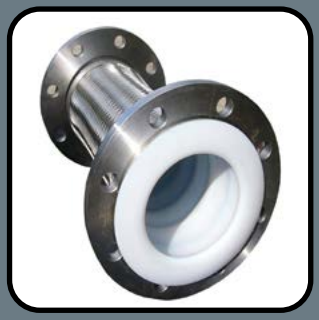
PACIFIC
HOSEFLEX
PTY LTD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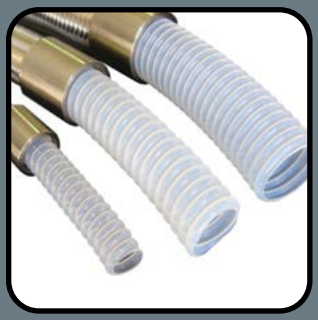


PTFE HOSE

Range

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PTFE Hose Design

Introduction

Polytetrafluoroethylene (PTFE) is an engineered fluoropolymer. Outstanding resistance to chemicals is one of its primary attributes. All PTFE products are either post sintered or slow sintered. Post sintered PTFE gives the best overall performance on permeation therefore is better for use with gases. Slow sintered allow for a better level of permeation but not as good as post sintered. Slow sintered PTFE is mainly used for fluids. Post sintered in available in the UHP-PTFE (Ultra High Pressure Smoothbore PTFE) Range. Refer to Page 11.

A broad temperature range of -54°C to 260°C makes this hose material suitable for the majority of fluids and ambient temperature conditions found in most industries. With all types of hose, increased working temperatures require a reduction in maximum rated working or burst pressure. Whenever excessive flexing, vibration, thermal fluctuations or rapid pressure impulsing is in evidence, further caution should be exercised in reducing the maximum working pressure.

An extremely low coefficient of friction (0.05 to 0.20) provides a non-stick surface. Water absorption of PTFE is negligible, less than 0.01% by ASTM test, and it is FDA-approved for food and pharmaceutical use.

Additionally, PTFE will withstand flexing and vibration without failure from flex fatigue. PTFE is chemically inert. It will not break down or deteriorate in service, and it has an unlimited shelf life because properties do not change with age or exposure to weather. PTFE hose can be used in aerospace, automotive, chemical and industrial applications.

Pacific Hoseflex offers PTFE hose in a variety of configurations. PTFE hose innercore is offered in smooth bore, convoluted, smooth inner with a convoluted outer, conductive (Carbon black added) anti-static and non-conductive virgin. Type 304 or 316 stainless steel wire braid is the standard reinforcement with other speciality materials available.

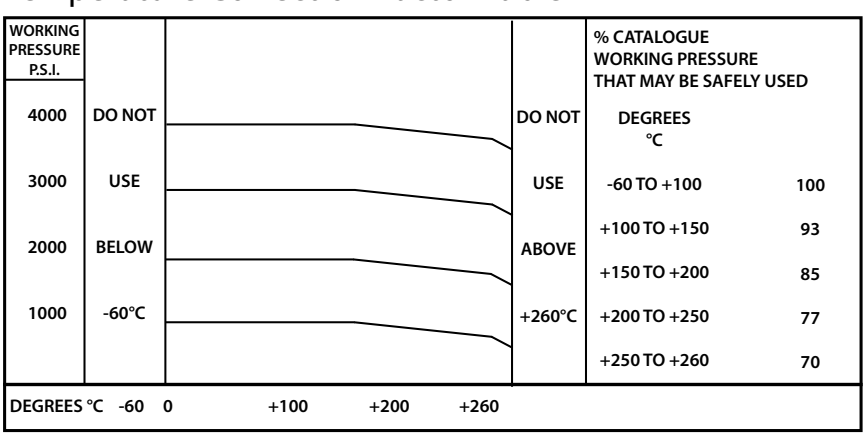
Pacific Hoseflex can offer alternative hose covers for chafe resistance and silicone-covered hose for heat and fire resistance. Alternate braid materials include Nomex braided convoluted hose and Kevlar braided high-pressure smoothbore hose.

All stated burst pressures are static and are measured on samples at ambient temperature from which averages are recorded to create relevant specifications. Proof or test pressures are usually twice working pressure. All burst pressures are conservatively rated to provide a high margin of safety. At working pressure this falls within the range +2% to -4% (1/8" & 3/16" +0% to -6%). Pacific Hoseflex 100% tests all assemblies.

A damaging electrostatic charge can build up inside the hose when electrically resistive fluids are being transmitted at very high flow rates (particularly if the PTFE hose assemblies are lengthy). To prevent this, special carbon is mixed with the PTFE to reduce its resistivity. The need for earth conductor braids or wires in the bore of the hose is therefore eliminated.

Regarding PTFE tubing, PTFE Hose and Hose Assemblies: Please be advised that we have found no instance of the use of bovine or other animal derived materials used in the manufacture of our PTFE braided products. The subject products are 100% animal origin free. Therefore, there is no concern with regard to the BSE/TSE issue in the PTFE tube and hose as defined in specification EMEA 410.01 Rev.2.

Temperature Correction Factor Table



Conductive Hose

Conductive Hose Use

There are general principles we have applied to understand if anti-static (AS) is required or not and this very much depends on the medium passing through the hose.

1. For a single phase medium passing through the hose, AS is usually considered necessary where the medium electrical conductivity is less than 10,000 pS/m (pico Siemens per meter). Note electrical conductivity is not always known and electrical conductivity varies with temperature.

2. For a two (or more) phase medium (e.g. a mixture of gas and liquid (such as wet steam), solid particles and liquid or solid particles and gas) AS IS ALWAYS REQUIRED.

