

Brass Compression Fittings

These **"universal"** fittings provide users with **numerous connection** options for a wide variety of tube materials without the need for tube threading or soldering. This range **guarantees** excellent long-term sealing and performance.

Product Advantages

Simple to Install and Use

- Suitable for pneumatic and medium pressure hydraulic applications
- Compatible with many industrial fluids
- Large product range: 22 configurations
- Excellent sealing due to the tightening of the olive onto the tube
- Metallic sealing guarantees maximum service life
- High strength brass for increased mechanical reliability

Wide Variety of Tubing

- Connection of different types of tubing and hose: metal, polymer, steel, rubber, etc.
- Multiple tube diameters can be connected using the Parker Legris reducer assembly system
- No insert required for rigid and semi-rigid polyamide tubing below 14 mm



Applications

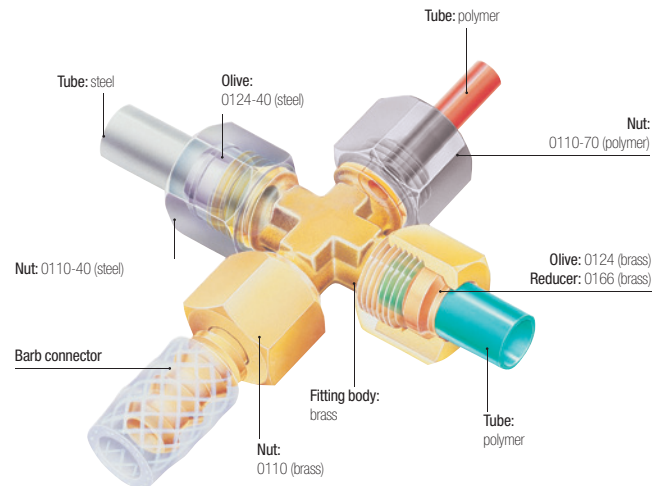
- Pneumatics
- Cooling
- Automotive Process
- Lubrication
- Fluid Transmission
- Packaging
- Industrial Machinery

Technical Characteristics

Compatible Fluids	Water, machining oil, fuel, hydraulic oil, compressed air, chemical fluids, disinfectants
Working Pressure	Vacuum to 550 bar
Working Temperature	-40°C to +250°C
Tightening Torque	See "Technical Characteristics" on opposite page

Reliable performance is dependent upon the type of fluid conveyed, component materials 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
4-5-6	G1/8	4
6-8-10	G1/4	7
10-12-14	G3/8	11
14-15-16-18	G1/2	14
18-20-22	G3/4	18
22-25-28	G1	24

Tube Length for Assembly

Minimum length of tube (L) between 2 fittings.



ØD	L (mm)	ØD	L (mm)	ØD	L (mm)
4	26.5	12	39	20	51
5	26	14	41	22	54
6	26	15	41	25	62
8	32	16	46.5	28	62
10	39	18	49.5		

Regulations

CNOMO: E07.21.115N
(for robotic equipment in the automotive industry)
DI: 97/23/EC (PED)
RG: 1907/2006 (REACH)
DI: 2002/95/EC (RoHS)
DI: 94/9/EC (ATEX)

Technical Characteristics

Installing Compression Fittings

Cutting the Tube



Cut the polymer or metal tube square.

Preparing the Connection

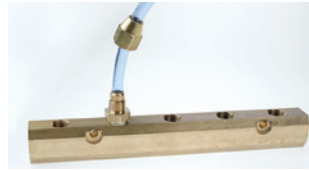


For metal tubing, de-burr the tube prior to connection. Tube bending should be done before connection.



Slide the nut onto the tube; lubricate the threads on the body and nut along with the olive to facilitate tightening (for metal tubing as well). Fit the olive onto the end of the tube.

Connecting the Tube



Push the tube up against the shoulder of the body of the fitting and hand tighten.

Final Assembly



Tighten the nut using a spanner or torque wrench to enable the olive to bite on the tube, the connection being completed when the recommended tightening torque is reached (see tables below).

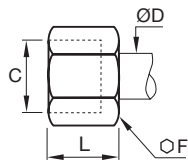


It is recommended to use an insert in order to prevent tube creeping (diameter > 14mm)

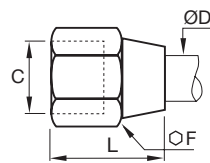
Recommended Nut Tightening Torque

Tightening torque in daN.m =

maximum tightening torque of a 0110 nut and 0124 olive with copper, brass or steel tube.



