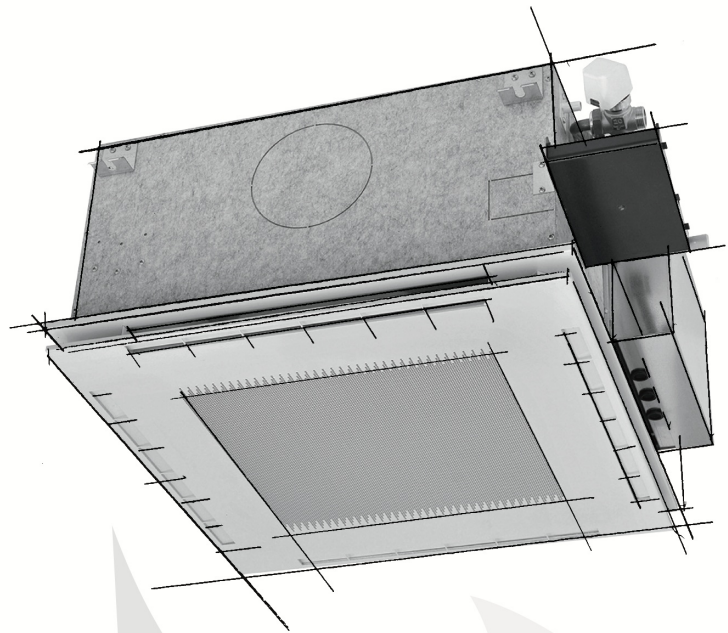


BREZZA

SERIES

NEW WATER CASSETTE



INSTALLATION, USE AND MAINTENANCE MANUAL

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1- INTRODUCTION

Series units BREZZA are designed for the function of heating, cooling, dehumidification and filtration of residential and tertiary sector (offices, public buildings, or so) for under ceiling installation. Following applications are not permitted:

- Outdoor installation;
- Operations in humid or explosive or dusty environments
- Operations in corrosive environments, especially for the aluminum fins of the coil.

The use of the unit is not intended for persons (including children) with reduced physical, mental or sensory abilities, or people who have not received adequate information, unless this is done under the supervision of a person responsible for their safety.

The installation and maintenance of the units are intended to qualified persons who received necessary instructions. These operations must be done in accordance with safety regulations in force. These standards may, for example, work safety (use of protections for the eyes and hands, ...), plant and electrical installations, pressure vessels, refrigeration equipment, lifting equipment.

The manufacturer / seller is not responsible for any damage to persons or property resulting from the failure of requirements in this manual of regular maintenance or use of non-original spare parts or change in the product status with respect to upon receipt. Also in these cases will void the warranty on the product will not be granted.

This manual must be kept with the machine.

2- RECEPTION

The units are delivered packed in cardboard boxes. The body of the cassette has a separate package from the front panel. Do not add weight on the packaging and not to stack more boxes than such as are found at the time of delivery. Check the product label, it must have the same code of the order and have no damage to the packaging or the product. In case of non-compliance, immediately contact the manufacturer or the seller and do not proceed with the installation. Dispose of packaging in compliance with the rules on waste disposal.

INSTALLATION, USE AND MAINTENANCE MANUAL

3- POSITIONING

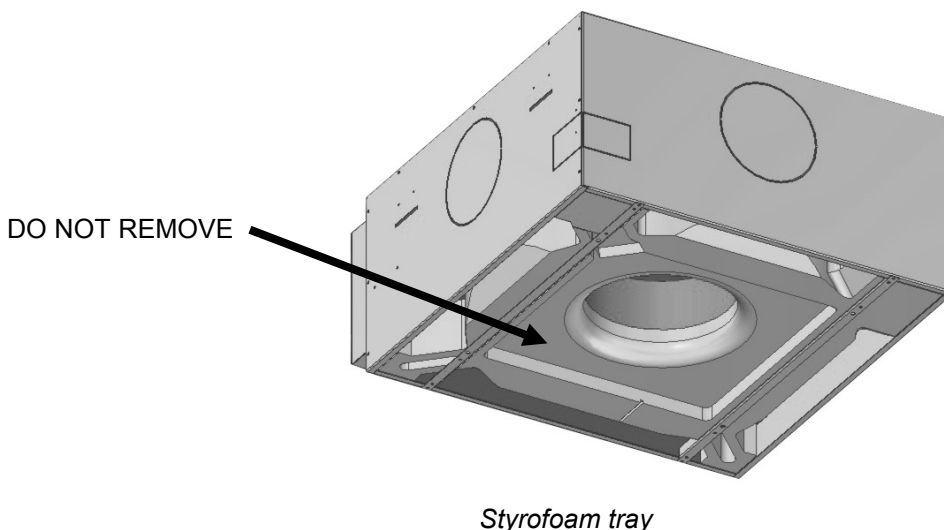
The unit must be positioned in the center of the room or of the area to be treated. There should be no tall furniture (such as shelves, cabinets, bookcases) under the cassette, which might prevent the accessibility and the correct intake. The distance between the ceiling and the countertop must be at least 15mm greater than the height of the cassette. The cassette is designed to have a Coanda effect on supply air. This means that the air is moving close to the ceiling. For this reason, the ceiling must free from obstacles (protruding ceiling, or other) to allow the correct air flow distribution. The cassette should not be exposed to direct sunlight or heat sources.

It is necessary is to provide a site in the ceiling of the following dimensions (maximum and minimum):

	MAX	MIN
Single cassette 600x600	605x605	590x590
Double cassette 1200x600	1205x605	1190x590

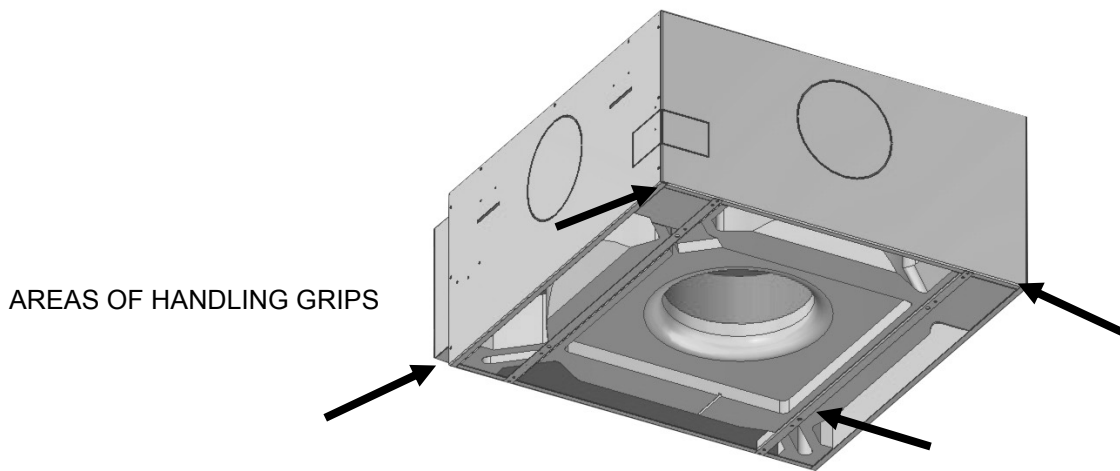
4- INSTALLATION

Remove the cardboard packaging and all guards exterior side of polystyrene before installation. Do not remove the drip polystyrene present within the unit. Do not use the front panel to the box before installation. The panel will be applied as a last step.



The unit must always be handled by two people and must be grasped only on the proper steps (near the corners of the metal structure), taking care not to damage less resistant parts, in particular the polystyrene tray

BREZZA Series



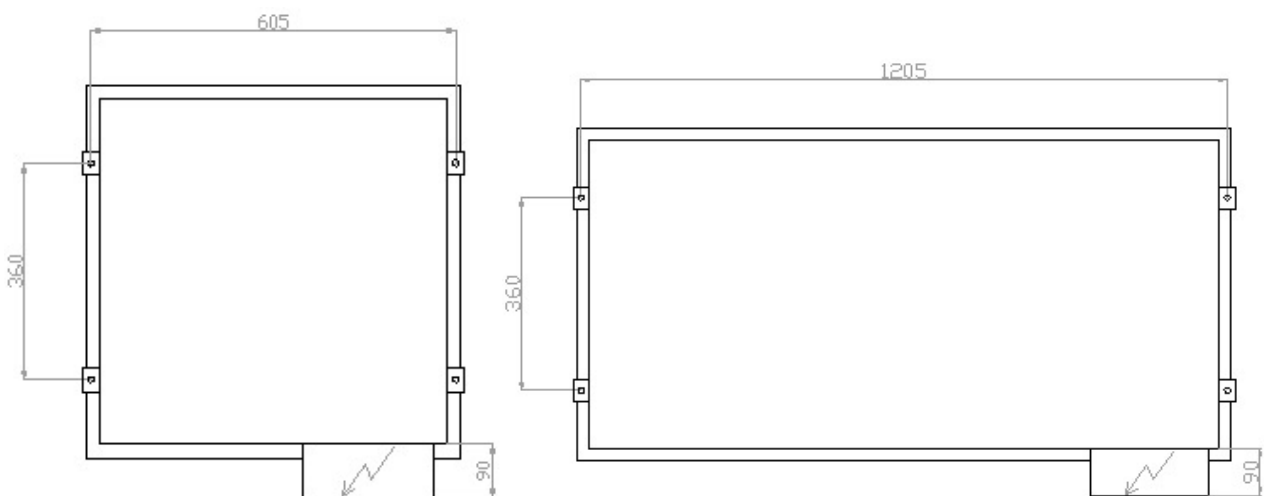
AREAS OF HANDLING GRIPS

Grip regions

Apply four M8 threaded rods (not supplied) to the ceiling with bolts (not supplied) or other fasteners. Make sure that the components used are rated to support the weight of the unit.

