MALE (HEXAGON) B.S.P.T.

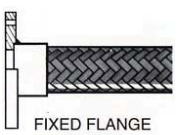

FT*(NF=NPTF) — FIXED FEMALE (HEXAGON) B.S.P.T.


FS* — FEMALE UNION (NUT/NIPPLE) B.S.P.P.


FE* — 90°FEMALE SWEPT ELBOW B.S.P.P.


D1* — DAIRY FLANGE*
D1 = 1" DIA FLANGE
D2 = 2" DIA FLANGE
D3 = 2.5" DIA FLANGE


SF** — SWIVEL FLANGE (PLATE)


FF** — FIXED FLANGE (PLATE)

END CONNECTION SIZES:
04 = 1/4" (6mm)
06 = 3/8" (10mm)
08 = 1/2" (12mm)
12 = 3/4" (20mm)
16 = 1" (25mm)
*** PLEASE ASK FOR DETAILS*

Other Hose Options Available:

- *Electrical Trace Heating*
- *Anti – Static PTFE Liners*
- *Hose Covers – PVC, Polyolefin etc*
- *External Alternative braids (standard is 304 S/S)*

SAFE COMPONENT SELECTION:
Hose assemblies have a finite life that is dependent on actual field service conditions. When selecting a component, the total system design must be considered to ensure safe, trouble – free performance. Component function material compatibility, adequate ratings, proper installation, operation and maintenance are the responsibilities of the system design and user.

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Smoothflex Hose
Technical Data on Stainless Steel Braided, Teflon Lined & Smoothflex Hoses

Bore Size	PTFE Wall Thickness	Internal Diameter		Outside Diameter		Min Bend Radius	Max Working Pressure	Weight per Meter
in	mm	min	max	min	max	mm	Bar	Kg
1/8	0.76	3.00	3.20	5.70	6.00	22	290	.065
3/16	0.76	4.60	4.75	7.30	7.50	40	265	.080
1/4	0.63	6.00	6.50	8.30	8.70	60	240	.093
5/16	0.63	7.50	8.00	9.80	10.5	70	200	.110
3/8	0.63	9.10	9.60	11.5	12.0	80	190	.124
1/2	0.76	11.9	12.8	14.5	15.4	110	150	.207
5/8	0.76	15.0	16.0	17.8	18.9	150	110	.255
3/4	0.76	18.0	19.2	21.0	22.3	200	800	.315
1	1.00	24.0	25.4	27.6	28.7	300	55	.430

HOSE PROPERTIES

Temperature Resistance : PTFE hose is usable from -70°C up to +260°C, dependent upon the braid and the working pressure (see specification tables)

Chemical Resistance : PTFE is the most chemically resistant material know and is only affected by small number of very uncommon chemicals; Fluorine Gas, boiling Alkali Metals, Chlorine Trifluoride and Oxygen Difluoride.

Flexibility with Strength : Smoothflex PTFE hose has excellent dynamic flex life and performs well at high pressures in flexing or vibrating applications.

Self Cleaning : The famous non stick nature of PTFE ensure that material passing through does not become 'hung up' inside the hose, creating the risk of bacterial growth or contamination. The hose, therefore is effectively self cleaning.

Smoothflex PTFE hose on Reels : All hose specifications are supplied in random production lengths, either in coils or on reels for customers to assemble hoses using their own end fittings. If specific lengths are required, please contact FTI Ltd. Stainless steel braided hose can be supplied specially cleaned and degreased if required, with all traces of oil removed from the braid.

Smoothflex Hose Assemblies : Smoothflex hose can also be supplied in the form of made up assemblies with end fittings attached by machine crimping at each end. Normally, 10% of all assembles are hydrostatically pressure tested to 1.5 times the maximum working pressure. More extensive testing of the hoses is also possible, as is pneumatic (air under water) testing.

Specification : Stainless Steel wire braid hose. Maximum Working Pressure (MWP) listed are calculated on the basis of a 3:1 safety factor relative to the burst pressure, so Burst Pressure + 3 x MWP. If MWP is required based on a 4:1 safety factor, multiply the listed value by 0.75.

Temperature affects the MWP, so for temperature above 130°C reduce the MWP by 0.5% for each 1°C above 130°C up to a maximum of 260°C. Example, at 180°C; 180°C- 130°C= 50°C, so reduce the MWP by 50 x 0.5 = 25%