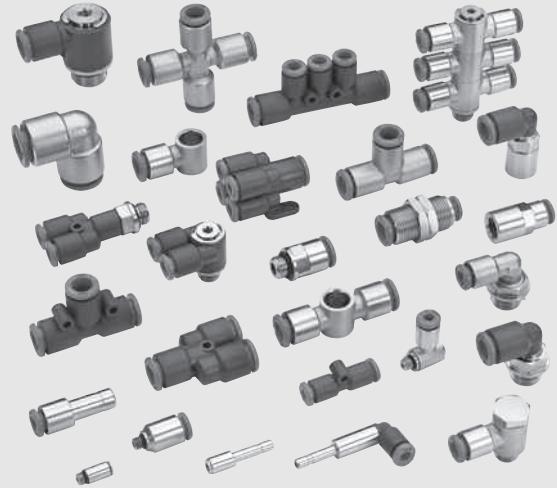


PUSH-IN FITTINGS

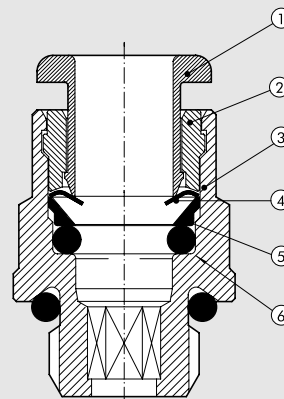
Push-in fittings by Metal Work are the best elements for connecting pipes and actuators. Quick and easy to use, the Metal Work push-in fitting can be re-used thousands of times without affecting the pneumatic and mechanical seal in any way. It comes in various configurations and guarantees a virtually unlimited, highly flexible use. The clamping spring with its special shape grips the pipe without scratching or deforming it, which facilitates release. In the fittings, the release bushing has patented screwdriver slots to facilitate release in applications not accessible to the fingers. Configurations RL19, RL21, RL22, RL23, RL23M, RL24, RL44, and RL49 (except for Ø5), have a ring for fixing to the wall asymmetrically in order to contain the head of a screw within the overall dimensions of the fitting.



TECHNICAL DATA		
Threaded coupling		M3 - M5 - M7 - 1/8" - 1/4" - 3/8" - 1/2"
Diameter	mm	Ø 3 - Ø 3.17 - Ø 4 - Ø 5 - Ø 6 - Ø 8 - Ø 10 - Ø 12 - Ø 14
Temperature range for brass fittings	°C	- 20 to + 80
	°F	- 4 to 176
Temperature range for technopolymer fittings	°C	- 20 to + 60
	°F	- 4 to 140
Pressure range for brass fittings		- 0.99 bar ... 16 bar / - 0.099 MPa ... 1.6 MPa
Pressure range for technopolymer fittings		- 0.99 bar ... 12 bar / - 0.099 MPa ... 1.2 MPa
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene
Fluid		Vacuum - Compressed air

COMPONENTS

- ① Ring or release bushing: technopolymer
- ② Locking bushing: brass or technopolymer
- ③ Body: brass or technopolymer
- ④ Clamping spring: stainless steel (for pipes Ø 3 and Ø 3.17 and R31 Ø 5 and R32 Ø 5: brass gripper)
- ⑤ Spring supporting ring: technopolymer
- ⑥ Seal: NBR