		Single cassette 600x600	Double cassette 1200x600
Installed cassette weight	kg	32	60

The length of the bars depends on the distance between the ceiling and the countertop. The spacing of the bars must comply with the measures of the drawing below and must be central to the opening of the ceiling.

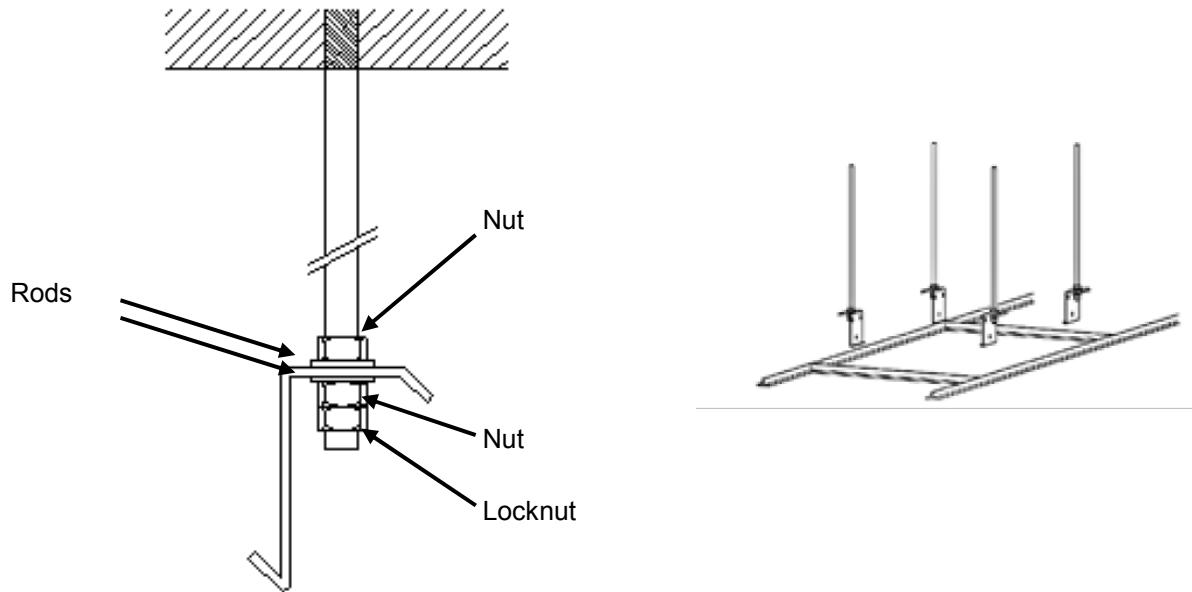


Single cassette 600x600

Double cassette 1200x600

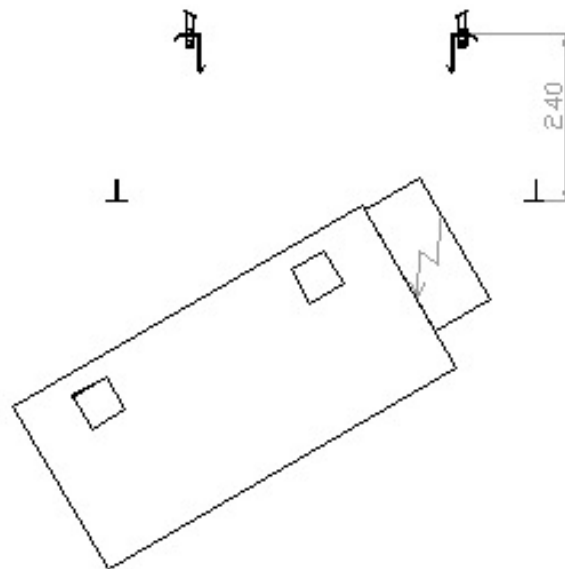
Attach the four brackets supplied with threaded rods, nut, locknut and washer M8 (not supplied).

INSTALLATION, USE AND MAINTENANCE MANUAL



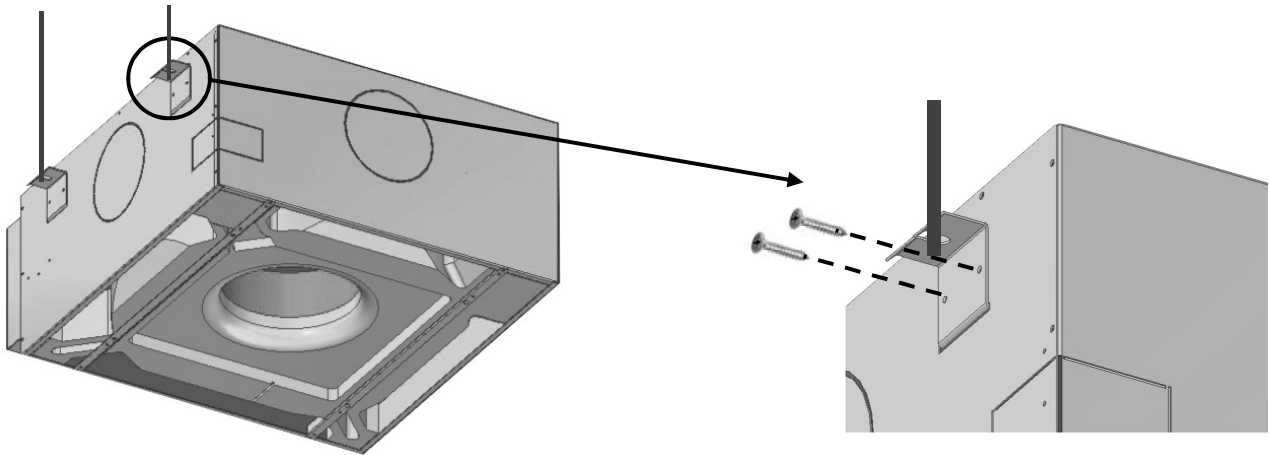
Mounting brackets Ceiling

Lift the box using a suitable lifting device (tackle, hoist, forklift or other) appropriate, that can support the weight of the box. Tilting the unit, with the electrical panel upward, pass it through the opening of the ceiling and position it in a horizontal position.



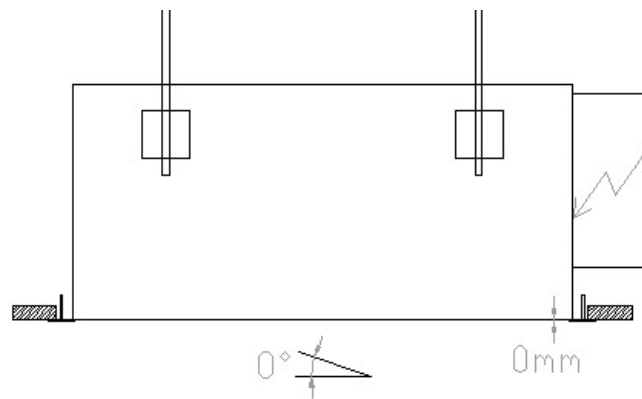
Bracket Installation

The hooks of the brackets allow you to temporarily support the unit. Set firmly the brackets to the unit with the screws provided (2 screws per bracket).



Fixing screws bracket

Make sure the unit is level and that it is aligned to the ceiling. If necessary, adjust the height at the nut and locking nuts that hold the threaded rod to the bracket.



Position box

Depending on the type of ceiling and installation site, you can use other procedures, provided they comply with the regulations and do not put at risk the safety of people.

5-WATER CONNECTIONS

The unit is equipped with a coil which is suitable to work with water, possibly mixed with glycol. To avoid the formation of condensation on the surfaces of the cassette during the summer period, in the moment when the fan is not in operation it is recommended to stop the chilled water flow through a motorized valve. All the pipes, in particular those of the chilled water, must be insulated to prevent dripping of condensation. For ease of maintenance, it is advisable to provide for manual ball valves, in order to exclude the unit from the plant.

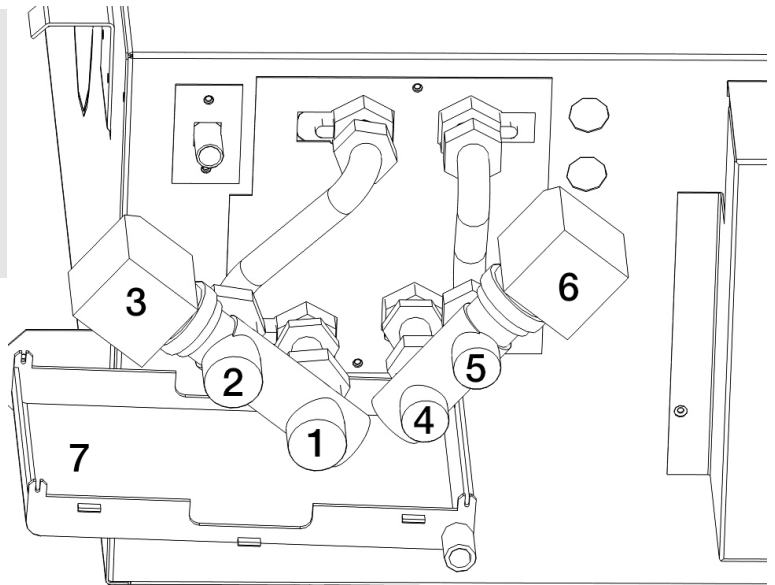
During connection of the pipes, not to twist the coil tubes and valves, it is recommended to use key and second.

