



Parflex Instrumentation

Hose • Tubing • Multitube®



ENGINEERING YOUR SUCCESS.

FLUOROPOLYMER Hose

For Instrumentation Applications

Parflex Fluoropolymer hoses consist of an extruded PTFE core with a stainless steel braided reinforcement. PTFE has an excellent flex life, handles high temperatures and offers superior chemical and corrosion resistance. Additionally, PTFE can be extruded with a static dissipative inner core to prevent the attraction of dust and other particulate and reduce the build-up of static charges. This Quick Reference Guide highlights products from the following catalogs:



CAT. 4660 - Parflex Thermoplastic Hose, Tubing, Fittings & Accessories



CAT. 4690 - MH/US Metal Hose



CAT. 4200/MH/US - Multitube® Instrument and Heat Trace Tubing Products

Visit www.parker.com/pfd/literature to download actual catalogs.

Parflex Fluoropolymer Hoses		919 919B	PTFE Hose, Natural and Static-Dissipative Tube; 304 SS Braid	919J 919BJ	High Abrasion Resistant PTFE Natural and Static-Dissipative Tube; Silicone Jacket 919	919U	High Abrasion Resistant PTFE Hose; 919U Polyurethane Jacket
							
929 929B	Heavy Wall PTFE Hose, Natural and Static-Dissipative Tube; 304 SS Braid	929BJ	Silicone covered PTFE Hose, Natural and Static-Dissipative Tube	STW STB	True Bore PTFE Hose, Natural and Static-Dissipative Tube; 316 SS Braid	939 939B	Convuluted PTFE Hose, Natural and Static-Dissipative Tube; 304 SS Braid
							
SCW SCB	Convuluted PTFE Hose, Natural and Static-Dissipative Tube; 316 SS Braid	PCW PCB	Convuluted PTFE Hose, Natural and Static-Dissipative Tube; 316 SS Braid	SCWV SCBV	Heavy Wall Convuluted PTFE Hose, Natural and Static-Dissipative Tube; 316 SS Braid	SCWV-FS SCBV-FS	Flare-Seal® PTFE Hose, Natural and Static-Dissipative Tube; 316 SS Braid
							
944B	High Pressure PTFE Hose, Static-Dissipative Tube; 4,000-4,500 psi	955B	High Pressure PTFE Hose; Static-Dissipative Tube; 5,500 psi	 			
							



SCWV-FS

	Smoothbore Hose
	Convuluted Hose

All natural core tubes are
FDA Compliant.

FLUOROPOLYMER Hose

PTFE "Smoothbore" Hose

919/919B

625-3000 psi. -100°F to 450°F.
Sizes 3/16" - 1-1/8" I.D. dependent
on type. 919B/S30B - Static
Dissipative. 304 SS Braid.

919J/919BJ/919U

Added jacket protection.

919J/919BJ - Silicone. 1000 - 3000
psi. -40°F to 450°F. Sizes 3/16" -
7/8" I.D. 919BJ - Static Dissipative.

919U - Polyurethane. 1000 - 3000
psi. -40°F to 275°F. Sizes 3/16" -
7/8" I.D.

High Pressure PTFE Hose

High pressure PTFE hose. Static
Dissipative. 4000 - 5500 psi. -100°F
to 400°F. Sizes 15/64" - 29/32" I.D.
dependent on type. 304 SS Braid.

944B - 4000-4500 psi
955B - 5500 psi



929/929B

Tight bend radius. Increased wall
thickness .040". 1000 - 3000 psi.
-100°F to 450°F. Sizes 3/16" - 7/8"
I.D. 929B - Static Dissipative. Sizes
3/16" - 1" I.D. 304 SS Braid.

929BJ

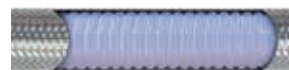
Same applications as 929B except
with silicone jacket protection.
Static dissipative core tube. Steam
cleanable. 1200 - 3000 psi. -100°F to
450°F. Sizes 3/16" - 7/8" I.D.

STW/STB

True bore hose. Larger inside diam.
to speed up the flow of the media
through the tube. 900 - 3000 psi.
-100°F to 450°F. Sizes 1/4" - 1-1/2"
I.D. STB - Static Dissipative. 304 SS
Braid.



