

RC102P, RC103P, RC122P RC151P, RC165P, RC211P



Radiant
Systems

Plastic “push-fittings”

Datasheet
0974EN 02/2022



Push-fit connection fittings, with internal gaskets in the pipe with embedded internal sleeve for pipe support.




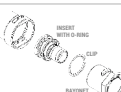

The fittings have the following advantages:

- ease of insertion into the pipe;
- no damage to the pipe by locking systems;
- internal gasket guarantee thanks to the action of the double O-Ring and the sleeve, which ensures the pipe remains circular even in the presence of side loads;
- ease of disconnection in the event of system changes, thanks to the simple bayonet system;
- do not require RC900 sleeves.

➤ Versions and product codes

PRODUCT CODE	SIZE	DESCRIPTION
RC102P002	Ø 8 x 1 mm	Straight fitting
RC102P009	Ø 20 x 2 mm	
RC103P009	Ø 20 x 2 mm x Ø 8 x 1 mm	Straight reduction
RC122P009	Ø 20 x 2 mm	90° elbow fitting
RC151P053	Ø 20 x 2 mm + 1 outlet Ø 8 x 1 mm	Tee fitting, with single outlet
RC151P063	Ø 20 x 2 mm + 2 outlet s Ø 8 x 1 mm	Tee fitting, with double outlets

Completion codes

PRODUCT CODE	DESCRIPTION
 RC165P001	Plug for push-fitting Ø 8 x 1 mm
 RC165P004	Plug for push-fitting Ø 20 x 2 mm
 RC211P002	Marker tool for Ø 20, 16, 12, 8 mm pipe
 RC30P001	Spare part kit for push-fitting Ø 20 x 2 mm (multilayer pipe)
 RC51P001	Spare part kit for push-fitting Ø 8 x 1 mm

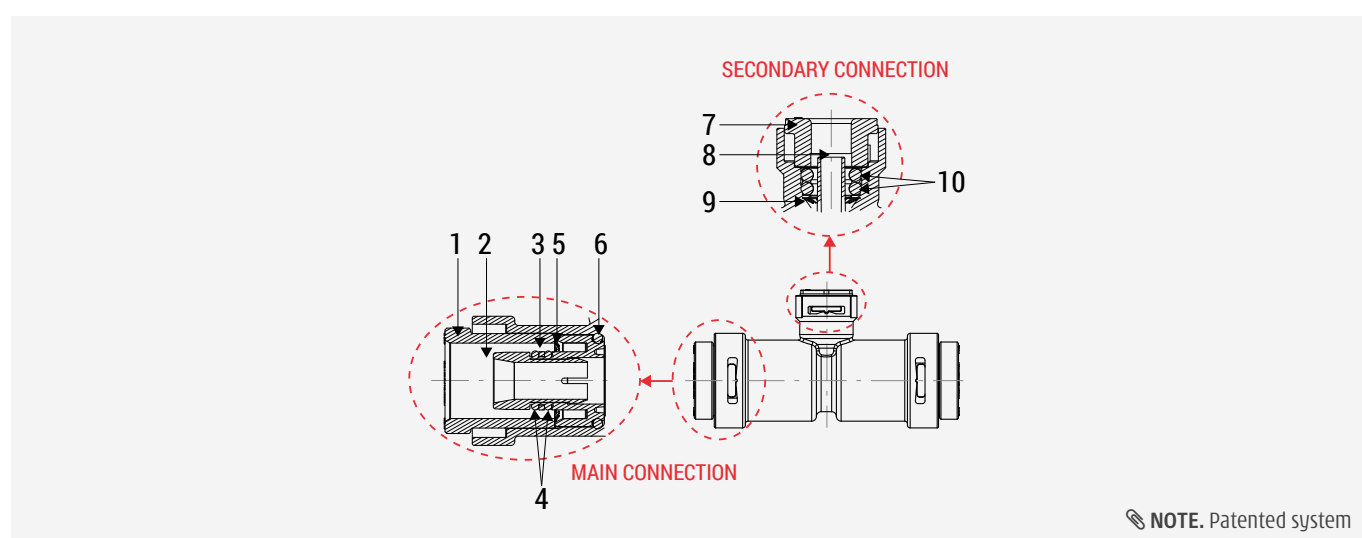
► Dati tecnici

- Main connections: multilayer pipe Ø 20 x 2 mm
- Secondary connections: plastic pipe Ø 8 x 1 mm
- Transport and storage temperatures: -20÷80 °C
- Temperature range: min. -15 °C for water/glycol mixtures
max. 80 °C for continuous 2 bar pressure
- Working pressures: min. 0 bar
max. 8 bar for room temperature
- Burst pressure: > 25 bar

Materiali

- Fittings body: nylon 6,6 with 30 % hydrolysis-resistant fiberglass
- Clip: stainless steel
- O-Ring: EPDM peroxide

