



# **Seal-Lok™ Lite O-Ring Face Seal Tube Fittings**

*Catalog 4300-SLL  
January 2006*



 **WARNING**

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


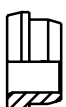
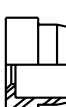
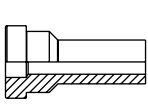
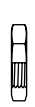


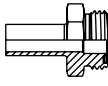




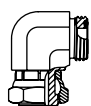
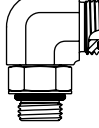
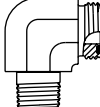
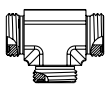
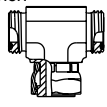
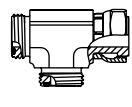

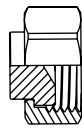

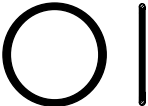
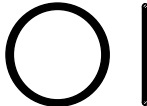
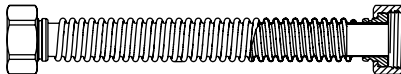
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<p><b>Nuts, Sleeves, Locknuts</b></p>	<p><b>BLL</b> Nut</p>  <p>Page 7</p>	<p><b>TPL (Inch &amp; Metric)</b> Parflange Sleeve</p>  <p>Page 7</p>	<p><b>TL (Inch &amp; Metric)</b> Braze Sleeve</p>  <p>Page 7</p>	<p><b>TLW1</b> Butt Weld Sleeve</p>  <p>Page 8</p>	<p><b>WLLNL</b> Bulkhead Locknut</p>  <p>Page 8</p>
<p><b>SBR</b> Braze Ring</p>  <p>Page 8</p>	<p><b>Straights</b></p>	<p><b>HLLLO</b> Union</p>  <p>Page 8</p>	<p><b>LLOT1</b> Seal-Lok Lite/Flareless Tube Stub</p>  <p>Page 9</p>	<p><b>WLLLO</b> Bulkhead Union</p>  <p>Page 9</p>	<p><b>F5OLLO</b> Seal-Lok Lite/SAE-ORB</p>  <p>Page 9</p>
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## Introduction

Parker's Seal-Lok Lite fittings combine the traditional versatility of stainless steel Seal-Lok with the added feature of being adaptable to the new Flex Flange product line. Seal-Lok Lite fittings incorporate the O-ring face seal design to form a leak-tight seal. Seal-Lok Lite shaped fittings with SAE straight thread adjustable studs also feature Parker's new Robust Port Stud®, which provides improved reliability and easier assembly. Seal-Lok Lite fittings are **not** a direct interchange with standard industrial O-ring face seal fittings. Seal-Lok Lite's leak-free, compact design makes it suitable for use in applications for low pressure gases and general light duty industrial systems.

## Design and Construction

The Seal-Lok Lite fitting consists of four main components: a body, a sleeve, an O-ring and a nut. The body, sleeve, and nut are manufactured from 316 stainless steel.

**The Seal-Lok Lite Fitting Body:** Seal-Lok Lite fittings are manufactured in the most popular stainless steel sizes and configurations. The body is manufactured with Parker's CORG (Captive O-ring Groove), which keeps the O-ring captive during installation. Straight bodies are machined from cold drawn bar stock, ensuring consistent dimensional tolerances, improved strength and better surface finish. Shaped Seal-Lok Lite fittings are manufactured from a one-piece forged construction. This forged construction provides added strength and longer service life, while eliminating the potential leak path associated with multi-component brazed fittings.

**The Seal-Lok Lite Fitting Nut:** Seal-Lok Lite tube nuts are machined from cold drawn bar stock. The Seal-Lok Lite tube nut is not interchangeable with the standard ORFS tube nut, as it is much shorter, more compact, and incorporates a metric thread.

**The Seal-Lok Lite Parflange Sleeve:** The preferred method of making a Seal-Lok Lite connection is by using the Parker Parflange machine to create the 90° flange on the tube end. The sleeve provides a contact shoulder for the nut and supports the flange and tubing. The Parflange process provides the following advantages:

- Several times faster than brazing
- No special pre- or post-flange cleaning
- Cleaner and safer than brazing
- Eliminates a potential leak path associated with braze joints

The Seal-Lok Lite fitting uses a standard Parflange sleeve and tooling. See Table 5 on page 15 for the available Parflange tooling.

**The Seal-Lok Lite Braze Sleeve:** A second method of sleeve attachment is with the braze sleeve. The sleeve is brazed to the tube end as shown in Fig. 3. The flat, smooth surface of the braze sleeve seals against the O-ring when fully assembled. The holding power is provided by the braze. An additional method is a butt weld connector (TLW1) that is also used with a tube nut. It is designed especially for orbital welders.

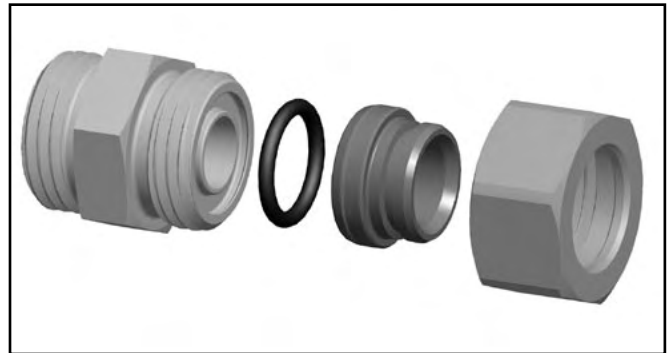


Fig. 1 – Seal-Lok Lite Fittings

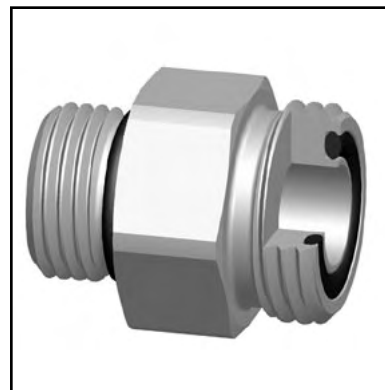


Fig. 2 – Captive O-ring Groove (CORG)

