

Brass Compression Fitting Range

Brass Fittings

Stud Fittings

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Tube-to-Tube Fittings

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Complementary Fittings

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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

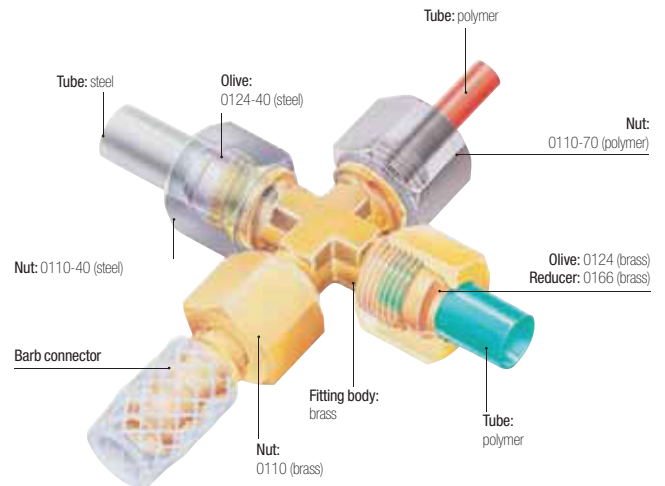
- Pneumatics
- Cooling
- Automotive Process
- Lubrication
- Fluid Transmission
- Packaging
- Industrial Machinery

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).

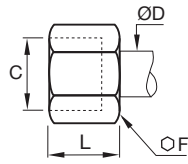


It is recommended to use an insert in order to prevent tube creeping (diameter > 14mm)

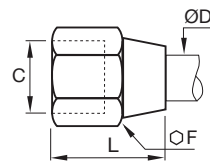
Recommended Nut Tightening Torque

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

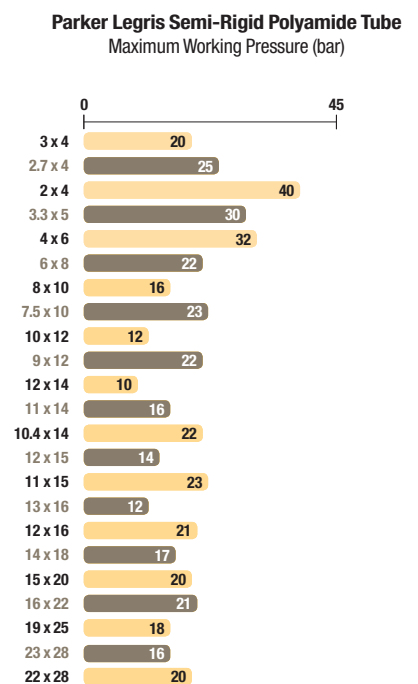
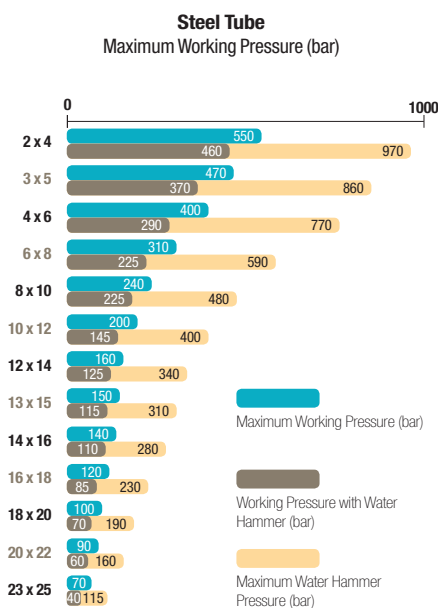
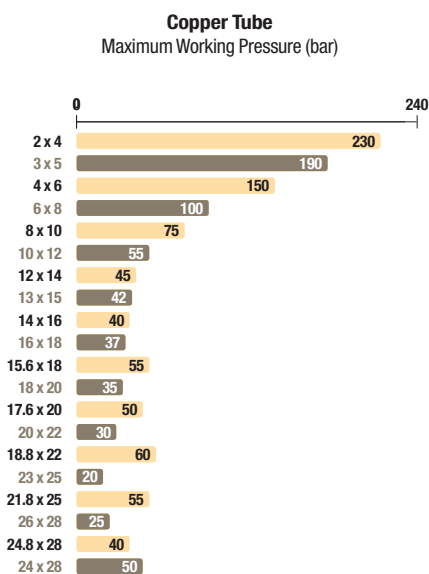
Polyamide tube: semi-rigid
For rigid polyamide tube, multiply the figures in this table by 1.8.

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.

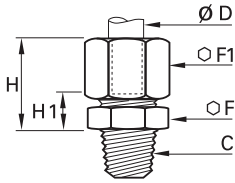
Brass Compression Fittings

0105

Stud Fitting, Male BSPT Thread



Brass



ØD	C		F	F1	H _{max}	H1	kg
4	R1/8	0105 04 10	10	10	17	7	0.012
	R1/8	0105 05 10	11	12	17.5	7.5	0.016
5	R1/4	0105 05 13	14	12	17.5	7.5	0.022
	R1/8	0105 06 10	11	13	18	7.5	0.017
6	R1/4	0105 06 13	14	13	18	7.5	0.024
	R3/8	0105 06 17	17	13	18	8.5	0.031
	R1/8	0105 08 10	13	14	19.5	7	0.020
8	R1/4	0105 08 13	14	14	19.5	7	0.025
	R3/8	0105 08 17	17	14	20.5	8	0.032
10	R1/8	0105 10 10	17	19	24	9	0.043
	R1/4	0105 10 13	17	19	24	9	0.047
	R3/8	0105 10 17	17	19	24	9	0.048
	R1/2	0105 10 21	22	19	25	10	0.067
12	R1/4	0105 12 13	19	22	24	9	0.059
	R3/8	0105 12 17	19	22	24	9	0.060
	R1/2	0105 12 21	22	22	25	10	0.076
14	R1/4	0105 14 13	22	24	25	8	0.068
	R3/8	0105 14 17	22	24	25	8	0.068
	R1/2	0105 14 21	22	24	26	9	0.080
15	R3/4	0105 14 27	27	24	27	10	0.107
	R3/8	0105 15 17	22	24	25	8	0.065
	R1/2	0105 15 21	22	24	26	9	0.076
16	R1/4	0105 16 13	24	27	27	9.5	0.092
	R3/8	0105 16 17	24	27	27	9.5	0.092
	R1/2	0105 16 21	24	27	27	9.5	0.099
	R3/4	0105 16 27	27	27	28	10.5	0.123
18	R1/2	0105 18 21	27	30	30	10.5	0.127
	R3/4	0105 18 27	27	30	30	10.5	0.138
20	R1/2	0105 20 21	30	32	32	11	0.148
	R3/4	0105 20 27	30	32	32	11	0.157
22	R1/2	0105 22 21	32	36	33	11	0.187
	R3/4	0105 22 27	32	36	33	11	0.196
	R1	0105 22 34	36	36	33	11	0.227
25	R3/4	0105 25 27	36	41	36	11	0.261
	R1	0105 25 34	36	41	36	11	0.278
28	R3/4	0105 28 27	41	42	36	11	0.274
	R1	0105 28 34	41	42	36	11	0.283