Smoothbore
Natural



Convoluted
Natural

All natural core tubes are FDA Compliant



Smoothbore
Static-Dissipative



Convoluted
Static-Dissipative

PTFE "Convoluted" Hose

939/939B

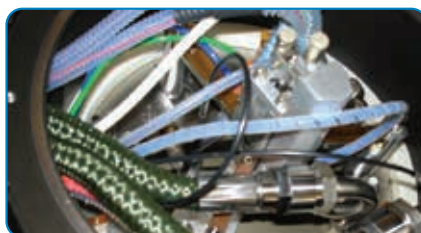
Exceptional kink resistance.
Transfer lines for nearly all
chemicals. 250 - 1500 psi. -100°F
to 450°F. Sizes 3/8" - 2" I.D. 304SS
Braid. 939B - Static Dissipative.

SCW/SCB

Exceptional kink resistance.
Transfer lines for nearly all
chemicals. 450 - 1500 psi. -100°F
to 500°F. Sizes 1/4" - 2" I.D. 316SS
Braid. SCB - Static Dissipative.

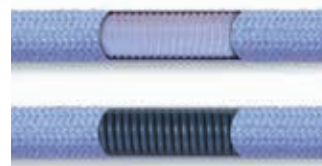
SCWV/SCBV SCWV-FS/SCBV-FS

Heavy wall convoluted. 150 - 1500
psi. -100°F to 500°F. Sizes 1/2" -
4" I.D. 316SS Braid. SCBV- Static
Dissipative. FS design = flare
through design - continues PTFE
through fitting.



PCW/PCB

Exceptional kink resistance.
Transfer lines for nearly all
chemicals. 450 - 1500 psi. -100°F
to 500°F. Sizes 1/4" - 2" I.D.
Polypropylene Braid. PCB - Static
Dissipative.



Polypropylene
Braided Hose

Typical Applications

- High Temp. Applications
- Corrosive Applications
- Sampling/Analyzing Lines
- Chemical Transfer
- Fluid Handling
- Laboratory

METAL Hose

Metal Hose Features

- Excellent chemical resistance
- Operates in high temperatures
- Sizes 1/4" I.D. up to 6" I.D.
- Hydroformed design yields a uniform wall thickness, promoting even distribution of stress during flexing and reduces concentrated residual stress.



9A - Standard

Available as metal hose only or with single/double braid. High temperature transfer for nearly all chemicals. -380°F to 1200°F. Sizes 1/4" - 6" I.D. Vacuum (30in/Hg) to 2700 psi depending on assembly specifications.

9M - Ultra Flexible

Compressed corrugations for increased flexibility. Available as metal hose only or with single/double braid. High temperature transfer for nearly all chemicals. -380°F to 1200°F. Sizes 1/4" - 6" I.D. Vacuum (30in/Hg) to 2700 psi depending on assembly specifications.

9P - High Pressure

Specially designed to maintain extreme pressure and flexibility. Available with single/double braid. High temperature transfer for nearly all chemicals. -380°F to 1200°F. Sizes 1/4" - 4" I.D. Vacuum (30in/Hg) to 6000 psi depending on assembly specifications.

Typical Applications

- High-Temp Applications
- Chemical Transfer
- Power Gen - Fuel Rail on Gas Turbines
- Solvent & Steam Lines
- Hot Oil & Lube Lines

MULTITUBE® Products

Chemical Processing & Refineries

Temptube®



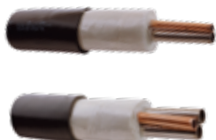
Preinsulated tubing - Transfer of fluids or gases up to 400°F while maintaining an outer jacket surface temperature of 140°F.
Insulated bundles rated up to 1200°F.
Also available as a custom bundle.

Typically used in steam supply lines, condensate return lines, cooling water lines, lubrication lines, refrigeration lines and liquid nitrogen lines.