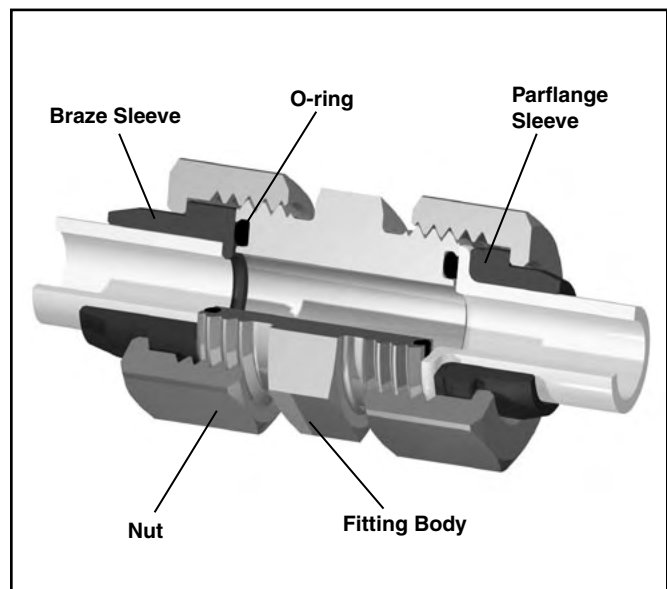


Fig. 3 – Seal-Lok Lite union cutaway with flanged and brazed assemblies

## How Seal-Lok Lite Fittings Work

The Seal-Lok Lite fitting body face contains a 70 durometer, Nitrile O-ring (N0674) that is held captive in a precision machined groove. As the nut is tightened onto the fitting body, the O-ring is compressed between the body and flat face of the tube flange or braze sleeve to form a tight, positive seal.

As the two faces come in contact, further tightening of the nut produces a sharp rise in assembly torque. A solid pull of the wrench at this point, to recommended assembly torque, completes the assembly. The sharp torque rise gives a "solid feel" at assembly, minimizing the possibility of over tightening.

Because the sealing surfaces are flat and perpendicular to the assembly pull, they remain virtually free of distortion during assembly, giving Seal-Lok Lite fittings practically unlimited remakeability. The O-ring should be inspected at each disassembly and replaced when necessary. See the O-ring section for replacement O-rings.

## Flex Flange Assemblies

A unique feature of the Seal-Lok Lite fitting line is the adaptability to a line of light-duty flexible corrugated stainless steel tube. The Flex Flange assembly is a complete flexible 316 stainless steel tube routing system. These factory pre-made assemblies are available in 3/8", 1/2", 3/4" and 1" tube sizes in a variety of assembly lengths.

The Flex Flange line offers working pressures up to 50 psig without permanently deforming the stainless corrugated assemblies. Flex Flange tube should not be used in applications:

- Where repeated movement or extreme vibration occurs
- Involving chlorides or salts
- As support for other components

See Tables 6 and 7 on pages 15 and 16 for compatibility charts.

## International Acceptance

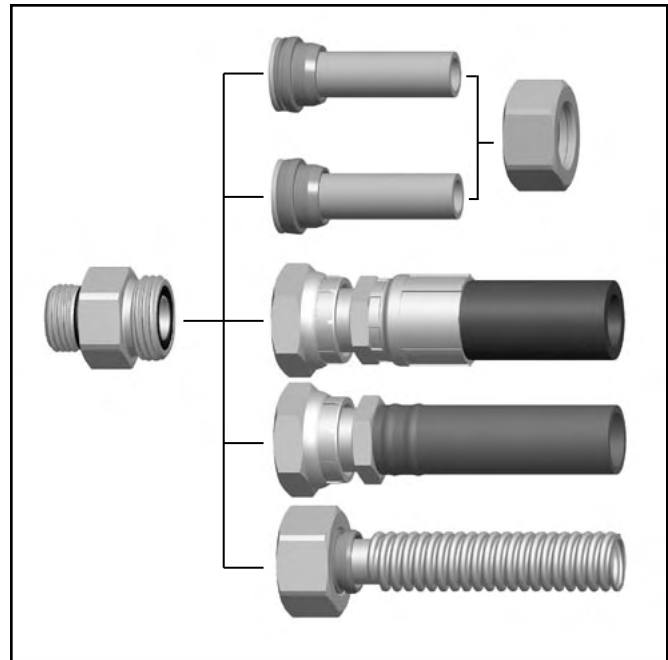
**Versatility:** The versatility of the Seal-Lok Lite fitting is shown in Figure 4. A single Seal-Lok Lite fitting will mate with inch and metric tube, hose (Push-Lok and GPH), and Flex Flange. The universal tube nut and fitting body are used with either inch or metric tube, thus saving on component costs. The fitting body without the nut and sleeve is very popular as a hose/Flex Flange adapter.

**Tube Wall Thickness:** Recommended maximum tube wall thicknesses for Seal-Lok Lite fittings are provided in Table 1.

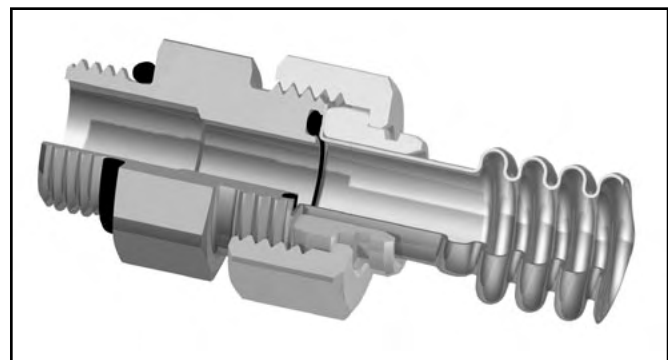
Seal-Lok Lite Size	Max. Inch Tube Wall	Max. Metric Tube Wall
-6	0.035	1
-8	0.035	1
-12	0.049	1.5
-16	0.065	1.5