INSTALLATION, USE AND MAINTENANCE MANUAL



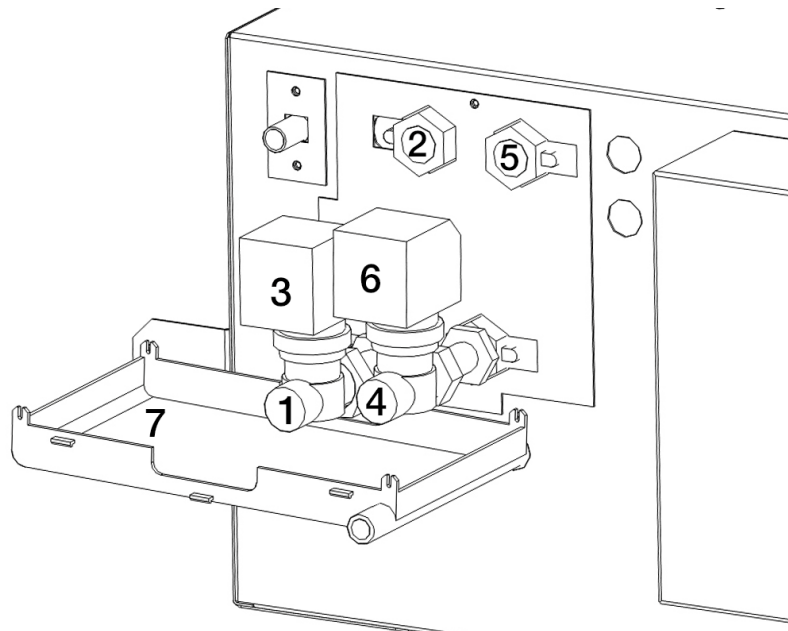
The valves can be pre-installed or supplied in the kit (to be assembled by the installer). In any case, take care to observe the information concerning the entry and exit of water.

1. Input for 2 pipes system or cold coil (4 pipe system)
2. Output for 2 pipes system or cold coil (4 pipe system)
3. Hot/Cold valve (2 pipes) / Cold valve (4 pipes)
4. Input for hot coil (4 pipe system only)
5. Output for hot coil (4 pipe system only)
6. Hot valve (4 pipes)
7. Auxiliary drain pan



Valves group (3 pipes system) and auxiliary drain pan (single cassette 600x600)

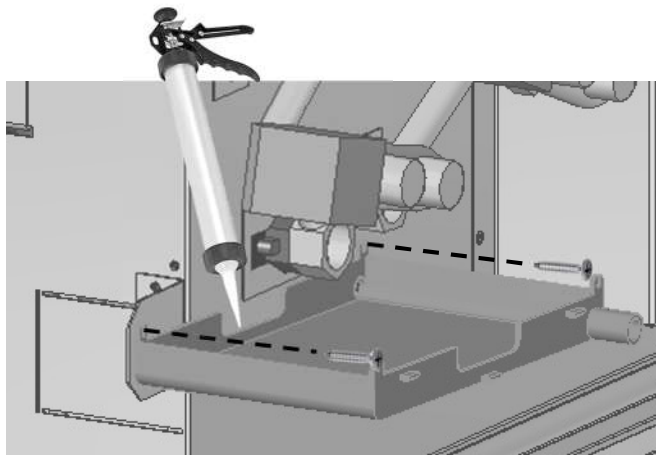
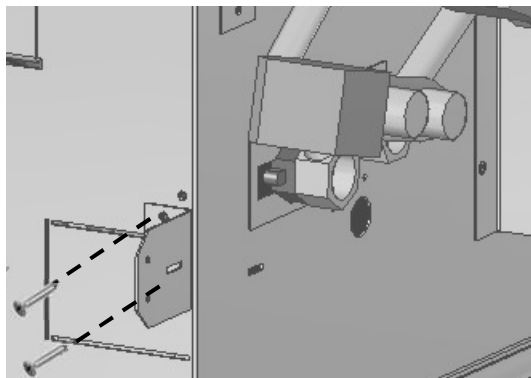
1. Input for 2 pipes system or cold coil (4 pipe system)
2. Output for 2 pipes system or cold coil (4 pipe system)
3. Hot/Cold valve (2 pipes) / Cold valve (4 pipes system)
4. Input for hot coil (4 pipe system only)
5. Output for hot coil (4 pipe system only)
6. Hot valve (4 pipe system only)
7. Auxiliary drain pan



Valves group 2 pipe system and auxiliary drain pan (single cassette 600x600)

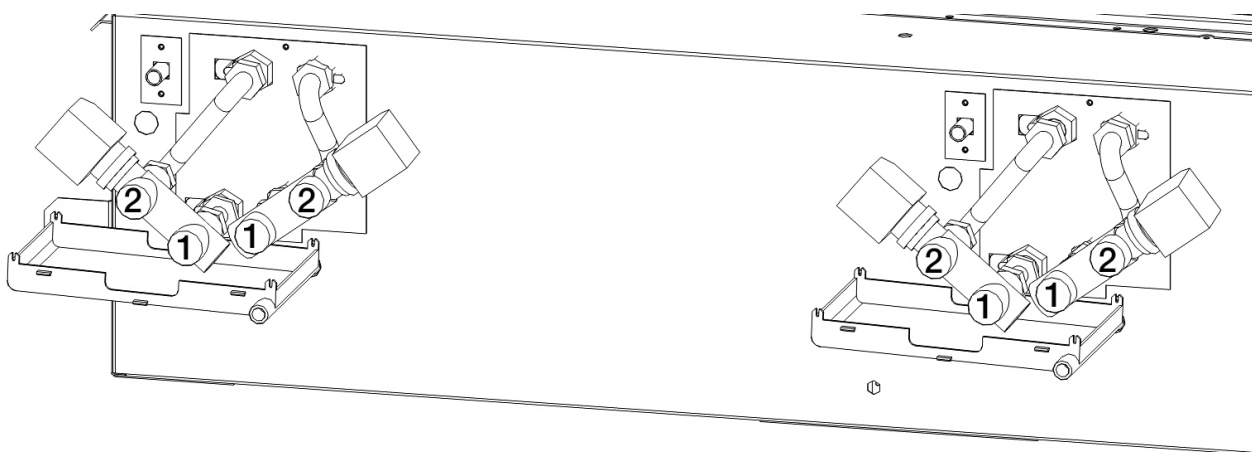
BREZZA Series

To fix the auxiliary drain pan, you must first fix the side bracket using two self-tapping screws, then fix the auxiliary drain pan with two self-tapping screws and silicone to the edge between the tray and the side of the box.



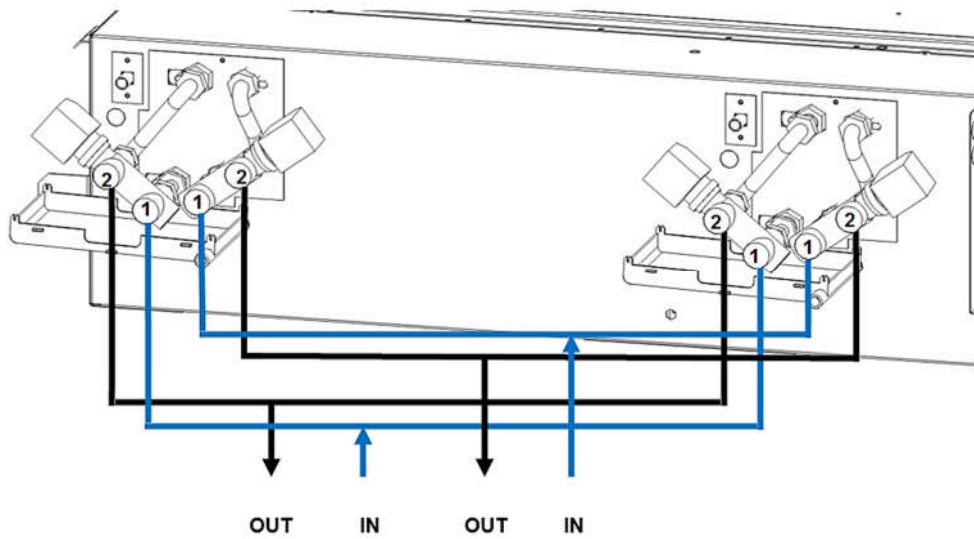
Installation of the auxiliary drain pan

The double Cassettes (1200x600) have two kit valves, one for the right coil and one for the left coil. The two valves kit must be connected in parallel, for this purpose is available a kit consisting of flex inox and TEE brass.



