

Smoothbore

PTFE hose for automotive and general purpose applications

FEATURES AND BENEFITS

- A high temperature and pressure resistant, smooth bore hose compatible with all automotive fluids
- Natural, anti-static or high pressure gas (HPG) PTFE liner
- Standard, medium and heavy wall, with single or double braid
- Chemical resistant with high temperature and pressure capability
- Range of rubber or plastic outer covers, with printing available to special order
- Auto-cut hose lengths, available as annealed or e-welded, any length or tolerance to suit your requirements

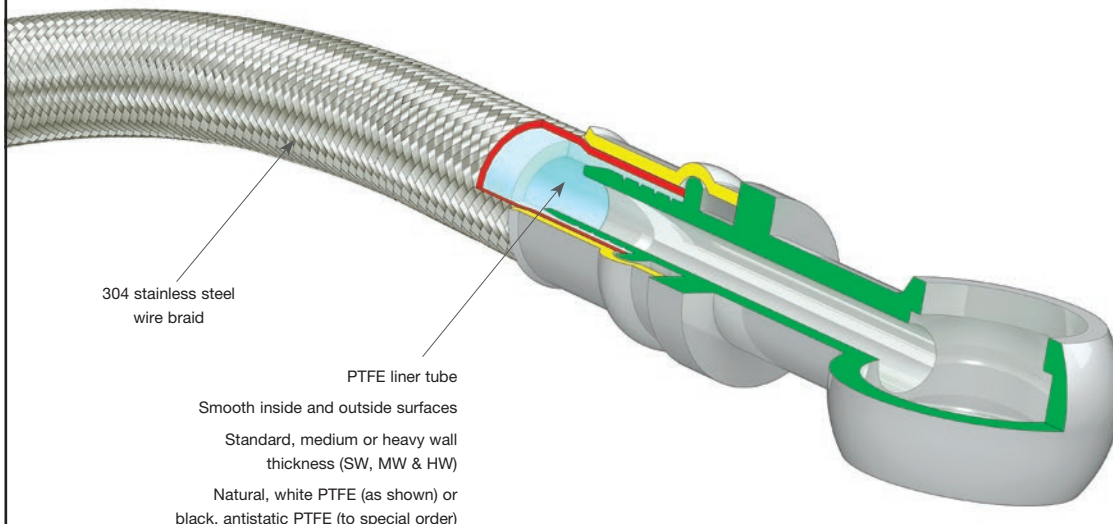


TECHNICAL SPECIFICATION

Hose bore size range	
Standard wall and heavy wall	1/8" (3mm) up to 1" (25mm actual bore)
Medium wall ('Dash sizes')	-3 (3.5mm bore) to -16 (26.4mm bore)
Hose lengths	
Hose lengths	-3 size 200m (650ft) up to -16 size 40m (130ft)
Cut lengths and preformed lengths available	Annealed or e-welded
Temperature limits	
Depending on pressure	-73C (-100F) up to +260C (+500F)
Working pressure ratings for single braid hose for temperatures up to 150C (300F) - for higher pressures see braid options	
Dash sizes/ Medium wall	-3 size 350bar (5,000psi) up to -16 size 80bar (1,160psi)
Standard wall	1/8" (3mm) 290bar (4220psi) up to 1" (25mm) 55bar (800psi)
Heavy wall	1/8" (3mm) 290bar (4220psi) up to 1" (25mm) 69bar (1004psi)
Vacuum limitations	
For heavy wall hose in sizes up to 3/8" (10mm)	Vacuum resistant to -0.9bar
Approvals	
ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2015, EN16643:2016, TS 16949:2016, FDA (materials), SAE J1401 and J1737, 3.1 Traceability	

MATERIALS OF CONSTRUCTION

A -3 Smoothbore hose assembly



304 stainless steel
wire braid

PTFE liner tube

Smooth inside and outside surfaces

Standard, medium or heavy wall
thickness (SW, MW & HW)

Natural, white PTFE (as shown) or
black, antistatic PTFE (to special order)

Banjo End Fitting

OPTIONS AND ACCESSORIES

Liner options	
Liners available;	Natural PTFE as standard and anti-static PTFE (AS) or, high pressure gas (HPG) to special order
End fitting options	
End fittings available;	BSPT and NPT male and female, BSP and NPSM 60° cone seat and flat seat female union fittings, JIC threaded male and female fittings, standpipe fittings and many more
Alternative design options (to special order)	
Braid design options	Double braid or 'high pack' braid for increased pressure resistance (see full Smoothbore brochure for specifications)
Cover options	PVC, nylon II, Sarlink, and Hytrel plastic covers over braid with printing if required. Different colours and other plastic covers are also available
Larger bore sizes	For larger bore sizes where improved flexibility is needed, Hyperline FX hose is recommended

PERFORMANCE DATA

Specifications and size range for single stainless steel wire braid hose; for standard grade and AS grade

Standard wall, single braid (SW, SB)