FITTINGS

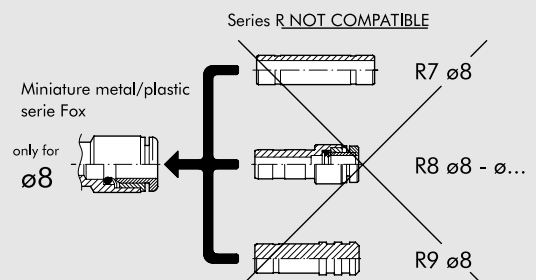
PUSH-IN FITTINGS

O-RING BELOW R FITTINGS

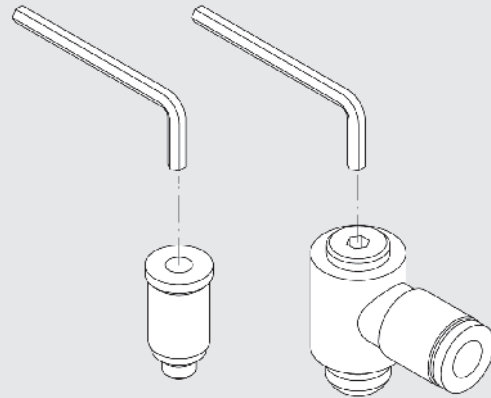
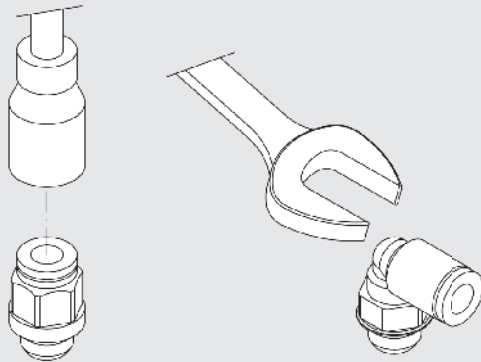
Thread	Initials	Dimensions of O-ring
M3	.....	2.6 x 1
M5 (for Ø 3 - Ø 3.17)	.....	3 x 1.2
M5	.....	3.5 x 1.2
M7	.....	5 x 1.5
M12x1.5	.....	9.75 x 1.78
1/8	2031	7.66 x 1.78
1/4	2043	10.82 x 1.78
3/8	2056	14 x 1.78
1/2	3068	17.13 x 2.62

FOR Ø 8 PUSH-IN FITTINGS ONLY

The new series of Ø 8 miniature push-in fittings, identified in the code by a letter L and visually by the screwdriver slot on the release ring, are not compatible with fittings R7, R8 and R9 Ø 8 in the old series.



SCREWING METHOD



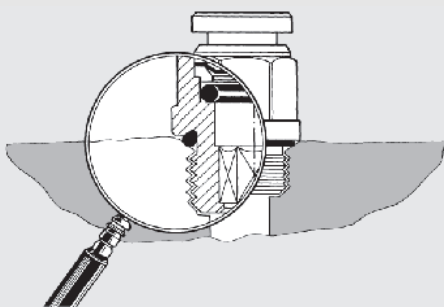
Thread	Max. Torque [Nm]
M3	0.4
M5	1.8
M7	2.5
M12x1.5	8
G 1/8"	6
G 1/4"	8
G 3/8"	10
G 1/2"	15

CH [mm]	Max. Torque [Nm]
1.5	0.4
2	0.7
2.5	1.2
3	2.5
4	5
5	8
Over 5	See the values concerning threads

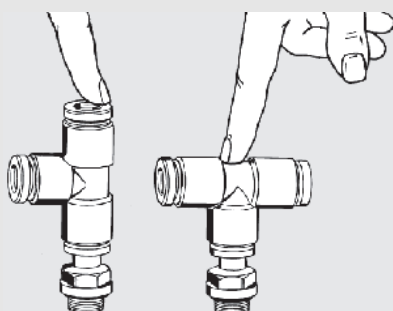
NB: When using a socket spanner, the torque must not exceed that of the thread (e.g. fitting RL1 6 M7, with a 4 mm thread, has a maximum torque of 2.5 Nm, highest value of the thread)

GENERAL FEATURES

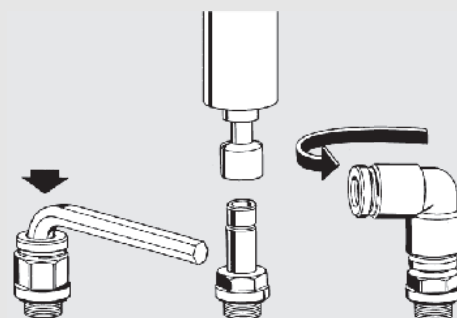
All fittings have cylindrical threading and incorporate a O-ring (Metal Work patent). The use of an O-ring considerably improves the seal of angled, rough, and slightly convex surfaces. Teflon® (PTFE) is no longer used.



