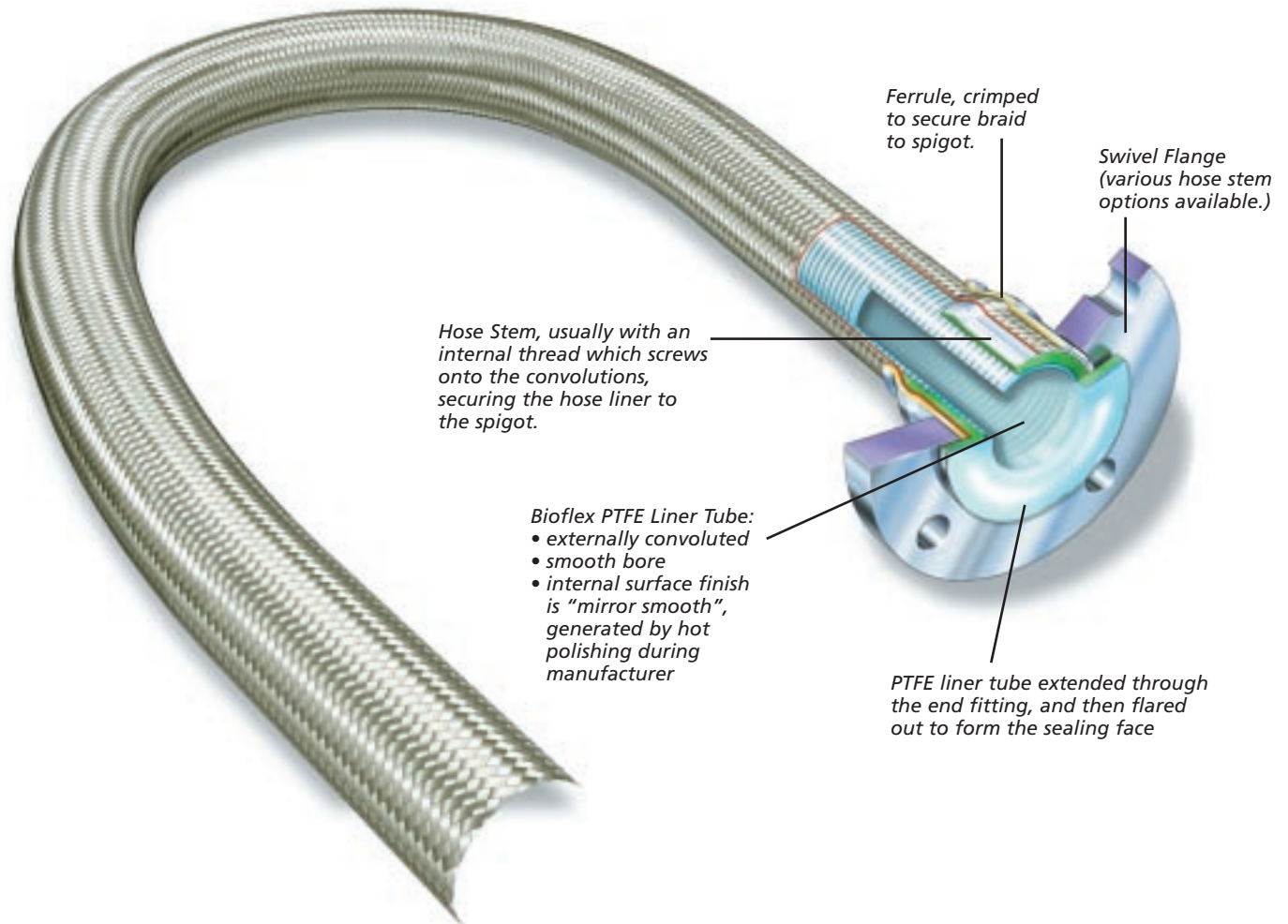


Smooth Bore Convuluted PTFE Hose



TEMPERATURE RESISTANCE

Depending upon operating conditions and type of braid, Bioflex is usable at temperatures from -94°F to $+500^{\circ}\text{F}$ (-70°C to $+260^{\circ}\text{C}$).

PRESSURE RESISTANCE

Depending upon operating conditions and type of braid, Bioflex is usable up to 1160 psi (3/8") and 725 psi (1").

VACUUM RESISTANCE

Bioflex is usable at full vacuum up to 266°F (130°C). Above this temperature, vacuum resistance is reduced by 1% per $^{\circ}\text{C}$.

SIZE RANGE

Bioflex is available in bore sizes from 3/8" to 2" in lengths of up to 20 meters.

