

L-ring Face Seal Fittings

TFO Series

Features

- ⦿ Reduced internal entrapment
- ⦿ Lubricant-free L-ring seal
- ⦿ Tube butt end connections
- ⦿ Controlled L-ring extrusion, no overtightening

Technical Data

- ⦿ Sizes range from 1/4" to 1"
- ⦿ Standard Materials of Constructions

Construction	Materials	Designnator
Body/Gland	316L stanless steel	6L
Nut	316 stanless steel	SS
Seal	Ethylene propylene	E
	PTFE	T
	Silicone	SI
	Fluorocarbon FKM	VI

Materials traceable, certification available upon request

- ⦿ Working Pressure at 100°F (37°C)

Tube OD.	Working Pressure psig (bar)
1/4 in.	2500 (172)
1/2 in.	2000 (137)
3/4 in.	1500 (103)
1 in.	
12 mm	2000 (137)

- ⦿ Working Temperature
Temperature ranges for TFO fittings are governed by the L-ring materials.

Meterial	Working Temperature °F(°C)
Ethylene propylene	148(300)
PTFE	232(450)
Silicone	204(400)
Fluorocarbon FKM	

Testing

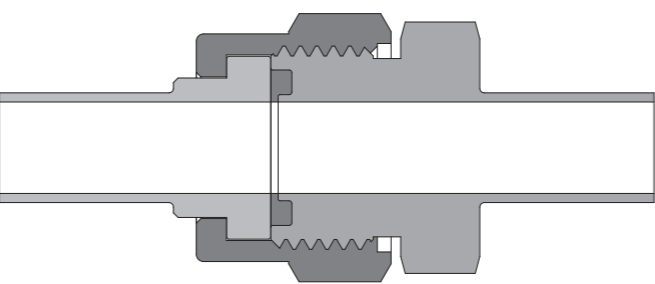
TFO fitting is tested with helium at a maximum leak rate of 4x10⁻⁹std cm³/s.

Ordering Information

- ⦿ Dimensions are for reference only and are subject to change.
- ⦿ Each component should be ordered separately.
- ⦿ Add the material designator as a prefix, Wetted Surface Finish code or Cleaning and Packaging code as a suffix to the basic ordering number to get the complete ordering number.
- ⦿ Wetted Surface Finish
Standard surface finish is a roughness average of 15 μin. (0.4 μm) Ra. To order fittings to a roughness average of 10 μin. (0.2 μm) Ra, add -E3 as a suffix to the ordering number. Put Wetted Surface Finish before code Cleaning and Packaging code. Example:**6L-G-TFO4-TB4-E3** .
- ⦿ Standard Process Specification
FC-01 standard cleaning and packaging, Is applied to all the fittings for general industrial procedure. No suffix is required. Example: **6L-G-TFO4-TB4**.
- ⦿ High-Purity Process Specification
FC-02 special cleaning and packaging, following ASTM G93 level C, add -F2 as a suffix to the basic ordering number. Example: **6L-G-TFO4-TB4-F2**.

Installation Instructions

1. Assemble the gland, nut and gasket as below, finger tighten the nut.

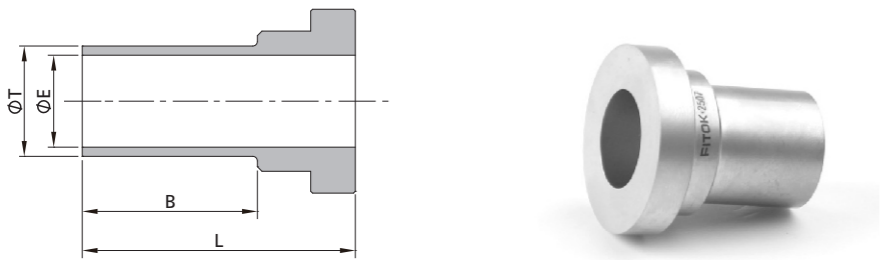


2. Tighten the nut 1/8 turn with a wrench while holding the body of the fitting steady.

Cautions

- ⦿ For the best sealing result, the L-ring should be replaced each time the groove housing is dismantled.
- ⦿ When welding is applied to the body, the L-ring should be removed to prevent possible damage.
- ⦿ Tungsten Inert Gas Welding (TIG) is recommended.
- ⦿ Do not loosen or tighten fittings when system is pressurized.

