

# Parflex Tubing Introduction

## Tubing Compatibility Chart

Parker Tubing / Hose Capability with Parker FSC Fittings

Product Sizes (inch)		Parflex Thermoplastic Tubing											
		Industrial Tubing Series (Outside Diameter Shown)								Industrial Tubing Series (O.D. shown)			
		Polyethylene E & EB Inch (4,5,6,8,10) Metric (6,8,10,12)	Polyethylene PE Inch (2,2.5,3,4,5,6,8)	Polyethylene PEFR Inch (2.5,4,6,8)	Polyethylene HDPE Inch (4,6)	Nylon N Inch (2,2.5,3,4,5,6,8) Metric (4mm - 20mm)	Nylon PAT Inch (2,4,6,8,10,12)	Nylon NR Inch (2,3,4,5,6,8)	Polypropylene PP & PPB Inch (2,3,4,5,6,8,10)	Polyurethane U (90 - 95 Shore A) Inch (2,3,4,6,8,9,12) Metric (4,6,8,10,12)	Polyurethane HU & HUM (>95 Shore A) Inch (2,2.5,4,6,8,12) Metric (4,6,8,10,12)	Polyurethane FR (Weld Tubing) Inch (4,5,6,8)	Clear Vinyl Inch (1/8" - 2 1/2")
C Coiled Air Hose & Fittings	Compression - Inch (2,3,4,5,6,7,8,10,12,14)	PS TS	PS TS	PS TS	PS TS	PS TS	PS TS	PS TS					
	Compress-Align - Inch (2,3,4,5,6,8,10,12,14,16)	TS	TS	TS	TS	TS	TS	TS					
	Metru-Lok - Metric (4,6,8,10,12,14,16,18,22)	TS	TS										
	Poly-Tite - Inch (2,3,4,5,6,8)					BS		BS					
	Hi-Duty - Inch (2,3,4,5,6,8,10)	TS	TS	TS	TS	TS	TS	TS					
	45 degree flare - Inch (2,3,4,5,6,8,10,12,14)												
	Inverted Flare - Inch (2,3,4,5,6,8,10,12,14)												
	Fast & Tite - Inch (4,5,6,8,10)								TS	TS		TS	
D Transportation	Flow Controls - Inch (2,2.5,4,5,6,8) Metric (4,6,8,10,12)												
	Prestolok Brass - Inch (2,2.5,3,4,5,6,8) Metric (4,5,6,8,10,12,14)												
	Prestolok Composite Inch (2,2.5,3,4,5,6,8) Metric (4,5,6,8,10,12,14)												
	Liquifit - Inch (4,6,8)												
E Fittings	TrueSeal - Inch (4,5,6,8)								TS	TS		TS	
	Par-Barb - Inch (2,3,4,5,6,8,10,12)								CL			CL	
	Dubl-Barb - Inch (2.5,4,6,8)												
	Hose Barb - Inch (2,3,4,5,6,8,10,12,16) Inside Diameter											CL	
F Tooling, Equipment & Accessories	Garden Hose											CL	
	NTA - Inch (3,4,6,8,10,12)												
	Transmission Fittings - Inch (2,2.5)												
	Air Brake - Inch (4,6,8,10,12,16)												
	Air Brake Hose - Inch (6,8)												
	Vibra-Lok - Inch (2,3,4,5,6,8,10,12)												
	Prestomatic - Inch (2,2.5,3,4,6,8,10,12) Metric (6,8,10,12,16)												
	PTC - Inch (4,6,8,10,12)												
	SAE Cartridges - Inch (2,5,4,6,8,10,12)												
	Manifolds - Inch (4,6,8)												

PS = Plastic sleeve & tube support recommended  
 TS = Tube support is recommended  
 BS = Brass sleeve recommended  
 CL = Clamp required



