HOSEFLON® Flexible Hoses for High Pressure

HOSE CONSTRUCTION

Inner Core

Function: media transfer
Standard material: PTFE, Smooth or Convoluted
Options: other materials like PFA, FEP and PVDF





Reinforcement

Function: provide resistance to pressure
Standard Material: AISI 304L
Options: AISI 316, Polypropylene,
Aramid, Polyester

Cover

Function: reinforcement protection
Options: Rubber (CR, EPDM), Polyurethane,
Hytrel, PA11, PA12, Silicone, PVC



Smooth-Wall (SW) Flexible Hoses

Hose Construction

Extruded inner core made of natural PTFE certified in accordance with RoHS Directive and U.S. Federal Food and Drug Administration's (FDA) Regulation 21 CFR 177.1550.
Premium choice materials and advanced technology guarantee high flexibility and minimum porosity.
Outside reinforcement: AISI 304L wire braid with high tensile strength.

Version Available

There are four SW versions, available with single wire braid (1T) or double wire braid (2T).
Thicker wall thickness improves bend radius, kink resistance and slows gas permeation.
Double braid is required in case of higher pressures and kink resistance.

- SWS 1T: standard wall hoses with single wire braid
- SWM 1T: medium wall hoses with single wire braid
- SWH 1T: heavy wall hoses with single wire braid
- SWM 2T: medium wall hoses with double wire braid

Options

Customized inner core construction (sizes, thickness).
Inner core made of black antistatic PTFE when electrically resistive fluids are transferred at high flow rates. Hoses with inner cores made of other fluoroplastics (e.g. FEP, PFA, PVDF).
Outside reinforcements: AISI 316 - textile braids (e.g. aramid, polypropylene or polyester).
Heavy wall hoses (SWH version) with double wire braid.
Additional reinforcements for superior performances.
Special jacket made of thermoplastics (e.g. Polyurethane, PA11, PA12, Hytrel, PVC).
Special jacket made of silicone or wrapped rubbers.

Applications

Chemical, petrochemical, paints, inks, glues and adhesives, foodstuffs, brake oils, fuels, hydraulic oils, steam, gases, detergents, refrigerants and any application focused on the transfer of fluids and gases under critical usage conditions and in severe environments.

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HOSEFLON® SWS 1T – Standard Sizes and Characteristics

INTERNAL DIAMETER			PTFE WALL THICKNESS		OUTER DIAMETER		Weight per Unit Lenght		Minimum Bend Radius		Maximum WP		BP		Vacuum
Nominal	mm	inch	mm	inch	mm	inch	gr/mt	Lbs/ft	mm	inch	bar	psi	bar	psi	In/HG
1/8	3.20	0.126	0.7	0.028	5.80	0.228	55	0.037	25	0.984	270	3916	1080	15664	28
3/16	4.80	0.189	0.7	0.028	7.40	0.291	70	0.047	35	1.378	200	2901	800	11603	28
1/4	6.35	0.250	0.7	0.028	9.00	0.354	90	0.060	45	1.772	175	2538	700	10153	28
5/16	7.90	0.311	0.7	0.028	10.80	0.425	125	0.084	50	1.969	150	2176	600	8702	28
3/8	9.50	0.374	0.7	0.028	12.40	0.488	145	0.097	60	2.362	135	1958	540	7832	28
13/32	10.30	0.406	0.7	0.028	13.30	0.524	160	0.108	70	2.756	130	1885	520	7542	28
1/2	12.70	0.500	0.7	0.028	15.70	0.618	215	0.144	90	3.543	120	1740	480	6962	28
5/8	15.90	0.626	0.8	0.031	19.10	0.752	265	0.178	120	4.724	100	1450	400	5802	28
3/4	19.00	0.748	0.8	0.031	22.20	0.874	320	0.215	190	7.480	90	1305	360	5221	28
7/8	22.20	0.874	1.0	0.039	25.40	1.000	390	0.262	250	9.843	70	1015	280	4061	12
1	25.40	1.000	1.0	0.039	29.30	1.154	460	0.309	270	10.630	65	943	260	3771	12