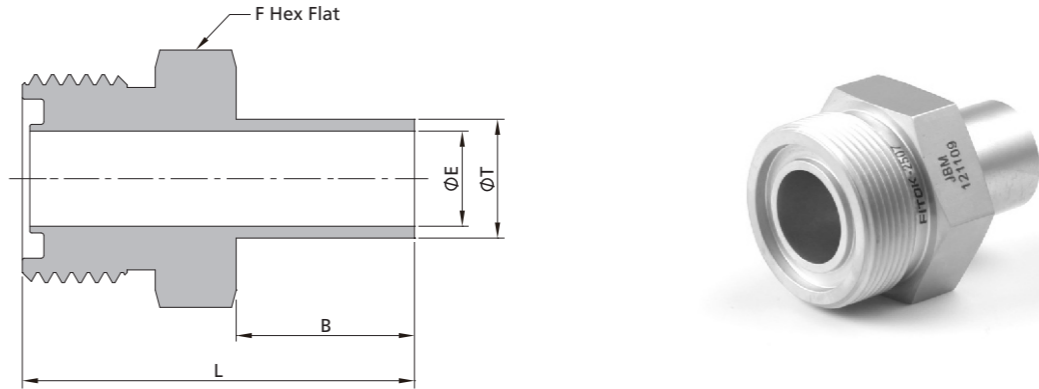
Gland



T-Tube OD. (in.)	Wall Thickness (in.)	Ordering Number	Dimension, in. (mm)		
			L	B	E
1/4	0.035	6L-G-TFO4-TB4	0.67(17.0)	0.25(6.4)	0.18(4.6)
		6L-G-TFO4-TB4-12	1.17(29.7)	0.75(19.1)	
1/2	0.049	6L-G-TFO8-TB8			0.40(10.2)
	0.065	6L-G-TFO8-TB8×0.065			
3/4		6L-G-TFO12-TB12	1.24(31.5)	0.62(15.7)	
1		6L-G-TFO16-TB16	1.45(36.8)	0.96(24.4)	0.87(22.1)
Metric					
12 mm	1 mm	6L-G-TFO8-MTB12	1.17(29.7)	0.75(19.1)	0.39(10)

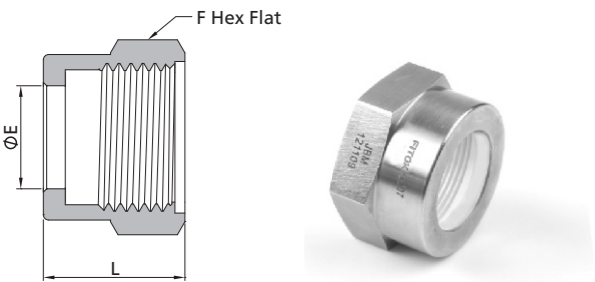
NOTE: -MTB12 gland and body use -TFO8 L-ring and nut.

Tube Butt Weld Body



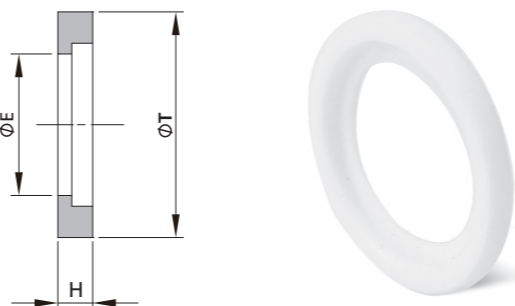
T-Tube OD. (in.)	Wall Thickness (in.)	Ordering Number	Dimension, in. (mm)			
			L	B	E	F
1/4	0.035	6L-CW-TFO4-TB4	1.03(26.2)	0.25(6.4)	0.18(4.6)	5/8(15.88)
		6L-CW-TFO4-TB4-12	1.53(38.9)	0.75(19.1)		
1/2	0.049	6L-CW-TFO8-TB8	1.65(41.9)		0.40(10.2)	15/16(23.8)
	0.065	6L-CW-TFO8-TB8x0.065			0.37(9.4)	
3/4		6L-CW-TFO12-TB12	1.75(44.4)		0.62(15.7)	
1		6L-CW-TFO16-TB16	1.99(50.5)	0.96(24.4)	0.87(22.1)	15/8(47.63)
Metric						
12 mm	1 mm	6L-CW-TFO8-MTB12	1.65(41.9)	0.75(19.1)	0.39(10)	15/16(23.8)

Nut



Ordering Number	Dimension, in. (mm)		
	L	E	F
SS-N-TFO4	0.75(19.1)	0.39(9.9)	11/16(17.46)
SS-N-TFO8	0.84(21.3)	0.61(15.5)	1(25.4)
SS-N-TFO12	0.90(22.9)	0.94(23.9)	1 1/2(38.1)
SS-N-TFO16		1.25(31.8)	1 3/4(44.45)

L-ring Seal



Basic Ordering Number	Dimension, in. (mm)		
	T	E	H
-GT-TFO4	0.38(9.6)	0.18(4.6)	0.07(1.8)
-GT-TFO8	0.64(16.2)	0.40(10.2)	0.10(2.5)
-GT-TFO12	0.92(23.4)	0.62(15.7)	
-GT-TFO16	1.30(33.0)	0.87(22.1)	0.14(3.6)