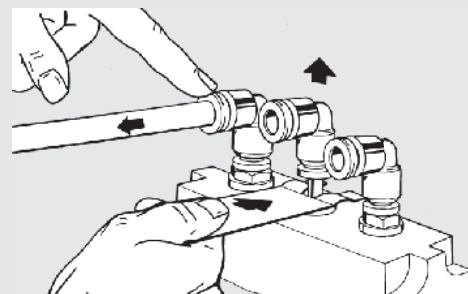
A single tee can give central tees and lateral tees.



Mounting fittings with an Allen wrench or pneumatic tool. All the elbows and tees are rotary. Drastic reduction in assembly times.

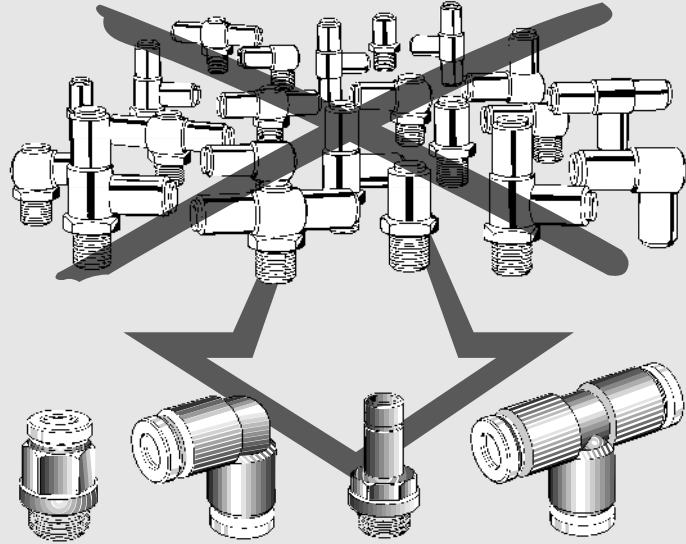


The pipe is easy to assemble by pressing lightly on the pusher ring. To remove the fitting, merely push radially on the key.



FROM AN IDEA, A SYSTEM

- Four basic fittings can be used to make all possible connections in a pneumatic circuit.
- Sharp drop in the number of fittings to be stocked and hence reduced operating costs.

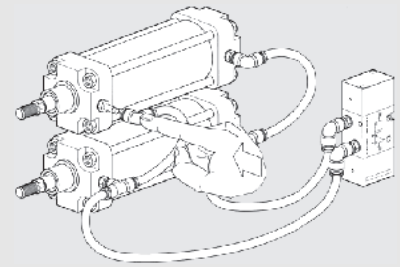
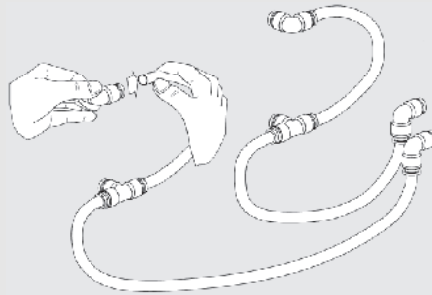
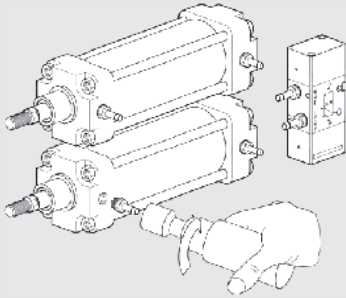


ASSEMBLY DIAGRAM

Pre-assembling fittings on the workbench with pneumatic tool even with very close centre distances.

Pre-assembling fittings and pipe sections on the workbench. Pre-assembled configurations can be stocked for assembly in series.

Quick connection and completion of the pneumatic circuit.



FROM A SYSTEM, INNOVATION

An Allen wrench is used to assemble rotary fittings even with very close centre distances.

The special configuration with two O-rings allows maximum orientation so as to follow pipe movement in the specific application.

Fittings with a built-in gasket and reduced height (H) with the same threaded coupling and pipe diameter.

