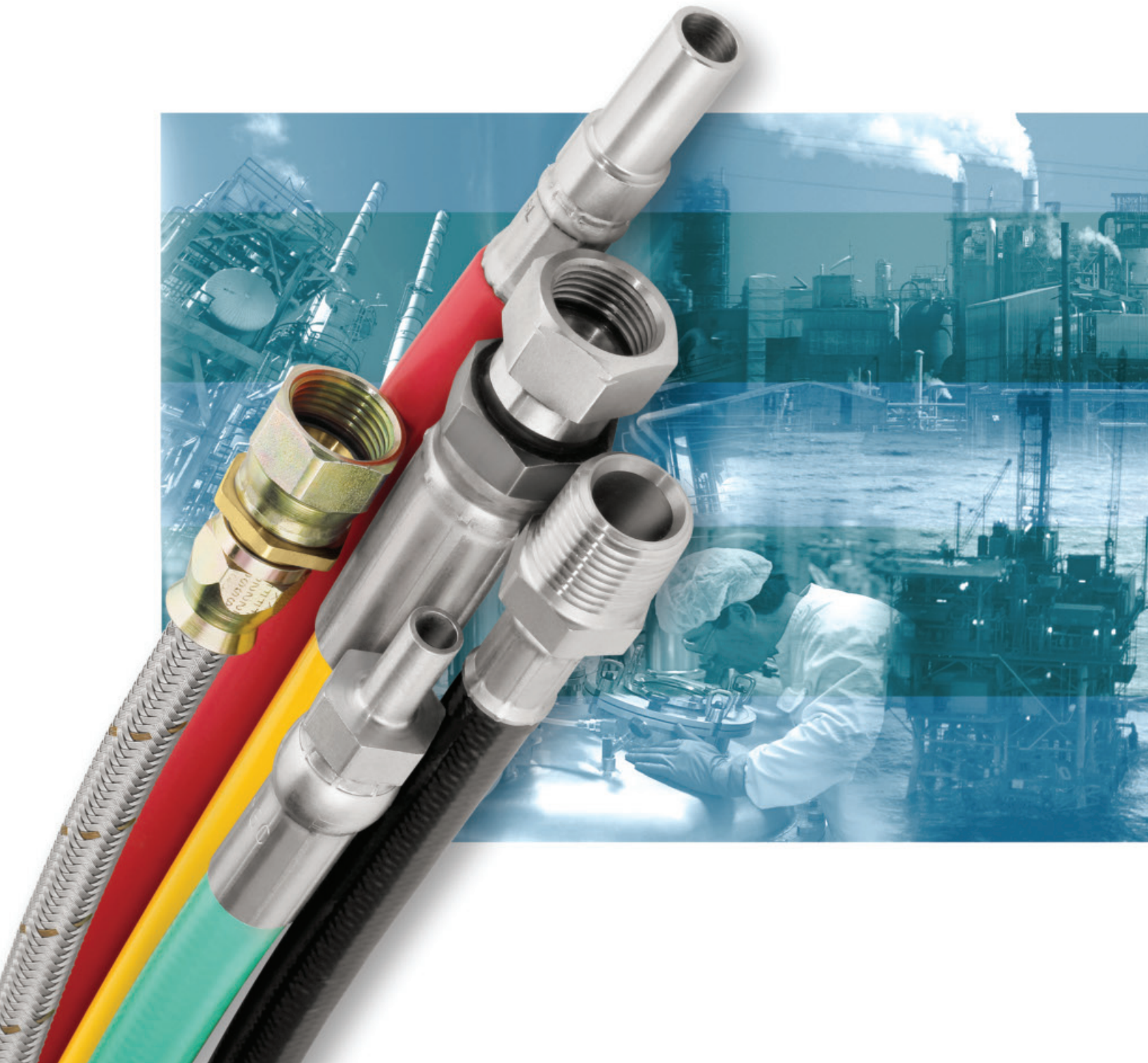




# ***Instrumentation PTFE Hose, Thermoplastic Tubing, Fittings and Accessories***

*Catalog 4200-INST  
November 2004*



## Parker thermoplastic tubing, fittings, and PTFE hose products support instrumentation process systems.

For critical applications that require accurate control and dependable sample transport, Parker Hannifin is the only manufacturer that can provide such an extensive range of products to meet the challenge in any process. With over 2,700 product lines, solving instrumentation system needs is our goal.

### PTFE Hose

Parflex® PTFE hose is manufactured with the highest quality, high performance PTFE material available.

Parflex® PTFE hose offer excellent chemical resistance, flexibility and temperature resistance. PTFE hose is available in static-dissipated or heavy wall low permeation constructions.

Hose assemblies can be quickly made to your specification with Parker 91N series fittings attached, tested and delivered complete and ready to use to your site. The most common end connections available include:

- A-LOK® Compression
- CPI™ Compression
- Tube Stub
- Male NPT
- And many others

### Thermoplastic Reinforced Hose

In addition to PTFE hose, Parker offers one of the most extensive lines of thermoplastic hose available in the market.

Parker thermoplastic hose offers long-term durability, clean core tubes and the industry's highest level of abrasion resistant jackets available.

For the long-term life of a system, Parker thermoplastic hose outperform rubber hose 10:1.

Parker offers hoses for just about every application. From our General Hydraulic Hose 520N series to our Polyflex® 2440N series designed for high-pressure applications to 20,400 PSI, Parker has a hose available to meet the most demanding system needs.

### Thermoplastic Tubing and Fittings

When it comes to solving instrumentation needs, Parker is unmatched in the market for available thermoplastic tubing and fittings.

We stock most thermoplastic tubing materials, such as:

- Nylon
- Polyethylene
- Polypropylene
- Polyurethane
- Vinyl

Our standard color is black, but many other colors are also available.

As part of the complete system, Parker also has a full line of fittings specifically designed for use with our thermoplastic tubing, offering tight, sure, leak proof seal.

Our **TrueSeal™** fittings offer quick field connections, without the need for special tools. Our **Fast & Tite®** are the most complete line in the industry.

The **Par-Barb** series is engineered with a 4-barb design that generates the maximum gripping and sealing power available in a barb connection, when used in conjunction with a hose clamp.

These fittings are offered in a wide range of materials and temperatures such as:

#### TrueSeal™

- Grey Acetal –20°F to 180°F
- White Polypropylene 0°F to 225°F
- Natural Kynar™ 0°F to 275°F

#### Fast & Tite®

- Black /White Polypropylene 0°F to 212°F
- White Nylon –40°F to 212°F

#### Par-Barb

- Black Polyethylene –65°F to 190°F
- White Nylon –40°F to 200°F

KYNAR® is a registered trademark of Atochem North America, Inc.

### Hose Crimping Equipment

Parker's **MiniKrimp™** crimper is a patent pending design. At just about 35 pounds, the MiniKrimp is the lightest and fastest low-cost, portable crimper on the market. It provides a factory style hose assembly on the job-site within seconds. The exclusive Parkalign™ feature correctly positions the fitting every time, while the unitized die train keeps die segments in place.

The MiniKrimp is available with a number of options, including air over hydraulic, hand pump, vice mount or bench mount styles.

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## Thermoplastic Tubing

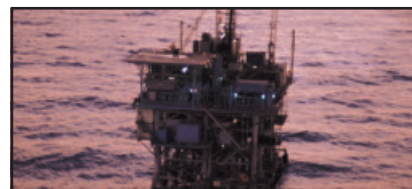
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### WARNING

FAILURE, 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" located in Catalog 4660.

# PTFE HOSE

## Introduction

Parker reinforced PTFE hose is manufactured with a high-performance PTFE core material. Our PTFE hose provide fluid conveyance solutions for a wide range of applications across many markets. Parker PTFE hose offer excellent chemical resistance and is virtually inert to all chemical. Many other benefits of Parker PTFE hose include:

### BENEFITS:

- Extreme high and low temperature range
- Low friction minimizes pressure drops and deposits
- Exceptional chemical resistance
- Stainless steel braid reinforcement is cleaned to reduce hydrocarbon content
- High purity non-contaminating material for pure system applications
- Flexibility allows motion, vibration dampening and easier routing & installation

## How to Order

P	919	TU	AL	08	08	08	C -	36
TYPE OF CONNECTION	HOSE STYLE	1ST END CONNECTION	2ND END CONNECTION	1ST END DASH SIZE	2ND END DASH SIZE	HOSE I.D. DASH SIZE	FITTING MATERIAL	OVERALL ASSEMBLY LENGTH (INCHES)
P=Permanent Crimp	919 919B 919J 929 929B	01 = Male NPT 03 = Male JIC 37° 06 = Female SAE (JIC) 37° Swivel AL = A-LOK® Compression P6 = CPI™ Compression (nut & ferrule) TU = Universal Tube Stub HV = Male Vacuseal VH = Female Vacuseal		02=1/8" 04=1/4" 06=3/8" 08=1/2" 12=3/4" 16=1"		04=3/16" 06=5/16" 08=13/32" 12=5/8" 16=7/8"	C=Stainless	Overall length is expressed in inches measured from extreme end to end. Except elbow fittings which are measured from centerline or the seat.