Maximum Working Pressures calculated using a Safety Factor of 4

HOSEFLON® SWM 1T – Standard Sizes and Characteristics

INTERNAL DIAMETER			PTFE WALL THICKNESS		OUTER DIAMETER		Weight per Unit Lenght		Minimum Bend Radius		Maximum WP		BP		Vacuum
Nominal	mm	inch	mm	inch	mm	inch	gr/mt	Lbs/ft	mm	inch	bar	psi	bar	psi	In/HG
1/8	3.20	0.126	0.9	0.035	6.30	0.248	65	0.044	25	0.984	275	3989	1100	15954	28
3/16	4.80	0.189	0.9	0.035	7.80	0.307	90	0.060	35	1.378	205	2973	820	11893	28
1/4	6.35	0.250	0.9	0.035	9.40	0.370	110	0.074	45	1.772	180	2611	720	10443	28
5/16	7.90	0.311	0.9	0.035	11.20	0.441	145	0.097	50	1.969	155	2248	620	8992	28
3/8	9.50	0.374	0.9	0.035	12.80	0.504	170	0.114	60	2.362	140	2031	560	8122	28
13/32	10.30	0.406	0.9	0.035	13.60	0.535	185	0.124	70	2.756	135	1958	540	7832	28
1/2	12.70	0.500	0.9	0.035	16.00	0.630	240	0.161	90	3.543	125	1813	500	7252	28
5/8	15.90	0.626	1.0	0.039	19.40	0.764	310	0.208	120	4.724	105	1523	420	6092	28
3/4	19.00	0.748	1.0	0.039	22.50	0.886	380	0.255	190	7.480	95	1378	380	5511	28
7/8	22.20	0.874	1.1	0.043	26.00	1.024	425	0.286	250	9.843	75	1088	300	4351	12
1	25.40	1.000	1.1	0.043	29.40	1.157	500	0.336	270	10.630	67	972	268	3887	12

Maximum Working Pressures calculated using a Safety Factor of 4

HOSEFLON® SWH 1T – Standard Sizes and Characteristics

INTERNAL DIAMETER			PTFE WALL THICKNESS		OUTER DIAMETER		Weight per Unit Lenght		Minimum Bend Radius		Maximum WP		BP		Vacuum
Nominal	mm	inch	mm	inch	mm	inch	gr/mt	Lbs/ft	mm	inch	bar	psi	bar	psi	In/HG
1/4	6.35	0.250	1.1	0.043	9.90	0.390	130	0.087	90	3.543	205	2973	820	11893	28
5/16	7.90	0.311	1.2	0.047	11.90	0.469	170	0.114	110	0.074	180	2611	720	10443	28
3/8	9.50	0.374	1.2	0.047	13.50	0.531	210	0.141	130	5.118	155	2248	620	8992	28
1/2	12.70	0.500	1.2	0.047	16.70	0.657	295	0.198	160	6.299	130	1885	520	7542	28
5/8	15.90	0.626	1.3	0.051	20.10	0.791	365	0.245	190	7.480	125	1813	500	7252	28
3/4	19.00	0.748	1.3	0.051	23.30	0.917	425	0.286	230	9.055	95	1378	380	5511	28
1	25.40	1.000	1.4	0.051	30.10	1.185	650	0.437	310	12.205	75	1088	300	4351	12

Maximum Working Pressures calculated using a Safety Factor of 4

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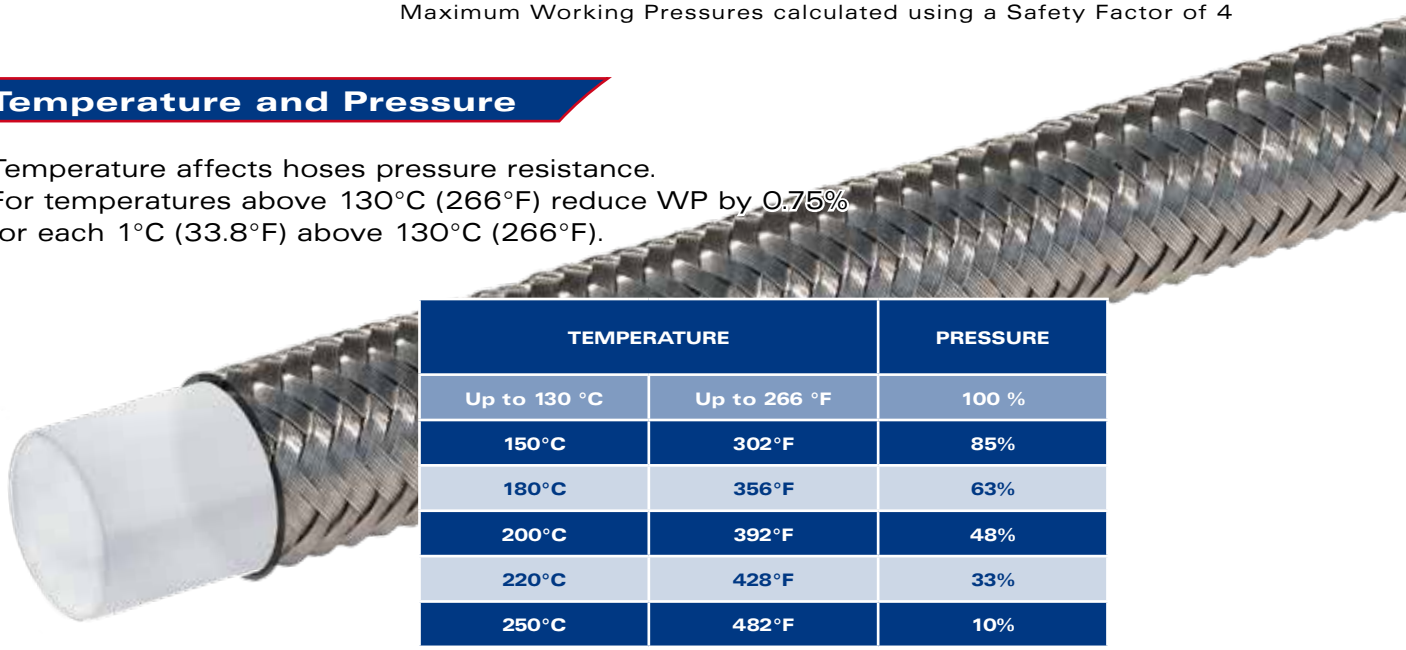
HOSEFLON® SWM 2T – Standard Sizes and Characteristics