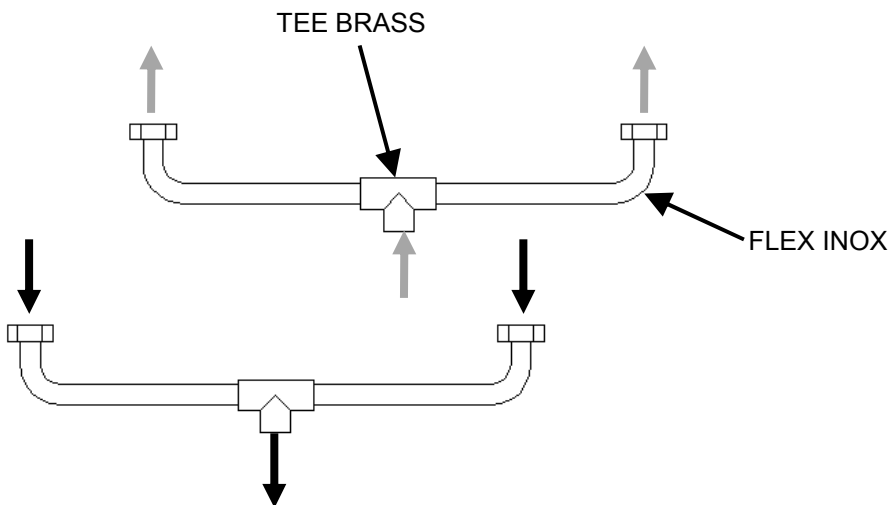
- 1. Valve heating/cooling (2 pipes)- valve cooling (4 pipes)
- 2. Valve heating only 4 pipes
- 3. Auxiliary drain pan (ADPB)

INSTALLATION, USE AND MAINTENANCE MANUAL



- 1. INPUT
- 2. OUTPUT

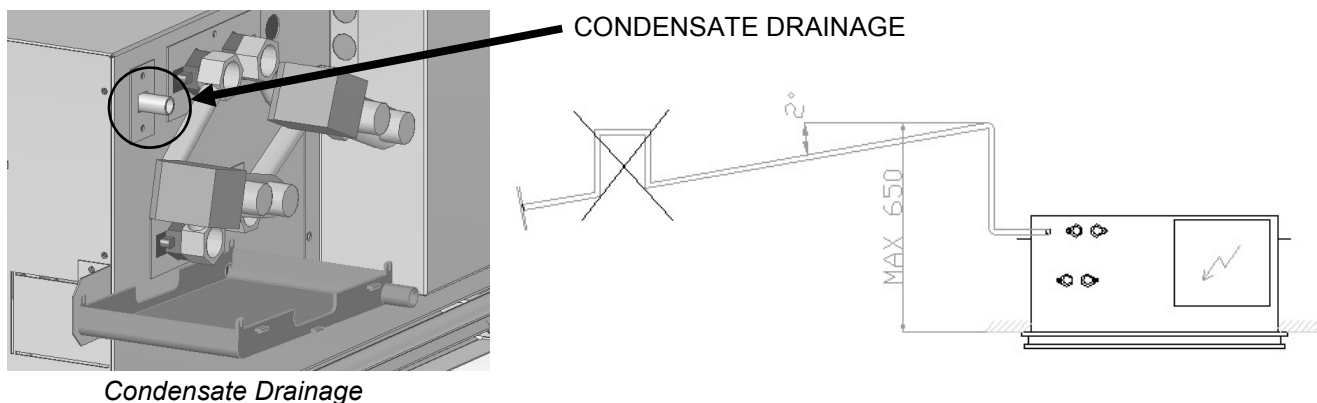
Valves group and auxiliary drain pan (Double cassette 1200x600)



Flexible accessory for double cassette 1200x600

After the hydraulic installation and loaded the system, it is necessary to vent the coil through the appropriate needle valve. Repeat breather after operation of the pump, as long as there is the certainty that you have deleted all the bubbles.

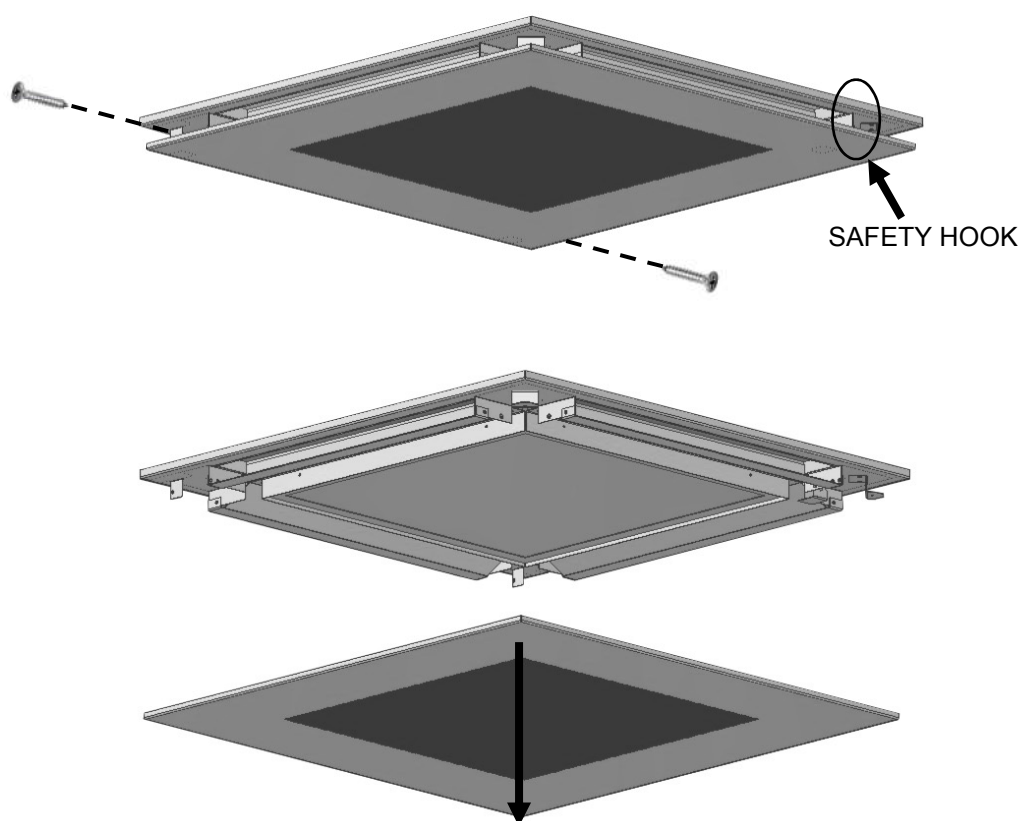
Connect the condensate drain connection to an exhaust pipe of internal diameter 12mm. The tube must have a constant slope of at least 2 ° downwards. The maximum Kerb from the pump is 650mm. The individual cassettes are equipped with only one condensate discharge; double ones have two drains condensate.



Condensate Drainage

6-PANEL INSTALLATION

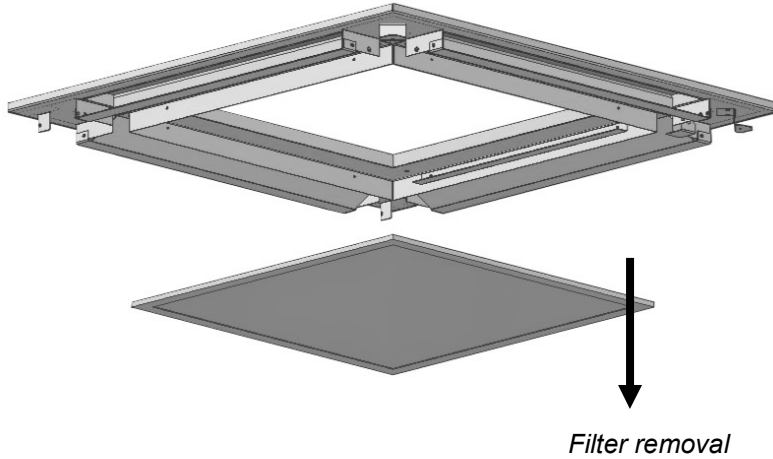
To facilitate the installation of the panel, it is advisable to remove the front panel drilled. To do this, unscrew the two screws M4x10 that constitute the panel hinges and release the panel from the magnets and the safety hook.



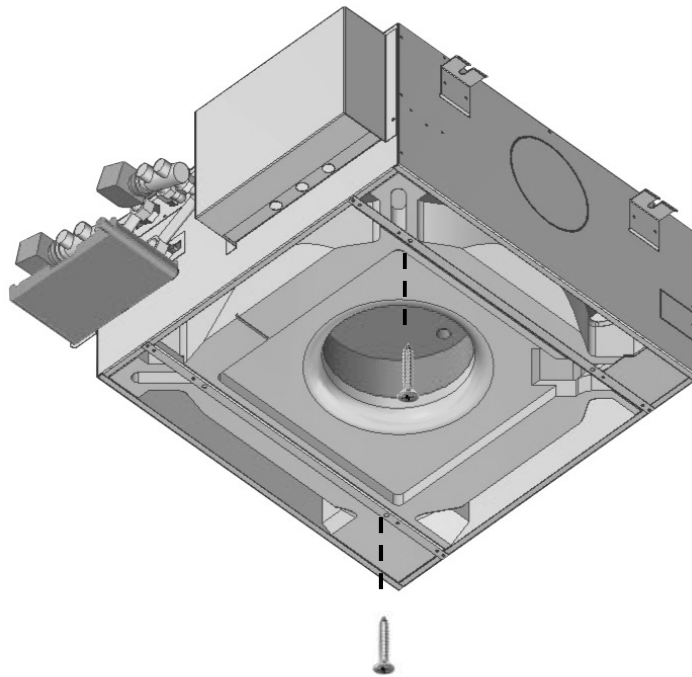
The front panel removal

INSTALLATION, USE AND MAINTENANCE MANUAL

Also remove the filter, pulling gently down to release it from the magnets.