Other End Connections and styles available. See Parflex 4660 catalog at [www.Parker.com](http://www.Parker.com) for additional details.

Assemblies are to be measured extreme end to end. Exception:

1. Face seal type fittings shall be measured from sealing to face.
2. Where elbow fittings are used, measurement shall be to the centerline of the sealing surface of the elbow end.
3. "A-LOK®" and "CPI™" fittings are measured from tube stops.

## 919 PTFE HOSE

## PTFE Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		WALL THICKNESS		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
919-4	28	3/16	5	5/16	8	.030	.762	3000	20.7	2.0	51	0.056	0.09	80C-T04N
919-5	28	1/4	6	3/8	10	.030	.762	3000	20.7	3.0	76	0.086	0.13	80C-T05N
919-6	28	5/16	8	7/16	11	.030	.762	2500	17.2	4.0	102	0.103	0.15	80C-T06N
919-8	28	13/32	10.5	17/32	14	.030	.762	2000	13.8	5.0	127	0.126	0.19	80C-T08N
919-10	28	1/2	12.5	5/8	16	.030	.762	1500	10.3	6.5	165	0.149	0.22	80C-T10N
919-12	12	5/18	16	3/4	19	.030	.762	1200	8.3	7.5	191	0.186	0.28	80C-T12N
919-16	14	7/8	22	1-1/32	26	.035	.889	1000	6.9	9.0	229	0.268	0.4	80C-T16N

**Construction:** Smooth bore natural PTFE core tube with a type 304 stainless steel braided wire reinforcement.

**Typical applications:** Instrumentation lines, analyzer sampling lines and for areas that require tight routing.

**Temperature range:** -100°F to +450°F (-73°C to +232°C)

## 919B PTFE Hose

### Static-Dissipative Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		WALL THICKNESS		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
919B-5	28	1/4	6	3/8	10	.030	.762	3000	20.7	3.0	76	0.086	0.13	80C-T05N
919B-6	28	5/16	8	7/16	11	.030	.762	2500	17.2	4.0	102	0.103	0.15	80C-T06N
919B-8	28	13/32	10.5	17/32	14	.030	.762	2000	13.8	5.0	127	0.126	0.19	80C-T08N

**Construction:** Smooth bore black PTFE core tube with a type 304 stainless steel braided wire reinforcement.

**Typical applications:** Static-Dissipative PTFE black core tube. Transfer line for most chemicals, hot oils, fuel lines, coolant and steam transfer. Compressed air and gases. Adhesive dispensing, paints and coating materials.

**Temperature range:** -100°F to +450°F (-73°C to +232°C)

## 919J PTFE Hose

### Silicone Jacketed PTFE Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		WALL THICKNESS		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
919J-4-Red	28	3/16	5	0.45	11	.030	.762	3000	20.7	2.0	51	0.124	0.19	80C-T04J
919J-6-Red	28	5/16	8	0.58	15	.030	.762	2500	17.2	4.0	102	0.165	0.25	80C-T06J
919J-8-Red	28	13/32	10.5	0.68	17	.030	.762	2000	13.8	5.0	127	0.202	0.3	80C-T08J
919J-10-Red	28	1/2	12.5	0.78	20	.030	.762	1500	10.3	6.5	165	0.236	0.35	80C-T10J
919J-12-Red	12	5/18	16	0.91	23	.030	.762	1200	8.3	7.5	191	0.291	0.43	80C-T12J

**Construction:** Smooth bore natural PTFE core tube with a type 304 stainless steel braided wire reinforcement and a red extruded silicone jacket.

**Typical applications:** Transfer lines for most chemicals, coolant lines, adhesive dispensing, compressed air and gases. Areas where a protective cover is required to prevent contamination off of the braided hose. Areas where stainless wire needs protected from fraying. Silicone cover is red and rated for temperatures 450°F and is steam cleanable.

**Temperature range:** -100°F to +450°F (-73°C to +232°C)

## 929 PTFE Hose

### Heavy Wall Low Permeation Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		WALL THICKNESS		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
929-4	28	3/16	5	5/16	8	.040	1.02	3000	20.7	2.0	51	0.06	0.09	80C-T04N
929-6	28	5/16	8	7/16	11	.040	1.02	2500	17.2	4.0	102	0.13	0.15	80C-T06N
929-8	28	13/32	10.5	9/16	14	.042	1.07	2000	13.8	5.0	127	0.126	0.19	80C-T08N
929-12	12	5/18	16	3/4	19	.048	1.22	1200	8.3	7.5	191	0.186	0.28	80C-T12N
929-16	14	7/8	22	1-1/8	26	.048	1.22	1250	6.9	9.0	229	0.268	0.4	80C-T16H

**Construction:** Smooth bore natural PTFE core tube with a type 304 stainless steel braided wire reinforcement.

**Typical applications:** Instrumentation lines, analyzer sampling lines and for areas that require tight routing.

**Temperature range:** -100°F to +450°F (-73°C to +232°C)

# PTFE HOSE

## 929B PTFE Hose

### Static Dissipative Heavy Wall Low Permeation Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		WALL THICKNESS		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
929B-4	28	3/16	5	5/16	8	.040	1.02	3000	20.7	2.0	51	0.06	0.09	80C-T04N
929B-6	28	5/16	8	7/16	11	.040	1.02	2500	17.2	4.0	102	0.13	0.15	80C-T06N
929B-8	28	13/32	10.5	9/16	14	.042	1.07	2000	13.8	5.0	127	0.126	0.19	80C-T08N
929B-12	12	5/8	16	3/4	19	.048	1.22	1200	8.3	7.5	191	0.186	0.28	80C-T12N
929B-16	14	7/8	22	1-1/8	26	.048	1.22	1250	6.9	9.0	229	0.268	0.4	80C-T16N

**Construction:** Smooth bore black PTFE core tube with a type 304 stainless steel braided wire reinforcement.

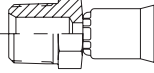
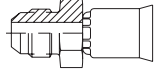
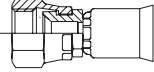
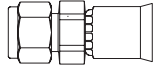
**Typical applications:** Static-Dissipative PTFE black core tube. Transfer line for most chemicals, hot oils, fuel lines, coolant and steam transfer. Compressed air and gases. Adhesive dispensing, paints and coating materials. Applications requiring enhanced permeation resistance.

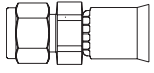
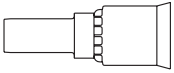
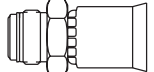
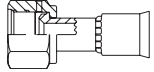
**Temperature range:** -100°F to +450°F (-73°C to +232°C)



91N Series PTFE Fittings

## PTFE FITTINGS

END CONNECTION STYLE	919/929 HOSE STAINLESS FITTING NUMBER	HOSE DASH SIZE
<b>(01) Male Taper Pipe Rigid</b> 	10191N-4-4C	-4
	10191N-6-6C	-6
	10191N-8-8C	-8
	10191N-12-12C	-12
	10191N-16-16C	-16
	10191N-20-20C	-20
<b>(03) Male (JIC) 37°</b> 	10391N-4-4C	-4
	10391N-6-6C	-6
	10391N-8-8C	-8
	10391N-16-16C	-16
<b>(06) Female (JIC) 37° Swivel</b> 	10691N-4-4C	-4
	10691N-6-6C	-6
	10691N-16-16C	-16
	10691N-20-20C	-20
<b>(AL) A-LOK® Compression</b> 	1AL91N-4-4C	-4
	1AL91N-6-6C	-6
	1AL91N-8-8C	-8
	1AL91N-12-12C	-12
	1AL91N-16-16C	-16

