

aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
 hydraulics
 pneumatics
 process control
 sealing & shielding



CAT 4660

Parflex® Thermoplastic & Fluoropolymer Products
 Hose, Tubing, Fittings & Accessories, Aug. 2014



ENGINEERING YOUR SUCCESS.

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FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the "Offer of Sale".

Welcome to The Parflex® Division



Our Charter

To be the global leader in engineered polymer-based products while providing system solutions for the conveyance and control of fluids.

As part of the Parker Fluid Connectors Group, the Parflex® Division is responsible for the design and manufacture of hoses and tubing to handle extreme applications. Products include thermoplastic and fluoropolymer hose and tubing, hose bundles, harnesses and accessories.

The Parflex® Division includes the Ravenna division headquarters in Ohio, and manufacturing facilities in:

- Manistowoc, WI
- Fort Worth, TX
- Houston, TX
- Randleman, NC
- Monterrey, Mexico



For detailed ordering information, please consult price list or contact Parflex® Division.

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Partner with Parflex®

We customize our extreme hose and tubing solutions every day to meet your needs.



Parker Parflex offers an extensive selection of high-quality thermoplastic and fluoropolymer hose and tubing, fittings and accessory solutions.

We specialize in designing products to meet specific needs for increased profitability and efficiency. We customize our products every day to meet your needs.

The Parflex® Advantage

One stop shopping for high value conveyance solutions.

Thermoplastic and Fluoropolymer Hose, Tubing, Fittings and Accessories for extreme applications.

Hose

When compared to wire reinforced rubber hose or even metal tubing, thermoplastic hose offers a significant added value. Thermoplastic provides extreme chemical compatibility, noise-level reduction and ultraviolet and corrosion resistance, while fiber reinforcement retains flexibility — even at low temperatures. In addition, Parflex has long-length capabilities resulting in less scrap being generated during assembly...fewer connections, results in fewer potential leak points.

For fluoropolymer hose, Parflex has expanded its PTFE Hose line to include the PAGE product line, manufactured in Fort Worth, TX. PAGE products are comprised of fluoropolymer hoses with specialty braid and construction options. These hoses are designed to handle high temperatures in chemical and corrosive environments for the pharmaceutical and food and beverage markets. Specialty products like PAGE-flex SBF™ (a hose with 1/2 the minimum bend radius of a conventional smooth bore hose) and EPDM rubber covered hoses are now available. We also design a full range of Parflex and PAGE hose fittings.

And that's just the beginning...

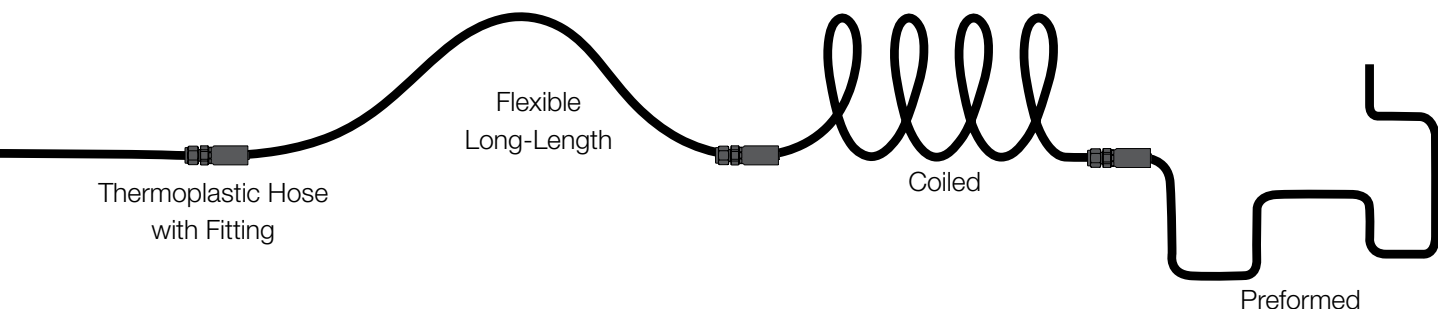
Tubing

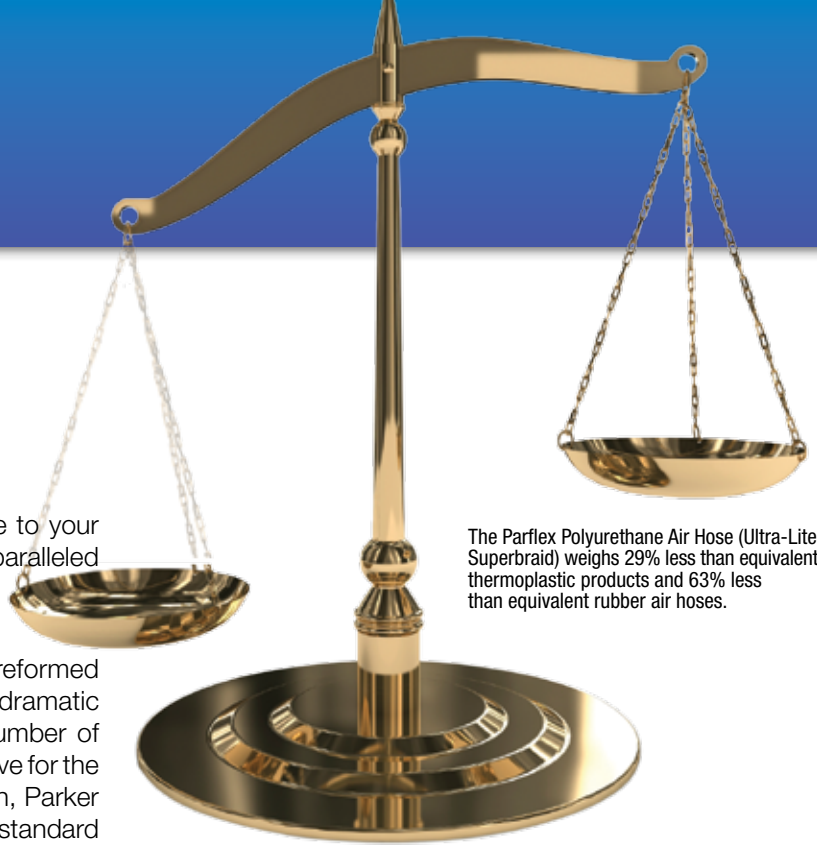
Parflex has also expanded the tubing line to include PTFE, FEP, PFA and PVDF tubing. All are available in a smoothbore design and others are available in beading, heat shrinkable tubing and convoluted tubing. This tubing operates in high temperatures (up to 500°F/260°C) and in cryogenic applications with temperatures as low as -100°F/-75°C. Extrusions are resistant to UV radiation and moisture and offer the lowest coefficient of friction of any material available.