**Table 1 – Recommended Max. Tube Wall Thickness**

**Note:** For wall thicknesses outside the recommended range, contact the Tube Fittings Division.



**Fig. 4 – Seal-Lok Lite works with inch or metric tube, hose, and Flex Flange assemblies.**



**Fig. 5 – Seal-Lok Lite Flex Flange assembly.**

Seal-Lok Fittings	Stainless Steel**	
	ASTM	Type
Forged Bodies	A182	316
Bar Stock Bodies	A479	316
Cold Formed Nuts	--	--
Machined Nuts*	A479	316
Braze Sleeves & Braze Connectors	A276	316L
Flange Sleeves	A479	316

**Table 2 – Standard Material Specifications for Seal-Lok Lite Fittings**

## Seal-Lok Lite Features

Feature	Advantage	Benefit
Compact design	Suitable selection for plumbing in limited or tight space in a compact system	Compact systems are more efficient and reduce the need for excessive routing of costly hose or tube
High flow diameter	Reduces pressure drop and increases system efficiency	Increases system performance while reducing operating costs
	Higher flow can be maintained through thin wall tubing	Reduces system cost and increases performance
Elastomeric seal	Tolerant of surface imperfections to provide leak-free connection	Reduces operational and maintenance costs
No tube entry (flat-face design)	Easy and fast drop-in installation	Saves assembly and disassembly time
Captive O-ring groove (CORG)	Prevents O-ring fall-out to ensure positive and leak-free connection	Reduces operational and maintenance costs
Forged Shapes	Higher resistance to mechanical shock and vibration that can lead to leakage	Reduces operational and maintenance costs
Adaptable to steel tube, Flex Flange, Push-Lok, and SS braided teflon hose	Versatility for end customer and for customer standardization efforts	Standardization reduces procurement and inventory costs
Unlimited reusability/remakeability	Extends the service life of the fitting	Reduces maintenance costs and component replacement costs
Parflange method of assembly	Several times faster than brazing/welding	Reduces assembly cost
	No special pre- and post-braze.weld cleaning	Reduces tube preparation cost
	No open flame or heat source required	Improves operator safety
	No braze joint or potential leak path	Reduces operational and maintenance costs

**Table 3 – Seal-Lok Lite Features, Advantages, and Benefits**

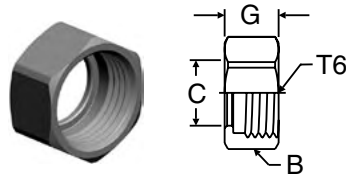
## Flex Flange Features

Feature	Advantage	Benefit
Flexibility	Able to connect in hard-to-reach areas and flex during assembly	More efficient assembly time and reduce the need for excessive routing of costly hose or tube
	Alternative to pre-bent rigid tube	No bending equipment or costs added to system
100% leak tested	Ensures there are no material defects in the tubing before nuts and sleeves are assembled	Helps ensure a leak-free system
Multiple sizes offered	Provides versatility for the end user. Available in 4 diameters and 7 different lengths.	Standardization reduces procurement costs
No tooling costs	Flex Flange is pre-assembled with nuts and sleeves	Eliminates tooling cost and assembly time needed for tube end assembly
Corrosion-resistant 316 Stainless Steel	Provides necessary corrosion resistance from media and environment	Eliminates failures due to corrosion
Plated steel nuts and sleeves	Reduces risk of galling	Eliminates leakage caused by galling prone to stainless steel products
	Helps provide a lower cost assembly by using components that are not exposed to the media source	Helps reduce system cost by not using expensive stainless steel materials
Increased worker productivity	Ease of assembly because of tube flexibility	Reduces assembly time associated with rigid tube

**Table 4 – Flex Flange Features, Advantages, and Benefits**

### BLL

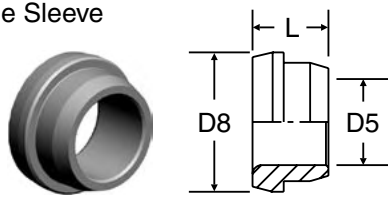
Nut



TUBE FITTING PART #	TUBE O.D. (in.)	T6 METRIC THREAD	B HEX (in.)	C (in.)	G (in.)	STANDARD FROM STOCK
						-SS
6 BLL	3/8	M18X1.5	3/4	0.53	0.44	•
8 BLL	1/2	M22X1.5	15/16	0.65	0.45	•
12 BLL	3/4	M30X1.5	1 1/4	0.95	0.52	•
16 BLL	1	M36X1.5	1 5/8	1.22	0.69	•

### TPL

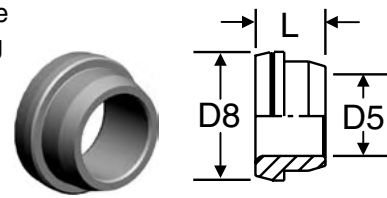
Parflange Sleeve



TUBE FITTING PART #	D5 TUBE O.D. (in.)	D8 DIA. (in.)	L (in.)	STANDARD FROM STOCK
				-SS
6 TPL	3/8	0.62	0.34	•
8 TPL	1/2	0.74	0.42	•
12 TPL	3/4	1.09	0.47	•
16 TPL	1	1.34	0.53	•

### TPL (Metric)

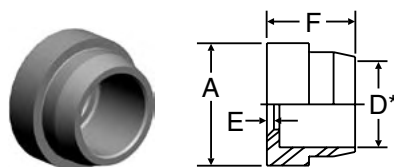
Parflange Sleeve for Metric Tubing



TUBE FITTING PART #	USED WITH FITTING SIZE	D5 TUBE O.D. (mm)	D8 DIA. (mm)	L (mm)	STANDARD FROM STOCK
TPSS8	-6	8	16.0	8.5	•
TPSS10	-6	10	16.0	8.5	•
TPSS12	-8	12	19.0	10.5	•
TPSS20	-12	20	28.0	12.0	•

### TL

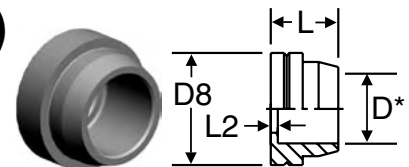
Braze Sleeve



TUBE FITTING PART #	TUBE O.D. (in.)	A DIA. (in.)	D* (in.)	E (in.)	F (in.)	STANDARD FROM STOCK
						-SS
6 TL	3/8	0.62	0.38	0.04	0.37	•
8 TL	1/2	0.75	0.51	0.04	0.37	•
12 TL	3/4	1.10	0.76	0.06	0.55	•
16 TL	1	1.35	1.01	0.06	0.61	•