Typical Applications

- Steam Supply Lines
- Condensation Return Lines
- Water Shelter Condensation Return Umbilicals
- High Temperature Differential Pressure Umbilicals
- Smoke Stack Monitoring Lines
- Cooling Water Lines

Steam Trace Light Trace (LT) & Heavy Trace (HT) Maximum Internal Exposure Temperature up to 400°F



Temtrace® LT - Permits use of higher pressure steam to heat trace instrument lines. Single or multiple tubes designed to utilize saturated steam pressures to 230 PSIG (15.8 BAR) and 400°F without generating a process tube temperature in excess of 200°F or a jacket surface temperature greater than 140°F.

HT - Heavy Steam Trace Tubing is used with high temperature steam to heat trace instrument size lines when elevated temperatures are required. Designed to be used with steam pressures of 15 PSIG (1 BAR) to 230 PSIG (15.8 BAR) and maintain process tube temperatures from 200°F, at -40°F ambient, to 355°F, at 80°F ambient. Maximum Temperature Rating (MTR*) of 400°F.

*Maximum Temperature Rating for both is the maximum allowable temperature of the tracing fluid.

Electric Trace Self Regulating Low Temp. (SL) and High Temp. (SH)



Temtrace® SL - Maintain temperatures up to 150°F and withstands maximum internal exposure to 185°F. Designed to provide freeze protection and low temp. maintenance for gases, liquids or viscous materials. With outdoor temperatures of -40°F, SL-Temtrace™ will maintain a process fluid or gas at 40°F to 400°F while maintaining an outer jacket surface temp. of 140°F. Heated cables are available in 120V and 208-277 volt, with heat outputs of 3, 5, 8 and 10 watt/ft.

Temtrace® SH - Maintain temperatures up to 250°F and withstands an internal exposure temp. of 400°F. Designed to provide temp. maintenance for gases, liquids or other process materials. Has a max. temp. rating of 250°F (121.1°C), when power to the heating cable is on, and can be steam cleaned at 400°F (204°C), when power to the heating cable is off.

MULTITUBE® Products

Power Generation (Freeze Protection)

Intermittent (IS) and Continuous Steam (CS) Purge



Designed to provide a freeze protection temperature of 40°F at the lowest specified ambient temperature. Maximum steam purge temp. up to 1100°F while ensuring freeze protection during the winter through the use of self-regulating heating cables. Cables are available in 120V and 208-277 volt, with heat outputs of 5, 10, 15 and 20 watt/ft.

IS - Intermittent - Freeze protection bundles designed for intermittent high-temp. steam purge. Bundles can be steam purged for a period of 5 minutes once a day.

CS - Continuous - Internal bundle tubes can be steam purged for any duration required without effecting performance to the heating element.

Industrial Plant - Robotics - Laboratory

Metal & Plastic Bundles



Bundled tubing is an ideal alternative for applications where multiple lengths of tubing are currently being installed independently. Manufactured with or without protective, galvanized steel armor and a protective outer jacket. Plastic and metal tubes are uniquely identified using a number code printed along the entire length of each tube.

PJ - Plastic, Jacketed
PA - Plastic Armored
PAJ - Plastic, Armor, Jacketed

MJ - Metal, Jacketed
MA - Metal Armored
MAJ - Metal, Armor, Jacketed

FLUOROPOLYMER Tubing

Fluoropolymers

Parflex fluoropolymer tubing is available from the Parflex manufacturing facility in Fort Worth, Texas.

Fluoropolymer tubing features a low coefficient of friction and anti-stick properties, high temperature capabilities and the most corrosion and chemical resistance of all polymers. Within normal use temperatures, fluoropolymers are

attacked by so few chemicals that it is easier to describe the exceptions rather than list the chemicals they are compatible with. These chemically inert tubes are non-wetting and non-leaching, making them ideal for a wide range of fluid and material handling applications.

Parflex fluoropolymer tubing is available in PTFE, FEP, and PFA with some materials operating at temperatures up to 500°F/260°C. Each material has specific dominant characteristics such as increased clarity, long lengths and increased mechanical strength. Custom sizes and designs available.

PTFE

Offered in beading, smoothbore tubing, convoluted and heat shrinkable tubing. PTFE tubing features unmatched chemical resistance and a non-stick surface that facilitates flow and eliminates media buildup. Best flex life and lowest coefficient of friction. Sizes from .010" I.D. up to 2" O.D.

