

BIOFLEX

Bioflex is a smoothbore, highly flexible, PTFE lined hose. Its design overcomes the disadvantages of conventional smoothbore and convoluted PTFE flexible hose designs, dramatically improving on many of their individual technical performance parameters.

The key feature of Bioflex PTFE hose is the PTFE liner design, which comprises integral rib sections which support the tube against kinking, vacuum and pressure, and highly compressed web sections which give a smoothbore inner surface and excellent flexibility.

Another feature is the integral PTFE lined and flared end fitting design (see next page) which is available for all the standard end fittings on Bioflex Hose Assemblies.

This provides clean, full-bore flow through the end fitting without any entrapment points - unlike conventional fittings, which introduce a bore restriction, also a crevice at the end of the fitting tail.

This PTFE lining also protects the end fitting from any corrosive media passing through the hose bore.

Today, Bioflex has become the established standard in process fluids applications all over the world, and continues to be introduced into new applications every day.

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 and AS, 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. Rubber covered grades the same, BUT ONLY within the temperature limits for the type of rubber.

Temperature & MWP Graph for Bioflex GP, SS and AS, SS (Subtracted to calculate Pressure Drop over the Hose Length)

Maximum Working Pressure (MWP) Variation with Temperature:

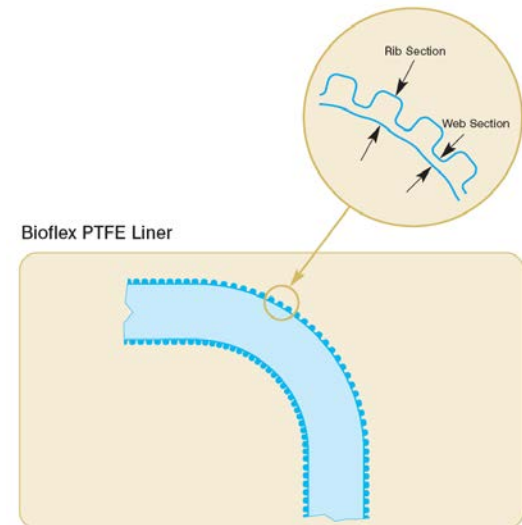
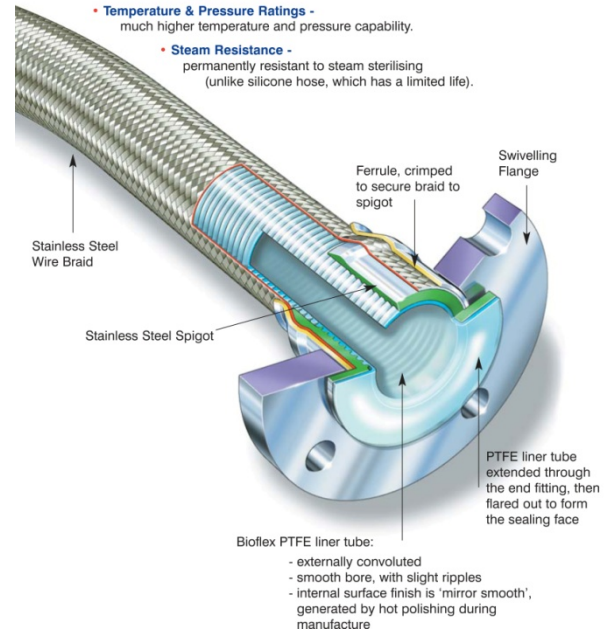
Hose with SS Braid as per Graph.

Hose with PB Braid, pressure as listed (Page 10) from -30°C to +80°C and 50% less from 80°C to 100°C.

Hose with RC, FP and SI grades as per Graph, BUT only within the temperature range for the particular grade of rubber cover, as given below.

Comparison with Silicone Rubber Hose

- **Hygienic Cleanability** - much better, due to highly polished inner surface finish.
- **Chemical Resistance** - considerably improved, particularly to strong oxidising acids and bases.
- **Temperature & Pressure Ratings** - much higher temperature and pressure capability.
- **Steam Resistance** - permanently resistant to steam sterilising (unlike silicone hose, which has a limited life).