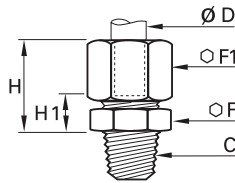
Metric taper threads or Briggs (NPT threads) are available by special order, subject to minimum quantities.

0105

Stud Fitting, Male NPT Thread



Brass



ØD	C		F	F1	H _{max}	H1	kg
6	NPT1/8	0105 06 11	11	13	18	7.5	0.018
	NPT1/4	0105 06 14	14	13	18	7.5	0.027
8	NPT1/8	0105 08 11	13	14	21	7	0.021
	NPT1/4	0105 08 14	14	14	18.5	7	0.026
10	NPT1/4	0105 10 14	17	19	24	9	0.048
	NPT3/8	0105 10 18	17	19	24	9	0.048
	NPT1/2	0105 10 22	22	19	25	10	0.066

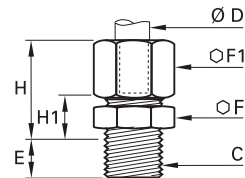
Brass Compression Fittings

0101

Stud Fitting with Captive Sealing Washer, Male BSPP and Metric Thread



Brass, technical polymer



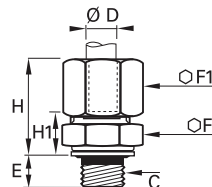
ØD	C		E	F	F1	H _{max}	H1	kg
4	M5x0.8	0101 04 19	5	10	10	16.5	8	0.011
	G1/8	0101 04 10	6.5	13	10	16.5	8	0.016
5	G1/8	0101 05 10	6.5	13	12	17.5	8.5	0.018
	G1/8	0101 06 10	6.5	13	13	18	8.5	0.020
6	G1/4	0101 06 13	8	17	13	18	9.5	0.030
	G1/8	0101 08 10	6.5	13	14	19	8.5	0.021
8	G1/4	0101 08 13	8	17	14	19.5	9	0.032
	G3/8	0101 08 17	11	22	14	20	10.5	0.044
10	G1/4	0101 10 13	8	17	19	24	11	0.049
	G3/8	0101 10 17	11	22	19	24	11.5	0.061
12	G1/4	0101 12 13	8	19	22	24	11	0.062
	G3/8	0101 12 17	11	22	22	24	11.5	0.069
14	G3/8	0101 14 17	11	22	24	25	10.5	0.074
	G1/2	0101 14 21	12	27	24	25	11	0.094
15	G3/8	0101 15 17	11	22	24	25	10.5	0.071
	G1/2	0101 15 21	12	27	24	25	11	0.093
16	G3/8	0101 16 17	11	22	27	27	12	0.092
	G1/2	0101 16 21	12	27	27	27	12.5	0.109
18	G1/2	0101 18 21	12	27	30	29.5	12.5	0.128
	G3/4	0101 18 27	13	32	30	29.5	13	0.152
20	G3/4	0101 20 27	13	32	32	31	13	0.164
	G3/4	0101 22 27	13	32	36	32	13	0.195
22	G1	0101 22 34	15	41	36	31	13.5	0.259
	G3/4	0101 25 27	13	36	41	35.5	13	0.261
25	G1	0101 25 34	15	41	41	35.5	13	0.169
	G1	0101 28 34	15	41	42	35.5	13.5	0.300

With pre-assembled captive sealing washer
Sealing washers 0602 are shown in Chapter 9.

0101..39 Stud Fitting, with Bi-Material Seal, Male BSPP



Brass, zinc-plated steel with NBR seal




ØD	C		E	F	F1	H _{max}	H1	kg
4	G1/8	0101 04 10 39	5.5	13	10	17.5	9	0.016
5	G1/8	0101 05 10 39	5.5	13	12	18.5	9.5	0.019
	G1/8	0101 06 10 39	5.5	13	13	19	9.5	0.020
6	G1/4	0101 06 13 39	7	17	13	19	10.5	0.030
	G1/8	0101 08 10 39	5.5	13	14	20	9.5	0.022
8	G1/4	0101 08 13 39	7	17	14	20.5	10	0.032
	G3/8	0101 08 17 39	9.5	22	14	21.5	12	0.045
10	G1/4	0101 10 13 39	7	17	19	25	12	0.048
	G3/8	0101 10 17 39	9.5	22	19	25.5	13	0.062
12	G1/4	0101 12 13 39	7	19	22	25	12	0.063
	G3/8	0101 12 17 39	9.5	22	22	25	13	0.071
14	G1/2	0101 12 21 39	10.5	27	22	25	13.5	0.091
	G3/8	0101 14 17 39	9.5	22	24	26.5	12	0.075
14	G1/2	0101 14 21 39	10.5	27	24	26.5	12.5	0.095
	G3/8	0101 15 17 39	9.5	22	24	26.5	12	0.073
15	G1/2	0101 15 21 39	10.5	27	24	26.5	12.5	0.095
	G3/8	0101 16 17 39	9.5	22	27	28.5	13.5	0.092
16	G1/2	0101 16 21 39	10.5	27	27	28.5	14	0.111
	G1/2	0101 18 21 39	10.5	27	30	31	14	0.129
18	G3/4	0101 18 27 39	11.5	32	30	31	14.5	0.155
	G3/4	0101 20 27 39	11.5	32	32	32.5	14.5	0.164
22	G3/4	0101 22 27 39	11.5	32	36	32.5	14.5	0.197
	G1	0101 22 34 39	13	41	36	33	15.5	0.259
25	G1	0101 25 34 39	13	41	41	37.5	15.5	0.309
	G1	0101 28 34 39	13	41	42	37.5	15.5	0.301


Thread with bi-material seal
Bi-material sealing washers, part number 0139, can be found in Chapter 9

