R87FL

Boiler room air separator with flanged connections

Energy Management

Datasheet
1213EN 03/2026

The efficiency of next-gen generators and heat pumps can be highly impacted by the presence of air in the system, which can lead to corrosion, noise and reduced efficiency. These issues can be prevented by installing R87FL boiler room air separators.
The air separator is equipped with a filter that protects the air vent system from impurities present in the system.
The air vent cap is equipped with hygroscopic gaskets to prevent water leakage.

Versions and product codes

PRODUCT CODE	CONNECTIONS
R87Y105	DN50*
R87Y106	DN65*
R87Y108	DN80*
R87Y110	DN100*
R87Y112	DN125*
R87Y115	DN150*

* EN 1092-1 PN16 flange

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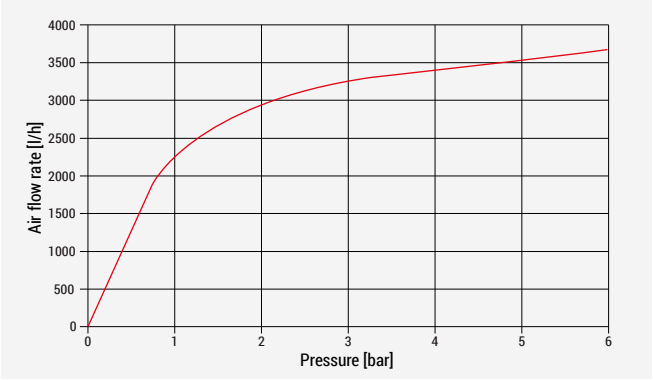
Technical data

Performance

- Fluids: water with glycol for HVAC systems (max. 30 %)
- Temperature range: 5÷110 °C
- Max working pressure: 10 bar
- Air venting max working pressure: 6 bar
- Drain cap connection: G 1"F
- Drain cock connections: G 1/2"F
- Air venting capacity:

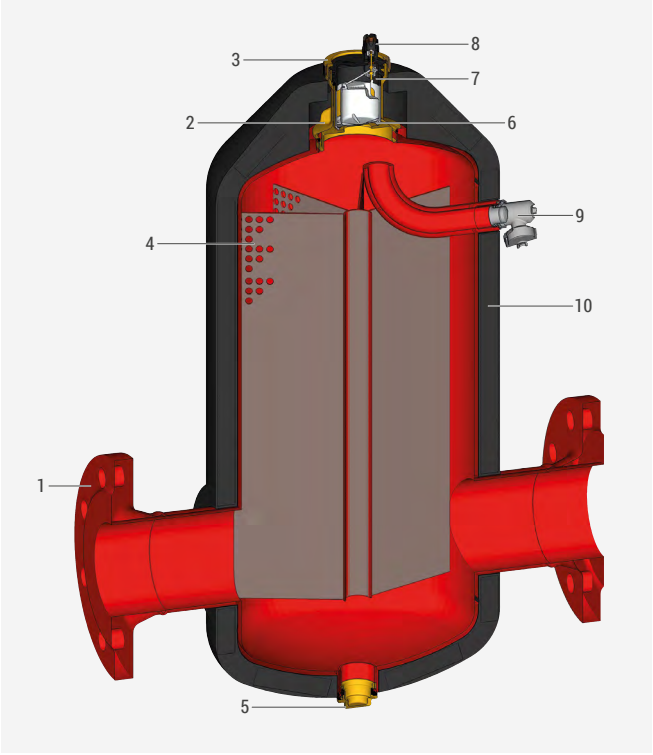


NOTE. The diagram shows the maximum air flow rate that can be vented as the system pressure varies.

Material

- Top body of the air separator unit: CW617N - UNI EN 12165 brass
- Bottom body: painted steel
- Air separator unit nut: CW617N - UNI EN 12165 brass
- Metal mesh: steel
- Gaskets: EPDM
- Air separator unit:
  - Lid and cap: PA66 reinforced with glass fibers
  - O-Ring: EPDM
  - Springs and filter: acciaio inox
  - Float: PP-H
- Insulation: expanded PE, thickness 20 mm

Components



1	Bottom body
2	Top body of the air separator unit
3	Air separator unit nut
4	Metal mesh
5	Drain cap
6	Air separator unit filter
7	Air separator unit
8	Air vent cap with hygroscopic gaskets
9	Side drain cock
10	Insulation