END CONNECTION STYLE	919/929 HOSE STAINLESS FITTING NUMBER	HOSE DASH SIZE
<b>(P6) CPI™ Compression (Nut &amp; Ferrule)</b> 	1P691N-4-4C	-4
	1P691N-6-6C	-6
	1P691N-8-8C	-8
	1P691N-12-12C	-12
	1P691N-16-16C	-16
<b>(TU) Tube Stub</b> 	1TU91N-4-4C	-4
	1TU91N-6-6C	-6
	1TU91N-8-8C	-8
	1TU91N-16-16C	-16
	1TU91N-20-20C	-20
<b>(HV) Male VacuSeal</b> 	1HV91N-4-4C	-4
	1HV91N-6-6C	-6
	1HV91N-8-8C	-8
<b>(VH) Female VacuSeal</b> 	1VH91N-4-4C	-4
	1VH91N-6-6C	-6
	1VH91N-8-8C	-8

## PTFE ACCESSORIES

HOSE	DASH SIZE	MAX. O.D.	INTERNAL FLAT SPRING	FIRE SLEEVE
919/929	-4	0.32	-	
	5	0.40	-	
	-6	0.46	-	FS-F-8
	8	0.56	2613-13CR	FS-F-10
	-10	0.66	2613-16CR	FS-F-12
	-12	0.79	2613-20CR	FS-F-14
	-16	1.05	2613-28CR	FS-F-20
	-20	1.32	2613-37CR	FS-F-24

Other hose style accessories can be found by visiting [www.Parker.com](http://www.Parker.com)



Fire Sleeves & Flat Springs

# THERMOPLASTIC HOSE

## Introduction

Parflex reinforced thermoplastic hose has the industry's highest level of abrasion resistance, outlasting rubber hose in lab tests by as much as 10:1. Hoses are available in long lengths, reducing short hose lengths. Parflex hoses are lighter in weight than comparably sized rubber hoses, in some cases up to 40% lighter. UV resistant jacket, tight bend radius. Other benefits include:

### BENEFITS:

- Long shelf life, thermoplastic hoses do not continuously cure.
- Easy to cut and couple.
- UV resistant
- Low volumetric expansion, less energy loss and faster reaction times.
- Clean core tubes reduce the possible contamination of hydraulic systems
- Tight bend radius.

## How to Order

520N	TU	AL	08	08	08	C -	36
HOSE STYLE	1ST END CONNECTION	2ND END CONNECTION	1ST CONNECTION DASH SIZE	2ND CONNECTION DASH SIZE	HOSE I.D. DASH SIZE	FITTING MATERIAL	OVERALL ASSEMBLY LENGTH (INCHES)
520N 540P 540N 518C 580N	01 = Male NPT 03 = Male JIC 37° 06 = Female SAE (JIC) 37° Swivel AL = A-LOK® Compression P6 = CPI™ Compression (nut & ferrule) TU = Universal Tube Stub		02=1/8" 04=1/4" 06=3/8" 08=1/2" 12=3/4" 16=1"		04=1/4" 06=3/8" 08=1/2" 12=3/4" 16=1"	C=Stainless	Overall length is expressed in inches measured from extreme end to end. Except elbow fittings which are measured from centerline or the seat.

How to order part derivation is applicable to all hose assemblies in this catalog.

## 520N

## General Hydraulic Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	KG/M	
520N-4	28	1/4"	6	0.51	13	5000	34.5	2.0	51	0.06	0.09	80C-P04
520N-6	28	3/8"	10	0.65	16	4000	27.6	2.5	64	0.08	0.12	80C-P06
520N-8	28	1/2"	13	0.81	21	3500	24.1	4.0	102	0.13	0.19	80C-P08

**Construction:** Nylon Core Tube, Aramid Fiber Reinforcement, Black Perforated Urethane Jacket. Meets or exceeds SAE 100R8 performance.

**Typical applications:** Hydraulic and pneumatic circuits and systems. Ideal in hot water applications.

**Temperature range:** -40°F to +212°F (-40°C to +100°C)

**Fittings:** Use 55 series only.

*For additional information about Parflex hose, including information about construction, typical applications and installation, contact your authorized Parker Instrumentation Distributor.*



## 540P

### Specialty Water Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
540P-4	28	1/4"	6	0.50	13	2750	18.96	1-1/4	32	0.052	0.08	80C-P04
540P-6	28	3/8"	10	0.65	16	2250	15.51	2.0	51	0.086	0.13	80C-P06
540P-8	28	1/2"	13	0.81	21	2000	13.79	3.0	76	0.126	0.19	80C-P08
540P-12	28	3/4"	19	1.06	27	1250	8.62	6.0	152	0.17	0.25	80C-P12

**Construction:** Polyethylene Core Tube, Fiber Reinforcement, Aqua Perforated Urethane Jacket. Plasticizer free non-leaching core.

**Typical applications:** Potable water delivery to remote sites. Distilled and de-ionized water. Low moisture permeability.

**Temperature range:** -10°F to +150°F (-23°C to +66°C)

**Fittings:** Use 55 series only.

## 540N

### Medium Pressure Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
540N-4	28	1/4"	6	0.51	13	2750	18.96	1-1/2	38	0.057	0.09	80C-P04
540N-6	28	3/8"	10	0.65	16	2250	15.51	2.0	51	0.086	0.13	80C-P06
540N-8	28	1/2"	13	0.81	21	2000	13.79	3.0	76	0.126	0.19	80C-P08

**Construction:** Nylon Core Tube, Fiber Reinforcement, Black Core Hose with Urethane Jacket. Meets or exceeds SAE 100R7 performance.

**Typical applications:** Hydraulic and pneumatic circuits and systems, agriculture sprayers, urethane foam mixers, robotics, fire resistant fluid and hot water.

**Temperature range:** -40°F to +212°F (-40°C to +100°C)

**Fittings:** Use 55 series only.

## 518C

### Non-Conductive Hose



HOSE SERIES - DASH SIZE	VACUUM RATING	HOSE I.D.		MAX. HOSE O.D.		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		INCHES/HG	INCHES	MM	INCHES	MM	PSI	MPA	INCHES	MM	LBS/FT	
518C-4	N/A	1/4"	6	0.47	12	2750	18.96	1-1/2	38	0.052	0.08	80C-P04J
518C-6	N/A	3/8"	10	0.63	16	2250	15.51	2.0	51	0.096	0.143	80C-P06
518C-8	N/A	1/2"	13	0.81	21	2250	15.51	3.0	76	0.148	0.221	80C-P08

**Construction:** Polyester Core Tube, Fiber Reinforcement, Orange Non-perforated Proprietary Jacket. Meets or exceeds SAE 100R7 performance.

**Typical applications:** Medium pressure hydraulic service where permanent hydraulic circuit exposure and contact with high voltage may be encountered.

**Temperature range:** -40°F to +212°F (-40°C to +100°C), limited to + 135F (57C) for synthetic hydraulic fluids and water-based fluids.

**Fittings:** Use 55 series only.

# THERMOPLASTIC HOSES

## 580N

## High Pressure Hose



HOSE SERIES - DASH SIZE	TEMPERATURE	HOSE I.D.		MAX. HOSE O.D.		MAXIMUM WORKING PRESSURE		MINIMUM BEND RADIUS		WEIGHT		CRIMP DIE PART NO.
		3/4"	19	1.16	30	2250	15.51	8.0	203	0.21	0.31	
580N-12	-40°F to +212°F	3/4"	19	1.16	30	2250	15.51	8.0	203	0.21	0.31	80C-P12H
580N-16	(-40°C to +100°C)	1"	25	1.48	37.6	2000	13.8	10.0	254	0.376	0.56	80C-P16H

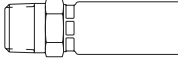

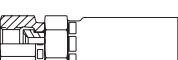


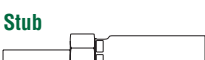
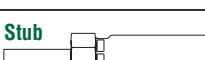
**Construction:** Polymeric Core, Fiber Reinforcement, Black Perforated Urethane Jacket. Meets or exceeds SAE 100R8 performance.

**Typical applications:** Hydraulic and pneumatic circuits and systems. Replaces 100R2 rubber hose where greater flexibility, fluid compatibility and cover durability is required. Lighter weight and smaller O.D. than 100R2 rubber hose.