3. Pure clean gases should not require AS.

4. If there is any doubt always use AS. (Often customers do not know the electrical conductivity of the medium passing through the hose)

STATEMENT ON RECOMMENDED FLOW RATES (CONDUCTIVE OR NON-CONDUCTIVE HOSE)

Limiting flow velocities in hoses often relates to electrostatic charging/discharging issues. There are standards for chemical plant equipment (e.g. IEC 60069-32-1) which recommend flow velocities should be less than 7 m/s for low conductivity fluids e.g. fluids which would generate potentially damaging electrostatic charges. Cavitation is likely to be related to this in that a two phase flow would be formed (e.g. gas bubbles in a liquid) and would generate high levels of electrostatic charge. The whole area of electrostatic charging is complex in that a low conductivity fluid can becomes electrostatically charged as it flows through a pipe or hose.

At the same time the pipe or hose also becomes charged (with the opposite polarity of charge to that in the fluid). As far as hoses go we can supply an AS hose to take care of any charge which tries to build up on the inner surface of the liner (e.g. giving any charge a path to earth) and prevent electrostatic discharges taking place through the hose wall. However normally this does not remove much electrostatic charge from the fluid passing through. Designers of chemical plants are aware of low conductivity fluids becoming charged and are supposed to take this into account when the plant is designed.

As far as hoses are concerned we should recommend an AS hose when we are aware the application needs one e.g. a low conductivity fluid or two phase flow is going to pass through. This will depend on information we obtain from the customer. If they can't supply enough information to make a decision between a natural PTFE liner or AS liner then the default should be to offer an AS liner. Under these circumstances there should be no need to limit the flow velocity in our hoses.

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Vacuum Performance

Hose construction determines the 'hoop' strength or the relative ability of the hose to resist collapse. Generally, smaller IDs, thicker walls, external reinforcement such as wire wrap or covers and bonding together the hose layers server to increase hoop strength. As the temperature of a hose increases, the hoop strength typically decreases because the hose material softens.

As a hose approaches its static bend radius limit, hoop strength can be adversely affected because the hose profile will go form round to oval. If combinations of these factors exist (i.e. large ID, thin wall, high temperature, extreme bending), hoop strength is reduced further.

PTFE hose is a relatively thin walled product and is therefore subject to vacuum collapse if not properly specified and protected. With single braided smooth bore hose, the unbounded metal braid (the pressure handling element of the hose) is of limited value in a vacuum application, especially as temperature increases.

The addition of internal or external springs or bonded covers is the best way to overcome potential vacuum collapse. Certain styles and smaller sizes, smooth bore hoses are rated to 28 Hg at ambient temperature and within specified bend radius.

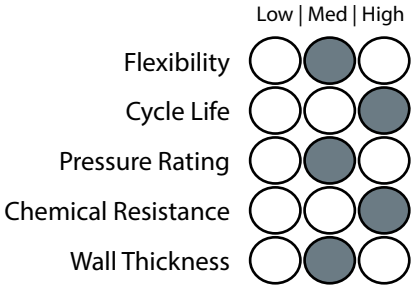
When vacuum is involved in an application, always determine the expected range of temperature and the potential bending conditions before specifying a particular hose. A common mistake to be avoided involves the use of a transfer hose connected to an 'upstream' valve. Since the hose assembly is open ended, the vacuum that is created when the valve is closed can be overlooked.

However as fluid continues to flow downstream, the vacuum created can often exceed 28 Hg, causing even a 'full vacuum' rated hose to collapse. In this case, additional reinforcement is recommended.

PTFE Hose - SB6S

Smoothbore PTFE

Part No.: SB6S
Construction: Smoothbore
Profile: Medium Flexibility / Medium Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: 316 / 304 Stainless Steel
Size Available: 1/8" - 1 1/8"
Temperature: -70°C to 260°C



Construction

Use: The inner hose core is manufactured from PTFE. No pigments or additives are incorporated, thus giving the hose liner a translucent appearance free from any contamination.
Standards: FDA Approved, Accepted by the U.S. Coast Guard, PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550
ISO 1402 – Rubber and plastic hose and assemblies – hydrostatic testing
SAE J517 – Dimensional and performance Specification
SAE 100R14 – PTFE Dimensional and performance Specification
Sintered/Permeation:
Slow Sintered (medium level of permeation)

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter (mm)		Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	SAE 100R14 Max. Working Pressure		SAE 100R14 Burst Pressure 4:1		Vacuum
316 Braid	Inch	Min.	Max.	mm	Min.	Max.	mm	kPa	Bar	kPa	Bar	mm hg
SB6S-03-R14	1/8"	3.3	3.5	0.76	5.84	6.35	38	20700	207	82800	828	711.20
SB6S-04-R14	3/16"	4.64	5.2	0.76	7.32	8.2	51	20700	207	82800	828	711.20
SB6S-06-R14	1/4"	6.17	6.73	0.76	8.92	9.47	76	18098	180	72392	723	711.20
SB6S-08-R14	5/16"	7.54	8.38	0.76	10.36	11.63	102	17236	172	68944	689	711.20
SB6S-10-R14	3/8"	9.27	9.77	0.76	12.2	13.21	127	15513	155	62052	620	711.20
SB6S-11-R14	13/32"	10.08	10.85	0.76	13.03	14.19	133	13789	137	55156	551	711.20
SB6S-12-R14	1/2"	12.42	13.18	0.76	15.44	16.71	165	10342	103	41368	413	711.20
SB6S-15-R14	5/8"	15.36	16.38	0.76	18.74	20.02	197	8618	86	34472	344	711.20
SB6S-20-R14	3/4"	18.61	19.38	0.89	21.59	22.86	229	7584	75	30336	303	508.00
SB6S-22-R14	7/8"	21.46	23.0	0.89	24.60	26.90	229	6894	68	27576	275	355.59
SB6S-25-R14	1"	24.63	26.16	0.89	27.80	29.85	305	6205	62	24820	248	355.59
SB6S-28-R14	1 1/8"	27.80	28.34	1.14	31.95	33.50	406	5171	51	20684	206	355.59