Brass Compression Fittings

0101 Stud Fitting, Male Metric Thread


ØD	C		E	F	F1	H max	H1	kg
4	M7x1	0101 04 55	6.5	10	10	16.5	7.5	0.012
	M8x1	0101 04 56	6.5	11	10	16.5	7.5	0.013
5	M8x1	0101 05 56	6.5	11	12	17.5	8	0.016
	M10x1	0101 05 60	6.5	14	12	17.5	8.5	0.020
6	M10x1	0101 06 60	6.5	14	13	18	8.5	0.021
	M10x1.5	0101 06 62	6.5	14	13	18	8.5	0.021
8	M12x1	0101 08 65	8	17	14	19.5	9	0.029
	M12x1.25	0101 08 66	8	17	14	19.5	9	0.029
	M13x1.25	0101 08 68	8	17	14	19.5	9	0.030
10	M14x1.25	0101 10 70	8	17	19	24	11	0.047
	M14x1.5	0101 10 71	8	17	19	24	11	0.047
	M16x1.25	0101 10 74	9	19	19	24	11	0.051
12	M16x1.5	0101 10 75	9	19	19	24	11	0.051
	M18x1.5	0101 10 78	9	22	19	24	11.5	0.060
	M16x1.25	0101 12 74	9	19	22	24	11	0.061
14	M16x1.5	0101 12 75	9	19	22	24	11	0.061
	M18x1.5	0101 12 78	9	22	22	24	11.5	0.070
	M18x1.5	0101 14 78	9	22	24	25	10.5	0.077
15	M20x1.5	0101 14 80	10	24	24	25	11	0.084
	M18x1.5	0101 15 78	9	22	24	25	10.5	0.071
16	M20x1.5	0101 16 80	10	24	27	27	12.5	0.102
	M22x1.5	0101 16 82	10	27	27	27	12.5	0.111
18	M22x1.5	0101 18 82	10	27	30	29.5	12.5	0.129
	M24x1.5	0101 18 83	11	30	30	29.5	13	0.142

0114 Stud Fitting, Female BSPP Thread

ØD	C		E	F	F1	H max	H1	kg
4	G1/8	0114 04 10	9.5	14	10	26	16.5	0.020
	G1/4	0114 04 13	13.5	17	10	30	20.5	0.030
5	G1/8	0114 05 10	9.5	14	12	28	17	0.023
	G1/4	0114 05 13	13.5	17	12	31	21	0.033
6	G1/8	0114 06 10	9.5	14	13	28	17	0.025
	G1/4	0114 06 13	13.5	17	13	32	21	0.034
8	G3/8	0114 06 17	14	22	13	32	21.5	0.051
	G1/8	0114 08 10	9.5	14	14	29	16.5	0.026
	G1/4	0114 08 13	13.5	17	14	33	20.5	0.036
10	G3/8	0114 08 17	14	22	14	34	21	0.052
	G1/4	0114 10 13	13.5	17	19	37	21.5	0.052
	G1/2	0114 10 21	18.5	27	19	42	26.5	0.099
12	G1/4	0114 12 13	13.5	19	22	36	20.5	0.069
	G3/8	0114 12 17	14	22	22	37	22	0.078
	G1/2	0114 12 21	18.5	27	22	42	26.5	0.109
14	G1/4	0114 14 13	13.5	22	24	36	18.5	0.085
	G3/8	0114 14 17	14	22	24	38	21	0.048
	G1/2	0114 14 21	18.5	27	24	43	25.5	0.113
15	G3/8	0114 15 17	14	22	24	38	21	0.078
	G1/2	0114 15 21	18.5	27	24	43	25.5	0.109
	G1/4	0114 16 13	13.5	24	27	36	18	0.107
16	G3/8	0114 16 17	14	24	27	38	20.5	0.106
	G1/2	0114 16 21	18.5	27	27	44	26	0.127
	G3/8	0114 18 17	14	27	30	39	19.5	0.140
18	G1/2	0114 18 21	18.5	27	30	45	26	0.144
	G3/4	0114 18 27	19.5	32	30	46	27	0.165
	G3/8	0114 20 17	14	30	32	38	18	0.161
20	G1/2	0114 20 21	18.5	30	32	44.5	24	0.173
	G3/4	0114 20 27	19.5	32	32	47	26.5	0.170
22	G3/4	0114 22 27	19.5	32	36	48	26.5	0.204
25	G3/4	0114 25 27	19.5	36	41	50.5	26	0.297


Brass Compression Fittings

0109 Stud Elbow, Male BSPT Thread


ØD	C		F	H	J	L max	L1	kg
4	R1/8	0109 04 10	10	17	8	19	9.5	0.016
	R1/4	0109 04 13	10	20	10	19	11	0.026
5	R1/8	0109 05 10	12	17.5	8	21	11	0.019
	R1/4	0109 05 13	12	21.5	10	22	12	0.028
6	R1/8	0109 06 10	13	18	8	22	11	0.021
	R1/4	0109 06 13	13	21.5	10	22	12	0.031
	R1/8	0109 08 10	14	18.5	10	28	15	0.028
8	R1/4	0109 08 13	14	22	10	28	15	0.033
	R3/8	0109 08 17	14	24	12	28	15	0.044
	R1/4	0109 10 13	19	25	12	30	14.5	0.052
10	R3/8	0109 10 17	19	25.5	12	30	14.5	0.060
	R1/2	0109 10 21	19	32	19	36	21	0.109
	R1/4	0109 12 13	22	26	15	30	15	0.074
12	R3/8	0109 12 17	22	27	15	30	15	0.077
	R1/2	0109 12 21	22	32	19	36	21	0.116
	R3/8	0109 14 17	24	30	19	35	18	0.105
14	R1/2	0109 14 21	24	32	19	35	18	0.112
	R3/8	0109 15 17	24	30	19	35	18	0.099
	R1/2	0109 15 21	24	32	19	35	18	0.106
16	R3/8	0109 16 17	27	30	19	39	21	0.120
	R1/2	0109 16 21	27	33.5	19	39	21	0.130
	R3/4	0109 16 27	27	36.5	23	41	23	0.189
18	R1/2	0109 18 21	30	35.5	23	41	21.5	0.182
	R3/4	0109 18 27	30	36.5	23	41	21.5	0.199
	R1/2	0109 20 21	32	36.5	23	42	21.5	0.181
20	R3/4	0109 20 27	32	38	23	42	21.5	0.200
	R3/4	0109 22 27	36	40	27	50	30	0.288
	R1	0109 22 34	36	44	27	50	30	0.342
25	R3/4	0109 25 27	41	43	27	54	30	0.325
	R1	0109 25 34	41	44	27	54	30	0.367
	R3/4	0109 28 27	42	46	32	54	30	0.402
28	R1	0109 28 34	42	48	32	54	30	0.384

Metric taper threads or Briggs (NPT threads) are available by special order, subject to minimum quantities.

