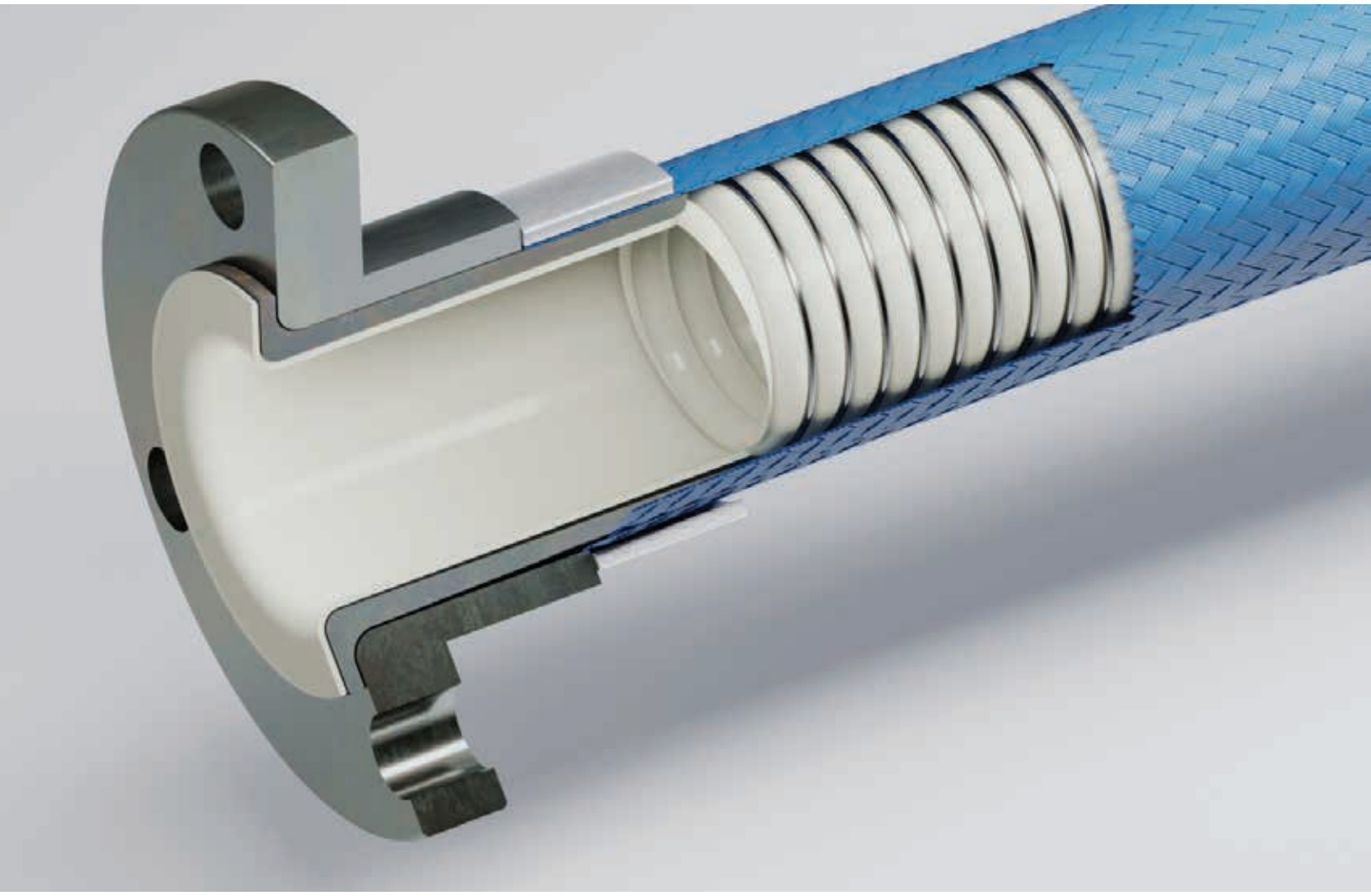
RESISTOFLEX®



RESISTOFLEX® Flexible Hoses

Design Manual

CRANE

www.cranecpe.com


TRADE
RESISTOFLEX
MARK
RELIABILITY

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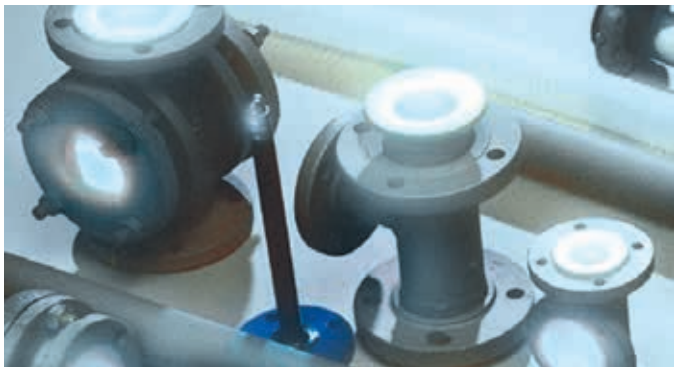
CRANE RESISTOFLEX®



Flanged Plastic-Lined Pipe and Fittings

CRANE ChemPharma, Resistoflex plastic-lined pipe is made with a locked-in liner to minimize the adverse effects of differential thermal expansion between the liner and the steel. Available liners are: Polypropylene, KYNAR® PVDF, and PTFE. Standard and custom fittings are available.

Large Diameter Pipe, Fittings, Special Shapes, and Vessels

- Custom fittings, manifolds, and vessels
- Lined with Polypropylene, ETFE, and high density polyethylene (HDPE)
- Pipe, fittings, and special shapes up to 72" diameter
- Vessels up to 161" diameter

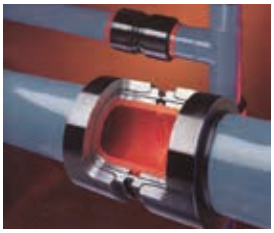
Thermalok® Pipe

- Stress-relieved liner
- Carbon steel and stainless steel material options
- Sizes ranging from 1" - 24" diameter

ATL - Reduced Permeation PTFE

- Isostatically-molded PTFE liner made with proprietary processing techniques results in 60% lower permeation rates compared to standard isostatically-molded and paste-extruded liners.
- Lowest permeation rate in third-party 350 °F HCl te compared to standard and heavy-wall paste extruded PTFE
- Available in 1" - 12" sizes in carbon or stainless steel
- 450 °F rated, chemical-resistant standard novolac epoxy coating
- Vent couplings and PTFE vent plugs are standard

CONQUEST® Connections



- Patented flangeless joint design
- Performance of a welded system
- Available in 1" - 4" for all liner types
- Virtually zero maintenance

ResistoPure™

- High-Purity Silicone Hoses
- High-Purity Teflon™ Hoses
- Clean-Room assembly packaging
- Virtually zero maintenance

Expansion Joints of Teflon™

- 2, 3, or 5 Convolute construction
- Bolt or cable limited
- Teflon™ T-62 for maximum flex life
- 1" - 24" Size range
- DI or SS Flanges available

KYNAR® is a registered trademark of Arkema Inc.
Teflon™ is a trademark of The Chemours Company FC, LLC.

Choosing the Right Hose S-T-A-M-P-E-D

S — Hose Size and Type

Selecting the correct diameter hose for the required flow and length to properly suit the application is critical for installing a long lasting assembly. Frequency of flexing, movement requirements, external conditions and handling requirements should be considered. Smooth bore Teflon™ hose offers laminar flow and minimizes the potential for entrapment, but may not offer the flexibility or bend-ability of a convoluted style Teflon™ assembly. Resistoflex brand convoluted Teflon™ products are open pitched and helical providing maximum flow, draining and flexing.

T — Temperature

Plastics have a tendency to lose strength as the working temperature increases. Resistoflex offers a pressure/vacuum chart for each hose and fitting style based on minimum and maximum working temperature.

A — Application

Careful consideration must be given to the working conditions of the hose. If the assembly is constantly flexing, surging, or in a bent application, it could change the capabilities of the assembly. Kink guards, vacuum spring wires and armor guard protectors can be installed in some applications that will prolong the life of the hose assembly.

M — Media

Media is a key factor by which product should be selected. Media plays an important role in fluoropolymer selection in two key areas: permeation resistance and conductivity. Some media can diffuse through fluoropolymer materials and attack the exterior reinforcement (chlorine, bromine, hydrogen fluoride, among others). Likewise, flow of certain fluids (solvents) may create a sufficient electric charge on the surface of fluoropolymer liners to create a electrostatic discharge. See our Technical Information section for more details.

P — Pressure/Vacuum

The pressure/vacuum rating coupled with temperature and application usually determines which hose and fitting style product can be used.

E — End Fittings

Hose fittings come in multiple styles and sizes, and each are rated differently. A hose assembly's actual operating pressure is usually limited by the fittings. Fitting material selection is another factor affecting corrosion resistance, purity conditions, and longevity of the assembly. ***In some cases, gaskets or clamping devices used will ultimately determine the final working pressure capabilities.***

D — Delivery

Naturally, getting your hose when you need it is important. Equally important is your selection of the proper hose assembly that meets your needs and will perform in a safe and functional manner. Resistoflex has an unmatched vigorous quality assurance program that includes 100% proof pressure testing of every assembly manufactured. See our Technical Information section for more details.

Not All Teflon™ is the Same

A frequent point of confusion and misapplication for users specifying hoses is the technical distinction among the various resin options available for chemical resistent, high purity hose liners. Adding to the confusion is the fact that various resins are marketed under the brand name Teflon™, including Teflon™ PTFE (polytetrafluoroethylene) and Teflon™ FEP (fluorinated ethylene propylene copolymer). Teflon™ PTFE and Teflon™ FEP are not equivalent in every hose application.

Teflon™ PTFE T-62 has flex life up to 3600 times greater than Teflon™ FEP. In the case of a convoluted hose, pressurization imposes a flex load on the liner as the internal pressure attempts to straighten out the convolutions. Our experience has shown that premature failure may occur when FEP convoluted hoses are used in these applications due to its lower flex life.

Resistoflex does offer a rubber covered smooth bore Teflon™ FEP lined hose. This hose is suitable in many applications and provides excellent chemical and abrasion resistance properties. Teflon™ FEP is suitable in this hose construction because the EPDM materials limit the maximum use temperature. Further, the stiffness of the EPDM and its integrated wire reinforcement limits the radius to which the hose is flexed, thus reducing the potential for possible failure due to overbending.

When specifying hoses for use in harsh or high purity applications, it is important to verify which resin is being supplied. Be sure that you're getting a resin suitable for your application. Not all fluoropolymer resins are created equal. Specifying hoses lined with Teflon™ does not ensure that Teflon™ PTFE will be supplied.

Introduction

Crane Resistoflex Flexible Hoses of Teflon™

Crane Resistoflex Flexible Hoses of Teflon™ products are utilized in a wide variety of applications and services across many industries. The unique combination of the corrosion resistance offered by Teflon™ PTFE, capability to withstand high pressure and vacuum conditions, and variety of hose designs and end fitting selections make Resistoflex the preferred choice for many applications.

Features of Resistoflex Teflon™ PTFE Hose Styles

- Teflon™ PTFE 62 resin for unmatched fluoropolymer performance and service life
- Hose assemblies meet or exceed FDA CFR 177.2600, USDA and 3A standards
- Natural and Conductive Teflon™ PTFE 62 tube styles
- Wide variety of crimp and flared thru end fittings
- Selection of accessories available for tagging, coding and protecting your investment

Applications

- Process and product transfer
- Drain and sample
- Vibration isolation
- Load cell isolation
- Chemicals
- Food, flavors and fragrances
- Corrosive environments
- Corrosive and high purity media

Common Uses

- Base chemicals
- Acids, caustics
- Solvents
- Syrups
- Product and process transfers
- Ultra-pure water
- Clean Steam & Clean-in-place solutions.
- Hydraulics
- Wash down hoses
- Filling equipment

In addition to our broad selection of Teflon™ hose products, Resistoflex offers a selection of hose assemblies manufactured using platinum cured silicone. Silicone is often suitable for pharmaceutical, biomedical, cosmetic and food applications.

CRC - W Twister® EPDM Rubber Covered Hose

Inner core: White seamless convoluted Teflon™ PTFE

Reinforcement: Stainless steel wire wrap with EPDM cover

Temperature: 0 °F to 300 °F

Construction

Unique and patented design incorporating a seamless, helically formed convoluted Teflon™ PTFE tube reinforced with a stainless steel wire wrap, tire cord, and EPDM rubber cover with crimp style fittings.

Benefits

- Ultra Flexible - Twister requires a minimum amount of force to flex, making this an excellent choice for handling and reducing strain on adjoining equipment
- 1:1 nominal diameter to bend radius – A 2" hose has a 2" bend radius!
- Virtually kink-proof design
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions for easy cleaning
- Tough EPDM cover provides durability and easy handling

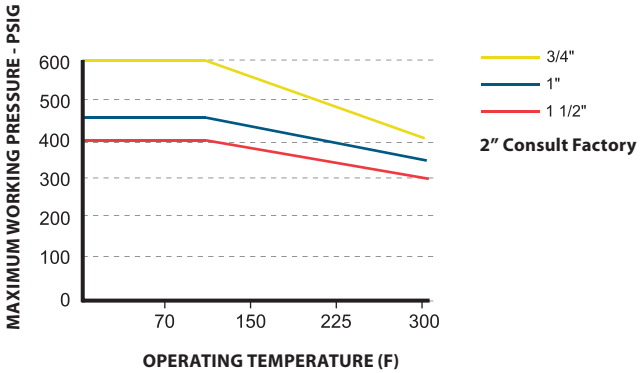
Applications

Versatile design used where a very flexible connection is needed to transfer corrosive, or hazardous media. Twister is commonly selected for rail and truck loading / unloading stations and transfer panels.

Fittings: Crimped

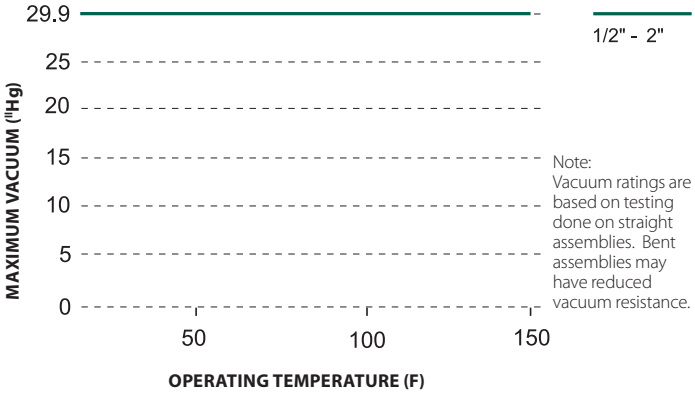
(consult factory for availability)

PRESSURE RATINGS



NOTE: For assemblies, pressure ratings of fittings may be less than for the hose.

VACUUM RATINGS



Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Size		Hose I.D.		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.970	24.6	0.500	12.7	785	54.1	3140	216.5	0.36
3/4	20	0.760	19.3	1.250	31.7	0.750	19	570	39.3	2280	157.2	0.49
1	25	1.025	26	1.560	39.6	1.000	25.4	350	24.1	1400	96.5	0.63
1-1/2	40	1.525	38.7	2.240	56.9	1.500	38.1	295	20.33	1180	81.4	1.04
2	50	2.025	51.4	2.670	67.8	2.000	50.8	275	19	1100	75.8	1.33

CRCF - W Twister® EPDM Rubber Covered Hose

Inner core: White seamless convoluted Teflon™ PTFE

Reinforcement: Stainless steel wire wrap with EPDM cover

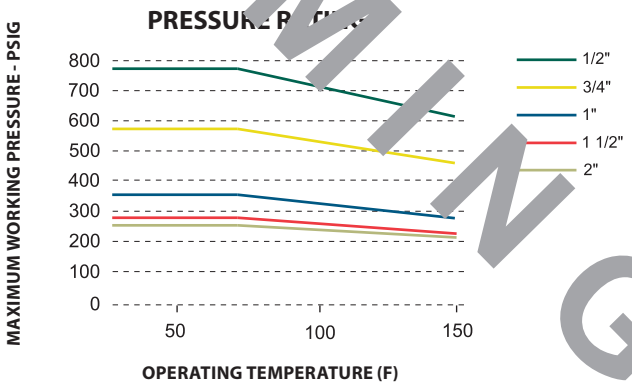
Temperature: 0 °F to 150 °F

Construction

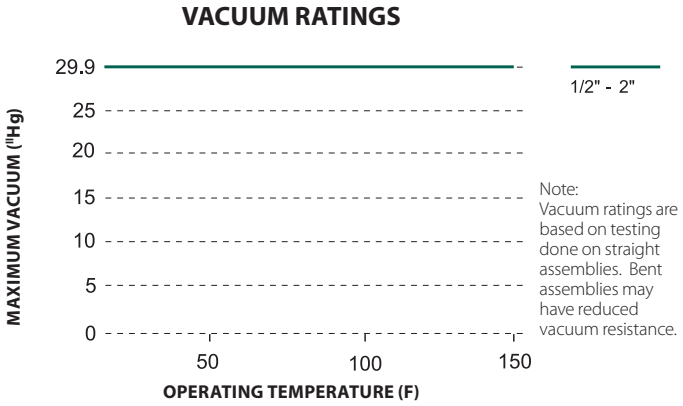
Unique and patented design incorporating a seamless, helically formed convoluted Teflon™ PTFE tube reinforced with a stainless steel wire wrap, tire cord, and EPDM rubber cover with flare thru fittings.

Benefits

- Ultra Flexible - Twister requires a minimum amount of force to flex, making this an excellent choice for handling and reducing strain on adjoining equipment
- 1:1 nominal diameter to bend radius – A 2" hose has a 2" bend radius!
- Virtually kink-proof design
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions for easy cleaning
- Tough EPDM cover provides durability and easy handling



NOTE: For assemblies, pressure ratings of fittings may be less than for the hose.



Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Applications

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Fitting... Flare Th...u

(consult factory for availability)

Size		Hose I.D.		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.970	24.6	0.500	12.7	785	54.1	3140	216.5	0.36
3/4	20	0.760	19.3	1.250	31.7	0.750	19	570	39.3	2280	157.2	0.49
1	25	1.025	26	1.560	39.6	1.000	25.4	350	24.1	1400	96.5	0.63
1-1/2	40	1.525	38.7	2.240	56.9	1.500	38.1	295	20.33	1180	81.4	1.04
2	50	2.025	51.4	2.670	67.8	2.000	50.8	275	19	1100	75.8	1.33

CRC - B Twister® EPDM Rubber Covered Hose

Inner core: Antistatic seamless convoluted Teflon™ PTFE

Reinforcement: Stainless steel wire wrap with EPDM Cover

Temperature: 0 °F to 300 °F

Construction

Unique and patented design incorporating a seamless, helically formed convoluted Teflon™ PTFE tube reinforced with a stainless steel wire wrap and EPDM rubber cover, tire cord, and crimp style fittings.

Benefits

- Ultra flexible - Twister requires a minimum amount of force to flex, making this an excellent choice for handling and reducing strain on adjoining equipment
- 1:1 nominal diameter to bend radius – A 2" hose has a 2" bend radius!
- Virtually kink-proof design
- Antistatic Teflon™ PTFE liner provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions for easy cleaning
- Tough EPDM cover provides durability and easy handling

Applications

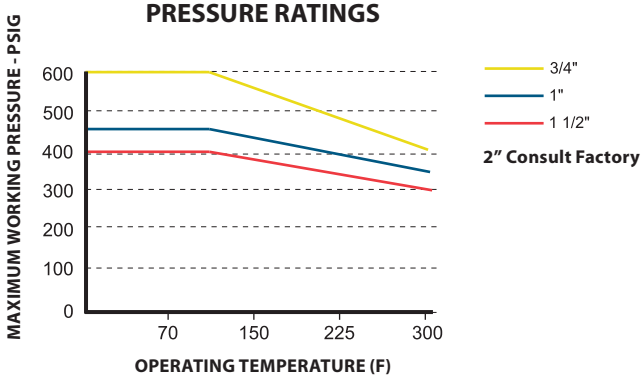
Versatile design used where a very flexible connection is needed to transfer corrosive, or hazardous media. Twister is commonly selected for rail and truck loading / unloading stations and transfer panels.

Fittings: Crimped

Flanged | Cam & Groove | Special | Industrial | Sanitary

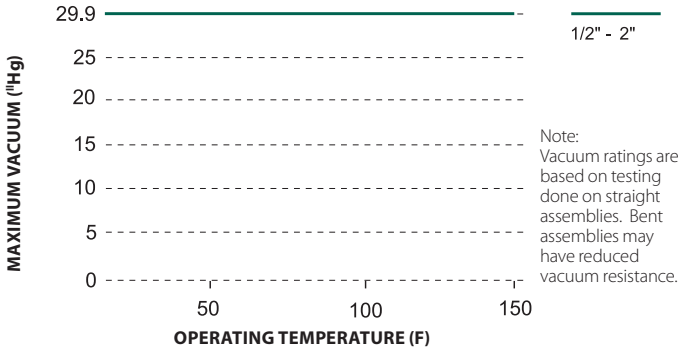
(consult factory for availability)

PRESSURE RATINGS



NOTE: For assemblies, pressure ratings of fittings may be less than for the hose.

VACUUM RATINGS



Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Size		Hose I.D.		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.970	24.6	0.500	12.7	785	54.1	3140	216.5	0.36
3/4	20	0.760	19.3	1.250	31.7	0.750	19	570	39.3	2280	157.2	0.49
1	25	1.025	26	1.560	39.6	1.000	25.4	350	24.1	1400	96.5	0.63
1-1/2	40	1.525	38.7	2.240	56.9	1.500	38.1	295	20.33	1180	81.4	1.04
2	50	2.025	51.4	2.670	67.8	2.000	50.8	275	19	1100	75.8	1.33

CRCF - B Twister® EPDM Rubber Covered Hose

Inner core: Antistatic Seamless Convoluted Teflon™ PTFE

Reinforcement: Stainless Steel Wire Wrap with EPDM Cover

Temperature: 0 °F to 150 °F

Construction

Unique and patented design incorporating a seamless, helically formed convoluted Teflon™ PTFE tube reinforced with a Stainless Steel Wire Wrap, tire cord, and EPDM rubber cover and flare thru fittings.

Benefits

- Ultra Flexible - Twister requires a minimum amount of force to flex, making this an excellent choice for handling and reducing strain on adjoining equipment
- 1:1 Nominal Diameter to Bend Radius – A 2" Hose has a 2" Bend Radius!
- Virtually kink-proof design
- Antistatic Teflon™ PTFE liner provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions for easy cleaning
- Tough EPDM cover provides durability and easy handling

Applications

Versatile design used where a very flexible connection is needed to transfer corrosive, or hazardous media. Twister is commonly selected for rail and truck loading / unloading stations and transfer panels.

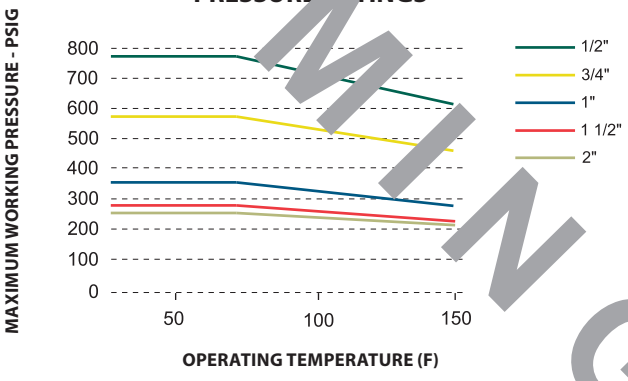
Fitting

Flare Thru

Flanged | Cam & Groove | Sanitary

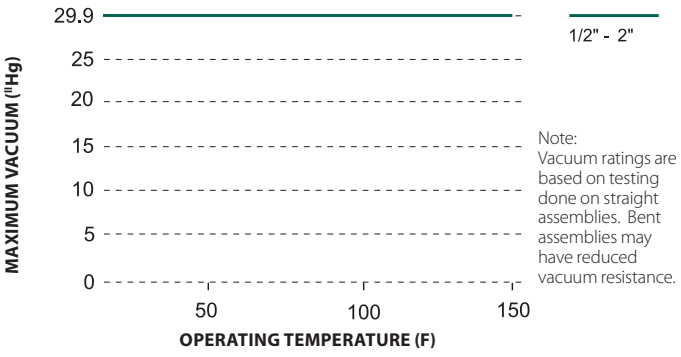
(consult factory for availability)

PRESSURE RATINGS



NOTE: For assemblies, pressure ratings of fittings may be less than for the h

VACUUM RATINGS



Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Size		Hose I.D.		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.970	24.6	0.500	12.7	785	54.1	3140	216.5	0.36
3/4	20	0.760	19.3	1.250	31.7	0.750	19	570	39.3	2280	157.2	0.49
1	25	1.025	26	1.560	39.6	1.000	25.4	350	24.1	1400	96.5	0.63
1-1/2	40	1.525	38.7	2.240	56.9	1.500	38.1	295	20.33	1180	81.4	1.04
2	50	2.025	51.4	2.670	67.8	2.000	50.8	275	19	1100	75.8	1.33

CB–W Convoluted Stainless Steel Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and Crimp Style fittings.