Additionally, ALL Parflex tubing products are made from resins and colors that are certified to be free of mercury, heavy metals and other materials that are restricted in accordance with the RoHS directive.

Unique Preforming Capabilities

Parflex preforming combines the precision of steel tubing with the flexibility of a hose. Preformed products profile complex shapes and long lengths, offering a working





rigidity that ensures that the hose stays true to your lines and a superior flexibility to allow for unparalleled alignment compensation.

The Parflex Polyurethane Air Hose (Ultra-Lite Superbraided) weighs 29% less than equivalent thermoplastic products and 63% less than equivalent rubber air hoses.

In addition to installation ease, Parker preformed products increase productivity thanks to dramatic reductions in weight, leak paths and the number of components. They also are highly cost effective for the manufacturer. With excellent shape retention, Parker products can be easily coiled and packed in standard boxes, saving on shipping costs and inventory space.

Extremely Lightweight

Compared to rubber equivalents, Parflex products are lighter in weight due to their fiber reinforcements. In fact, a Parflex hose can weigh more than 70% less than a comparable rubber hose assembly. As a result of this greater strength-to-weight ratio, thermoplastics are easier to work with. Operator handling becomes less fatiguing and it is quicker and easier to route hoses onto equipment.

Thermoplastic vs. Rubber Hose Weight*

Size	Typical 100R7 Hose (Thermoplastic)	Typical 100R1 Hose (Rubber)
-4	0.052	0.170
-6	0.096	0.250
-8	0.148	0.300
-12	0.188	0.460
-16	0.269	0.660

*Weight: pounds/foot

Economical Small Bore

Prior to thermoplastics, system designers had to use hoses that were oversized for certain applications. More economical, small-bore rubber hose was simply not available in sizes smaller than 1/4" for applications with flows less than 3 gallons per minute. The use of oversized hoses resulted in substantial waste in systems; costing more, reducing response times and increasing installation times.

Thermoplastic vs. Rubber Hose O.D.*

Size	Typical 100R7 Hose (Thermoplastic)	Typical 100R1 Hose (Rubber)
-4	0.47	0.53
-6	0.63	0.69
-8	0.81	0.81
-12	1.08	1.09
-16	1.32	1.41

*Outside Diameter: inches

Today, system designers have a wealth of options to the 1/4" rubber hose. In fact, thermoplastic hose manufacturers have established full lines of hose for every application. With sizes that include 1/4", 3/16", 1/8", and 3/32", Parflex compact designs allow tighter bend radius characteristics, work well in smaller enveloped areas and give excellent fluid compatibility and higher abrasion resistance.

For detailed ordering information, please consult price list or contact Parflex® Division.



Superior Abrasion and Fatigue Resistant

Thermoplastic products are known for having superior abrasion resistance over their rubber equivalents. Providing significantly longer wear, they offer as much as 100 to 30,000 times the abrasion resistance. Fiber braided thermoplastic hose also maintains better fatigue resistance than a wire-reinforced hose.

Parflex offers a choice of wire or fiber braid reinforced hose products. All hoses are specially designed to withstand abrasion and the abuse of constant flexing, assuring a longer service life without breaking or weakening. This makes them ideal for over-the-sheave applications and boom trucks, as well as an excellent option for abrasive environments like construction, forestry, mining and refuse.

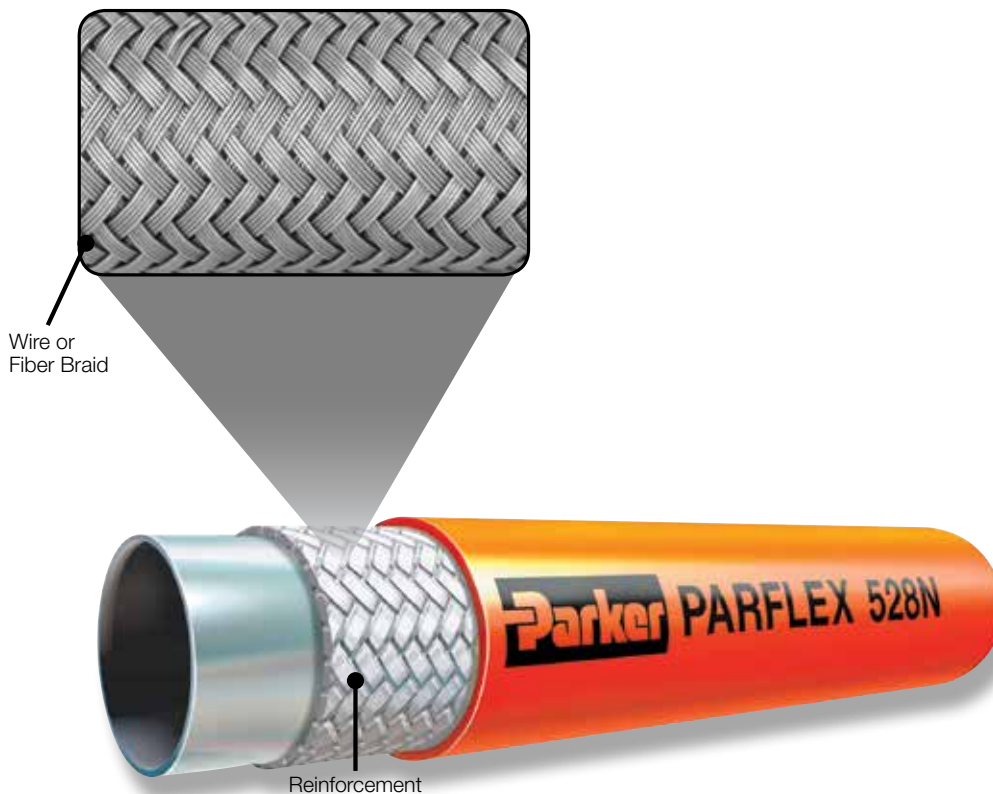
Bonded Hose

Bonded assemblies help prevent hose-to-hose abrasion at high stress levels. By bonding 2 to 10 varying-sized hoses (maximum 10" O.D.) together, bonded assemblies keep hoses from rubbing

against each other or tangling. They are particularly beneficial for long runs, such as cable tracks. Parflex hose bonding keeps hoses straight for easier and more stable routing while improving quality by maintaining continuous hoses from end to end.