Nut 0110 and 0110..40



Nut 0110..60

Ø D (mm)	Ø F 0110	Ø F 0110..60	Max. daN.m Copper or Brass	Ø F 0110..40	Max. daN.m Steel
4	10	11	0.7	10	1.5
5	12	13	0.7	12	1.5
6	13	13	1.5	13	2.5
8	14	16	1.5	14	2.5
10	19	20	1.8	19	3
12	22	22	3	22	4.5
14	24	24	3.5	24	5.5
15	24	24	4	24	6
16	27	27	5	27	7
18	30	30	6	30	9
20	32	32	6	32	10
22	36	36	7	36	12
25	41	41	8	41	13
28	42		9		

Customised Fittings

Working directly with its customers and based on its knowledge and experience, Parker Legris can design customised brass compression fittings for specific requirements using the customer's specifications.

The range of compression fittings also offers nickel chemical surface treatment in order to improve the corrosion resistance and chemical compatibility of the fittings (the model number of the fitting is then given the suffix 99).

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



Technical Characteristics

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

Recommended Tube Type

Copper tube: copper which has been "cold rolled", cold drawn and in straight lengths.

Brass tube: in cold-rolled straight lengths (same working pressure as for copper tube).

"Coiled annealed" copper tube: reduces working pressure by 35%; must be avoided completely if vibration is present.

Steel tube: "thin wall" cold drawn, seamless, bright annealed and in straight lengths.
6 mm to 16 mm O.D.: max. wall thickness 1 mm
Above 16 mm O.D.: max. wall thickness 1.5 mm

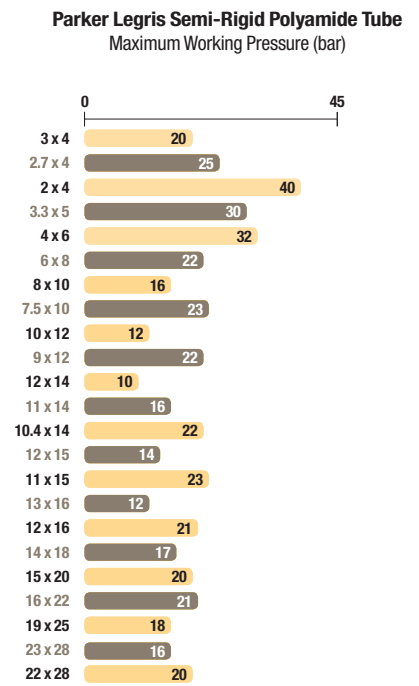
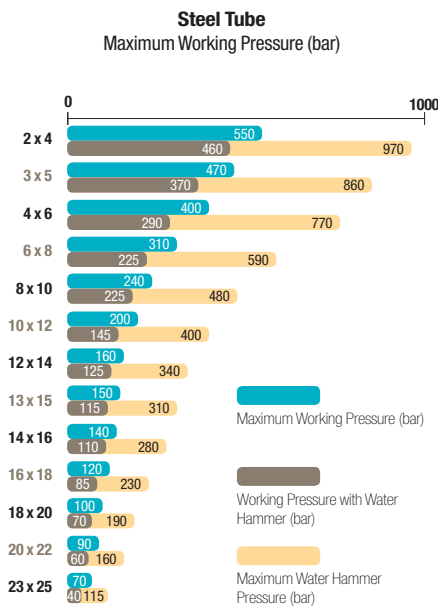
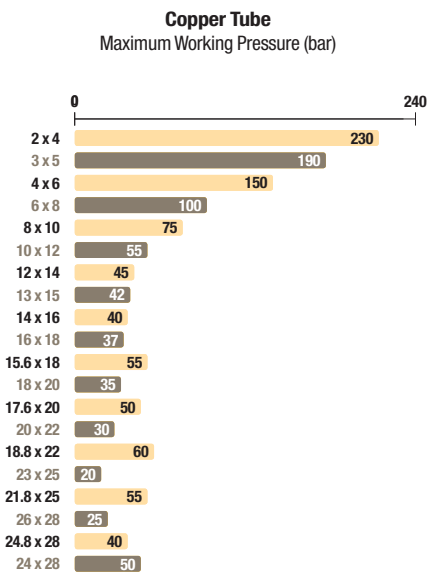
Polyamide tube: semi-rigid
For rigid polyamide tube, multiply the figures in this table by 1.8.