Benefits

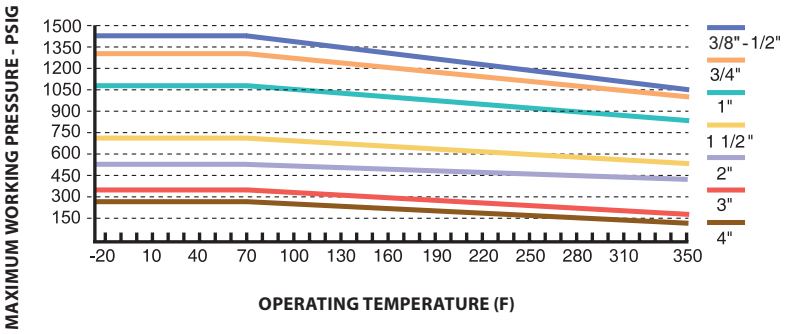
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Tighter bend radii compared to smooth bore hose styles

Applications

Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

Fittings: Crimped

PRESSURE RATINGS



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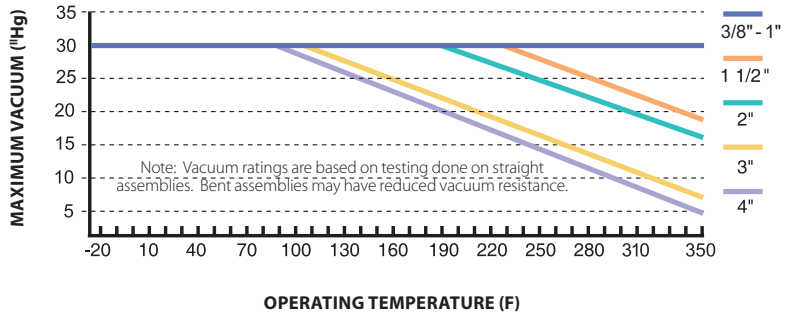


NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/8	10	0.360	9.1	0.568	14.4	2	50.8	1425	98.2	5700	393.0	0.15
1/2	15	0.510	13	0.748	19	2	50.8	1425	98.2	5700	393.0	0.20
3/4	20	0.760	19.3	1.048	26.6	2.75	69.9	1300	89.6	5200	358.5	0.30
1	25	1.025	26	1.354	34.4	4	101.6	1100	75.8	4400	303.3	0.48
1-1/2	40	1.525	38.7	2.034	51.7	6	152.4	700	48.3	2800	193.0	0.82
2	50	2.025	51.4	2.464	62.6	7.5	190.5	525	36.2	2100	144.8	1.12
3	50	2.952	75	3.702	94.0	14	355.6	350	24.1	1400	96.6	1.26
4	50	3.937	100	5.000	127.0	16	406.4	275	19	1100	75.9	2.64

CBF–W Convoluted Stainless Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and flare thru fittings.

Benefits

In addition to the benefits of our CB Style

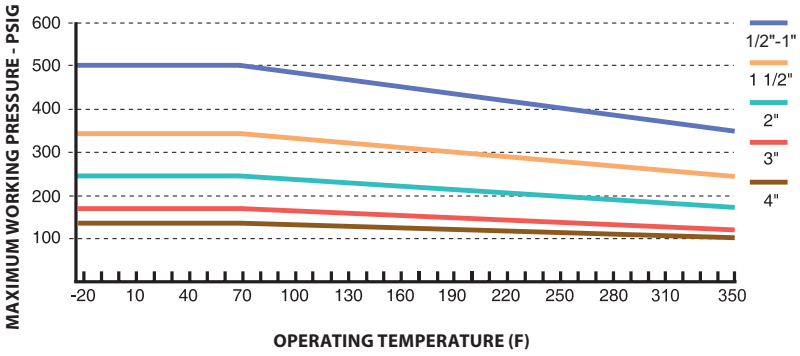
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination

Applications

In addition to the applications where a crimp style CB hose may be selected, CBF is suitable for chemical, pharmaceutical, food and flavoring applications requiring an extremely flexible hose with no metal exposed to the media.

Fittings: Flare Thru

PRESSURE RATINGS



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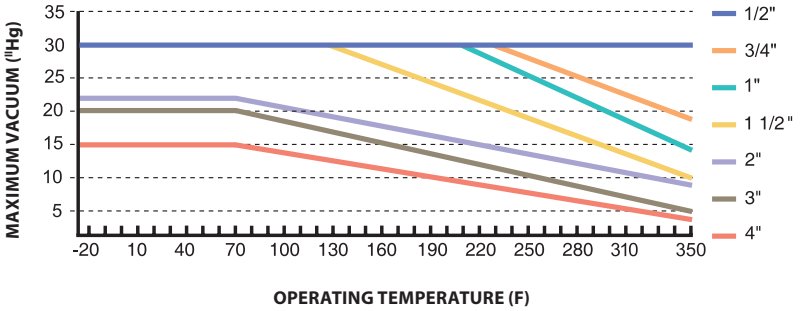


Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	2	50.8	500	34.5	2000	137.9	0.20
3/4	20	0.760	19.3	1.048	26.6	2.75	69.9	500	34.5	2000	137.9	0.30
1	25	1.025	26	1.354	34.4	4	101.6	500	34.5	2000	137.9	0.48
1-1/2*	40	1.525	38.7	2.034	51.7	6	152.4	350	24.1	1400	96.5	0.82
2*	50	2.025	51.4	2.464	62.6	7.5	190.5	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	14	355.6	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	16	406.4	150	10.3	600	41.2	2.64

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CWBF–W Convoluted Stainless Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and flare thru fittings. Outer convolutes are wire wrapped.

Benefits

In addition to the benefits of our CB Style

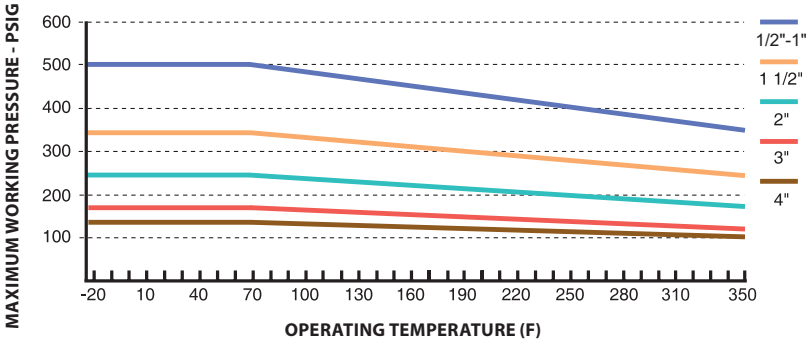
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination
- Wire wrap provides improved crush resistance, kink resistance, and bend radius

Applications

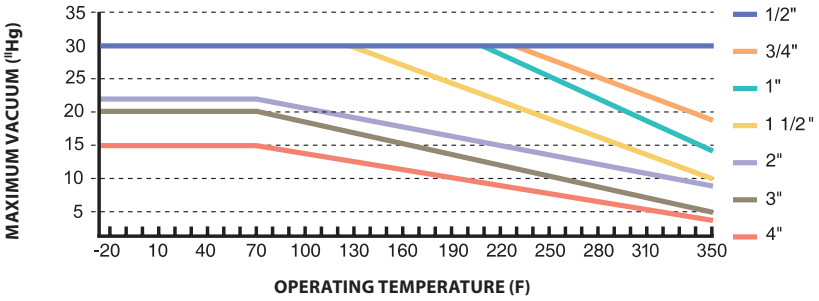
In addition to the applications where a crimp style CB hose may be selected, CBF is suitable for chemical, pharmaceutical, food and flavoring applications requiring an extremely flexible hose with no metal exposed to the media.

Fittings: Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance. Wire wrap improves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	0.5	12.7	500	34.5	2000	137.9	.20
3/4	20	0.760	19.3	1.048	26.6	0.75	19.1	500	34.5	2000	137.9	.30
1	25	1.025	26	1.354	34.4	1	25.4	500	34.5	2000	137.9	.48
1-1/2*	40	1.525	38.7	2.034	51.7	1.5	38.1	350	24.1	1400	96.5	.82
2*	50	2.025	51.4	2.464	62.6	2	50.8	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	3	76.2	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	4	101.6	150	10.3	600	41.2	2.64

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CB–B Convoluted Stainless Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and Crimp Style fittings.

Benefits

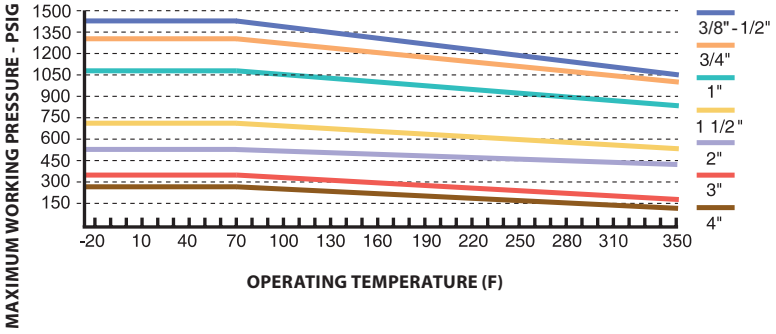
- Antistatic Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Tighter bend radii compared to smooth bore hose styles

Applications

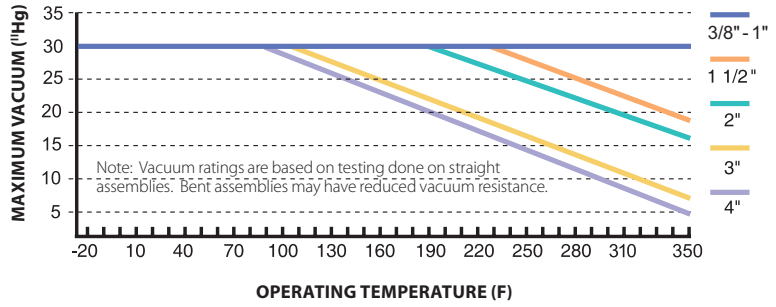
Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/8	10	0.360	9.1	0.568	14.4	2	50.8	1425	98.2	5700	393.0	0.15
1/2	15	0.510	13	0.748	19	2	50.8	1425	98.2	5700	393.0	0.20
3/4	20	0.760	19.3	1.048	26.6	2.75	69.9	1300	89.6	5200	358.5	0.30
1	25	1.025	26	1.354	34.4	4	101.6	1100	75.8	4400	303.3	0.48
1-1/2	40	1.525	38.7	2.034	51.7	6	152.4	700	48.3	2800	193.0	0.82
2	50	2.025	51.4	2.464	62.6	7.5	190.5	525	36.2	2100	144.8	1.12
3	50	2.952	75	3.702	94.0	14	355.6	350	24.1	1400	96.6	1.26
4	50	3.937	100	5.000	127.0	16	406.4	275	19	1100	75.9	2.64

CWB–W Convoluted Stainless Steel Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and Crimp Style fittings.

Benefits

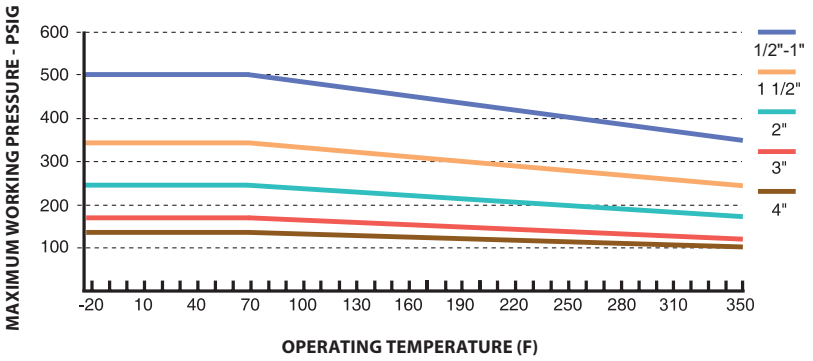
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Wire wrap provides improved crush resistance, kink resistance, and bend radius
- Tighter bend radii compared to smooth bore hose styles

Applications

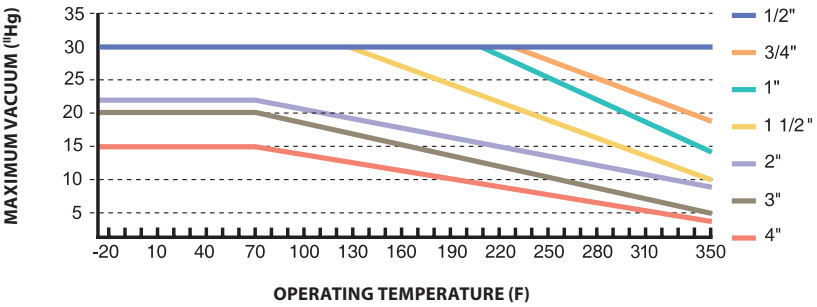
Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies.
Bent assemblies may have reduced vacuum resistance. Vacuum wire improves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	0.5	12.7	500	34.5	2000	137.9	.20
3/4	20	0.760	19.3	1.048	26.6	0.75	19.1	500	34.5	2000	137.9	.30
1	25	1.025	26	1.354	34.4	1	25.4	500	34.5	2000	137.9	.48
1-1/2	40	1.525	38.7	2.034	51.7	1.5	38.1	350	24.1	1400	96.5	.82
2	50	2.025	51.4	2.464	62.6	2	50.8	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	3	76.2	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	4	101.6	150	10.3	600	41.2	2.64

CBF–B Convoluted Stainless Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and flare thru fittings.

Benefits

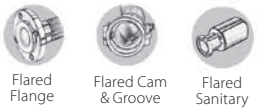
In addition to the benefits of our CB Style

- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination

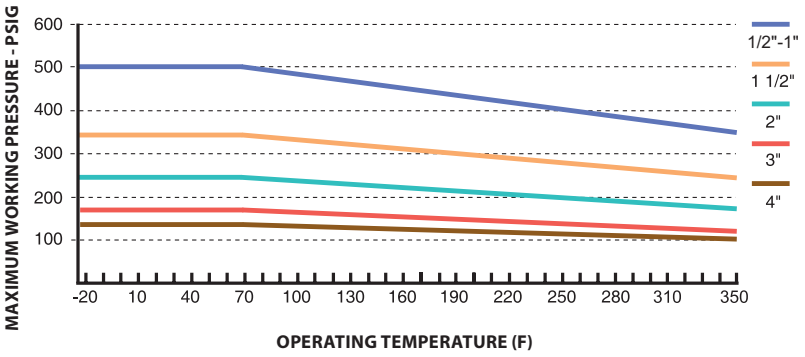
Applications

In addition to the applications where a crimp style CB hose may be selected, CBF is suitable for chemical, pharmaceutical, food and flavoring applications requiring an extremely flexible hose with no metal exposed to the media.

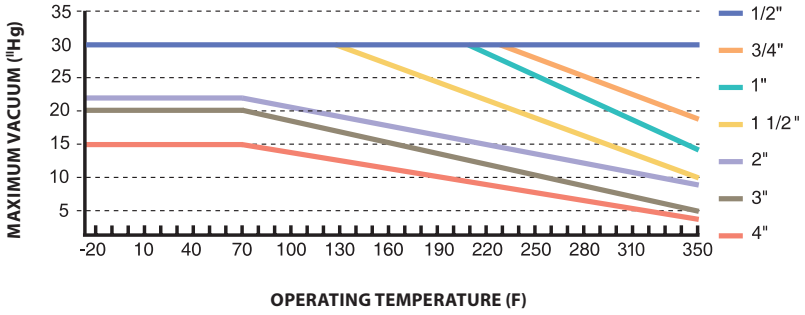
Fittings: Flare Thru



PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	2	50.8	500	34.5	2000	137.9	.20
3/4	20	0.760	19.3	1.048	26.6	2.75	69.9	500	34.5	2000	137.9	.30
1	25	1.025	26	1.354	34.4	4	101.6	500	34.5	2000	137.9	.48
1-1/2*	40	1.525	38.7	2.034	51.7	6	152.4	350	24.1	1400	96.5	.82
2*	50	2.025	51.4	2.464	62.6	7.5	190.5	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	14	355.6	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	16	406.4	150	10.3	600	41.2	2.64

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CWB–B Convoluted Stainless Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and Crimp Style fittings.

Benefits

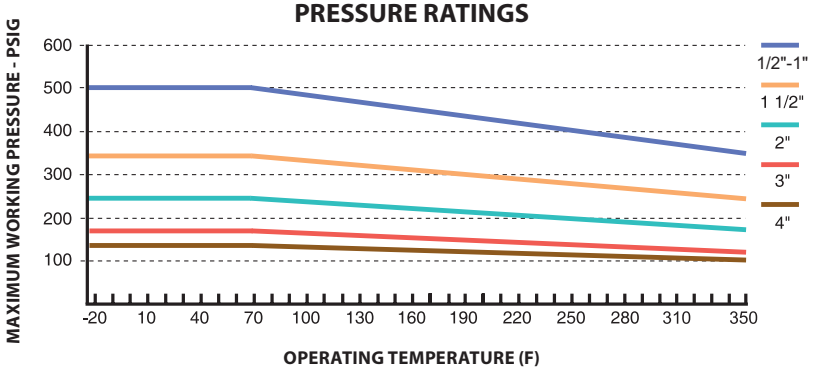
- Antistatic Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Wire wrap provides improved crush resistance, kink resistance, and bend radius
- Tighter bend radii compared to smooth bore hose styles

Applications

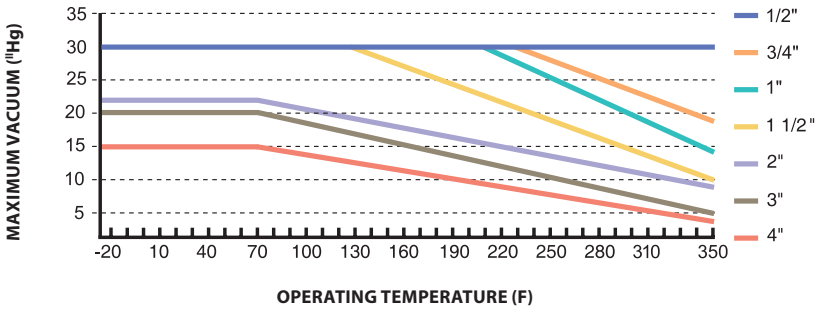
Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance. Wire wrap improves this to a degree

NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	0.5	12.7	500	34.5	2000	137.9	.20
3/4	20	0.760	19.3	1.048	26.6	0.75	19.1	500	34.5	2000	137.9	.30
1	25	1.025	26	1.354	34.4	1	25.4	500	34.5	2000	137.9	.48
1-1/2*	40	1.525	38.7	2.034	51.7	1.5	38.1	350	24.1	1400	96.5	.82
2*	50	2.025	51.4	2.464	62.6	2	50.8	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	3	76.2	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	4	101.6	150	10.3	600	41.2	2.64

CWBF–B Convoluted Stainless Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: 316 stainless steel braid
Temperature: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with 316 high tensile stainless steel wire braid and flare thru fittings. Outer convolutes are wire wrapped.

Benefits

In addition to the benefits of our CB Style

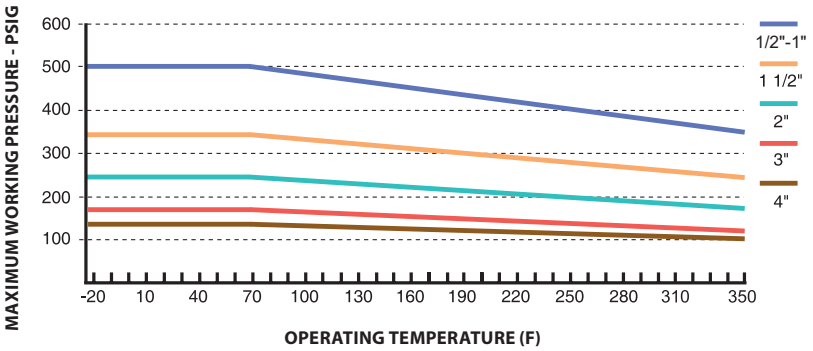
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination
- Wire wrap provides improved crush resistance, kink resistance, and bend radius

Applications

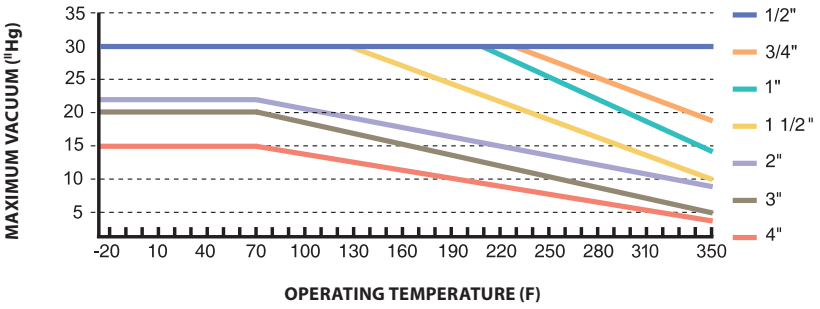
In addition to the applications where a crimp style CB hose may be selected, CBF is suitable for chemical, pharmaceutical, food and flavoring applications requiring an extremely flexible hose with no metal exposed to the media.

Fittings: Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies.
Bent assemblies may have reduced vacuum resistance. Vacuum wireimproves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70oF (21oC)		Burst Pressure at 70oF (21oC)		Weight Lbs / Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19	0.5	12.7	500	34.5	2000	137.9	.20
3/4	20	0.760	19.3	1.048	26.6	0.75	19.1	500	34.5	2000	137.9	.30
1	25	1.025	26	1.354	34.4	1	25.4	500	34.5	2000	137.9	.48
1-1/2*	40	1.525	38.7	2.034	51.7	1.5	38.1	350	24.1	1400	96.5	.82
2*	50	2.025	51.4	2.464	62.6	2	50.8	250	17.2	1000	68.9	1.14
3	75	2.952	75	3.702	94.0	3	76.2	175	12.1	700	48.4	1.26
4	100	3.937	100	5.000	127.0	4	101.6	150	10.3	600	41.2	2.64

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID aligned with SS sanitary tubing.

CPB–W Convoluted Polypropylene Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and crimped fittings.

Benefits

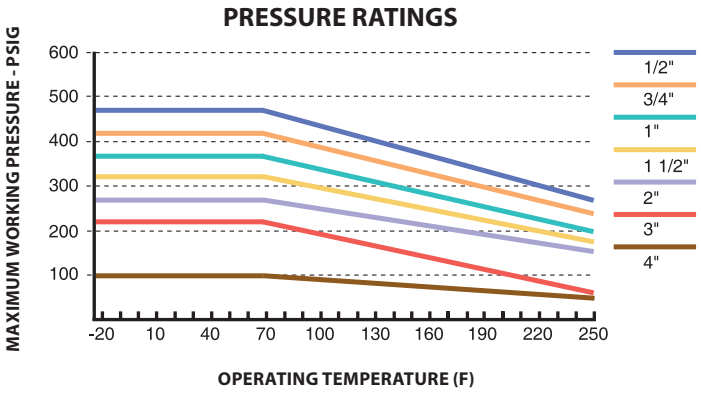
- Open-pitched, helical convolutions for easy cleaning
- Rated for both medium pressure and full vacuum applications
- Crush resistant and easy to flex
- Tighter bend radii than smooth bore alternatives
- Abrasion resistant braid
- Reduced risk of hand injury from metal braids

Applications

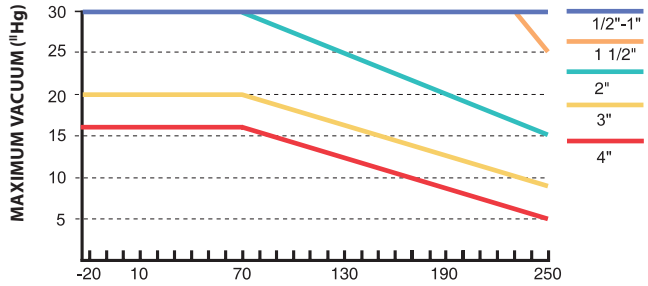
For pharmaceutical, chemical, food and beverage, and other applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly, with better abrasion resistance than metal braids.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	2	50.8	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	2.75	69.9	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	4	101.6	375	25.8	1500	103.4	.26
1-1/2	40	1.525	38.7	2.155	54.7	6	152.4	325	22.4	1300	89.6	.46
2	50	2.025	51.4	2.560	65.0	7.5	190.5	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	14	355.6	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	16	406.4	100	6.9	400	27.6	1.98

CPBF–W Convoluted Polypropylene Braided Hose

Inner core: Seamless white convoluted Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and flare thru fittings.