END FITTINGS

Sanitary Clamp, Flange, Cam Lock, RJT, SMS, NPT

Bioflex is a smooth bore, highly flexible PTFE lined hose. Its design gives customers the best of both worlds – a smooth bore PTFE liner, with the flexibility normally associated with a convoluted hose.

Bioflex PTFE liner comprises internal rib sections (which support the tube against kinking, vacuum and pressure) and highly compressed web sections (which gives a smooth bore inner surface and excellent flexibility).

COMPARISON WITH CONVULUTED PTFE HOSE

- **Hygienic Cleanability** – vastly improved, due to smooth bore and hygienically polished inner surface.
- **Flow Rates** – more than 100% higher.
- **Pressure Ratings** – more than 50% higher.
- **Gas Permeation Resistance** – more than 150% higher.
- **Flex Life at Temperature and Pressure** – more than 50 times the life, dependent upon text conditions.

Bioflex is available with a choice of:

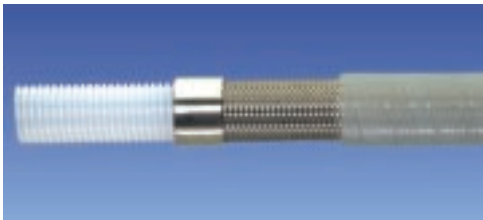
PTFE Liners

Virgin PTFE Liner – For use in applications where fluids conveyed are not highly electrically resistive. The liner is manufactured from FDA approved hose grade PTFE material.

Anti-static PTFE Liner – For use in applications where electrically resistive fluids such as alcohol, solvents or freons are being conveyed in order to prevent a damaging electrostatic charge build-up inside the hose. The liner is manufactured from FDA approved PTFE and Carbon Black materials.

Hose Braids

Stainless Steel Braid – is used in applications involving high temperatures and working pressures. High tensile grade 304 stainless steel wire is used, to give maximum pressure resistance and external protection to the hose.



Polypropylene Braid – is often preferred in applications involving frequent handling and movement of the hose, and where temperatures are within the range -22°F and +194°F. Polypropylene braid is light in weight, and is not prone to chloride stress corrosion.

Kynar (PVDF) Braid – is used where severe chemical corrosion conditions exist around the outside of the hose. This can happen when Chlorine and Fluorine are being transferred.

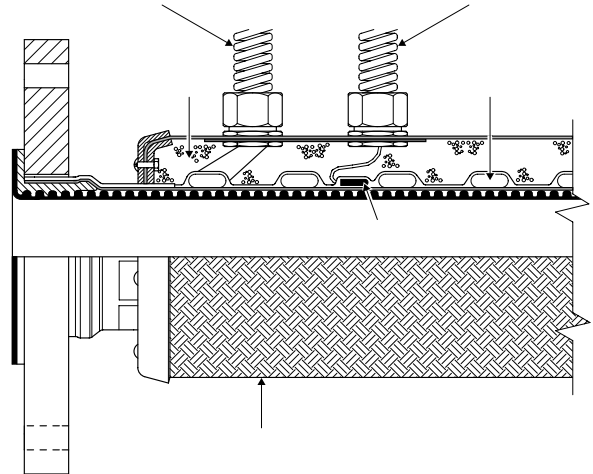
External Protection

Rubber Covered Hose – for applications where the hose may be subjected to rough treatment and severe external abrasion. Also for hygienic applications, where the external smoothness and clean ability of the hose is of prime importance. A smooth blue EPDM rubber cover is applied directly onto a SS hose assembly.

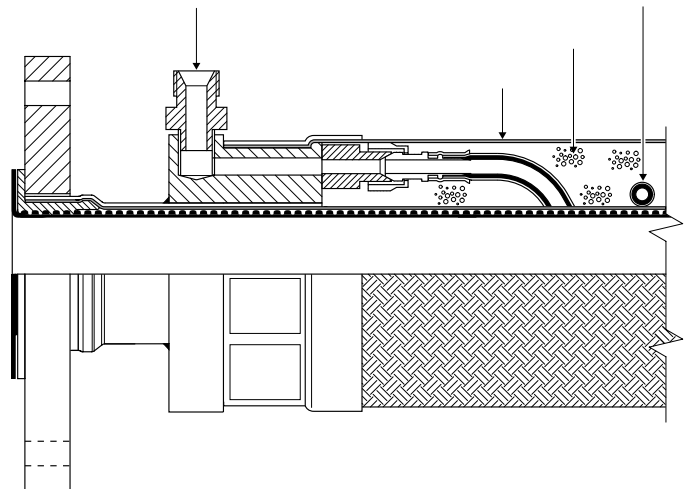


For a semitransparent cover, we recommend silicone rubber. If required, a black anti-static rubber or a fireproof rubber cover is also available. Other options include scuff rings and protection coil.

