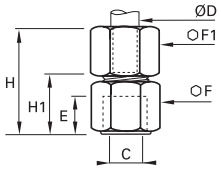
# Stainless Steel Compression Fittings

## 1814 Stud Fitting, Female BSPP Thread



Stainless steel 316L




| ØD | C | | E | F | F1 | H max | H1 | kg |
|---|---|---|---|---|---|---|---|---|
| 6 | G1/8 | 1814 06 10 | 7.5 | 14 | 13 | 29 | 17 | 0.023 |
| | G1/4 | 1814 06 13 | 11 | 17 | 13 | 29 | 21 | 0.032 |
| 8 | G1/4 | 1814 08 13 | 11 | 17 | 14 | 34.5 | 20.5 | 0.033 |
| 10 | G3/8 | 1814 10 17 | 11.5 | 22 | 19 | 38.5 | 22 | 0.064 |
| | G1/2 | 1814 10 21 | 15 | 27 | 19 | 43 | 26.5 | 0.093 |
| 12 | G3/8 | 1814 12 17 | 11.5 | 22 | 22 | 39 | 22 | 0.072 |
| | G1/2 | 1814 12 21 | 15 | 27 | 22 | 43.5 | 26.5 | 0.100 |
| 16 | G1/2 | 1814 16 21 | 15 | 27 | 27 | 45 | 26 | 0.120 |

# Stainless Steel Compression Fittings

**Manufactured in 316L stainless steel**, these fittings combine all the advantages of the "universal" compression fitting with **excellent resistance** to environmental conditions and **corrosive fluids.** They are pressure and temperature-resistant and are able to withstand strong vibration and water hammer.

## Product Advantages

**For Use in Many Environments**

- Manufactured in 316L stainless steel
- Suitable for all environments and fluids
- Resistant to water hammer and vibration
- Excellent sealing and retention of the tube
- Suitable for pneumatic and medium pressure hydraulic applications
- Metallic sealing guarantees maximum service life

**Many Tube Options**

- Possibility of easily connecting different tube materials and diameters to the same fitting body
- No tube support required for rigid and semi-rigid polyamide tubing below 12 mm



**Applications**

Food Process
Fluid Transmission
Pneumatics
Automotive Process
Petrochemical
Chemical
Offshore Oil & Gas

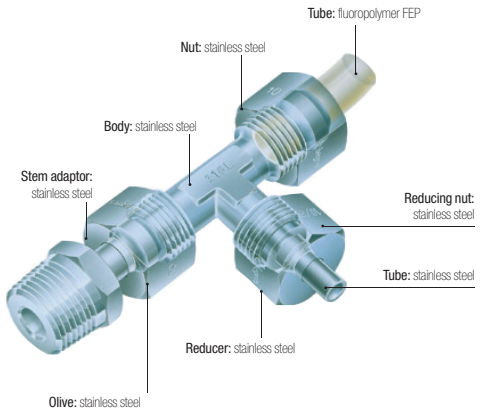
## Technical Characteristics

| | |
|---|---|
| **Compatible Fluids** | Many fluids |
| **Working Pressure** | Vacuum to 400 bar (80 bar in corrosive environments) |
| **Working Temperature** | -40°C to +250°C |

| **Tightening Torques** | DN | 6 | 8 | 10 | 12 | 16 |
|---|---|---|---|---|---|---|
| | daN.m | 2 | 3 | 4 | 6.5 | 9.5 |

Reliable performance is dependent upon the type of fluid conveyed and tubing being used. Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

**Component Materials**




**Silicone-free**

### Maximum Bore Diameters

The table below shows the recommended compatibility of tube size, BSPP male thread and maximum bore.

| Tube O.D | BSPP Thread | Max. Bore |
|---|---|---|
| 6 | G1/8 | 4 |
| 6-8-10 | G1/4 | 7 |
| 10-12 | G3/8 | 11 |
| 16 | G1/2 | 14 |

### Tube Length for Assembly

Minimum length of tube (L) between 2 fittings.