0109 Stud Elbow, Male NPT Thread

ØD	C		F	H	J	L max	L1	kg
6	NPT1/8	0109 06 11	13	18	8	22	11	0.021
	NPT1/4	0109 06 14	13	21.5	10	22	12	0.030
8	NPT1/8	0109 08 11	14	18.5	10	28	15	0.028
	NPT1/4	0109 08 14	14	22	10	28	15	0.033
10	NPT1/4	0109 10 14	19	25	12	30	14.5	0.053

0199 Stud Orientable Elbow, Male BSPP Thread


ØD	C		F	F1	H	H1	H1 max	J	L max	L1	kg
4	G1/8	0199 04 10	14	10	23	16	17	8	19	9.5	0.023
	G1/4	0199 04 13	19	10	30.5	22	23.5	10	19	11	0.043
6	G1/8	0199 06 10	14	13	23	16	17	8	22	11	0.027
	G1/4	0199 06 13	19	13	30.5	22	23.5	10	22	12	0.047
8	G1/8	0199 08 10	14	14	24	17	18	10	28	15	0.033
	G1/4	0199 08 13	19	14	30.5	22	23.5	10	28	15	0.051
	G3/8	0199 08 17	22	14	33.5	24	25.5	12	28	15	0.065
10	G1/4	0199 10 13	19	19	31	22.5	24	12	30	14.5	0.068
	G3/8	0199 10 17	22	19	33.5	24	25.5	12	30	14.5	0.079
	G1/2	0199 10 21	27	19	40	29.5	31	19	37	22	0.138
14	G3/8	0199 14 17	22	24	35.5	26	27.5	19	35	18	0.119
	G1/2	0199 14 21	27	24	40	29.5	31	19	35	18	0.141
18	G1/2	0199 18 21	27	30	40	29	30.5	23	41	21.5	0.187
	G3/4	0199 18 27	32	30	43.5	32	33.5	23	41	21.5	0.222
	G3/4	0199 22 27	32	36	45.5	34	36	32	51	31	0.382
22	G1	0199 22 34	41	36	54	40.5	43	32	51	31	0.408
	G1	0199 28 34	41	42	54	40.5	43	32	54	30	0.420

The body will orientate for positioning purposes

Brass Compression Fittings

0108


Stud Branch Tee, Male BSPT Thread

Brass		ØD	C		F	H	J	L1	L/2	kg
4	R1/8	0108 04 10	10	17	8	9.5	19	0.025		
	R1/8	0108 05 10	12	17.5	8	11	21	0.017		
6	R1/8	0108 06 10	13	18	8	11	22	0.032		
	R1/4	0108 06 13	13	21.5	10	16	27	0.047		
8	R1/8	0108 08 10	14	18.5	10	15	28	0.045		
	R1/4	0108 08 13	14	22	10	15	28	0.050		
10	R1/4	0108 10 13	19	25	12	14.5	30	0.084		
	R3/8	0108 10 17	19	25.5	12	14.5	30	0.090		
12	R1/4	0108 12 13	22	26	15	15	30	0.116		
	R3/8	0108 12 17	22	27	15	15	30	0.117		
14	R3/8	0108 14 17	24	30	19	18	35	0.153		
	R1/2	0108 14 21	24	32	19	18	35	0.168		
15	R3/8	0108 15 17	24	30	19	18	35	0.145		
	R1/2	0108 15 21	24	32	19	18	35	0.155		
16	R3/8	0108 16 17	27	30	19	21	39	0.190		
	R1/2	0108 16 21	27	33.5	19	21	39	0.203		
18	R1/2	0108 18 21	30	35.5	23	21.5	41	0.265		
	R3/4	0108 18 27	30	36.5	23	21.5	41	0.292		
20	R3/4	0108 20 27	32	38	23	21.5	42	0.298		
	R3/4	0108 22 27	36	40	27	29	50	0.435		
22	R1	0108 22 34	36	44	27	29	50	0.466		

Metric taper threads or Briggs (NPT threads) are available by special order, subject to minimum quantities.

0103

Stud Run Tee, Male BSPT Thread

Brass		ØD	C		F	H _{max}	H1	H2	J	kg
4	R1/8	0103 04 10	10	19	17	9.5	8	0.025		
	R1/8	0103 05 10	12	21	17.5	11	8	0.030		
6	R1/8	0103 06 10	13	22	18	11	8	0.033		
	R1/4	0103 06 13	13	27	21.5	16	10	0.048		
8	R1/8	0103 08 10	14	28	18.5	15	10	0.045		
	R1/4	0103 08 13	14	28	22	15	10	0.050		
10	R3/8	0103 08 17	14	28	24	15	12	0.061		
	R1/4	0103 10 13	19	30	25	14.5	12	0.084		
12	R3/8	0103 10 17	19	30	25.5	14.5	12	0.092		
	R1/4	0103 12 13	22	30	26	15	15	0.114		
14	R3/8	0103 12 17	22	30	27	15	15	0.120		
	R3/8	0103 14 17	24	35	30	18	19	0.161		
15	R1/2	0103 14 21	24	35	32	18	19	0.169		
	R3/8	0103 15 17	24	35	30	18	19	0.148		
16	R1/2	0103 15 21	24	35	32	18	19	0.158		
	R3/8	0103 16 17	27	39	30	21	19	0.192		
18	R1/2	0103 16 21	27	39	33.5	21	19	0.199		
	R1/2	0103 18 21	30	41	35.5	21.5	23	0.269		
20	R3/4	0103 18 27	30	41	36.5	21.5	23	0.282		
	R3/4	0103 20 27	32	42	38	21.5	23	0.298		
22	R3/4	0103 22 27	36	50	40	29	27	0.435		

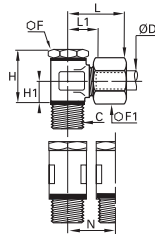
Metric taper threads or Briggs (NPT threads) are available by special order, subject to minimum quantities.