### TL (Metric)

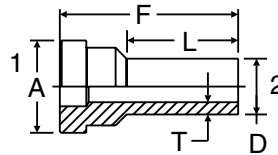
Braze Sleeve for Metric Tubing



TUBE FITTING PART #	USED WITH FITTING SIZE	D5 TUBE O.D. (mm)	D8 DIA. (mm)	L (mm)	L2 (mm)	STANDARD FROM STOCK
TLSS8	-6	8	15.8	9.5	1.0	•
TLSS10	-6	10	15.8	9.5	1.0	•
TLSS12	-8	12	18.9	9.5	1.0	•
TLSS20	-12	20	27.9	17.0	1.5	•
TLSS25	-16	25	34.2	15.5	1.5	•

# TLW1

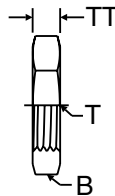
Butt Weld Sleeve



TUBE FITTING PART #	END SIZE		A (in.)	D (in.)	F (in.)	L (in.)	T (in.)	STANDARD FROM STOCK
	1 (in.)	2 (in.)						-SS
6-4X035 TLW1	3/8	1/4	0.62	0.250	1.26	0.75	0.035	•
6-4X049 TLW1	3/8	1/4	0.62	0.250	1.26	0.75	0.049	•
6-6X035 TLW1	3/8	3/8	0.62	0.375	1.20	0.75	0.035	•
6-6X049 TLW1	3/8	3/8	0.62	0.375	1.20	0.75	0.049	•
6-6X065 TLW1	3/8	3/8	0.62	0.375	1.20	0.75	0.065	•
8-8X049 TLW1	1/2	1/2	0.75	0.500	1.20	0.75	0.049	•
8-8X065 TLW1	1/2	1/2	0.75	0.500	1.20	0.75	0.065	•
12-12X065 TLW1	3/4	3/4	1.10	0.750	1.39	0.75	0.065	•
12-12X083 TLW1	3/4	3/4	1.10	0.750	1.39	0.75	0.083	•
12-12X095 TLW1	3/4	3/4	1.10	0.750	1.39	0.75	0.095	•
12-8X049 TLW1	3/4	1/2	1.10	0.500	1.52	0.75	0.049	•
16-16X083 TLW1	1	1	1.35	1.000	1.43	0.75	0.083	•
16-16X083 TLW1L	1	1	1.35	1.000	2.18	1.50	0.083	•
16-16X095 TLW1	1	1	1.35	1.000	1.43	0.75	0.095	•

# WLLNL

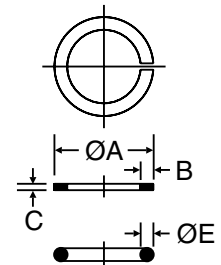
Bulkhead Locknut



TUBE FITTING PART #	TUBE O.D. (in.)	T METRIC THREAD	B HEX (in.)	TT (in.)	STANDARD FROM STOCK
					-SS
6 WLLNL	3/8	M18X1.5	1	0.23	•
8 WLLNL	1/2	M22X1.5	1 1/8	0.23	•
12 WLLNL	3/4	M30X1.5	1 1/2	0.39	•
16 WLLNL	1	M36X1.5	1 3/4	0.41	•

# SBR

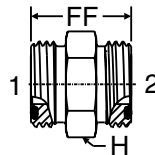
Braze Ring



TUBE FITTING PART #	TUBE O.D. (in.)	A DIA. (in.)	E (in.)	C (in.)	B (in.)	STANDARD FROM STOCK
						-SS
6 SBR	3/8	0.390		0.03	0.07	•
8 SBR	1/2	0.515		0.03	0.07	•
12 SBR	3/4	0.765		0.04	0.08	•
16 SBR	1	1.015		0.04	0.08	•

# HLLO

Union

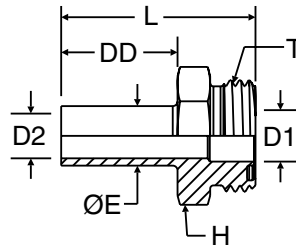


TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	H (in.)	FF (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 (in.)					-SS N0674
6 HLLO	3/8	3/8	M18X1.5	0.323	3/4	0.82	1.5
8 HLLO	1/2	1/2	M22X1.5	0.453	15/16	0.86	1.5
8-6 HLLO	1/2	3/8	M22X1.5 / M18X1.5	0.323	15/16	0.84	1.5
12 HLLO	3/4	3/4	M30X1.5	0.766	1 1/4	1.03	1.5
16 HLLO	1	1	M36X1.5	0.953	1 1/2	1.27	1.5



# LLOT1

Seal-Lok Lite/Flareless Tube Stub

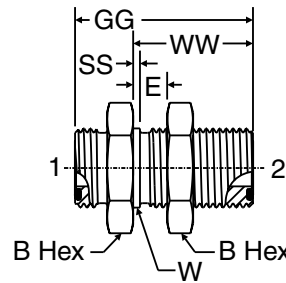


TUBE FITTING PART #	TUBE O.D. (in.)	T METRIC THREAD	D1 DRILL (in.)	D2 DRILL (in.)	DD (in.)	E (in.)	H HEX (in.)	L (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
									-SS N0674
6 LLOT1	3/8	M18X1.5	0.323	0.281	0.73	3/8	3/4	1.22	1.5
8 LLOT1	1/2	M22X1.5	0.453	0.402	1.00	1/2	15/16	1.50	1.5
12 LLOT1	3/4	M30X1.5	0.766	0.619	1.03	3/4	1 1/4	1.56	1.5
16 LLOT1	1	M36X1.5	0.953	0.833	1.36	1	1 1/2	2.01	1.5