Benefits

In addition to the benefits of our CPB Style

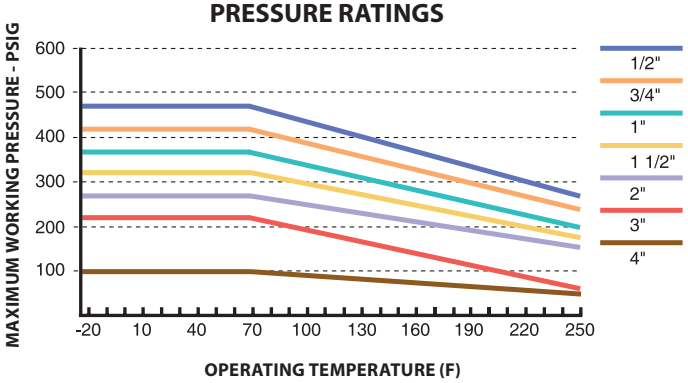
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination

Applications

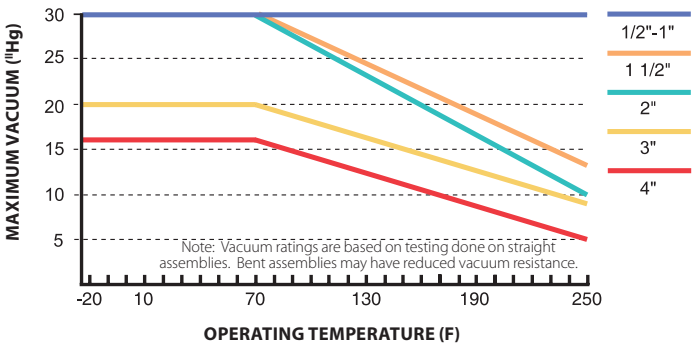
For pharmaceutical, chemical, food and beverage, or any application requiring an extremely flexible, lightweight Teflon™ PTFE hose with no metal exposure to the media.

Fitting: Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	2	50.8	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	2.75	69.9	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	4	101.6	375	25.8	1500	103.4	.26
1-1/2*	40	1.525	38.7	2.155	54.7	6	152.4	325	22.4	1300	89.6	.46
2*	50	2.025	51.4	2.560	65.0	7.5	190.5	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	14	355.6	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	16	406.4	100	6.9	400	27.6	1.98

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CWPB–W Convoluted Polypropylene Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE

Reinforcement: Blue polypropylene, UV-stabilized braid

Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and crimped fittings.

Benefits

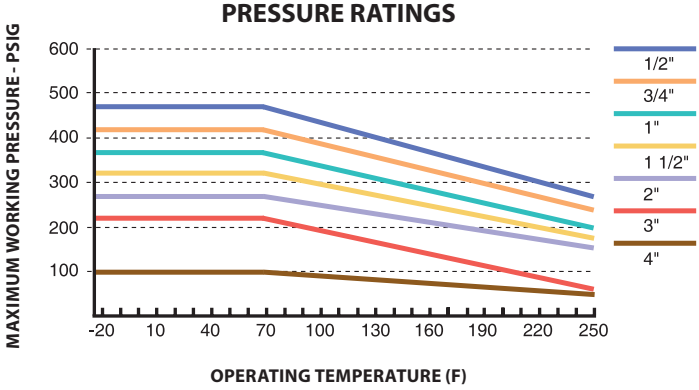
- Open-pitched, helical convolutions for easy cleaning
- Rated for both medium pressure and full vacuum applications
- Crush resistant and easy to flex
- Tighter bend radii than smooth bore alternatives
- Abrasion resistant braid
- Reduced risk of hand injury from metal braids
- Wire wrap provides improved crush resistance, kink resistance, and bend radius

Applications

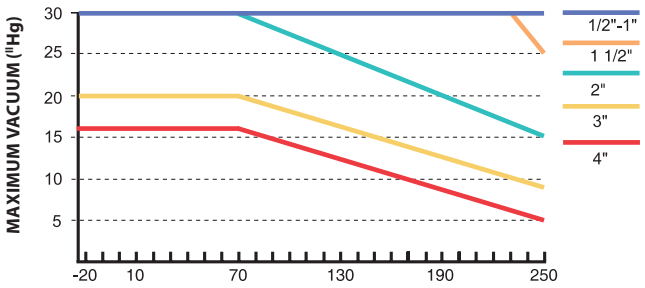
For pharmaceutical, chemical, food and beverage, and other applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly, with better abrasion resistance than metal braids.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance. Wire wrap improves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	0.5	12.7	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	0.75	19.1	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	1	25.4	375	25.8	1500	103.4	.26
1-1/2*	40	1.525	38.7	2.155	54.7	1.5	38.1	325	22.4	1300	89.6	.46
2*	50	2.025	51.4	2.560	65.0	2	50.8	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	3	76.2	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	4	101.6	100	6.9	400	27.6	1.98

CWPBF–W Convoluted Polypropylene Braided Hose

Inner core: Seamless white convoluted Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and flare thru fittings.

Benefits

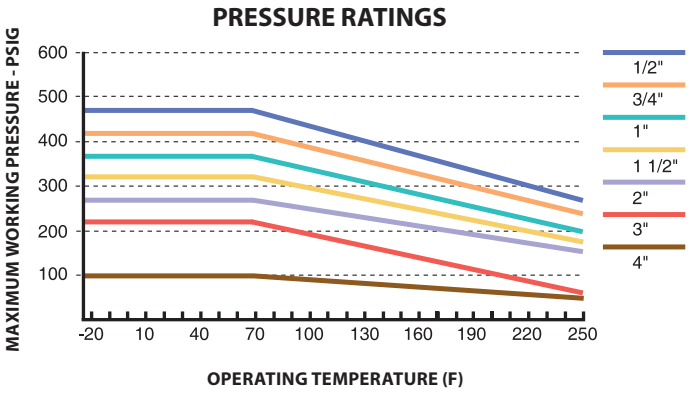
In addition to the benefits of our CPB Style

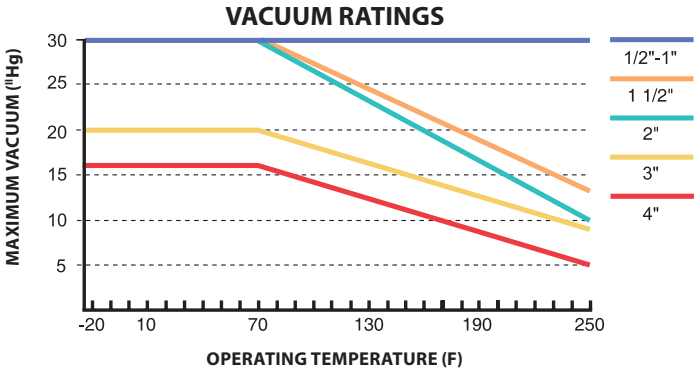
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination
- Wire wrap provides improved crush resistance, kink resistance, and bend radius

Applications

For pharmaceutical, chemical, food and beverage, or any application requiring an extremely flexible, lightweight Teflon™ PTFE hose with no metal exposure to the media.

Fitting: Flare Thru





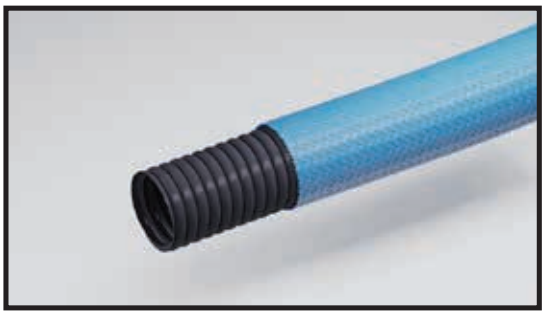
Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	0.5	12.7	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	0.75	19.1	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	1	25.4	375	25.8	1500	103.4	.26
1-1/2*	40	1.525	38.7	2.155	54.7	1.5	38.1	325	22.4	1300	89.6	.46
2*	50	2.025	51.4	2.560	65.0	2	50.8	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	3	76.2	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	4	101.6	100	6.9	400	27.6	1.98

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CPB–B Convoluted Polypropylene Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F



Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and crimped fittings.

Benefits

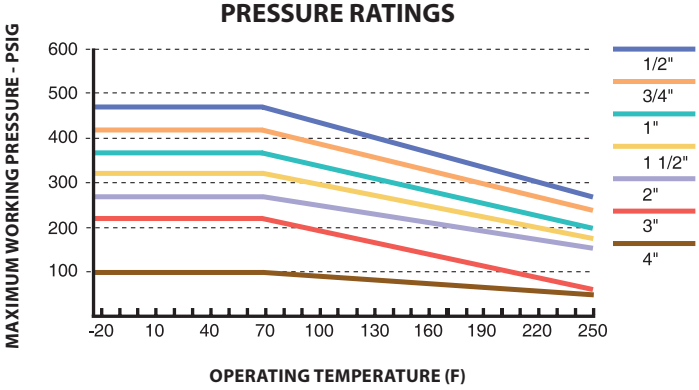
- Open-pitched, helical convolutions for easy cleaning
- Rated for both medium pressure and full vacuum applications
- Crush resistant and easy to flex
- Tighter bend radii than smooth bore alternatives
- Abrasion resistant braid
- Reduced risk of hand injury from metal braids

Applications

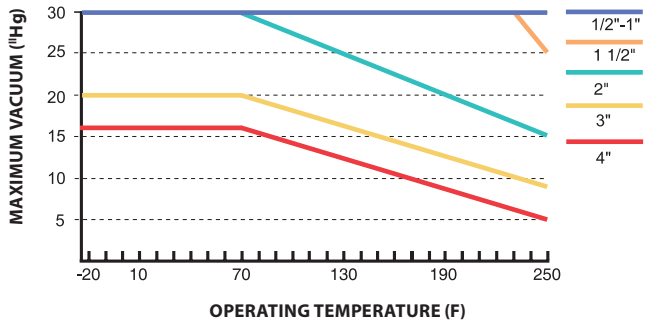
For pharmaceutical, chemical, food and beverage, and other applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly, with better abrasion resistance than metal braids.

Fittings: Crimped

PRESSURE RATINGS



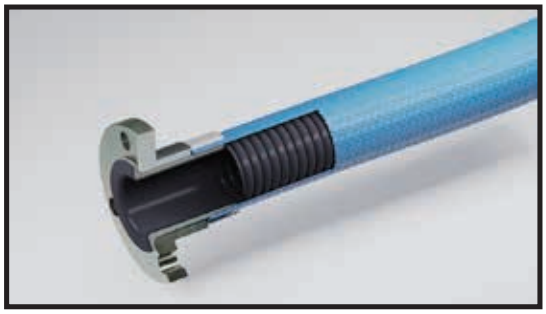
VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	2	50.8	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	2.75	69.9	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	4	101.6	375	25.8	1500	103.4	.26
1-1/2	40	1.525	38.7	2.155	54.7	6	152.4	325	22.4	1300	89.6	.46
2	50	2.025	51.4	2.560	65.0	7.5	190.5	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	14	355.6	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	16	406.4	100	6.9	400	27.6	1.98

CPBF–B Convoluted Polypropylene Braided Hose



Inner core: Seamless antistatic convoluted Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted antistatic Teflon™ PTFE tube reinforced with polypropylene braid and flare thru fittings.

Benefits

In addition to the benefits of our CPB Style

- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination

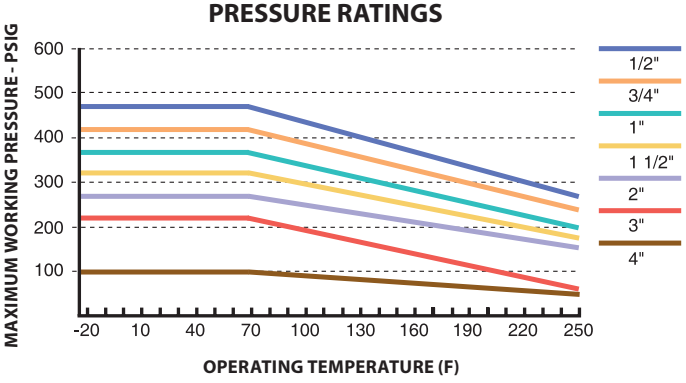
Applications

For pharmaceutical, chemical, food and beverage, or any application requiring an extremely flexible, lightweight Teflon™ PTFE hose with no metal exposure to the media.

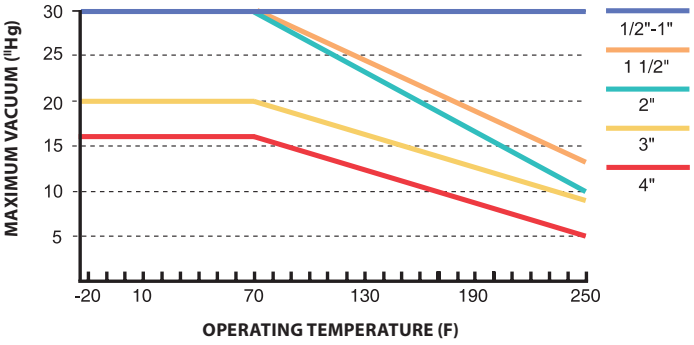
Fitting: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies.
Bent assemblies may have reduced vacuum resistance. Wire wrap improves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	2	50.8	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	2.75	69.9	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	4	101.6	375	25.8	1500	103.4	.26
1-1/2*	40	1.525	38.7	2.155	54.7	6	152.4	325	22.4	1300	89.6	.46
2*	50	2.025	51.4	2.560	65.0	7.5	190.5	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	14	355.6	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	16	406.4	100	6.9	400	27.6	1.98

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CWPB–B Convoluted Polypropylene Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and crimped fittings.

Benefits

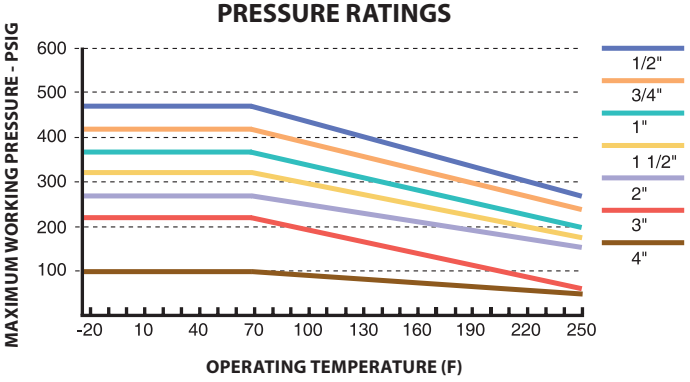
- Open-pitched, helical convolutions for easy cleaning
- Rated for both medium pressure and full vacuum applications
- Crush resistant and easy to flex
- Tighter bend radii than smooth bore alternatives
- Abrasion resistant braid
- Reduced risk of hand injury from metal braids

Applications

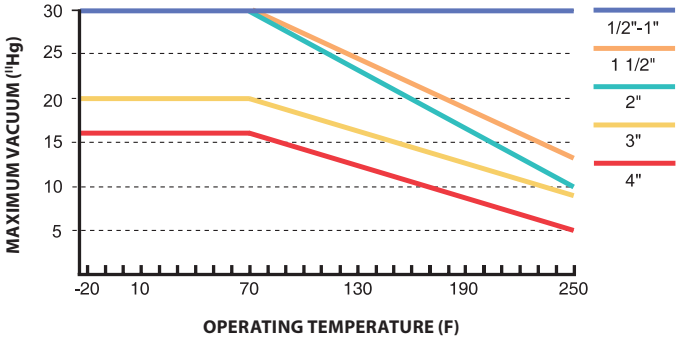
For pharmaceutical, chemical, food and beverage, and other applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly, with better abrasion resistance than metal braids.

Fittings: Crimped

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies. Bent assemblies may have reduced vacuum resistance.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	0.5	12.7	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	0.75	19.1	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	1	25.4	375	25.8	1500	103.4	.26
1-1/2	40	1.525	38.7	2.155	54.7	1.5	38.1	325	22.4	1300	89.6	.46
2	50	2.025	51.4	2.560	65.0	2	50.8	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	3	76.2	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	4	101.6	100	6.9	400	27.6	1.98

CWPBF–B Convoluted Polypropylene Braided Hose

Inner core: Seamless antistatic convoluted Teflon™ PTFE
Reinforcement: Blue polypropylene, UV-stabilized braid
Temperature: -20 °F to 250 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with polypropylene braid and flare thru fittings.

Benefits

In addition to the benefits of our CPB Style

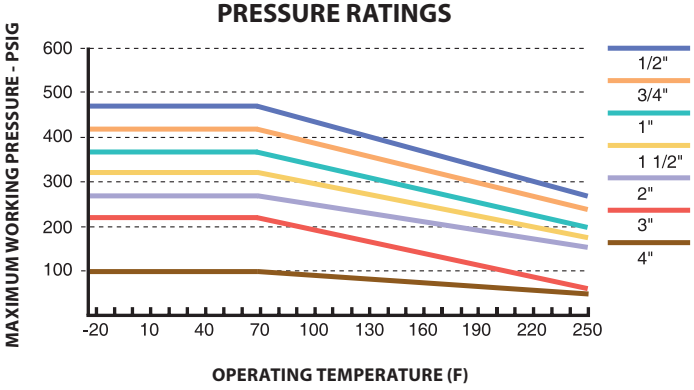
- Flare thru system allows Teflon™ PTFE protection of all wetted surfaces, eliminating metal corrosion and process contamination
- Wire wrap provides improved crush resistance, kink resistance, and bend radius

Applications

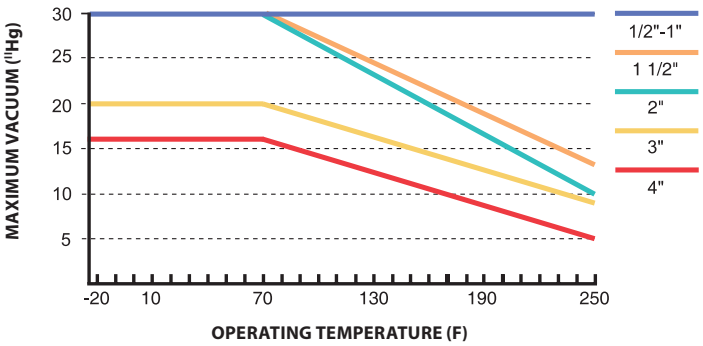
For pharmaceutical, chemical, food and beverage, or any application requiring an extremely flexible, lightweight Teflon™ PTFE hose with no metal exposure to the media.

Fitting: Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Note: Hose assembly pressure ratings may be limited by the fittings.
Note: Vacuum ratings are based on testing done on straight assemblies.
Bent assemblies may have reduced vacuum resistance. Wire wrap improves this to a degree.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.855	21.7	0.5	12.7	475	32.7	1900	131	.10
3/4	20	0.760	19.3	1.160	29.5	0.75	19.1	425	29.3	1700	117.2	.18
1	25	1.025	26	1.440	36.6	1	25.4	375	25.8	1500	103.4	.26
1-1/2*	40	1.525	38.7	2.155	54.7	1.5	38.1	325	22.4	1300	89.6	.46
2*	50	2.025	51.4	2.560	65.0	2	50.8	275	19	1100	75.8	.52
3	75	2.952	75	3.922	99.6	3	76.2	225	15.5	900	62	1.12
4	100	3.937	100	5.221	132.6	4	101.6	100	6.9	400	27.6	1.98

Note: * 1-1/2" and 2" flare thru assemblies with sanitary fittings have reduced nominal size to ensure ID alignment with SS sanitary tubing.

CHB–W Convoluted HASTELLOY® Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: HASTELLOY® braid
Temperature: 1/2" and 1" sizes: -100 °F to 350 °F
1 1/2" and 2" sizes: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with HASTELLOY® wire braid and crimped fittings. A red tracer in the braid indicates HASTELLOY®.

Benefits

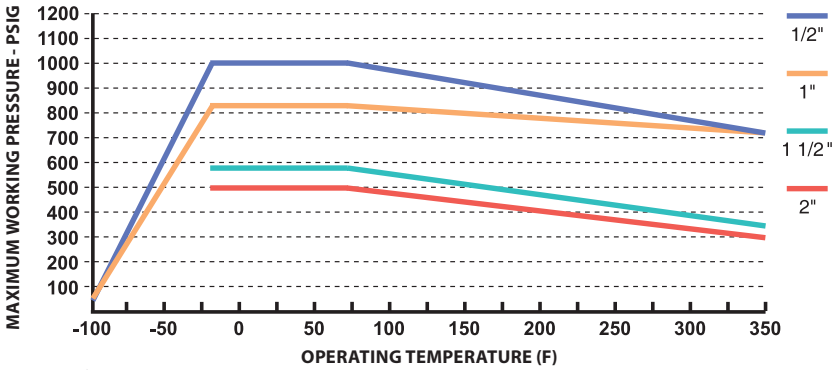
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helica l convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Tighter bend radii compared to smooth bore hose styles

Applications

Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

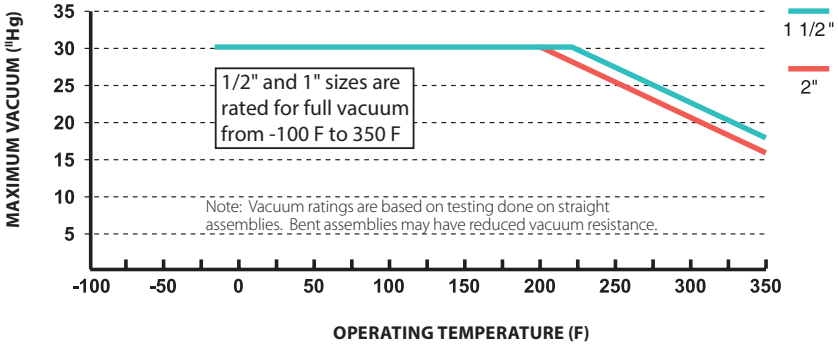
Fittings: Crimped

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19.0	2.00	50.8	1000	69.0	5000	344.8	.20
1	25	1.025	26	2.034	51.7	6.00	152.4	590	40.7	2950	203.4	.82
1-1/2	40	1.525	38.7	2.464	62.6	7.50	190.5	500	34.5	2500	172.4	1.12
2	50	2.025	51.4	2.464	62.6	7.5	190.5	525	36.2	2625	181	1.12

HASTELLOY® is a registered trademark of Haynes International.

CHB–B Convoluted HASTELLOY® Braided Hose

Inner core: Seamless convoluted antistatic Teflon™ PTFE

Reinforcement: HASTELLOY® braid

Temperature: 1/2" and 1" sizes: -100 °F to 350 °F
1 1/2" and 2" sizes: -20 °F to 350 °F

Construction

Seamless helically formed convoluted Teflon™ PTFE tube reinforced with HASTELLOY® wire braid and crimped fittings. A red tracer in the braid indicates HASTELLOY®.

Benefits

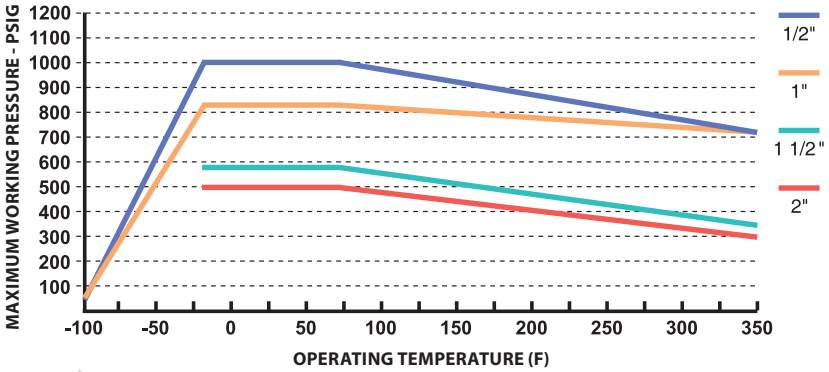
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- One product rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- Tighter bend radii compared to smooth bore hose styles

Applications

Versatile design used where light in weight and very flexible connections are needed to transfer corrosive, hazardous or other media. Wide variety of crimp style fittings allow for use in many types of applications and industries, including chemical processing, pharmaceuticals, corn processing, food and beverage, flavors and fragrances and others.