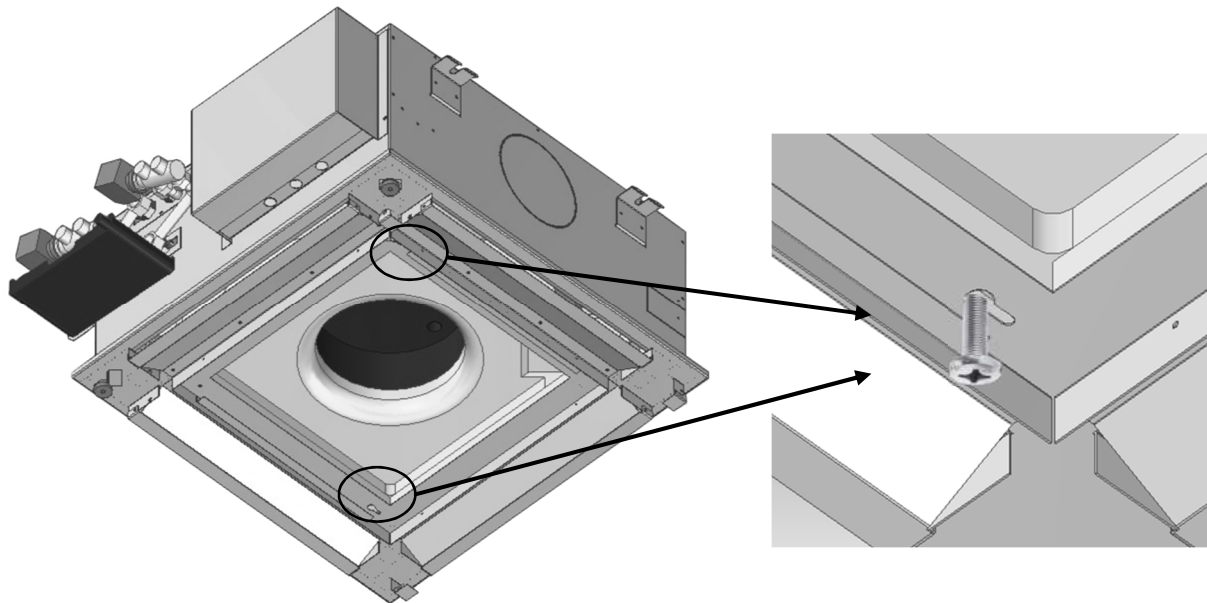
Screw two of the four screws M4x20 supplied for a length of between 5 and 10mm . These two screws must be positioned as in the picture below.



Fixing of the first two screws

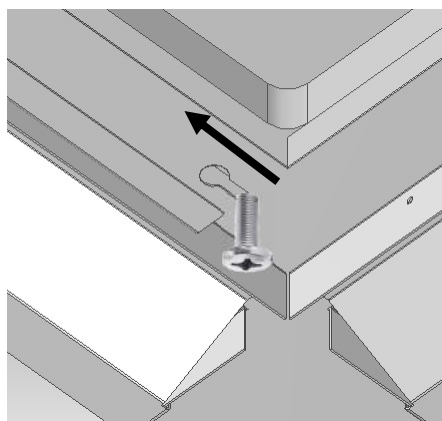
BREZZA Series

Apply the front panel, by passing the head of the two M4x20 screws through the two holes diameter 11mm.



Frontal panel application

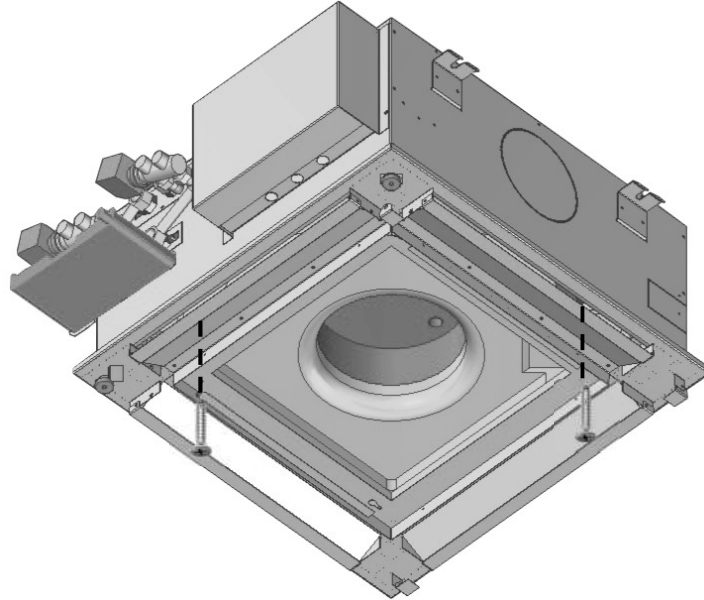
Slide the side panel, until the stems of the two screws touch the end of the slot.



Frontal panel application

INSTALLATION, USE AND MAINTENANCE MANUAL

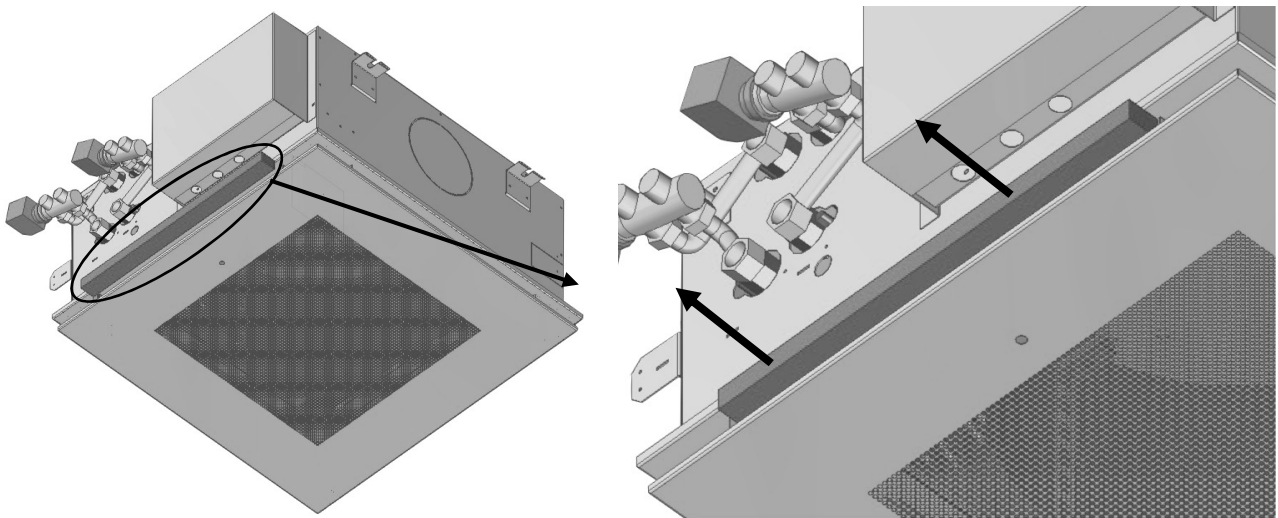
Now fasten the other two screws M4x20 and tighten top two screws.



Fixing of the last two screws

Apply the filter, attach the hinges of the front panel with the two screws M4x10, secure the safety hook and hook the front panel with the magnets.

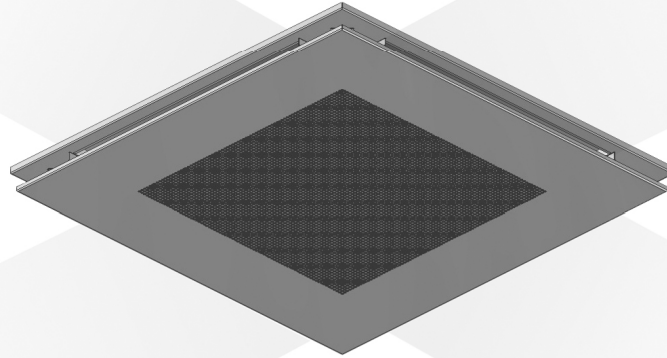
Remove the four polystyrene strips (one for each side) that close the air outlet of the panel. These strips make the panel stronger during assembly.



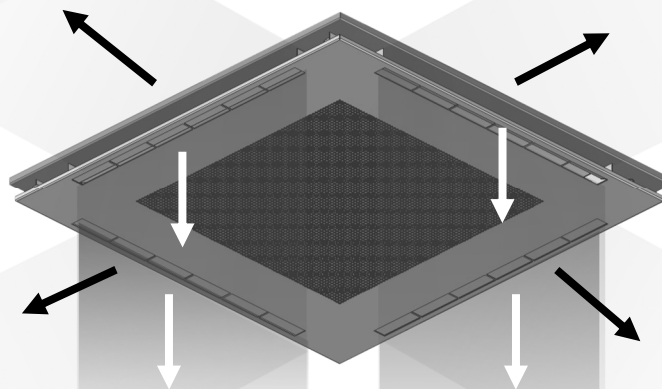
Polystyrene strips removal

7-BLADES ADJUSTMENT

The panel can have fixed blades with horizontal air flow (Coanda effect) or of adjustable blades with horizontal, vertical or intermediate air flow. There are rectangular opening only on the panel with adjustable blades.

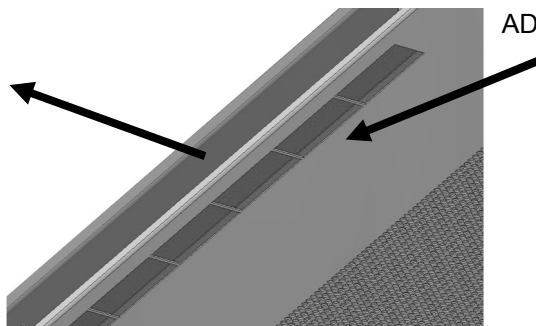


*PANEL WITH FIXED BLADES
(ONLY HORIZONTAL AIR FLOW)*

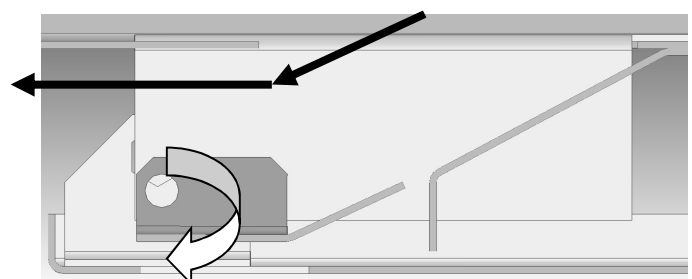


*PANEL WITH ADJUSTABLE BLADES
(HORIZONTAL and VERTICAL or INTERMEDIATE AIRFLOW)*

To adjust the position of the blades press lightly and turn them around the pins.

