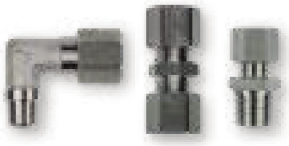
Stainless Steel Compression Fittings / Stud Fittings



These "universal" compression fittings offer excellent resistance to environmental conditions and corrosive fluids. They are pressure and temperature-resistant and are able to withstand strong vibration and water hammer. Suitable for food fluids.

Ø metric:
6 to 16 mm

Technical Characteristics

- **Compatible Fluids:** Many fluids
- **Working Pressure:** Vacuum to 400 bar (80 bar in corrosive environments)
- **Working Temperature:** -60°C to +250°C with metal tubing

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).

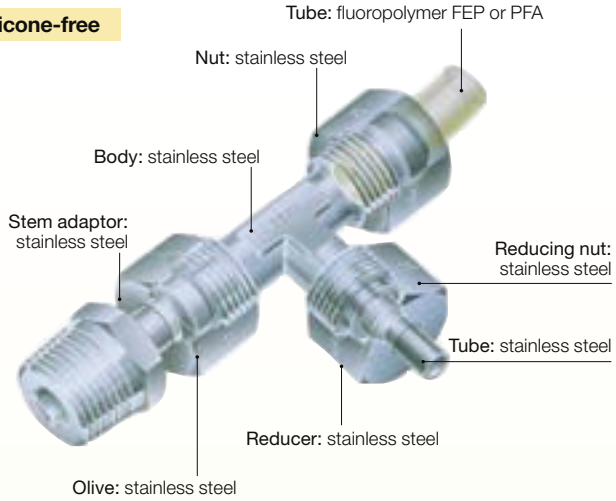
Thread sealing must be guaranteed by user.

Advantages

- Excellent sealing and retention of the tube
- Metallic sealing guarantees maximum service life
- Connection of different types of pipes and tubes: metal, polymers, steel, rubber,...
- No tube support required for rigid and semi-rigid polyamide tubing below 12 mm
- Connection of several pipe diameters thanks to the Parker Legris assembly reduction system
- Range of associated accessories in 316L stainless steel

Component Materials

Silicone-free



Regulations

- **RoHS**
- **PED**
- **REACH**
- **1935/2004**

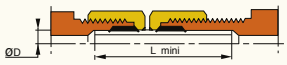
Maximum Bore Diameters

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

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.

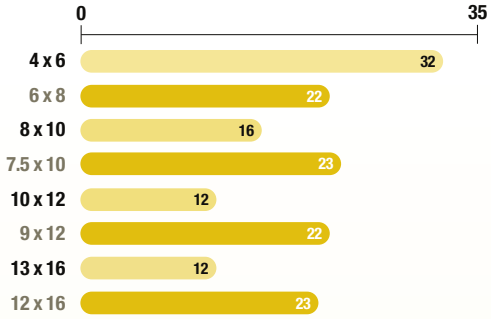
Recommended Tube/Fitting Assembly Configurations

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

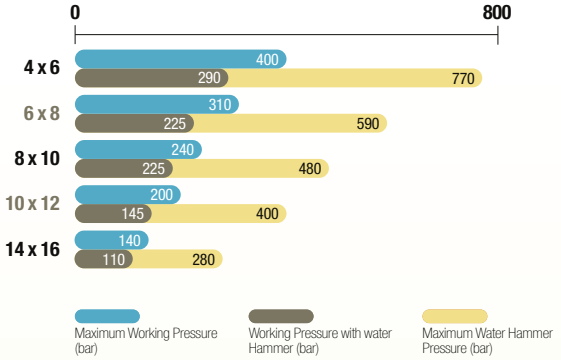
Stainless steel tube
Stainless steel tube: in cold-rolled straight lengths
Coiled annealed stainless tube: reduces working pressure by 35%; do not use if there is vibration.

Stainless Steel Compression Fittings / Stud Fittings

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

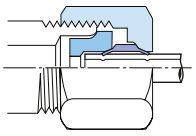
The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.

