

# FLUID SYSTEM CONNECTORS

Quick Reference Guide 3500FSC-QRG | July 2024





4

# INCREASING PERFORMANCE, STANDARDIZING INVENTORY IN FACTORY / PROCESS AUTOMATION

Connecting you to increased efficiency, improved throughput, and bottom line benefits

## MARKET APPLICATIONS

Processing | Transferring | Pneumatic Circuits | Cooling | Measuring | Robotic Welding

## PERFORMANCE EXPECTATIONS

- Compact design
- Weld spatter resistance
- Robustness
- Vacuum performance
- High reliability
- Mechanical resistance
- Installation flexibility





\land warning

# Fittings

### **PLP Metal Fittings**

Compact push-to-connect nickelplated brass fittings with excellent corrosion resistance. Nitrile seal; stainless steel grab ring. Compatible with a wide array of tubing.

### **PLM Metal Fittings**

High phosphorous, FDA-compliant, chemical-resistant, nickel-plated collet and body push-to-connect fittings. Corrosion- and abrasionresistant. FKM seal.

# Valves

### **Check Valve**

Allows air to pass in one direction while blocking flow in the other.

### **Stainless Steel Check Valve**

Provides unidirectional flow. Ideally suited for harsh environments as well as conveying industrial fluids.

### **Pilot Operated Check Valve**

Designed to protect installations by locking the air supply to the cylinder to keep it in position if the compressed air supply is removed.

### **Blocking Valve**

Prevents equipment damage in the event of a pressure loss.

WARNING

# **PLP Composite Fittings**

Glass-reinforced nylon 6.6 pushto-connect fittings provide high corrosion and chemical resistance. Nitrile seal; stainless steel grab ring.

# **PLS Stainless Steel Fittings**

With FKM seals, offer excellent resistance to aggressive environments and fluids. Smooth surface design reduces retention zones for safe and easy cleaning.

### Pneumatic Slide Valve

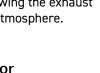
Affects an immediate isolation of the air line by venting the system to atmosphere.

### **Exhaust Valve**

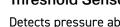
Increases the return speed of the cylinder rod by allowing the exhaust to pass directly to atmosphere.

### Threshold Sensor

Detects pressure absence and converts it to a high-pressure pneumatic output.



Fluid System Connectors



This product can expose you to chemicals including Lead and Lead Compounds which is known to the State of California to cause cancer and birth

defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



















# Flow Controls

### **Compact Flow Control**

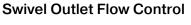
Excellent flow. Small size for reduced spaces.

## Miniature Flow Control

For very small-sized pneumatic applications.







Allows a vertical or angled tube exit where access is tight.

### **Plug-in Flow Control**

Mountable into existing fittings; allows very compact installations.



## **In-line Flow Control**

Splices into the existing cylinder port line.

### **Compact Metal** Flow Control

For severe conditions (temperatures, weld resistant, abrasion, etc.)

## Stainless Steel Flow Control

Regulates the speed of a cylinder rod; regulates flow in environments with high mechanical or chemical constraints.





# **Other Applicable Products**

### Tubing

Flexible Nylon, Polyurethane, Weld Resistant in assorted colors and durometers.



### Blow Guns and Nozzles

Wide range of assorted controlled pressure and full pressure blow guns with both thumb and pistol grip actuation. Vented nozzles in assorted styles and lengths prevent pressure buildup when dead ending occurs up to 150 psi.

### Silencers

Bronze, polyethylene, and stainless steel silencers are available in threaded, miniature, plug-in, and flow control styles in a range of working pressures and temperatures.



### Cartridges

Guarantee the integrity of the sealing system before and after assembly in non-threaded cavities. Compact design of our one-piece cartridges enables automation and improves system reliability.

## 3100 Carstick<sup>®</sup> Cartridge

Available in brass or nickel-plated brass.



PLMC Cartridge



Available in electroless nickel-plated brass.

**PLSC** Cartridge Available in 316L Stainless Steel.





WARNING

# **How to Order**

# PLM, PLS, PLP Metal, and PLP Composite Fittings

		Fra	actio	nal In	ch					M				
W	3	69	PLP	BJ	-4	-2	w	3	69	PLP	х	6M	2	R
A	В	С	D	E	F	G	A	В	С	D	E	F	G	H
A	Thread Se	ealant			D	Fitting Serie	s			F	Tube Size			
	White Ad	rvlic			PLP	Composite	e & Metal			Inches		Me	tric	
ank	No Seala				PLM					2	1/8	4M		mm
					PLS	Stainless S	Steel			3	3/16	6M		mm
3	Body Mat	erial			1 20	Otamicos				5/32	5/32	81		mm
					E	Fitting Desci	rintion			4	1/4	10		0mm
	Metal Fo					Thung Deser	iption			5	5/16	12		2mm
	Composi	ite			Х	Extended M	1ale Elbow			6	3/8	14		4mm
					SP	Standpipe				8	1/2			
	Fitting Co	nfiguratio	on		PD	Double Y				0	1/2			
	Union Y				BJ	Banjo				G	Thread Siz	ze.		
		Connector	~		TJ	Twin Banjo								
	Male Co				DJ	Double Ban	ijo			Inches		Me	tric	
	Female I				BH	Bulkhead U	Inion			0	10-32	2	1,	/8
	Union Te				DSP	Plug-in Mul	tiple Y			1	1/16	4	1,	/4
	Union El				RC	Rail Conne				2	1/8	6	3	/8
					DRC	Double Rail	Connector			4	1/4	8	1,	/2
	Male Elb				BHP	Plug-in Bul				6	3/8	M3	S M	I3X0.5
	Male Ru									8	1/2	MS	M	5X0.8
		anch Tee										M7	' M	7X1
2	Cross											M1	0 M	10X1
)	45° Elbo											M1		12X1.5
2		Connector	-											
2	Union									H	Thread Ty	pe		
,	Multiple													
'	Tube Re	ducer								Metric				
39	Plug									NPT				
										R	BSPT			
						1				G	BSPP			
			6		-	07	20	A.						
	(A)	40		-0-		-		A lin						
		Cuda		P. Marin	2m		0	and have	1					
		8		Tu	U		N	Mana	11			0		
		FIR	110	-		and a		F		and a second				
						Prove la	9			0	ŀ		RoHS	X
				duct can ex										