Convenient Harness and Bundle Integration

Similar to bonding, Parflex harnesses and bundles ensure quick assembly, eliminate waste and improve throughput. Custom engineered to meet the exact requirements of each manufacturer, Parflex harnesses reduce labor by supplying a pre-designed bundle of tubes to fit a customer's specific application. With all the connections secured together, the preformed harness decreases overall installation time, waste and human error, while improving part consistency for a neater and cleaner design. Companies can then re-allocate excess resources to bottleneck areas – increasing their overall throughput.





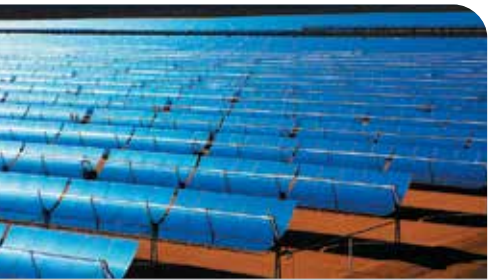
Cleanliness and Safety

Parflex products are designed with safety and cleanliness in mind. The erosion resistant core maintains long-term system cleanliness with mandrel free construction to ensure zero lubricant contamination. And with fiber reinforced Parflex thermoplastic hose, there's little to no contamination due to cutting because they do not require a hose saw.

While cleanliness is inherent in thermoplastic core tubes, some Parflex hoses also maintain non-conductivity, keeping the operator safe from electric shock. Most hoses feature a UV and ozone resistant cover, which resists cracking and UV damage, thus extending the service life of the hose.

Parflex has developed specific products that focus on safety. The 944B/955B high pressure PTFE hoses handle pressures up to 5,500 psi and are available with fire sleeves to facilitate safer operator handling.

For detailed ordering information, please consult price list or contact Parflex® Division.



Environmental Concerns

In addition to being innovative and safe, Parflex is committed to being environmentally conscious as a company and global manufacturer and continues to develop environmental solutions for emerging markets such as compressed natural gas (CNG), oil and gas and wind power.

Within the CNG market, Parflex has designed a special CNG hose and bonded assemblies for use with CNG dispensers, transfer applications and transportation refill trailers. New fluoropolymer hoses have also been designed to target the oil and gas market. Finally, Parflex engineers have assembled comprehensive hydraulic and lubrication systems for the wind power sector. These systems include preformed, twinline, HLB lubrication hoses and hose bundles.

Existing markets will continue to change and new markets will emerge. And as they do, Parflex Engineers will be there to help you develop solutions for the new challenges and obstacles that arise. Parflex offers complete engineering support, including custom design solutions, on-site prototyping, pre-production fit-up and print creation.



Environmental Sustainability

Parflex is committed to managing our business, products and manufacturing activities in an environmentally conscious and sustainable method.

Parflex manufacturing locations are either ISO 14001 certified or ISO 14001 ready. The ISO 14001 Environmental Management System (EMS), developed by the International Standards Organization (ISO), provides a framework for companies to minimize the environmental impact of their operations, ensure compliance with applicable laws and regulations and to ensure continual improvement.

Utilizing the ISO 14001 system, Parflex has made significant progress towards reducing its carbon foot print through; reduced energy consumption, increased recycling activities and the reduction of raw material consumption through innovative product design, material selection and manufacturing technologies.

Parflex ensures consistent quality and faster implementation
– all to save you time and money.



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How to Use This Catalog

Table of Contents

For quick, easy listing of topics covered by section, reference the Table of Contents on pg. 1.

Information by Part Number

See the Part Number Index in Section G pg. i

Information by Type of Part

See the Key Word Index in Section G pg. v or check the Section Table of Contents/Visual Index found on the first page of each section in the catalog.

Information by Fitting End Configuration














See Standard Fitting Configurations by Connection and End Code in Section E, pg. 4. This list identifies the cataloged fittings by a description of the end configuration and the fitting end code.

The Parker Part Numbering System

The part numbering system for hose, fittings and tubing is explained on pgs. 12 & 13. Specific nomenclature sheets are located in the Hose Section on pgs. A-18 : A-21. In the Tubing Section, part number information is included on each product page.

International Symbols

An explanation of the symbols and their meaning used in the product tables can be found below.

Symbol	Meaning	Symbol	Meaning
#	Part Number		Minimum Burst Pressure
	Hose Inner Diameter (I.D.)		Weight
	Hose Outer Diameter (O.D.)		Vacuum Rating
	Working Pressure		Thread Size
	Minimum Bend Radius		Hex Size
	Crimp Die		Diameter
	Crimp Fitting		Field Attachable Fitting

ICON Identification Key



Agriculture



Automotive



Compressed Gas



Construction



Electrical



Fluid Handling



Food/Beverage



Forestry



Grounds/Bldg. Mtn.



Industrial



Industrial Pneumatic



Machine Tool



Marine



Material Handling



Medical



Military



Mining



Oilfield Service



Paint



Paving & Road
Maintenance



Personnel Equipment



Pharmaceutical



RV & Bus



Semiconductor



Sewer Hose



Transportation



Utility Equipment



Waste Refuse

For detailed ordering information, please consult price list or contact Parflex® Division.