Brass Compression Fittings

0118 Single Banjo, with Captive Sealing Washer, Male BSPP Thread



Brass, technical polymer



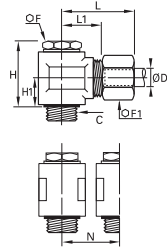
ØD	C		F	F1	H	H1	L _{max}	L1	N	kg
4	G1/8	0118 04 10	14	10	24	9.5	24	14.5	17.5	0.038
	G1/8	0118 05 10	14	12	24	9.5	25	14.5	17.5	0.041
5	G1/4	0118 05 13	17	12	25	10	26	16	21	0.058
	G1/8	0118 06 10	14	13	24	9.5	25	14.5	17.5	0.041
6	G1/4	0118 06 13	17	13	25	10	26	16	21	0.056
	G1/8	0118 08 10	14	14	24	9.5	28	15.5	17.5	0.054
8	G1/4	0118 08 13	17	14	25	10	28	15.5	21	0.057
	G3/8	0118 08 17	22	14	32	13	30	18	26.5	0.111
10	G1/4	0118 10 13	17	19	31	13	34	19	23	0.120
	G3/8	0118 10 17	22	19	32	13	34	19	26.5	0.129
12	G1/4	0118 12 13	17	22	34	14.5	34	19	23	0.126
	G3/8	0118 12 17	22	22	35	14.5	34	19	26.5	0.133
14	G1/4	0118 14 13	17	24	37	16	37	20.5	28	0.154
	G3/8	0118 14 17	22	24	38	16	37	20.5	28	0.195
15	G1/2	0118 14 21	27	24	40	16	38	20.5	32.5	0.208
	G3/8	0118 15 17	22	24	38	16	37	20.5	28	0.190
16	G1/2	0118 15 21	27	24	40	16	38	20.5	32.5	0.198
	G1/2	0118 16 21	27	27	42	16	38	21	32.5	0.221
18	G1/2	0118 18 21	27	30	46	19.5	43	24.5	36	0.366
	G3/4	0118 20 27	32	32	49	20	44	24.5	39	0.403
22	G3/4	0118 22 27	32	36	53	22	45	24.5	39	0.459

With pre-assembled captive sealing washer
Sealing washers 0602 can be found in Chapter 9.

0118..39 Single Banjo with Bi-Material Seal, Male BSPP Thread



Brass, zinc-plated steel with NBR seal



ØD	C		F	F1	H	H1	L _{max}	L1	N	kg
4	G1/8	0118 04 10 39	14	10	23	9.5	24	14.5	17.5	0.038
	G1/8	0118 05 10 39	14	12	23	9.5	25	14.5	17.5	0.041
5	G1/4	0118 05 13 39	17	12	24	10	26	16	21	0.064
	G1/8	0118 06 10 39	14	13	23	9.5	25	14.5	17.5	0.042
6	G1/4	0118 06 13 39	17	13	24	10	26	16	21	0.057
	G1/8	0118 08 10 39	14	14	23	9.5	28	15.5	17.5	0.055
8	G1/4	0118 08 13 39	17	14	24	10	28	15.5	21	0.058
	G3/8	0118 08 17 39	22	14	31.5	13.5	30	18	26.5	0.113
10	G1/4	0118 10 13 39	17	19	30	13	34	19	23	0.118
	G3/8	0118 10 17 39	22	19	31.5	13.5	34	19	26.5	0.128
12	G1/4	0118 12 13 39	17	22	33	14.5	34	19	23	0.128
	G3/8	0118 12 17 39	22	22	34.5	15	34	19	26.5	0.140
14	G1/4	0118 14 13 39	17	24	36	16	37	20.5	28	0.189
	G3/8	0118 14 17 39	22	24	37.5	16.5	37	20.5	28	0.198
15	G1/2	0118 14 21 39	27	24	39	16.5	38	20.5	32.5	0.205
	G3/8	0118 15 17 39	22	24	37.5	16.5	37	20.5	28	0.389
16	G1/2	0118 15 21 39	27	24	40	16.5	38	20.5	32.5	0.202
	G1/2	0118 16 21 39	27	27	40	16.5	38	21	32.5	0.225
18	G1/2	0118 18 21 39	27	30	47	20	43	24.5	36	0.369
	G3/4	0118 20 27 39	32	32	50	20.5	44	24.5	39	0.394
22	G3/4	0118 22 27 39	32	36	54	22.5	45	24.5	39	0.462

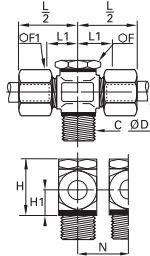
With bi-material sealing washer
Bi-material sealing washers, part number 0139, can be found in Chapter 9.

Brass Compression Fittings

0119 Double Banjo with Captive Sealing Washer, Male BSPP Thread



Brass, technical polymer



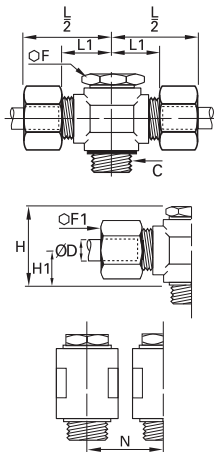
ØD	C		F	F1	H	H1	L1	L/2	N	kg
4	G1/8	0119 04 10	14	10	24	9.5	14.5	24	17.5	0.049
6	G1/8	0119 06 10	14	13	24	9.5	14.5	25	17.5	0.056
	G1/4	0119 06 13	17	13	25	10	16	26.5	21	0.038
8	G1/8	0119 08 10	14	14	24	9.5	15.5	28	17.5	0.069
	G1/4	0119 08 13	17	14	25	10	15.5	28	21	0.074
10	G3/8	0119 08 17	22	14	32	13	18	30.5	26.5	0.140
	G1/4	0119 10 13	17	19	31	13	19	34	23	0.156
12	G3/8	0119 10 17	22	19	32	13	19	34	26.5	0.165
	G1/4	0119 12 13	17	22	34	14.5	19	34	23	0.180
14	G3/8	0119 12 17	22	22	35	14.5	19	34	26.5	0.182
	G1/4	0119 14 13	17	24	37	16	20.5	37.5	28	0.246
14	G3/8	0119 14 17	22	24	38	16	20.5	37.5	28	0.247
	G1/2	0119 14 21	27	24	40	16	20.5	38	32.5	0.219

Thread with pre-assembled washer
Sealing washers 0602 can be found in Chapter 9.