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			Tube Sizes/PSI												
Product Line	Temperature	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	4mm	6mm	8mm	10mm	12mm	14mm	16mm
PLP Composite	-4° to 175° F	290	290	260	290	290	290	290	290	290	290	290	290	290	290
PLP Metal	0° to 200° F	300	300	300	300	300	300	300	300	300	300	300	300		
PLM	-13° to 302° F		435		435		435	435	435	435	435	435	435	435	
PLS	-13° to 302° F		435	435	435	435	435	435	435	435	435	435	435		
90° Flow Control	32° to 158° F	145	145		145	145	145	145	145	145	145	145	145	145	
Swivel Flow Control	32° to 158° F		145		145		145		145	145	145	145	145		
In-Line Flow Control	32° to 158° F		145		145	145	145	145	145	145	145	145	145		
Plug-In Flow Control	32° to 158° F	145	145		145				145	145	145	145	145		

Available

# **Tubing compatibility**

	Soft Met	al Tubing		Thermoplastic Tubing							
Product Line	Copper	Stainless Steel	Polyethylene	Nylon	95 Shore A Polyurethane	FEP Fluoropolymer					
PLP Composite					TS						
PLP Metal											
PLM	G	G									
PLS	G	G									
90° Flow Control					TS						
Swivel Flow Control					TS						
In-Line Flow Control					TS						
Plug-In Flow Control					TS						

Compatible G Tubing must be Grooved TS Tube Support Needed

# **Flow Control Specifications**

	Material			Material Size Type of Adjustment					Types of Threads					
Product	Nylon	Brass	Stainless	Compact	Miniature	External	Knobless	NPT	UNF	BSPT	BSPP	Metric		
90° Flow Control														
Swivel Flow Control														
In-Line Flow Control														
Plug-In Flow Control														

Available



# IN WATER AND BEVERAGE: KEEPING IT CLEAN, KEEPING IT SAFE

Connecting you to leak-free innovation, smaller footprints, and faster assembly

1. 1

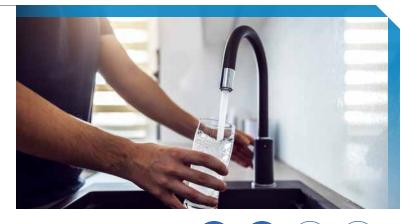
# MARKET APPLICATIONS

Filtration | Purification | Processing | Dispensing | Bottling | Treatment | Aeroponics

## PERFORMANCE EXPECTATIONS

- Manufactured from FDA-compliant materials
- Meet NSF/ANSI/CAN 61 & NSF/ANSI-51 requirements for potable water contact
- Excellent chemical resistance
- Wide range of fluid compatibility
- Mechanical resistance
- Installation flexibility







\land WARNING

# **FITTINGS**

### LIQUIfit<sup>™</sup> Fittings

An "eco-designed," innovative alternative; no fluid contamination occurs and environmental protection is guaranteed. Compact, push-toconnect, full-flow fittings offer high chemical resistance to such things as chlorine, cleaning agents, and UV. Also limits biofilm development. Suitable for water, potable liquids, and neutral gas applications.

### Fast & Tite® Fittings

A compression style fitting that installs in seconds without tools and provides a tight, sure, leak-proof seal without clamps or adjustments. Unique grab ring for tube retention, couples with a Nitrile O-ring, creates a positive seal and assures good tube retention with only hand tight assembly.

### TrueSeal<sup>™</sup> Thermoplastic Fittings

Lightweight, field attachable, pushto-connect fittings manufactured from FDA compliant materials. Available in acetyl, polypropylene, and black Kynar. TrueSeal fittings also offer NSF-51 compliance; NSF 61 compliance in gray acetyl. Widely used in water conditioning, filtration and reverse osmosis, as well as on water. soft drink, beer, wine, and condiment dispensing systems.

### Par-Barb<sup>®</sup> Fittings

Multiple barb design generates the maximum gripping and sealing power when combined with a hose clamp. Fittings are injection molded from high strength, chemically inert thermoplastic materials.

WARNING

Valves

## LIQUIfit<sup>™</sup> Polypropylene Ball Valves

With superior mechanical strength and chemical resistance, LIQUIfit ball valves meet all FDA and NSF-51 requirements for food contact. Built-in connection eliminates the need for a secondary fitting, reducing cost. Low profile design saves space. Full flow, self-cleaning ball maintains the cleanliness of the circuit.

# Fast & Tite<sup>™</sup> Ball Valves

This range of ball valves uses compression technology to create a sure and tight connection. Use Parker's Fast and Tite fittings for low pressure applications such as water filtration, beverage dispensing, or on vacuum lines. Manufactured from black polypropylene material, these valves meet FDA and NSF-51 requirements for food contact.

These polypropylene ball valves offer proven

# **Par-Barb Ball Valves**

Injection molded from high strength, chemically inert, nylon thermoplastic. The multiple barb design generates the maximum gripping and sealing power when combined with a hose clamp. FDA and NSF 51 compliant.

