PRODUCTS OFFER

COMPRESSION FITTINGS LEGRIS	Fluids	Materials	Maximum operating pressure (bar)	Temperature		PAGE
				Min.	Max.	
Brass compression fittings 	Compressed air, industrial water	Brass	550	-60°C	+250°C	**102**
Stainless steel compression fittings 	Compressed air, treated water	Stainless steel 316L	400	-60°C	+250°C	**112**

HOW TO CHOOSE YOUR COMPRESSION FITTING?

The choice depends mainly on your working environment and the tube to be connected.

Brass compression fittings are designed for standard environments with the following metal tubes:

- **Copper tube:** cold-drawn hardened copper in straight bars or annealed copper tube in coils.
- **Steel circuit tube:** cold-drawn, seamless, white-annealed, straight-bar "thin" tube.

External diameter from 6 to 16 mm (maximum thickness 1 mm)
External diameter > 16 mm (maximum thickness 1.5 mm)

Stainless steel compression fittings are ideal for use in aggressive environments with stainless steel tubes:

- **Thin, straight, cold-drawn, seamless, hyper-hardened, pickled and passivated tube.**

External diameter from 6 to 16 mm (maximum thickness 1 mm ± 0.1 mm);

- **Annealed tube in coils:** reduce the operating pressure by 35%.

In environments with strong vibrations, we recommend using our compression fittings only with straight metal tubes.

What type of fluid do you wish to convey?

Parker offers ranges dedicated to **compressed air and neutral gases.**

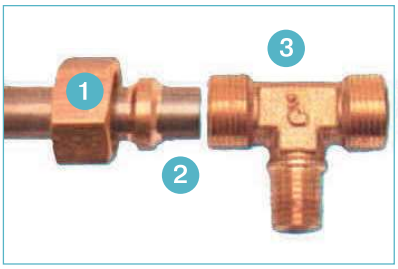
Parker presents ranges specifically designed for **water**, including:

- *Industrial water (tap water),*
- *Treated water (deionised, pure and demineralised)*

Vocabulary related to compression fittings

Compression fittings consist of three main components:

- a compression nut (1),
- a compression ring, also known as an olive (2),
- a body containing the compression seat located inside (3).



INSTALLATION GUIDE

Each Legris compression fitting is supplied with three components: body, olive and compression nut.
Individual components are also available if required. It is recommended to use a new compression olive for each new installation to ensure optimal performance and reliable sealing. The rest of the assembly can be reused after the initial installation.

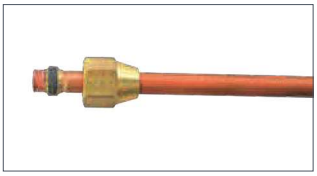
Installation

1- Preparing the tube

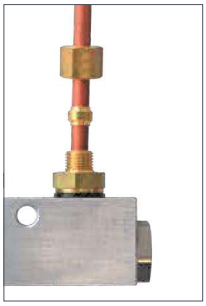


Cut the metal tube Square with the appropriate tool. Deburr the inner and outer edges. When bending the tube is necessary, do so before connecting it.

2- Preparing the connection



Slide the nut onto the tube, lubricate the body thread, the olive and the nut thread to facilitate tightening, then fit the olive onto the end of the tube.



Place the tube against the shoulder of the fitting body and pre-tighten by hand.

3- Final assembly



Screw the nut onto the spanner to crimp the ring onto the tube; the connection is complete when the recommended tightening torque is reached.

Compression fitting identification codes

0101 06 10 39

Item type

01XX: Brass
E.g.
0110: nut
0111 and 0124: olive
0122: sleeve for rubber hose
0165: barb connector for flexible tube
0166: reduction

18XX: stainless steel
E.g.
1810: nut
1820: adapter
1824: olive
1866: reduction

Nominal diameter

04 = 4 mm
06 = 6 mm
...
20 = 20 mm
28 = 28 mm

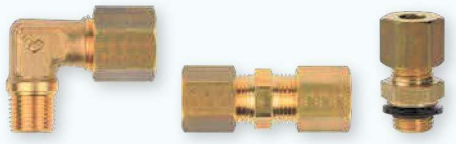
Thread code

1/8 = 10
1/4 = 13
3/8 = 17
1/2 = 21
3/4 = 27

Suffix

39: bonded seal
40: treated steel
60: extended nut

LEGRIS BRASS COMPRESSION FITTINGS



An alternative to push-in fittings, Legris brass compression fittings offer a robust and reliable solution. Their proven metallic sealing performance with a variety of tubes can withstand significant pressure and mechanical stress.