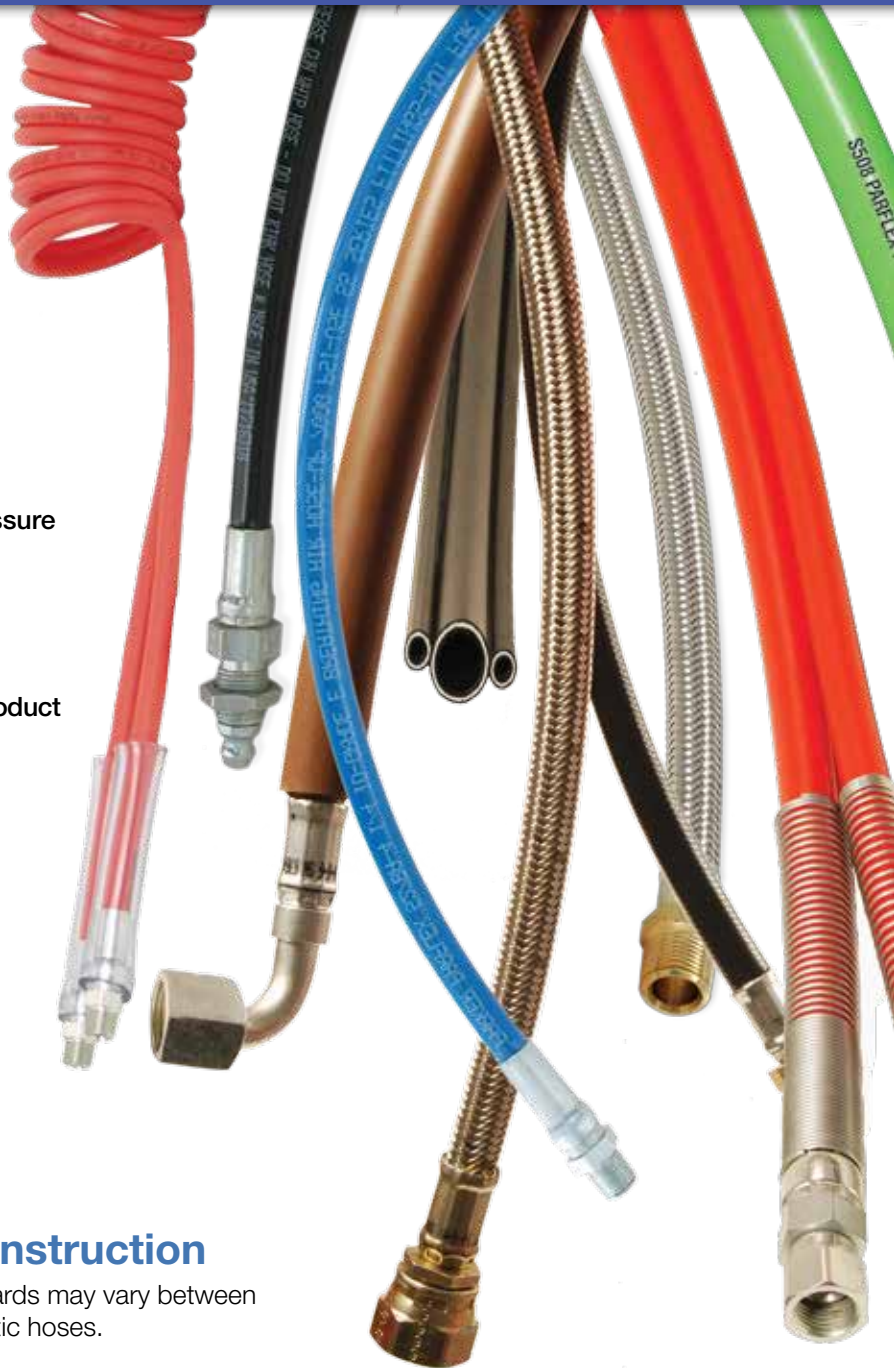
Selecting the Right Hose

Choosing Your Hose

Before selecting hoses from Catalog 4660, it will be easier if you familiarize yourself with the basics of thermoplastic and fluoropolymer hoses. If you review the symbols on pg. 8 and the "How to Build A Hose Assembly" on pages 12 & 13 you will have a foundation for selecting your hose. Also, the Parflex Hose Selections Charts (located in Section A) will help pinpoint the hose you require. It will help you identify individual hoses by:

- **Brief general description**
- **Specific size with corresponding working pressure**
- **Industry specification (ie. SAE)**
- **Core tube material**
- **Reinforcement/type of construction**
- **Cover material**
- **Specific page number where further detailed product information can be found**

For fittings, refer to the visual indexes in Section E.