**Temperature range:** -40°F to +212°F (-40°C to +100°C)

**Fittings:** Use 58 series only.

### PERMANENT FITTINGS

END CONNECTION STYLE	THERMOPLASTIC HOSE 55 SERIES STAINLESS FITTING PART NUMBER	HOSE DASH SIZE
(01) Male Taper Pipe Rigid 	10155-4-4C	-4
	10155-6-6C	-6
	10155-6-6C	-8
	10155-12-12C	-12
(03) Male (JIC) 37° 	10355-4-4C	-4
	10355-6-6C	-6
	10355-8-8C	-8
	10355-12-12C	-10
(06) Female (JIC) 37° Swivel 	10655-4-4C	-4
	10655-6-6C	-6
	10655-8-8C	-8
	10655-12-12C	-12
(AL) A-LOK® Compression 	1AL55-4-4C	-4
	1AL55-6-6C	-6
	1AL55-8-8C	-8
(P6) CPI™ Compression (Nut & Ferrule) 	1P655-4-4C	-4
	1P655-6-6C	-6
	1P655-8-8C	-8
(TU) Tube Stub 	1TU55-4-4C	-4
	1TU55-6-6C	-6
	1TU55-8-8C	-8
	<b>58 Series</b>	
(TU) Tube Stub 	1TU58-12-12	-12
	1TU58-16-16	-16

### THERMOPLASTIC ACCESSORIES

HOSE STYLE	(AG) ARMOR GUARDS & (SP) SPRING GUARDS - PART NUMBER PER HOSE DASH SIZE		
520N/540P/549/518C	55AG-4 55SG-4	55AG-6 55SG-6	55AG-8 55SG-8
580N	58AG-12 58SG-12	58AG-16 58SG-16	
	PVC GUARDS - PART NUMBER PER HOSE DASH SIZE		
	-4	-6	-8
520N/540P/549/518C	PV139-1	PV1611-1	PV2014-1
	-12	16	
580N	PV2420-1	PV3224-1	





## MINIKRIMP EQUIPMENT

PART NUMBER	DESCRIPTION
94C-080-PFD	Minikrimp Base Unit
94C-001-PFD	Minikrimp w/handpump
94C-002-PFD	Minikrimp w/air/hydraulic
015301	Handpump kit
025411	Air/hydraulic kit
015307	Upright Vice Mount
015306	Upright Bench Mount
015736	Side Vice Mount
94C-MKS	MiniKrimp Stand

## MINIKRIMP SPECIFICATION

<b>Approximate Size</b> (with Pump)	7" wide, 5" deep, 15.5" high
<b>Weight</b> (w/o Die Set)	42 lbs. with hand pump
<b>Rating</b>	30 tons force @ 10,000 psi maximum
<b>Capability</b> (steel & brass) 91N series fittings	- 1" SAE 100R1 maximum - 1" SAE 100R2 maximum - 1" SAE 100R16 maximum
<b>Capability</b> (stainless steel) 91N series fittings	- 3/4" SAE 100R1 maximum - 3/4" SAE 100R2 maximum - 3/4" SAE 100R16 maximum
<b>Set Up Time</b>	20 seconds
<b>Full Cycle Time</b>	Approx. 20 seconds to 3 minutes. <b>Note:</b> Cycle times vary depending on hose, fitting, operator, and crimping environment.



MiniKrimp Stand



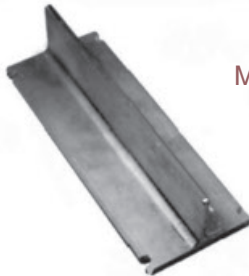
MiniKrimp with Handpump and Stand



Upright Bench Mount



Upright Vice Mount



Side Vice Mount



Handpump

# THERMOPLASTIC TUBING

## DESIGN FEATURES / STANDARDS

### Polyethylene Tubing

- FDA, NSF Standard 51 and NSF Standard 61 compliant materials available.
- Meets ASTM D-1693
- Natural “E” Series is made of 100% virgin resin material.
- Available in HD – High Density and FRPE – Flame retardant plenum

### Polypropylene

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

### 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 very flexible (70 Durometer) tubing that is crystal clear and is Ideal for situations where visible fluid flow is necessary (i.e. sight gages for tank identification)

### Nylon Tubing

- Flexible Nylon tubing use high grade resins for strength and flexibility for routing in tight spaces
- Semi rigid high strength Nylon use 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 to excellent chemical and UV light resistance

### 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):
- Low Durometer (85-most flexible, very soft)
- Medium Durometer (90-less flexible)
- High Durometer (>95-least flexible, highest pressures)

## THERMOPLASTIC TUBING SELECTION GUIDE

TEMPERATURE RATING	MATERIAL	PRODUCT FAMILY	SUGGESTED MARKETS AND APPLICATIONS
-80°F to 150°F [-62°C to 66°C]	Polyethylene	E	Potable water, chemical transfer, and low cost, low pressure pneumatics, NSF-51 & 61
		FRPE (Flame Resistant)	Pneumatic controls in HVAC/plenum space (UL 1820), DUBL-Barb fitting from Parker Brass
-40°F to 150°F [-18°C to 65°C]	Clear Vinyl	PV	Low pressure chemical requiring high clarity and flexibility FDA 21CFR compliant.
-80°F to 175°F [-62°C to 79°C]	Polyethylene	PE	Economical, low pressure pneumatics, NSF-51
		HDPE (High Density)	Chemical transfer and low cost pneumatics
-40°F to 180°F [-40°C to 82°C]	Urethane	U	Pneumatic controls requiring high flexibility, kink resistance and movement
		HU	High pressure pneumatics requiring flexibility and kink resistance, Robotics
		LU	Low pressure pneumatics requiring extreme flexibility and kink resistance, pneumatic logic boards
-65°F to 200°F [-54°C to 93°C]  -40°F to 200°F [-40°C to 93°C]  -60°F to 200°F [-51°C to 93°C]	Nylon	N	Pneumatic and petroleum-based chemical transfer
		PAT	Pure air and gas distribution systems, Semiconductor
		NR	High pressure pneumatic, lubrication, and Marine control systems
0°F to 200°F [-18°C to 93°C]	Polypropylene	PP	Food contact and chemical transfer applications, chlorinated water, NSF-51

## PLASTIC TUBING

MATERIAL	PRODUCT FAMILY	O.D. INCHES	I.D. INCHES	WALL INCHES	NET WEIGHT PER 100FT (IBS)	WORKING PRESSURE @ 73°F (PSI)	BOX LENGTH	PART NUMBER (ALL P/N'S REF. BLACK TUBING)*
Polyethylene	E	1/4"	0.170	0.040	1.10	120	500'	EB-43-0500
		3/8"	0.251	0.062	2.50	125	500'	EB-64-0500
		1/2"	0.375	0.062	3.60	90	500'	EB-86-0500
	PE	1/4"	0.170	0.040	1.10	100	1000'	PE-4-040-BK-1000
		3/8"	0.251	0.062	2.50	87	500'	PE-6-062-BK-0500
		1/2"	0.375	0.062	3.40	62	250'	PE-8-062-BK-0250
	FRPE	1/4"	0.170	0.040	1.17	160	250'	1FRPE4-0250
		3/8"	0.251	0.062	2.71	195	250'	1FRPE6-0250
		1/2"	0.375	0.062	3.80	135	250'	1FRPE8-0250
High Density Polyethylene	HDPE	1/4"	0.170	0.040	1.10	300	250'	HDPE-43-0250
		3/8"	0.251	0.062	2.50	300	250'	HDPE-64-0250
Nylon	N	1/4"	0.180	0.035	1.10	250	250'	NB-4-035
		3/8"	0.275	0.050	2.34	250	250'	NB-6-050
		1/2"	0.375	0.062	3.94	250	250'	NB-8-062
	PAT	1/4"	0.170	0.040	1.24	300	250'	PAT4-BLK-250
		3/8"	0.251	0.062	2.82	350	250'	PAT6-BLK-250
		1/2"	0.375	0.062	3.95	235	500'	PAT8-BLK-500
	NR	1/4"	0.18	0.035	1.1	425	250'	NBR-4-035
		3/8"	0.279	0.048	2.2	425	250'	NBR-6-048
		1/2"	0.375	0.062	3.8	375	250'	NBR-8-062
Polypropylene	PP	1/4"	0.17	0.040	1.01	300	500'	PP-43-0500
		3/8"	0.25	0.062	2.35	300	500'	PP-64-0500
		1/2"	0.375	0.062	3.28	225	250'	PP-86-0250
Urethane	U	1/4"	0.2	0.062	1.8	125	250'	U-42-BLK-0250
		3/8"	0.25	0.062	3	125	250'	U-64-BLK-0250
		1/2"	0.375	0.062	4.2	85	250'	U-86-BLK-0250
	HU	1/4"	0.16	0.045	1.55	180	500'	HU-4-BLK-0500
		3/8"	0.25	0.062	3.27	180	500'	HU-6-BLK-0500
		1/2"	0.32	0.09	6.18	180	250'	HU-8-BLK-0250
	LU	1/8"	0.062	0.031	0.44	145	100'	LU-2-BLK-0100
		1/4"	0.125	0.062	1.78	145	100'	LU-4-BLK-0100
		5/16"	0.187	0.062	2.38	100	100'	LU-5-BLK-0100

