

**COMPRESSION FITTINGS FOR COPPER PIPES**



**Description**

The compression fittings for copper pipes can be used, depending on the different versions, in plumbing systems and/or in systems that distribute gas and liquid hydrocarbons.






**Versions, product codes and technical data**






Remark.  
Verify possible changes of versions and/or product codes, on the current Price List Catalogue.

Series	Product code	Size	Fitting type and technical data	Picture
R180M	R180MY101	3/8" x 6	Straight male threaded fitting, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R180MY102	3/8" x 8		
	R180MY103	3/8" x 10		
	R180MY104	3/8" x 12		
	R180MY105	3/8" x 14		
	R180MY106	3/8" x 15		
	R180MY107	3/8" x 16		
	R180MY110	1/2" x 8		
	R180MY111	1/2" x 10		
	R180MY112	1/2" x 12		
	R180MY113	1/2" x 14		
	R180MY114	1/2" x 15		
	R180MY115	1/2" x 16		
	R180MY116	1/2" x 18		
	R180MY120	3/4" x 16		
R180MY121	3/4" x 18			
R180MY122	3/4" x 20			
R180MY123	3/4" x 22			
R180MY128	1" x 28			
R180F	R180FY102	3/8" x 8	Straight female threaded fitting, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R180FY103	3/8" x 10		
	R180FY104	3/8" x 12		
	R180FY105	3/8" x 14		
	R180FY111	1/2" x 10		
	R180FY112	1/2" x 12		
	R180FY113	1/2" x 14		
	R180FY114	1/2" x 15		
	R180FY115	1/2" x 16		
	R180FY116	1/2" x 18		
	R180FY120	3/4" x 16		
	R180FY121	3/4" x 18		
	R180FY123	3/4" x 22		
	R180FY128	1" x 28		
	R180FY135	1 1/4" x 35		

**COMPRESSION FITTINGS FOR COPPER PIPES**

Serie	Codice	Misura	Tipologia raccordo e dati tecnici	Immagine
R560	R560Y002	Ø 8	Straight fitting, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Black o-ring complying with EN 681-1 standard, for plumbing systems.  Temperature range 5÷110 °C  Maximum working pressure 10 bar	
	R560Y003	Ø 10		
	R560Y004	Ø 12		
	R560Y005	Ø 14		
	R560Y006	Ø 15		
	R560Y007	Ø 16		
	R560Y008	Ø 18		
	R560Y009	Ø 22		
	R560Y010	Ø 28		
	R560Y011	Ø 35		
R561	R561Y002	Ø 8	90° bent fitting, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Black o-ring complying with EN 681-1 standard. For plumbing systems.  Temperature range 5÷110 °C  Maximum working pressure 10 bar	
	R561Y003	Ø 10		
	R561Y004	Ø 12		
	R561Y005	Ø 14		
	R561Y006	Ø 15		
	R561Y007	Ø 16		
	R561Y008	Ø 18		
	R561Y009	Ø 22		
	R561Y010	Ø 28		
	R561Y011	Ø 35		
R562	R562Y102	3/8" x 8	90° bent fitting, male threaded, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R562Y103	3/8" x 10		
	R562Y104	3/8" x 12		
	R562Y105	3/8" x 14		
	R562Y111	1/2" x 10		
	R562Y112	1/2" x 12		
	R562Y113	1/2" x 14		
	R562Y114	1/2" x 15		
	R562Y115	1/2" x 16		
	R562Y116	1/2" x 18		
	R562Y121	3/4" x 18		
	R562Y123	3/4" x 22		
	R562Y128	1" x 28		
	R562Y135	1 1/4" x 35		
R563	R563Y102	3/8" x 8	90° bent fitting, female threaded, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R563Y103	3/8" x 10		
	R563Y104	3/8" x 12		
	R563Y105	3/8" x 14		
	R563Y111	1/2" x 10		
	R563Y112	1/2" x 12		
	R563Y113	1/2" x 14		
	R563Y114	1/2" x 15		
	R563Y115	1/2" x 16		
	R563Y116	1/2" x 18		
	R563Y121	3/4" x 18		
	R563Y123	3/4" x 22		
	R563Y128	1" x 28		
	R563Y135	1 1/4" x 35		
R564	R564Y002	Ø 8	Tee fitting, for copper pipes, made of brass. In compliance with EN 1254-2 standard. with black o-ring complying with EN 681-1 standard. For plumbing systems.  Temperature range 5÷110 °C  Maximum working pressure 10 bar	
	R564Y003	Ø 10		
	R564Y004	Ø 12		
	R564Y005	Ø 14		
	R564Y006	Ø 15		
	R564Y007	Ø 16		
	R564Y008	Ø 18		
	R564Y009	Ø 22		
	R564Y010	Ø 28		
	R564Y011	Ø 35		