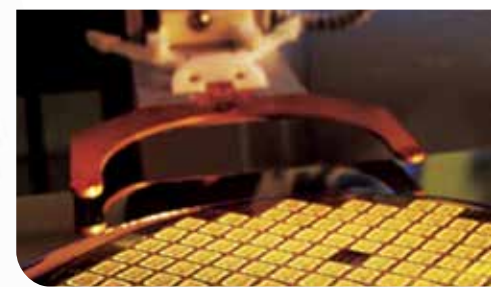
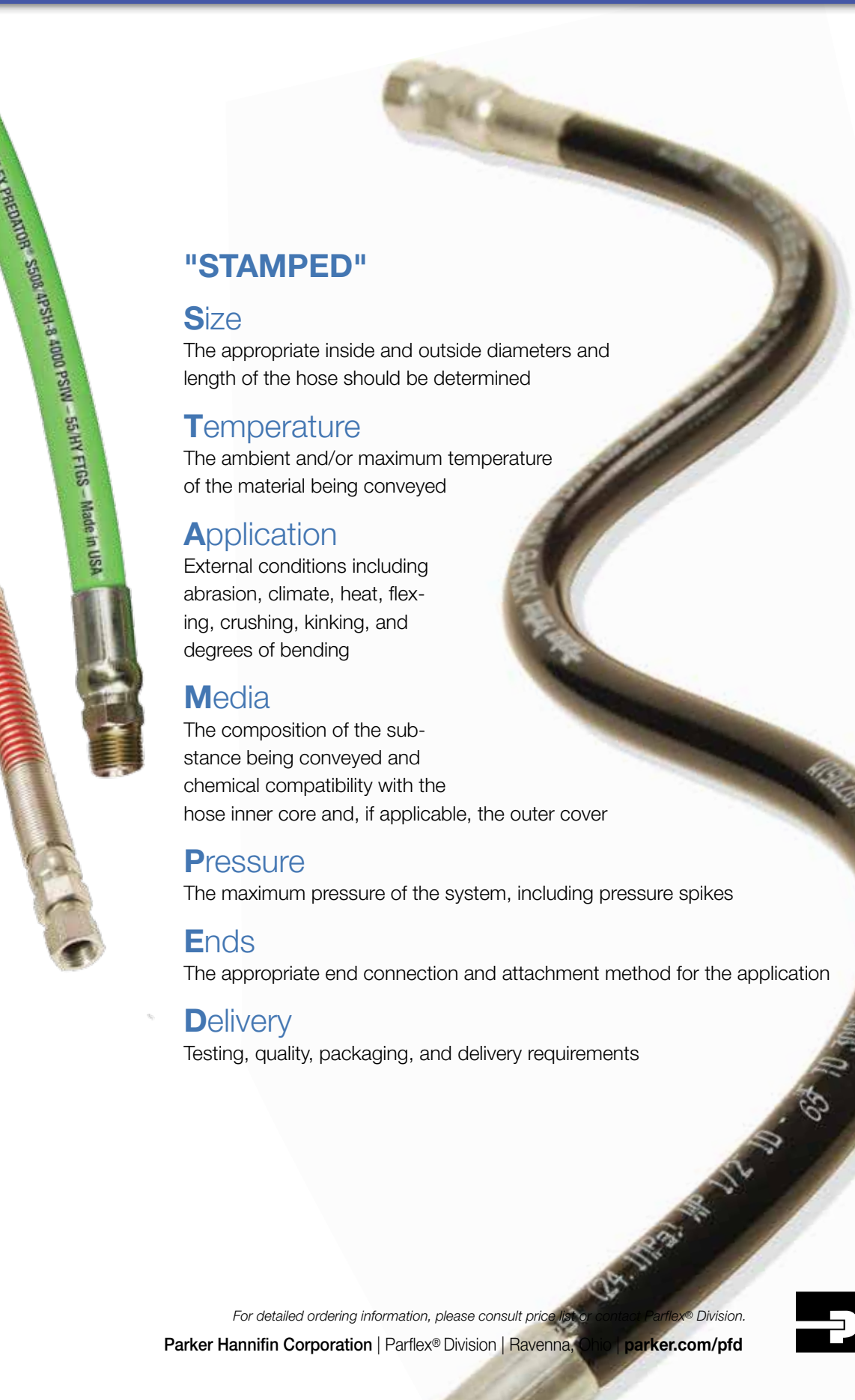


General Construction

Construction standards may vary between specific thermoplastic hoses.

Parflex bonds hose layers to provide maximum kink resistance and flexibility through a wide range of applications. Specific braid materials, wire reinforcements, spiral reinforcements and distinguishing features are clearly called out with each hose product. Perforated and non-perforated hoses are available based on application.

WITH NOTED EXCEPTIONS, Parflex hoses are engineered and manufactured to a 4:1 burst pressure to working pressure ratio that follows SAE design standards. Never operate a hose beyond its published working pressure. [Working Pressure x 4 = Minimum Burst]



"STAMPED"

Size

The appropriate inside and outside diameters and length of the hose should be determined

Temperature

The ambient and/or maximum temperature of the material being conveyed

Application

External conditions including abrasion, climate, heat, flexing, crushing, kinking, and degrees of bending

Media

The composition of the substance being conveyed and chemical compatibility with the hose inner core and, if applicable, the outer cover

Pressure

The maximum pressure of the system, including pressure spikes

Ends

The appropriate end connection and attachment method for the application

Delivery

Testing, quality, packaging, and delivery requirements

For detailed ordering information, please consult price list or contact Parflex® Division.

Hose, Fittings & Tubing Part Numbers

To make ordering of Parflex products easier, a part number description section has been added for hose, tubing and fitting products. For additional nomenclature information, refer to the following pages:

- Hose - Section Apgs. A-18 : A-21
- Tubing - Section BSee specific product page - Fluoropolymer pgs. B-52 : B-53
- Fittings - Section Epgs. E-2

Hose Part Numbers

Parflex has expanded the Hose section to include the PAGE Fluoropolymer product line. The PAGE product line is comprised of fluoropolymer hoses with specialty braid and construction options.

<p>Thermoplastic & Fluoropolymer</p> <p>Example: 520N – 8</p> <p>520N – 8 – Hose type (General Hydraulic Hose) 520N – 8 – Hose inside diameter dash size (1/2")</p>	<p>Parflex PAGE Fluoropolymer</p> <p>Example: 16-SCW</p> <p>16-SCW – Hose inside diameter dash size (1") 16-SCW – Hose type (Seamless Convuluted with Stainless Steel Braid)</p>
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Hose Assembly Part Numbers

Example: F540N0639080808C-30"

This assembly example reflects a 1/2" I.D., 540N hose with a female JIC 37° swivel straight fitting on the first end and a female JIC 37° - swivel - 90° elbow fitting on the other. The fittings are stainless steel and crimped (permanently attached) onto the hose. The overall length is 30".

<p>1. Prefix</p> <p>F540N0639080808C-30"</p> <p>F = Crimp R = Field Attachable A = 54 Series Factory</p>	<p>3. Fitting 1st End</p> <p>F540N0639080808C-30"</p> <p>SAE 1/2" female JIC 37° swivel straight fitting</p>	<p>5. Size 1st End</p> <p>F540N0639080808C-30"</p> <p>1/2"</p>	<p>7. Hose End Dash Size</p> <p>F540N0639080808C-30"</p> <p>1/2"</p>
<p>2. Hose type</p> <p>F540N0639080808C-30"</p> <p>General Hydraulic Hose</p>	<p>4. Fitting 2nd End</p> <p>F540N0639080808C-30"</p> <p>SAE 1/2" 90° female JIC 37° swivel elbow fitting</p>	<p>6. Size 2nd End</p> <p>F540N0639080808C-30"</p> <p>1/2"</p>	<p>8. Fitting Material</p> <p>F540N0639080808C-30"</p> <p>- Blank = Steel (unless noted) - C = Stainless - B = Brass</p>
<p>9. Length</p> <p>F540N0639080808C-30"</p> <p>30" overall length</p>			

A complete nomenclature guide for Parflex PAGE hoses is located in Section A on pg. A-21.