0119..39 Double Banjo with Bi-Material Seal, Male BSPP Thread



Brass, zinc-plated steel with NBR seal



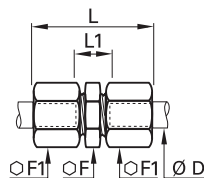
ØD	C		F	F1	H	H1	L1	L/2	N	kg
4	G1/8	0119 04 10 39	14	10	23	9.5	14.5	24	17.5	0.050
5	G1/8	0119 05 10 39	14	12	23	9.5	14.5	25	17.5	0.049
	G1/4	0119 05 13 39	17	12	24	10	126	26	21	0.072
6	G1/8	0119 06 10 39	14	13	23	9.5	14.5	25	17.5	0.056
	G1/4	0119 06 13 39	17	13	24	10	16	26	21	0.071
8	G1/8	0119 08 10 39	14	14	23	9.5	15.5	28	17.5	0.072
	G1/4	0119 08 13 39	17	14	24	10	15.5	28	21	0.080
10	G3/8	0119 08 17 39	22	14	31.5	13.5	18	30	26.5	0.118
	G1/4	0119 10 13 39	17	19	30	13	19	34	23	0.156
12	G3/8	0119 10 17 39	22	19	31.5	13.5	19	34	26.5	0.167
	G1/4	0119 12 13 39	17	22	33	14.5	19	34	23	0.180
14	G3/8	0119 12 17 39	22	22	34.5	15	19	34	26.5	0.183
	G1/4	0119 14 13 39	17	24	36	16	20.5	37	28	0.248
14	G3/8	0119 14 17 39	22	24	37.5	16.5	20.5	37	28	0.247
	G1/2	0119 14 21 39	27	24	39	16.5	20.5	38	32.5	0.262
15	G3/8	0119 15 17 39	22	24	37.5	16.5	20.5	37	28	0.246
	G1/2	0119 15 21 39	27	24	40	16.5	20.5	38	32.5	0.251
18	G1/2	0119 18 21 39	27	30	47	20	24.5	43	36	0.469
20	G3/4	0119 20 27 39	32	32	50	20.5	24.5	44	39	0.638
22	G3/4	0119 22 27 39	32	36	54	22.5	24.5	45	39	0.610

Thread with pre-assembled washer
Bi-material sealing washers, part number 0139, can be found in Chapter 9.

0106 Equal Tube-to-Tube Connector



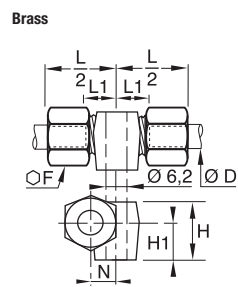
Brass



ØD		F	F1	L _{max}	L1	kg
4	0106 04 00	10	10	28	10	0.016
5	0106 05 00	11	12	31	11	0.023
6	0106 06 00	11	13	32	11	0.026
8	0106 08 00	13	14	36	10	0.031
10	0106 10 00	17	19	42	13	0.070
12	0106 12 00	19	22	42	13	0.092
14	0106 14 00	22	24	45	11	0.104
15	0106 15 00	22	24	45	11	0.097
16	0106 16 00	24	27	48	13	0.141
18	0106 18 00	27	30	53	14	0.186
20	0106 20 00	30	32	56	14	0.211
22	0106 22 00	32	36	60	14	0.283
25	0106 25 00	36	41	64	14	0.396
28	0106 28 00	41	42	64	14	0.399

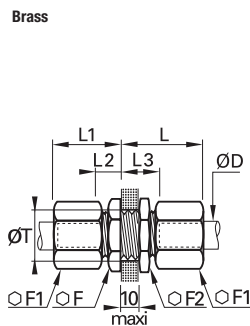
Brass Compression Fittings

0113 Equal Tube-to-Tube Connector with Mounting Boss



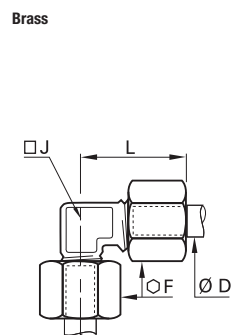
ØD		F	H	H1	L1	L/2	N	kg
4	0113 04 00	10	10.5	7	9.5	19	6	0.022
6	0113 06 00	13	13	9	10	20.5	7	0.033
8	0113 08 00	14	14.5	9.5	11	23.5	8	0.041
10	0113 10 00	19	19.5	12.5	11	26	9	0.082
12	0113 12 00	22	22	14	12	26.5	11	0.107
14	0113 14 00	24	25	16	11	28	12	0.122

0116 Equal Bulkhead Connector



ØD		F	F1	F2	L max	L1 max	L2	L3	ØT min	kg
4	0116 04 00	10	10	13	27	17	7	17	8.3	0.024
5	0116 05 00	13	12	14	28	18	7.5	17.5	10.3	0.035
6	0116 06 00	13	13	14	28	19	7.5	17.5	10.3	0.037
8	0116 08 00	14	14	17	29	20	7	17	12.3	0.045
10	0116 10 00	19	19	22	33	25	9	19	16.5	0.101
12	0116 12 00	22	22	22	33	25	9	19	18.5	0.121
14	0116 14 00	24	24	24	35	25	8	18	20.5	0.145
15	0116 15 00	24	24	24	35	25	8	18	20.5	0.134
16	0116 16 00	27	27	27	36	28	9.5	19.5	22.5	0.189
18	0116 18 00	27	30	30	40	30	10.5	20.5	24.5	0.237
20	0116 20 00	32	30	32	41	31	11	21	27.5	0.274
22	0116 22 00	36	36	36	42	32	11	21	30.5	0.372
25	0116 25 00	36	41	38	46	36	11	21	33.5	0.469

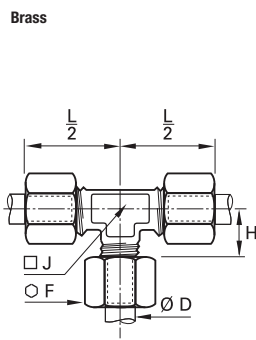
0102 Equal Elbow



ØD		F	J	L max	kg
4	0102 04 00	10	5	19	0.016
5	0102 05 00	12	8	21	0.024
6	0102 06 00	13	8	22	0.027
8	0102 08 00	14	10	28	0.038
10	0102 10 00	19	12	30	0.073
12	0102 12 00	22	15	30	0.098
14	0102 14 00	24	19	35	0.133
15	0102 15 00	24	19	35	0.122
16	0102 16 00	27	19	39	0.164
18	0102 18 00	30	23	41	0.231
20	0102 20 00	32	23	42	0.233
22	0102 22 00	36	27	50	0.371
25	0102 25 00	41	27	54	0.446
28	0102 28 00	42	32	54.5	0.478