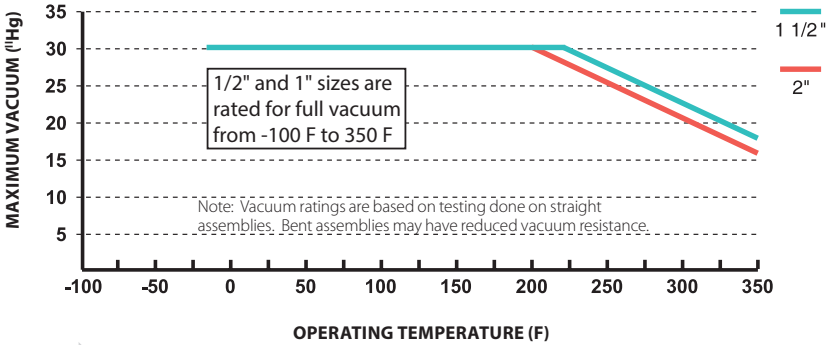
Fittings: Crimped

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

VACUUM RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings and options.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs/ Feet
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.748	19.0	2.00	50.8	1000	69.0	5000	344.8	.20
1	25	1.025	26	1.354	34.4	4.00	101.6	820	56.6	4100	282.8	.48
1-1/2	40	1.525	38.7	2.034	51.7	6.00	152.4	590	40.7	2950	203.4	.82
2	50	2.025	51.4	2.464	62.6	7.50	190.5	500	34.5	2500	172.4	1.12

HASTELLOY® is a registered trademark of Haynes International.

CKB–W Convoluted KYNAR® PVDF Braided Hose

Inner core: Seamless convoluted white Teflon™ PTFE
Reinforcement: KYNAR® PVDF heavy double braid
Temperature: -20 °F to 275 °F

Construction

Extra-thick, natural or conductive seamless helical convoluted Teflon™ PTFE liner double braided with KYNAR® PVDF monofilament heavy gauge braid.

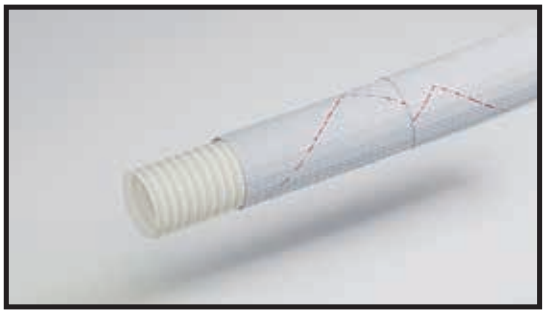
Benefits

- KYNAR® PVDF braid is resistant to most chemicals introduced to the external surface of the hose through typical usage
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- Rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- 5:1 factor of safety
- Tighter bend radii compared to smooth bore hose styles

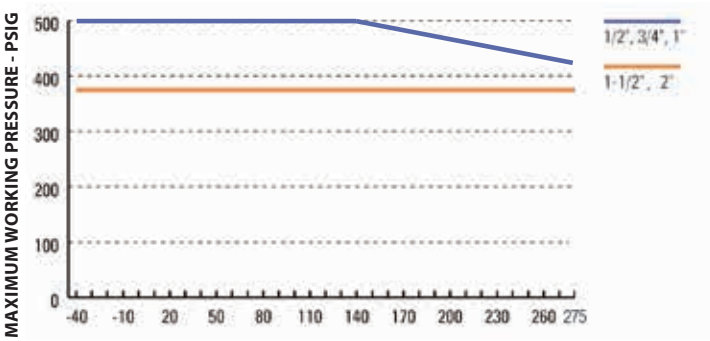
Applications

For low pH (<9) applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly conveying chemicals that permeate aggressively, or for harsh atmospheric conditions that require extreme corrosion resistance on the exterior of the assembly.

Fittings: Crimped

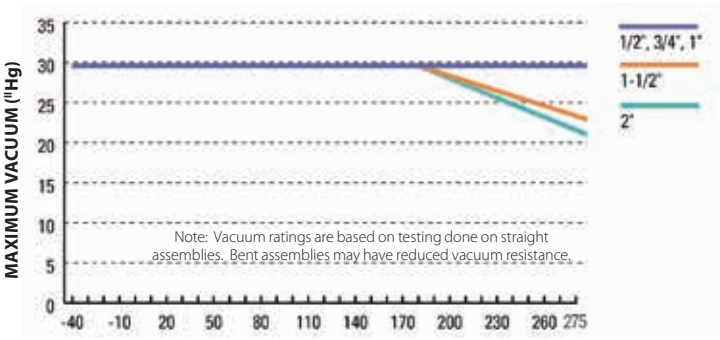


PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.960	24.9	2	50.8	500	34.5	2500	172.4	.15
3/4	20	0.760	19.3	1.250	31.8	2.5	69.9	500	34.5	2500	172.4	.25
1	25	1.025	26	1.560	39.6	6	101.6	500	34.5	2500	172.4	.33
1-1/2	40	1.525	38.7	2.240	56.9	10	152.4	375	25.9	1875	129.3	.60
2	50	2.025	51.4	2.670	67.8	12	190.5	375	17.2	1875	86.2	.80

KYNAR® is a registered trademark of Arkema Inc.

CKB–B Convoluted KYNAR® PVDF Braided

Inner core: Seamless convoluted antistatic Teflon™ PTFE

Reinforcement: KYNAR® PVDF heavy double braid

Temperature: -20 °F to 275 °F

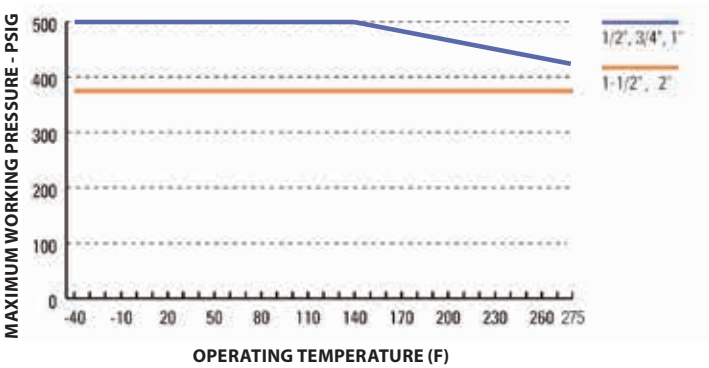
Construction

Extra-thick, natural or conductive seamless helical convoluted Teflon™ PTFE liner braided with KYNAR® PVDF monofilament heavy gauge wire braid.

Benefits

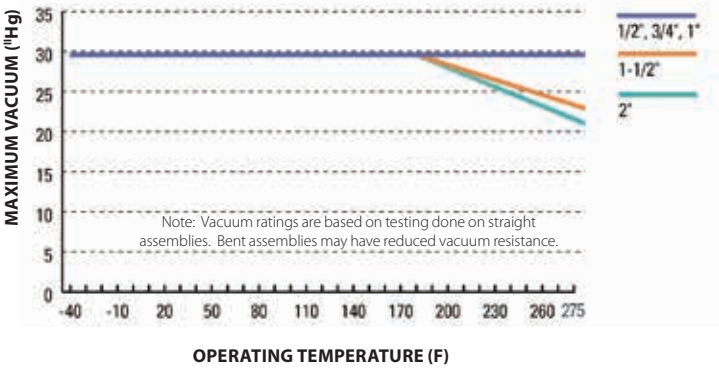
- KYNAR® PVDF braid is resistant to most chemicals introduced to the external surface of the hose through typical usage
- Teflon™ PTFE inner core provides outstanding corrosion resistance and material compatibility
- Open pitch, helical convolutions allow for smooth product flow and easy cleaning
- Rated for both medium pressure and full vacuum applications
- Wide variety of crimp style end fittings in various metallurgies
- PTFE available with natural or conductive liner
- Tighter bend radii compared to smooth bore hose styles

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Applications

For applications requiring an extremely flexible, lightweight Teflon™ PTFE hose assembly conveying chemicals that permeate aggressively, or for harsh atmospheric conditions that require extreme corrosion resistance on the exterior of the assembly.

Fittings: Crimped

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Foot
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.960	24.9	2	50.8	500	34.5	2500	172.4	.15
3/4	20	0.760	19.3	1.250	31.8	2.5	69.9	500	34.5	2500	172.4	.25
1	25	1.025	26	1.560	39.6	6	101.6	500	34.5	2500	172.4	.33
1-1/2	40	1.525	38.7	2.240	56.9	10	152.4	375	25.9	1875	129.3	.60
2	50	2.025	51.4	2.670	67.8	12	190.5	375	17.2	1875	86.2	.80

KYNAR® is a registered trademark of Arkema Inc.

SVT–W Seamless Vent Tubing Assembly

Inner core: Seamless convoluted Teflon™ PTFE
Temperature: -20 °F to 350 °F

Construction

Seamless, helically formed convoluted Teflon™ PTFE tube. Offered as tubing with cuffed ends, as well as a variety of crimped or flare thru fittings. .

Benefits

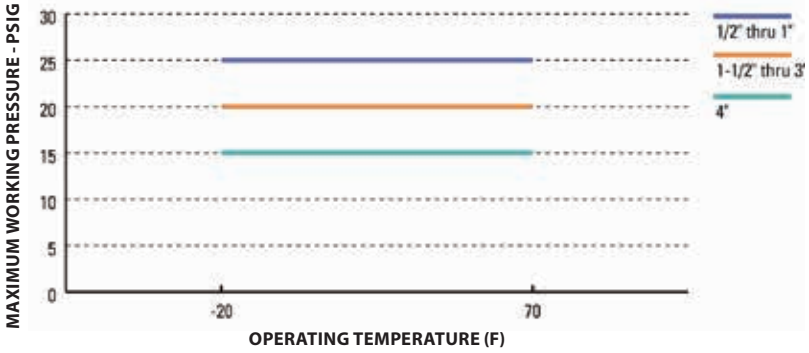
- Seamless Teflon™ PTFE tube formed in an open pitched, helical design for improved flow properties and easy cleaning
- Wide variety of crimp style fittings to select from
- Flare thru fittings provide PTFE protection to all wetted surfaces, eliminating metal corrosion and process contamination
- Tube is crush resistant and easy to flex

Applications

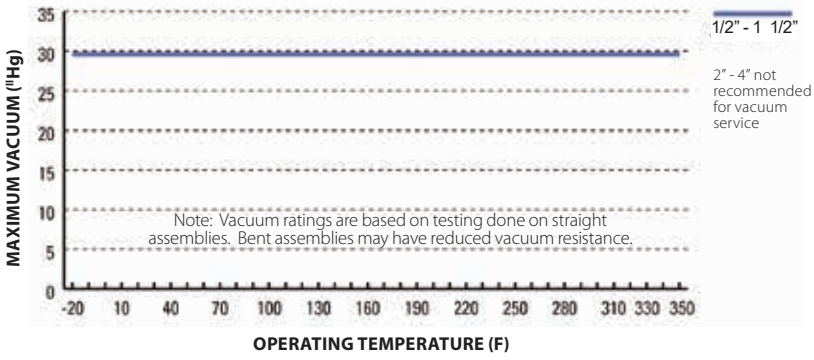
SVT is ideal for lower pressure and corrosion resistant flexible connections. It is an excellent connection to weight tanks, centrifuges and suction side of pumps, and for loading, unloading and decanting vessels and drums.

Fittings: Crimped and Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.700	17.8	2	50.8	25	1.7	100	6.9	.08
3/4	20	0.760	19.3	0.990	25.1	2	50.8	25	1.7	100	6.9	.11
1	25	1.025	26	1.280	32.5	3	76.2	25	1.7	100	6.9	.14
1-1/2	40	1.525	38.7	1.960	49.8	4.5	114.3	20	1.4	80	5.5	.40
2	50	2.025	51.4	2.390	60.7	8	203.2	20	1.4	80	5.5	.50
3	80	2.952	75	3.622	92.0	14	355.6	20	1.4	80	5.5	.94
4	100	3.937	100	4.921	125.0	20	508.0	15	1.0	60	4.1	1.47

SWVT–W Seamless Vent Tubing Assembly

Inner core: Seamless convoluted Teflon™ PTFE
Temperature: -20 °F to 350 °F

Construction

Seamless, helically formed convoluted Teflon™ PTFE tube. Offered as tubing with cuffed ends, variety of crimp style end fittings and flare thru end fittings.

Benefits

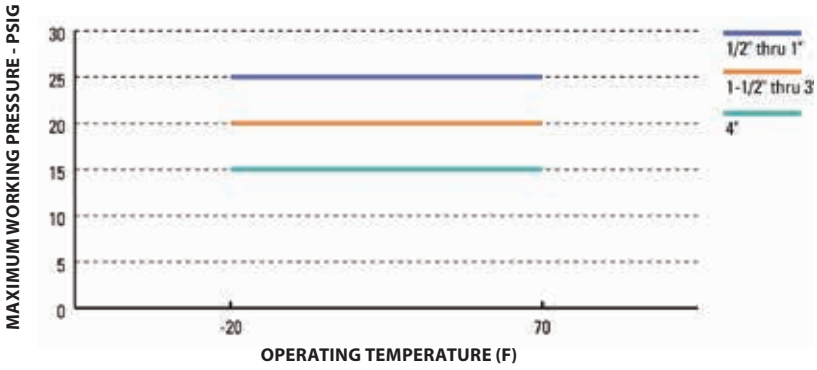
- Seamless Teflon™ PTFE tube formed in an open pitched, helical design for improved flow properties and easy cleaning
- Wide variety of crimp style fittings to select from
- Flare thru fittings provide PTFE protection to all wetted surfaces, eliminating metal corrosion and process contamination
- Tube is crush resistant and easy to flex
- PTFE available with natural or conductive liner
- Wire wrap for reduced bend radius, allowing for even tighter bending

Applications

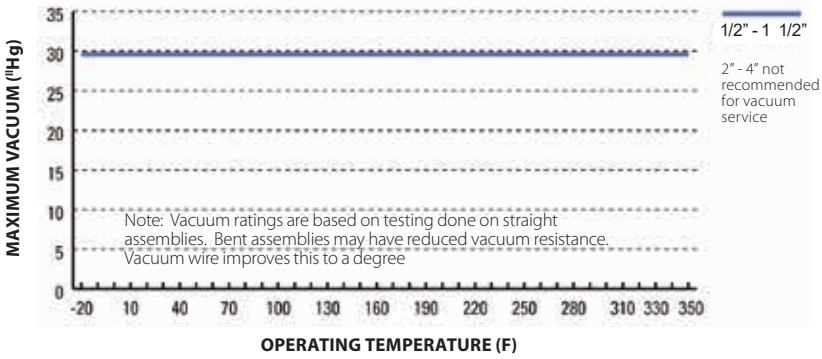
SVT is ideal for lower pressure and corrosion resistant flexible connections. It is an excellent connection to weight tanks, centrifuges and suction side of pumps, and for loading, unloading and decanting vessels and drums.

Fittings: Crimped and Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.700	17.8	0.5	12.7	25	1.7	100	6.9	.08
3/4	20	0.760	19.3	0.990	25.1	0.75	19.1	25	1.7	100	6.9	.11
1	25	1.025	26	1.280	32.5	1	25.4	25	1.7	100	6.9	.14
1-1/2	40	1.525	38.7	1.960	49.8	1.5	38.1	20	1.4	80	5.5	.40
2	50	2.025	51.4	2.390	60.7	2	50.8	20	1.4	80	5.5	.50
3	80	2.952	75	3.622	92.0	3	76.2	20	1.4	80	5.5	.94
4	100	3.937	100	4.921	125.0	4	101.6	15	1.0	60	4.1	1.47

SVT–B Seamless Vent Tubing Assembly

Inner core: Seamless convoluted antistatic Teflon™ PTFE

Temperature: -20 °F to 350 °F

Construction

Seamless, helically formed convoluted Teflon™ PTFE tube. Offered as tubing with cuffed ends, variety of crimp style end fittings and Flared Thru end fittings.

Benefits

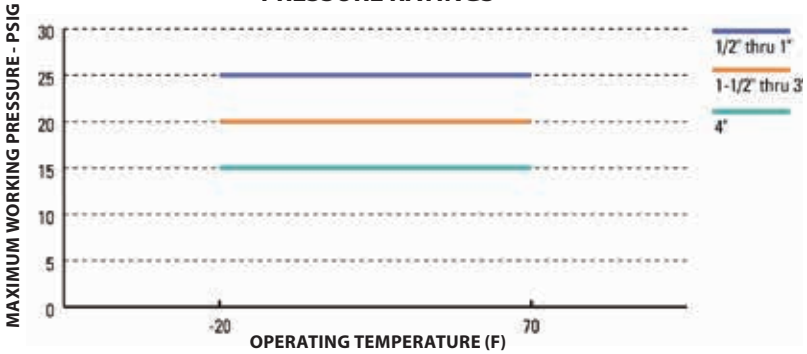
- Seamless Teflon™ PTFE tube formed in an open pitched, helical design for improved flow properties and easy cleaning
- Wide variety of crimp style fittings to select from
- Flared Thru fittings provide PTFE protection to all wetted surfaces, eliminating metal corrosion and process contamination
- Tube is crush resistant and easy to flex

Applications

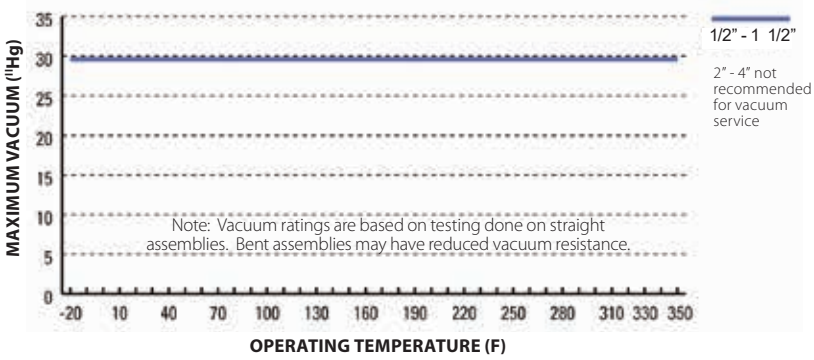
SVT is ideal for lower pressure and corrosion resistant flexible connections. It is an excellent connection to weight tanks, centrifuges and suction side of pumps, and for loading, unloading and decanting vessels and drums.

Fittings: Crimped and Flare Thru

PRESSURE RATINGS



VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.700	17.8	0.5	12.7	25	1.7	100	6.9	.08
3/4	20	0.760	19.3	0.990	25.1	0.75	19.1	25	1.7	100	6.9	.11
1	25	1.025	26	1.280	32.5	1	25.4	25	1.7	100	6.9	.14
1-1/2	40	1.525	38.7	1.960	49.8	1.5	38.1	20	1.4	80	5.5	.40
2	50	2.025	51.4	2.390	60.7	2	50.8	20	1.4	80	5.5	.50
3	80	2.952	75	3.622	92.0	3	76.2	20	1.4	80	5.5	.94
4	100	3.937	100	4.921	125.0	4	101.6	15	1.0	60	4.1	1.47

SWVT–B Seamless Vent Tubing Assembly

Inner core: Seamless convoluted antistatic Teflon™ PTFE

Temperature: -20 °F to 350 °F

Construction

Seamless, helically formed convoluted Teflon™ PTFE tube. Offered as tubing with cuffed ends, variety of crimped and flare thru fittings.

Benefits

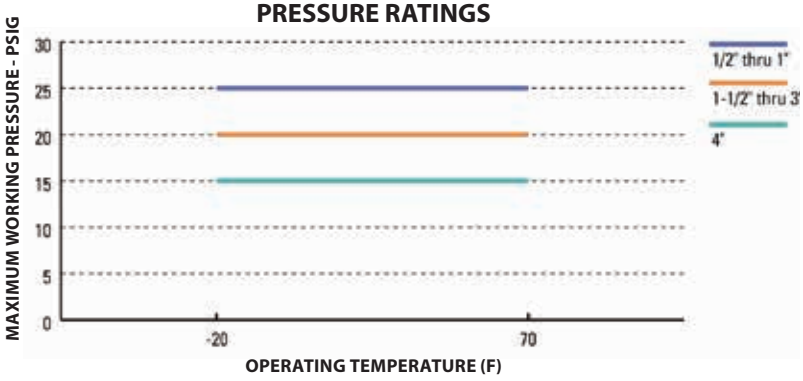
- Seamless antistatic Teflon™ PTFE tube formed in an open pitched, helical design for improved flow properties and easy cleaning
- Wide variety of crimp style fittings to select from
- Flared Thru fittings provide PTFE protection to all wetted surfaces, eliminating metal corrosion and process contamination
- Tube is crush resistant and easy to flex
- PTFE available with natural or conductive liner
- Wire wrap for reduced bend radius, allowing for even tighter bending

Applications

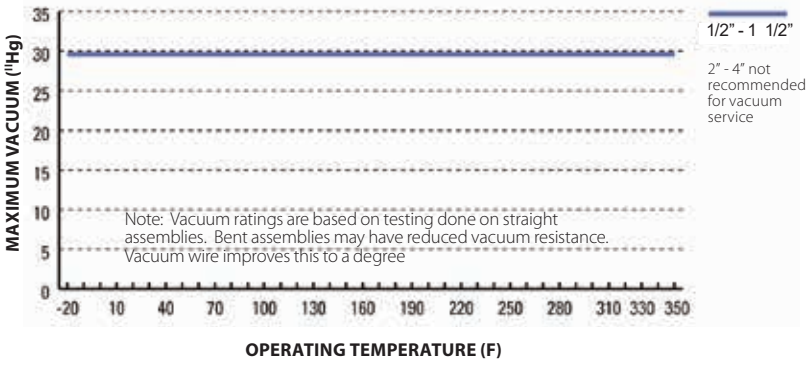
SVT is ideal for lower pressure and corrosion resistant flexible connections. It is an excellent connection to weight tanks, centrifuges and suction side of pumps, and for loading, unloading and decanting vessels and drums.

Fittings: Crimped and Flare Thru

PRESSURE RATINGS



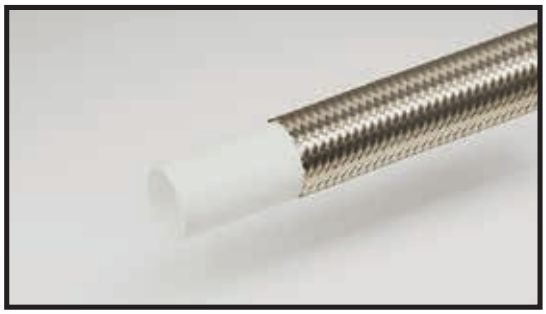
VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.510	13	0.700	17.8	0.5	12.7	25	1.7	100	6.9	.08
3/4	20	0.760	19.3	0.990	25.1	0.75	19.1	25	1.7	100	6.9	.11
1	25	1.025	26	1.280	32.5	1	25.4	25	1.7	100	6.9	.14
1-1/2	40	1.525	38.7	1.960	49.8	1.5	38.1	20	1.4	80	5.5	.40
2	50	2.025	51.4	2.390	60.7	2	50.8	20	1.4	80	5.5	.50
3	80	2.952	75	3.622	92.0	3	76.2	20	1.4	80	5.5	.94
4	100	3.937	100	4.921	125.0	4	101.6	15	1.0	60	4.1	1.47

SBT - W Smooth Bore Stainless Braided Hose

Inner core: Smooth White Teflon™ PTFE
Reinforcement: 300-series ss braid
Temperature: -20 °F to 350 °F



Construction

Extra-thick, natural smooth bore Teflon™ PTFE liner braided with 300-series stainless steel heavy gauge wire.