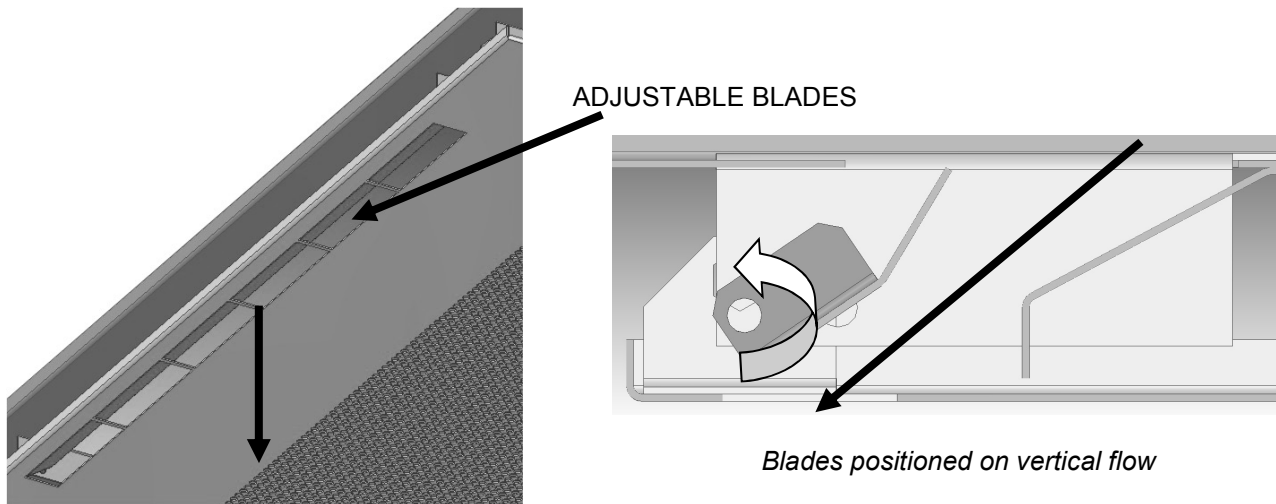


ADJUSTABLE BLADES



Blades positioned on horizontal flow

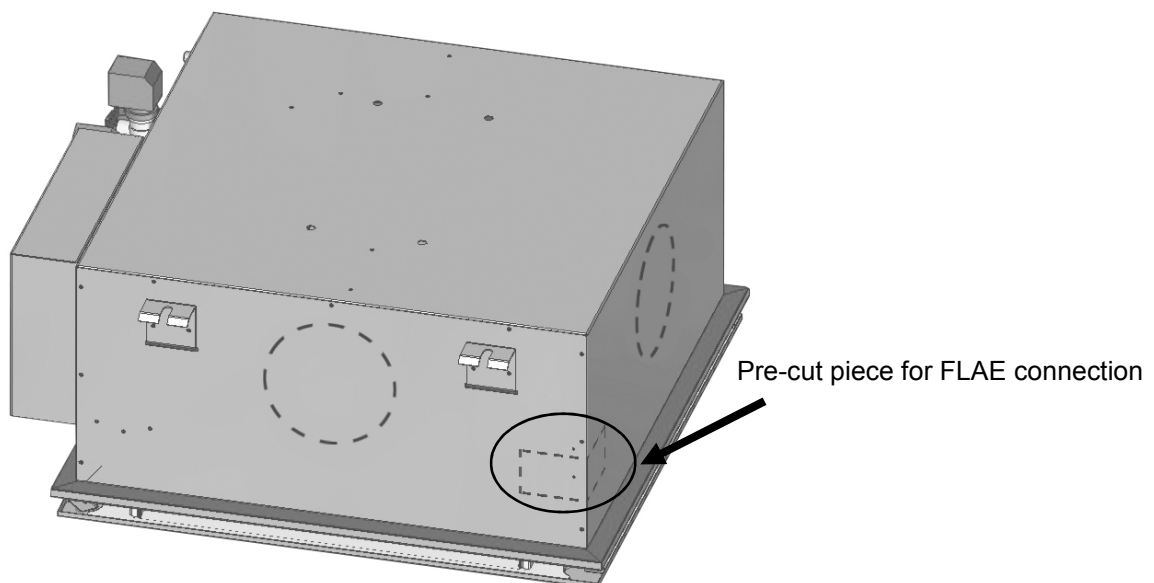
INSTALLATION, USE AND MAINTENANCE MANUAL



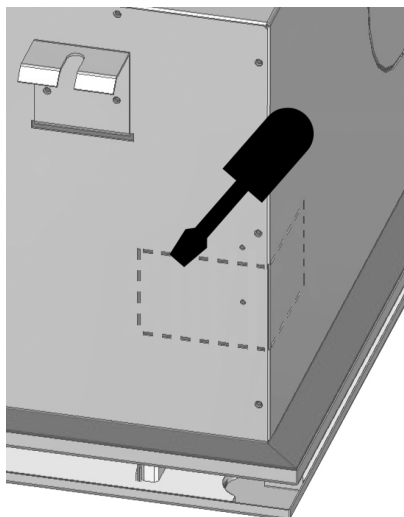
8-FLAE INSTALLATION (Accessory)

The accessory FLAE (Flange For External Inlet Air) introduce fresh air through the air diffusers. The fresh air must be pre-treated, filtered and at neutral temperature.

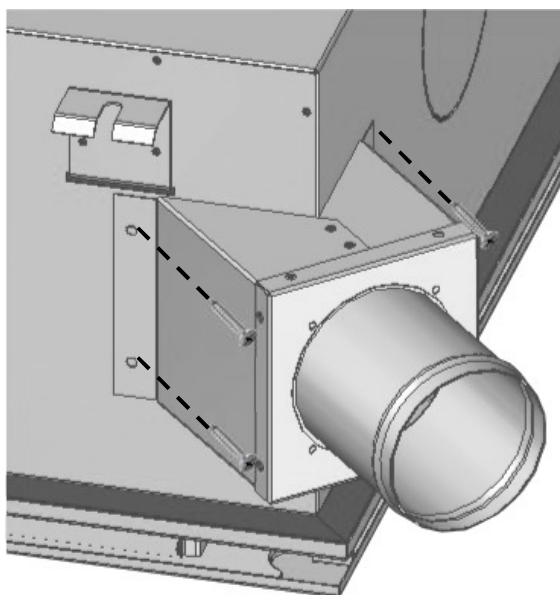
On the carpentry there is a pre-cut piece to connect the FLAE on duct. It is in the opposite corner to the Condensate Drainage. (see image below).



Remove the two pre-cut piece (Outlined in red in the picture below) with a tool (screwdriver, etc.).



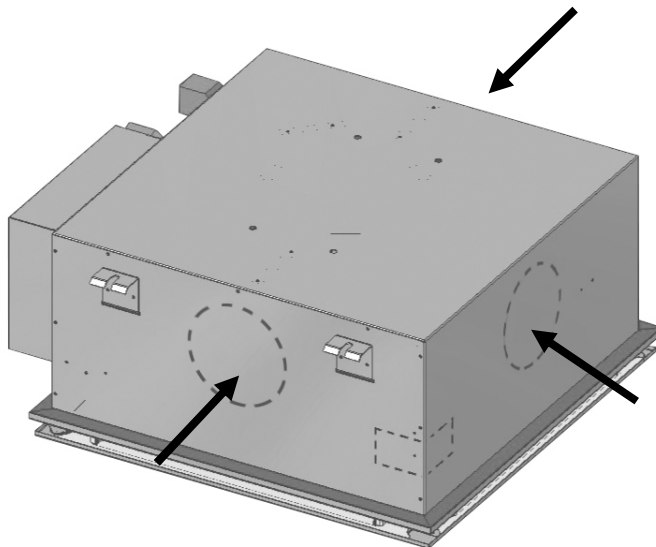
Fix the FLAE with four screws



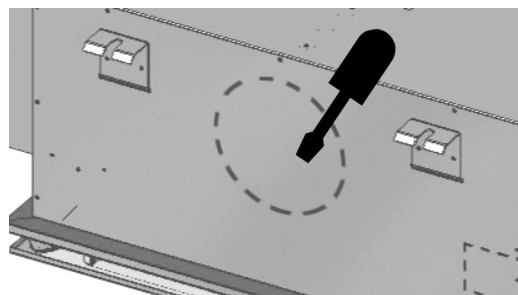
9-FLAM INSTALLATION (Accessory)

The accessory FLMA (Flange For Air Outlet Duct) distributes air in other different rooms through a circular channel.

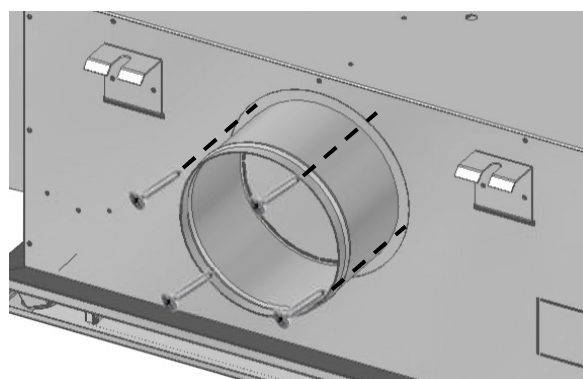
On the three sides of the unit there are three pre-cut pieces (circular) to connect the FLMA (see picture below).



