

# COMPRESSION FITTINGS

# 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

## 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

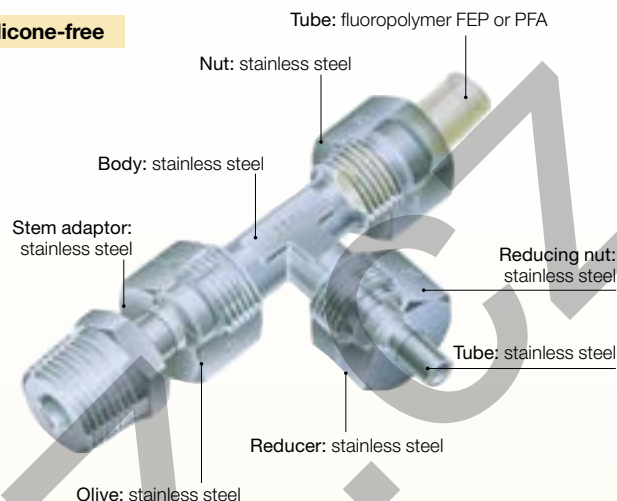
Assembled using Parker Legris olive and nut in stainless steel, with a tube support.

### 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.

## Component Materials

### Silicone-free



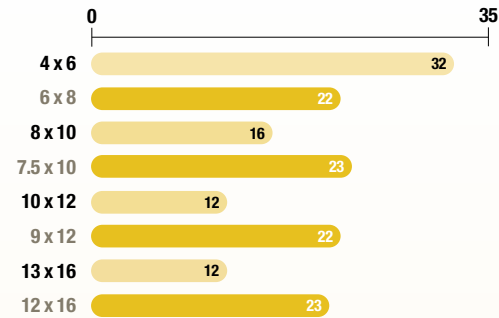
## Regulations

- RoHS
- PED
- REACH
- 1935/2004

# Stainless Steel Compression Fittings / Stud Fittings

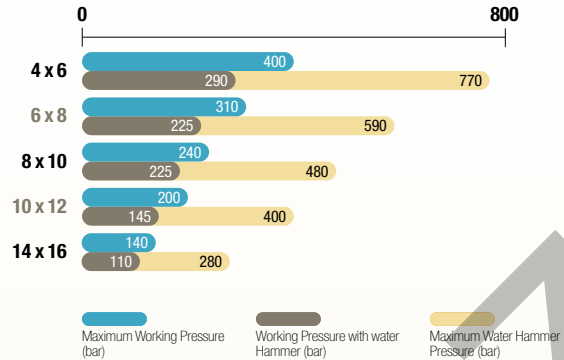
## Semi-Rigid Polyamide Tube

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

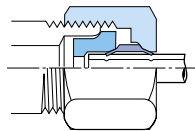
The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.

## Installations

### Fitting

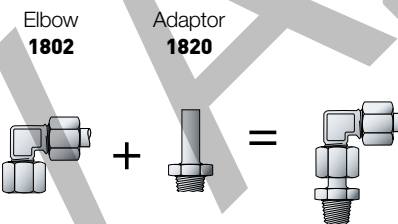
The fitting comprises three parts (body/olive/nut). For assembly procedure, please see Brass Compression Fitting page.

Diagram: Assembled Fitting



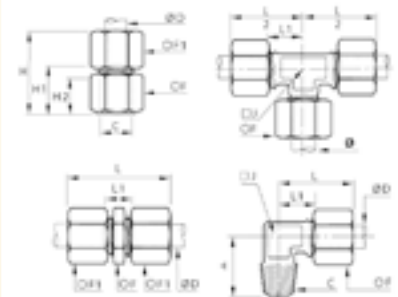
A very slight distortion of the tube appears; this shows the fitting has been correctly tightened.

### Orientable Elbow Assembly



### Customised Fittings

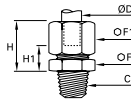
If our standard range does not meet your needs, Parker Legris can develop customised solutions for your applications.



# Stainless Steel Compression Fittings / Stud Fittings

## 1805 Stud Fitting, Male BSPT Thread

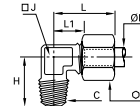
Stainless steel 316L



ØD	C		F	F1	H max	H1	Kg
6	R1/8	<b>1805 06 10</b>	12	13	19.5	7.5	0.017
	R1/4	<b>1805 06 13</b>	14	13	19.5	7.5	0.025
8	R1/8	<b>1805 08 10</b>	13	14	21	7	0.019
	R1/4	<b>1805 08 13</b>	14	14	21	7	0.024
10	R1/4	<b>1805 10 13</b>	17	19	25.5	9	0.043
	R3/8	<b>1805 10 17</b>	17	19	25.5	9	0.049
	R1/2	<b>1805 10 21</b>	22	19	26.5	10	0.076
12	R1/4	<b>1805 12 13</b>	19	22	26	9	0.054
	R3/8	<b>1805 12 17</b>	19	22	26	9	0.057
16	R1/2	<b>1805 12 21</b>	22	22	27	10	0.081
	R3/8	<b>1805 16 17</b>	24	27	28.5	9.5	0.086
	R1/2	<b>1805 16 21</b>	24	27	28.5	9.5	0.093