For detailed ordering information, please consult price list or contact Parflex® Division.

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Hose Fittings Part Numbers

Parflex has expanded the Fitting Section to include the new 56 Series fittings, designed for global availability and with a smaller, compact O.D.

Example: 10356-8-6

This example describes a permanent crimp 1/2" Male JIC 37° Rigid hose end with a 3/8" hose end. This fitting is constructed of steel since the designated material is blank.

10356-8-6 – **Fitting Type** (1 = Permanent/Crimp)

10356-8-6 – **End Configuration Code**
(Male JIC 37° Rigid)

10356-8-6 – **Fitting Series** (Series 55)

10356-8-6 – **End Size** (1/2")

10356-8-6 – **Hose Size** (3/8")

Fitting Material

- Blank = Steel (unless otherwise noted)
- B = All Brass
- C = Stainless Steel
- S = All Carbon Steel – Used only with PTFE Fittings

Tubing Part Numbers

Parflex has expanded the Tubing Section to include the TexLoc Fluoropolymer product line. In addition to smooth bore tubing, TexLoc products include beading, convoluted tubing and heat shrinkable tubing. This tubing is supplied in natural and colors are available upon request. For a detailed fluoropolymer nomenclature guide, review Section B, pgs. B-52 : B-53.

Thermoplastic

Example: U-21-BLU-0250

U-21-BLU-0250 – **Polyurethane**

U-21-BLU-0250 – **Tube O.D.**

in sixteenths of an inch (1/8")

U-21-BLU-0250 – **Tube I.D.**

in sixteenths of an inch (1/16")

U-21-BLU-0250 – **Color** (Blue)

U-21-BLU-0250 – **Package quantity** (250')

Available colors

- | | |
|------------------|------------------------------|
| ● BLK = Black | ● ORG = Orange |
| ● BLU = Blue | ● RED = Red |
| ● GRY = Gray | ● YEL = Yellow |
| ● GRN = Green | (colors may vary by product) |
| ● None = Natural | |

Fluoropolymer

Example: 101-0250062-NT-0100

101-0250062-NT-0100 – **PTFE**

101-0250062-NT-0100 – **Tube O.D.**
inch displayed in decimals (1/4")

101-0250062-NT-0100 – **Wall Thickness**
inch displayed in decimals (.062")

101-0250062-NT-0100 – **Color** (Natural)

101-0250062-NT-0100 – **Bulk Tubing**

101-0250062-NT-0100 – **Package quantity** (100')

Available colors

- | | |
|---------------|--------------|
| ● N = Natural | ● 5 = Green |
| ● 0 = Black | ● 3 = Orange |
| ● 6 = Blue | ● 2 = Red |
| ● 1 = Brown | ● 4 = Yellow |
| ● 8 = Gray | ● 9 = White |

For detailed ordering information, please consult price list or contact Parflex® Division.

Why Use Thermoplastic Tubing?



Benefits of Thermoplastic Tubing Materials and Applications*

Nylon	Strength Chemical Compatibility	Instrumentation Food & Beverage
Polyethylene	Food/Water Contact Cost	Potable Water Chemical Transfer
Polyurethane	Flexibility	Pneumatics
Polypropylene	Food Contact Chemical Transfer Chlorinated Water	Robotics Machine Tools Lubrication
Vinyl	Cost Flexibility Food Contact Clarity	Pest Control Lines Semiconductor Marine Applications Weld Spatter/Spark Environments

*Certain materials perform better in particular applications. Contact Customer Service for details.



For detailed ordering information, please consult price list or contact Parflex® Division.

Why Use Fluoropolymer Tubing?



Benefits of Fluoropolymer Tubing Materials and Applications*

All	Self extinguishing Nonwetting FDA & USP Class VI compliant	Pharmaceutical Solar Panels Pulp & Paper
PTFE	Operates up to 500°F Lowest coefficient of friction	Food Processing Environmental Sampling
FEP	Operates up to 400°F Long, continuous lengths	Chemical Delivery
PFA	Operates up to 500°F Long, continuous lengths High purity resins available	Chromatography Paint Equipment Instrumentation
PVDF	Operates up to 265°F Food Contact Chemical Transfer Chlorinated Water	Heat Exchanger Ink Rollers Medical Devices

*Certain materials perform better in particular applications. Contact Customer Service for details.

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Mobile Hydraulics



Parflex Mobile Hydraulic products meet the needs of four primary market segments: aerial lift, agriculture, construction and material handling. Why are Parflex products so popular? Namely, cleanliness, high-impulse hybrid hoses, low volumetric expansion, lightweight and long-length manufacturing, as well as, ease of service and preformed capabilities.

Within the aerial lift market, Parflex products range from the eXtreme™ Duty hose to twin and multi-bonded hoses to preformed products and crimping. For the agriculture market,

Parflex products are used for oil return lines on tractors, polyethylene transfer tubes for sprayer application and grease lines on harvesters. In the construction market, Parflex products help save you money by replacing single-line rubber hoses with non-abrasive, lighter weight bonded thermoplastics on equipment. Finally, in material handling, Parflex products answer over-the-sheave and cold/refrigerated challenges.

Applications

- General Hydraulics
 - Off-Road Construction
 - Earth Moving Equipment
 - Lift Trucks
 - Material Handling
 - Construction Equipment
 - Refuse Haulers
 - Agricultural Equipment
- Lubrication lines
- Over-the-sheave applications
- Power steering
- Compressor discharge
- General hydraulics
- Hydraulic & pneumatic systems
- Commercial refrigeration
- Cold storage
- Testing labs
- Material handling
- Conveyor equipment
- Mower attachments
- Implement hydraulic power
- Diagnostics/Gaging
- PTO's
- Aerial Lift Hydraulic Tools
- Pilot Control Lines
- Turbo Drain Lines





Markets

- Material Handling Equipment
- Marine
- Agricultural Equipment
- Utility Equipment
- Sewer Cleaning Equipment
- Aerial Lift
- Construction Equipment
- Rough Terrain Equipment
- Refuse Haulers
- Mining



For detailed ordering information, please consult price list or contact Parflex® Division.