Technical specifications

Fluids: compressed air, industrial water

Operating pressure: 10_{-2} millibar to 550 bar

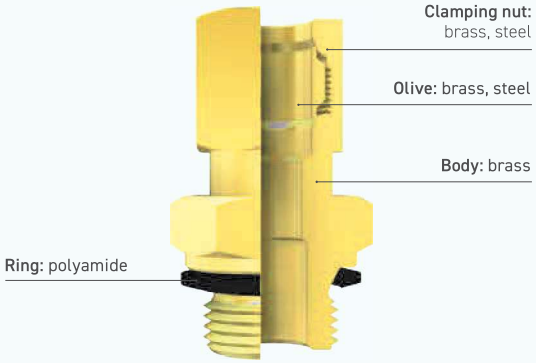
Operating temperature:
-60°C to +250°C without sealing ring, with metal tube
-20°C with polyamide sealing ring

Diameter: 4 to 28 mm

Regulations: RoHS, REACh, PED

Performance depends on the fluid, material and tube used.

Component materials



Benefits

- **Metal sealing** for optimum service life, pressure and temperature ranges.
- **Robust design** to withstand vibrations and shocks in demanding environments.

Recommended applications



High temperature resistance in the glass industry



Modular assembly with copper tubing in a confined environment

Installation guide

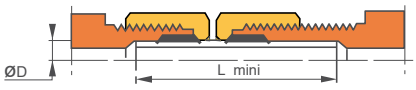
Maximum nominal diameters

The table below shows the maximum nominal diameter based on the installation threads for a few examples of tube diameters.

Tube O.D.	BSPP thread	Max. nominal
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 lengths for assembly

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		



Minimum lenght of tube (L) between 2 fittings.

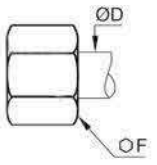
Component selection principle

Body	Brass body 					
Nut	**0110** Brass 			**0110..60** Brass 		**0110..40** Steel 
Olive	No olive required	**0124** brass 	**0111** brass BNA standard* 	**0124** brass 	**0111** brass BNA standard* 	**0124 ... 40** steel 
Tube	Plug **0126** 	Brass tubes, copper, steel, or sockets **0122** and **0165** 	Copper tubes in coils 	Copper tubes 	Copper tubes in coils 	Steel tube or copper tube 
Environment	Standard			Subjected to abnormal lateral impacts		Low and medium pressure hydraulic system. Lubrication required before assembly

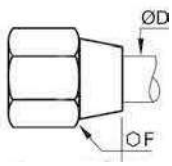
* BNA: Bureau de Normalisation Automobile (Automotive Standardisation Office)

Recommended nut tightening torque

Tightening torque in daN.m = maximum tightening torque for a 0110 nut and a 0124 olive on copper or brass tube and on steel tube.



0110 and 0110..40 nut



0110..60 nut

Ø D tube (mm)	F Size of nut 0110	F Size of nut 0110.. 60	Maximum tightening torque on copper or brass tube in daN.m	F Size of nut 0110 .. 40	Maximum tightening torque on steel tube in daN.m
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		

LEGRIS BRASS COMPRESSION FITTINGS

Recommended configurations for tube-fitting assembly

Type of tube	**Copper tube** "worked" cold drawn and in straight lengths			**Steel circuit tube:** "thin wall" cold drawn, seamless, bright annealed and in straight lengths	
Type of assembly	Assembly made with brass olive and brass nut			Assembly made with universal ring **Legris** treated steel and universal nut treated steel **(series with suffix 40)**	
Common name for the tube	Tube dimensions		Maximum operating pressure of the connection (bar)	Maximum regular operating pressure (bar)	Operating pressure with water hammer (bar)
	Ø ext.	thick.			
2 x 4	4	1	230	550	460
3 x 5	5	1	190	470	370
4 x 6	6	1	150	400	290
6 x 8	8	1	100	310	225
8 x 10	10	1	75	240	185
10 x 12	12	1	55	200	145
12 x 14	14	1	45	160	125
13 x 15	15	1	42	150	115
14 x 16	16	1	40	140	110
16 x 18	18	1	37	120	85
15.6 x 18	18	1.2	55	-	-
18 x 20	20	1	35	100	70
17.6 x 20	20	1.2	50	-	-
20 x 22	22	1	30	90	60
18.8 x 22	22	1.6	60	-	-
23 x 25	25	1	20	70	40
21.8 x 25	25	1.6	55	-	-
26 x 28	28	1	25	-	-
24.8 x 28	28	1.6	40	-	-
24 x 28	28	2	50	-	-

Legris brass compression fittings are not compatible with ammonia and its derivatives. The above recommendations are given in good faith. However, as each application is different, it is advisable to carry out tests under real conditions of use.