# **Check Valve**

This product can expose you to chemicals including Lead and Lead Compounds which is known to the State of California to cause cancer and birth

One-way directional valve of acetal permits gases and liquids to flow in only one direction while blocking flow reversal.



# TrueSeal<sup>™</sup> Ball Valves

leak-free performance, as well as excellent corrosion resistance. Bidirectional flow maximizes productivity. Full stainless steel gripping ring eliminates the need for locking clips. Full flow, self-cleaning ball adds quality and durability.









defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov













# **Other Applicable Products**

### TrueSeal<sup>™</sup> Cartridges

Allow you to machine or mold a tube connection into your equipment or components, eliminating the need for threaded connections. Reduces material and assembly costs as well as potential leak paths. Withstands pressure up to 150 psi.



### LIQUIfit<sup>™</sup> Cartridges

Guarantees the integrity of the sealing system before and after assembly in non-threaded cavities. Compact, one-piece cartridges are available in brass and nickel-plated brass. Self-centering design. Withstands pressure up to 230 psi.



LIQU	JIFIT <sup>™</sup> F	-							_					
		Fract	tional	Inch			Metric							
	6505	56	11	W	P2			650	9 06	13	W	P2		
	A	В	С	D	E			A	B	С	D	E		
A	Fitting Config	guration												
6505	Male Conne	ector			6340	Union Y Coni	nector		6382	Plug-	in Elbow			
6315	Female Cor				6366	Reducer			6383		in Run Tee			
6306	Union Conn	lector			6388	Plug-in Tee			6326	Plug	to Hose Ba			
6404 6316	Union Tee Bulkhead U	Inion			6307 6351	Cross End Stop			6322 6503		to Hose Ba el Run Tee	arb		
6579	Fixed Elbov				6521	Stem Adapte	r		6548		el Y Conne	ctor		
6353	Faucet Con	nector			6509	Swivel Elbov			6380		in 45° Elbo			
6302	Union Elbov	N			6508	Swivel Brand	ch Tee							
В	Tube/Stem S	Size			С	Thread or Tub	oe O.D.			Color (	Code			
Inches		Metr	ic		Inches		Metri	c	W	White	2			
11	1/8	04	4mm		00	Same Size as	•	a & Metric)	G	Gray				
56	1/4	06	6mm		11	1/8	04	4mm						
08 60	5/16 3/8	08 10	8mm 10mm		14 18	1/4 3/8	06 08	6mm 8mm	E	Packag	jing			
50 52	3/8 1/2	10	12mm		22	3/8 1/2	10	1/8	P2	Stand	lard Packa	iging		
52	1/2	12	1211111		133	7/16-24	12	12mm						
							14	14mm						
							13	1/4				$\frown$	$\frown$	
							17	3/8	FD/A	RoHS	(YL)	) (NSF.)	(NSF.)	
							21	1/2				Certified to NSF/ANSI 61	COMPONENT	

defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

This product can expose you to chemicals including Lead and Lead Compounds which is known to the State of California to cause cancer and birth

## Tubing

Polyethylene for food contact and potable water applications. Kinkresistant polyurethane for food contact also exhibits excellent chemical resistance in chlorinated water applications. Assorted colors and durometers.



🗥 warning

# **How to Order**

TrueSeal<sup>™</sup> (Inches)

А	4	ME	2	-MG
A	В	С	D	E

A	Fitting Materi	al		
A PP PPB FB	Acetal Polypropyler Black Polypr Black Kynar			
В	Tube Size			
4 5	1/4 5/16	6 8	3/8 1/2	

CF	Fitting Configuration
MC	Male Connector
EU	Elbow Union
TU	Tee Union
WY	"Y" Union
MES	Male Elbow Swivel
MRS	Male Run Swivel
MTS	Male Tee Swivel
UC	Union
CU	Cross
FA	Faucet Adapter
FC	Female Connector
FF	45° Female Flare
TMC	Tube Stem Adapter
BU	Bulkhead Union
TEU	Tube Elbow Union
RD	Tube Reducer
CAP	Tube Cap
FE	Female Elbow
ME	Male Elbow
ST	Straight Thread
тсв	Tube-to-Barb Stem
TEB	Tube Elbow Barb Connector
TPL	Plug

D	Thread Size		
2	1/8	7	7/16-24
4	1/4	8	1/2
6	3/8	9	9/16-18
E	Gripper Materia	al	

MG Metal Gripper Blank Plastic Gripper



# **How to Order**

# Fast & Tite® Fittings (Inches)



A Fitting Material	<b>C</b>	Fitting Configuration		Thread Size	
W White Polypropylene	MC	Male Connector	2	1/8	
P Black Polypropylene	UC	Union	4	1/4	
N White Nylon	ME	Male Elbow	6	3/8	
	EU	Union Elbow	8	1/2	
B Tube Size	BU	Bulkhead	12	3/4	
	FE	Female Elbow			
4 1/4	FC	Female Connector			
5 5/16	MR	Male Run Tee			
6 3/8	TU	Union Tee			
8 1/2	MT	Male Branch Tee			
10 5/8					

# **How to Order**

# Par-Barb<sup>®</sup> Fittings (Inches)



22	Union	HB	Hose Barb			2	1/8	12	3/4			
64	Union Tee	GH	Garden Hose			4	1/4	16	1			
65	Union Elbow	Р	Pipe			6	3/8	20	1 1/4			
18	Hex Plug	GHSV	Garden Hose S	Swivel		8	1/2	24	1 1/2			
09	Reducer Bushing											
16	Hex Nipple	С	Tube/Hose I.D.				Fitting Mate	rial				
26	Female Connector		- (		- 1-							
25	Male Connector	3	3/16	10	5/8	PP	· · · · · · · · · · · · · · · · · · ·					
72	Male Branch Tee	4	1/4	12	3/4	N	White Nylo	n				
70	Female Elbow	5	5/16	16	1							
29	Male Elbow	6	3/8	20	1 1/4							
62	Union Y	8	1/2	24	1 1/2							
28	Ball Nose Hose Barb Stem											
1	Nut											
16	Garden Hose Adapter											
25	GH Swivel Hose Barb Stem											
13	Garden Hose Cap					FDA	RoHS	<b>と)(NS</b>	F.) (NSF.			