Remove the circular pre-cut pieces. (Outlined in red in the picture below) with a tool (screwdriver, etc.).



Fix the FLMA with four screws.

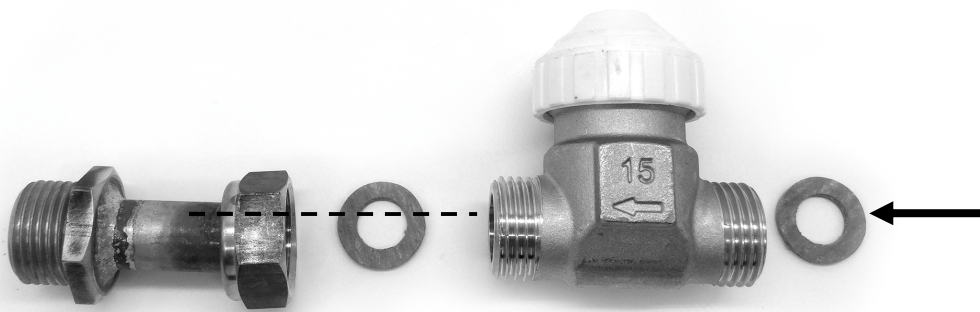


10-KIT VALVES INSTALLATION (Accessories)

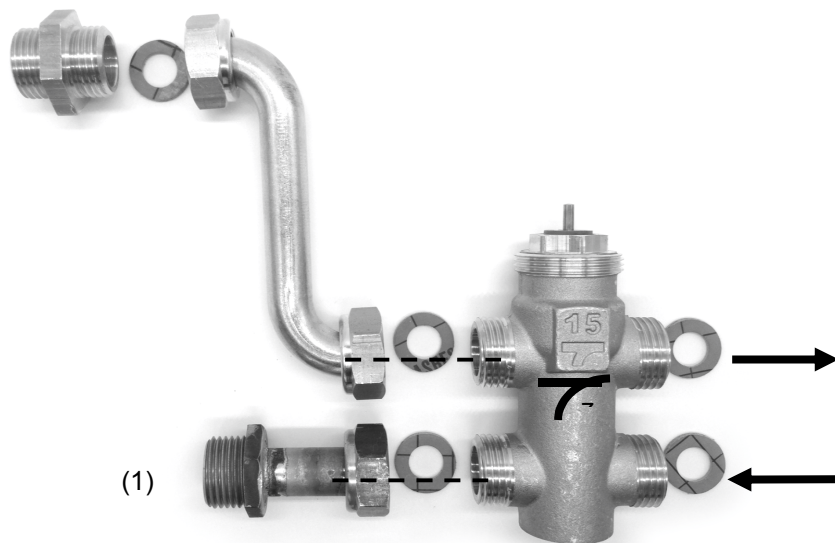
The Kit valve should be built as shown in the picture of paragraph 5.

The pictures below show the assembly of the Valve Kit components.

ASSEMBLY KIT VALVES 2 WAY (2 and 4 PIPES)

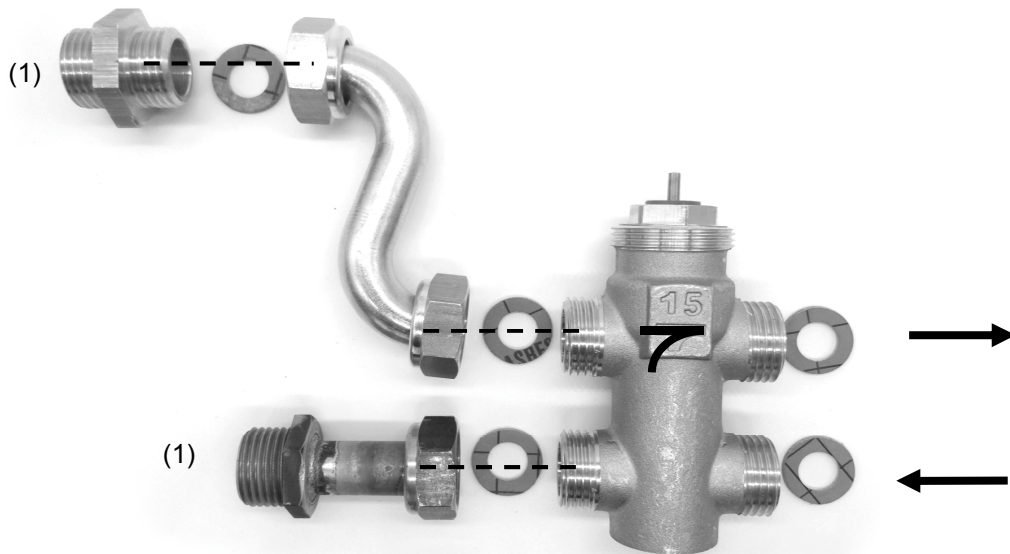


ASSEMBLY KIT VALVES 3-WAY / 4-DOORS (2 PIPES and 4 PIPES COOLING COIL)



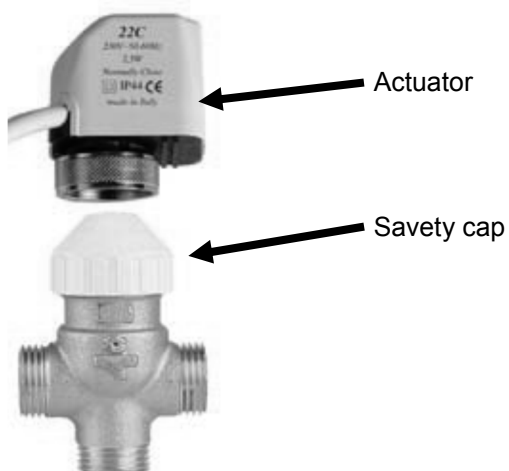
INSTALLATION, USE AND MAINTENANCE MANUAL

ASSEMBLY KIT VALVES 3-WAY / 4-DOORS (4 PIPES HEATING COIL)



(1) Fix to the battery connections whit a suitable sealant (in teflon or hemp)

After assembling the KIT, remove the safety valve cap and fix the actuator with threaded ferrule (the actuator shape depending by the type of actuator).



11-ELECTRICAL CONNECTIONS

During maintenance operations disconnect the unit from the power line with a manual disconnect.

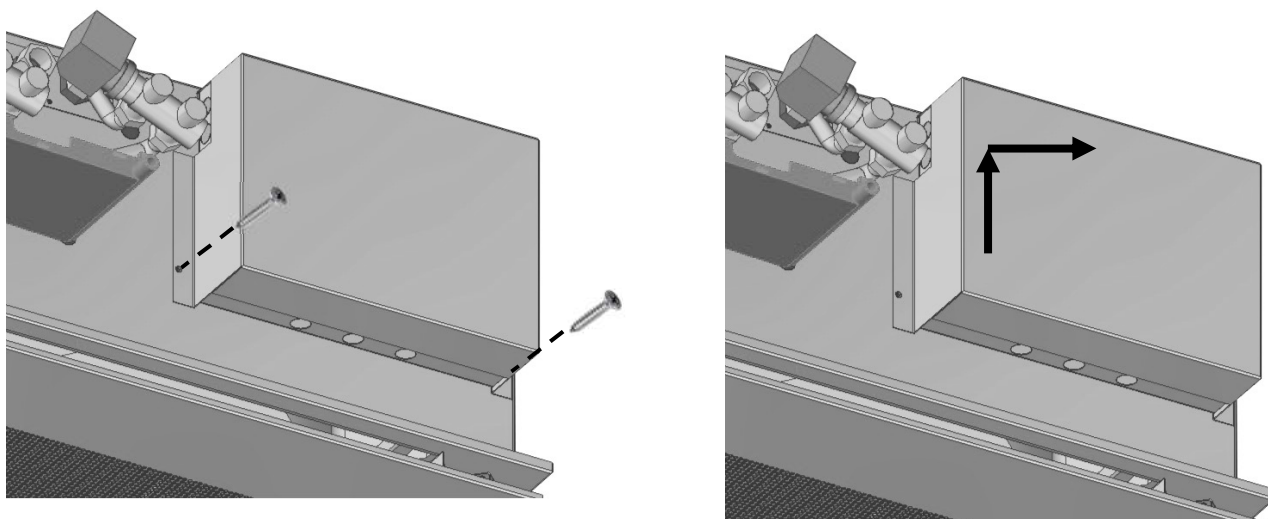
Provide a fuse or circuit breaker to protect the unit.

The power cables should not be less than 0,75mmq. They must be sized according to the maximum absorption (shown in label and technical manual).

Check that the voltage and frequency of the power supply is 230V - 50Hz.