Benefits

- Provides higher working temperatures and full vacuum capabilities
- Heavy gauge stainless steel braid is corrosion resistant against most chemicals
- Available in long lengths
- "True ID" for superior flow characteristics and easy dimensional matchup

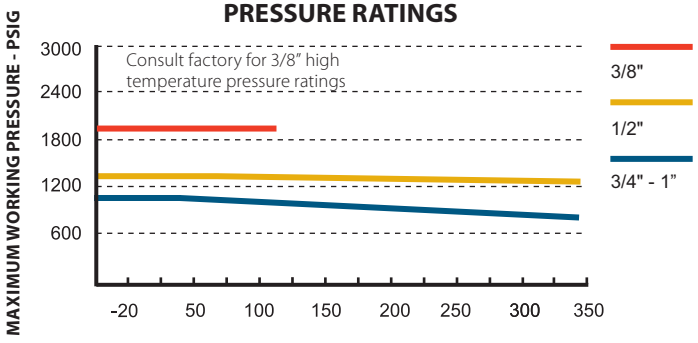
Applications

Designed for applications requiring a true smooth inner bore for improved flow. The hose is easily cleaned in place. Excellent in stationary applications where handling, flexing or abuse is minimal.

Fittings: Crimped

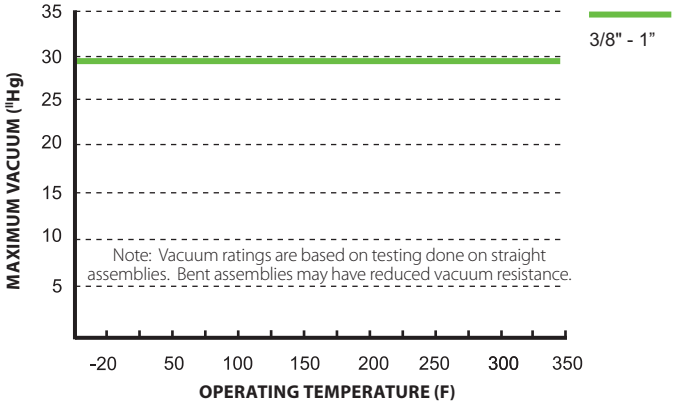
Threaded | Flanged | Cam & Groove | Sanitary | Industrial | Special

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/8	10	0.375	9.5	.515	13	5	127	2000	138	8000	552	.11
1/2	15	0.500	12.7	0.633	16.1	6.5	165.1	1425	98.2	5700	393	.16
3/4	20	0.750	19.1	0.875	22.2	8.2	208.3	1000	68.9	4000	275.8	.20
1	25	1.000	25.4	1.190	30.2	12	304.8	1000	68.9	4000	275.8	.50

SBTF - W Smooth Bore Stainless Braided Hose

Inner core: Smooth White Teflon™ PTFE
Reinforcement: 300-series ss braid
Temperature: -20 °F to 350 °F

Construction

Extra-thick, natural smooth bore Teflon™ PTFE liner braided with 300-series stainless steel heavy gauge wire (1" is double-braided for extra kink resistance).

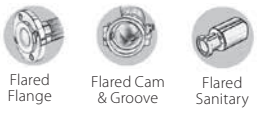
Benefits

- Provides higher working temperatures and full vacuum capabilities
- Heavy gauge stainless steel braid is corrosion resistant against most chemicals
- Flanged assemblies can be flare thru, eliminating bacteria traps
- Available in long lengths
- "True ID" for superior flow characteristics and easy dimensional matchup

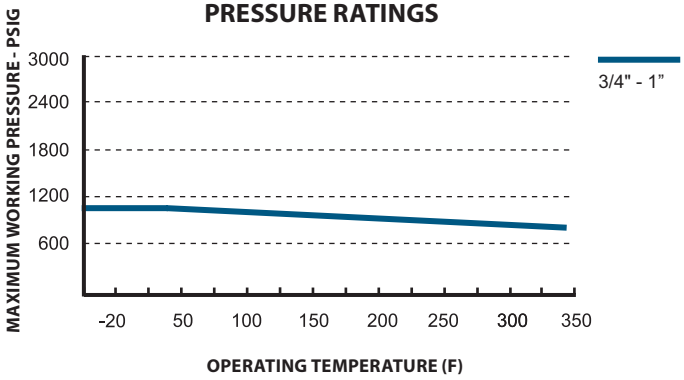
Applications

Designed for applications requiring a true smooth inner bore for improved flow and which is easily cleaned in place. Excellent in static applications where handling, flexing or abuse is minimal.

Fittings: Flare Thru

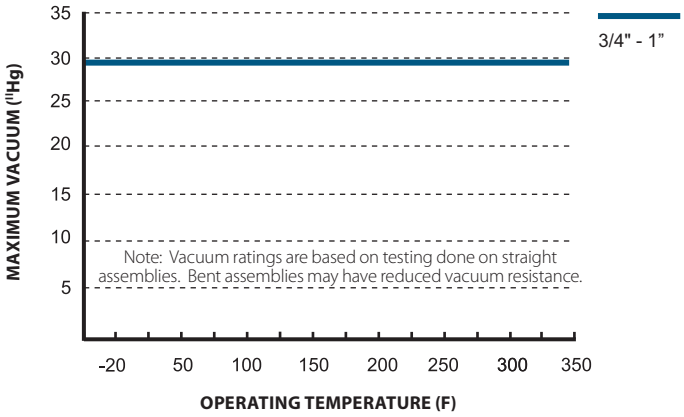


PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/4	20	0.750	19.1	0.875	22.2	8.2	208.3	1000	68.9	4000	275.8	.20
1	25	1.000	25.4	1.190	30.2	12	304.8	1000	68.9	4000	275.8	.50

SBT - B Smooth Bore Stainless Braided Hose

Inner core: Smooth Antistatic Teflon™ PTFE
Reinforcement: 300-series ss braid
Temperature: -20 °F to 350 °F

Construction

Extra-thick, smooth bore Teflon™ PTFE liner braided with 300-series stainless steel heavy gauge wire.

Benefits

- Provides higher working temperatures and full vacuum capabilities
- Heavy gauge stainless steel braid is corrosion resistant against most chemicals
- Flanged assemblies can be "Flared Thru" providing no bacteria traps
- Available in long lengths
- "True ID" for superior flow characteristics and easy dimensional matchup

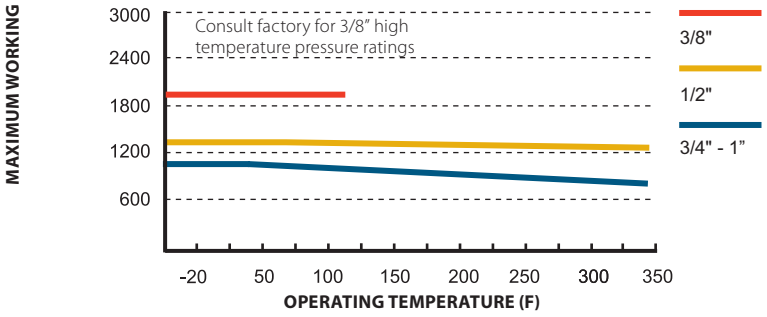
Applications

Designed for applications requiring a true smooth inner bore for improved flow and which is easily cleaned in place. Excellent in static applications where handling, flexing or abuse is minimal.

Fittings: Crimped

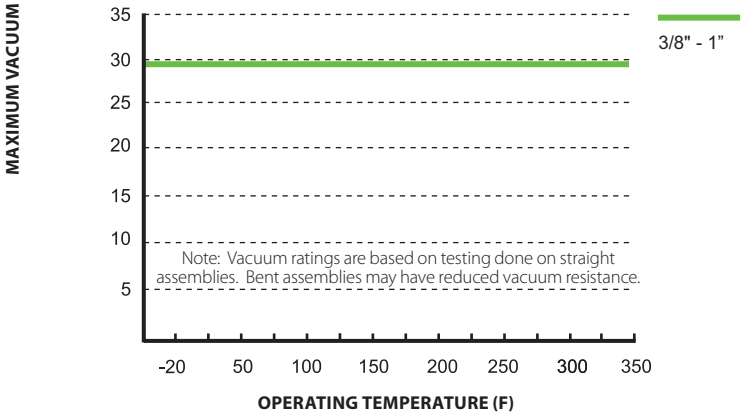
Threaded | Flanged | Cam & Groove | Sanitary | Industrial | Special

PRESSURE RATINGS



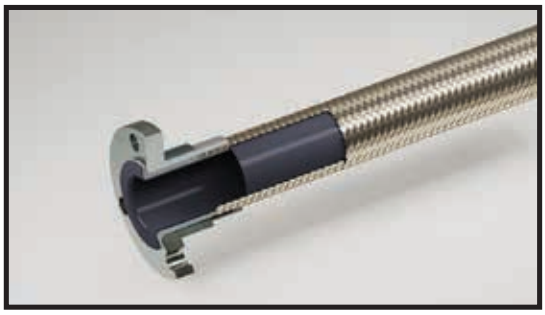
NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/8	10	0.375	9.5	.515	13	5	127	2000	138	8000	552	.11
1/2	15	0.500	12.7	0.633	16.1	6.5	165.1	1425	98.2	5700	393	.16
3/4	20	0.750	19.1	0.875	22.2	8.2	208.3	1000	68.9	4000	275.8	.20
1	25	1.000	25.4	1.190	30.2	12	304.8	1000	68.9	4000	275.8	.50

SBTF - B Smooth Bore Stainless Braided Hose



Inner core: Smooth Antistatic Teflon™ PTFE
Reinforcement: 300-series ss braid
Temperature: -20 °F to 350 °F

Construction

Extra-thick, antistatic smooth bore Teflon™ PTFE liner braided with 300-series stainless steel heavy gauge wire.

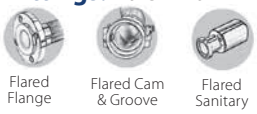
Benefits

- Provides higher working temperatures and full vacuum capabilities
- Heavy gauge stainless steel braid is corrosion resistant against most chemicals
- Flanged assemblies are flare thru, eliminating bacteria traps
- Available in long lengths
- "True ID" for superior flow characteristics and easy dimensional matchup

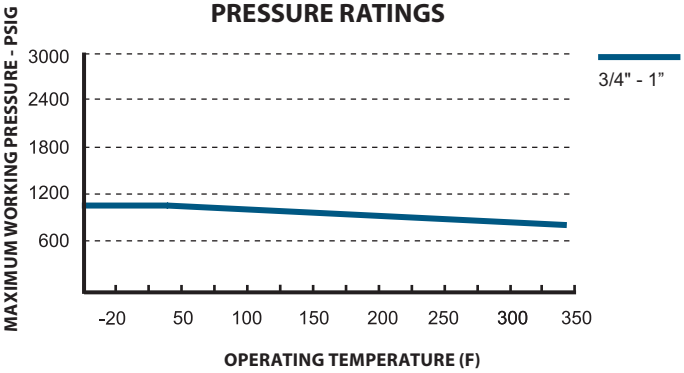
Applications

Designed for applications requiring a true smooth inner bore for improved flow and which is easily cleaned in place. Excellent in static applications where handling, flexing or abuse is minimal.

Fittings: Flare Thru

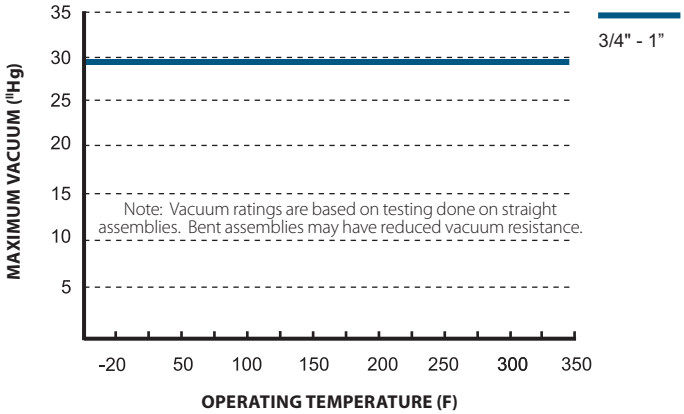


PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/4	20	0.750	19.1	0.875	22.2	8.2	208.3	1000	68.9	4000	275.8	.20
1	25	1.000	25.4	1.190	30.2	12	304.8	1000	68.9	4000	275.8	.50

TRC NXT - W Smooth Bore EPDM Rubber Covered Hose

Inner core: Smooth Bore White Teflon™ PTFE 1/2" - 4"
Reinforcement: EPDM rubber
Temperature: -20 °F to 300 °F

Construction

Smooth bore Teflon™ liner bonded to a cover reinforced with multiple nylon plycord and EPDM rubber. A double-helix high tensile strength wire embedded in the carcass provides crush, kink and vacuum resistance.

Benefits

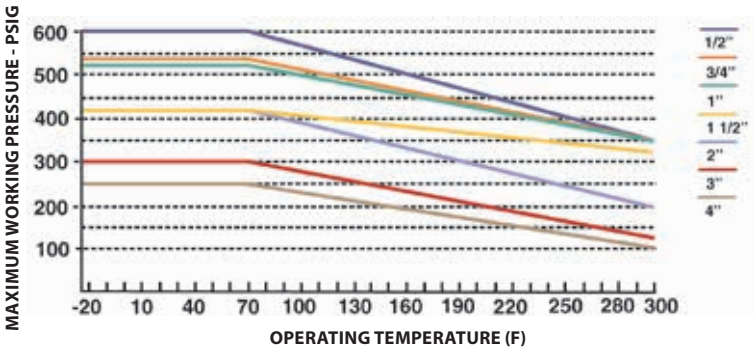
- Robust construction delivers extended service life, compared to hoses of similar construction and appearance
- Smooth, flexible Teflon™ liner for use in a wide range of applications and ease of cleaning
- Outstanding flexibility, bend-ability and bend radius
- Durable, kink-resistant EPDM reinforced design for extended life and easy handling

Applications

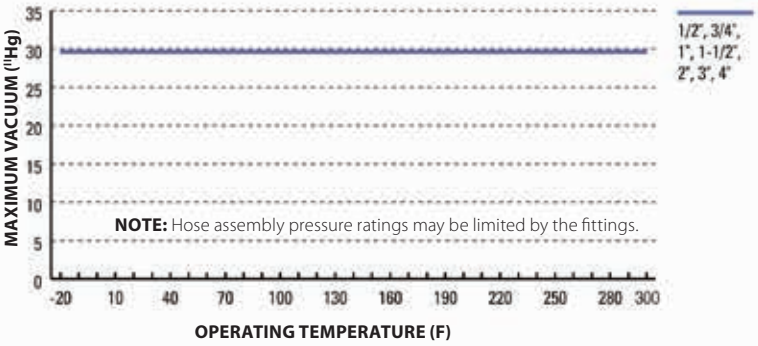
- Chemical, food, beverage, pharmaceutical and other process transfers
- Rail car and trailer loading/unloading
- Load cell applications
- Chemical cleaning and/or steam cleaning/ sterilizing applications

Fittings: Crimped

HOSE PRESSURE RATINGS



HOSE VACUUM RATINGS



NOTE: Custom colors available upon request. Consult factory.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
INCH	DN	INCH	MM	INCH	MM	INCH	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.520	13.2	1.02	25.9	1.8	44	600	41.4	2400	165.5	.46
3/4	20	0.750	19.1	1.34	34	2.5	64	550	37.9	2200	151.7	.56
1	25	0.990	25.1	1.61	40.9	3.4	86	530	36.6	2120	146.2	.79
1-1/2	40	1.490	37.8	2.17	55.1	5.5	140	430	29.7	1720	118.6	1.22
2	50	1.970	50	2.76	70.1	8.0	203	430	29.7	1720	118.6	1.84
3	80	2.950	74.9	3.812	96.8	24	711.2	300	20.7	1200	82.7	2.80
4	100	3.940	100.1	4.937	125.4	42	1066.8	250	17.2	1000	68.9	5.15

TRCF NXT - W Smooth Bore EPDM Rubber Covered Hose

Inner core: Smooth Bore White Teflon™ PTFE 3/4" - 2"
Reinforcement: EPDM rubber
Temperature: -20 °F to 300 °F

Construction

Smooth bore Teflon™ liner drawn into a cover reinforced with multiple nylon plycord and EPDM rubber. A double-helix high tensile strength wire embedded in the carcass provides crush, kink and vacuum resistance.

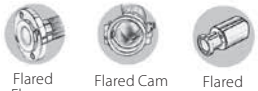
Benefits

- Robust construction delivers extended service life, especially in steam cycling situations, compared to hoses of similar construction and appearance
- Smooth, flexible Teflon™ liner for use in a wide range of applications and ease of cleaning
- Outstanding flexibility, bend-ability and bend radius
- Durable, kink-resistant EPDM reinforced design for extended life and easy handling
- Interference fit liner provides full vacuum resistance without toxic etchants or adhesives

Applications

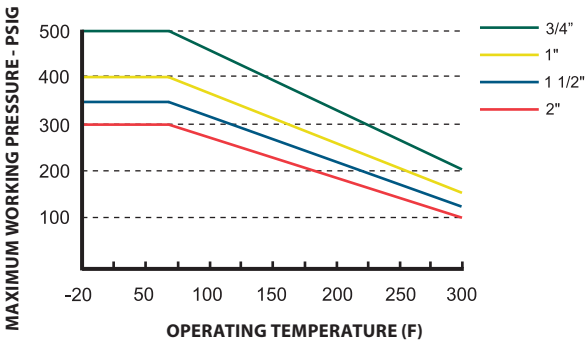
- Chemical, food, beverage, pharmaceutical and other process transfers
- Rail car and trailer loading/unloading
- Load cell applications
- Chemical cleaning and/or steam cleaning/ sterilizing applications

Fittings: Flare Thru



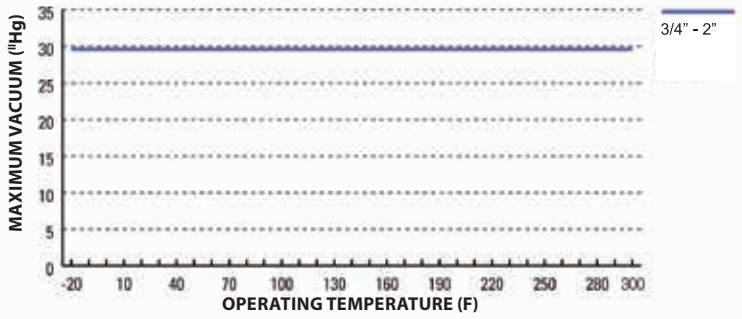
Flared Flange | Flared Cam & Groove | Flared Sanitary

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



NOTE: Custom colors available upon request. Consult factory.

Size		Hose I.D.		Hose O.D.		Min Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/4	20	0.620	15.7	1.30	33	3	76.2	500	34.5	2000	137.8	.56
1	25	0.870	22.1	1.56	39.6	4	101.6	400	27.6	1600	110.3	.79
1-1/2	40	1.370	34.8	2.05	52	12	304.8	350	24.1	1400	96.5	1.22
2	50	1.870	47.5	2.56	65	12	304.8	300	20.7	1200	82.8	1.84

TRC NXT - B Smooth Bore EPDM Rubber Covered Hose

Inner core: Smooth Bore Antistatic Teflon™ PTFE 1/2" - 4"
Reinforcement: EPDM rubber
Temperature: -20 °F to 300 °F

Construction

Smooth bore antistatic Teflon™ liner bonded to a cover reinforced with multiple nylon plycord and EPDM rubber. A double-helix high tensile strength wire embedded in the carcass provides crush, kink and vacuum resistance.

Benefits

- Robust construction delivers extended service life, especially in steam cycling situations, compared to hoses of similar construction and appearance
- Smooth, flexible Teflon™ liner for use in a wide range of applications and ease of cleaning
- Outstanding flexibility, bend-ability and bend radius
- Durable, kink-resistant EPDM reinforced design for extended life and easy handling

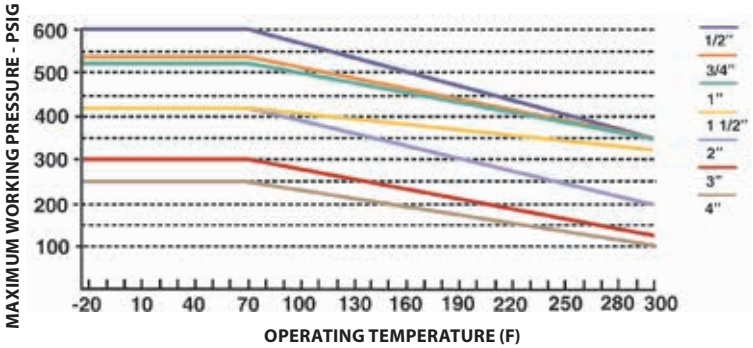
Applications

- Chemical, food, beverage, pharmaceutical and other process transfers
- Rail car and trailer loading/unloading
- Load cell applications
- Chemical cleaning and/or steam cleaning/ sterilizing applications

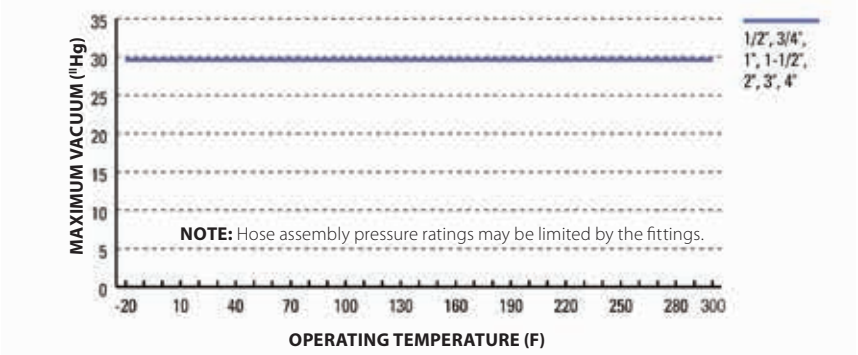
Fittings: Crimped

Industrial | Flanged | Cam & Groove | Special | Sanitary | Threaded

HOSE PRESSURE RATINGS



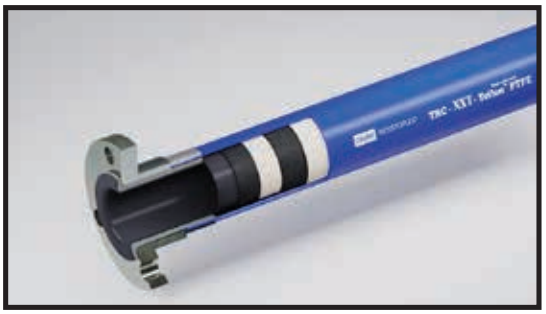
HOSE VACUUM RATINGS



NOTE: Custom colors available upon request. Consult factory.

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
INCH	DN	INCH	MM	INCH	MM	INCH	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.52	13.2	1.02	25.9	1.8	44	600	41.4	2400	165.5	.46
3/4	20	0.78	19.8	1.34	34	2.5	64	550	37.9	2200	151.7	.56
1	25	0.99	25.1	1.61	40.9	3.4	86	530	36.6	2120	146.2	.79
1-1/2	40	1.49	37.8	2.17	55.1	5.5	140	430	29.7	1720	118.6	1.22
2	50	1.99	50.5	2.76	70.1	8.0	203	430	29.7	1720	118.6	1.84
3	80	3.015	76.6	3.812	96.8	24	711.2	300	20.7	1200	82.7	2.80
4	100	4.010	101.9	4.937	125.4	42	1066.8	250	17.2	1000	68.9	5.15

TRCF NXT - B Smooth Bore EPDM Rubber Covered Hose



Inner core: Smooth Bore Antistatic Teflon™ PTFE 3/4" - 2"
Reinforcement: EPDM rubber
Temperature: -20 °F to 300 °F

Construction

Smooth bore Teflon™ liner drawn into a cover reinforced with multiple nylon plycord and EPDM rubber. A double-helix high tensile strength wire embedded in the carcass provides crush, kink and vacuum resistance.