# **Product Specifications**

							Tub	e Sizes/	/PSI					
Product Line	Temperature	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	4mm	6mm	8mm	10mm	12mm	14mm
LIQUIfit Inch	35° to 200° F		230		230	230	190	160						
LIQUIfit Metric	35° to 200° F								230	230	230	190	160	160
TrueSeal Acetal	-20° to 180° F				300	300	300	250						
TrueSeal Polypropylene	0° to 225° F				150	150	150	150						
TrueSeal Kynar	0° to 275° F				300	300	300	250						
Fast & Tite Polypropylene	0° to 212° F				300	300	250	200						
Fast & Tite Nylon	40° to 200° F				300	300	250	200						
Par-Barb Polypropylene	0° to 212° F				125	125	125	125						
Par-Barb Nylon	-40° to 200° F	125		125	125	125	125	125						
TrueSeal Ball Valves	35° to 225° F				150	150	150	150						
LIQUIfit Ball Valves	35° to 200° F				150	150	150	150		150	150	150		
Par-Barb Ball Valves	35° to 200°F				150	150	150	150						
Fast & Tite Ball Valves	35° to 200°F				150	150	150	150						
TrueSeal Check Valves	-34° to 150°F						300							

# **Tubing Compatibilty**

	Soft Me	etal Tubing		Thermoplastic Tubing									
Product Line	Copper	Stainless Steel	Polyethylene	Nylon	95 Shore A Polyurethane	Polypropylene	Fluoropolymer	Vinyl					
LIQUIfit													
TrueSeal	G	G		MG	TS	MG	MG	TS					
Fast & Tite													
Par-Barb													

Compatible G Grooved TS Tube Support MG Metal Gripper





# IN TRANSPORTATION, GLOBAL LOGISTICS AND VENDOR PARTNERSHIPS

Connecting you to higher productivity, increased efficiencies, and improved inventory management

# MARKET APPLICATIONS

Air Brakes | Cab Controls | Fuel System | Engine | Transmission | Cooling | Air Tanks

# PERFORMANCE EXPECTATIONS

- Compact design
- Impact resistance
- Meets DOT and SAE requirements
- Robustness
- Vibration resistance
- High reliability
- High temperature resistance
- Installation flexibility







# Fittings

### **Brass PTC Fittings**

Robust, all-brass push-to-connect fittings meet SAE J2494 and DOT specifications. Designed for all DOT truck and trailer applications. Reduce assembly time versus compression style fittings by 90%. Ideal for tight applications with difficult wrench clearance. Use with Parflex SAE J844 typ

### **Transmission Fittings**

For pressure-protected pneumatic transmission applications. Offer a specially designed slotted sleeve to help eliminate notch stress related to over-torgue. Electroless nickel-plated bodies work with bio-diesel. Use with SAE J844 type A nylon tubing.

### **NTA Fittings**

The most economical air brake solution, meeting DOT and SAE specifications. Also excellent for diesel fuel applications. Utilize a ribbed sleeve for compression and positive grip. Electroless nickel-plated bodies work with bio-diesel.

# **VALVES**

### **Truck Valves**

Brass valves with metal-to-metal seats and fine-thread screw-down for positive sealing up to the valve's capacity. Available with pipe, flare, NTA and hose barb end configurations.

### Lanyard Valve

This product can expose you to chemicals including Lead and Lead Compounds which is known to the State of California to cause cancer and birth

Compact brass valve designed for releasing condensate from air tanks. Specially formulated low temperature seal remains elastic down to -40°F.



Excellent for high vibration, high heat, mechanical shock, or tube movement applications. The sleeve cushions the tubing, permitting it to flex back and forth in the fitting. Seal design compensates for tube misalignment and tube surface defects. Use with seamed or seamless metal tubing: copper, aluminum, steel (Bundy), stainless steel, and glass.

Parker's Air Brake Hose fittings are field attachable and engineered for use with Parker 271 Air Brake Hose. Easy to assemble and disassemble, the fittings utilize a slotted sleeve for compression and positive grip. They meet DOT FMVSS571.106 when used with SAE J1402 Air Brake Hose.

SAE J844 type A and B tubing.

**Composite PTCR Fittings** 

Lightweight, composite push-to-

connect fittings meet SAE J2494 and

assembly time versus compression

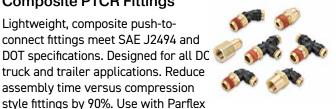
## Air Brake Hose End Fittings

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WARNING















defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov





# **Other Applicable Products**

### **SAE Encapsulated Cartridges**

Guarantee the integrity of the sealing system before and after assembly in non-threaded cavities. Compact, one-piece cartridges are available in brass and nickel-plated brass. Self-centering design. Withstands pressure up to 250 psi.

# 9

### Manifolds

Provide multiple tube junction connections in truck air applications. Brass and glass filled nylon bodies. Contact us for custom designs.



### Compressed Biodiesel (CBD) Fittings

CBD fittings utilize a ribbed sleeve for compression and positive grip. The electroless nickel plating provides superior chemical compatibility for fuels containing greater than 20% biodiesel.

### Straight Thread O-Ring (STO) Fittings

Straight Thread O-Ring (STO) Fittings are growing in popularity and replacing NPTF fittings on air brake applications. STO Fittings simplify installation and provide a tighter seal over traditional pipe threads.