FEP

Offered in smoothbore tubing, convoluted, corrugated, retractable coils and heat shrinkable tubing. FEP tubing features the best clarity and is a close second to PTFE in chemical resistance. Available in long, continuous lengths (1,000 feet and longer). Sizes from .010" I.D. up to 2" O.D.

PFA

Offered in smoothbore tubing, convoluted, corrugated, retractable coils and heat shrinkable tubing. Best purity. When temperature and clarity are both factors, PFA is the resin of choice. Offers the high-temp attributes of PTFE, long continuous lengths, and almost as much clarity as FEP.



Typical Applications

- High Temperature Applications
- Corrosive Applications
- Chemical Transfer
- Fluid Handling
- High Purity Applications
- Peristaltic Pump
- Analytical Instruments
- Food & Beverage
- Laboratory
- Semiconductor

THERMOPLASTIC Tubing

Thermoplastics

Parflex thermoplastic tubing is the economical choice for basic media transfer applications. Parflex offers a wide range of resins, each bringing their own features to

the customer. Sizes, flexibility, chemical compatibility, colors, clarity, strength and customization options vary depending on resin selection.



Polyethylene Tubing

Series E, Instrument Grade; Series EB, Ultraviolet Light Resistant - Chemically resistant, flexible, high-dimensional stability and long-term strength. Working pressure up to 145 psi. -80°F to 150°F. Sizes 1/4" - 5/8" O.D.; 6mm-12mm. Meets FDA, NSF-51 & NSF-61 requirements. Assorted colors.

Polyurethane Tubing

Series 95U, Series 95UM Polyether Base- Tough, flexible and kink-resistant. Excellent hydrolytic stability. 90-95 Shore A durometer. Working pressure up to 125 psi. -40°F to 180°F. Sizes 1/8" - 3/4" O.D.; 4mm-12mm. Assorted colors.

Nylon Tubing

Series N, Flexible - Flexible, abrasion resistant tubing. Heat and light stabilized for outdoor service. Excellent chemical resistance. Working pressure up to 500 psi. -65°F to 200°F. Sizes 1/8"-1/2" O.D.; 4mm-20mm. Assorted colors. Natural and black meets UL94HB requirements. Contact Parflex for availability of UL products.

Series PEFR, Flame Resistant - Excellent stress crack resistance. Preferred product for pneumatic control applications in the HVAC and energy conservation industry. Working pressure up to 185 psi. -85°F to 150°F. Sizes 5/32" - 1/2" O.D. Meets UL94V-2 flame classification. Black.



Series NR, Semi-Rigid High Strength - Better chemical resistance than Series N. Good resistance to high ambient temperature and moisture absorption. Working pressure up to 625 psi. -60°F to 200°F. Sizes 1/8" - 1/2" O.D. Black and natural.

Series HDPE, High Density - High strength, high density semi-rigid tubing. Offers higher burst pressure and less easily cut/damaged than Series E. Inherently resistant to most chemicals. Working pressure 300 psi. -80°F to 175°F. Sizes 1/4" & 3/8" O.D. Black.

Series 95FR - Flame retardant, lightweight and abrasion resistant. Ideal for air/water supply on robots, end-of-arm tooling for robotic-welding systems or general automation applications. Working pressure up to 175 psi. -40°F to 165°F. Sizes 1/4" - 1/2" O.D. Meets UL-94V0 flame classification. Assorted colors.

Series PAT, Pure Air Tubing - For use in air and gas distribution systems. Excellent resistance to chemicals and ultraviolet light, low moisture absorption and high tensile strength. Working pressure up to 350 psi. -70°F to 200°F. Sizes 1/8" - 3/4" O.D. Black, brown and silver.