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Catalogues:

Ducting hoses
 Industrial hoses
 Fittings
 Safety couplings
 Chemical resistance table ducting hoses
 Chemical resistance table hoses

Design & Approvals

Bioflex GP is a virgin PTFE liner, manufactured from hose grade PTFE which conforms to the requirements of:

FDA 21 CFR 177.1550

Bioflex GP hose liner tube has also been tested, and complies with:

USP Class 6 :

- Systemic Injection Test
- Intracutaneous Test
- Intramuscular Test
- USP L929 MEM Elution Test (Cytotoxicity)

Maximum Operating Temperatures (Internal Fluid Only):

SS -70°C to +260°C

PB -30°C to +100°C

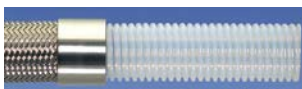
SS,RC & SS, FP -40°C to +140°C

SS, SI -40°C to +180°C

KYB -40°C to +120°C

Tube

GP – SS 316

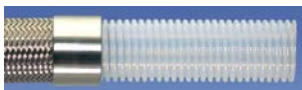


AS - Antistatic

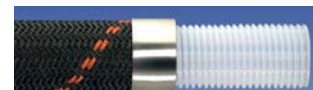


Braids

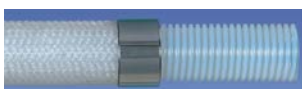
SS



PB - Polypropylene



KYB - Kynar



TO - Tube



HB - Hastelloy



Rubber Cover on Braid

RC – Rubber Cover



SI - Silicone



FP - Fireproof



RC-300 - Rubber Covered 300mm at End



Protection

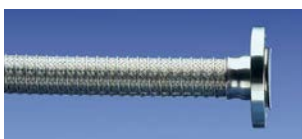
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PC - Protection Coil



SR - Scuff Rings



KR - Kink Resistant

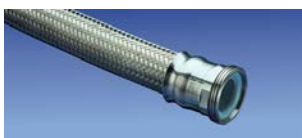


Fittings

Фланци. PN6, PN10, ASA 150lbs



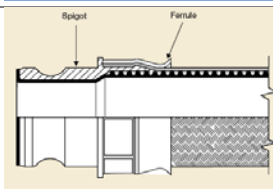
DIN 11851 male



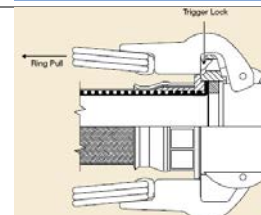
DIN 11851 female



KAMLOK adapter



KAMLOK coupler



Triclover not PTFE lined



Triclover PTFE lined



SMS



RJT



BIOFLEX Size Range and Specifications

Number	ID		Actual Bore Size mm	O/D of Tube mm	Braid type	O/D of Braid or Rubber mm	R min mm	WP bar	BP bar	Max hose Length m	Weight Kg
	mm	inch									
BIOF-0A-010	10	3/8"	9,5	11,96	TO	-	35	5	20	20	.06
BIOF-0B-010					SS	12.83	20	80	320	20	.14
BIOF-0D-010					RC	17.40	18	80	320	18	.22
BIOF-0A-015	15	1/2			TO	-	60	5	20	20	.15
BIOF-0B-015			SS	16.6	38	70	280	20	.29		
BIOF-0C-015			PB	19.5	38	35	140	20	.22		
BIOF-0D-015			SS,RC/FP	21.0	60	70	280	18	.39		
BIOF-0E-015			SI	21.0	60	70	280	18	.39		
BIOF-0F-015			KYB	17.5	60	10	40	20	.19		
BIOF-0A-016	16	5/8	16,0	19,40	TO	20.6	68	5	20	20	.17
BIOF-0B-016					SS	23.3	45	65	260	20	.35
BIOF-0C-016					PB	25.0	45	33	130	20	.25
BIOF-0D-016					SS,RC/FP	25.0	68	65	260	18	.47
BIOF-0E-016					SI	21.5	68	65	260	18	.47
BIOF-0F-016					KYB	20.6	68	10	40	20	.20
BIOF-0A-020	20	3/4			TO	24.5	75	5	20	20	.20
BIOF-0B-020					SS	27.9	50	60	240	20	.40
BIOF-0C-020			PB	30.4	50	30	120	20	.28		