| ØD | L mm | ØD | L mm |
|---|---|---|---|
| 4 | 26.5 | 10 | 39 |
| 6 | 26 | 12 | 39 |
| 8 | 32 | 16 | 46.5 |

### Regulations

**DI:** 2002/95/EC (RoHS), 2011/65/EC
**DI:** 97/23/EC (PED)
**RG:** 1935/2004
**RG:** 1907/2006 (REACH)
**DI:** 94/09/EC (ATEX)
**FDA:** 21 CFR 177.1550
**NACE MR0175:** compatible materials
**ISO 15156-1/-2/-3:** compatible materials

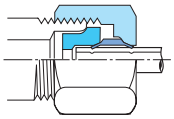
# Stainless Steel Compression Fittings

## Installation

### Fitting

The fitting comprises three parts (body/olive/nut). For assembly procedure, please see Brass Compression Fitting page.

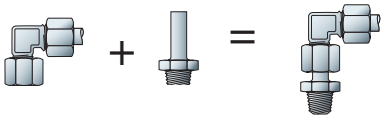
**Diagram: Assembled Fitting**



A very slight distortion of the tube appears; this shows the fitting has been correctly tightened.

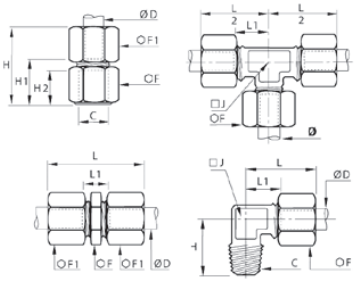
### Orientable Elbow Assembly

Elbow **1802** + Adaptor **1820** =



### Customised Fittings

If our standard range does not meet your needs, Parker Legris can develop customised solutions for your applications.



## Technical Characteristics

The use of Parker Legris stainless steel compression fittings is dependant on the tube material. Tables of recommended working pressure for the different tubes are shown below.

### Recommended Tube Type

**Semi-rigid polyamide or fluoropolymer tube**

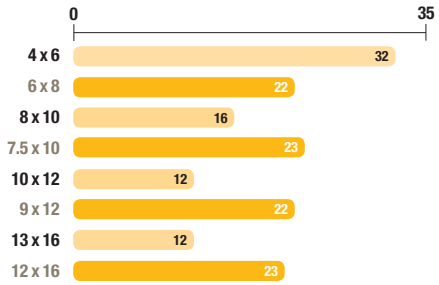
**Stainless steel tube**
"Thin Wall" cold-drawn seamless, annealed and passivated:
wall thickness tolerance +/-0.1 mm.
For use with "thin wall" stainless steel tube from 6 mm to 16 mm O.D., maximum wall thickness 1 mm.

### Recommended Tube/Fitting Assembly Configurations

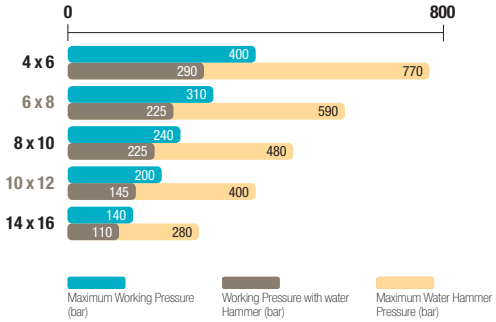
Assembled using Parker Legris olive and nut in stainless steel, with a tube support.

**Stainless steel tube**
Stainless steel tube: in cold-rolled straight lengths
Coiled annealed stainless tube : reduces working pressure by 35%; do not use if there is vibration.

**Semi-Rigid Polyamide Tube**
Maximum Working Pressure (bar)




**Stainless Steel Tube**
Maximum Working Pressure (bar)




### Working Pressure Coefficients for Semi-Rigid Tubing

| Temperature °C | -40°C / -15°C | -15°C / +30°C | +30°C / +50°C | +50°C/+70°C | +70°C/+100°C |
|---|---|---|---|---|---|
| Factor | 1.8 | 1 | 0.68 | 0.55 | 0.31 |

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.