Trace Heated Hose – Bioflex Electrically Trace Heated and Steam Trace Heated hose assemblies are custom designed and built for applications where the temperature of the process fluid must be maintained as it passes through the hose – usually to prevent solidification or an increase in fluid viscosity.



Electrically Heated Hose



Steam Heated Hose

Please call today for a complete hose catalog.

Sanitary Process Components

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Telephone: 407-650-8988 • Fax: 407-650-8944
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Bioflex Size Range and Specifications.

Nominal Hose Bore Size		Actual Bore Size		O/D of Tube	Braid Type	O/D of Braid or Rubber	Minimum Bend Radius	Max.Working Pressure of Hose*	Minimum Burst Pressure	Max. Continuous Hose Length	Weight per Unit Length
in	mm	in	mm	mm		mm	mm	Bar	Bar	Mtrs	Kg/Mtr
3/8	10	3/8	9.5	11.75	TO	~	35	10	40	20	0.06
					SS	13	20	80	320	20	0.14
1/2	15	1/2	12.7	15.40	TO	~	60	10	40	20	0.15
					SS	16.5	38	70	280	20	0.29
					PS	18.0	38	35	140	20	0.22
					SS,RC/FP/SI	21.0	60	70	280	20	0.39
5/8	16	5/8	16.0	19.50	TO	~	68	10	40	20	0.17
					SS	20.8	45	65	260	20	0.35
					PB	22.2	45	33	130	20	0.25
					SS,RC/FP/SI	26.4	68	65	260	20	0.47
3/4	20	3/4	19.0	23.00	TO	~	75	10	40	20	0.2
					SS	24.4	50	60	240	20	0.4
					PB	25.8	50	30	120	20	0.28
					SS,RC/FP/SI	29.0	75	60	240	20	0.55
1	25	1	25.4	30.50	TO	~	110	8	30	20	0.36
					SS	31.9	70	50	200	20	0.63
					PB	34.3	70	25	100	20	0.47
					SS,RC/FP/SI	36.5	110	50	200	20	0.92
1 1/4	32	1 1/4	32.0	38.30	TO	~	140	6	24	20	0.45
					SS	39.7	100	45	180	20	0.85
					PB	42.1	100	23	90	20	0.72
					SS,RC/FP/SI	44.5	140	45	180	20	1.15
1 1/2	40	1 1/2	38.0	45.00	TO	~	180	5	20	17	0.66
					SS	46.8	140	40	160	17	1.1
					PB	48.8	140	20	80	17	0.9
					SS,RC/FP/SI	54.6	180	40	160	17	1.55
2	50	2	50.8	58.40	TO	~	300	3	12	10	1.25
					SS	60.2	200	30	120	10	1.9
					PB	62.2	200	15	60	10	1.6
					SS,RC/FP/SI	68.2	300	30	120	10	2.56

Maximum operating Temperatures: SS Braid -70° C to 260° C, PB Braid -30° C to +90°. SS, RC and SS, FP -40° C to +140°C, SS,SI -40° C to +180° C.

Braid Type: TO = Tube Only, No Braid; SS = Stainless Steel Braid; RC = Rubber Covered

FP = Fireproof Rubber Covered; SI = Silicone Rubber Covered, PB = Polypropylene Braid

Pressure Variation with Temperature: SS Braid as per Graph; PB pressure above over whole temperature range; RC, FP and SI grades as per Graph, but only within the temperature range for the particular grade.

Testing: Each hose assembly is pressure tested to 1.5 times the Maximum Working Pressure as defined above.

Bioflex Specifications, Temperatures, Pressures & Flow Rates

TEMPERATURE VS. PRESSURE

Due to its extremely strong construction, Bioflex has outstanding resistance to temperature and pressure, much higher than that of conventional convoluted PTFE lined hose.

TEMPERATURE VS. VACUUM

All sizes of Bioflex GP, SS are usable at full vacuum up to 130°C. Above this, the vacuum resistance should be reduced 1% for every degree above 130°C.

FLOW RATES

The flow rates shown in the graph are for Bioflex hose in a straight configuration, using water as the test medium.

In practice, flow rates will vary with hose flexing, fluid viscosity, end fitting design and other parameters, but Bioflex hose flow rates are always 2–3 times better than convoluted PTFE hose.

NON-WHISTLING

The 'whistling' noises created by turbulent flow when steam or gases are passed through a convoluted hose are completely eliminated when using Bioflex.