* Please note that Hoseflex PTFE HOSE meets and exceeds the stated working and burst pressure (4:1) values of the SAE 100R14 specifications.
* Please note all pressures stated are static

Applications

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PTFE Hose - PTFE-HP

Smoothbore High Pressure PTFE

Part No.: PTFE-HP
Construction: Smoothbore
Profile: Low Flexibility / High Pressure
Tube Available: PTFE Virgin Inner Tube
Braid Available: Double 304 Stainless Steel Braid
Cover: Optional Hytrel Cover, use Part Number PTFE-HP-06-H
Size Available: 1/4"
Temperature: -60°C to 260°C
Note: Only available as an assembly
Sintered/Permeation:
Slow Sintered (medium level of permeation)

	Low | Med | High
Flexibility	○ ● ○
Cycle Life	○ ○ ●
Pressure Rating	○ ○ ●
Chemical Resistance	○ ○ ●
Wall Thickness	○ ○ ●

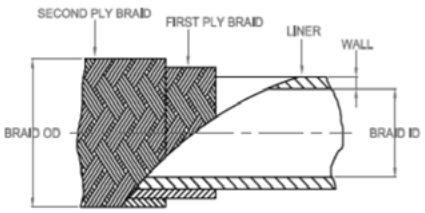
Construction

Use:
Slow sintered PTFE hose that is ideal for gas delivery applications due to lower permeation. Double braided to provide higher pressure rating for high pressure gas applications.
Standards:
Part 1.PTFE-E.P.D.M 1.6.1.C.E.4_12
ISO 1402 – Rubber and plastic hose and assemblies – hydrostatic testing
SAE J517 – Dimensional and performance Specification

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Tube Wall Thinkness	Outside Diameter	Min. Bend Radius	Max. Working Pressure		Min. Burst Pressure	
	inch	mm	mm	mm	kPa	bar	kPa	bar
PTFE-HP-06	1/4"	1.02	11.43	76	32000	320	128000	1280
PTFE-HP-06-H	1/4"	1.02	11.43	76	32000	320	128000	1280

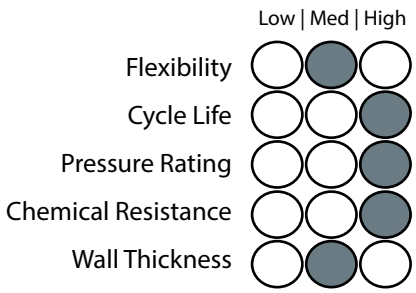


Applications

PTFE Hose - PTFE-UHP

Ultra High Pressure Smoothbore PTFE

Part No.: PTFE-UHP
Construction: Smoothbore
Profile: High Flexibility / High Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Cover: 2 Aramid braids and 1 high tensile 304 maypole wound Stainless steel braid
Size Available: 1/4" - 1"
Temperature: -60°C +260°C
Sintered/Permeation: Slow Sintered (medium level of permeation). 1/4, 3/8"and 1/2" are available in Post Sintered on request (example PTFE-UHP-xx**-PS)**



Construction

Use:
Ultra high pressure smoothbore PTFE is highest pressure hose and the lightest weight PTFE Hose on the market. Performing well above its weight due to its excellent routability, bend radius and reduced OD. Used for High pressure gas or fluid applications.
Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550 ISO
ISO 1402 – Rubber and plastic hose and assemblies – hydrostatic testing
SAE J517 – Dimensional and performance Specification

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter	Outside Diameter	Min. Bend Radius	Working Pressure		Burst Pressure	
	inch	mm	mm	mm	kPa	bar	kPa	bar
PTFE-UHP-06	1/4"	6.20	12.30	38	47500	475	190000	1900
PTFE-UHP-08	5/16"	8.10	14.20	47	45000	450	180000	1800
PTFE-UHP-10	3/8"	9.50	16.00	64	43000	430	175000	1750
PTFE-UHP-12	1/2"	12.70	19.50	74	42500	425	170000	1700
PTFE-UHP-15	5/8"	15.10	22.00	90	36000	360	145000	1450
PTFE-UHP-20	3/4"	20.00	27.50	180	27500	275	110000	1100
PTFE-UHP-25	1"	24.00	31.80	200	25000	250	100000	1000

Applications

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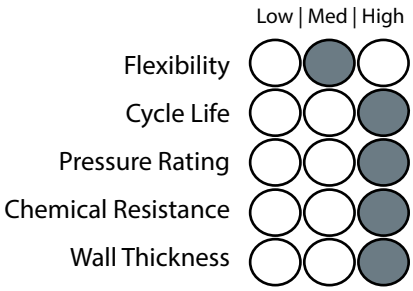
PTFE Hose - PTFE-HPPT

High Pressure PTFE Thermoplastic Smoothbore

Part No.: PTFE-HPPT
Construction: Smoothbore
Profile: High Flexibility / High Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Cover: Black Perforated Thermoplastic
Size Available: 1/4" - 13/32"
Temperature: -70°C +260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
High performance gas hose specially processed to minimise permeation applications. Aerosol, gas bottle, dehydration and breathing lines.
Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550
ISO 1402 – Rubber and plastic hose and assemblies – hydrostatic testing
SAE J517 – Dimensional and performance Specification