## PLASTIC TUBING

MATERIAL	PRODUCT FAMILY	O.D. INCHES	I.D. INCHES	WALL INCHES	NET WEIGHT PER 100FT (IBS)	WORKING PRESSURE @ 73°F (PSI)	BOX LENGTH	PART NUMBER CLEAR VINYL
Clear Vinyl	PV	1/8"	0.062	0.031	0.48	35	100'	PV21-1
		1/6"	0.125	0.025	0.58	35	100'	PV32-1
		1/4"	0.125	0.062	2.52	65	100'	PV42-1
		3/8"	0.25	0.062	3.15	55	100'	PV64-1
		1/2"	0.375	0.062	4.41	45	100'	PV86-1
		5/8"	0.5	0.062	5.66	30	100'	PV108-1
		11/16"	0.5	0.094	8.94	40	100'	PV118-1
		3/4"	0.5	0.125	12.59	45	100'	PV128-1
		1"	0.75	0.125	17.62	35	100'	PV1612-1
		1-1/4"	0.75	0.25	40.28	55	50'	PV2012-1
2-1/2"	2"	0.25	90.63	35	50'	PV4032-1		

# THERMOPLASTIC FITTINGS

## TRUESEAL™ THERMOPLASTIC PUSH-IN FITTINGS

The patented\* TrueSeal™ push-to-connect thermoplastic fittings are lightweight, field attachable, and connect to plastic tubing without the use of tools.

### Features

- All components in TrueSeal™ fittings are manufactured from FDA compliant materials and are NSF-51 listed for contact with food.
- Gray acetal TrueSeal™ fittings meet NSF-61 requirements for drinking water (potable water) system components.
- All-plastic body designs offer reduced weight, eliminate rust, corrosion, and system contamination in applications where metal components cannot be tolerated.
- Collets are offered in either a patented all-plastic design for use with flexible tubing or with a metal grip edge made from 300 series stainless steel for use on all tubing including copper.
- Extra deep tube seat in fitting body provides support to reduce side-load leakage.
- Elastomer o-ring seal provides positive compression on tubing O.D. in vacuum or pressure applications.
- Removable collet design permits o-ring replacement in the field. Collets are available in colors for easy color-coding of systems.
- Tube stem adapters provide a wide range of tube-to-port jump size potential and allow elbows and tees to swivel for positive tube routing alignment. Connections made with metal gripper collets may require tube stems to be replaced upon reconnection.

### Working Pressure

TrueSeal™ fittings are rated for the pressures listed below or at 1/4 (one-fourth) of the rated burst pressure of the tubing

FITTING SIZE	ACETAL (PSI)	POLYPROPYLENE (PSI)	KYNAR® (PSI)
1/4"	300	150	300
5/16"	300		
3/8"	300	150	300
1/2"	250	150	
Temperature Range	-20°F (-29°C) to +180°F (85°C)	0°F (-18°C) to +225°F (110°C)	0°F (-18°C) to +275°F (135°C)

These pressure ratings are based on tests conducted with Series NR tubing at 73°F.

- Actual-working pressures will be lower at elevated temperatures. Consult division.
- Meets pressure integrity tests of NSF-53 and NSF-58

### Assembly Instructions

#### Tube Sizes O.D. Tolerance Insertion Depth

TUBE SIZE O.D.	O.D. TOLERANCE	INSERTION DEPTH
5/32"	+/- .005	9/16"
1/4"	+/- .005	11/16"
5/16"	+/- .005	13/16"
3/8"	+/- .005	3/4"
1/2"	+/- .005	7/8"





1. Cut tubing square and clean. (Use a Parker plastic tube cutter, Part No. PTC.)
2. Mark from end of tube the length of insertion (see table above).
3. Push tube into the fitting until it bottoms out.
4. To remove, depress collet and pull tubing out.
5. Use Parker TrueSealant™ (Part No. PTS) on threads.








These products are available from Brass Products Division



## TRUESEAL™ FITTINGS

TRUESEAL™ FITTINGS	GRAY ACETAL (EPDM SEAL)	WHITE POLYPROPYLENE (EPDM SEAL)	NATURAL KYNAR VITON SEAL	NOMINAL TUBE O.D. (INCHES)	NPTF THREAD SIZE (INCHES)
<b>(MC) Male Connector</b> 	A4MC2-MG	PP4MC2	F4MC2	1/4"	1/8"
	A4MC4-MG	PP4MC4	F4MC4	1/4"	1/4"
	A4MC6-MG	PP4MC6	F4MC6	1/4"	3/8"
	A6MC4-MG	PP6MC4	F6MC4	3/8"	1/4"
	A6MC6-MG	PP6MC6	F6MC6	3/8"	3/8"
	A8MC8-MG	PP8MC8	N/A	1/2"	1/2"
<b>(EU) Elbow Union</b> 	A4EU4-MG	PP4EU4	F4EU4	1/4"	N/A
	A6EU4-MG	PP6EU4	F6EU4	3/8"	N/A
	A6EU6-MG	PP6EU6	F6EU6	3/8"	N/A
	A8EU8-MG	PP8EU8	N/A	1/2"	N/A
<b>(MES) Male Elbow Swivel</b> 	A4MES2-MG	PP4MES2	F4MES2	1/4"	1/8"
	A4MES4-MG	PP4MES4	F4MES4	1/4"	1/4"
	A4MES6-MG	PP4MES6	M4MES6	1/4"	3/8"
	A6MES4-MG	PP6MES4	F6MES4	3/8"	1/4"
	A6MES6-MG	PP6MES6	F6MES6	3/8"	3/8"
	A8MES6-MG	PP8MES6	N/A	1/2"	3/8"
	A8MES8-MG	PP8MES8	N/A	1/2"	1/2"
	<b>(UC) Union Connector</b> 	A4UC4-MG	PP4UC4	F4UC4	1/4"
A6UC4-MG		PP6UC4	F6UC4	3/8"-1/4"	N/A
A6UC6-MG		PP6UC6	F6UC6	3/8"	N/A
A8UC6-MG		PP8UC6	N/A	1/2"-3/8"	N/A
A8UC8-MG		PP8UC8	N/A	1/2"	N/A

TRUESEAL™ FITTINGS	GRAY ACETAL (EPDM SEAL)	WHITE POLYPROPYLENE (EPDM SEAL)	NATURAL KYNAR VITON SEAL	NOMINAL TUBE O.D. (INCHES)	NPTF THREAD SIZE (INCHES)
<b>(TMC) Tube Stem Adapter Tube Stem to Pipe</b> 	A4TMC2-MG	PP4TMC2	F4TMC2	1/4"	1/8"
	A4TMC4-MG	PP4TMC4	F4TMC4	1/4"	1/4"
	A6TMC4-MG	PP6TMC4	F6TMC4	3/8"	1/4"
	A6TMC6-MG	PP6TMC6	F6TMC6	3/8"	3/8"
	A8TMC6-MG	PP8TMC6	N/A	1/2"	3/8"
	A8TMC8-MG	PP8TMC8	N/A	1/2"	1/2"
<b>(BU) Bulkhead Union Tube-to-Tube</b> 	A4BU4-MG	PP4BU4	F4BU4	1/4"	N/A
	A6BU4-MG	PP6BU4	N/A	3/8"-1/4"	N/A
	A6BU6-MG	PP6BU6	F6BU6	3/8"	N/A
	A8BU8-MG	N/A	N/A	1/2"	N/A
<b>(TEU) Tube Elbow Union Tube to Tube Stem</b> 	A4TEU4-MG	PP4TEU4	F4TEU4	<b>TUBE O.D.</b> 1/4"-1/4"	<b>STEM O.D.</b> N/A
	A6TEU6-MG	PP6TEU6	F6TEU6	3/8"-3/8"	N/A
	A8TEU8-MG	PP8TEU8	N/A	1/2"-1/2"	N/A
<b>(ME) Male Elbow (Tube-to-Pipe)</b> 	A4ME2-MG	PP4ME2	F4ME2	1/4"	1/8"
	A4ME4-MG	PP4ME4	F4ME4	1/4"	1/4"
	A4ME6-MG	PP4ME6	F4ME6	1/4"	3/8"
	A6ME4-MG	PP6ME4	F6ME4	3/8"	1/4"
	A6ME6-MG	PP6ME6	F6ME6	3/8"	3/8"
<b>(TPL) Plug</b> 	A4TPL	PP4TPL	F4TPL	<b>FITTING SIZE</b> 1/4"	
	A6TPL	PP6TPL	F6TPL	3/8"	
	A8TPL	PP8TPL	N/A	1/2"	

These products are available from Brass Products Division

# THERMOPLASTIC FITTINGS

## FAST & TITE® THERMOPLASTIC FITTINGS

Fast & Tite® fittings are the most complete line of plastic fittings for thermoplastic tubing in the industry.