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# **How to Order**

# NTA, AB, Transmission Fittings (Inches)

		VS	2 69 B C		-4 E	-2 F			
_									
	Thread Sealant		Fitting Config	Juration	/=				
	Vibra Seal		leeve			n Elbow	71	Male Run T	
	Body Material		ut			ale Connector	72	Male Branc	
	Body Material		nion			e Connector	79	45° Male El	bow
	Forged Brass Extruded Brass		ube Insert nion Tee			e Elbow ale Elbow			
	Product Series	_	Tube Size			• •	Thread S	ize	
4	NTA	2	1/8	6	3/8	1	1/16	6	3/8
	Air Brake	3	3/16	8	1/2	2	1/8	8	1/2
	Transmission	5/32	5/32	10	5/8	4	1/4	12	3/4
	Vibra-Lok	4	1/4	12	3/4		Page 1	UNIT OF TRAMBO	04
							2		

defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

🗥 WARNING

# **How to Order**

# Composite PTCR, Brass PTC, Vibra-Lok Fittings (Inches)

/S	Thread Sealant Vibra Seal Body Material	C 32 37	Fitting Configuration Union Adapter	69			
		37		69			
B	Body Material		Adaptor		Male Elbow	685	Male Connector
	body Material	62	Union	70 71	Female Elbow Male Run Tee	695	Straight Thread Male Elbow Straight
	Brass	64	Union Tee	72	Male Branch Tee	715	Thread Male Run Tee Straight
1	Composite	65 66 68	Union Elbow Female Connector Male Connector	77 79 89	Female Branch Tee 45° Male Elbow Dual Port Male Elbow	725	Thread Male Branch Tee Straight Thread
DF	Fitting Series		Tube Size		G	Thread 2	Size
тс	PTC Brass	4	1/4		2	1/8	
TCR	PTCR Composite	6	3/8		4	1/4	
L	Vibra-Lok	8	1/2		6	3/8	
		10	5/8		8	1/2	
E F	Fitting Description	12	3/4		12	3/4	
Р	Plug-in						
HR	Retaining Ring Bulkhead						100
Н	Bulkhead						The Case
IS	Non-swivel						
-	Long rigid						- X/3-
8	Positional				h		



	Temperature	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	4mm	6mm	8mm	10mm	12mm	16mm	Туре
PTCR	-40°F to 200°F				250		250	250	250	250								
Brass PTC	-40°F to 200°F		250		250		250	250	250	250			250	250	250	250	250	Push-to- Connect
SAE Cartridges	-40°F to 200°F		250		250		250	250	250	250								Push Com
Manifolds				Pressu	re and	temper	ature d	epende	ent upo	n manif	old co	nfigurati	ion					
NTA	-40°F to 200°F			150	150		150	150	150	150								
Air Brake	-65°F to 250°F				400		400	400	400	400								uo
Transmission Fittings	-40°F to 200°F	150	150															Compression
Vibra-Lok	-30°F to 275°F			1,000	1,000	900	700	500	400									ŭ
Air Brake Hose	-65°F to 250°F						400	400										
Truck Valves	-30°F to 250°F						150	150	150	150								
Lanyard Valve	-40°F to 200°F				150													Valve
Drain Cocks	-65°F to 250°F	150			150		150											

# **Product Specifications**

Maximum working pressure (psi) by tube size at 73°F

# **Tubing Compatibility**

	Copper	Aluminum	Steel	Nylon N	Nylon PAT	PFT Air Brake (SAE J844) Inch	Air Brake DIN 74324 (Nylon 12)	HTFL Diesel Fuel	Parker 271Hose (SAE J1402)
PTCR									
Brass PTC									
SAE Cartridges									
NTA									
Air Brake									
Transmission Fittings									
Vibra-Lok									
Air Brake Hose									

Compatible



# IMPROVING DURABILITY, LESSENING RISK IN PETROCHEMICAL MANUFACTURING

Connecting you to higher productivity, faster assembly, and leak-free innovation

## MARKET APPLICATIONS

Processing | Transferring | Cooling | Measuring | Pneumatic Circuits

# PERFORMANCE EXPECTATIONS

- Quality traceability
- High chemical resistance
- Robust design
- Excellent chemical compatibility
- Wide temperature range



\land warning

# **Compression Fittings**

### **Compression Fittings**

An economical choice that works with thermoplastic, copper, and aluminum tubing. Fittings require no tube flaring, soldering, or other tube prep before assembly.



### Compress-Align<sup>®</sup> Fittings

Pre-assembled with a captive sleeve, always oriented for a faster installation. Commonly used in pneumatic systems and plumbing applications, these fittings align to seal even out-of-round tubing.



### Brass Metric Compression

An economical, all-brass compression fitting with numerous connection options for a wide variety of tube materials. No need for flaring, soldering, or other tube preparation before assembly.



### **Poly-Tite Fittings**

Compact, pre-assembled compression style fittings designed for fast assembly. An exclusive acetal copolymer sleeve offers superior resilience to resist creeping and stress caused by compression.

### **Hi-Duty Flareless Fittings**

Preassembled with the sleeve machined into the nut. During assembly the sleeve breaks away from the nut to create a seal on the tubing. Rated to a much higher pressure rating than compression fittings, Hi-Duty will work with seamless steel tubing as well as copper, brass, and thermoplastic tubing.



# **Flared Fittings**

### 45º Flared Fittings

An economical choice for a metal-tometal seal that resists mechanical pullout; ideal for refrigerants, natural gas, propane, fuels, and other "hard to hold" liquids and gases. Common applications include flammable liquids and gases and hydraulic brakes. Meets functional requirements of SAE J512 and SAE J513.