# WLO

Bulkhead Union

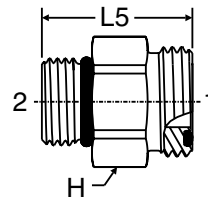
WLO-WLLNL – Body with locknut  
(See page 8 for WLLNL)



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	B HEX (in.)	E MAX. BULKHEAD (in.)	GG (in.)	SS (in.)	W DIA. (mm)	WW (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 (in.)									-SS N0674
6 WLO	3/8	3/8	M18X1.5	0.323	1	0.5	1.58	0.06	18	1.05	1.5
8 WLO	1/2	1/2	M22X1.5	0.453	1 1/8	0.5	1.61	0.06	22	1.06	1.5
12 WLO	3/4	3/4	M30X1.5	0.766	1 1/2	0.5	1.95	0.06	30	1.23	1.5
16 WLO	1	1	M36X1.5	0.953	1 3/4	0.5	2.21	0.06	36	1.34	1.5

# F5OLLO

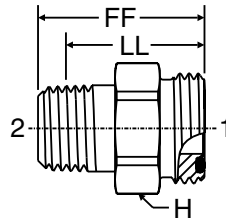
Seal-Lok Lite/SAE-ORB



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	D2 DRILL (in.)	H HEX (in.)	L5 (in.)	HH (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 UN/UNF-2A							-SS N0674
6 F5OLLO	3/8	9/16-18	M18X1.5	0.323	0.323	3/4	0.96	0.64	1.5
8 F5OLLO	1/2	3/4-16	M22X1.5	0.453	0.453	15/16	0.98	0.62	1.5
12 F5OLLO	3/4	1 1/16-12	M30X1.5	0.766	0.766	1 1/4	1.26	0.79	1.5
16 F5OLLO	1	1 5/16-12	M36X1.5	0.953	0.953	1 1/2	1.41	0.94	1.5

# FLLO

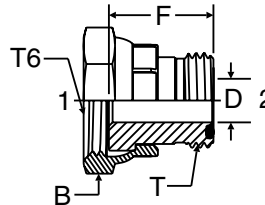
Seal-Lok Lite/PTF-Short



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	H HEX (in.)	FF (in.)	LL AFTER ASSY (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 PTF						-SS N0674
6 FLLO	3/8	1/4-18	M18X1.5	0.323	3/4	1.06	0.78	1.5
6-6 FLLO	3/8	3/8-18	M18X1.5	0.323	3/4	1.06	0.77	1.5
8 FLLO	1/2	3/8-18	M22X1.5	0.453	7/8	1.08	0.79	1.5
12 FLLO	3/4	3/4-14	M30X1.5	0.766	1 1/4	1.40	0.98	1.5
16 FLLO	1	1-11 1/2	M36X1.5	0.953	1 1/2	1.71	1.20	1.5

# TRLLON

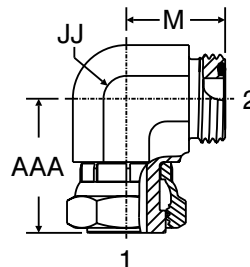
Tube End Reducer



TUBE FITTING PART #	END SIZE		T METRIC THREAD	T6 METRIC THREAD	D DRILL (in.)	F (in.)	B HEX (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 (in.)						-SS N0674
8-6 TRLLON	1/2	3/8	M22X1.5	M18X1.5	0.323	0.78	15/16	1.5
12-6 TRLLON	3/4	3/8	M30X1.5	M18X1.5	0.323	0.64	1 1/4	1.5
12-8 TRLLON	3/4	1/2	M30X1.5	M22X1.5	0.453	0.66	1 1/4	1.5
16-8 TRLLON	1	1/2	M36X1.5	M22X1.5	0.453	0.68	1 1/2	1.5
16-12 TRLLON	1	3/4	M36X1.5	M30X1.5	0.766	0.69	1 1/2	1.5

# C6LLO

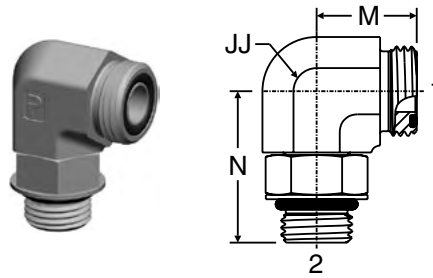
Seal-Lok Lite Swivel Nut Elbow



TUBE FITTING PART #	END SIZE		T and T6 METRIC THREAD	D DRILL (in.)	JJ (in.)	AAA (in.)	MM (in.)	B HEX (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 (in.)							-SS N0674
6 C6LLO	3/8	3/8	M18X1.5	0.323	3/4	1.06	0.78	13/16	1.5
8 C6LLO	1/2	1/2	M22X1.5	0.453	7/8	1.14	0.88	15/16	1.5
12 C6LLO	3/4	3/4	M30X1.5	0.766	1 3/16	1.43	1.09	1 5/16	1.5
16 C6LLO	1	1	M36X1.5	0.953	1 7/16	1.67	1.26	1 5/8	1.5

### C5OLLO

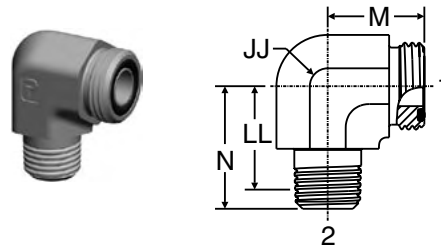
Seal-Lok Lite/SAE-ORB



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	D2 DRILL (in.)	JJ (in.)	M (in.)	N (in.)	XX REF. (in.)	STANDARD Dynamic Pressure (x 1,000 PSI) -SS N0674
	1 (in.)	2 UN/UNF-2A								
6 C5OLLO	3/8	9/16-18	M18X1.5	0.323	0.394	3/4	0.78	1.18	0.80	1.5
8 C5OLLO	1/2	3/4-16	M22X1.5	0.453	0.512	7/8	0.88	1.35	0.90	1.5
12 C5OLLO	3/4	1 1/16-12	M30X1.5	0.766	0.748	1 1/3	1.09	1.80	1.23	1.5
16 C5OLLO	1	1 5/16-12	M36X1.5	0.953	1.063	1 5/8	1.38	2.00	1.39	1.5