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

Tubing

Coiled Air Hose & Fittings

Transportation

Fittings

Tooling, Equipment & Accessories

General Technical

Parflex Thermoplastic Tubing				Parflex Fluoropolymer Tubing				Product Sizes (inch)	
Transportation Tubing				PFA Fluoropolymer Inch (3/32" - 1") Metric (4mm - 12mm)	FEP Fluoropolymer Inch (1/8" - 1") Metric (3mm - 12mm)	PTFE Fluoropolymer Inch (3/32" - 1") Metric (3mm - 16mm)	PVDF Fluoropolymer Inch (2,3,4,5,6,8,10,12,16)		
PFT Air Brake (SAE J844) Inch (2,2.5,3,4,5,6,8,10,12)	Air Brake DIN 74324 (Nylon 12) Metric (4,6,8,10,12,15,16,18)	PFT Diesel Fuel Sizes 4,6,8,10,12	HTFL Diesel Fuel Sizes 4,6,8,10,12						
				PS	PS	PS		Compression - Inch (2,3,4,5,6,7,8,10,12,14)	Compression & Flare
				TS	TS	TS		Compress-Align - Inch (2,3,4,5,6,8,10,12,14,16)	
								Metru-Lok - Metric (4,6,8,10,12,14,16,18,22)	
								Poly-Tite - Inch (2,3,4,5,6,8)	
								Hi-Duty - Inch (2,3,4,5,6,8,10)	
								45 degree flare - Inch (2,3,4,5,6,8,10,12,14)	
								Inverted Flare - Inch (2,3,4,5,6,8,10,12,14)	
								Fast & Tite - Inch (4,5,6,8,10)	Push-to-Connect
								Flow Controls - Inch (2,2.5,4,5,6,8) Metric (4,6,8,10,12)	
								Prestolok Brass - Inch (2,2.5,3,4,5,6,8) Metric (4,5,6,8,10,12,14)	
								Prestolok Composite Inch (2,2.5,3,4,5,6,8) Metric (4,5,6,8,10,12,14)	
								Liquifit - Inch (4,6,8)	Barb
								TrueSeal - Inch (4,5,6,8)	
								Par-Barb - Inch (2,3,4,5,6,8,10,12)	
								Dubl-Barb - Inch (2.5,4,6,8)	DOT Transportation
								Hose Barb - Inch (2,3,4,5,6,8,10,12,16) Inside Diameter	
								Garden Hose	
								NTA - Inch (3,4,6,8,10,12)	
								Transmission Fittings - Inch (2,2.5)	
								Air Brake - Inch (4,6,8,10,12,16)	
								Air Brake Hose - Inch (6,8)	
								Vibra-Lok - Inch (2,3,4,5,6,8,10,12)	
								Prestomatic - Inch (2,2.5,3,4,6,8,10,12) Metric (6,8,10,12,16)	
								PTC - Inch (4,6,8,10,12)	
								SAE Cartridges - Inch (2.5,4,6,8,10,12)	
								Manifolds - Inch (4,6,8)	

## Tube Line Fabrication Guide for Leak Free Systems

Every hydraulic, pneumatic and lubrication system requires some form of tube line fabrication and fitting installation for completion. Proper fabrication and installation are essential for the overall efficiency, leak free performance, and general appearance of any system.

Start by planning ahead. After sizing the tube lines and selecting the appropriate style of fitting, consider the following in the design of your system:

1. Accessibility of joints
2. Proper routing of lines
3. Adequate tube line supports
4. Available fabricating tools

PS = Plastic sleeve & tube support recommended  
 TS = Tube support is recommended  
 BS = Brass sleeve recommended  
 CL = Clamp required

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



# Thermoplastic Tubing

Tubing  
Thermoplastic  
B

## Polyethylene

- Parflex polyethylene tubing meets FDA, NSF Standard 51 for all food contact applications and NSF-61 for potable water applications.
- E-Series tubing is made of 100% virgin resin material.
- Polyethylene tubing meets ASTM D-1693 (10% IGEPAL) for stress crack resistance.
- Parflex also offers special PE tubing: PEFR (flame retardant) and HDPE (high density).

## Nylon

- Flexible nylon tubing is constructed of high-grade resins for strength and flexibility for routing in tight spaces.
- Semi-rigid high strength nylon is constructed of high-grade resins without the addition of plasticizers for higher pressure tubing applications.
- Pure Air Tubing (PAT) is the tubing choice for pure air systems (semiconductor) due to its cleanliness; in addition, it offers excellent chemical and UV light resistance.
- NTNA Tubing meets NSF Standard 51 for all food contact applications and may be used for instrumentation lines, lubrication and process piping systems and oil and refrigerant lines.

Coiled Air Hose  
& Fittings  
C

## Parprene™ (thermoplastic elastomer)

- Excellent flexural fatigue resistance.
- Resistant to environmental stress cracking.
- Series F meets FDA, NSF Standard 51 and 3-A approved for all food contact applications.

Transportation  
D

## Polypropylene

- Polypropylene tubing meets FDA, NSF Standard 51 for all food contact applications.
- Polypropylene tubing exhibits excellent chemical resistance to chlorinated water applications.
- Black Polypropylene tubing is commonly used in outdoor applications where UV light stabilization is required.