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

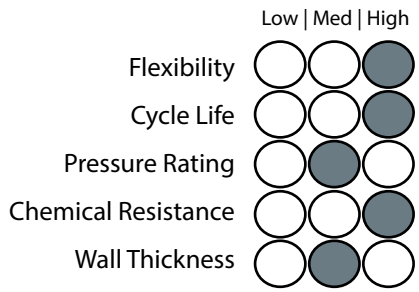
Part Number	Size	Internal Diameter (mm)		Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
	inch	Min.	Max.	mm	Min.	Max.	mm	kPa	bar	kPa	bar
PTFE-HPPT-06	1/4"	6.35	6.86	1.02	9.65	10.67	76.2	55200	552	165500	1655
PTFE-HPPT-10	13/32"	10.03	10.54	1.02	13.84	14.86	133	31000	310	124000	1240

Applications

PTFE Hose - CTFB

Tape Wrapped Convoluted PTFE

Part No.: CTFB / CTFBHV
Construction: Tape Wrapped helical convoluted
Profile: High Flexibility / Medium Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: 304 / 316 Stainless Steel
Size Available: 3/8" - 4"
Temperature: -50°C / +150°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
Flame resistant convoluted multilayer PTFE hose with fibreglass covering and wire braid reinforcement for use on demanding marine and offshore applications. The convoluted profile ensures easier crimping of the hose and with the approved DNV GL fitting and ferrule range now offers a proven minimum 150K impulse cycle life expectancy at elevated temperatures.

Standards:
PTFE BS2782 Method 327A:1993 ASTM-D 882
DNV GL class programme CP-0183
– Type Approval of flexible hoses of non-metallic material

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter	Outside Diameter	Min. Bend Radius	Max. Working Pressure		Min. Burst Pressure		Vacuum	
	inch	mm	mm	mm	kPa	bar	kPa	bar	(bar)	mm hg
CTFB-10	3/8"	9.65	15.8	50	12500	125	4999	500	0.9	675.13
CTFB-12	1/2"	13.45	19.8	65	10501	105	4199	420	0.9	675.13
CTFB-15	5/8"	16.4	23.4	80	9997	100	3999	400	0.9	675.13
CTFB-20	3/4"	19.8	26.9	100	8998	90	3599	360	0.9	675.13
CTFB-25	1"	25	32.9	125	7998	80	3199	320	0.9	675.13
CTFB-32	1 1/4"	32.3	39.75	150	6398	64	2558	256	0.9	675.13
CTFB-38	1 1/2"	38.3	46.1	200	5302	53	2117	212	0.9	675.13
CTFB-50	2"	51.5	60.5	250	3503	35	1400	140	0.5	375.16
High Vacuum Tape Wrapped Convoluted Hose (External Spring)										
CTFBHV-38	1 1/2"	38.3	46.1	200	5302	53	2117	212	9.4	711.19
CTFBHV-50	2"	51.5	60.5	250	3503	35	1400	140	9.4	711.19
CTFBHV-75	3"	76.20	93.47	381	1700	17	6900	69	9.4	711.19
CTFBHV-100	4"	101.60	123.19	610	1000	10	4100	41	9.4	711.19

Applications

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PTFE Hose - ECTB

Easyflex Convoluted PTFE

Low | Med | High

Flexibility
Cycle Life
Pressure Rating
Chemical Resistance
Wall Thickness

Part No.: ECTB6S / ECTB4S
Construction: Convoluted
Profile: High Flexibility / Medium Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: 304 / 316 Stainless Steel
Size Available: 3/8" - 2"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)

Construction

Use:
General purpose convoluted PTFE hose, convolutions self cleaning spiral construction. Applications include food transfer, chemical dosing, oil, hydraulics and water treatment.

Standards:
FDA Approved, Accepted by the U.S. Coast Guard, PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

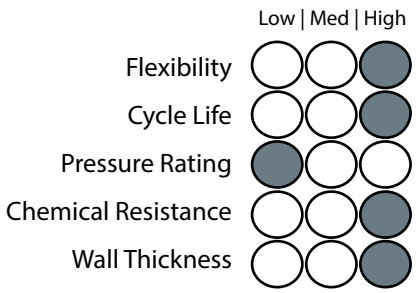
Part Number		Size	Internal Diameter (mm)		Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
316 Braid	304 Braid	Inch	Min.	Max.	mm	Min.	Max.	mm	kPa	Bar	kPa	Bar
ECTB6S-10	ECTB4S-10	3/8"	9.14	9.91	0.76	14.73	15.75	20.30	13800	138	41400	414
ECTB6S-12	ECTB4S-12	1/2"	12.45	13.21	0.89	18.29	19.30	25.40	10300	103	31000	310
ECTB6S-15	ECTB4S-15	5/8"	15.37	16.38	0.89	21.59	22.61	50.80	8300	83	24800	248
ECTB6S-20	ECTB4S-20	3/4"	18.54	19.56	0.89	24.00	25.27	63.50	6900	69	20700	207
ECTB6S-22	ECTB4S-22	7/8"	21.84	22.86	0.89	27.94	29.46	76.20	5700	57	17200	172
ECTB6S-25	ECTB4S-25	1"	24.89	26.16	1.02	32.13	33.66	88.90	4600	46	13800	138
ECTB6S-32	ECTB4S-32	1 1/4"	31.00	33.00	1.02	39.00	42.00	127.00	3400	34	10300	103
ECTB6S-38	ECTB4S-38	1 1/2"	37.50	40.50	1.02	46.99	49.20	152.40	3000	30	9000	90
ECTB6S-50	ECTB4S-50	2"	48.00	52.00	1.02	58.67	59.70	190.50	2300	23	6900	69