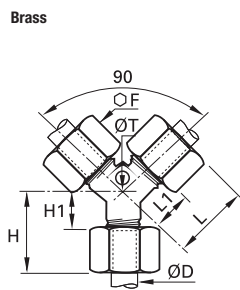
Brass Compression Fittings

0104 Equal Tee



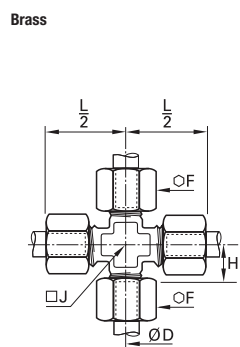
ØD		F	H	J	L/2	kg
4	0104 04 00	10	9.5	8	19	0.028
5	0104 05 00	12	11	8	21	0.036
6	0104 06 00	13	11	8	22	0.040
8	0104 08 00	14	15	10	28	0.055
10	0104 10 00	19	14.5	12	30	0.105
12	0104 12 00	22	15	15	30	0.142
14	0104 14 00	24	18	19	35	0.190
15	0104 15 00	24	18	19	35	0.175
16	0104 16 00	27	21	19	39	0.239
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

Complementary Brass Fittings

Reducers, Olives and Nuts

This innovative reducer system, using a full range of nuts and olives, enables **different diameters** of steel, copper, brass or polymer tubes to be fitted onto **a single Parker Legris compression fitting**.

Product Advantages

Efficient Solution

Reduces envelope dimensions
 Quick and easy to assemble, whatever the diameters and tube material
 Improved stock management
 Silicone-free

Multiple Combinations

A single connector for up to 4 different tube materials and sizes
 Example:

- polymer tube 4 mm O.D.
- copper tube 8 mm O.D.
- brass tube 12 mm O.D.
- braided PVC hose 12 mm I.D.

 A full range of olives and nuts to optimise all assembly operations



Applications

Pneumatics
 Cooling
 Automotive Process
 Lubrication
 Fluid Transmission
 Packaging
 Industrial Machinery

Regulations

DI: 97/23/EC (PED)
 RG: 1907/2006 (REACH)
 DI: 2002/95/EC (RoHS)
 DI: 94/9/EC (ATEX)

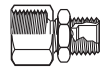
Reducer Assembly Procedure

Operation	Assembly Sequence	Assembled Fitting
<p>1 Assemble the reducer Place the reducer in the fitting body.</p>	<p>1</p>	
<p>2 Assemble the nut and olive Place the nut and then the olive onto the tube.</p>	<p>2</p>	
<p>3 Assemble the nut Push the tubing into the fitting until it butts against the tube reducer. Tighten the nut to the recommended torque (see opposite page).</p>	<p>3</p>	

Complementary Brass Fittings

Assembly Configuration

The table and information given below illustrate the large number of options available with Parker Legris brass compression fittings. To these must be added the advantages specific to the original Parker Legris reducer shown on the previous page.



Brass Body

0110 Brass			0110..60 Brass		0110..40 Steel		0110..70* Polymer	
	0124 Brass	0111 BNA** Brass	0124 Brass	0111 BNA** Brass	0124...40 Steel			
No olive required to assemble the plug							No olive required to assemble the tube	
Brass plug: 0126	Copper, cold-rolled brass, polymer tube and barb connectors 0122 and 0165	Coiled annealed copper tube	Cold-rolled copper tube for vibration and side loading, etc.	Coiled annealed copper tube for vibration and side loading, etc.	Steel or copper tube: low/medium hydraulic pressure, lubricate before assembly		Polymer tube	

*Assembly specifications for nut-olive 0110 ..70

This part functions as both olive and nut for flexible polymer tube assemblies:

1. Hand tighten the polymer nut-olive a few turns onto the body of the fitting; the knurling makes this easier.
2. Then introduce the polymer tube and push home into the body of the fitting.
3. Continue manually tightening the polymer nut-olive.
4. Finish tightening using a spanner until the nut body disengages and turns freely, which acts as a torque limiter.

N.B.: To avoid damaging the threads, do not insert the tube before hand tightening the nut-olive into the body of the fitting.

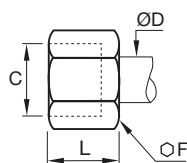
**Bureau de Normalisation de l'Automobile (French Automotive Bureau of Standards)

Recommended Tightening Torque

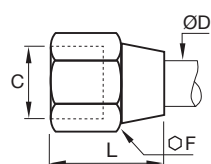
Tightening torque in daN.m =

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)	ØF 0110	ØF 0110..60	max. daN.m copper or brass	ØF 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		

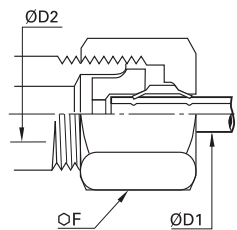
Complementary Brass Compression Fittings


0166

3-Piece Reducer



Brass



	ØD1	ØD2		F	kg
4	5	0166 04 05		13	0.011
	6	0166 04 06		13	0.011
	8	0166 04 08		14	0.012
	10	0166 04 10		19	0.031
	12	0166 04 12		22	0.044
	14	0166 04 14		24	0.054
5	15	0166 04 15		24	0.056
	6	0166 05 06		13	0.010
	8	0166 05 08		14	0.012
	10	0166 05 10		19	0.030
	12	0166 05 12		22	0.044
	14	0166 05 14		24	0.053
6	16	0166 05 16		27	0.078
	8	0166 06 08		14	0.012
	10	0166 06 10		19	0.030
	12	0166 06 12		22	0.043
	14	0166 06 14		24	0.052
	15	0166 06 15		24	0.054
8	16	0166 06 16		27	0.077
	10	0166 08 10		19	0.027
	12	0166 08 12		22	0.040
	14	0166 08 14		24	0.051
	15	0166 08 15		24	0.053
	16	0166 08 16		27	0.076
10	18	0166 08 18		30	0.100
	12	0166 10 12		22	0.037
	14	0166 10 14		24	0.045
	15	0166 10 15		24	0.047
	16	0166 10 16		27	0.068
	18	0166 10 18		30	0.095
12	20	0166 10 20		32	0.107
	22	0166 10 22		36	0.144
	25	0166 10 25		41	0.209
	14	0166 12 14		24	0.043
	15	0166 12 15		24	0.043
	16	0166 12 16		27	0.066
14	18	0166 12 18		30	0.092
	20	0166 12 20		32	0.102
	22	0166 12 22		36	0.140
	25	0166 12 25		41	0.200
	16	0166 14 16		27	0.060
	18	0166 14 18		30	0.084
15	20	0166 14 20		32	0.095
	22	0166 14 22		36	0.133
	25	0166 14 25		41	0.189
	18	0166 15 18		30	0.081
16	22	0166 15 22		36	0.130
	18	0166 16 18		30	0.078
	20	0166 16 20		32	0.088
	22	0166 16 22		36	0.126
18	25	0166 16 25		41	0.185
	20	0166 18 20		32	0.082
	22	0166 18 22		36	0.118
	25	0166 18 25		41	0.180
20	28	0166 18 28		42	0.176
	20	0166 20 25		41	0.168
	22	0166 22 28		42	0.168