Fast & Tite® thermoplastic tube fittings from Parker will prove to be the answer to your tubing connector needs. Patented Fast & Tite® fittings install in seconds without tools and provide a tight, sure, leak proof seal without clamps or adjustments. A unique 302 stainless steel grab ring for tube retention, coupled with a Nitrile O-Ring for positive seal, assures good tube connection with only hand tight assembly. A plastic grab ring is also available upon special request. Vibration or tube movement will not break the seal and cause leakage.

Preassembled in either highly inert polypropylene, or strong, durable nylon, Fast & Tite® fittings are the answer to full flow thermoplastic tubing system requirements.

When necessary, Fast & Tite® fittings can be disassembled by hand for fast system drainage. Fittings are completely Field Attachable. Parts are easily replaced. O-Rings are standard size and universally available. (For applications requiring other than Nitrile O-Rings, consult your Fast & Tite® distributor.)

Use Fast & Tite® fittings with Parker Parflex tubing or other plastic, glass or metal tubing for low pressure or vacuum lines up to the pressure limits shown below. When using clear vinyl tubing or urethane tubing, it is necessary to use a TS tube support. A tube support can be used with any tubing for maximum holding power where tensiling, vibration or pressure spikes may occur.

Fast & Tite® fittings meet FDA and NSF-51 requirements for food contact.

### Working Pressures

#### Air-Oil-Water Pressure in PSI

TUBE O.D.	UP TO 75°F	76°F TO 125°F	126°F TO 175°F
1/4"	300	300	300
5/16"	300	300	300
3/8"	250	250	150
1/2"	200	200	150
5/8"	150	100	50

Ratings are based on use with copper tubing, and in all cases represent the maximum recommended working pressure of the fitting only. Working pressures (vs. temperatures) of other types of tubing may limit the tube and fitting assembly to pressures lower than shown above. Consult factory for recommendations on applications other than shown above.

### Temperature Range:

#### Black/White Polypropylene:

0°F (-18°C) to +212°F (+100°C)

White Nylon: -40°F (-40°C) to +200°F (+93°C)

### Fast Assembly

**Step 1.** Cut the tube squarely and remove any burrs.

**Step 2.** Mark from end of tube the length of insertion. If using a tube support, insert fully into tube and then mark from end of tube support length of insertion. (See table below)

TUBE O.D.	INSERT LENGTH WITH TUBE SUPPORT	INSERT LENGTH WITHOUT TUBE SUPPORT
1/4"	5/8"	9/16"
5/16"	5/8"	9/16"
3/8"	13/16"	3/4"
1/2"	7/8"	13/16"
5/8"	1"	15/16"

### Step 3.

Loosen nut on fitting until three threads are visible.

Fittings for glass tubes must be disassembled and the grab ring removed. If the fitting has been disassembled the components are to be placed in the following order: Fitting body, o-ring, spacer, grab ring and nut. Assemble the nut until three threads are showing on the body before inserting tube.

### Step 4.






Moisten end of the tube with water. Push the tube **Straight** into fitting until it bottoms on the fitting's shoulder. Tighten nut by hand. Additional tightening should not be necessary, but 1/4 additional turn may be added if desired. **Do not over tighten** nut as the threads will strip and the fitting will not function properly. A proper assembly will **not** show the insertion mark extending beyond the nut. If the insertion mark is visible, then steps 1 thru 4 must be repeated.




These products are available from Brass Products Division





## FAST AND TITE FITTINGS

FAST AND TITE FITTINGS	WHITE POLYPROPYLENE	BLACK POLYPROPYLENE	WHITE NYLON	NOMINAL TUBE O.D. (INCHES)	NPTF THREAD SIZE (INCHES)
<b>(MC) Male Connector</b> Tube to Male Pipe 	W4MC2	P4MC2	N4MC2	1/4"	1/8"
	W4MC4	P4MC4	N4MC4	1/4"	1/4"
	W6MC4	P6MC4	N6MC4	3/8"	1/4"
	W6MC6	P6MC6	N6MC6	3/8"	3/8"
	W8MC6	P8MC6	N8MC6	1/2"	3/8"
	W8MC8	P8MC8	N8MC8	1/2"	1/2"
<b>(EU) Elbow Union</b> Tube to Tube 	W4EU4	P4EU4	N4EU4	1/4"	N/A
	W6EU4	P6EU4	N6EU4	3/8"-1/4"	N/A
	W6EU6	P6EU6	N6EU6	3/8"	N/A
	W8EU6	P8EU6	N8EU6	1/2"-3/8"	N/A
<b>(ME) Male Elbow</b> Tube to Male Pipe 	W4ME2	P4ME2	N4ME2	1/4"	1/8"
	W4ME4	P4ME4	N4ME4	1/4"	1/4"
	W4ME6	P4ME6	N4ME6	1/4"	3/8"
	W6ME4	P6ME4	N6ME4	3/8"	1/4"
	W6ME6	P6ME6	N6ME6	3/8"	3/8"
	W6ME8	P6ME8	N6ME8	3/8"	1/2"
	W8ME6	P8ME6	N8ME6	1/2"	3/8"
	W8ME8	P8ME8	N8ME8	1/2"	1/2"
<b>(BU) Bulkhead Union</b> Tube-to-Tube 	W4BU4	P4BU4	N4BU4	1/4"	N/A
	W6BU6	P6BU6	N6BU6	3/8"	N/A
	W8BU8	P8BU8	N8BU8	1/2"	N/A
<b>(UC) Union Connector</b> Tube to Tube 	W4UC4	P4UC4	N4UC4	1/4"	N/A
	W6UC4	P6UC4	N6UC4	3/8"-1/4"	N/A
	W6UC6	P6UC6	N6UC6	3/8"	N/A
	W8UC6	P8UC6	N8UC6	1/2"-3/8"	N/A
	W8UC8	P8UC8	N8UC8	1/2"	N/A

FAST AND TITE FITTINGS	WHITE POLYPROPYLENE	BLACK POLYPROPYLENE	WHITE NYLON	NOMINAL TUBE O.D. (INCHES)	NPTF THREAD SIZE (INCHES)
<b>(FE) Female Elbow</b> Tube to Female Pipe 	W4FE2	P4FE2	N4FE2	1/4"	1/8"
	W4FE4	P4FE4	N4FE4	1/4"	1/4"
	W6FE4	P6FE4	N6FE4	3/8"	1/4"
	W6FE6	P6FE6	N6FE6	3/8"	3/8"
	W8FE8	P8FE8	N8FE8	1/2"	1/2"
<b>(FC) Female Connector</b> Tube to Female Pipe 	W4FC2	P4FC2	N4FC2	1/4"	1/8"
	W4FC4	P4FC4	N4FC4	1/4"	1/4"
	W6FC4	P6FC4	N6FC4	3/8"	1/4"
	W6FC6	P6FC6	N6FC6	3/8"	3/8"
	W8FC6	P8FC6	N8FC6	1/2"	3/8"
	W8FC8	P8FC8	N8FC8	1/2"	1/2"
<b>(TU) Tee Union</b> Tube to Tube 	W4TU4	P4TU4	N4TU4	1/4"	N/A
	W6TU6	P6TU6	N6TU6	3/8"	N/A
	W8TU8	P8TU8	N8TU8	1/2"	N/A

These products are available from Brass Products Division

# THERMOPLASTIC FITTINGS

## Par-Barb Thermoplastic Fittings

Par-Barb fittings are precision injection molded from high strength, chemically inert, thermoplastic materials.

The specially engineered four-barb design generates the maximum gripping and sealing power when combined with a hose clamp. The unique barb design requires the tube or hose to expand slightly to accept the fitting, providing a positive seal on the barbs.

Par-Barb fittings are widely used with Parflex clear vinyl tubing, urethane tubing and a variety of rubber tubing and hose.

Par-Barb fittings meet FDA and NSF-51 specifications for food contact.