Recommended Tube-Fitting Assembly Configurations

Assembled using Parker Legris brass olive and nut.

Assembled using Parker Legris steel olive and nut (nut type 0110..40).

Assembled using Parker Legris brass olive and nut.



When using a plastic nut type 0110..70, the maximum working pressure is 10 bar, for all diameters.

Working Pressure Coefficients for Semi-Rigid Polyamide Tubing


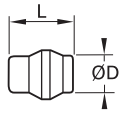

Temperature °C	-40°C / -15°C	-15°C / +30°C	+30°C / +50°C	+50°C / +70°C	+70°C / +100°C
Factor	1.8	1	0.68	0.55	0.31

Parker Legris brass compression fittings are not compatible with ammonia and its derivatives.

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


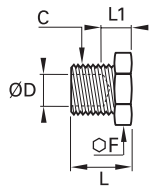

Brass Adaptors

0126 Plug for Compression Fitting

	Brass 	ØD		L	kg
		4	0126 04 00	10	0.001
		5	0126 05 00	10	0.003
		6	0126 06 00	10	0.003
		8	0126 08 00	11.5	0.006
		10	0126 10 00	13	0.010
		12	0126 12 00	13	0.014
		14	0126 14 00	13.5	0.020
		15	0126 15 00	13.5	0.022
		16	0126 16 00	16	0.029
		18	0126 18 00	16	0.039
		20	0126 20 00	16	0.045
		22	0126 22 00	18	0.003
		28	0126 28 00	19.5	0.108


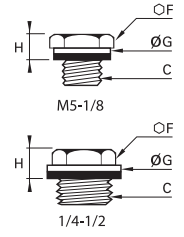

The plug is used to blank off an outlet in a compression fitting, replacing the olive.
When an open outlet is required, simply dismantle and replace the plug with the tube olive, reusing the nut.
The plug is also reusable.

0125 Tube End Plug for Compression Fitting

	Brass 	ØD	C		F	L	L1	kg
		4	M8x1	0125 04 00	10	12	8	0.006
		6	M10x1	0125 06 00	11	13.5	9.5	0.008
		8	M12x1	0125 08 00	14	14	9	0.013
		10	M16x1.5	0125 10 00	17	18	11	0.025
		12	M18x1.5	0125 12 00	19	18	11	0.030
		14	M20x1.5	0125 14 00	22	19	11	0.041


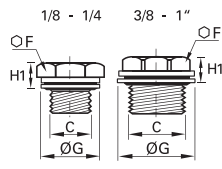

This plug enables unused tubes to be blanked off.
The male thread on the plug has the same pitch as the female thread on the sleeve nut of a standard Parker Legris fitting.
Therefore the plug screwed into the sleeve nut blanks off the tube.
To reopen the passage, simply unscrew the plug and fit the required coupler.
No further treatment of the tube is required.

0220 Hex Head Plug with Captive Sealing Washer, Male BSPP and Metric Thread

	Brass, technical polymer 	C		F	G	H	kg
		M5x0.8	0220 19 00	8	8	5	0.002
		G1/8	0220 10 00	14	14	7.5	0.011
		G1/4	0220 13 00	17	17	7.5	0.019
		G3/8	0220 17 00	17	22	8.5	0.024
		G1/2	0220 21 00	22	27	10	0.040

Thread with pre-assembled washer.
M5: with screwdriver slot for tightening.
Maximum allowable working pressure = 20 bar.
Part number with suffix 99, maximum allowable working pressure = 250 bar, example: 0220 19 00 99.
Conforms to BNA 229 (with the exception of M5 model): BSPP thread, ISO ISO 228-1;
metric thread, ISO NFE 03-054.

0220..39 Hex Head Plug with Bi-Material Seal, Male BSPP Thread

	Brass, zinc-plated steel with NBR seal 	C		F	G	H1	kg
		G1/8	0220 10 00 39	14	14	6.5	0.012
		G1/4	0220 13 00 39	17	17	6.5	0.020
		G3/8	0220 17 00 39	17	22	8	0.025
		G1/2	0220 21 00 39	22	26	9	0.043
		G3/4	0220 27 00 39	22	32	10	0.060
		G1	0220 34 00 39	27	39.5	10.5	0.089

Plug with bi-material seal.
Bi-material washers part number 0139 can be found in Chapter 9.