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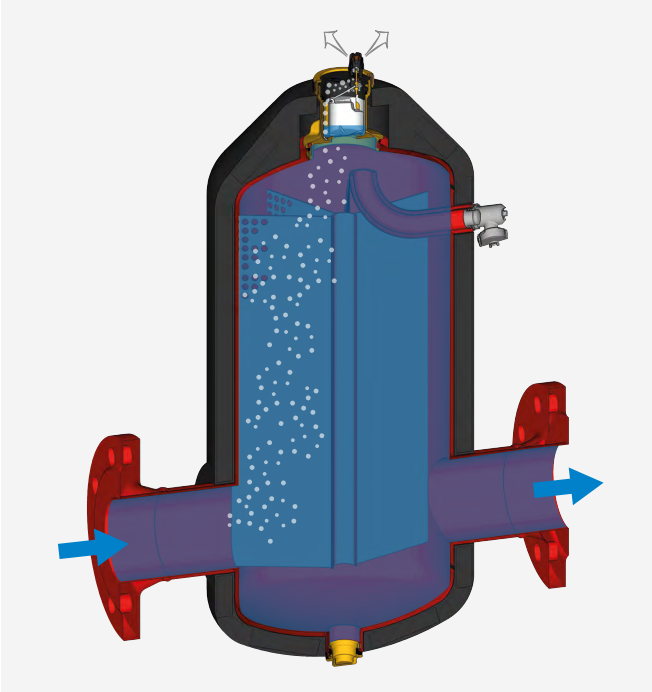
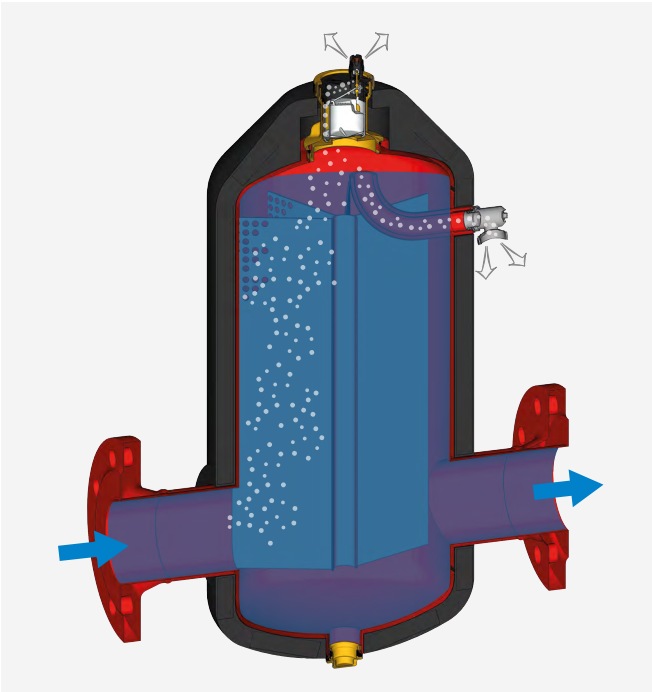
Operation



The fluid containing micro air bubbles enters the air separator. Once inside the device, it flows through a metal mesh that promotes coalescence of the smaller air bubbles into bigger ones able to reach the top of the air separator.
From here, the bubbles are vented through the special cap equipped with hygroscopic gaskets.
The air-free fluid flows out of the air separator and returns to the hydraulic circuit.
This continuous and automatic process ensures that the system works at its best, reducing issues such as corrosion and noise while improving the overall efficiency of the system.

Side drain cock operation



R87FL flanged air separators are equipped with a side cock (Components – Ref. 9) which, during filling, facilitates the expulsion of large volumes of air present in the system. This speeds up the commissioning process and simultaneously eliminates any impurities floating on the surface of the water.
A drain cap (Components – Ref. 5) is located at the bottom of the air separator, allowing any impurities that have settled there to be discharged.