## 1809 Stud Elbow, Male BSPT Thread

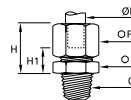
Stainless steel 316L



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

## 1805 Stud Fitting, Male NPT Thread

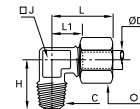
Stainless steel 316L



ØD	C		F	F1	H max	H1	Kg
6	NPT1/8	<b>1805 06 11</b>	12	13	19.5	7.5	0.018
	NPT1/4	<b>1805 06 14</b>	14	13	19.5	7.5	0.027
	NPT3/8	<b>1805 06 18</b>	19	13	20.5	8.5	0.033
8	NPT1/8	<b>1805 08 11</b>	13	14	21	7	0.021
	NPT1/4	<b>1805 08 14</b>	14	14	21	7	0.027
10	NPT1/4	<b>1805 10 14</b>	17	19	25.5	9	0.045
	NPT3/8	<b>1805 10 18</b>	19	19	25.5	9	0.055
	NPT1/2	<b>1805 10 22</b>	22	19	26.5	10	0.082
12	NPT1/4	<b>1805 12 14</b>	19	22	26	9	0.057
	NPT3/8	<b>1805 12 18</b>	19	22	26	9	0.060
	NPT1/2	<b>1805 12 22</b>	22	22	27	10	0.086

## 1809 Stud Elbow, Male NPT Thread

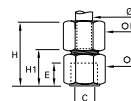
Stainless steel 316L



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

## 1814 Stud Fitting, Female BSPP Thread

Stainless steel 316L

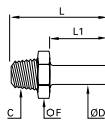


ØD	C		E	F	F1	H max	H1	Kg
6	G1/8	<b>1814 06 10</b>	7.5	14	13	29	17	0.024
	G1/4	<b>1814 06 13</b>	11	17	13	29	21	0.031
8	G1/4	<b>1814 08 13</b>	11	17	14	34.5	20.5	0.033
	G3/8	<b>1814 10 17</b>	11.5	22	19	38.5	22	0.064
10	G1/2	<b>1814 10 21</b>	15	27	19	43	26.5	0.094
	G3/8	<b>1814 12 17</b>	11.5	22	22	39	22	0.073
12	G1/2	<b>1814 12 21</b>	15	27	22	43.5	26.5	0.102
	G1/2	<b>1814 16 21</b>	15	27	27	45	26	0.121

# Stainless Steel Compression Fittings / Stud Fittings

## 1820 Stud Standpipe, Male BSPT Thread

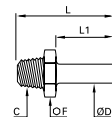
Stainless steel 316L



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

## 1820 Stem Adaptor, Male NPT Thread

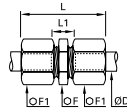
Stainless steel 316L



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

## 1806 Equal Tube-to-Tube Connector

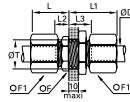
Stainless steel 316L



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

## 1816 Equal Bulkhead Connector

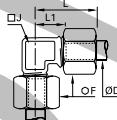
Stainless steel 316L



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

## 1802 Equal Elbow

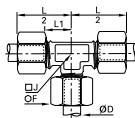
Stainless steel 316L



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

## 1804 Equal Tee

Stainless steel 316L

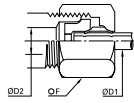


ØD		F	J	L/2	L1	Kg
6	<b>1804 06 00</b>	13	8	25.5	13.5	0.039
8	<b>1804 08 00</b>	14	10	28.5	14.5	0.049
10	<b>1804 10 00</b>	19	12	32.5	16	0.100
12	<b>1804 12 00</b>	22	14	34	17	0.133
16	<b>1804 16 00</b>	27	18	39.5	21	0.216

# Stainless Steel Compression Fittings / Complementary Fittings

## 1866 3-Piece Reducer

Stainless steel 316L



ØD1	ØD2		F	Kg
6	8	<b>1866 06 08</b>	14	0.011
	10	<b>1866 06 10</b>	19	0.027
8	10	<b>1866 08 10</b>	19	0.025

## 1824 Stainless Steel Olive

Stainless steel 316L



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

## 1810 Stainless Steel Nut

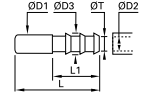
Stainless steel 316L



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

## 1822 Barb Adaptor for Hose

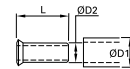
Stainless steel 316L



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

## 1827 Stainless Steel Tube Support for Fluoropolymer Tubing

Stainless steel 316L



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

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