Applications

PTFE Hose - SCTB

Encapsulated PTFE

Part No.: SCTB
Construction: Convoluted
Profile: High Flexibility / Low Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: 304 / 316 Stainless Steel
Size Available: 1/4" - 6"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
The PTFE spiral Liner is extruded within the hose and encapsulated over the flange or fitting, creating a total hygienic seal. The most hygienic PTFE on the market. Approved for food, chemical, cosmetic and pharmaceutical applications.
Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter (mm)		Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Max. Working Pressure		Min. Burst Pressure		Vacuum
	Inch	Min.	Max.	mm	Min.	Max.	mm	kPa	Bar	kPa	Bar	mmHg
SCTB-06	1/4"	5.5	6.9	0.76	11.4	13.3	25	1500	15	4500	45	744
SCTB-10	3/8"	8.5	10.5	0.76	14.7	16.5	25	1500	15	4500	45	744
SCTB-12	1/2"	11.6	13.6	0.89	17.9	20.0	25	1500	15	4500	45	711
SCTB-15	5/8"	15.1	16.4	0.89	24.7	25.8	35	1500	15	4500	45	711
SCTB-20	3/4"	149.5	20.5	1.00	28.6	31.4	55	1500	15	4500	45	680
SCTB-25	1"	25.4	25.5	1.10	34.2	38.2	85	1500	15	4500	45	653
SCTB-32	1 1/4"	34.5	32.5	1.15	41.9	46.1	100	1500	15	4500	45	503
SCTB-38	1 1/2"	36.5	37.5	1.45	47.2	49.9	120	1500	15	4500	45	301
SCTB-43	1 3/4"	44.5	45.5	1.45	55.8	61.4	135	1500	15	4500	45	301
SCTB-50	2"	49.5	50.5	1.50	60.5	66.7	165	1500	15	4500	45	120
SCTB-65	2 1/2"	62.5	63.5	1.60	80.9	89.1	230	1000	10	3000	30	102
SCTB-80	3"	73.5	74.5	1.60	90.4	99.6	260	800	8	2400	24	102
SCTB-100	4"	94.5	99.5	1.82	121.1	127.5	400	800	8	2400	24	102
SCTB-150	6"	148	154	2.5	176	188	520	500	5	1500	15	105
Note: External suction/vacuum wire can be introduced to achieve high vacuum ratings												

Applications

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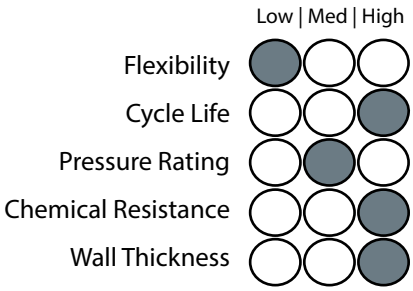
PTFE Hose - SS1SCT

Encapsulated PTFE SS1 Metallic Hose

Part No.: SS1SCT
Construction: Smoothbore PTFE / Convoluted Metallic Hose
Profile: Low Flexibility / Low Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: 304 / 316 Stainless Steel
Size Available: 1/2" - 6"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
The PTFE Smoothbore Liner is extruded within the metallic hose assembly and encapsulated over the flange or fitting, creating a total hygienic seal. The most hygienic PTFE on the market. Approved for food, chemical, cosmetic and pharmaceutical applications.
Standards:
FDA Approved, Accepted by the U.S. Coast Guard, PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

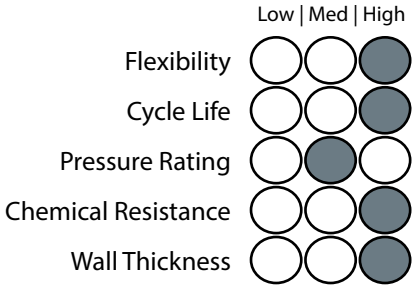
Part Number	Size	Outside Diameter	Min. Bend Radius	Working Pressure		Burst Pressure	
	inch	mm		kPa	Bar	kPa	Bar
SS1SCT-12	1/2"	18.00	LIMITED FLEXIBILITY	6500	300	30000	300
SS1SCT-20	3/4"	28.00		5000	200	20000	200
SS1SCT-25	1"	33.70		4400	176	17600	176
SS1SCT-32	1 1/4"	42.60		3500	140	14000	140
SS1SCT-40	1 1/2"	50.90		2800	112	11200	112
SS1SCT-50	2"	61.70		2000	80	8000	80
SS1SCT-65	2 1/2"	85.30		1800	72	7200	72
SS1SCT-80	3"	100.30		1800	72	7200	72
SS1SCT-100	4"	126.30		1600	64	6400	64
SS1SCT-125	5"	155.30		1400	14	5600	56
SS1SCT-150	6"	180.30		1200	12	4800	48

Applications

PTFE Hose - SF6S

SLICKFLEX Smoothbore Inner / Convoluted Outer PTFE

Part No.: SF6S
Construction: Smoothbore inner with Convoluted on the outer
Profile: High Flexibility / Medium Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube / PFA
Braid Available: 316 Stainless Steel
Size Available: 1/4" - 2"
Temperature: -70°C to 260°C
Vacuum Resistance: Full Vacuum up to 130°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

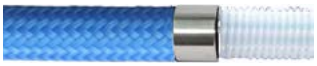
Use: PTFE liner tube is smoothbore on the inside but convoluted on the outside, to combine the ease of assembly and high flow rates of a smooth bore hose with the flexibility and kink resistance. Pharmaceutical, Bio-tech, Food & Beverage, Chemical, Petro-chemical, General Purpose Industrial, Automotive OE & Autosport
Standards: PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550 (on request) ISO 1402 – Rubber and plastic hose and assemblies
PTFE T62X according to "ASTM D4895, Type 1, Grade4, Class B",EU Food, USP Class VI.