**COMPRESSION FITTINGS FOR COPPER PIPES**

Serie	Codice	Misura	Tipologia raccordo e dati tecnici	Immagine
R568	R568Y102	3/8" x 8	Tee fitting, male threaded, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R568Y103	3/8" x 10		
	R568Y104	3/8" x 12		
	R568Y105	3/8" x 14		
	R568Y112	1/2" x 12		
	R568Y113	1/2" x 14		
	R568Y114	1/2" x 15		
	R568Y115	1/2" x 16		
	R568Y116	1/2" x 18		
	R568Y121	3/4" x 18		
	R568Y123	3/4" x 22		
	R568Y128	1" x 28		
	R568Y135	1 1/4" x 35		
R569	R569Y102	3/8" x 8	Tee fitting, female threaded, for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R569Y103	3/8" x 10		
	R569Y104	3/8" x 12		
	R569Y105	3/8" x 14		
	R569Y112	1/2" x 12		
	R569Y113	1/2" x 14		
	R569Y114	1/2" x 15		
	R569Y115	1/2" x 16		
	R569Y116	1/2" x 18		
	R569Y121	3/4" x 18		
	R569Y123	3/4" x 22		
	R569Y128	1" x 28		
	R569Y135	1 1/4" x 35		
R572	R572Y112	1/2" x 12	Elbow, female threaded, with wall bracket for copper pipes, made of brass. In compliance with EN 1254-2 standard. Supplied with double o-ring: - Black, complying with EN 681-1 standard, for plumbing systems. - Yellow, complying with EN 549 and EN 682 standards, for systems distributing gas and liquid hydrocarbons.  Temperature range 5÷110 °C (plumbing systems) 5÷90 °C (gas and hydrocarbons systems)  Maximum working pressure 10 bar (plumbing systems) 5 bar (gas and hydrocarbons systems)	
	R572Y113	1/2" x 14		
	R572Y114	1/2" x 15		
	R572Y115	1/2" x 16		
	R572Y116	1/2" x 18		

**Main features**

- Recommended tightening torque:  
annealed copper pipe 30 Nm  
raw copper pipe 40 Nm
- Body and nut made of forged brass CW617N – UNI EN 12165
- Monocone made of brass CW614N – UNI EN 12164.
- Black o-ring in EPDM, complying with EN 618-1 standard, for plumbing systems
- Yellow o-ring in NBR, complying with EN 549 and EN 682 standards, for gas and liquid hydrocarbon distribution systems.

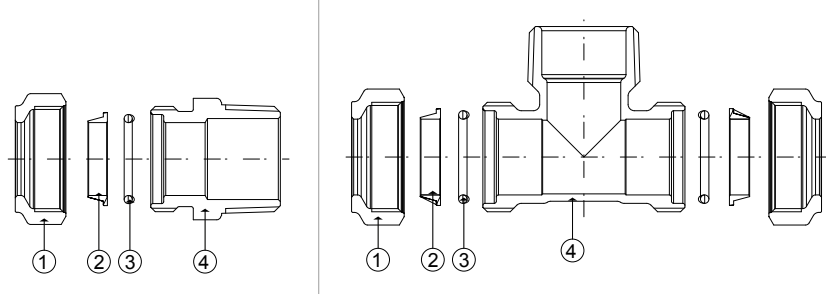


**Caution!**

An excessive value of the tightening torque to the terminal of the plumbing-heating distribution/regulation system, risks to compromise either the mechanical or the hydraulic behaviour of the fitting.

The tightening of the nut to the terminal of the plumbing-heating distribution/regulation system, determines a light plastic deformation on the copper pipe, by guaranteeing the mechanical tightness of the joint. After the installation steps, it is possible to loosen slightly the tightening not to keep the mechanical seal element under high stress conditions.

**Components**



Legend	
1	But
2	Monocone
3	Seal o-ring
4	Fitting body

## Installations

In order to prevent damages to the elements of hydraulic seal during the installation and guarantee the joint efficacy, we recommend to respect the following prescriptions.

- 1 - Cut the pipe perpendicularly to its axis, by eliminating possible internal and external burrs.
- 2 - Oil the threads of the nut and of the fitting body, including the monocone. Subsequently put the nut, the monocone and the o-ring on the pipe.
- 3 - Screw the nut manually up to obtaining a certain resistance. Subsequently complete the tightening by using a dynamometrical key.
- 4 - Verify if the tightening has been made correctly. By observing the pipe, you will notice a light deformation of it because of the brass monocone. The closing of the fittings is irreversible, in case of wrong tightening, the cut of the pipe is inevitable as the remaking of the joint with a new fitting.

**Remark.**

In case of chased installation of the fittings, avoid the contact between the cement mixing and the metallic parts of the component. It is advisable to make a joint that can be inspected, for example by using a plastic box to be embedded, or at least insulated as regards to the structure, in order to avoid chemical reactions on the metallic surfaces and the concentration of stresses due to thermal expansion.

## Guarantee

All products and components supplied by Giacomini are subjected to several controls to guarantee the high quality, proven by the certification of the quality management system in compliance with UNI EN ISO 9001 standard. All products and components supplied by Giacomini are subjected to the guarantee and to the responsibilities indicated in the directives 1994/44/CE, 2001/95/CE, 85/374/CEE and subsequent modifications and integrations.

The guarantee is not valid in the following cases:

- 1) If the fittings are used to distribute fluids that are not compatible with the materials.
- 2) If there are defects visually perceivable at the installation time, or during the pressure tightness test of the system.
- 3) If the installation instructions are not scrupulously followed.
- 4) If the pipes connected to the fittings are made of not compatible materials or have not compatible dimensions.
- 5) If the fittings are installed on components that are not manufactured by Giacomini, the guarantee is limited to the fittings, and it does not cover the system.

## Normative references

**EN 1254-2**

Copper and copper alloys – Plumbing fittings – Fittings with compression ends for use with copper tubes.

**EN 1254-4**

Copper and copper alloys – Plumbing fittings – Fittings combining other end connections with capillary or compression ends.

### Additional information

For additional information please check the Giacomini website at the following address: [www.giacomini.com](http://www.giacomini.com)

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