Fluid Handling



Parflex Fluid Handling products are categorized by their thermoplastic and fluoropolymer (PTFE) makeup. Thermoplastic products service lubrication, carpet (power) cleaning, sewer cleaning, breathing air, media transfer, and refrigeration markets while Fluoropolymer (PTFE) products meet a wide array of needs as a result of PTFE's unique material benefits.

Fluoropolymer (PTFE) products – which include smooth bore & convoluted hose, as well as steel, stainless steel, and brass fittings – service automotive, oil & gas, power generation, packaging/chemical transfer, and pulp & paper markets and applications. All of these markets and applications greatly benefit from PTFE's chemical resistance, extreme temperature range, low friction, non-stick and flexibility. They also take advantage of PTFE's

unlimited shelf life, high purity and natural FDA-compliant and black static dissipative core tube.

The Parflex PAGE fluoropolymer hose line extends the PTFE hose selection even further with convoluted hose assemblies, PTFE encapsulated fittings and PTFE flare-thru fittings for the pharmaceutical and food and beverage market.

Applications

- Car care
- Semi-conductor (Pure air or gas transfer)
- Pharmaceutical dispensing
- Lubrication systems
 - Forklift
 - Machine tool
 - Heavy equipment
- Breathing air systems
- Chemical dispensing
- Sewer cleaning
- Alternative Fuels
- Potable water delivery
- Carpet (Power) cleaning
- Coolant lines
- Agricultural spraying
- Oil & Gas transfer (Petrochemical)
- Food and Beverage
- Chemical and Gas Transfer





Markets

- Industrial Equipment
- Utilities (CNG)
- Semiconductor
- Chemical
- Commercial Refrigeration
- Water Treatment
- Power Cleaning
- Power Generation
- Car Care
- Pharmaceutical
- Bio-Pharmaceutical
- Pulp & Paper
- Oil & Gas



For detailed ordering information, please consult price list or contact Parflex® Division.

Industrial Pneumatics



Parflex Industrial Pneumatics provide high-quality air tool, robotic and coiled thermoplastic solutions. A diverse product line includes lightweight, non-marring, flexible hose and thermoplastic or fluoropolymer tubing.

Ideal for construction, carpentry, automotive and aerospace industries, Parflex air hose assemblies are a smart investment over rubber counterparts. Parflex hoses are lighter weight, feature a no-mar, easy-clean outer cover and can be coiled or uncoiled down to -40°F without memory effect. All of which helps to improve worker safety, reduce property damage, lessen equipment repair/replacement, and, most importantly, increase productivity.

Parflex additionally offers products specifically designed for robotic applications, such as low-pressure 83FR hose and HUFR tubing. Tubing and hose bundling products for general robotics reduce installation time and promote longer life. For coiled thermoplastic solutions, look no further than Parflex tough, abrasion and kink-resistant coiled hoses.

The Parflex coiled selection includes Fast-Stor® coils and Ultra-Lite Superbraid, designed for markets like transportation, manufacturing and robotics.



Applications

- Air tools
- Robotic welding
- End-of-arm tooling
- Metal working
- Automotive maintenance
- General robotics

Markets

- Robotics
- Packaging Machinery
- Machine Tool
- Construction
- Automotive Maintenance
- Medical Equipment
- Laboratory Equipment
- Furniture Manufacturing
- Aerospace



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Industrial Hydraulics



Parflex Industrial Hydraulics develops thermoplastic hose and fitting products – from fiber, wire and Aramid fiber reinforced products to steel, stainless steel, and brass fittings to equipment & accessories – for today's fastest growing markets.

Parflex provides the power generation market with hose, tubing and bundles for turbine control valves, fuel systems and steam monitoring and thermoplastic hose and bonded hose assemblies for car & truck wash applications. In addition, Parflex manufactures hose reels for service

garages, auto and truck dealers, construction service shops and farm equipment service centers.

Parflex also provides hydraulic product equipment, such as MiniKrimp™ machines, to rental yards and forklift service companies. Ideal for field repairs, the lightweight, economical MiniKrimp™ hand pump and air/hydraulic models can crimp a majority of Parker thermoplastic, rubber, hybrid and PTFE hoses up to 3/4" I.D.

Applications

- Injection molding
- Patient handling
- Car care
- Lubrication systems
- Molding and transfer lines for plastics
- Hydraulic or vacuum connections
- General hydraulic lines
- Metal cutting
- Metal forming
- Vertical machining centers
- Hand brakes
- Press brakes
- Bending machines
- Automotive maintenance
- Rescue tools



Markets

- Machine Tools
- Hydraulic Tools
- Power Generation
- Mining Equipment
- Patient Handling
- Car Care
- Automotive
- Rescue Tools
- Lubrication Systems
- Recreational Vehicles



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Transportation



Parflex Transportation products have been specifically designed to meet the needs of trucks, specialty trucks (such as military, fire and terminal), buses and RVs, engines, and trailers.

An extensive line of transportation products includes a selection of air brake tubing for standard distribution and large OEMs, air brake harnesses, coils, fuel tubing and 100% pressure-tested fleet tubing for use with diesel fuel.

Steering lines on transit buses run from the back engine all the way to the front steering gear, which can require up to 40 feet of stainless steel tubing. Parflex offers a more manageable solution:

the eXtreme™ Duty Hose. Parflex also supplies products for turbo supply/drain and other coolant lines, from smooth bore to convoluted, lightweight lubricant systems, and flexible metal hose.

Parflex metal hose assemblies are built, tested, cleaned and packaged to suit customer requirements. With zero permeation, excellent chemical resistance and a full vacuum rating, Parflex metal hose handles temperatures that simply aren't compatible with rubber or other thermoplastics!

