

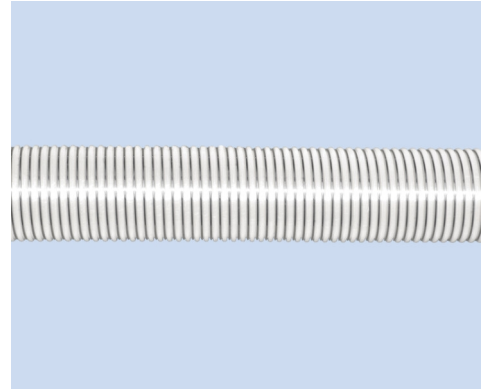
# Tube only (TO) grade hoses



*Bioflex Ultra*

## Features and benefits

- Natural or anti-static patented PTFE liner
- Very flexible, yet kink resistant
- Smooth bore for uninterrupted fluid flow and ease of cleaning
- High temperature and pressure capability
- Chemical resistant
- PTFE-lined and non-lined end fittings with laser etched ferrule for ultimate traceability
- Range of braid, cover and external protection options available



## Tube only (TO) grade hoses performance

Nominal hose bore size		Actual bore size		Bioflex Ultra grade (braid and cover)	Helical wire	**Maximum working pressure of hose		Burst pressure		Minimum bend radius	
in	mm	in	mm			bar	psi	bar	psi	in	mm
¾	9.5	0.382	9.7	TO	-	5	72	20	290	1½	35
				SS	-	80	1,160	500	7,200	¾	19
				RC/BK/SI	-	80	1,160	500	7,200	¾	19
½	15	0.516	13.1	TO	✓	5	72	20	290	2½	60
				SS	✓	70	1,015	400	5,800	1½	38
				PB	✓	35	500	140	2,000	1½	38
				RC/BK/SI	✓	70	1,015	400	5,800	1½	38
¾	16	0.638	16.2	TO	✓	5	72	20	2,90	2½	64
				SS	✓	65	940	380	5,500	1½	45
				PB	✓	33	480	130	1,900	1½	45
				RC/BK/SI	✓	65	940	380	5,500	1½	45
¾	20	0.760	19.3	TO	✓	5	72	20	290	3	75
				SS	✓	60	870	300	4,350	2	50
				PB	✓	30	440	120	1,750	2	50
				RC/BK/SI	✓	60	870	300	4,350	2	50
* ¾	22	0.870	22.1	TO	✓	4	60	16	230	3½	90
				SS	✓	55	800	220	3,200	2½	55
				PB	✓	27.5	400	110	1,600	2½	55
				RC/BK/SI	✓	55	800	220	3,200	2½	55
1	25	1.012	25.7	TO	✓	4	60	16	230	4½	110
				SS	✓	50	720	200	2,900	2½	70
				PB	✓	25	360	100	1,450	2½	70
				RC/BK/SI	✓	50	720	200	2,900	2½	70
1¼	32	1.268	32.2	TO	✓	3	43	12	175	5½	140
				SS	✓	45	650	180	2,600	4	100
				PB	✓	23	330	90	1,300	4	100
				RC/BK/SI	✓	45	650	180	2,600	4	100
* 1¼	35	1.370	34.8	TO	✓	2	29	8	116	6½	160
				SS	✓	40	580	160	2,320	4	100
				PB	✓	20	290	80	1,160	4	100
				RC/BK/SI	✓	40	580	160	2,320	4	100
1½	40	1.516	38.5	TO	✓	2	29	8	116	7	180
				SS	✓	40	580	160	2,320	5½	140
				PB	✓	20	290	80	1,160	5½	140
				RC/BK/SI	✓	40	580	160	2,320	5½	140
* 1½	48	1.866	47.4	TO	✓	2	29	8	116	11	280
				SS	✓	35	500	140	2,000	6½	170
				PB	✓	18	250	72	1,040	6½	170
				RC/BK/SI	✓	35	500	140	2,000	6½	170
2	50	2.012	51.1	TO	✓	2	29	8	116	12	300
				SS	✓	30	430	120	1,750	8	200
				PB	✓	15	215	60	870	8	200
				RC/BK/SI	✓	30	430	120	1,750	8	200
2½	65	2.508	63.7	SS	✓	20	290	80	1,160	11½	300
				PB	✓	12	174	48	696	11½	300
				RC/BK/SI	✓	20	290	80	1,160	11½	300
3	80	3.024	76.8	SS	✓	15	218	60	870	13½	350
				PB	✓	10	145	40	580	13½	350
				RC/BK/SI	✓	15	218	60	870	13½	350

TO = Tube only, SS = Stainless steel braid, PB = Polypropylene braid, SS,RC/FP = Fireproof rubber cover, RC = Blue EPDM rubber cover, BK = Black EPDM rubber cover, SI = Silicone rubber cover, KYB = Kynar braid

\*The ¾", 1¼" and 1½" hose sizes are only suitable for use with PTFE lined sanitary clamp (or triclover) end fittings and PTFE lined I-Line end fittings.

\*\* The maximum working pressure (MWP) of a hose assembly is limited to the lowest of the MWP's of either of the two end fittings, or of the hose itself as listed above. The MWP of the hose reduces as the operating temperature increases, consult Aflex Hose for guidance.

Note: 2½" & 3" tube only (TO grade) cannot be ordered as an assembly.

## Technical specifications

	Tube only (TO) grade hoses
Nominal bore size	9.5 - 50 mm
Nominal bore size	0.375 - 2 in
Actual bore size	9.7 - 51.1 mm
Actual bore size	0.382 - 2.012 in
Max Length	25 - 30 m
Outside diameter	12 - 58.9 mm
Outside diameter	0.47 - 2.32 in
Max. operating pressure	5 bar
Max. operating pressure	72 psi
Burst pressure	8 - 20 bar
Burst pressure	116 - 290 psi
Certification	(EU) 10/2011, 3.1 Traceability, 3-A 62-02, ATEX, EN16643:2016, FDA (materials), ISO 14001:2015, ISO 9001:2015, OHSAS 18001:2015, USP Class VI
Bend radius	35 - 300 mm
Bend radius	1.375 - 12 in
Braid	None
Cover	None
Hose external protection options	Protection coil, Safeguard, Scuff rings
End fitting	3-A sanitary fittings, 90° elbow fittings, BSP and NPT threaded fittings, CAM and groove fittings, DIN 11851 fittings, JIC fittings, PTFE dip pipe fittings, Sanitary triclamp fittings, SMS and RJT fittings, Swivel flange fittings
Labelling options	Color coding, Standard
Vacuum resistance	Usable at vacuum -0.9 bar up to 200 °C (392 °F)

Note: Max length is dependant on bore size

## Materials of construction

	Tube only (TO) grade hoses
Helical wire	Stainless steel 316
Liner tube	PTFE

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22 November 2023