► Fitting features and components



MAIN CONNECTION - PIPE Ø 20 x 2 mm

- | | |
|---|----------------------|
| 1 | Bayonet end piece |
| 2 | Pipe sleeve |
| 3 | Spacer |
| 4 | Double O-Ring |
| 5 | Clip |
| 6 | O-Ring (insert seal) |

SECONDARY CONNECTION - PIPE Ø 8 x 1 mm

- | | |
|----|-------------------|
| 7 | Bayonet end piece |
| 8 | Pipe sleeve |
| 9 | Spacer and clip |
| 10 | Double O-Ring |

➤ Pipe installation on main connections (multilayer Ø 20 x 2 mm)

Pipe connection

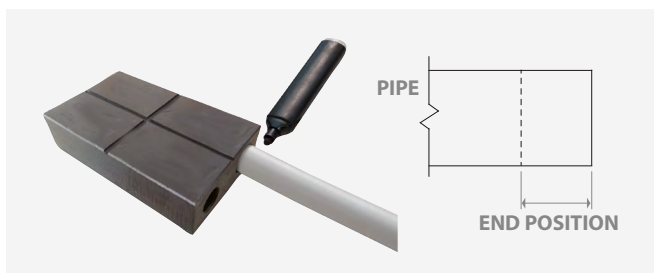
1) Cut the multilayer pipe perpendicularly to its axis using a dedicated pipe cutter.



2) Process the pipe end, creating a double chamfer (inner and outer) and a non-oval internal diameter within tolerance using a calibration/flaring tool.



3) Mark the required insertion depth on the pipe using the relevant RC211P002 marker tool.
For Ø 20: end position = 39 mm



4) Insert the pipe into the fitting until it reaches the end position, ensuring that the mark mentioned in the previous stage is flush with the fitting's head.
For Ø 20: insertion force = 6÷16 kg



⚠ WARNING. Immediately stop installation if:

- the pipe cannot be inserted without forcing it
- insertion forces are not those included in the given ranges
- the pipe cannot be inserted to the length required

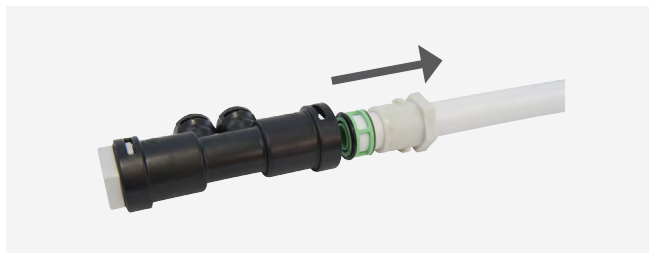
Once installation has been completed, it is recommended to test the system as described in Giacomini datasheet 0415EN.

Pipe disconnection

1) Rotate the bayonet end piece anti-clockwise using the relevant wrench.



2) Disconnect the bayonet end piece.

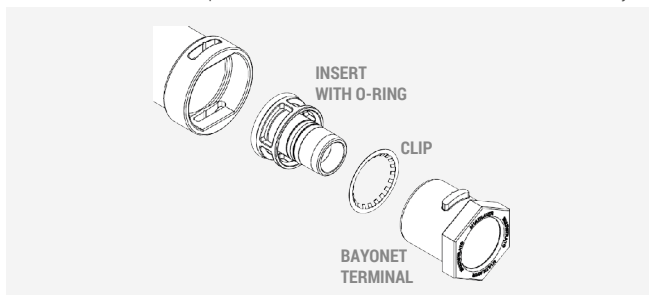


3) Remove the clip from the pipe using cutters.



4) Insert the replacement RC30P001 kit into the fitting body, in the following order:

- insert with O-Ring lubricated with silicone grease;
- stainless steel clip, with its teeth bent towards the body.



5) Reconnect the bayonet end piece, rotating it clockwise using the relevant wrench.

⚠ WARNING. Fittings must be disassembled for disconnection purposes only by trained personnel.

➤ Pipe installation on secondary connections (Ø 8 x 1 mm)

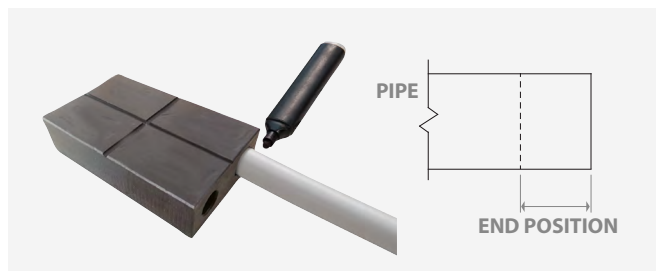
Pipe connection

1) Cut the pipe perpendicularly to its axis using a dedicated pipe cutter.