INTERNAL DIAMETER			PTFE WALL THICKNESS		OUTER DIAMETER		Weight per Unit Lenght		Minimum Bend Radius		Maximum WP		BP		Vacuum
Nominal	mm	inch	mm	inch	mm	inch	gr/mt	Lbs/ft	mm	inch	bar	psi	bar	psi	In/HG
3/16	4.80	0.189	0.9	0.035	8.80	0.346	135	0.091	45	1.772	275	3989	1100	15954	28
1/4	6.35	0.250	0.9	0.035	10.40	0.409	170	0.114	50	1.969	250	3626	1000	14504	28
5/16	7.90	0.311	0.9	0.035	12.00	0.472	240	0.161	55	2.165	225	3263	900	13053	28
3/8	9.50	0.374	0.9	0.035	13.70	0.539	260	0.175	70	2.756	210	3046	840	12183	28
13/32	10.30	0.406	0.9	0.035	14.60	0.575	270	0.181	80	3.150	200	2901	800	11603	28
1/2	12.70	0.500	0.9	0.035	17.00	0.669	350	0.235	110	4.331	175	2538	700	10153	28
5/8	15.90	0.626	1.0	0.039	20.50	0.807	500	0.336	150	5.906	160	2321	640	9282	28
3/4	19.00	0.748	1.0	0.039	23.50	0.925	620	0.417	190	7.480	140	2031	560	8122	28
7/8	22.20	0.874	1.1	0.043	27.00	1.063	675	0.454	250	9.843	125	1813	500	7252	12
1	25.40	1.000	1.1	0.043	30.80	1.213	770	0.518	270	10.630	95	1378	380	5511	12

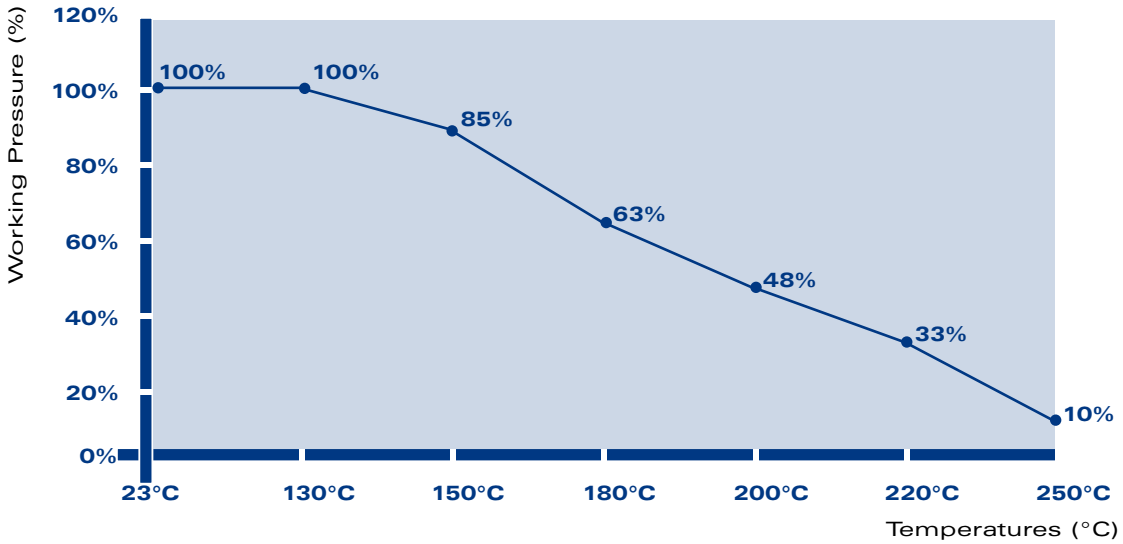
Maximum Working Pressures calculated using a Safety Factor of 4

Temperature and Pressure

Temperature affects hoses pressure resistance.
For temperatures above 130°C (266°F) reduce WP by 0.75%
for each 1°C (33.8°F) above 130°C (266°F).



TEMPERATURE		PRESSURE
Up to 130 °C	Up to 266 °F	100 %
150°C	302°F	85%
180°C	356°F	63%
200°C	392°F	48%
220°C	428°F	33%
250°C	482°F	10%



Note: To guarantee quality and reliability of our products, all PTFE inner cores are tested under pressure.

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