ØD1: tube to be fitted


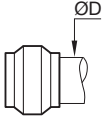

ØD2: for an x mm Ø fitting

Each of the above part numbers comprises:


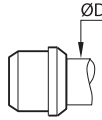

- a reduction piece
- an olive, PN 0124
- a sleeve nut

Complementary Brass Compression Fittings


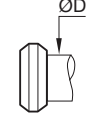

0124 Brass Olive

	Brass		ØD		kg
			4	0124 04 00	0.001
			5	0124 05 00	0.001
			6	0124 06 00	0.001
			8	0124 08 00	0.001
			10	0124 10 00	0.003
			12	0124 12 00	0.004
			14	0124 14 00	0.005
			15	0124 15 00	0.004
			16	0124 16 00	0.006
			18	0124 18 00	0.007
			20	0124 20 00	0.009
			22	0124 22 00	0.012
			25	0124 25 00	0.017
			28	0124 28 00	0.017

0124..40 Steel Olive

	Zinc-plated steel		ØD		kg
			4	0124 04 00 40	0.001
			6	0124 06 00 40	0.001
			8	0124 08 00 40	0.001
			10	0124 10 00 40	0.003
			12	0124 12 00 40	0.003
			14	0124 14 00 40	0.005
			15	0124 15 00 40	0.004
			16	0124 16 00 40	0.006
			18	0124 18 00 40	0.007
			20	0124 20 00 40	0.007
			22	0124 22 00 40	0.010
			25	0124 25 00 40	0.014


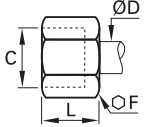

0111 BNA* Brass Olive

	Brass		ØD		kg
			4	0111 04 00	0.001
			5	0111 05 00	0.001
			6	0111 06 00	0.001
			8	0111 08 00	0.001
			10	0111 10 00	0.002
			12	0111 12 00	0.002
			14	0111 14 00	0.003
			15	0111 15 00	0.003
			16	0111 16 00	0.003


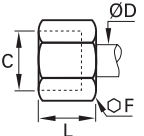

*BNA: Bureau de Normalisation de l'Automobile (standards organization in the field of Automotive Process)

Complementary Brass Compression Fittings


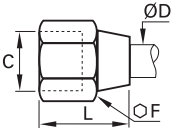

0110 Brass Nut

	Brass		ØD	C		F	L	kg
			4	M8x1	0110 04 00	10	11	0.005
			5	M10x1	0110 05 00	12	11	0.006
			6	M10x1	0110 06 00	13	11	0.008
			8	M12x1	0110 08 00	14	13	0.008
			10	M16x1.5	0110 10 00	19	15	0.019
			12	M18x1.5	0110 12 00	22	15	0.026
			14	M20x1.5	0110 14 00	24	15	0.029
			15	M20x1.5	0110 15 00	24	15	0.028
			16	M22x1.5	0110 16 00	27	17	0.042
			18	M24x1.5	0110 18 00	30	18	0.057
			20	M27x1.5	0110 20 00	32	18	0.057
			22	M30x1.5	0110 22 00	36	19	0.078
			25	M33x1.5	0110 25 00	41	21	0.121
			28	M36x1.5	0110 28 00	42	21	0.110


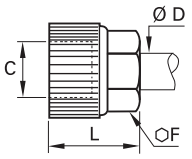

0110..40 Steel Nut

	Zinc-plated steel		ØD	C		F	L	kg
			4	M8x1	0110 04 00 40	10	11	0.004
			5	M10x1	0110 05 00 40	12	11.5	0.005
			6	M10x1	0110 06 00 40	13	12	0.008
			8	M12x1	0110 08 00 40	14	13.5	0.008
			10	M16x1.5	0110 10 00 40	19	16	0.018
			12	M18x1.5	0110 12 00 40	22	16.5	0.027
			14	M20x1.5	0110 14 00 40	24	17	0.030
			15	M20x1.5	0110 15 00 40	24	17	0.029
			16	M22x1.5	0110 16 00 40	27	18	0.042
			18	M24x1.5	0110 18 00 40	30	19	0.056
			20	M27x1.5	0110 20 00 40	32	20.5	0.061
			22	M30x1.5	0110 22 00 40	36	21.5	0.085

0110..60 Brass Long Nut

	Brass		ØD	C		F	L	kg
			4	M8x1	0110 04 00 60	11	14.5	0.007
			5	M10x1	0110 05 00 60	13	17	0.008
			6	M10x1	0110 06 00 60	13	17.5	0.011
			8	M12x1	0110 08 00 60	16	20	0.019
			10	M16x1.5	0110 10 00 60	20	23	0.032
			12	M18x1.5	0110 12 00 60	22	25	0.039
			14	M20x1.5	0110 14 00 60	24	30	0.051
			15	M20x1.5	0110 15 00 60	24	30	0.049
			16	M22x1.5	0110 16 00 60	27	32	0.070
			18	M24x1.5	0110 18 00 60	30	35	0.098
			20	M27x1.5	0110 20 00 60	32	35	0.102
			22	M30x1.5	0110 22 00 60	36	36	0.129

0110..70 Technical Polymer Nut-Olive

	Technical polymer		ØD	C		F	L	kg
			4	M8x1	0110 04 00 70	8	13	0.008
			6	M10x1	0110 06 00 70	11	15	0.002
			8	M12x1	0110 08 00 70	13	16	0.002
			10	M16x1.5	0110 10 00 70	17	19	0.004
			12	M18x1.5	0110 12 00 70	19	19	0.005
			14	M20x1.5	0110 14 00 70	22	20	0.005
			16	M22x1.5	0110 16 00 70	24	21	0.008

NB: polymer nut-olives should not be used on metal tubing.