Par-Barb is recommended in medical, pollution control, food and beverage applications. Other uses include irrigation, instrumentation, reverse osmosis and deionized water systems.

## Temperature range:

**Black Polyethylene:** -65°F (-54°C) to +190°F (+88°C.)

**White Nylon:** -40°F (-40°C) to +200°F (+93°C.)

## Working Pressures:









Par-Barb fittings are generally used in systems where pressures do not exceed 125 PSI. When used in excess of 125 PSI, the customer in his particular application should test Par-Barb fittings, in all sizes.

Ambient and fluid temperatures, type of fluid conveyed, hose or tubing used, clamping mechanism employed and conditions of mechanical abuse, govern operating pressures of Par-Barb fittings.



These products are available from Brass Products Division

## PAR-BARB FITTINGS

PAR-BARB FITTINGS	BLACK HIGH DENSITY LINEAR POLETHYLENE	WHITE NYLON	TUBE OR HOSE I.D.	NPTF THREAD SIZE (INCHES)
<b>(EUB) Elbow Union</b> 	P4EUB4	N4EUB4	1/4"	N/A
	P6EUB6	N6EUB6	1/4"	N/A
	P8EUB6	N8EUB6	1/2"-3/8"	N/A
	P8EUB8	N8EUB8	1/2"	N/A
<b>(MTB) Tee Male Branch</b> 	P4MTB2	N4MTB2	1/4"	1/8"
	P4MTB4	N4MTB4	1/4"	1/4"
	P4MTB6	N4MTB6	1/4"	3/8"
	P6MTB4	N6MTB4	3/8"	1/4"
	P6MTB6	N6MTB6	3/8"	3/8"
	P6MTB8	N6MTB8	3/8"	1/2"
	P8MTB6	N8MTB6	1/2"	3/8"
	P8MTB8	N8MTB8	1/2"	1/2"
<b>(HPL) Hex Head Pipe Plug</b> 	P2HPL	N2HNL	N/A	1/8"
	P4HPL	N4HNL	N/A	1/4"
	P6HPL	N6HNL	N/A	3/8"
	P8HPL	N8HNL	N/A	1/2"
<b>(TUB) Tee Union</b> 	P2TUB2	N2TUB2	<b>TEE I.D.</b> 1/8"	<b>STEM I.D.</b> 1/8"
	P4TUB4	N4TUB4	1/4"	1/4"
	P6TUB4	N6TUB4	3/8"	1/4"
	P6TUB6	N6TUB6	3/8"	3/8"
	P6TUB8	N6TUB8	3/8"	1/2"
	P8TUB6	N8TUB6	1/2"	3/8"
	P8TUB8	N8TUB8	1/2"	1/2"
	<b>(MEB) Male Elbow Connector</b> 	P4MEB2	N4MEB2	1/4"
P4MEB4		N4MEB4	1/4"	1/4"
P4MEB6		N4MEB6	1/4"	3/8"
P6MEB4		N6MEB4	3/8"	1/4"
P6MEB8		N6MEB8	3/8"	1/2"
P8MEB4		N8MEB4	1/2"	1/4"
P8MEB6		N8MEB6	1/2"	3/8"
P8MEB8		N8MEB8	1/2"	1/2"
<b>(UCB) Union Connector</b> 	P2UCB2	N2UCB2	1/8"	1/8"
	P4UCB4	N4UCB4	1/4"	1/4"
	P6UCB6	N6UCB6	3/8"	3/8"
	P8UCB6	N8UCB6	1/2"	3/8"
	P8UCB8	N8UCB8	1/2"	1/2"
<b>(HPN) Hex Pipe Nipple</b> 	P2HPN2	N2HNN2	1/8"	1/8"
	P4HPN4	N4HNN4	1/4"	1/4"
	P6HPN6	N6HNN6	3/8"	3/8"
	P8HPN8	N8HNN8	1/2"	1/2"
<b>(MCB) Male Connector</b> 	P4MCB2	N4MCB2	1/4"	1/8"
	P4MCB4	N4MCB4	1/4"	1/4"
	P6MCB4	N6MCB4	3/8"	1/4"
	P6MCB6	N6MCB6	3/8"	3/8"
	P8MCB6	N8MCB6	1/2"	3/8"
	P8MCB8	N8MCB8	1/2"	1/2"

These products are available from Brass Products Division

## Introduction

polyflex® reinforced polymer hose is available in a wide variety of constructions, styles, and lengths to meet a vast number of industrial and offshore applications. Styles shown on these pages are compatible with Parker MPI™ Fittings and offer these benefits:

- Flexible with small outside diameter for tight routing
- Abrasion resistant polymer cover for longer life
- Chemical-resistant tube and cover
- Steel-reinforced styles resist kinks

### TYPICAL APPLICATIONS:

- Offshore oil and gas platforms and satellites
- Replacement of hard tube lines
- Chemical injection lines
- Pressure testing
- Hydraulic controls
- Tank and process vessel cleaning

## polyflex® Hose



PARKER PART NO.	MIN. I.D.	MAX. O.D.	MAX. WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	WEIGHT
	INCH	INCH	PSI	PSI	INCH	LBS/FT
2020N-02V30	0.12	0.24	9,280	23,200	1.18	0.05
2240D-025V34	0.17	0.30	17,400	43,500	2.95	0.067
2245N-04V00	0.25	0.50	10,440	26,100	2.76	0.17
2245N-04V02	0.25	0.50	10,440	26,100	2.76	0.17
2245N-04V04	0.25	0.50	10,440	26,100	2.76	0.17
2380N-04V00	0.25	0.53	16,240	40,600	2.76	0.22
2380N-04V02	0.25	0.53	16,240	40,600	2.76	0.22
2380N-04V04	0.25	0.53	16,240	40,600	2.76	0.22
2380N-04V01	0.25	0.53	16,240	40,600	2.76	0.22
2380N-04V33	0.25	0.50	13,200	33,000	3.50	0.17
2390N-06V13	0.4	0.70	10,300	25,810	3.00	0.28
2440N-08V37	0.5	0.88	20,400	51,000	7.87	0.63
2440N-08V71	0.5	0.88	20,400	51,000	7.87	0.63
2440N-12V37	0.81	1.19	14,500	37,500	10.00	0.93
2440N-12V71	0.81	1.19	14,500	37,500	10.00	0.93

Temperature range: -40° to +140°F (-40° to +60°C). Contact the factory for temperatures outside this range.

For additional information about polyflex® hose, including information about construction, typical applications, working pressure and installation, contact your authorized Parker Instrumentation Distributor or polyflex® at (281) 530-5300.

## How to Order Polyflex® Hose Assemblies

Example Hose Assembly Number: **2244NAYAY111108C10-600**

<b>2244N</b>	<b>AY</b>	<b>AY</b>	<b>11</b>	<b>11</b>	<b>08</b>	<b>C</b>	<b>10</b>	-	<b>XXX</b>
(A)	(B)		(C)		(D)	(E)	(F)		Indicate Length in Inches