Offer similar performance to 45° flared fittings, except the metal-to-metal seal is internal to the fitting for tighter tube bends. Ideal for flammable liquids and gases and plumbing applications. These fittings are listed with UL and meet the functional requirements of SAE J512.



# **Barbed Fittings**

### **Dubl-Barb® Fittings**

An economical, one-piece, push-on brass barbed fitting that does not require any type of clamp. Applications include pneumatic systems and climate control. These compact fittings are a quick way to connect polyethylene tubing.



## **Hose Barb Fittings**

An economical choice for generalpurpose fluid handling and pneumatics. Manufactured in both regular hose barb and beaded hose barb styles. Intended for use with 97HC hose clamps, similar type of clamps or a crimped ferrule.





# Other Fittings

### **Pipe Fittings**

These all-brass fittings meet all functional requirements of SAE J530 and SAE J531. Fitting threads are made to dryseal standards. Both forged and extruded fittings are available.



## **Garden Hose Fittings**

Connect garden hose to other garden hose, to pipe, or to tubing. Swivel connections allow hose to twist without kinking. All-brass construction; high flow.



### **ISO Port Adapters**

Parker's ISO Port Adapters are ideal for systems with high pressure and cycling, providing reliable, long-term sealing. Since a fluorocarbon O-ring is standard, no thread sealant is needed. This helps reduce maintenance and component replacement costs caused by contamination and damage from sealants. Our ISO port adapters meet dimensional requirements of ISO 6149-3 and SAE 2244-3.

### **Metric Adapters**

A comprehensive range of forged and extruded brass and nickel-plated adapters for NPT, BSPT, BSPP and metric pipe threads. Robust design is reusable.



# Valves

### **Axial Valves**

Incorporate both the valve and actuation function. With pneumatic or electro-pneumatic control, these valves avoid many of the restrictions associated with traditional actuators.



Designed to offer convenient, low cost access ports for refrigeration service. Access valves may be installed in any position on either the high or low side for quick testing, pressure checking, purging, or charging.



### **Ball Valves**

Available in brass, stainless steel, carbon steel and polypropylene in sizes from 1/8" to 3". Includes 90° valves, straight thread O-ring valves, solder ends, panel mount valves, 3-way and 4-way valves, miniature and micro valves. Options include tee, oval, padlocking wedge and lever handles, actuators, and stainless steel componentry.



Manufactured with cast or forged bodies for extra strength. Hand tightening provides a metal-to-metal seal. Available with pipe, flare and compression ends.







# **How to Order**

Compression, Compress-Align,<sup>®</sup> Poly-Tite, Hi-Duty, 45<sup>o</sup> Flared, Inverted Flared, and Hose Barb Fittings (Inches)





76/56

77 79/59

639

Adapter Tee Female Branch Tee

45° Elbow

Plug

22

# Product Specifications Industrial Ball Valves

	Туре	Body Material	Tempe	rature	Maximum	Pressure
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		MIN.	MAX.	PSI	BAR
500 Series	Female/Female	Brass	0°F (-18°C)	350°F (176°C)	600	41
501 Series	Male/Female	Brass	0°F (-18°C)	350°F (176°C)	600	41
502 Series	Panel Mount	Brass	0°F (-18°C) 350°F (176°C)		600	41
506 Series	Straight Thread	Brass	0°F (-18°C)	350°F (176°C)	600	41
509 Series	Solder Ends	Brass	—	—	—	—
510 Series	Male/Female Straight Thread	Brass	0°F (-18°C)	350°F (176°C)	600	41
520 Series	Female/Female	Brass	-40°F (-40°C)	350°F (176°C)	600	41
525 Series	Female/Female	Brass	-40°F (-40°C)	350°F (176°C)	600	41
533 Series	3-Way Diversion	Brass	-20°F (-29°C)	350°F (176°C)	400	27
540 Series	4-Way	Brass	-20°F (-29°C)	350°F (176°C)	400	27
590/591 Series	Right Angle	Brass	-50°F (-45°C)	350°F (176°C)	250	17
500HB Series	Hose Barb	Brass	0°F (-18°C)	350°F (176°C)	150	10
600 Series	Six Port Diversion	Brass	0°F (-18°C)	250°F (121°C)	150	10
500CS/502CS Series	Female/Female	Carbon Steel	-20°F (-29°C)	425°F (218°C)	2,000 (1/4 - 1) 1,500 (1 1/4 - 2)	137 (1/4 - 1) 103 (1 1/4 - 2)
506CS Series	Straight Thread	Carbon Steel	-20°F (-29°C)	425°F (218°C)	3,000	206
500HP/506HP Series	High Pressure	Carbon Steel	-10°F (-23°C)	210°F (99°C)	6,000	413
501SS	Male/Female	Stainless Steel	0°F (-18°C)	400°F (204°C)	2,000	137
502SS	Female/Female	Stainless Steel	0°F (-18°C)	400°F (204°C)	2,000 (1/4 - 1) 1,500 (1 1/4 - 2)	137 (1/4 - 1) 103 (1 1/4 - 2)
708 Series	Male/Female	Brass	-35°F (-37°C)	300°F (148°C)	500	34
709 Series	Female/Female	Brass	-35°F (-37°C)	300°F (148°C)	500	34
200 Series	Female/Female	Chrome Plated Brass	0°F (-18°C)	200°F (93°C)	200	13
608 Series	Male/Female	Brass	0°F (-18°C)	200°F (93°C)	450	31
609 Series	Female/Female	Brass	0°F (-18°C)	200°F (93°C)	450	31