Benefits

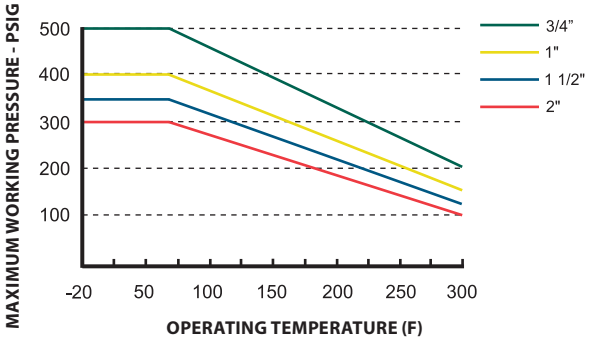
- Robust construction delivers extended service life, especially in steam cycling situations, compared to hoses of similar construction and appearance
- Smooth, flexible Teflon™ liner for use in a wide range of applications and ease of cleaning
- Outstanding flexibility, bend-ability and bend radius
- Durable, kink-resistant EPDM reinforced design for extended life and easy handling
- Interference fit liner provides full vacuum resistance without toxic etchants or adhesives

Applications

- Chemical, food, beverage, pharmaceutical and other process transfers
- Rail car and trailer loading/unloading
- Load cell applications
- Chemical cleaning and/or steam cleaning/ sterilizing applications

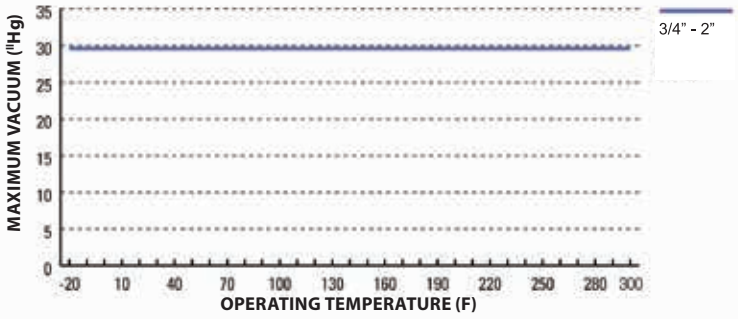
Fittings: Flare Thru

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



NOTE: Custom colors available upon request. Consult factory.

Size		Hose I.D.		Hose O.D.		Min Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
3/4	20	0.620	15.7	1.30	33	3	76.2	500	34.5	2000	137.8	.56
1	25	0.870	22.1	1.56	39.6	4	101.6	400	27.6	1600	110.3	.79
1-1/2	40	1.370	34.8	2.05	52	12	304.8	350	24.1	1400	96.5	1.22
2	50	1.870	47.5	2.56	65	12	304.8	300	20.7	1200	82.8	1.84

TMH 316 SS - W Smooth Bore Chemical Transfer Hose

Inner Core: Smooth Teflon™ PTFE
Reinforcement: 316 SS metal hose w/ 304 SS wire braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
- Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative.

Fittings: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

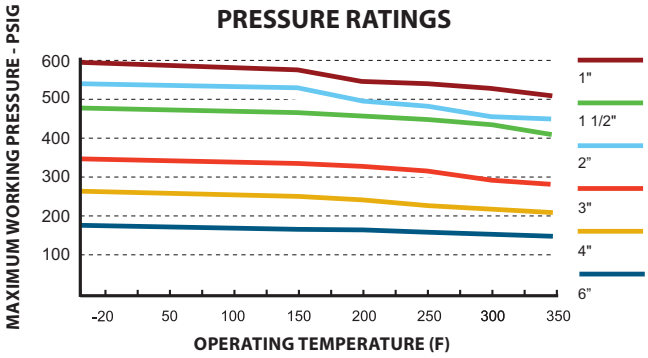
Not all end fittings available for all hose diameters – consult factory

Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

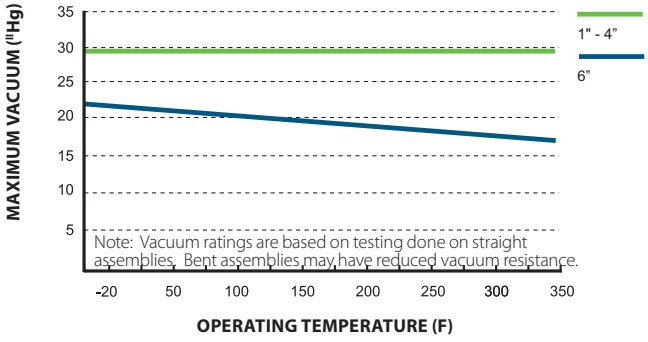
Contact factory for details.

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14
6	150	5.688	144.5	7.160	181.9	65	1651.0	180	12.4	39.94	6.74	10

TMH MONEL® - W Smooth Bore Chemical Transfer Hose

Inner Core: Smooth Teflon™ PTFE
Reinforcement: MONEL® metal hose with MONEL® wire braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
  - o Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative. TMH-MONEL® is designed for services where both internal and external corrosion are a concern, and where applications place stainless steel at risk for stress cracking.

Fittings: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

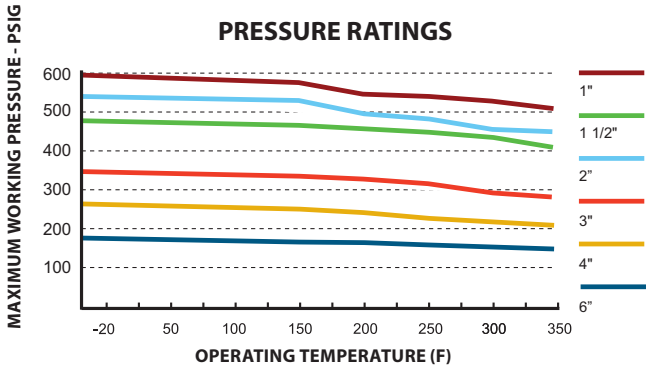
Not all end fittings available for all hose diameters – consult factory

Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

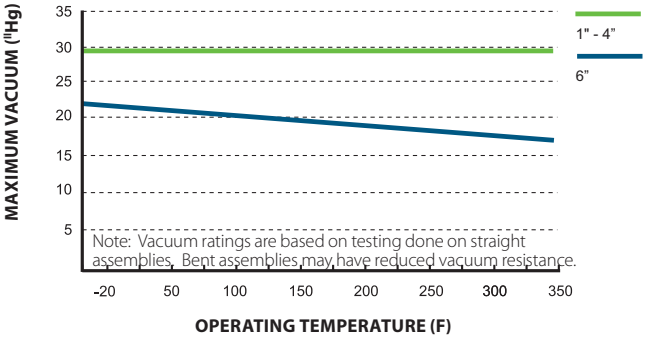
Contact factory for details.

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20'
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20'
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20'
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15'
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14'
6	150	5.688	144.5	7.160	181.9	65	1651.0	180	12.4	39.94	6.74	10'

MONEL® is a trademark of the Special Metals Corporation group of companies.

Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

TMH HASTELLOY® - W Smooth Bore Chemical Transfer Hose

Inner Core: Smooth Teflon™ PTFE
Reinforcement: HASTELLOY® hose with HASTELLOY® braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
- Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative.

Fittings: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

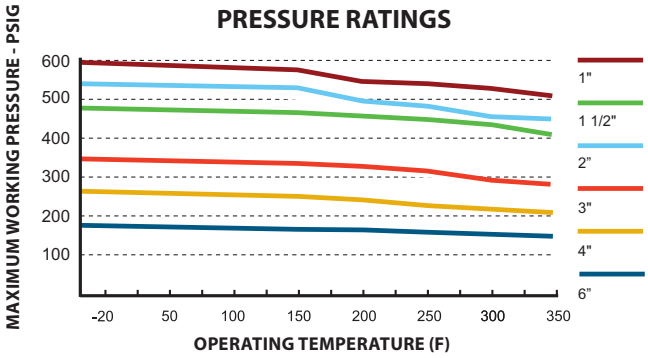
Not all end fittings available for all hose diameters – consult factory

Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

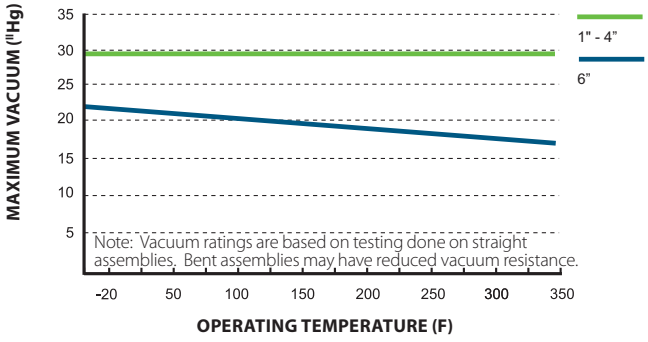
Contact factory for details.

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14

HASTELLOY® is a registered trademark of Haynes International.

TMH 316 SS - B Smooth Bore Chemical Transfer Hose

Inner Core: Smooth antistatic Teflon™ PTFE
Reinforcement: 316 SS metal hose w/ 304 SS wire braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, antistatic heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
- Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative.

Fittings: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

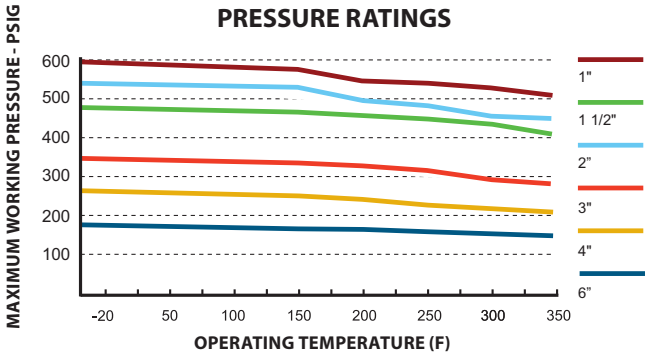
Not all end fittings available for all hose diameters – consult factory

Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

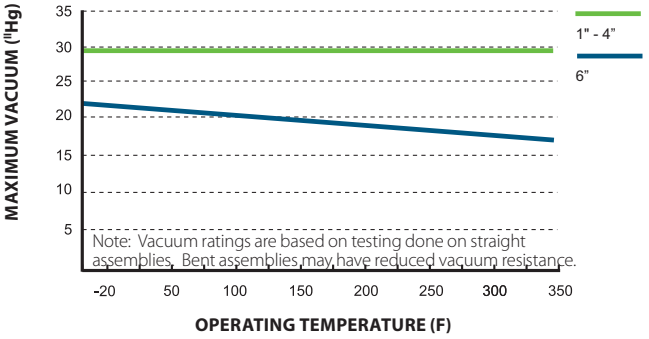
Contact factory for details.

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14
6	150	5.688	144.5	7.160	181.9	65	1651.0	180	12.4	39.94	6.74	10

TMH MONEL® - B Smooth Bore Chemical Transfer Hose

Inner Core: Smooth antistatic Teflon™ PTFE
Reinforcement: MONEL® metal hose with MONEL® wire braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, antistatic heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
  - o Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative. TMH-MONEL® is designed for services where both internal and external corrosion are a concern, and where applications place stainless steel at risk for stress cracking.

Fittings: Flare Thru


Flared Flange


Flared Cam & Groove

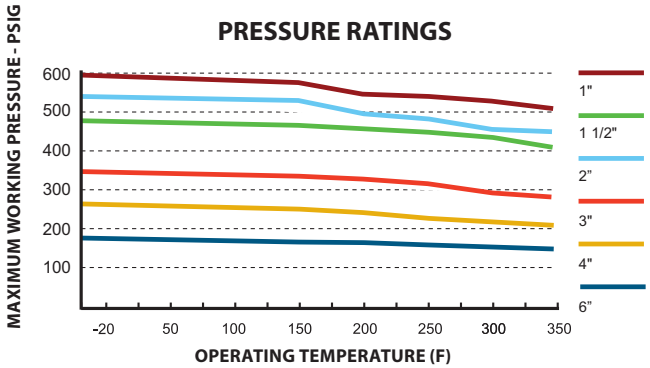

Flared Sanitary

Not all end fittings available for all hose diameters – consult factory

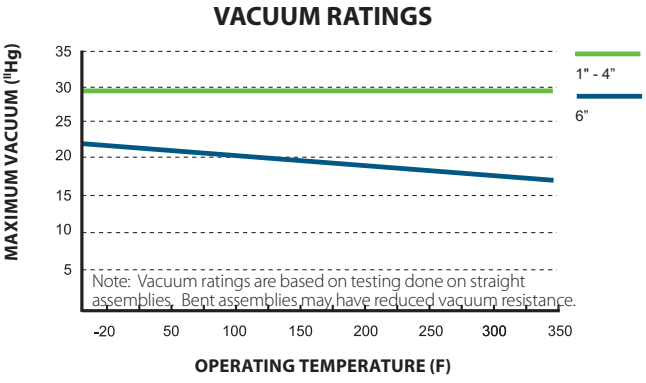
Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

Contact factory for details.



NOTE: Hose assembly pressure ratings may be limited by the fittings.



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20'
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20'
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20'
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15'
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14'
6	150	5.688	144.5	7.160	181.9	65	1651.0	180	12.4	39.94	6.74	10'

MONEL® is a trademark of the Special Metals Corporation group of companies.

Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

TMH HASTELLOY® - B Smooth Bore Chemical Transfer Hose

Inner Core: Smooth antistatic Teflon™ PTFE
Reinforcement: HASTELLOY® hose with HASTELLOY® braid
Temperature: -20 °F to 350 °F

Construction

A rugged yet flexible metal carcass with a smooth, antistatic heavy wall Teflon™ PTFE liner. The assembly is manufactured using our exclusive flare through Thermalok™ process that extends the PTFE over the sealing face, creating a corrosion barrier throughout the assembly, maximizing vacuum resistance and service life.

Benefits

- Maximum protection from premature failure and environmental release
- Teflon™ PTFE inner core provides outstanding resistance to corrosion at elevated temperatures and nearly universal material compatability
- Flare Thru design eliminates metal corrosion and process contamination
- Vent system for Teflon™ per ASTM F1545 Lined Steel Pipe prevents pressure buildup on outside of liner and extends service life
- Optional vent coupling to vent away from insulation and capture gases for containment from atmosphere
- Available in diameters up to 6"

Applications

Designed for severe service applications where media containment and leak prevention is imperative.

Fittings: Flare Thru

Flared Flange | Flared Cam & Groove | Flared Sanitary

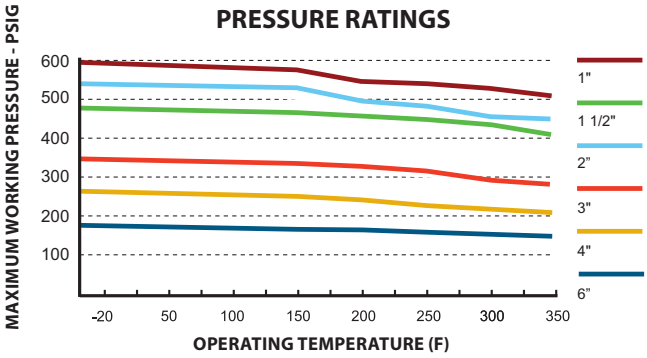
Not all end fittings available for all hose diameters – consult factory

Auxiliary flanges can be added for flanged end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly

External Protective Accessories

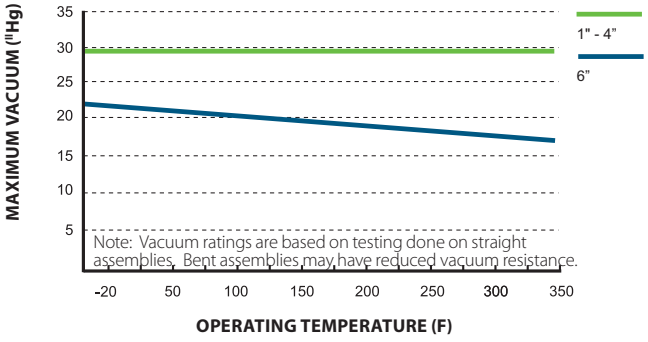
Contact factory for details.

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Burst Pressure = 4x Max. Working Pressure at 70F (21 C)

Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Weight 1ft Flanged Assembly	Weight per adtl. Ft.	Maximum Length (Ft.)
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR			
1	25	0.875	22.2	1.590	40.4	12	304.8	590	40.7	3.53	1.03	20
1-1/2	40	1.375	34.9	2.270	57.7	15	381.0	475	32.8	5.79	1.96	20
2	50	1.875	47.6	2.910	73.9	21	533.4	530	36.5	9.49	2.67	20
3	80	2.797	71.0	3.690	93.7	28	711.2	335	23.1	14.44	2.64	15
4	100	3.766	95.7	4.840	122.9	46	1168.4	240	16.5	21.57	3.17	14

HASTELLOY® is a registered trademark of Haynes International.

TR – W Truck-Rail Teflon™ Smooth Bore Transfer Hose

Inner core: Smooth Teflon™ PTFE
Reinforcement: SBR and Neoprene
Temperature Range: -20 °F - 300 °F

Construction

Heavy wall smooth bore Teflon™ PTFE tube reinforced with multiple plies of fabric supported styrene-butadine rubber (SBR), embedded spring steel helix wire and a Neoprene cover.

Benefits

- Heavy duty construction designed for durability in applications where hoses are frequently mishandled
- Molded integral end fitting reinforcement eliminates possibility of end fitting detachment
- PTFE Flared Thru design eliminates metal corrosion and process contamination

Applications

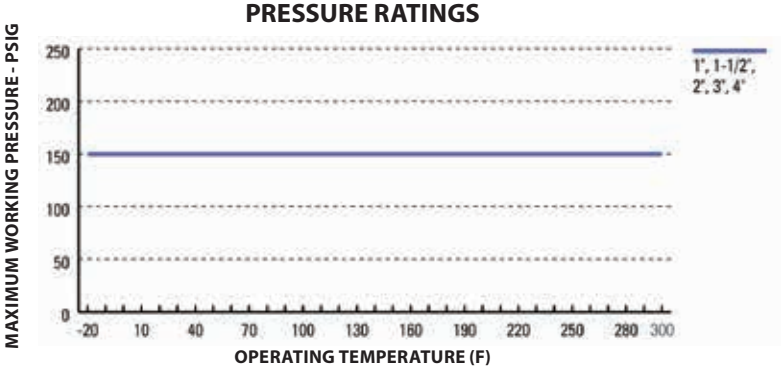
Used where a flanged flexible connection is required to transfer corrosive and/or hazardous media. Smooth inner liner provides uninterrupted laminar flow. Construction provides maximum protection available in a fluoropolymer hose assembly from unintentional disconnection and mechanical failure.

Fittings: Flare Thru

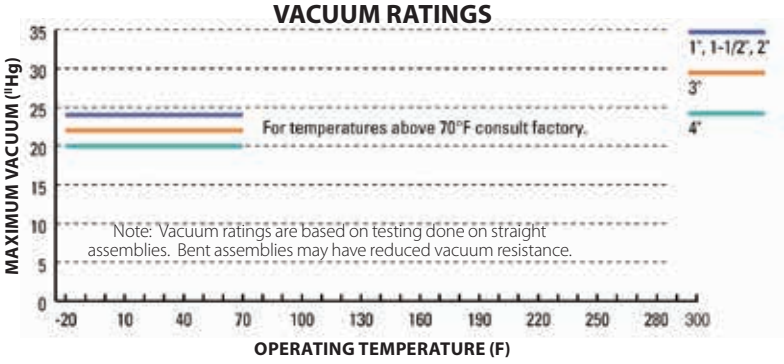
Flared

Auxiliary flanges can be added for flared end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly.

PRESSURE RATINGS



VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Maximum Length
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1	25	0.875	22.2	1.625	41.3	18	457.2	150	10.3	600	41.4	20'
1-1/2	40	1.375	34.9	2.188	55.6	18	457.2	150	10.3	600	41.4	20'
2	50	1.875	47.6	2.813	71.5	24	609.6	150	10.3	600	41.4	20'
3	80	2.813	71.5	3.813	96.9	30	762.0	150	10.3	600	41.4	15'
4	100	3.813	96.9	4.938	125.4	36	914.4	150	10.3	600	41.4	14'

TR – B Truck-Rail Teflon™ Smooth Bore Transfer Hose

Inner core: Smooth Antistatic Teflon™ PTFE
Reinforcement: SBR and Neoprene
Temperature Range: -20 °F - 300 °F

Construction

Heavy wall antistatic smooth bore Teflon™ PTFE tube reinforced with multiple plies of fabric supported styrene-butadine rubber (SBR), embedded spring steel helix wire and a Neoprene cover.

Benefits

- Heavy duty construction designed for durability in applications where hoses are frequently mishandled
- Molded integral end fitting reinforcement eliminates possibility of end fitting detachment
- PTFE Flared Thru design eliminates metal corrosion and process contamination

Applications

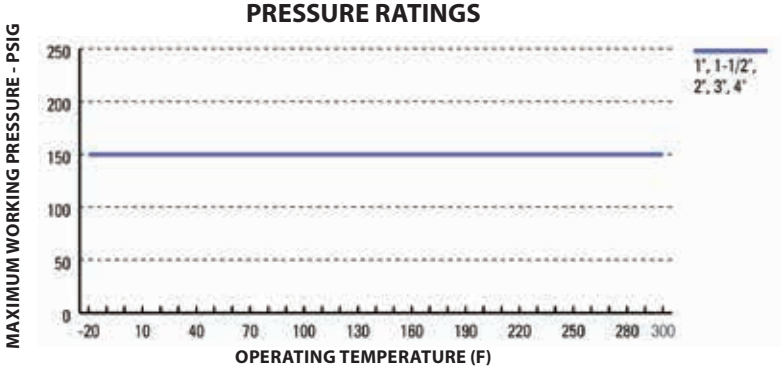
Used where a flanged flexible connection is required to transfer corrosive and/or hazardous media. Smooth inner liner provides uninterrupted laminar flow. Construction provides maximum protection available in a fluoropolymer hose assembly from unintentional disconnection and mechanical failure.

Fittings: Flare Thru

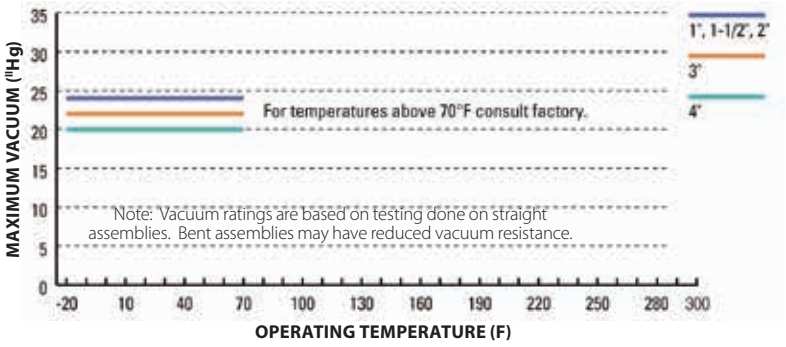
Flared

Auxiliary flanges can be added for flared end protection and easy replacement when ends are damaged, thus eliminating the need to replace the complete assembly.

PRESSURE RATINGS



VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Maximum Length
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1	25	0.875	22.2	1.625	41.3	18	457.2	150	10.3	600	41.4	20'
1-1/2	40	1.375	34.9	2.188	55.6	18	457.2	150	10.3	600	41.4	20'
2	50	1.875	47.6	2.813	71.5	24	609.6	150	10.3	600	41.4	20'
3	80	2.813	71.5	3.813	96.9	30	762.0	150	10.3	600	41.4	15'
4	100	3.813	96.9	4.938	125.4	36	914.4	150	10.3	600	41.4	14'

Si-W NXT Fabric-Reinforced Silicone Hose

- Low Volatile Grade Platinum-Cured Silicone
- Multi-Ply Polyester Fabric Reinforcement
- High Pressure
- Non-Vacuum Rated

Benefits

- Suitable for pharmaceutical, biomedical, cosmetic and food applications
- -50 °F – 280 °F temperature range
- Sterilizable/Autoclavable
- Documented lot traceable
- Available in custom lengths (up to 130 feet) and color coding

Approvals

- USP Class VI

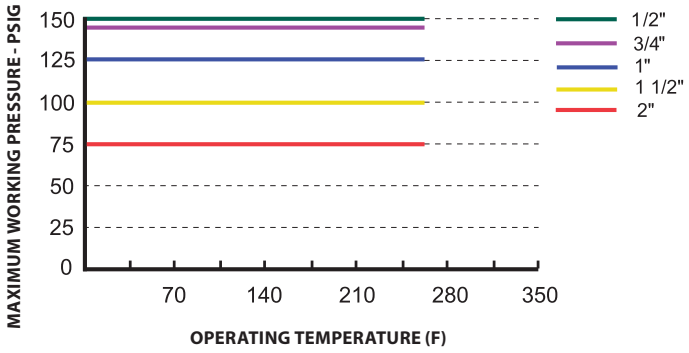
Meets or Exceeds:

- FDA CFR 177.2600
- USDA and 3A Standards
- ISO 10993
- European Pharmacopoeia 3.1.9

Fittings

Sanitary | Industrial | Flanged | Cam & Groove | Special

PRESSURE RATINGS



NOTE: For assemblies, pressure ratings of fittings may be less than for the hose.