### CLLO

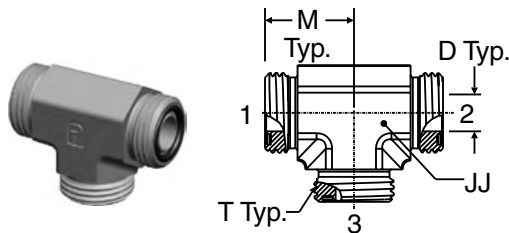
Seal-Lok Lite/NPTF



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	JJ (in.)	M (in.)	N (in.)	LL AFTER ASSY (in.)	STANDARD Dynamic Pressure (x 1,000 PSI) -SS N0674
	1 (in.)	2 PTF							
6 CLLO	3/8	1/4-18	M18X1.5	0.323	3/4	0.78	0.99	0.71	1.5
6-6 CLLO	3/8	3/8-18	M18X1.5	0.323	3/4	0.78	0.99	0.70	1.5
8 CLLO	1/2	3/8-18	M22X1.5	0.453	7/8	0.88	1.04	0.75	1.5
8-8 CLLO	1/2	1/2-14	M22X1.5	0.453	7/8	0.88	1.19	0.79	1.5
12 CLLO	3/4	3/4-14	M30X1.5	0.766	1 3/16	1.09	1.45	1.03	1.5
16 CLLO	1	1-11 1/2	M36X1.5	0.953	1 5/8	1.38	1.81	1.30	1.5

### JLLO

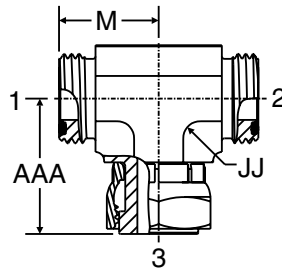
Union Tee



TUBE FITTING PART #	END SIZE	T METRIC THREAD	D DRILL (in.)	JJ (in.)	M (in.)	STANDARD Dynamic Pressure (x 1,000 PSI) -SS N0674
	1-3 (in.)					
6 JLLO	3/8	M18X1.5	0.323	3/4	0.78	1.5
8 JLLO	1/2	M22X1.5	0.453	7/8	0.88	1.5
12 JLLO	3/4	M30X1.5	0.766	1 5/16	1.09	1.5
16 JLLO	1	M36X1.5	0.953	1 7/16	1.26	1.5

### S6LLO

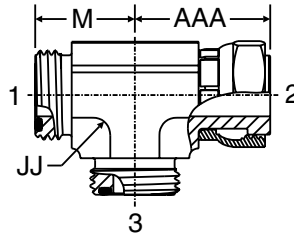
Seal-Lok Lite Swivel Branch



TUBE FITTING PART #	END SIZE	T and T6 METRIC THREAD	D DRILL (in.)	JJ (in.)	AAA (in.)	M (in.)	B HEX (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1-3 (in.)							-SS N0674
6 S6LLO	3/8	M18X1.5	0.323	3/4	1.06	0.78	13/16	1.5
8 S6LLO	1/2	M22X1.5	0.453	7/8	1.14	0.88	15/16	1.5
12 S6LLO	3/4	M30X1.5	0.766	1 5/16	1.43	1.09	1 5/16	1.5
16 S6LLO	1	M36X1.5	0.953	1 7/16	1.67	1.26	1 5/8	1.5

### R6LLO

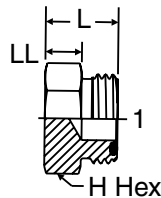
Seal-Lok Lite Swivel Run



TUBE FITTING PART #	END SIZE	T and T6 METRIC THREAD	D DRILL (in.)	JJ (in.)	AAA (in.)	M (in.)	B HEX (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1-3 (in.)							-SS N0674
6 R6LLO	3/8	M18X1.5	0.323	3/4	1.06	0.78	13/16	1.5
8 R6LLO	1/2	M22X1.5	0.453	7/8	1.14	0.88	15/16	1.5
12 R6LLO	3/4	M30X1.5	0.766	1 5/16	1.43	1.09	1 5/16	1.5
16 R6LLO	1	M36X1.5	0.953	1 7/16	1.67	1.26	1 5/8	1.5

### PNLLO

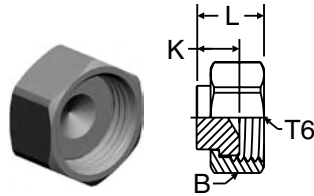
Seal-Lok Lite Plug



TUBE FITTING PART #	END SIZE	T METRIC THREAD	D DRILL (in.)	H HEX (in.)	L (in.)	LL (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)						-SS N0674
6 PNLLO	3/8	M18X1.5	0.323	3/4	0.56	0.28	1.5
8 PNLLO	1/2	M22X1.5	0.453	15/16	0.58	0.28	1.5
12 PNLLO	3/4	M30X1.5	0.766	1 1/4	0.72	0.41	1.5
16 PNLLO	1	M36X1.5	0.953	1 1/2	0.81	0.41	1.5

# FNLL

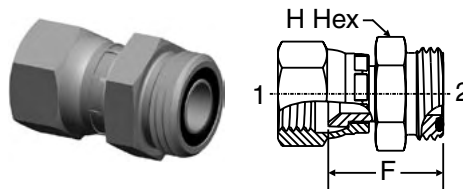
Seal-Lok Lite Cap



TUBE FITTING PART #	TUBE O.D. (in.)	T6 METRIC THREAD	B HEX (in.)	K (in.)	L (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
						-SS
6 FNLL	3/8	M18X1.5	3/4	0.35	0.55	1.5
8 FNLL	1/2	M22X1.5	15/16	0.35	0.57	1.5
12 FNLL	3/4	M30X1.5	1 1/4	0.42	0.64	1.5
16 FNLL	1	M36X1.5	1 1/2	0.47	0.78	1.5