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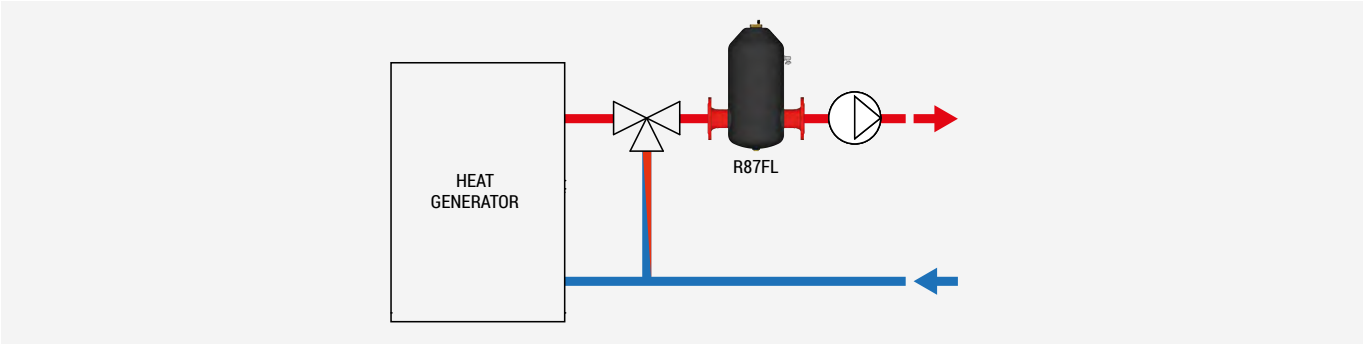
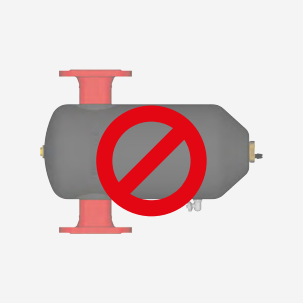
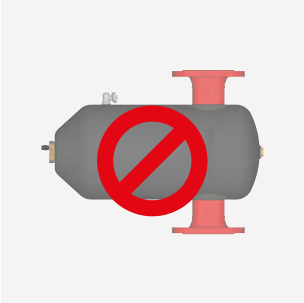
Installation

The air separator should be installed on the return circuit, downstream of the heat generator or heat pump, as this is where air bubbles are more likely to form.



It can be installed only on horizontal pipes and the device should be facing up.





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Maintenance

Cleaning the air separator unit filter (Components - Ref.6)

Follow the steps below to clean the air separator unit filter:

1) turn off the system and shut-off the fluid upstream and downstream of the air separator;

NOTE. Before proceeding, it is recommended to reduce the pressure by operating the lower drain cap.

2) loosen the nut (Components - Ref.3) to disengage the air separator (Components - Ref.7);

3) remove the air separator unit;

4) remove the filter from its seat using a small screwdriver (Components - Ref.6);

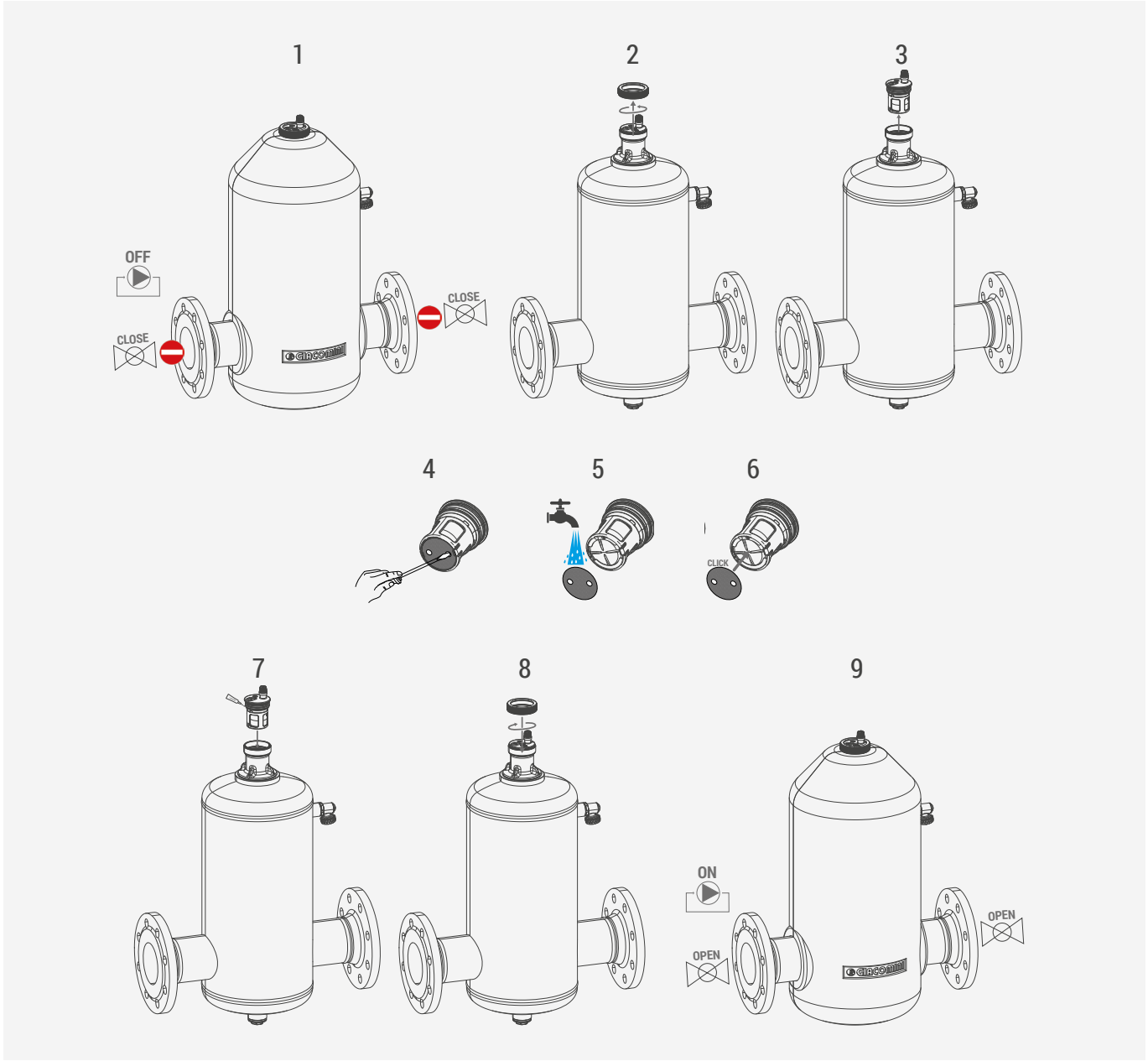
5) rinse the filter under running water;

