

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

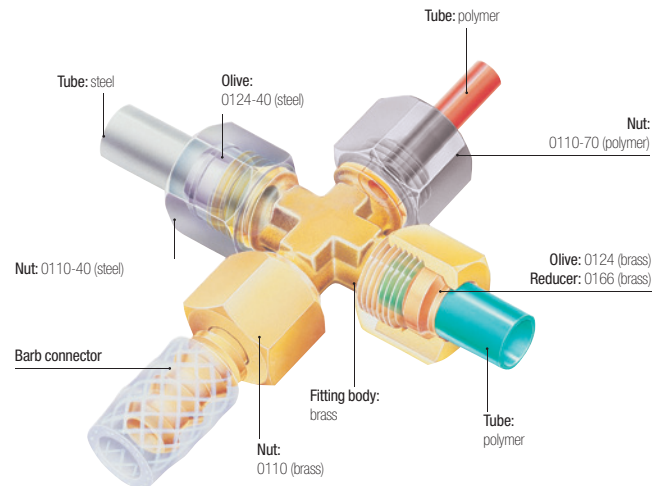
- Pneumatics
- Cooling
- Automotive Process
- Lubrication
- Fluid Transmission
- Packaging
- Industrial Machinery

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

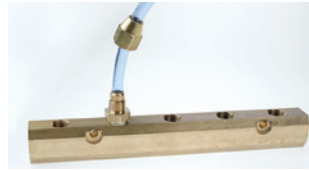


For metal tubing, de-burr the tube prior to connection. Tube bending should be done before connection.



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).

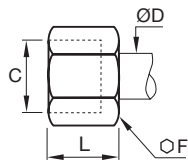


It is recommended to use an insert in order to prevent tube creeping (diameter > 14mm)

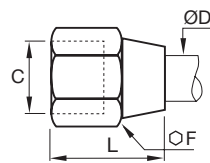
Recommended Nut Tightening Torque

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

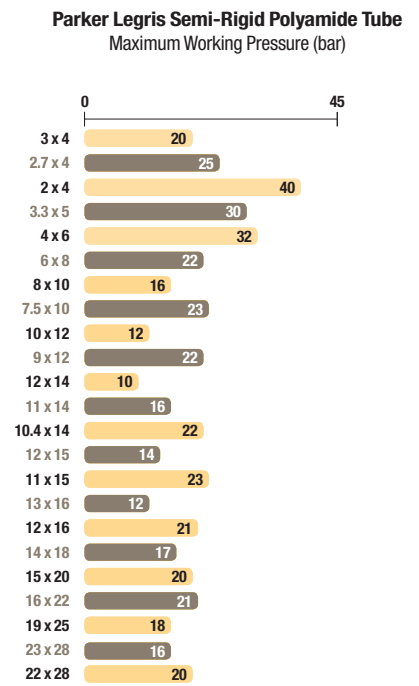
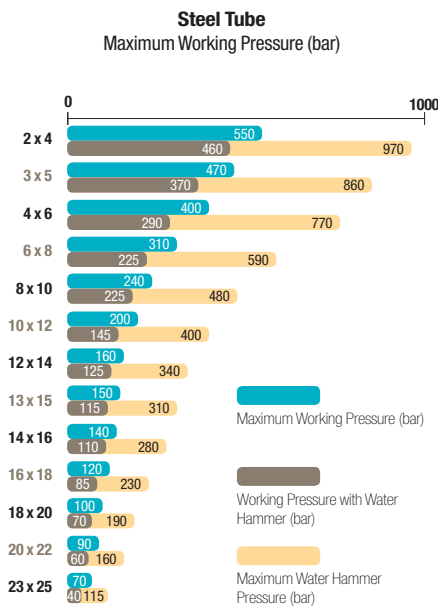
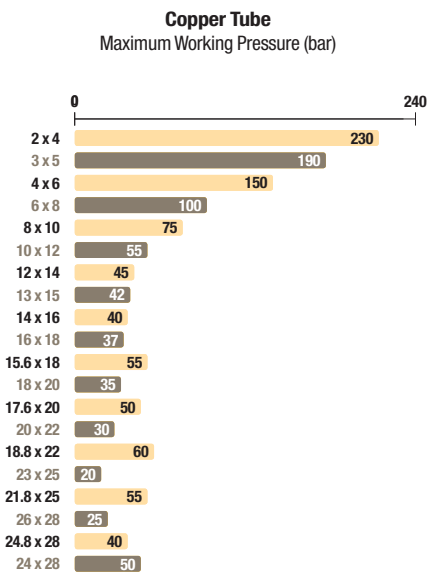
Polyamide tube: semi-rigid
For rigid polyamide tube, multiply the figures in this table by 1.8.

