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

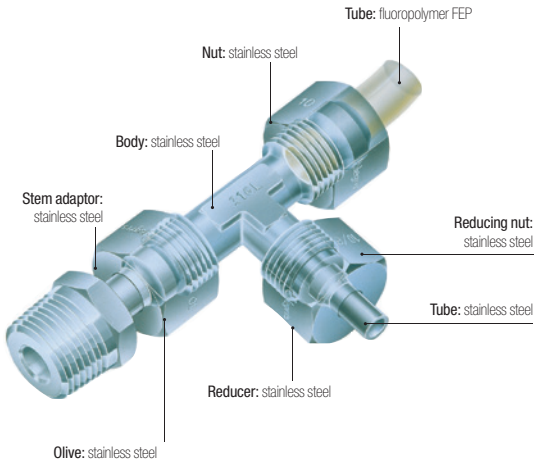
Technical Characteristics

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

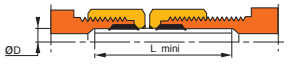
Maximum Bore Diameters

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

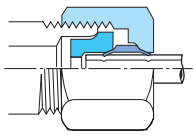
Stainless Steel Compression Fittings

Installation

Fitting

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

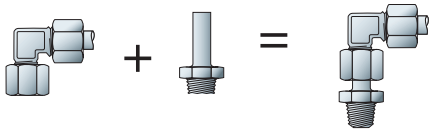
Diagram: Assembled Fitting



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

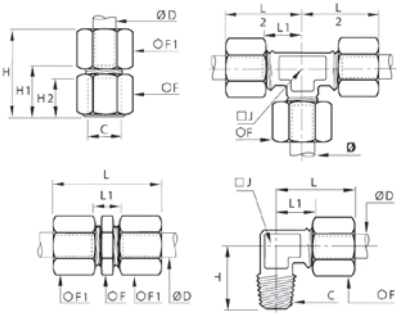
Orientable Elbow Assembly

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

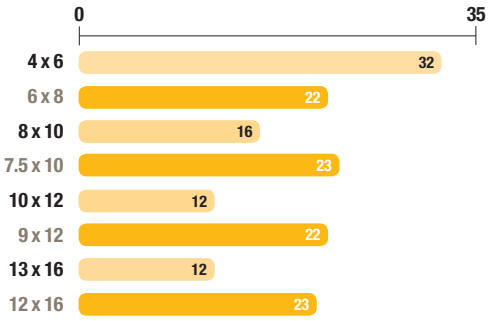
Stainless steel tube
"Thin Wall" cold-drawn seamless, annealed and passivated:
wall thickness tolerance +/-0.1 mm.
For use with "thin wall" stainless steel tube from 6 mm to 16 mm O.D., maximum wall thickness 1 mm.

Recommended Tube/Fitting Assembly Configurations

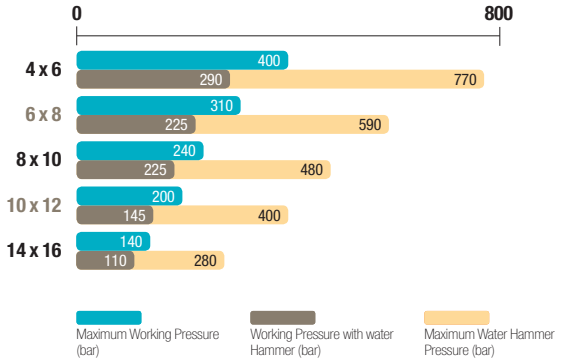
Assembled using Parker Legris olive and nut in stainless steel, with a tube support.

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

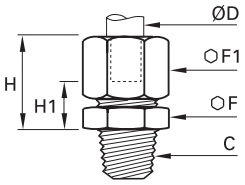
Temperature °C	-40°C / -15°C	-15°C / +30°C	+30°C / +50°C	+50°C/+70°C	+70°C/+100°C
Factor	1.8	1	0.68	0.55	0.31

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

Stainless Steel Compression Fittings

1805 Stud Fitting, Male BSPT Thread

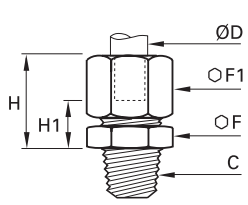
Stainless steel 316L



ØD	C		F	F1	H max	H1	kg
6	R1/8	1805 06 10	12	13	19.5	7.5	0.017
	R1/4	1805 06 13	14	13	19.5	7.5	0.025
8	R1/8	1805 08 10	13	14	21	7	0.019
	R1/4	1805 08 13	14	14	21	7	0.024
10	R1/4	1805 10 13	17	19	25.5	9	0.044
	R3/8	1805 10 17	17	19	25.5	9	0.049
	R1/2	1805 10 21	22	19	26.5	10	0.076
12	R1/4	1805 12 13	19	22	26	9	0.054
	R3/8	1805 12 17	19	22	26	9	0.058
	R1/2	1805 12 21	22	22	27	10	0.081
16	R3/8	1805 16 17	24	27	28.5	9.5	0.086
	R1/2	1805 16 21	24	27	28.5	9.5	0.094

1805 Stud Fitting, Male NPT Thread

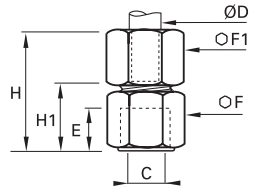
Stainless steel 316L



ØD	C		F	F1	H max	H1	kg
6	NPT1/8	1805 06 11	12	13	19.5	7.5	0.018
	NPT1/4	1805 06 14	14	13	19.5	7.5	0.027
	NPT3/8	1805 06 18	19	13	20.5	8.5	0.033
	NPT1/2	1805 06 22	22	13	21.5	9.5	0.049
8	NPT1/8	1805 08 11	13	14	21	7	0.020
	NPT1/4	1805 08 14	14	14	21	7	0.027
10	NPT1/4	1805 10 14	17	19	25.5	9	0.045
	NPT3/8	1805 10 18	19	19	25.5	9	0.055
	NPT1/2	1805 10 22	22	19	26.5	10	0.083
12	NPT1/4	1805 12 14	19	22	26	9	0.056
	NPT3/8	1805 12 18	19	22	26	9	0.061
	NPT1/2	1805 12 22	22	22	27	10	0.087
16	NPT3/8	1805 16 18	24	27	28.5	9.5	0.087
	NPT1/2	1805 16 22	24	27	28.5	9.5	0.097

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