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BIOF-OD-020					SS,RC/FP	30.4	75	60	240	18	.55
BIOF-OE-020					SI	26.0	75	60	240	18	.55
BIOF-OF-020					KYB	24.5	75	10	40	20	.24
BIOF-0A-022	22	7/8	22,0	22,70	TO	-	92.5	4	16	20	.28
BIOF-0B-022					SS	28.2	60	55	220	20	.52
BIOF-0C-022					PB	32.0	60	27.5	110	20	.38
BIOF-0D-022					SS,RC/FP	33.2	92.5	55	220	18	.74
BIOF-0E-022					SI	33.2	92.5	55	220	18	.74
BIOF-0F-022					KYB	29.7	92.5	10	40	20	.33
BIOF-0A-025	25	1	25,4	31,00	TO	-	110	4	16	20	.36
BIOF-0B-025					SS	32.3	70	50	200	20	.63
BIOF-0C-025					PB	37.7	70	25	100	20	.47
BIOF-0D-025					SS,RC/FP	37.3	110	50	200	18	.92
BIOF-0E-025					SI	37.3	110	50	200	18	.92
BIOF-0F-025					KYB	33.4	110	10	30	20	.41
BIOF-0A-032	32	1 ¼	32,0	37,3	TO	-	140	3	12	20	.45
BIOF-0B-032					SS	39.5	100	45	180	20	.85
BIOF-0C-032					PB	44.3	100	23	90	20	.72
BIOF-0D-032					SS,RC/FP	44.5	140	45	180	18	1.15
BIOF-0E-032					SI	44.5	140	45	180	18	1.15
BIOF-0F-032					KYB	39.7	140	6	24	20	.53
BIOF-0A-035	35	1 3/8	34,9	41,20	TO	-	160	2	8	18	.54
BIOF-0B-035					SS	43.1	120	40	160	18	1.00
BIOF-0C-035					PB	47.8	120	20	80	18	.86
BIOF-0D-035					SS,RC/FP	48.1	160	40	160	16	1.38
BIOF-0E-035					SI	48.1	160	40	160	16	1.38
BIOF-0F-035					KYB	42.9	160	6	20	18	.68
BIOF-0A-040	40	1 ½	38,0	45,00	TO	-	180	2	8	17	.66
BIOF-0B-040					SS	47.0	140	40	160	17	1.10
BIOF-0C-040					PB	50.8	140	20	80	17	.90
BIOF-0D-040					SS,RC/FP	52.0	180	40	160	15	1.55
BIOF-0E-040					SI	52.0	180	40	160	15	1.55
BIOF-0F-040					KYB	47.7	180	6	20	17	.78
BIOF-0A-048	48	17/8	47,6	55,20	TO	-	280	2	8	13	.82
BIOF-0B-048					SS	57.1	190	35	140	13	1.38
BIOF-0C-048					PB	62.0	190	18	72	13	1.12
BIOF-0D-048					SS,RC/FP	62.1	280	35	140	11	1.94
BIOF-0E-048					SI	62.1	280	35	140	11	1.94
BIOF-0F-048					KYB	57.3	280	6	16	13	.97
BIOF-0A-050	50	2	50,8	59,10	TO	-	300	2	8	10	1.25
BIOF-0B-050					SS	61.0	200	30	120	10	1.90
BIOF-0C-050					PB	66.0	200	15	60	10	1.60
BIOF-0D-050					SS,RC/FP	66.0	300	30	120	88	2.56
BIOF-0E-050					SI	66.0	300	30	120	10	2.56
BIOF-0F-050					KYB	61.7	300	6	12	10	1.42

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