Nominal I.D.		Wall Thickness		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Approximate Weight	
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	LBS./FT.	KG/M
1/2	15	0.236	6	1.040	26.4	3	76.2	150	10.3	600	41.4	.30	.45
3/4	20	0.234	5.9	1.250	31.8	5	127	140	9.7	560	38.6	.39	.58
1	25	0.249	6.3	1.462	37.1	9	228.6	125	8.6	500	34.5	.43	.60
1-1/2	40	0.250	6.4	1.990	50.5	12	304.8	100	6.9	400	27.6	.72	1.07
2	50	0.228	5.8	2.432	61.8	30	762	75	5.2	300	20.7	1.08	1.61

Si-V NXT Wire-Reinforced Silicone Hose

- Low Volatile Grade Platinum-Cured Silicone
- 4-Ply Polyester Braid, SS Wire Reinforced
- Rated for Full Vacuum

Benefits

- Suitable for pharmaceutical, biomedical, cosmetic and food applications
- -50 °F – 280 °F temperature range
- Rated for full vacuum to 300°F
- Sterilizable/Autoclavable
- Documented lot traceable
- Available in custom lengths (up to 130 feet) and color coding
- Factory assembly and packaging in a Class 10,000 clean room as standard

Approvals

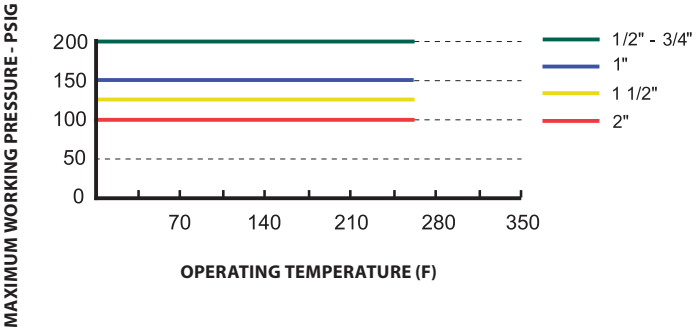
- USP Class VI
- USP MEM Elution <87> on all parts

Meets or Exceeds:

- FDA CFR 177.2600
- USDA and 3A Standards
- ISO 10993
- European Pharmacopoeia 3.1.9

Fittings

PRESSURE RATINGS



NOTE: For assemblies, pressure ratings of fittings may be less than for the hose.

Nominal I.D.		Wall Thickness		Hose O.D.		Min. Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Vacuum Rating at 300°F (149°C)		Approximate Weight	
Inch	MM	Inch	MM	Inch	MM	Inch	MM	PSIG	Bar	PSIG	Bar	Inches Hg	Bar (a)	LBS./FT.	KG/M
1/2	15	0.221	5.6	0.974	24.7	2.00	50.8	200	13.8	800	55.2	29.9	0	.30	.45
3/4	20	0.233	5.9	1.224	31.1	2.50	63.5	200	13.8	800	55.2	29.9	0	.39	.58
1	25	0.208	5.3	1.450	36.8	3.50	88.9	150	10.3	600	41.4	29.9	0	.43	.60
1-1/2	40	0.260	6.6	2.030	51.6	4.00	101.6	125	8.6	500	34.5	29.9	0	.72	1.07
2	50	0.256	6.5	2.520	64	6.00	152.4	100	6.9	400	27.6	29.9	0	1.08	1.61

NOTE: 1 1/4", 2 1/2", 3", and 4" sizes available - Consult factory

CTHK - Teflon™ Convoluted Bore Chlorine Hose

Inner core: "Seamless" antistatic convoluted Teflon™ PTFE
Reinforcement: *KYNAR®* PVDF double braid
Temperature: -40 °F to 275 °F
External Protection: HDPE plastic spiral guard

Construction

Extra-thick, "seamless" helical convoluted Teflon™ PTFE liner double braided with KYNAR® PVDF, and HDPE spiral guard as a protective cover (per the Chlorine Institute pamphlet 6 guidelines.)

Benefits

- Fully complies with the guidelines of The Chlorine Institute Pamphlet 6, Appendix A for Chlorine Transfer Hose
- Open pitched, helical convolutions for easy cleaning
- Rated for full vacuum
- Designed to handle the rigors of everyday handling at chlorine transfer stations
- Tighter bend radii than smooth bore alternatives

Applications

For use with Chlorine/Bromine transfers from shipping containers to stationary equipment (rail, truck, and cylinder) and cylinder filling stations.

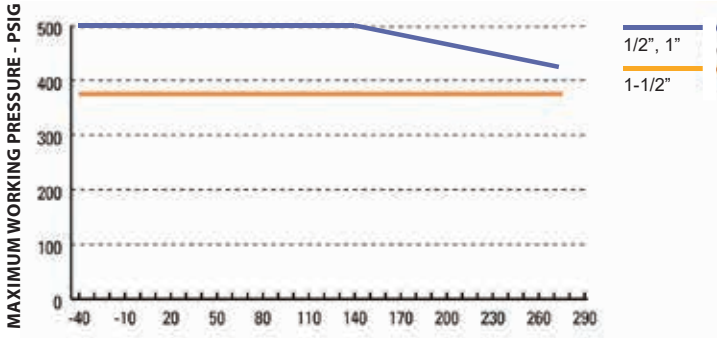
Fittings: Monel® Crimp Style

Hastelloy® also available. Consult factory.


Threaded

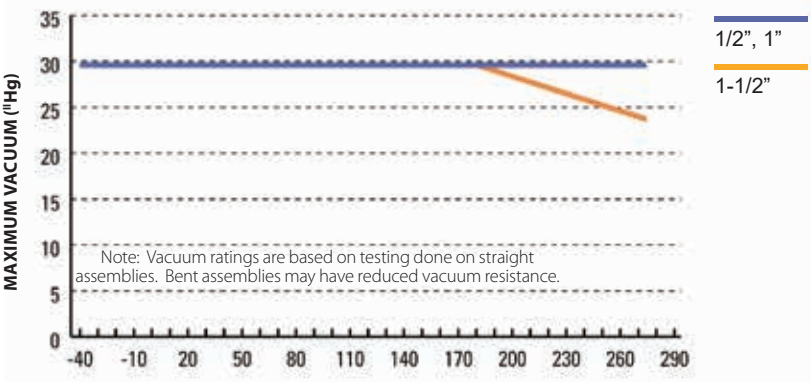

Flanged (300 lb.)

PRESSURE RATINGS



NOTE: Hose assembly pressure ratings may be limited by the fittings.

VACUUM RATINGS



Nominal Size		Hose ID		Hose OD		Bend Radius		Max. Working Pressure at 70°F (21°C)		Burst Pressure at 70°F (21°C)		Weight Lbs / Ft
Inch	DN	Inch	MM	Inch	MM	Inch	MM	PSIG	BAR	PSIG	BAR	
1/2	15	0.470	11.9	0.748	19.0	2	50.8	500	34.5	2500	172.4	.15
1	25	0.970	24.6	1.354	34.4	4	101.6	500	34.5	2500	172.4	.33
1-1/2	40	1.540	39.1	2.034	51.7	6	152.4	375	25.9	1875	129.3	.60

Hose Size: K B

1/2"	08
1"	16
1-1/2"	24

Fitting Type	Fitting #
MNPT Monel	1 0 M 0
MNPT Hastelloy	1 0 H 0
Monel/Monel Flg	3 0 M R
Monel/Hast Flg	3 0 M H
Monel/CS Flg	3 0 M B
Hast/CS Flg	3 0 H B

Fitting #1 | Fitting #2 | Assembly Length (Whole Inches, 1/8")

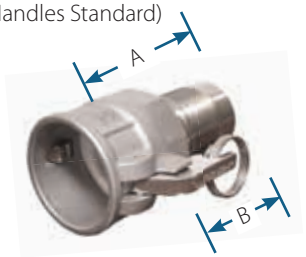
Example:
Hose Length = 12-1/2"
Length Code = 00124

Accessory Code: E

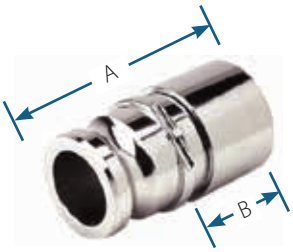
HDPE Spiral Guard: E
See our Accessories section for more options

Cam & Groove

Stainless Steel Cam & Groove
(Locking Handles Standard)



Female Cam & Groove
Style # 78



Male Cam & Groove
Style # 70

Female Cam & Groove		
Size	**A**	**B**
1/2"	2.906	1.618
3/4"	2.906	1.618
1"	3.008	1.718
1-1/2"	3.225	1.967
2"	3.538	2.250
3"	5.300	3.100
4"	6.810	3.630

Male Cam & Groove		
Size	**A**	**B**
1/2"	3.306	1.618
3/4"	3.306	1.618
1"	3.518	1.718
1-1/2"	4.217	1.967
2"	4.950	2.250
3"	5.775	3.400
4"	7.000	3.625

Teflon™ PFA Encapsulated Cam & Groove (Conductive liner available)

Female Encapsulated
Style # 78 E or 78 A

Male Encapsulated
Style # 70 E or 70 A

Size	C-ID
3/4"	.485
1"	.550
1-1/2"	.935
2"	1.44

Flange X Cam Adapter PFA Encapsulated

Sizes available: 3/4" through 3", rotating flanges in a variety of materials.

Available Flange X Male Cam and Flange X Female Cam.

Consult factory for information.

Cam & Groove

Female/Male Cam Insert

Standard insert: Solid metal or plastic

Teflon™ PFA encapsulated: Injection molded high purity PFA Teflon™ over entire hose shank and throughout wetted areas of fitting

Teflon™ PTFE Flared Thru: Hose liner extends throughout the insert and is flared over the face under the cam gasket on the female cam only

Commonly Selected Insert Material

316 Stainless Steel
Teflon™ PFA Encapsulated

Rotating Female Cam Body

316 SS is standard. Custom materials are available. Female cams are available with standard or locking handle systems.

Female Cam Body Options

316 Stainless Steel

Flanged (Rotating)

Rotating Flanges

Class 150 and Class 300

- **Commonly Selected Retainer Choices**
  316 Stainless Steel
  Teflon™ Encapsulated
  Flared Thru
  Monel®
  Hastelloy®
  and more

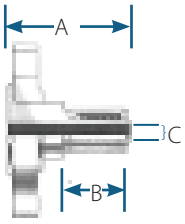
- **Flange Option: Class 150 and Class 300**

Ductile Iron

Stainless

Plastic

Epoxy Coated Carbon Steel



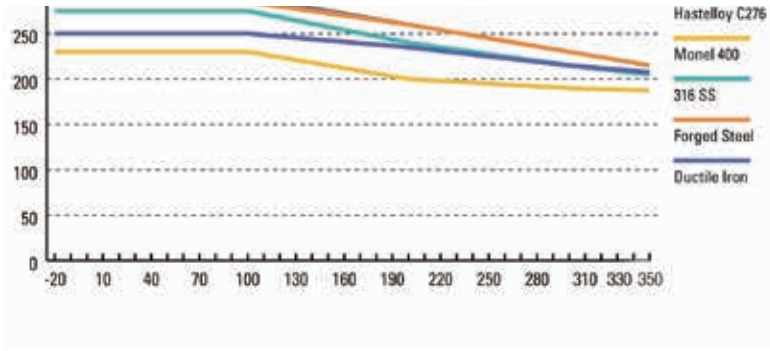
Flange & Retainer				
Size	**A**	**B**	**C**	**C Encapsulated Retainer**
1/2"	3.066	1.618	.38	N/A
3/4"	3.186	1.618	.42	.485
1"	3.346	1.718	.99	.550
1-1/2"	3.725	1.967	1.28	.435
2"	4.128	2.250	1.75	1.44
3"	5.618	3.400	3.07	N/A
4"	6.218	3.625	4.03	

Standard retainer
Style # 30

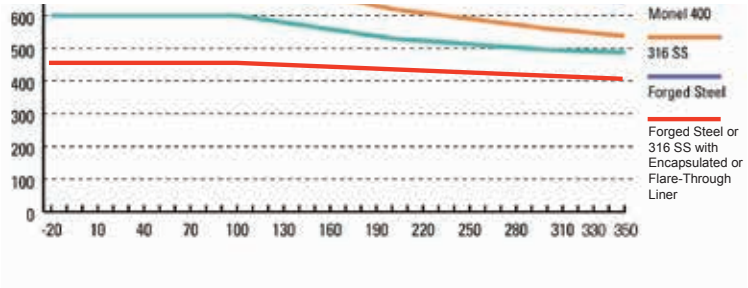
Teflon™ PFA encapsulated:
Style # 30 E or 30 A
Injection molded Teflon™ PFA over entire hose shank and throughout wetted areas of fitting

Teflon™ PTFE Flared Thru:
Style # 35
Hose liner extends through the retainer and is flared over the face

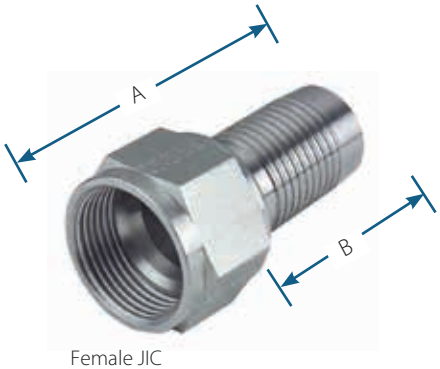
CLASS 150 FLANGE PRESSURE RATINGS



CLASS 300 FLANGE PRESSURE RATINGS

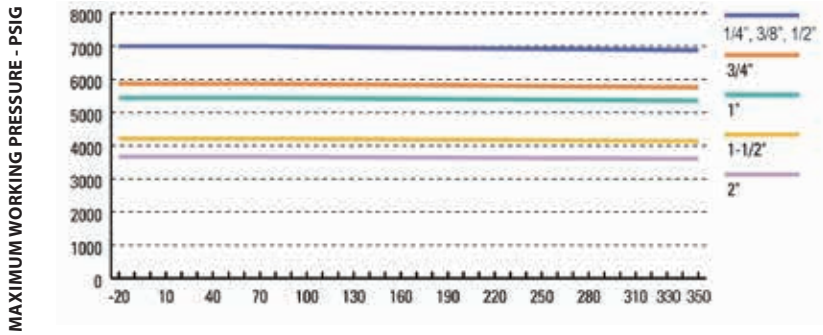


Female JIC & Male/Female NPT



Female JIC
Style # 15

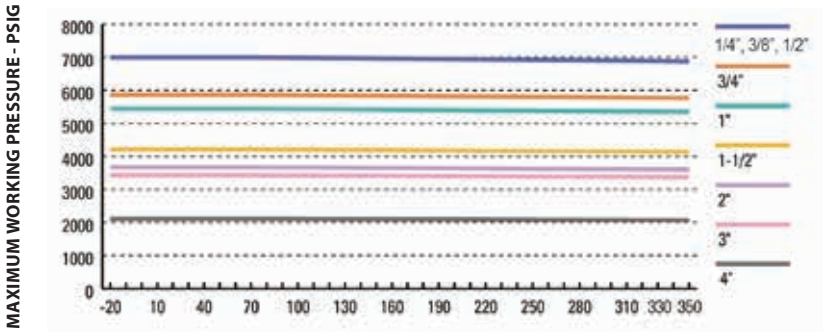
FEMALE JIC STAINLESS FITTINGS
PRESSURE RATINGS



Female NPT
Style # 11

Male NPT
Style # 10

316 SS MALE AND FEMALE NPT FITTINGS
PRESSURE RATINGS



Female JIC

- Joint Industrial Conference SAEEJ514 specifications
- 37 (degree symbol) JIC metal-to-metal sealing
- Available on ¼" through 2" hose assemblies
- Wide range of adaptors available

Male & Female NPT

- NPT – American National Standard
- Also available with British Standard Pipe Taper (BSPT), Japanese Industrial Standard (JIS) and metric threads

Female JIC		
Size	**A**	**B**
1/2"	2.162	1.618
3/4"	2.197	1.618
1"	2.353	1.718
1-1/2"	2.774	1.967
2"	3.403	2.250

Female NPT		
Size	**A**	**B**
1/2"	2.868	1.618
3/4"	2.868	1.618
1"	3.075	1.718
1-1/2"	3.440	1.967
2"	4.083	2.250
3"	7.199	3.400
4"	7.700	3.625

Male NPT		
Size	**A**	**B**
1/2"	2.921	1.618
3/4"	3.000	1.618
1"	3.270	1.718
1-1/2"	3.582	1.967
2"	3.937	2.250
3"	5.861	3.400
4"	7.000	3.625

Hygienic Clamp and Mini Sanitary Fitting

Hygienic Clamp

Surface finishes meet or exceed FDA, USDA, and 3A standards. 25 Ra to custom electropolishing available

Standard Step Size Fittings

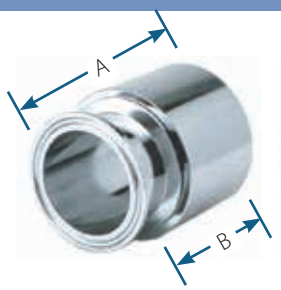
Hose Tube Diameter	Connection Tube Diameter				
	1/2"	3/4"	1"*	1 1/2"	2"
1/2"		X	X	X	
3/4"			X	X	
1"*				X	X
1 1/2"					X

* ASME BPE Type B, for Type A Consult Factory

Consult factory for step sizes and other size clamp fittings not shown herein.

Commonly Selected Material

316 Stainless Steel
Teflon™ PFA Encapsulated
KYNAR®

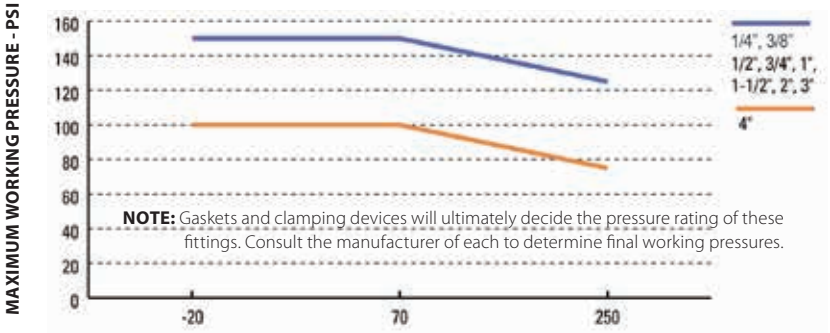


Hygienic Clamp
Style # 50 or 54

Teflon™ PFA Encapsulated
Style # 50 E

Mini Sanitary
Style # 55 or 56

HYGIENIC CLAMP AND MINI SANITARY FITTING PRESSURE RATINGS



OPERATING TEMPERATURE (F)

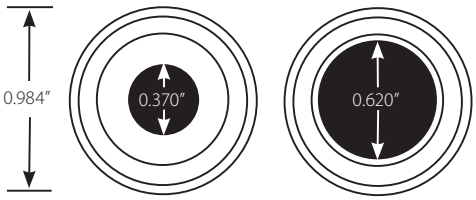
Resistoflex hygienic clamp fittings are per ASME BPE Standard.

The Bioprocessing Equipment (BPE) 2005 edition created an industry standard for clamp dimensions and tolerances, defining two types of fittings, Type A and Type B. Type A is designated for all controlled-compression type fittings; Type B for all free-compression fittings. The 2009 edition recognizes both Types A & B in the 1" Nominal Size Clamp Ferrule, creating a situation where both would be acceptable to meet the current standard. We offer the following diagrams to help minimize confusion when selecting these fitting styles.

Sanitary Tri-Clamp®		
Size	**A**	**B**
1"	2.694	1.718
1-1/2"	3.041	1.967
2"	3.328	2.250
3"	5.094	3.400
4"	4.625	3.625

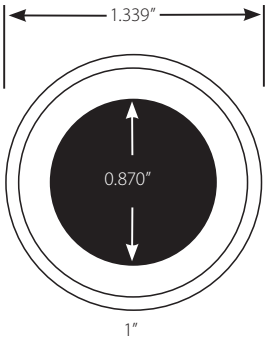
Mini Sanitary		
Size	**A**	**B**
1/2"	2.500	1.618
3/4"	2.500	1.618

Type A



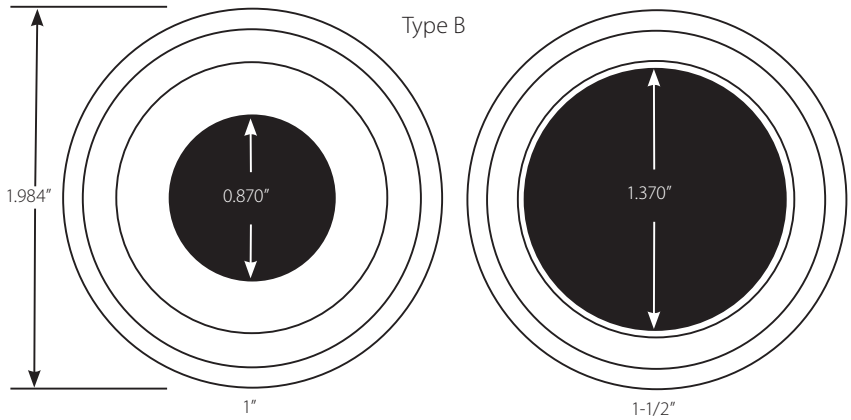
1/2"
Style # 55 or 56

3/4"
Style # 55 or 56



1"
Style # 99

Type B



1"
Style # 50 or 54

1-1/2"
Style # 50 or 54

Also available in 2", 3" and 4"

Sanitary I-Line and Bevel Seat

Female I-Line
Style # 61 or 63

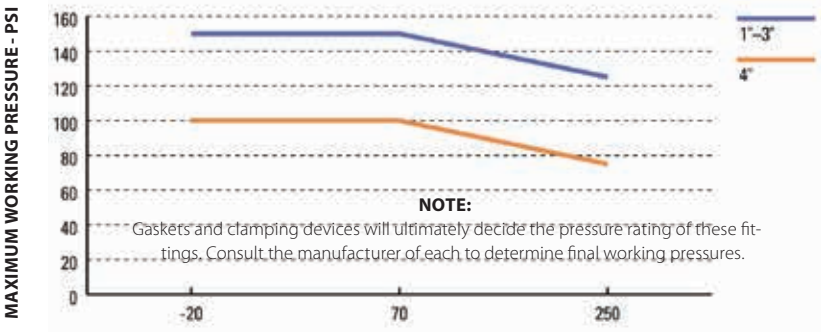
Male I-Line
Style # 60 or 59

I-Line®

■ **Standard Material**
316 Stainless Steel

■ **Custom Material**
Monel®
Hastelloy®

I-LINE AND BEVEL SEAT FITTING PRESSURE RATINGS



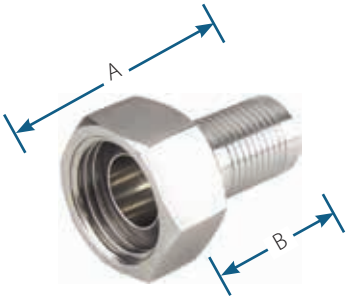
Bevel Seat

■ **Standard Material**
316 Stainless Steel

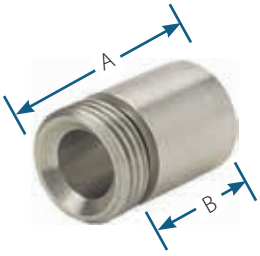
■ **Custom Material**
Monel®
Hastelloy®

Female Bevel Seat		
Size	**A**	**B**
1"	2.656	1.718
1-1/2"	4.000	1.967
2"	4.625	2.250
3"	4.875	3.400

Male Bevel Seat		
Size	**A**	**B**
1"	3.218	1.718
1-1/2"	3.569	1.967
2"	3.844	2.250
3"	5.719	3.400



Female Bevel Seat
Style # 66



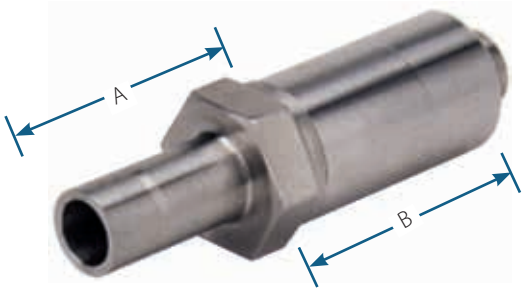
Male Bevel Seat
Style # 65

90° Elbow
Style # 5L

45° Elbow
Style # 5K

Compression Tube

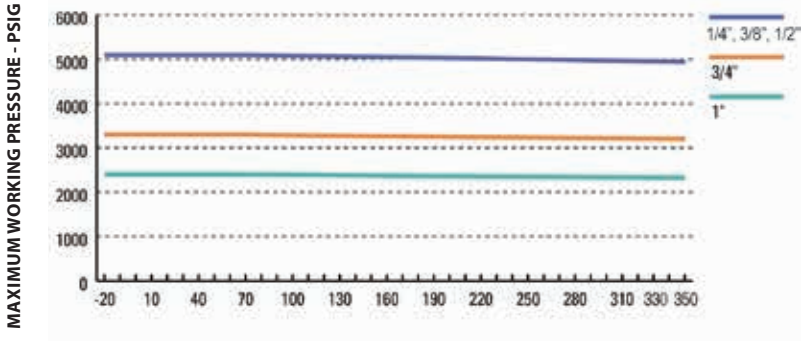
- **Compression Tube Adapter/Connector**
  - Tube adapter plain or with nut and ferrule
  - Tube connector plain or with nut and ferrule
- **Commonly Selected Material**
  316 Stainless Steel



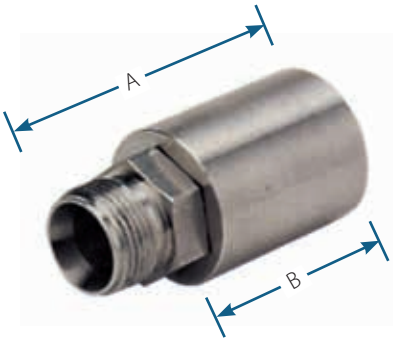
Tube Adapter
Style # 25

Tube Adapter		
Size	**A**	**B**
1/2"	3.000	1.618
3/4"	3.055	1.618
1"	3.610	1.718

316 SS COMPRESSION FITTINGS PRESSURE RATINGS



Tube Connector Male		
Size	**A**	**B**
1/2"	2.500	1.618
3/4"	2.500	1.618
1"	2.875	1.718



Tube Connector
Style # 20

Tube Connector with Nut and Ferrule
Style # 21

Specialty and Adapter Fittings

Buttweld Fittings

- **Commonly Selected Material**
  316 Stainless Steel
  Consult factory for other materials

- Schedule 5, 10, and 40 pipe
- Sanitary O.D. tube
- Extra-long lengths available

Buttweld fittings are available for purchase as bulk fittings, only, and are not available on factory-made assemblies. These fittings can be factory customized by welding virtually any end configuration needed.