Installations

Fitting

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

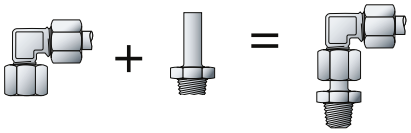
Diagram: Assembled Fitting



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

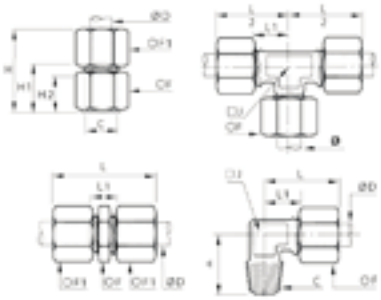
Orientable Elbow Assembly

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



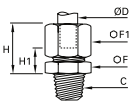
Customised Fittings

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



1805 Stud Fitting, Male BSPT Thread

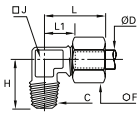
Stainless steel 316L



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	0.043
	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	0.057
	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	0.093

1809 Stud Elbow, Male BSPT Thread

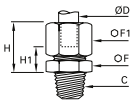
Stainless steel 316L



ØD	C		F	H	J	L max	L1	Kg
6	R1/8	1809 06 10	13	18	8	25.5	13.5	0.020
	R1/4	1809 06 13	13	23	10	25.5	13.5	0.029
8	R1/8	1809 08 10	14	20.5	10	28.5	14.5	0.026
	R1/4	1809 08 13	14	23	10	28.5	14.5	0.030
10	R1/4	1809 10 13	19	25	12	32.5	16	0.051
	R3/8	1809 10 17	19	25.5	12	32.5	16	0.057
	R1/2	1809 10 21	19	32	18	36.5	20	0.091
12	R1/4	1809 12 13	22	26	14	34	17	0.067
	R3/8	1809 12 17	22	27	14	34	17	0.070
	R1/2	1809 12 21	22	32	18	37	20	0.098
16	R3/8	1809 16 17	27	28.5	18	39.5	21	0.107
	R1/2	1809 16 21	27	31.5	18	39.5	21	0.114

1805 Stud Fitting, Male NPT Thread

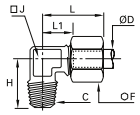
Stainless steel 316L



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
8	NPT1/8	1805 08 11	13	14	21	7	0.021
	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	0.082
12	NPT1/4	1805 12 14	19	22	26	9	0.057
	NPT3/8	1805 12 18	19	22	26	9	0.060
	NPT1/2	1805 12 22	22	22	27	10	0.086

1809 Stud Elbow, Male NPT Thread

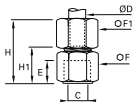
Stainless steel 316L



ØD	C		F	H	J	L max	L1	Kg
6	NPT1/4	1809 06 14	13	25.5	10	25.5	13.5	0.032
8	NPT1/8	1809 08 11	14	22	10	28.5	14.5	0.027
	NPT1/4	1809 08 14	14	25.5	10	28.5	14.5	0.032
10	NPT1/4	1809 10 14	19	27.5	12	32.5	16	0.053
	NPT3/8	1809 10 18	19	28	12	32.5	16	0.060
	NPT1/2	1809 10 22	19	35	18	36.5	20	0.096
12	NPT1/2	1809 12 22	22	35	18	37	20	0.101

1814 Stud Fitting, Female BSPP Thread

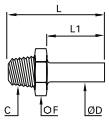
Stainless steel 316L



ØD	C		E	F	F1	H max	H1	Kg
6	G1/8	1814 06 10	7.5	14	13	29	17	0.024
	G1/4	1814 06 13	11	17	13	29	21	0.031
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	0.094
12	G3/8	1814 12 17	11.5	22	22	39	22	0.073
	G1/2	1814 12 21	15	27	22	43.5	26.5	0.102
16	G1/2	1814 16 21	15	27	27	45	26	0.121

1820 Stud Standpipe, Male BSPT Thread

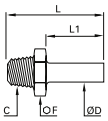
Stainless steel 316L



ØD	C		F	L	L1	Kg
6	R1/8	**1820 06 10**	12	26.5	15	0.009
	R1/4	**1820 06 13**	14	31	15	0.017
8	R1/8	**1820 08 10**	12	28.5	17	0.008
	R1/4	**1820 08 13**	14	33	17	0.016
10	R1/4	**1820 10 13**	14	36	20	0.016
	R3/8	**1820 10 17**	17	36.5	20	0.025
	R1/2	**1820 10 21**	22	41	20	0.052
12	R1/4	**1820 12 13**	14	36	20	0.016
	R3/8	**1820 12 17**	17	36.5	20	0.023
	R1/2	**1820 12 21**	22	41	20	0.048
16	R3/8	**1820 16 17**	17	39.5	23	0.022
	R1/2	**1820 16 21**	22	44	23	0.039

