

Teflon braided hoses - smooth-walled



HYPERLINE SB

Standard smooth-wall braided Teflon hose, for hydraulic type fittings

Hose material: smooth PTFE (Teflon)
Reinforcement: single braided AISI 304 steel
Operating temperature: -70°C to +260°C
 (temperature-dependent operating pressure)

High-quality hose made from a smooth, seamless PTFE tube. The Teflon hose tube is extruded under strictly defined and controlled conditions to ensure the highest quality, minimum porosity and maximum flexibility and elasticity possible for smooth PTFE hose. The braid is made of annealed **AISI 304 stainless steel** wire with a high tensile strength of 1700 N/mm², with strictly controlled angle of alignment and tension of the braid wire bundles, resulting in minimal changes in hose length under high pressure. A double braided version (HYPERLINE DB) is available on special request.

Due to the unique properties of PTFE (large operating temperature range, resistance to most substances and compounds, negligible surface adhesion), HYPERLINE SB hose is ideal for transferring chemicals, foodstuffs, fuels, oils, paints, solvents, adhesives, dyes, detergents, steam, etc., as well as classic high-pressure hydraulic oil installations. - as well as for classic high-pressure hydraulic oil installations.

HYPERLINE SB hose, compared to SMOOTHBORE hose, has a medium wall PTFE (*Medium Wall* - MW) and, above all, its internal diameter for a given size is larger - suitable for fitting typical hydraulic end fittings used for rubber hydraulic hoses. For example, for the 1/2" size:

- SMOOTHBORE hose: internal diameter 12.7 mm - special "tail" ends for PTFE must be fitted; fitting by means of special shaped clamping jaws;
- HYPERLINE SB hose: internal diameter 13.3 mm - standard hydraulic fittings must be fitted; fitting by means of standard straight clamping jaws.

This allows the HYPERLINE SB hose to be used in a wide range of applications - it can be fitted without any problems in plants experienced in fitting rubber hydraulic hoses and using the same equipment.



If a danger of static electricity is identified (danger of the creation and accumulation of electrical charges, see introduction to Teflon hoses), HYPERLINE SB hoses made of antistatic Teflon - **AS antistatic version** - should be used. The antistatic Teflon of the AS version is **black** (contains graphite suitably distributed in PTFE) and has a resistance $R < 10^8 \Omega$ (according to ISO 8031 annex A). This ensures the dissipation and dispersion of

(dispersion) of electrical charges. The selection of a standard natural PTFE or anti-static version of the hose must be confirmed with Tubes International.

HYPERLINE SB - in single braided stainless steel:

index (PTFE natural)	index (AS version)	nominal diameter [inch]	internal diameter [mm]	PTFE wall thickness [mm]	external diameter [mm]	working pressure * [bar]	testing pressure** [bar]	burst pressure [bar]	bend radius [mm]	mass [kg/m]
AF-HDSB-03	AF-HDSB-03AS	1/8"	3,5	1,00	6,45	350	525	1050	20	0,070
AF-HDSB-05	AF-HDSB-05AS	3/16"	5,0	0,76	7,65	290	435	870	45	0,078
AF-HDSB-06	AF-HDSB-06AS	1/4"	6,7	0,76	9,30	240	360	720	60	0,110
AF-HDSB-08	AF-HDSB-08AS	5/16"	8,4	0,76	10,72	220	330	660	70	0,136
AF-HDSB-10	AF-HDSB-10AS	3/8"	10,0	0,76	12,75	190	285	570	80	0,166
AF-HDSB-13	AF-HDSB-13AS	1/2"	13,3	0,76	16,35	150	225	450	130	0,210
AF-HDSB-16	AF-HDSB-16AS	5/8"	16,5	0,84	19,50	130	195	390	163	0,280
AF-HDSB-19	AF-HDSB-19AS	3/4"	19,8	1,00	22,50	110	165	330	180	0,327
AF-HDSB-25	AF-HDSB-25AS	1"	26,4	1,00	30,10	80	120	240	230	0,524

Notes: indexes highlighted in colour - most commonly used.

* - safety factor 3:1, if a factor of 4:1 is required (e.g. according to EN 16643), multiply the values by 0.75.

** - test pressure 1.5 x working pressure;

Temperature dependence of working pressure for HYPERLINE SB Teflon hose (AF-HDSB-...):

At operating temperatures above +130°C, the maximum working pressure given in the table should be reduced by 0.75% for every 1°C above this temperature. For example, at a temperature of 170°C, the maximum working pressure for hose AF-HDSB-06 is: 240 bar - (170°C-130°C) x 0.75 = 240 bar - 30% = **168 bar**.