Options:

Blue EPDM Cover

Silicon Cover

Polypropylene Braid



Encapsulated Hose Ends

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter	Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
	inch	mm	mm	Tube	Braid	mm	kPa	bar	kPa	bar
SF6S-06	1/4"	6.8	1.6	8.6	9.6	19	8800	88	35000	350
SF6S-10	3/8"	10.0	1.6	12.5	13.5	25	8000	80	32000	320
SF6S-12	1/2"	13.4	1.6	16.4	18.0	38	6000	60	24000	240
SF6S-20	3/4"	19.1	1.8	20.0	24.1	50	6000	60	24000	200
SF6S-22	7/8"	21.0	2.1	23.8	27.0	55	5500	55	20000	170
SF6S-25	1"	25.5	2.2	30.0	31.4	70	5000	50	20000	160
SF6S-32	1 1/4"	31.8	2.65	37.3	39.3	100	4500	45	18000	180
SF6S-38	1 1/2"	38.1	3	45.0	46.1	140	4000	40	16000	160
SF6S-50	2"	50.8	3	59.1	61.0	200	3000	30	12000	120

Applications

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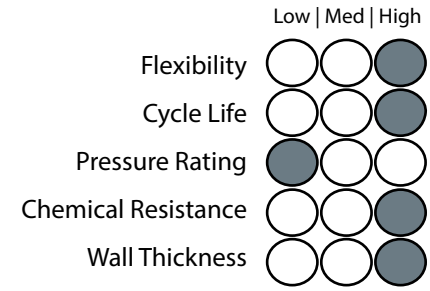
PTFE Hose - CONPRO

Convoluted PTFE

Part No.: CONPRO
Construction: Convoluted
Profile: High Flexibility / Low Pressure
Tube Available: PTFE Virgin / Anti-static Inner Tube
Braid Available: Polypropylene
Size Available: 1/2" - 3"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
High corrosive environment. Conpro is more suited to use in more arduous applications throughout the process plant industry. Polypropylene braid produces a low electrically conductive assembly.

Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

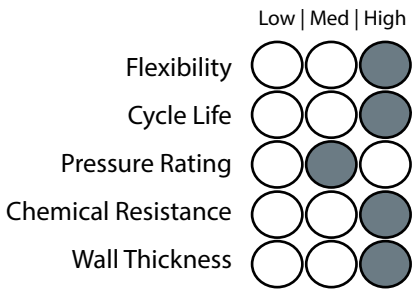
Part Number	Size	Internal Diameter	Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
	inch	mm	mm	Tube	Braid	mm	kPa	bar	kPa	bar
CONPRO-12	1/2"	11.6	0.89	13.38	21.4	50	1000	10	4000	40
CONPRO-15	5/8"	15.1	0.89	16.88	26.3	65	1000	10	4000	40
CONPRO-20	3/4"	19.5	1	21.5	31.1	55	1000	10	4000	40
CONPRO-25	1"	24.5	1.1	26.7	36.7	85	1000	10	4000	40
CONPRO-32	1 1/4"	31.5	1.15	33.80	44.4	100	1000	10	4000	40
CONPRO-40	1 1/2"	36.5	1.45	39.4	49.7	120	1000	10	4000	40
CONPRO-45	1 3/4"	44.5	1.45	47.40	58.3	135	1000	10	4000	40
CONPRO-50	2"	49.5	1.5	52.5	62.5	165	800	8	3200	32
CONPRO-65	2 1/2"	62.5	1.6	65.7	83.4	230	700	7	2800	28
CONPRO-80	3"	73.5	1.6	76.7	92.9	260	600	6	2400	24

Applications

PTFE Hose - PCTH

Chlorine Transfer PTFE

Part No.: PCTH
Construction: Convoluted
Profile: High Flexibility / Medium Pressure
Tube Available: PTFE Virgin Inner Tube with an intergal fibreglass cover
Braid Available: Two layers of Kynar reinforcement braid
Size Available: 1/2" - 1"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
It's the only hose that can adequately transfer chlorine in a safe manner. Exclusive design resists rugged handling and collapse.

Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550
Chlorine Institute Pamphlet 6. Appendix A

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter	Outside Diameter (mm)	Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
	inch	mm	Braid	mm	kPa	bar	kPa	bar
PCTH-12	1/2"	13.72	23.37	38	3400	34	13000	138
PCTH-25	1"	26.54	35.20	152	2600	26	12900	129

Alternative products:
Refer to Monel Metallic Hose - Page 44

Applications

PTFE Hose - PTFE

Approved Brake Lines PTFE

Part No.: PTFE-03
Construction: Smoothbore
Profile: High Flexibility / High Pressure
Tube Available: PTFE Virgin Inner Tube
Braid Available: 304 / 316 Stainless Steel
Cover: PVC
Size Available: 1/8"
Temperature: -70°C to 260°C
Sintered/Permeation: Slow Sintered (medium level of permeation)

Low | Med | High

Flexibility ○ ○ ●
Cycle Life ○ ○ ●
Pressure Rating ○ ○ ●
Chemical Resistance ○ ○ ●
Wall Thickness ○ ○ ●

Construction

Use:
The PTFE inner liner and stainless steel braid eliminates hose expansion common to original factory rubber brake lines which gives a better braking performance. High performance auto sport braking systems.
Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550
Approved to DOT (Department of Transportation)

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

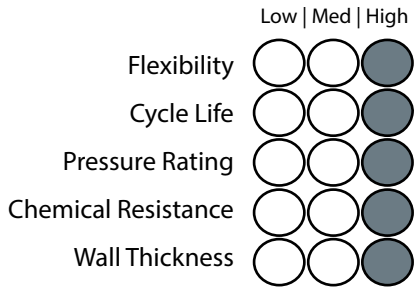
Part Number	Colour	Size	Internal Diameter (mm)		Wall Thickness	Outside Diameter (mm)		Min. Bend Radius	Standard Max. Working Pressure		Min. Burst Pressure	
		inch	Min.	Max.	mm	Min.	Max.	mm	kPa	bar	kPa	bar
PTFE-03PVCBK	BLACK	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828
PTFE-03PVCBU	BLUE	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828
PTFE-03PVCC	PVC	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828
PTFE-03PVCO	ORANGE	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828
PTFE-03PVCR	RED	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828
PTFE-03PVCY	YELLOW	1/8"	3.3	3.5	0.76	5.84	6.35	38	28300	283	82800	828