<p><b>A</b></p> <p>This series of numbers will indicate the hose base number.</p> <p>Examples:</p> <p><b>2040N</b> - 02  <b>2040N</b> - 04</p> <p><b>2240D</b> - 025  <b>2245D</b> - 03  <b>2243D</b> - 03</p> <p><b>2390N</b> - 04  <b>2390N</b> - 06  <b>2390N</b> - 08  <b>2390N</b> - 12</p> <p><b>2440D</b> - 025  <b>2440D</b> - 05  <b>2440N</b> - 08  <b>2440N</b> - 12</p> <p><b>2640N</b> - 08  <b>2640N</b> - 12</p> <p><b>2740D</b> - 03  <b>2740D</b> - 05</p> <p><b>2840D</b> - 03</p>	<p><b>B</b></p> <p>These two letters will indicate the <b>STYLE</b> of connection.          End 1 &amp; End 2</p> <p>01 = NPT Pipe, Male, Rigid          02 = NPT Pipe; Female Rigid          06 = JIC 37 degree.; Female Swivel          07 = NPSM Pipe; Female Swivel 60°          92 = BSP Pipe; Female Swivel          AY = Type M; Female Swivel 58°          YA = Type M; Male (adaptor ends)          C9 = Metric; Female, Swivel 24/O-Ring          D9 = BSP; Male, Rigid          Y1 = MP Nipple; Male, w/ GNut &amp; Collar          Y2 = MP Nipple; Male, wo/ GNut &amp; Collar          Y3 = HP Nipple; Male, w/ GNut &amp; Collar          Y4 = HP Nipple; Male, wo/ GNut &amp; Collar          Y5 = MP Flare; Male, Rigid          Y6 = HP Flare; Male, Rigid          5Y = MP Flare; Female          6Y = HP Flare; Female</p>	<p><b>C</b></p> <p>This part will contain a dash followed by a one or two digit number indicating the end connection size.          End 1 &amp; End 2</p> <p><b>UNF</b></p> <p>1 = 1/4" - 28 UNF          2 = 5/16" - 24 UNF          3 = 3/8" - 24 UNF          4 = 7/16" - 20 UNF          5 = 1/2" - 20 UNF          6 = 9/16" - 18 UNF          7 = 5/8" - 18 UNF          8 = 3/4" - UNF          9 =          10 = 7/8" - 14 UNF          11 = 1" - 12 UNF          12 = 1 1/16" - 12 UNF          13 = 1 1/8" - 12 UNF          14 =          15 = 1 1/4" - 12 UNF          16 = 1 5/16" - 12 UNF          17 = 1 3/8" - 12 UNF          18 =          19 = 1 1/2" - 12 UNF          20 = 1 5/8" - 12 UNF</p> <p><b>NPT</b></p> <p>1 = 1/16-27          2 = 1/8-27          4 = 1/4-18          6 = 3/8-18          8 = 1/2-14          12 = 3/4-14          16 = 1-11 1/2          20 = 1 1/4-11 1/2          24 = 1 1/2-11 1/2          32 = 2-11 1/2</p> <p><b>Medium and High Pressure Tube</b>          Male or female, sized by nominal tube O.D.</p> <p>04 = 1/4" tube          06 = 3/8" tube          09 = 9/16" tube          12 = 3/4" tube          16 = 1" tube</p>	<p><b>D</b></p> <p>When specifying hose size, indicate the two digit code.</p> <table border="1"> <thead> <tr> <th>Hose Dash Size</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>01</td><td>01</td></tr> <tr><td>015</td><td>1A</td></tr> <tr><td>02</td><td>02</td></tr> <tr><td>025</td><td>2B</td></tr> <tr><td>03</td><td>03</td></tr> <tr><td>04</td><td>04</td></tr> <tr><td>05</td><td>05</td></tr> <tr><td>06</td><td>06</td></tr> <tr><td>08</td><td>08</td></tr> <tr><td>10</td><td>10</td></tr> <tr><td>12</td><td>12</td></tr> <tr><td>16</td><td>16</td></tr> <tr><td>20</td><td>20</td></tr> <tr><td>24</td><td>24</td></tr> <tr><td>32</td><td>32</td></tr> </tbody> </table>	Hose Dash Size	Code	01	01	015	1A	02	02	025	2B	03	03	04	04	05	05	06	06	08	08	10	10	12	12	16	16	20	20	24	24	32	32	<p><b>F</b></p> <p>This series of numbers will indicate the hose Variation Number.</p> <p>Examples:</p> <p>2040N - 02 <b>V00</b>          2020N - 02 <b>V30</b></p> <p>2240D - 025 <b>V34</b>          2245N - 16 <b>V30</b>          2245N - 20 <b>V30</b>          2244N - 025 <b>V00</b>          2244N - 08 <b>V10</b></p> <p>2380N - 04 <b>V33</b>          2380N - 04 <b>V00</b>          2380N - 05 <b>V00</b></p> <p>2440N - 08 <b>V37</b>          2440N - 12 <b>V37</b>          2440N - 16 <b>V37</b></p> <p>2640D - 025 <b>V32</b>          2640N - 12 <b>V32</b></p> <p>2740D - 03 <b>V30</b>          2740D - 05 <b>V32</b></p> <p>2840D - 03 <b>V34</b></p>
Hose Dash Size	Code																																			
01	01																																			
015	1A																																			
02	02																																			
025	2B																																			
03	03																																			
04	04																																			
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06	06																																			
08	08																																			
10	10																																			
12	12																																			
16	16																																			
20	20																																			
24	24																																			
32	32																																			

**E**

Indicate the fitting material.

S = Steel  
 B = Brass  
 C = Stainless Steel

# OFFER OF SALE

The items described in this document and other documents or descriptions provided by Parker Hannifin Corporation, its subsidiaries and its authorized distributors are hereby offered for sale at prices to be established by Parker Hannifin Corporation, its subsidiaries and its authorized distributors. This offer and its acceptance by any customer ("Buyer") shall be governed by all of the following Terms and Conditions. Buyer's order for any such items, when communicated to Parker Hannifin Corporation, its subsidiary or an authorized distributor ("Seller") verbally or in writing, shall constitute acceptance of this offer.

**1. Terms and Conditions of Sale:** All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein. Buyer's acceptance of any offer to sell is limited to these terms and conditions. Any terms or conditions in addition to, or inconsistent with those stated herein, proposed by Buyer in any acceptance of an offer by Seller, are hereby objected to. No such additional, different or inconsistent terms and conditions shall become part of the contract between Buyer and Seller unless expressly accepted in writing by Seller. Seller's acceptance of any offer to purchase by Buyer is expressly conditional upon Buyer's assent to all the terms and conditions stated herein, including any terms in addition to, or inconsistent with those contained in Buyer's offer. Acceptance of Seller's products shall in all events constitute such assent.

**2. Payment:** Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer's receipt of the shipment.

**3. Delivery:** Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller's plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller's delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

**4. Warranty:** Seller warrants that items sold hereunder shall be free from defects in material or workmanship. **THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED.**

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**6. Changes, Reschedules and Cancellations:** Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of any such requested modification or cancellation shall be at Seller's discretion, and shall be upon such terms and conditions as Seller may require.

**7. Special Tooling:** A tooling charge may be imposed for any special tooling, including without limitation, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and not withstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

**8. Buyer's Property:** Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished by Buyer or any other items which become Buyer's property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property, Seller shall not be responsible for any loss or damage to such property while it is in Seller's possession or control.

**9. Taxes:** Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any sales, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

**10. Indemnity For Infringement of Intellectual Property Rights:** Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. Patents, U.S. Trademarks, copyrights, trade dress and trade secrets (hereinafter 'Intellectual Property Rights'). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

**11. Force Majeure:** Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter 'Events of Force Majeure'). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

**12. Entire Agreement/Governing Law:** The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.

11/98-P



**Parker Hannifin Corporation**  
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## Parker Hannifin Corporation

### About Parker Hannifin Corporation

Parker Hannifin is a leading global motion-control company dedicated to delivering premier customer service. A Fortune 500 corporation listed on the New York Stock Exchange (PH), our components and systems comprise over 1,400 product lines that control motion in some 1,000 industrial and aerospace markets. Parker is the only manufacturer to offer its customers a choice of hydraulic, pneumatic, and electromechanical motion-control solutions. Our Company has the largest distribution network in its field, with over 7,500 distributors serving nearly 400,000 customers worldwide.

### Parker's Charter

To be a leading worldwide manufacturer of components and systems for the builders and users of durable goods. More specifically, we will design, market and manufacture products controlling motion, flow and pressure. We will achieve profitable growth through premier customer service.

### Product Information

North American customers seeking product information, the location of a nearby distributor, or repair services will receive prompt attention by calling the Parker Product Information Center at our toll-free number: 1-800-C-PARKER (1-800-272-7537). In Europe, call 00800-C-PARKER-H (00800-2727-5374).

**The Aerospace Group** is a leader in the development, design, manufacture and servicing of control systems and components for aerospace and related high-technology markets, while achieving growth through premier customer service.



**The Climate & Industrial Controls Group** designs, manufactures and markets system-control and fluid-handling components and systems to refrigeration, air-conditioning and industrial customers worldwide.



**The Fluid Connectors Group** designs, manufactures and markets rigid and flexible connectors, and associated products used in pneumatic and fluid systems.



**The Seal Group** designs, manufactures and distributes industrial and commercial sealing devices and related products by providing superior quality and total customer satisfaction.



**The Hydraulics Group** designs, produces and markets a full spectrum of hydraulic components and systems to builders and users of industrial and mobile machinery and equipment.



**The Filtration Group** designs, manufactures and markets quality filtration and clarification products, providing customers with the best value, quality, technical support, and global availability.



**The Automation Group** is a leading supplier of pneumatic and electromechanical components and systems to automation customers worldwide.



**The Instrumentation Group** is a global leader in the design, manufacture and distribution of high-quality critical flow components for worldwide process instrumentation, ultra-high-purity, medical and analytical applications.





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