Bore size (Nominal)	Bore size (Actual)		PTFE tube wall thickness		Braid outside diameter		Minimum bend radius		Maximum working pressure		Weight per unit length		*Part number
	mm	in	mm	in	mm	in	mm	in	bar	psi	kg/mt	lbs/ft	
1/8	3.17	0.125	0.76	0.030	5.85	0.230	22	7/8	290	4,220	0.065	0.044	70-100-02-01-02
3/16	4.76	0.188	0.76	0.025	7.40	0.291	40	1 5/8	265	3,856	0.080	0.054	70-100-03-01-02
1/4	6.35	0.250	0.63	0.025	8.50	0.335	60	2 3/8	240	3,492	0.093	0.062	70-100-04-01-02
5/16	7.94	0.313	0.63	0.025	10.15	0.400	70	2 7/8	200	2,910	0.110	0.074	70-100-05-01-02
3/8	9.53	0.375	0.63	0.025	11.75	0.463	80	3 3/8	190	2,765	0.124	0.083	70-100-06-01-02
1/2	12.70	0.500	0.76	0.030	14.95	0.589	110	4 3/8	140	2,030	0.207	0.139	70-100-08-01-02
5/8	15.88	0.625	0.76	0.030	18.35	0.722	150	6	110	1,601	0.255	0.171	70-100-10-01-02
3/4	19.05	0.750	0.76	0.030	21.65	0.852	200	7 7/8	80	1,164	0.315	0.211	70-100-12-01-02
1	25.40	1.000	1.00	0.039	28.15	1.108	300	11 7/8	55	800	0.430	0.288	70-100-16-01-02

Heavy Wall, single braid (HW, SB)

Bore size (Nominal)	Bore size (Actual)		PTFE tube wall thickness		Braid outside diameter		Minimum bend radius		Maximum working pressure		Weight per unit length		*Part number
	mm	in	mm	in	mm	in	mm	in	bar	psi	kg/mt	lbs/ft	
1/8	3.17	0.125	1.00	0.039	6.10	0.240	20	7/8	290	4,220	0.068	0.046	70-200-02-01-02
3/16	4.76	0.188	1.00	0.039	7.65	0.301	29	1 1/8	270	3,929	0.087	0.058	70-200-03-01-02
1/4	6.35	0.250	1.00	0.039	9.25	0.364	30	1 3/8	260	3,783	0.113	0.076	70-200-04-01-02
5/16	7.94	0.313	1.00	0.039	10.90	0.429	40	1 5/8	230	3,347	0.135	0.091	70-200-05-01-02
3/8	9.53	0.375	1.00	0.039	12.50	0.492	55	2 3/8	200	2,910	0.153	0.103	70-200-06-01-02
1/2	12.70	0.500	1.00	0.039	15.60	0.614	85	3 3/8	160	2,328	0.240	0.161	70-200-08-01-02
5/8	15.88	0.625	1.30	0.051	19.10	0.752	110	4 3/8	130	1,892	0.292	0.196	70-200-10-01-02
3/4	19.05	0.750	1.30	0.051	22.05	0.868	145	5 5/8	92	1,339	0.344	0.231	70-200-12-01-02
1	25.40	1.000	1.50	0.059	28.80	1.134	260	10 3/8	69	1,004	0.470	0.315	70-200-16-01-02

Medium wall, single braid (MW, SB), also referred to as Hyperline SB

The Hyperline MW, SB Range meets or exceeds SAE 100R14 standard.

Bore size (Nominal) BB=Big Bore	Bore size (Actual)		Dash size ref (if any)	PTFE tube wall thickness		Braid outside diameter		Minimum bend radius		Max working pressure		Weight per unit length		*Part number
	mm	in		mm	in	mm	in	mm	in	Bar	Psi	Kg/mt	Lbs/Ft	
1/16 BB	2.0	0.079	-2	1.00	0.040	5.00	0.197	13	1/2	450	6,500	0.045	0.030	70-300-02-01-02
1/8 BB	3.5	0.138	-3	1.00	0.040	6.45	0.254	20	3/4	350	5,076	0.070	0.047	70-300-03-01-02
3/16 BB	5.0	0.200	-4	0.76	0.030	7.65	0.301	45	1 3/4	290	4,206	0.078	0.052	70-400-03-01-02
1/4 BB	6.7	0.264	-5	0.76	0.030	9.30	0.366	60	2 3/8	240	3,480	0.110	0.074	70-400-04-01-02
5/16 BB	8.4	0.335	-6	0.76	0.030	10.72	0.422	70	2 3/4	220	3,190	0.136	0.091	70-400-05-01-02
3/8 BB	10.0	0.394	-7	0.76	0.030	12.75	0.500	80	3	190	2,755	0.166	0.111	70-400-06-01-02
1/2 BB	13.3	0.536	-10	0.76	0.030	16.35	0.644	130	5	150	2,175	0.210	0.141	70-400-08-01-02
5/8 BB	16.5	0.654	-12	0.84	0.033	19.50	0.768	163	6 1/2	130	1,885	0.280	0.188	70-400-10-01-02
3/4 BB	19.8	0.780		1.00	0.040	22.50	0.860	180	7	110	1,595	0.327	0.219	70-400-12-01-02
1 BB	26.4	1.040		1.00	0.040	30.10	1.190	230	9	80	1,160	0.524	0.351	70-400-16-01-02

* For Anti-Static Grade, add 10 to the 3-digit part number e.g. 70-100- becomes 70-110

Temperature & Pressure

- Temperature affects the maximum working pressure (MWP) as listed above, so for temperatures above 130C (266F) reduce the MWP by 0.75% for each 1C (1.8F) above 130C (266F).
- Pressure ratings above 100bar (1,500psi) only apply for the transfer of non-penetrating fluids. If gases or penetrating fluids are used in the application, or used during pressure testing at pressures above 100bar, HPG grade hose is required.
- Maximum working pressures (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 (e.g EN 16643:2016 requirement), multiply the listed value by 0.75.

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