6) replace the clean filter in its seat;

7) replace the air separator unit in its seat and lubricate the O-Ring seal with proper lubricant if necessary;

8) screw the nut back on the air separator;

9) resume normal operation of the system.



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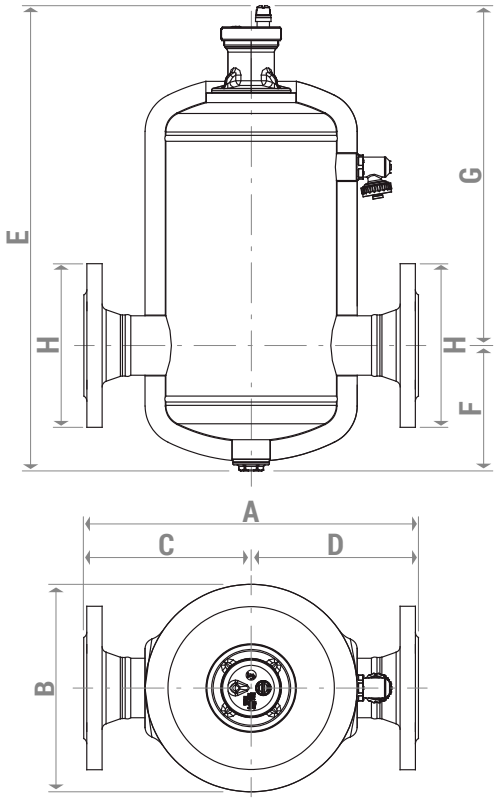
Dimensions



PRODUCT CODE	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H
R87Y105	330	210	165	165	470	127	343	DN50
R87Y106	360	210	180	180	470	127	343	DN65
R87Y108	450	260	225	225	610	152	458	DN80
R87Y110	500	260	250	250	610	152	458	DN100
R87Y112	550	365	275	275	770	197	573	DN125
R87Y115	630	365	315	315	770	197	573	DN150

Product specifications

R87FL

Boiler room air separator with EN 1092-1 PN16 flanged connections available in sizes from DN50 to DN150. Equipped with expanded PE insulation, air vent cap with hygroscopic gaskets and side drain cock. CW617N - UNI EN 12165 brass top body and nut. Painted steel bottom body. Steel internal metal mesh. EPDM gaskets. Installation only on horizontal pipes. Fluids: water and solutions with glycol (max 30 %). Temperature range 5÷110 °C. Max working pressure 10 bar. Air venting max working pressure: 6 bar. Drain cap connection: G 1"F.

⚠ 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.

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