Applications

PTFE Hose - TEFLEX

Teflex Silicone Jacket PTFE

Part No.: TEFLEX
Construction: Smoothbore
Profile: High Flexibility / High Pressure
Tube Available: PTFE Virgin Inner Tube impregnated fiberglass braid
Braid Available: 304 / 316 Stainless Steel
Cover: Silicone
Size Available: 1/4" - 1"
Temperature: -70°C +204°C
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
Liquid food and beverage transfer, also suitable for air, water, chemical, oil and automotive applications
Hygienic food grade cover ideal for food and pharmaceutical applications.

Standards:
FDA Approved, Accepted by the U.S. Coast Guard,
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Size	Internal Diameter	Outside Braid O.D.	Outside Jacket O.D.	Min. Bend Radius (Static)	Standard Max. Working Pressure		Min. Burst Pressure	
	inch	mm	mm	mm	mm	kPa	bar	kPa	bar
TEFLEX-SXX-06	1/4"	6.22	11.81	14.61	44	22500	225	90000	900
TEFLEX-SXX-10	3/8"	9.14	14.86	17.65	70	20000	200	80000	800
TEFLEX-SXX-12	1/2"	12.50	18.21	21.01	108	11000	110	45000	450
TEFLEX-SXX-15	5/8"	15.50	21.94	24.99	140	10000	100	40000	400
TEFLEX-SXX-20	3/4"	18.80	24.74	27.79	178	8800	88	35000	350
TEFLEX-SXX-25*	1"	25.40	33.66	38.74	292	6200	62	25000	250

* 1" Hose construction is PTFE Liner with double stainless steel Braid

Table Key :
Silicone Jacket Colour (SXX)
SRD = Red SBK = Black SBL = Blue SWH = White

Applications

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PTFE Hose - RFEP

Rubber FEP Liner

Part No.: RFEP
Colour: Green / Yellow Labeling
Tube Available: FEP liner Smoothbore
Cover: Green EPDM rubber cover, covered and reinforced with multi-layered rubber
Reinforcement: Spiral-wound polyester cords and a double helix wire
Size Available: 1/2" - 4"
Temperature: -40°C +177°C
Vacuum Resistance: Full Vacuum
Sintered/Permeation: Slow Sintered (medium level of permeation)

	Low | Med | High
Flexibility	○ ● ○
Cycle Life	○ ○ ●
Pressure Rating	○ ● ○
Chemical Resistance	○ ○ ●
Wall Thickness	○ ○ ●

Construction

Use:
Designed for extended use in hostile environments involving severe chemical, thermal, and mechanical stresses. Does not suffer aging or embrittlement, even with extreme thermal cycling.

Standards:
Pharmacopoeia Class VI, USDA, FDA-approved

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

Part Number	Nominal Dia.		Working pressure		Vacuum Rating	Min Bend Radius	Weight Per Mtr
	Inches	O.D (mm)	kPa	Bar	in. Hg	mm	Kg
RFEP-12	1/2"	24.13	2413	24	29.9	67.31	0.15
RFEP-20	3/4"	31.75	2413	24	29.9	88.90	0.23
RFEP-25	1"	39.37	3102	31	29.9	101.60	0.32
RFEP-32	1 1/4"	44.45	2585	25	29.9	215.90	0.40
RFEP-38	1 1/2"	54.10	2585	24	29.9	266.70	0.44
RFEP-50	2"	68.07	2068	20	29.9	330.20	0.62
RFEP-75	3"	96.52	1723	17	29.9	533.40	1.15
RFEP-100	4"	127.00	1206	12	29.9	990.60	1.58
RFEP-150	6"	181.10	689	7	29.9	1473.20	2.15

Note: Fittings can be Encapsulated

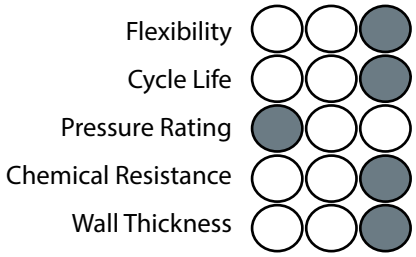
Applications

PTFE Hose - PTFEIT

PTFE Imperial Tubing

Part No.: PTFEIT
Construction: Smoothbore
Profile: High Flexibility / Low Pressure
Tube Available: PTFE Virgin Inner Tube
Metric Size Available: 2mm - 28mm I.D. (Larger sizes upon Request)
Imperial Size Available: 1/16" - 5/8" I.D. (Larger sizes upon Request)
Temperature: -70°C to 260°C
Lengths: 25m, 50m and 100m rolls
Sintered/Permeation: Slow Sintered (medium level of permeation)

Low | Med | High



Construction

Use:
PTFE provides the ultimate in lubricity, high temperature use, chemical resistance, biocompatibility and precision extruded tolerances. Food, Medical and chemical transfer applications.
Standards:
FDA Approved
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