# Product Specifications Plug Valves

	Туре	Body Material	Tempe	Maximum	n Pressure		
			MIN.	MAX.	PSI	BAR	
607 Series	Male/Male	Brass	-40°F (-40°C)	175°F (79°C)	250	17	
608 Series	Male/Female	Brass	-40°F (-40°C)	175°F (79°C)	250	17	
609 Series	Female/Female	Brass	-40°F (-40°C)	175°F (79°C)	250	17	

# **Product Specifications** Compression, Compress-Align,<sup>®</sup> Poly-Tite, Hi-Duty, $45^{\circ}$ Flared, Inverted Flared, and Hose Barb Fittings

_	Temperature	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	7/8"	1"	Туре
Compress-Align*	-65°F to 200°F	2,800		1,900	1,400	1,200	1,000	750	650	550	450	350	
Compression (Metric Available)	-65°F to 200°F	2,800		1,900	1,400	1,200	1,000	750	650	550	450	350	Compression
Poly-Tite	0°F to 150°F				150	150	150	150					
Hi-Duty	-65°F to 250°F	4,300		2,850	2,100	1,800	1,500	1,150	1,000				
45 Degree Flare	-65°F to 200°F	2,800		1,900	1,400	1,200	1,000	750	650	550			
Inverted Flare	-65°F to 250°F	2,800		1,900	1,400	1,200	1,000	750	650	550			Flare
Access Valves	-20°F to 220°F	500		500	500		500	500					
Dubl-Barb	-65°F to 90°F		150		150		150	100					Barb
Hose Barb <sup>1</sup>	-40°F to 160°F			150	150	150	150	150	150	150			Dalu
Ріре	-65°F to 250°F	1,000			1,000		1,000	1,000		1,000			
Garden Hose <sup>1</sup>	35°F to 100°F			150	150		150	150	150	150			Adapter
Metric Adapters	-40°F to 302°F	1,000			1,000		1,000	1,000		1,000			
Ground Plug Shutoff	32°F to 125°F	30			30		30						Valve

Maximum working pressure (psi) by tube size at 73°F

\* Up to 1" tube size \*\* Up to 22 mm tube size 1 Hose size based on I.D.

# **Tubing Compatibility**

	Soft Met	al Tubing	Thermoplastic Tubing								
Product Line	Copper	Stainless steel	Polyethylene	Nylon	95 Shore A Polyurethane	Polypropylene	Fluoropolymer	Vinyl			
Compress-Align											
Compression											
Poly-Tite											
Hi-Duty											
45 Degree Flare											
Inverted Flare											
Dubl-Barb											
Hose Barb											

Compatible



# MARKET APPLICATIONS

Compressed Air | Inert Gases | Vacuum | Process Water\* | Chemical Transfer\*

# PERFORMANCE EXPECTATIONS

- Energy Efficient
- Corrosion Resistant
- Quick Installation
- Modular Design
- Optimum flow rate
- 10 year warranty



\*Stainless Steel Range Only

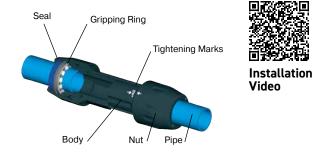
\land WARNING

# ALUMINUM PIPING CONNECTION TECHNOLOGIES

Transair's innovative technology enables rapid and easy assembly with quick connection of components to the aluminum pipe. This technology takes into account the specific requirements of each diameter and provides the user with an optimum safety coefficient and easy connection.

## 1/2" (16.5mm) • 1" (25mm) • 1-1/2" (40mm)

In sizes 1/2" (16,5mm), 1" (25mm), and 1-1/2" (40mm), Transair aluminum pipe uses push to connect technology. Simply push the pipe into the connector until it meets the depth mark on the pipe. The gripping ring will then engage and prevent the pipe from sliding out of the connector.



### 2" (50mm) • 2-1/2" (63mm)

tighten with the provided bolts.

In sizes 2" (50mm) and 2-1/2" (63mm), Transair aluminum pipe uses snap ring technology. Place the snap ring in the two holes at the end of the pipe and slide the nut in-place. Next, hand tighten the nut into the connector body. Lastly, use a pare of spanner wrenches to fully tighten the connector.





Installation Video

# Lug Socket Head Screw Seal Cartridge Clamp Pipe



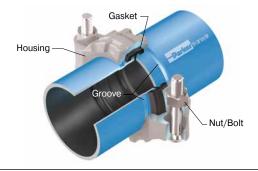
Installation Video

### 3" (76mm) • 4" (101mm) • 6" (168mm)

3" (76mm) • 4" (101mm) • 6" (168mm)

In sizes 3" (76mm), 4" (101mm), and 6" (168mm), Transair aluminum pipe uses clamshell technology. Place the cartridge on the pipe so it meets the lug. Then position the connector so the cartridge is in the middle. Lastly, close the connector and

8" pipe to pipe connectors can be quickly connected to Transair pipe. Position the seal on one half of the pipe, then slide the 2nd pipe into position. Lastly, attach the connector over the seal and tighten.



🔥 WARNING

# **TECHNICAL**

# Suitable fluids

- compressed air (dry, wet, lubricated) vacuum
- inert gases
- Please consult us for other fluids

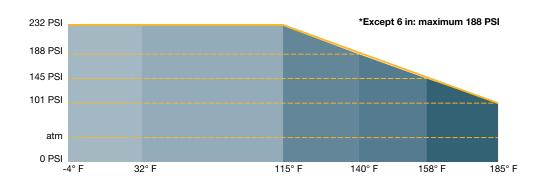
## Resistant to

- corrosion
- mineral compressor oils
- thermal variations
- synthetic compressor oils
- ultraviolet (UV)
- mechanical shocks
- compressor oil carry over

## Vacuum level

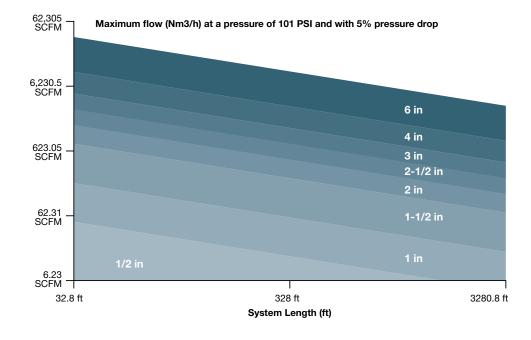
99.9% (0.03" Hg / 1mbar)

# Working Pressure and Temperature



The maximum working pressure of the Transair® system versus the operating temperature can be seen in the diagram below.