Fittings  
E

## Polyurethane

- Polyurethane tubing is a flexible, kink-resistant and abrasion-resistant material commonly used in pneumatic applications.
- Polyurethane is available in multiple transparent and opaque colors for system color coding.
- Polyurethane is available in the following durometers (measurement of material hardness):
  - Medium durometer: (90 - 95)
  - High durometer: (>95) for higher pressures

Tooling, Equipment  
& Accessories  
F

## Polyvinyl Chloride (PVC)

- PVC tubing is made from 100% virgin resin material and meets all FDA specifications for materials in contact with food and drugs.
- PVC tubing is a very flexible, 70 durometer tubing. It is crystal-clear and ideal for situations where visible fluid flow is necessary (i.e. sight gauges for tank identification).

**All plastic tubing dimensions are laser monitored to ensure overall quality product.  
Most tubing sizes are packaged in convenient 100-ft., 250-ft., 500-ft. and 1,000-ft. lengths.**

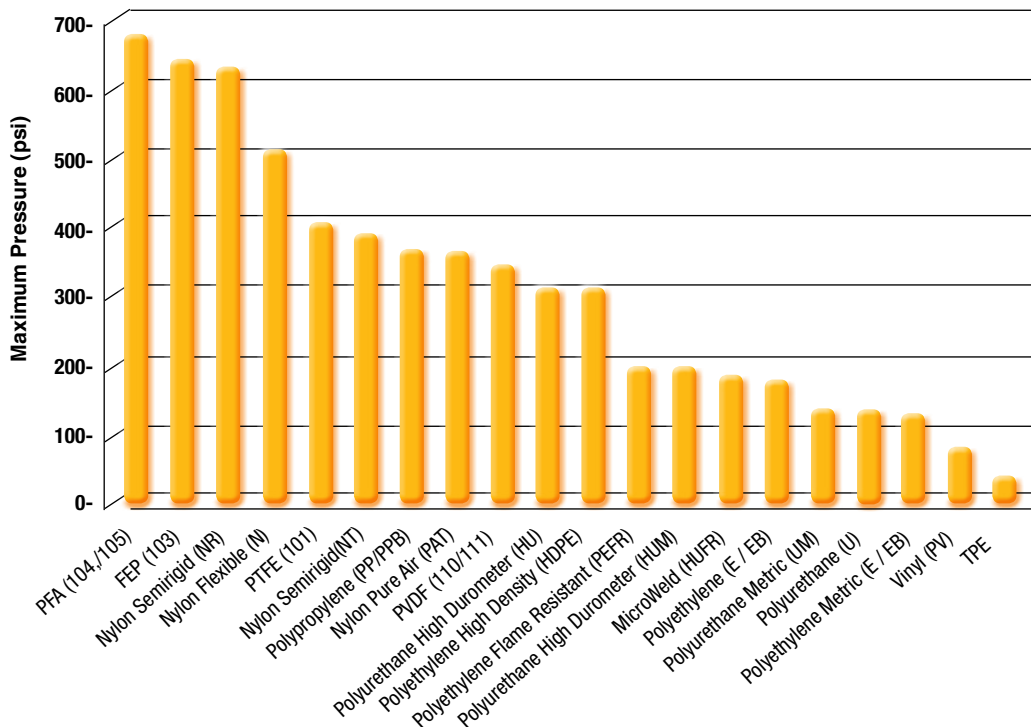
General Technical  
G

# Thermoplastic Tubing

## Typical Applications

Product Family	Series	Suggested Markets and Applications
Polyethylene	E and EB	Potable water, chemical transfer, and low-cost, low-pressure pneumatics, NSF-51 & NSF- 61
	PEFR	Pneumatic controls in HVAC
	HDPE	Chemical transfer and low-cost pneumatics
Nylon	N	Pneumatic and petroleum-based chemical transfer
	PAT	Pure air and gas distribution systems, semiconductor
	NR	High pressure pneumatic, low pressure lubrication and hydraulic, marine control systems
	NTNA	Instrumentation lines, lubrication and process piping systems, oil and refrigerant lines, NSF-51
Polypropylene	PP and PPB	Food contact and chemical transfer applications, chlorinated water, NSF-51
Urethane	U and UM	Pneumatic controls requiring high flexibility, kink resistance and movement
	HU and HUM	High-pressure pneumatics requiring flexibility and kink resistance, robotics
Parprene™	TPE, Series G	Thermoplastic elastomer, black, general industrial tubing
	TPE, Series F	Thermoplastic elastomer, tan, food & dairy FDA compliant tubing
Vinyl	PV	Low-pressure chemical and medical applications requiring high clarity and flexibility, FDA

## Tubing Pressure Ranges



Working pressures are at 73°F (23°C). Pressure ratings are also effected by diameter of tubing and wall thickness. Actual performance may vary with different media and working conditions. Use this information for comparison only.

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