1820 Stem Adaptor, Male NPT Thread

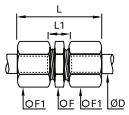
Stainless steel 316L



ØD	C		F	L	L1	Kg
8	NPT1/8	**1820 08 11**	12	28.5	17	0.009
	NPT1/4	**1820 08 14**	14	33	17	0.019
10	NPT1/4	**1820 10 14**	14	36	20	0.018
12	NPT1/4	**1820 12 14**	14	36	20	0.019
	NPT3/8	**1820 12 18**	19	36.5	20	0.028
	NPT1/2	**1820 12 22**	22	41	20	0.053

1806 Equal Tube-to-Tube Connector

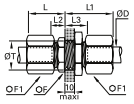
Stainless steel 316L



ØD		F	F1	L max	L1	Kg
6	1806 06 00	12	13	34.5	11	0.025
8	1806 08 00	13	14	38.5	10	0.029
10	1806 10 00	17	19	46	13	0.065
12	1806 12 00	19	22	47	13	0.085
16	1806 16 00	24	27	51	13	0.135

1816 Equal Bulkhead Connector

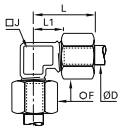
Stainless steel 316L



ØD		F	F1	L max	L1 max	L2	L3	ØT min	Kg
6	1816 06 00	13	13	28	19	7.5	17	10.5	0.034
8	1816 08 00	14	14	29	20	7	17	12.5	0.042
10	1816 10 00	19	19	33	25	9	19	16.5	0.093
12	1816 12 00	22	22	33	25	9	19	18.5	0.113
16	1816 16 00	27	27	36	28	9.5	19.5	22.5	0.179

1802 Equal Elbow

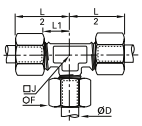
Stainless steel 316L



ØD		F	J	L max	L1	Kg
6	1802 06 00	13	8	25.5	13.5	0.027
8	1802 08 00	14	10	28.5	14.5	0.034
10	1802 10 00	19	12	32.5	16	0.070
12	1802 12 00	22	14	34	17	0.092
16	1802 16 00	27	18	39.5	21	0.151

1804 Equal Tee

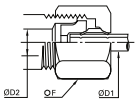
Stainless steel 316L



ØD		F	J	L/2	L1	Kg
6	1804 06 00	13	8	25.5	13.5	0.039
8	1804 08 00	14	10	28.5	14.5	0.049
10	1804 10 00	19	12	32.5	16	0.100
12	1804 12 00	22	14	34	17	0.133
16	1804 16 00	27	18	39.5	21	0.216

1866 3-Piece Reducer

Stainless steel 316L



ØD1	ØD2		F	Kg
6	8	1866 06 08	14	0.011
	10	1866 06 10	19	0.027
8	10	1866 08 10	19	0.025

1824 Stainless Steel Olive

Stainless steel 316L

ØD		Kg
6	1824 06 00	0.002
8	1824 08 00	0.001
10	1824 10 00	0.003
12	1824 12 00	0.004
16	1824 16 00	0.005

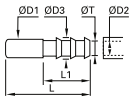
1810 Stainless Steel Nut

Stainless steel 316L

ØD	C		F	L	Kg
6	M10x1	1810 06 00	13	11	0.007
8	M12x1	1810 08 00	14	13	0.008
10	M16x1.5	1810 10 00	19	15	0.017
12	M18x1.5	1810 12 00	22	15	0.024
16	M22x1.5	1810 16 00	27	17	0.041

1822 Barb Adaptor for Hose

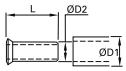
Stainless steel 316L



ØD1	ØD2	ØD3		L	L1	ØT min	Kg
6	7	9	1822 06 07	37.5	22.5	6	0.006
8	6	8	1822 08 06	40	22.5	5	0.007
	7	9	1822 08 07	40	22.5	6	0.007
	10	12.5	1822 08 10	40	22.5	9	0.011
10	7	9	1822 10 07	43	22.5	6	0.009
	10	12.5	1822 10 10	43	22.5	9	0.012
12	10	12.2	1822 12 10	43	22.5	9	0.012
	13	15	1822 12 13	50	29.5	13	0.015

1827 Stainless Steel Tube Support for Fluoropolymer Tubing

Stainless steel 316L



ØD1	ØD2		L	Kg
6	4	1827 06 00	11.5	0.001
8	6	1827 08 00	14	0.001
10	8	1827 10 00	18	0.001
12	9	1827 12 09	18	0.001
	10	1827 12 00	18	0.001
16	13	1827 16 13	18	0.002
	14	1827 16 00	18	0.002

This tube support is necessary when using fluoropolymer tubing at all temperatures compatible with the fitting/tubing assembly.