# Maximum Flow



🛝 warning

# Sizing Chart

Select the Transair<sup>®</sup> diameter for your application based on required flow against pressure drop. Estimated values: Closed loop system at 100 PSI with 5% pressure drop.

	Flow Rate			Main Ring	Length (ft)			
Example	SCFM	500	1000	2000	3000	4000	5000	Compressor hp
Main system length (ring	10	1/2"	1/2"	1/2"	1"	1"	1"	
main): 1000 ft	25	1"	1"	1"	1"	1"	1"	<15
Compressor power: 40 hp	50	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	
<ul> <li>Required flow rate: 150 SCFM</li> </ul>	75	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	
<ul> <li>Working pressure: 100 PSI</li> </ul>	100	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	15 to 40
	150	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	
Result: The most suitable	250	1 1/2"	1 1/2"	2"	2"	2 1/2"	2 1/2"	
Transair® diameter is: 1-1/2".	350	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"	41 to 125
	500	2 1/2"	2 1/2"	2 1/2"	3"	3"	3"	
	750	2 1/2"	2 1/2"	3"	3"	4"	4"	100 1 050
	1000	3"	3"	3"	4"	4"	4"	126 to 250
	1250	3"	3"	4"	4"	4"	4"	
	1500	4"	4"	4"	4"	4"	4"	105 1 500
	1750	4"	4"	4"	4"	4"	4"	125 to 500
	2000	4"	4"	4"	4"	4"	6"	
	2250	4"	4"	4"	6"	6"	6"	
	2500	6"	6"	6"	6"	6"	6"	
	2750	6"	6"	6"	6"	6"	6"	
	3000	6"	6"	6"	6"	6"	6"	501 to 1000
	3250	6"	6"	6"	6"	6"	6"	
	3500	6"	6"	6"	6"	6"	6"	
	4000	6"	6"	6"	6"	6"	6"	
	4500	6"	6"	6"	6"	6"	6"	
	5000	6"	6"	6"	6"	6"	6"	1001 to 1400
	5500	6"	6"	6"	6"	6"	6"	
	11							

# CUSTOM SOLUTIONS FOR TODAY'S PROBLEMS

# Parker Fluid System Connectors Division is dedicated to helping you solve your fluid conveyance problems.

Due to the ever-changing and increasingly unique need of OEMs, our catalog offering of brass and composite fluid conveyance fittings may not always solve routing constraints. In these circumstances, OEMs may find themselves needing a custom configured component to achieve the desired routing.

In situations where a standard fitting or valve is not suitable, Parker can develop and manufacture a custom machined brass or molded composite fitting or valve.

Our team of highly skilled, US-based engineers can design a part based on your application's unique requirements. We work quickly to understand your pain points and requirements, before developing a custom solution to fit your application. Our engineers will develop a prototype and complete the testing outlined by the desginated criteria and/or specific required specifications. Our custom solution can be as simple as putting an electroless nickel plating on an existing brass part or as complex as designing and manufacturing a custom manifold.



# Parker specializes in fluid conveyance fittings and valves produced from brass or composite materials. Our custom solutions can be produced from either of these materials.



### Brass

For applications that require a small number of special shape or thread patterns, Parker can design and manufacture custom brass configurations. This option involves no up-front tooling costs and can be completed in just a few weeks.



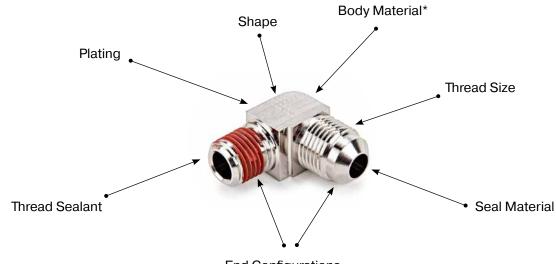
## Composite

Custom composite parts can make sense for OEMs requiring high volumes of a specific configuration. This option requires additional lead time and up-front costs due to the need for a custom injection molds. The advantage is this option can lead to wide variety of shapes and configurations. Our composite customs are commonly manufactured in Nylon, Polyproplene, Acetal, and Kynar.



# **CUSTOMIZATION OPTIONS**

Parker's fittings and valves can be customized to fit your application. Below are just a few examples of what can be customized on our fittings.



End Configurations

\*Fluid System Connectors Division offers Brass or Composite bodies

# INTEGRATED FITTINGS & MANIFOLDS

Parker's engineering and manufacutring teams can produce a custom integrated fitting or manifold.



Manifolds are the ideal choice for reducing the number of ports and simplifying fluid conveyance lines. A custom manifold can reduce the footprint required to connect vital fluid conveyance lines. A manifold can also decreasing installation time. Parker can offer color coded manifold ports to keep line continunity and reduce installation complexity.

Integrated fittings combine one or more components into one footprint. For example, we can combine a check valve with an elbow. The resulting part would provide vital flow control in a reduced footprint. Integrated fittings can reduce your costs by eliminating SKUs and improving installation times.

Notes	

Notes



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3500FSC-QRG

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