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

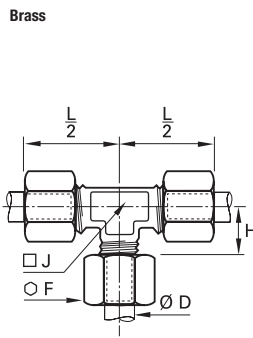
Temperature °C	-40°C / -15°C	-15°C / +30°C	+30°C / +50°C	+50°C / +70°C	+70°C / +100°C
Factor	1.8	1	0.68	0.55	0.31

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.

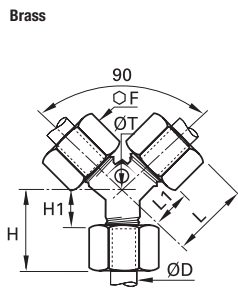
Brass Compression Fittings

0104 Equal Tee



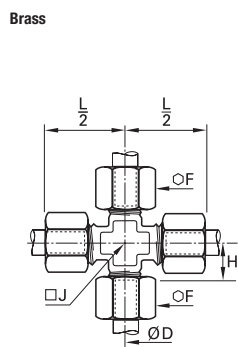
ØD		F	H	J	L/2	kg
4	0104 04 00	10	9.5	8	19	0.028
5	0104 05 00	12	11	8	21	0.036
6	0104 06 00	13	11	8	22	0.040
8	0104 08 00	14	15	10	28	0.055
10	0104 10 00	19	14.5	12	30	0.105
12	0104 12 00	22	15	15	30	0.142
14	0104 14 00	24	18	19	35	0.190
15	0104 15 00	24	18	19	35	0.175
16	0104 16 00	27	21	19	39	0.239
18	0104 18 00	30	21.5	23	41	0.330
20	0104 20 00	32	21.5	23	42	0.330
22	0104 22 00	36	29	27	50	0.518
25	0104 25 00	41	29	27	54	0.630
28	0104 28 00	42	30	32	55	0.660

0142 Equal Y Piece with Mounting Boss



ØD		F	H _{max}	H1	L _{max}	L1	ØT	Kg
4	0142 04 00	10	16.5	7	26.5	17	4.2	0.032
6	0142 06 00	13	19.5	8.5	28	17	4.2	0.049
8	0142 08 00	14	21	8	30	17	6.2	0.061
10	0142 10 00	19	24.5	9	37.5	22	6.2	0.128
12	0142 12 00	22	26	11	38	23	6.2	0.110
14	0142 14 00	24	28	11	41.5	24.5	6.2	0.201
15	0142 15 00	24	28	11	41.5	24.5	6.2	0.204
16	0142 16 00	27	30	12	43	25	6.2	0.252
18	0142 18 00	30	31.5	12	50.5	31	10.2	0.220
25	0142 25 00	41	39	14	59	34	10.2	0.728

0107 Equal Cross



ØD		F	H	J	L/2	Kg
4	0107 04 00	10	9.5	8	19	0.035
5	0107 05 00	12	11	8	21	0.047
6	0107 06 00	13	11	8	22	0.052
8	0107 08 00	14	15	11	28	0.073
10	0107 10 00	19	14.5	14	30	0.142
12	0107 12 00	22	15	15	35	0.096
14	0107 14 00	24	18	20	35	0.246
15	0107 15 00	24	18	20	35	0.227
16	0107 16 00	27	21	20	39	0.312
18	0107 18 00	30	21.5	25	41	0.426
20	0107 20 00	32	21.5	25	42	0.429
22	0107 22 00	36	29	27	50	0.676
25	0107 25 00	41	29	27	50	0.819