Applications

- Fuel lines
- Power steering
- Coiled air brake
- Exhaust and AC lines
- Lubrication systems
- Mini hydraulics
- Compressor discharge
- Fast response
- Compressed natural gas
- Fuel transfer





Markets

- Class 8 Heavy Truck
- Standard Box Truck
- Diesel Truck
- Bus
- Refrigeration Truck
- Refuse Truck
- Fire Truck
- Trailers
- Street Sweepers
- Military Vehicles
- RV's



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Life Science



Parflex has extended the selection of medical tubing capabilities through the TexMed® side of the TexLoc® business unit in Fort Worth, TX. TexMed specializes in the extrusion of precision tolerances for custom tubing and custom profiles of TexFluor® PTFE, ePTFE, FEP, PFA, and ETFE. Coupled with the traditional line of thermoplastic tubing in Vinyl, Polypropylene and Nylon Pure Air tubing, Parflex has a tube for almost every medical application.

With an emphasis on partnering, Parflex Engineers work closely with our customer's engineers to create tubing products with increased performance. The newest development is a medical grade FEP Heat Shrink for catheter forming. Unlike typical FEP heat shrink, which often wrinkles, twist or grows up to 20% in length when shrinking, the new heat shrink has a uniform recovery and a maximum constrained elongation up to + 5%. And with a faster recovery time, medical grade FEP Heat Shrink is very responsive in reflow applications for catheter manufacturing.

Parker/TexMed Advantages include:

- Application and Material Engineering Support
- Precision tolerance tubing
- Ability to handle low volume start up projects
- Class 10,000 clean room
- Complete traceability on each lot of product
- Wide range of US Class VI compliant materials

In the value added service department, specialty operations such as laser marking, tube cutting, scoring, slitting, marking, flanging, flaring, tipping and other services are available.

Applications

- Catheter construction
- Sheathing
- Forming devices
- Introducers
- Dental equipment
- Endoscopic instruments
- Tracheotomy tubes
- Blood analyzer
- Lab instruments
- General robotics
- Air and gas transport
- Packaging





Markets

- Medical Device
- Medical Equipment
- Dental



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Food & Beverage



Parflex Hose and Tubing for the Food and Beverage market is comprised of FDA compliant thermoplastic tubing and fluoropolymer hose and tubing. Tubing is available in Polyethylene, Polypropylene, Vinyl and Fluoropolymers, consisting of PTFE, FEP, PFA & PVDF.

Parflex PAGE high temperature food processing hoses are available in several types and sizes. All of these hoses offer a seamless tube that resists the collection of bacteria, preserve taste and are very easy to clean. For added strength and durability, each hose has an added reinforcement that withstands internal pressures, a helical wire for full vacuum capabilities, and a high-grade weather and abrasion resistant cover for longevity.

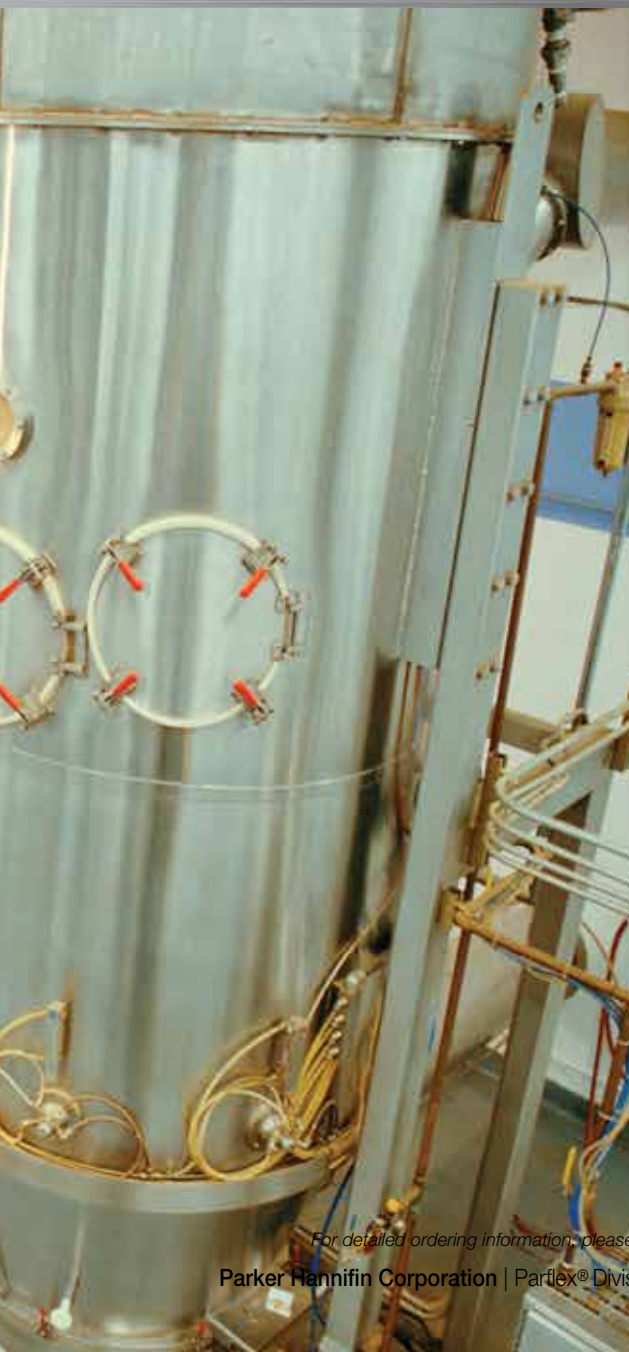
All of the Parflex PAGE Food Transfer Hoses are compliant with FDA, 3A and USDA product standards. Additional compliance for specialty hoses includes PMPO (Grade A Pasteurized Milk Ordinance) and CFIA (Canadian Food Inspection Agency).

One of the more unique hoses, PAGE-flex® SBF™, offers a superior bend radius (1/2 the bend radius of conventional fluoropolymer braided hoses) coupled with superior kink and vacuum resistance.

Applications

- Transport of edible oils, syrup, milk and other food products
- Dispensing equipment
- Tank transfer of raw products
- In-plant transfer for processing





Markets

- Food
- Beverage



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