Typical Applications

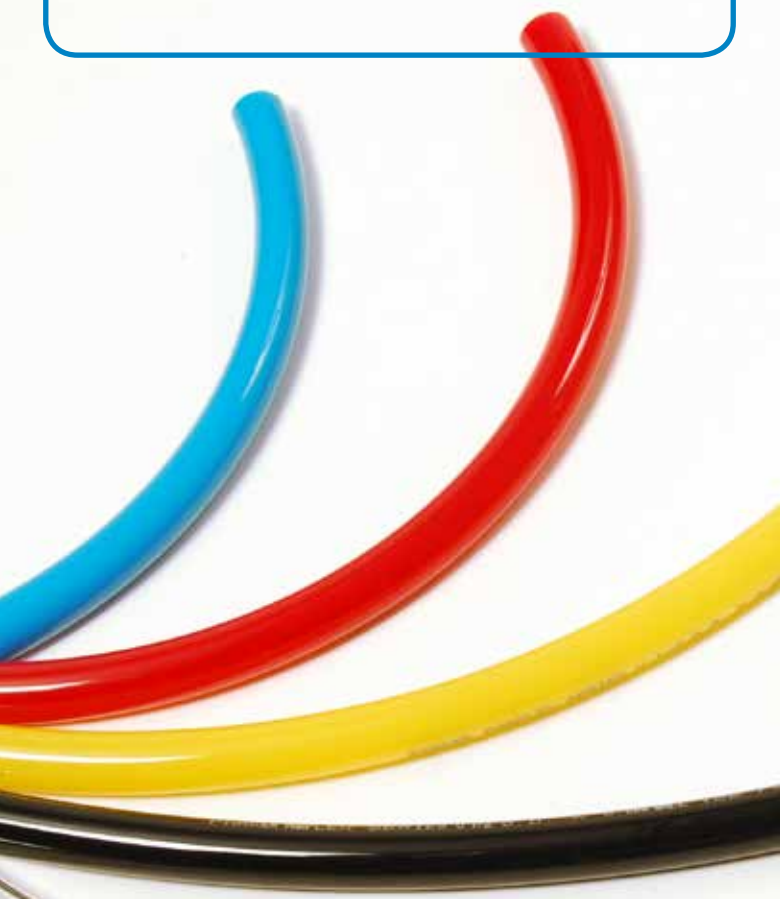
- Pneumatics
- Fluid Handling
- Chemical Transfer
- High Purity

**Parker Safety Guide for Selecting and Using Hose,
Tubing, Fittings and Related Accessories
Publication No. 4400-B.1 Rev A
Revised: November 2015**

WARNING: Failure or improper selection or improper use of hose, tubing, fittings, assemblies, valves, connectors, conductors or related accessories ("Products") can cause death, personal injury and property damage. Possible consequences of failure or improper selection or improper use of these Products include but are not limited to:

- Fittings thrown off at high speed.
- High velocity fluid discharge.
- Explosion or burning of the conveyed fluid.
- Electrocution from high voltage electric powerlines.
- Contact with suddenly moving or falling objects that
- are controlled by the conveyed fluid.
- Injections by high-pressure fluid discharge.
- Dangerously whipping Hose.
- Tube or pipe burst.
- Weld joint fracture.
- Contact with conveyed fluids that may be hot, cold, toxic or
- otherwise injurious.
- Sparking or explosion caused by static electricity buildup or other sources of electricity.
- Sparking or explosion while spraying paint or flammable liquids.
- Injuries resulting from inhalation, ingestion or exposure to fluids.

Before selecting or using any of these Products, it is important that you read and follow the instructions below. No product from any division in Parker Fluid Connectors Group is approved for in-flight aerospace applications. For hoses and fittings used in in-flight aerospace applications, please contact Parker Aerospace Group.



Parker Fluid Connectors Group

North American Divisions & Distribution Service Centers

Your complete source for quality tube fittings, hose & hose fittings, brass & composite fittings, quick disconnect couplings, valves and assembly tools, locally available from a worldwide network of authorized distributors.

Fittings:

Available in inch and metric sizes covering SAE, BSP, DIN, GAZ, JIS and ISO thread configurations, manufactured from steel, stainless steel, brass, aluminum, nylon and thermoplastic.

Hose, Tubing and Bundles:

Available in a wide variety of sizes and materials including rubber, wire-reinforced, thermoplastic, hybrid and custom compounds.

Worldwide Availability:

Parker operates Fluid Connectors manufacturing locations and sales offices throughout North America, South America, Europe and Asia-Pacific.

For information, call toll free...

1-800-C-PARKER
(1-800-272-7537)

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fax 269 694 4614

Hose Products Division

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