2) Mark the required insertion depth on the pipe using the relevant RC211P002 marker tool.

For Ø 8: end position = 22 mm



3) Insert the pipe into the fitting until it reaches the end position, ensuring that the mark mentioned in the previous stage is flush with the fitting's head.

For Ø 8: insertion force = 4÷8 kg.



⚠ WARNING. Immediately stop installation if:

- the pipe cannot be inserted without forcing it
- insertion forces are not those included in the given ranges
- the pipe cannot be inserted to the length required

Pipe disconnection

1) Rotate the bayonet end piece anti-clockwise using the relevant wrench.



2) Disconnect the bayonet end piece.

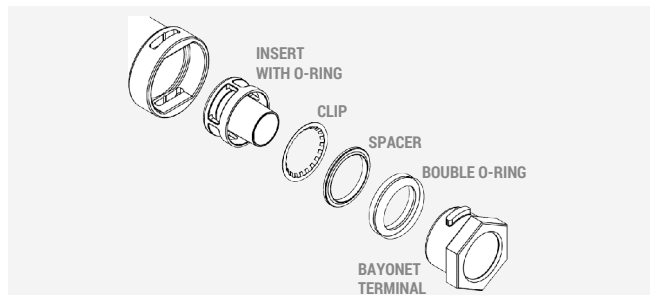


3) Remove the clip from the pipe using cutters.



4) Insert the replacement RC51P001 kit into the fitting body, in the following order:

- insert;
- stainless steel clip, with its teeth bent towards the body;
- spacer;
- double O-Ring lubricated with silicone grease.

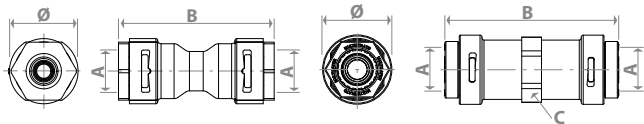


5) Reconnect the bayonet end piece, rotating it clockwise using the relevant wrench.

⚠ WARNING. Fittings must be disassembled for disconnection purposes only by trained personnel.

➤ Dimensions

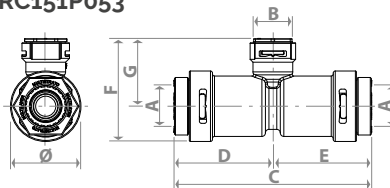
RC102P002



PRODUCT CODE	A [mm]	B [mm]	C [mm]	Ø [mm]
RC102P002	8	45	-	20
RC102P009	20	88	ch.30	35

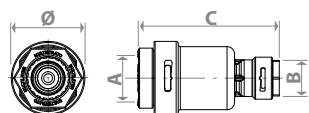
RC102P009

RC151P053



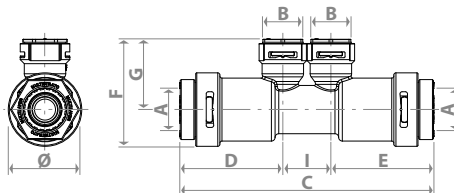
PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Ø [mm]
RC153P053	20	8	98	49	49	51	33,5	35

RC103P



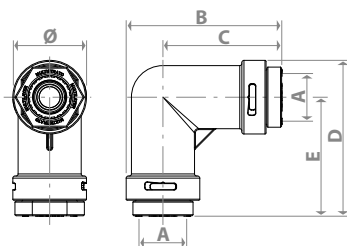
PRODUCT CODE	A [mm]	B [mm]	C [mm]	Ø [mm]
RC103P009	20	8	67	35

RC151P063



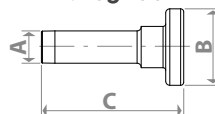
PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	I [mm]	Ø [mm]
RC153P063	20	8	121	49	49	51	33,5	23	35

RC122P

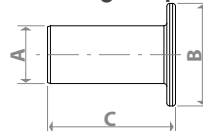


PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Ø [mm]
RC122P009	20	74	56,5	74	56,5	35

RC165P001



RC165P004



PRODUCT CODE	A [mm]	B [mm]	C [mm]
RC165P001	8	19	35
RC165P004	20	35,5	45

➤ Product specifications

RC-P fittings

Plastic push-fittings (straight, elbow 90°, Tee), with internal gaskets in the tube with embedded internal sleeve for pipe support. 6,6 nylon body with 30% hydrolysis-resistant fiberglass. Stainless steel clip. O-Ring in peroxide EPDM. Main connections: multilayer pipe Ø 20 x 2 mm. Secondary connections (if any): pipe Ø 8 x 1 mm. Temperature range: min -15 °C for water/glycol solutions; max 80 °C for continuous 2 bar pressure. Working pressures: min. 0 bar; max. 8 bar for room temperature. Burst pressure > 25 bar.

⚠ Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

♻ Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

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♻ Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.