# LLOHX6

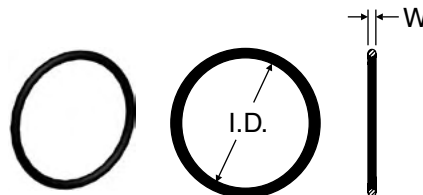
37° Swivel/Seal-Lok Lite



TUBE FITTING PART #	END SIZE		T METRIC THREAD	D DRILL (in.)	D1 DRILL (in.)	L (in.)	C3 HEX (in.)	H HEX (in.)	STANDARD Dynamic Pressure (x 1,000 PSI)
	1 (in.)	2 (in.)							-SS N0674
6 LLOHX6	3/8	3/8	M18X1.5	0.323	0.297	0.88	11/16	3/4	1.5
8 LLOHX6	1/2	1/2	M22X1.5	0.453	0.391	0.95	7/8	7/8	1.5
12 LLOHX6	3/4	3/4	M30X1.5	0.766	0.609	1.14	1 1/4	1 1/4	1.5
16 LLOHX6	1	1	M36X1.5	0.953	0.844	1.39	1 1/2	1 1/2	1.5

# O-Rings

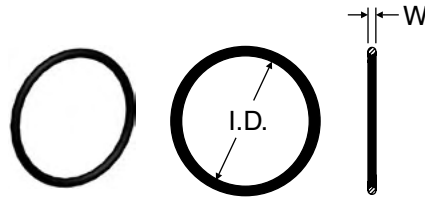
Seal-Lok Lite O-ring



TUBE FITTING PART #	FITTING DASH SIZE	TUBE O.D.		I.D.		W		STANDARD FROM STOCK
		(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	N0674
2-013	6	3/8	8,10	0.43	10.8	0.07	1.78	•
2-015	8	1/2	12	0.55	14.0	0.07	1.78	•
2-020	12	3/4	18,20	0.86	22.0	0.07	1.78	•
2-023	16	1	25	1.05	26.7	0.07	1.78	•

# SAE O-Rings

SAE Straight Thread Port O-Ring

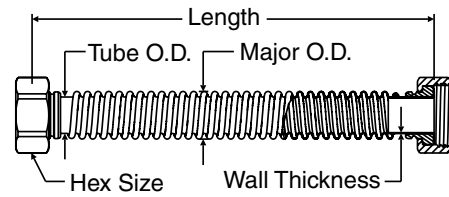


TUBE FITTING PART #	FITTING DASH SIZE	TUBE O.D.	I.D.	W	STANDARD FROM STOCK
		(in.)	(in.)	(in.)	N0674
3-906	6	3/8	0.47	0.08	•
3-908	8	1/2	0.64	0.09	•
3-912	12	3/4	0.92	0.12	•
3-916	16	1	1.17	0.12	•

# FLEX FLANGE

Flexible Metal Tube Assemblies

TUBE FITTING PART #	TUBE SIZE (in.)	TUBE O.D. (in.)	LENGTH (in.)	MAJOR O.D. (in.)	WALL THICKNESS (in.)	HEX SIZE (in.)	STANDARD FROM STOCK
							PSI
FLEX-6-LLP-6	3/8	0.375	5.76	0.50	0.010	3/4	50
FLEX-6-LLP-9	3/8	0.375	8.76	0.50	0.010	3/4	50
FLEX-6-LLP-12	3/8	0.375	11.76	0.50	0.010	3/4	50
FLEX-6-LLP-18	3/8	0.375	17.76	0.50	0.010	3/4	50
FLEX-6-LLP-24	3/8	0.375	23.76	0.50	0.010	3/4	50
FLEX-6-LLP-30	3/8	0.375	29.76	0.50	0.010	3/4	50
FLEX-6-LLP-36	3/8	0.375	35.76	0.50	0.010	3/4	50
FLEX-8-LLP-6	1/2	0.500	5.74	0.66	0.010	15/16	50
FLEX-8-LLP-9	1/2	0.500	8.74	0.66	0.010	15/16	50
FLEX-8-LLP-12	1/2	0.500	11.74	0.66	0.010	15/16	50
FLEX-8-LLP-18	1/2	0.500	17.74	0.66	0.010	15/16	50
FLEX-8-LLP-24	1/2	0.500	23.74	0.66	0.010	15/16	50
FLEX-8-LLP-30	1/2	0.500	29.74	0.66	0.010	15/16	50
FLEX-8-LLP-36	1/2	0.500	35.74	0.66	0.010	15/16	50
FLEX-12-LLP-6	3/4	0.807	5.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-9	3/4	0.807	8.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-12	3/4	0.807	11.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-18	3/4	0.807	17.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-24	3/4	0.807	23.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-30	3/4	0.807	29.74	1.10	0.010	1 1/4	50
FLEX-12-LLP-36	3/4	0.807	35.74	1.10	0.010	1 1/4	50
FLEX-16-LLP-6	1	1.041	5.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-9	1	1.041	8.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-12	1	1.041	11.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-18	1	1.041	17.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-24	1	1.041	23.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-30	1	1.041	29.72	1.30	0.012	1 1/2	50
FLEX-16-LLP-36	1	1.041	35.72	1.30	0.012	1 1/2	50



## Parflange Tooling

Tube Size O.D. x Wall Thickness (inch and metric)	Tooling for 90° / 180° Tube Flanging			Available Flanging Tooling
	Flange Pin and Die Set Part Number	Pin Part Number	Die Part Number	1025 and 1040 Machines
				-SS
<b>Inch Tubing</b>				
3/8 x .035	4006X035180	B4006X035180	M4006X035180	•
1/2 x .035	4008X035180	B4008X035180	M4008X035180	•
3/4 x .035	4012X035181	B4012X035181	M4012X035181	•
3/4 x .049	4012X049180	B4012X049180	M4012X049180	•
1 x .035	4016X035181	B4016X035181	M4016X035181	•
1 x .049	4016X049182	B4016X049182	M4016X049182	•
<b>Metric Tubing</b>				
8 x 1	—	B401808X1M	M401808X1M	•
10 x 1	—	B4018010X1M	M4018010X1M	•
12 x 1	—	B4018012X1M	M4018012X1M	•



Flanging Pin



Flanging Die Set

**Table 5 – Tooling for 90° / 180° Tube Flanging**

**Note:** Contact the Tube Fittings Division for sizes and/or materials not listed.

## 316L Gas and Fluids Chart — Recommended for Use with Seal-Lok Lite

Conveyed Media – Gases or Fluids	Compatibility
Combustion Gases	A
Cooking Oil	A
Diesel Fuel	A
Freon 12	A
Gasoline, unleaded	A
Grease	A
Helium	A
Hydraulic Oil	A
Hydrogen Gas	A
Manufactured (Town) Gas	A
Motor Oil	A
Natural Gas	A
Propane Gas	A
Steam	A
Water, Deionized	A
Water, Distilled	A
Water, Fresh	A

**Table 6 – 316L Gas and Fluids Chart**

### Ratings – Chemical Effect

A = Excellent, 250°F max. based upon O-ring.