Reducing Flanges

- **PTFE, PVDF, or Polypropylene-Lined**

- Available in stainless steel and other alloys
- Available in ANSI, DIN, JIS, and other drillings

PTFE-Lined Reducing Flange

Sanitary Adapters

- **PTFE and PFA-Lined**

- Straight or reducing
- Tri-Clamp, I-Line, Bevel Seat x Flange, Cam-Lock and other connections
- Stainless steel and Teflon™ Lined Adapters

PTFE-Lined Female I-Line x Male I-Line Reducer

Flange Adapters

- **PTFE and PFA-Lined**

- Available in stainless steel and other alloys
- ANSI, DIN, JIS, and other drillings x sanitary, Cam & Groove and other connections

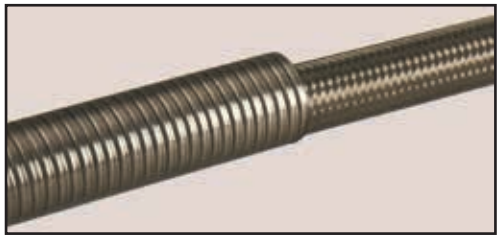
PFA-Lined Flange x Male Cam Lock

PTFE-Lined Flange x Tri-Clamp

Accessories & Options

Anti-Kink Guard

- **Stainless Steel Heavy Duty Anti-Kink Armor Guard**
  - Entire length
  - End protectors any length

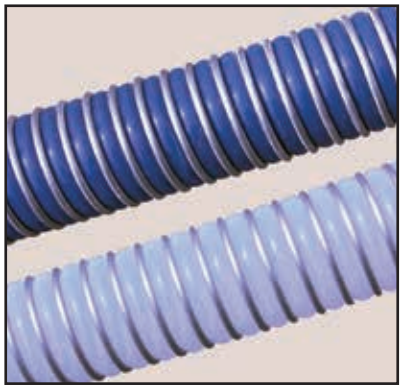


HDPE Spiral Guard

- **High Density Polyethylene Spiral Cut Sleeve**
  - Entire length
  - End protectors any length
  - Standard black color (other colors available)

External Wire Wrap

- **Wire Wrap for Convoluted Hose**
  - Entire length
  - Greatly improves ability to achieve tight bend radii
  - Improves crush resistance



Heat Shrink Sleeve

- **Polyolefin Heat Shrink**
  - Entire length or any length
  - Multiple colors available, including clear
  - Able to print unique identifying information

Qualification Testing

Resistoflex has a more vigorous quality assurance program than any other hose manufacturer. The following tests are performed on 100% of our hoses, ensuring that every unit meets performance specifications.

Resistoflex Qualification Testing

1.0 Test Method

1.1 *Qualification Tests:* Hoses lined with Teflon™ shall be capable of passing qualification tests designed to demonstrate the hose's ability to withstand severe operating conditions. Once a hose design has passed qualification testing, re-testing is not required. If the manufacturer changes the hose design, however, the new design must be re-tested. The hose manufacturer shall make hose qualification test reports available upon request. Qualification testing is as follows:

1.1.1 *Burst Testing:* Subject hose to destructive burst test to determine allowable operating pressure and proof test pressure.

1.) Install hose on test stand, introduce hydraulic fluid into hose, purge all air.
2.) Pressurize at an approximate rate of 100 psi/sec. until hose fails.
3.) Record burst pressure.
4.) Allowable operating pressure is defined as 25% of burst pressure for a 4:1 safety factor.
5.) For Chlorine Transfer Hose, allowable operating pressure is 20% of burst pressure for a 5:1 safety factor.

Note: Allowable operating pressure is also known as "rated working pressure" and "working pressure."

1.1.2 *Steam-Cold Water Cycling:* Subject representative Teflon™-lined hose samples to steam-cold water cycling to determine the ability of the lined hoses to withstand rapid temperature changes. Procedure is as follows:

1.) Install hose on closed-loop test stand and circulate saturated steam at 125±5 psig (50 psig for TRC hose) until the skin temperature varies no more than ±2.5°F for 10 minutes. Temperature shall be measured by a thermocouple attached to the crimp collar.
2.) Close off the steam and immediately circulate water at a maximum temperature of 77°F until the skin temperature reaches 122°F.
3.) Vent and introduce air to purge the test hose for a minimum of one minute to completely drain hose of water.
4.) Repeat steps 1-3 for a total of 100 cycles.
5.) During the 100 cycles, leakage is cause for rejection.

1.1.3 *Impulse Testing:* Subject hose assemblies to rapid and frequent pressure cycling to determine hose assembly's ability to withstand long-term pressure cycling. (Note: impulse testing is not required for TR or TMH)

1.) Install hose on test stand and pressurize hose with hydraulic fluid to 125% of rated working pressure, return to ambient pressure, return to 125% of rated working pressure. This is defined as one cycle.
2.) Continue at a rate of approximately 70 cycles/min. until 50,000 cycles have been completed. (100,000 cycles for TRC non flared thru)
3.) During the test, any leakage is cause for rejection.

1.1.4 *Vacuum Testing:* Subject representative hose assemblies to vacuum conditions to determine rated vacuum for hose at a given temperature.

1.) Seal assembly ends with modified fittings and the desired vacuum/temperature level and hold for 48 hrs.
2.) At the end of the 48 hrs. turn off the oven and allow the hose to cool to ambient temperature while still under the same vacuum level.
3.) Remove the hose and inspect for buckling or collapse of the liner. Any buckling or collapse of the liner shall be cause for rejection.
4.) If no collapse or buckling has occurred, the vacuum and temperature shall be considered acceptable.

1.2 *Proof Testing for Customer Orders:* 100% of finished hose assemblies shall be proof tested.

1.2.1 Factory-made assemblies shall be proof tested hydrostatically at 1.5 times rated working pressure and/or pneumatically tested (submerged in water) at 1 times rated working pressure. Chlorine Transfer Hose is proof tested at 2 times rated working pressure according to the Chlorine Institute recommendations. TR and TMH are not pneumatically tested.

1.2.2 Hose assemblies made at an Authorized Fabricating Distributor location shall be hydrostatically or pneumatically proof tested. (TR and TMH are fabricated at the factory, only)

2.0 Quality Documentation

2.1 Manufacturer's design, engineering, manufacturing, sales, and service shall be certified to ISO 9001.

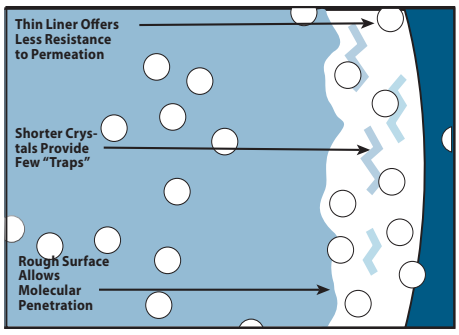
Technical Information

Permeation

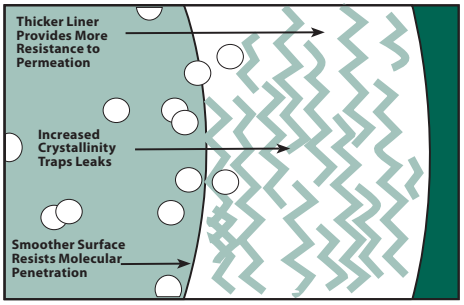
Permeation is a process in which one material, usually a gas, diffuses into and through a solid barrier. All materials are permeable to a degree. The permeation of fluoropolymers in lined hose and piping systems is an important consideration because of the conditions under which they operate and the fluids they are meant to contain.
Many variables affect permeation rates through fluoropolymers. These can be broken into categories as follows:

1. Type of fluoropolymer and its associated molecular structure. PVDF, PFA, and PTFE all have different permeability, which is dependent upon all the other variables
2. The way in which the polymer is processed and its physical state – polymer crystallinity and liner thickness have a profound impact on permeability
3. The permeant itself – the smaller the molecule and greater its polarity, the faster it is likely to permeate through fluoropolymers.
4. Operating and environmental parameters – temperature and pressure have direct correlation to permeation rates. Temperature differential between process and the pipe wall also impacts permeation rates.

Fluoropolymers are sometimes viewed as more permeable than other plastics. This view arises in part because fluoropolymers, especially PTFE, are used at higher temperatures and carry more aggressive fluids than other types of materials are capable of.
When conditions are favorable for permeation to occur, it is important to minimize the contributing variables, provide a vent path for permeants to escape, and use exterior materials resistant to the permeant.



A thin liner and manufacturing shortcomings lead to most permeation problems



A thick liner and advanced manufacturing techniques give Resistoflex hose superior permeation resistance.

Static Electricity Considerations for Fluoropolymer Lined Hoses

Static Electricity Considerations

Resistoflex PTFE conductive liners are provided with a carbon rich inner contact surface capable of conducting 1,000 microamps of current (1 milliamp) when 1000 volts (DC) or less is applied to the surface. The carbon is a high purity furnace black that meets FDA 21CFR 178.3297.

Electrostatic Discharge is a sudden flow of electric current through a material that is normally an insulator. As certain liquids flow through PTFE lined hoses, static charge generation can occur. These charges accumulate when they are not dissipated as quickly as they are generated. Electrostatic discharge occurs when the potential difference between the liner and ground generates such a strong electric field that the liner's atoms turn into current conducting ions. The energy is then released through this newly formed conductor in the form of an electric spark.

Charge generation depends upon the potential of the hose to accept or donate electrons, the fluid and its velocity, and the conductivity of the hose liner. In applications where charge generation is a concern, conductive fluoropolymer liners should be used. The conductive properties of the liner allow the generated charge to be dissipated quickly, reducing the risk of electrostatic discharge.

Technical Information

Properties of Teflon™ PTFE T-62 Resin

Resistoflex uses only Teflon™ PTFE T-62 resin because of the extraordinary performance it provides.

Properties	Unit	Teflon® PTFE T-62 Copolymer	PTFE Homopolymer	FEP
Continue Service Temp	°F	500°F	500°F	300°F
Tensile Strength	PSI	5,000	3,000	3,000
Flex Life	Cycles	>18,000,000	>1,000,000	5,000

Recommended Bolt Torques for Hoses with Flared Thru Design or Encapsulated Flange Retainers

ANSI Class 150 systems

Lightly oiled A193 B7 bolts and A194 2H nuts

Pipe Size	Bolt Torque (ft-lb per bolt)			
	Flared Thru		PFA Encapsulated	
	Min.	Max.	Min.	Max.
1	8	13	12	17
1.5	19	31	28	41
2	39	65	59	85
3	62	103	93	134
4	40	67	---	---
6	75	124	---	---
8	100	167	---	---

ANSI Class 300 systems

Lightly oiled A193 B7 bolts and A194 2H nuts

Pipe Size	Bolt Torque (ft-lb per bolt)			
	Flared Thru		PFA Encapsulated	
	Min.	Max.	Min.	Max.
1	10	17	15	22
1.5	28	47	42	61
2	20	33	29	42
3	37	62	56	80
4	49	81	---	---
6	50	83	---	---
8	78	130	---	---

NOTE: These maximum torques are only valid for LIGHTLY OILED A193 B7 bolts and A194 nuts. Lightly oiled is considered lubrication with WD-40* or equivalent. The maximum recommended torque values are suggested for lined systems operating at or near the maximum recommended pressures and temperatures. Systems operating under less severe conditions can in general experience leak-free performance using lower torque values. Additionally, any time gaskets or spring type washers are used, we suggest using the minimum recommended torque value and that the torque be increased only to obtain satisfactory sealing. For systems that will require frequent disassembly, we suggest using the minimum recommended torque value initially to avoid distortion of the plastic face.

*WD-40 is a registered trademark of WD-40 Company, San Diego, CA.

NOTE: For metal flanged joints, where the hose liner does not form the gasket, use the bolt torques specified by the manufacturer of the gaskets to be used.

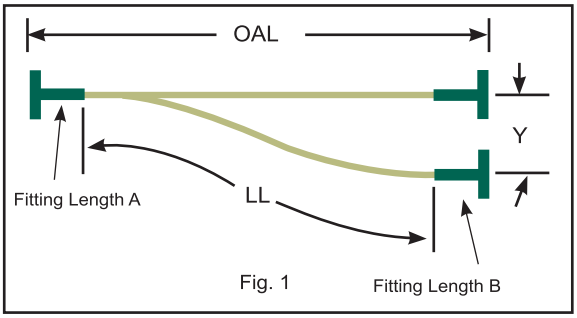
Technical Information

Related Definitions

- **Rated Working Pressure:** Maximum operating pressure at which the hose may operate through the stated bending range.
- **Proof Test Pressure:** Not to exceed 1-1/2 times rated working pressure. Chlorine Transfer Hose proof test pressure is 2 times rated working pressure.
- **Burst Pressure:** The average pressure at which the hose can be expected to fail at 70°F.
- **Minimum Bend Radius:** The bend radius to which a hose may be bent when no further motion is to be imposed.
- **Dynamic Bend Radius:** The bend radius used in calculations involving applications where the hose is moving. This bend radius has a direct relation to cycle life. Bending the hose in a smaller radius than rated will adversely affect the life of the hose.
- **Live Length:** The length of hose that will bend, or the length of hose between the braid collars (LL).
- **Overall Length:** The total face-to-face length of a straight hose (OAL).

Length Tolerances:		
	Min.-18" long assemblies	+/- 1/4"
	18"-36" long assemblies	+/- 1/2"
	33"-50" long assemblies	+/- 3/4"
	50" and longer assemblies	+/- 1.5%

Installation and Motion Considerations



- **Axial Motion**: Motion that occurs when a hose is compressed along its longitudinal axis. Axial motion is only applicable in very short lengths of annular hose only. Plastic lined hose should not be subjected to axial motion.
- **Lateral Offset Motion:** (Fig. 1) Motion that occurs when one end of the hose is deflected in a plane perpendicular to its longitudinal axis with the ends remaining parallel. In offset applications where motion is repeated, the offset should never exceed 25% of the minimum bend radius.

  OAL = LL + Fitting Length A + Fitting Length B + (2 X nominal hose diameter)

  Note: Where offset motion "Y" occurs on both sides of hose centerline, the hose live length should be based on total travel, or 2Y.
- **Angular Offset Motion:** Angular movement is defined as the bending of the hose so that the ends are no longer parallel. Amount of movement is measured in degrees from centerline of the hose.
- **Radial Motion:** This type of movement occurs when the hoses are bent in a 180 degree arc such as in vertical or horizontal loops. In this configuration, two types of movement are possible. One is where the bend radius remains constant and one end of the hose moves parallel to the other end. The other is where the ends move perpendicular to each other so as to enlarge or decrease the width of the loop.

- For more consideration on best practices for hose installation and determining the proper length of a hose assembly, please refer to the NAHAD website at www.nahad.org.

Assembly Part Numbers

First End Fitting

Hose Size | Hose Style | Tube Code | Fitting #1 Style | Fitting #1 Material | Flange #1 Code

HOSE SIZE	
1/2"	08
3/4"	12
1"	16
1-1/2"	24
2"	32
3"	48
4"	64
6" (TMH ONLY)	96

Natural Teflon™ (White)	W
Conductive Teflon™ (Black)	B
Platinum Cured Silicone	0
Special Tube	X

FITTING MATERIAL SELECTION	
Teflon™ Encapsulated (Natural)	E
Teflon™ Encapsulated (Conductive)	A
316 SS	6
316 SS 15 Ra EP	R
Monel®	M
Hastelloy®	H
Solid Kynar®	K
Solid Polypropylene	P
Carbon Steel	C
Special Material	X
None	0

HOSE STYLE	
Convoluted	
CB Stainless Braid	S
CWB Stainless Braid, Wire Wrap	E
CPB Polypropylene Braid	P
CPWB Poly Braid, Wire Wrap	R
CKB KYNAR® PVDF Braid	K
SVT Unbraided	U
SVWT Unbraided w/ Wire Wrap	V
Smooth Bore Braided (True Bore ID)	
SBT Stainless Braid (True ID)	F
Specialty Hoses	
CRC *Twister*™ Yellow EPDM w/conv. PTFE	A
TRC-Teflon™ Blue EPDM w/PTFE Teflon™	B
TRC-Teflon™ Green EPDM w/FEP Teflon™	G
TMH 316 Stainless Hose w/PTFE Liner	M
TMH-Monel Monel® Hose w/PTFE Liner	Y
TR Truck Rail Hose Heavy Neoprene w/PTFE	T
Platinum Cured Sillicone	
Si-W 4-Ply. Polyester Wrapped	2
Si-V 4-ply. Wire Reinforced	3

FLARED THRU STYLE HOSES	
Industrial	
Flange Retainer (Flared Thru)	35
Cam & Groove Female (Flared Thru)	79
Flange Beaded End (Flared Thru)	38
Sanitary	
TriClamp® (Flared Thru)	54
Mini Sanitary (Flared Thru)	56
I-Line Male (Flared Thru)	59
I-Line Female (Flared Thru)	63
Special Fitting	
Non Standard (Flared Thru)	99

CRIMP STYLE HOSES	
Industrial Fittings	
Male Pipe (NPT)	10
Female Pipe (NPT)	11
Male Pipe Union	12
Male NPT Step-Down	14
Male NPT Step-Up	16
Female Pipe Union	13
Female JIC (Swivel)	15
Male NPT Union Step-Down	17
Male NPT Union Step-Up	19
Female NPT Union Step-Down	18
Tube Connector (Plain)	20
Tube Connector (w/ Nut & Ferrule)	21
Tube Adapter (Plain)	25
Tube Adapter (2/ Nut & Ferrule)	26
Grooved End (Victaulic®)	29
Flange Retainer	30
Cuffed & Flared SVT Assemblies	
Cuffed (Tube OD)	43
Cuffed (Pipe OD)	44
Flared Flange, No Retainer	40
Sanitary	
TriClamp®	50
TriClamp® (One Step Up)	51
TriClamp® (Two Steps Up)	52
TriClamp® 90° Elbow	53
Mini-Sanitary	55
Mini-Sanitary 90° Elbow	5L
Mini-Sanitary Step-Up	58
I-Line Male	60
I-Line Female	61
I-Line Female (One Step Up)	62
Bevel Seat Male	65
Bevel Seat Female	66
Female SMS Swivel	68
Female DIN Swivel	69
Cam & Groove	
Male Cam	70
Female Cam (Step-Up)	75
Female Cam w/ Locking Handle	78
Special Fitting	
Non-Standard Special	99

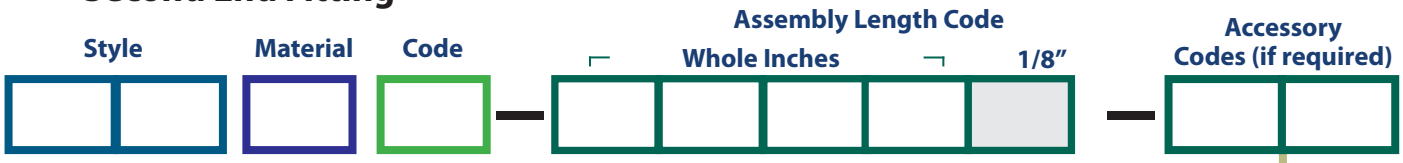
FLANGE MATERIAL SELECTION	
No Flange	0
Ductile Iron Class 150	D
Ductile Iron Class 150, Galvanized	I
Ductile Iron Class 150	A
Carbon Steel Class 150 (epoxy coated)	C
Carbon Steel Class 150 (epoxy coated)	B
Carbon Steel Class 150 (uncoated)	J
Carbon Steel Class 150 (uncoated)	L
304 Stainless Class 150	4
304 Stainless Class 150	E
316 Stainless Class 150	6
316 Stainless Class 150	G
316 Stainless DIN PN10	N
Monel® Class 150	M
Monel® Class 150	R
Hastelloy Class 150	2
Hastelloy Class 150	H
KYNAR® Class 150	K
Polypropylene Class 150	P

Note: Some configurations are not feasible. Consult factory for availability of components.

KYNAR® is a registered trademark of Arkema Inc.

Assembly Part Numbers

Second End Fitting*



*For Second End Fitting Selection use same selections available on First End Fitting

Example: **Hose Length = 12-1/2"**
Length Code = 00124

Accessories	
SS Anti-Kink Casing	**A**
SS Bend Guard 12"	**B**
SS Bend Guard 18"	**C**
SS Bend Guard 24"	**K**
Clear Silicone Cover	**D**
HDPE Plastic Spiral Guard	**E**
External Spring Guard	**G**
Fire Sleeve	**J**
FEP Teflon™ Heat Shrink	**M**
Rubber Sleeve	**F**
Polypropylene Braid W/Static Wire	**W**
Polyolefin Heat Shrink:	
*Red	**PR**
*Black	**PB**
*White	**PW**
*Yellow	**PY**
*Green	**PG**
*Clear	**PC**
Other colors available on request.	
Auxiliary Flange One End	**R**
Auxiliary Flange Two End	**S**
TMH Vent Coupling One End	**1**
TMH Vent Coupling Both Ends	**2**
TMH (2) Vent Coupling Both Ends	**4**
TMH Vent Monitor Port (no threads)	**5**
TMH Vent Monitor Port (female pipe)	**6**
Metal Tag Attached (see note)	**T**
Pinstamp Collar	**TC**
Paper Tag	**TP**
Note: Content for tags to be specified in the description)	
Special Accessory	**X**

PART NUMBER EXAMPLES

1.5" TRC-Teflon™ PTFE smooth bore natural Teflon™ PTFE with EPDM reinforcement, SS female Cam & Groove locking fittings on each end. Overall length 30'.

24 B W 7860 7860-03600

1" CB convoluted bore conductive Teflon™ PTFE with stainless braid reinforcement, Flared Thru 150# epoxy coated carbon steel flange with SS retainer on one end, conductive encapsulated male Cam & Groove on one end. Stainless steel tag with hose part number. Overall length 36 ½"

16 S B 356C 70A0-00364-T

½" Twister convoluted natural Teflon™ PTFE with SS MNPT on one end, 150# SS flange on one end. Overall length 15'

08 A W 1060 3066 01800

CRANE

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