IMPERIAL SIZES				
Part Number	Size O.D. x I.D.	O.D. (mm)	I.D. (mm)	Max Pressure (kPa)
PTFEIT-0201	1/8" x 1/16"	3.175	1.5875	1034
PTFEIT-0302	3/16" x 1/8"	4.7625	3.175	1034
PTFEIT-0403	1/4" x 3/16"	6.35	4.7625	1034
PTFEIT-0504	5/16" x 1/4"	7.9375	6.35	1034
PTFEIT-0604	3/8" x 1/4"	9.525	6.35	1034
PTFEIT-0605	3/8" x 5/16"	9.525	7.9375	1034
PTFEIT-0806	1/2" x 3/8"	12.7	9.525	1034
PTFEIT-1008	5/8" x 1/2"	15.875	12.7	1034
PTFEIT-1210	3/4" x 5/8"	19.05	15.875	1034

Applications

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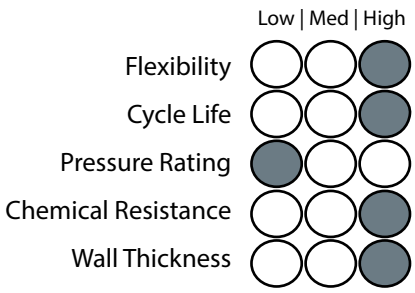
PTFE Hose - PTFEMT

PTFE Metric Tubing

Part No.: PTFEMT
Construction: Smoothbore
Profile: High Flexibility / Low Pressure
Tube Available: PTFE Virgin Inner Tube
Metric Size Available: 2mm - 28mm I.D. (Larger sizes upon Request)
Imperial Size Available: 1/16" - 5/8" I.D. (Larger sizes upon Request)
Temperature: -70°C to 260°C
Lengths: 25m, 50m and 100m rolls
Sintered/Permeation: Slow Sintered (medium level of permeation)



Construction

Use:
PTFE provides the ultimate in lubricity, high temperature use, chemical resistance, biocompatibility and precision extruded tolerances. Food, Medical and chemical transfer applications.
Standards:
FDA Approved
PTFE Perfluorocarbon Resins meets FDA 21 CFR 177.1550

Specifications

Temperature Correction Factor													
-60	-40	-20	0	20	50	100	120	150	180	200	220	250	260
1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.93	0.93	.85	0.85	0.77	0.77	0.70

METRIC SIZES			
Part Number	O.D. (mm)	I.D. (mm)	Max Pressure (kPa)
PTFEMT-0402	4	2	1034
PTFEMT-0503	5	3	1034
PTFEMT-0604	6	4	1034
PTFEMT-0805	8	5	1034
PTFEMT-0806	8	6	1034
PTFEMT-1008	10	8	1034
PTFEMT-1209	12	9	1034
PTFEMT-1412	14	12	1034
PTFEMT-1614	16	14	1034
PTFEMT-2420	24	20	1034
PTFEMT-3228	32	28	1034

Applications

PTFE Jacketed Hose

PTFE Jacketed Hose

A Jacketed assembly consists of a "hose within a hose."

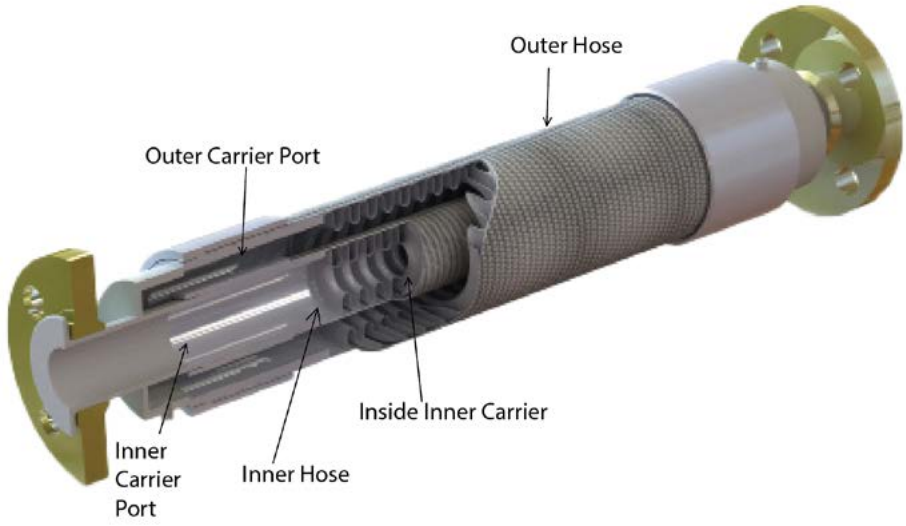
An inner or primary media conveying hose is enclosed or jacketed by a larger diameter hose. The hoses are joined at each end by specially designed fittings so that there is no media pathway between the two hoses.

Jacketed assemblies are often specified when the primary media must be kept at either an elevated or cryogenic temperature. Steam is often circulated through the jacket hose to keep a viscous material in the inner hose hot and easily conveyed. A vacuum can also be pulled on the jacket hose to insulate cryogenic liquids being conveyed in the inner hose.

The media typically is steam, hot oil or hot water to raise the temperature of the fluid moved in the internal hose. Also cold products such as liquid helium or nitrogen can be used to lower the temperature of the fluid with-in the internal hose.

Following Applications:

- Heated processes
- Rail car and tank truck loading/unloading
- Marine Transfer
- Flexible connections to vibrating equipment
- To relieve pump housing stresses
- Hazardous material piping system using an alarmed vacuum jacket
- Safety barrier for toxic processes
- Leak detection systems
- Liquified food transfer systems
- Chlorine transfer
- Cryogenics (fast freezing)



Inner hose nb size	6mm	10mm	12mm	19mm	25mm	32mm	38mm	50mm	65mm	75mm	100mm
Outer hose nb size	12mm	19mm	19mm	32mm	38mm	50mm	65mm	75mm	100mm	150mm	150mm
Inner hose max pressure (kPa)	18089	15513	10342	6900	4600	3400	3000	2300	1000	800	800