# Chemical Compatibility Chart — Chemicals NOT Recommended for Use with Seal-Lok Lite

Chemical	Compatibility	Chemical	Compatibility
Aluminum Chloride 20%	C	Plating Solutions, Chromium Plating: Fluosilicate Bath 95°F	C
Aluminum Fluoride	D		
Aluminum Hydroxide	C	Plating Solutions, Copper Plating (Acid): Copper Fluoborate Bath 120°F	D
Ammonium Phosphate, Dibasic	C		
Ammonium Phosphate, Monobasic	C	Plating Solutions, Copper Plating (Acid): Copper Sulfate Bath R.T.	D
Aniline Hydrochloride	D	Plating Solutions, Gold Plating: Acid 75°F	C
Antimony Trichloride	D	Plating Solutions, Gold Plating: 75°F	C
Aqua Regia (80% HCl, 20% HNO3)	D	Plating Solutions, Indium Sulfamate Plating R.T.	C
Aromatic Hydrocarbons	C		
Benzonitrile	D	Plating Solutions, Iron Plating: Ferrous Am Sulfate Bath 150°F	C
Bromine	D		
Chloric Acid	C	Plating Solutions, Iron Plating: Ferrous Chloride Bath 190°F	D
Chlorine Water	C		
Chlorine, Anhydrous Liquid	C	Plating Solutions, Iron Plating: Ferrous Sulfate Bath 150°F	C
Copper Chloride	D		
Copper Cyanide	B	Plating Solutions, Iron Plating: Fluoborate Bath 145°F	D
Copper Fluoborate	D		
Ethyl Sulfate	D	Plating Solutions, Iron Plating: Sulfamate 140°F	D
Ferric Chloride	D		
Ferrous Chloride	D	Plating Solutions, Iron Plating: Sulfate-Chloride Bath 160°F	D
Hydrobromic Acid 100%	D	Plating Solutions, Lead Fluoborate Plating	C
Hydrobromic Acid 20%	D	Plating Solutions, Nickel Plating: Fluoborate 100-170°F	C
Hydrochloric Acid 100%	D		
Hydrochloric Acid 20%	D	Plating Solutions, Nickel Plating: High-Chloride 130-160°F	C
Hydrochloric Acid 37%	D		
Hydrochloric Acid, Dry Gas	D	Plating Solutions, Nickel Plating: Sulfamate 100-140°F	C
Hydrofluoric Acid 20%	D		
Hydrofluoric Acid 50%	D	Plating Solutions, Nickel Plating: Watts Type 115-160°F	C
Hydrofluoric Acid 75%	D		
Hydrofluosilicic Acid 100%	D	Plating Solutions, Rhodium Plating 120°F	D
Ink	C	Plating Solutions, Tin-Fluoborate Plating 100°F	C
Iodine	D	Plating Solutions, Tin-Lead Plating 100°F	C
Lead Sulfamate	C	Plating Solutions, Zinc Plating: Acid Chloride 140°F	D
Magnesium Chloride	D		
Melamine	D	Plating Solutions, Zinc Plating: Acid Fluoborate Bath R.T.	C
Mercuric Chloride (dilute)	D	Plating Solutions, Zinc Plating: Acid Sulfate Bath 150°F	C
Mercuric Cyanide	C		
Nickel Chloride	C	Sea Water	C
Nitrating Acid (<15% HNO3)	D	Silver Bromide	D
Nitrating Acid (>15% H2SO4)	C	Sodium Bisulfate	C
Nitrating Acid (Š15% H2SO4)	C	Sodium Bromide	C
Oils: Ginger	D	Sodium Fluoride	D
Pentane	C	Sodium Hypochlorite (<20%)	C
Perchloric Acid	C	Sodium Hypochlorite (100%)	D
Phosphoric Acid (>40%)	D	Sodium Sulfide	D
Phosphoric Acid (molten)	C	Stannic Chloride	D
Phosphoric Acid (Š40%)	C	Sulfur Chloride	D
Plating Solutions, Chromium Plating: Barrel Chrome Bath 95°F	D	Sulfur Trioxide	C
		Sulfuric Acid (10-75%)	D
Plating Solutions, Chromium Plating: Black Chrome Bath 115°F	C	Sulfuric Acid (75-100%)	D
Plating Solutions, Chromium Plating: Chromic-Sulfuric Bath 130°F	C	Sulfuric Acid (hot concentrated)	C
		Tartaric Acid	C
Plating Solutions, Chromium Plating: Fluoride Bath 130°F	D	Tin Salts	D
		Trichloroacetic Acid	C

**Table 7 – Chemical Compatibility Chart**

**Ratings – Chemical Effect**

C = Fair – Moderate Effect. Not recommended for continuous use. Softening, loss of strength, swelling may occur.

D = Severe Effect. Not recommended for ANY use.





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**Parker Hannifin Corporation**  
6035 Parkland Blvd.  
Cleveland, Ohio 44124-4141  
Telephone: (216) 896-3000  
Fax: (216) 896-4000  
www.parker.com

## **Parker Hannifin Corporation**

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**Parker Hannifin Corporation**  
Tube Fittings Division  
3885 Gateway Blvd.  
Columbus, Ohio 43228  
Telephone: (614) 279-7070  
Fax: (614) 279-7685  
[www.parker.com/tfd](http://www.parker.com/tfd)



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