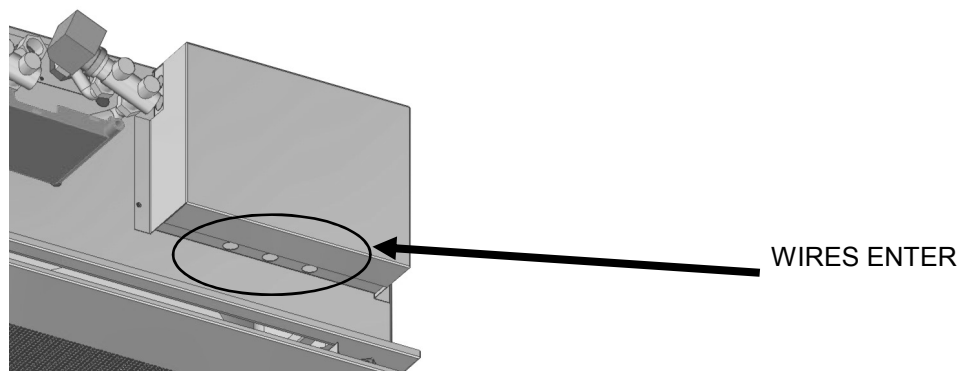
Before making any electrical connection on the unit, switch off the main power supply and make sure that it cannot be accidentally inserted.

To remove the cover of the electrical panel, unscrew the two screws on the sides of the lid. Then lift slightly and remove the cover.



Removing the electrical panel cover

To access with the cables inside the enclosure, use the cable glands at the bottom of the electrical box.



Grommets input in the electrical box

INSTALLATION, USE AND MAINTENANCE MANUAL

Before installing electricity, see specific circuit diagram of the unit supplied with the unit. After completing the electrical installation, replace the electrical panel cover and secure it with the two screws.

12-MAINTENANCE

The maintenance of the unit can only be done by qualified and trained.

Before performing any maintenance on the unit, make sure that the main power supply is switched off and that it cannot be accidentally inserted. Make sure the motor is stopped before opening the cassette cover.

The motor, the coil and the drainage pump does not require regular maintenance. The filter instead requires periodic cleaning.

12.1-Filter

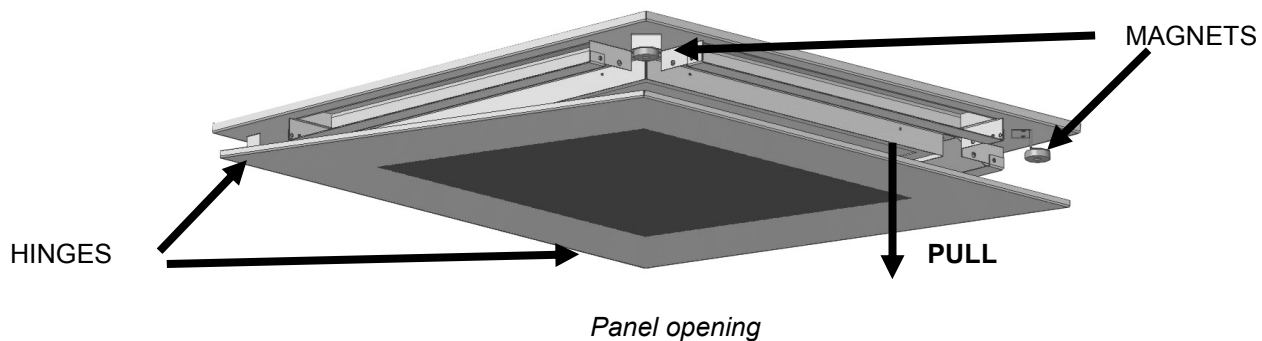
The filter must be cleaned periodically, every 6 months or more often if the environment is dusty. It can be cleaned with a vacuum cleaner or slightly beaten. To access the filter pull down gently on the front panel to release the magnet fixing.

Pull only in the two corners (maximum 5cm from the edge) at the two labels " PULL ".

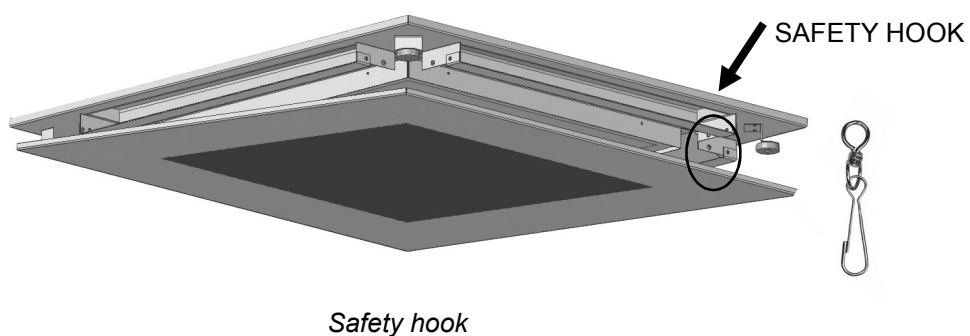


PULL LABEL ON PANEL

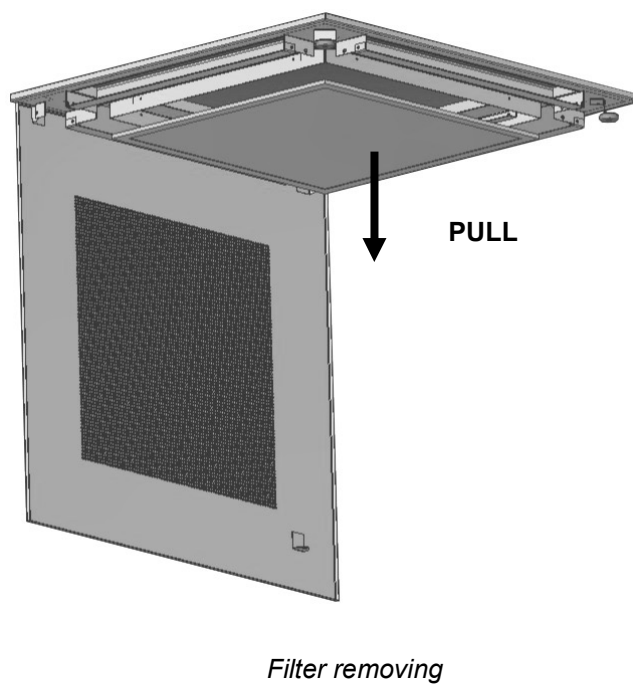
BREZZA Series



Unhook the safety hook and open the panel.



Pull down gently the filter to release it from the magnets

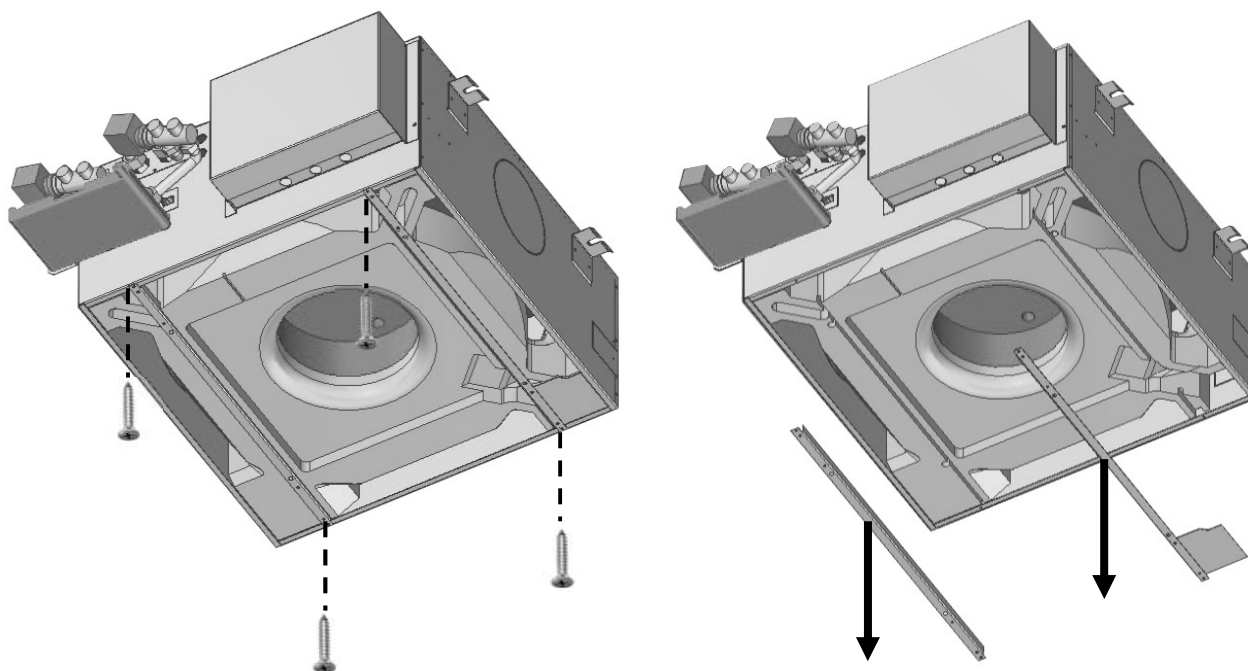


INSTALLATION, USE AND MAINTENANCE MANUAL

12.2-Pump

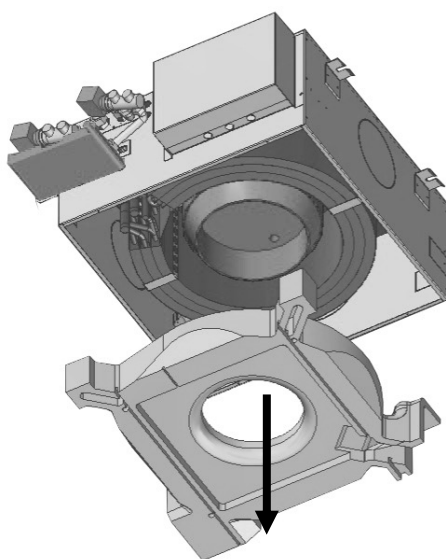
To access internal components (pump, fan), you must remove the front panel. To do this, follow the steps in reverse order in paragraph 5.

Then you must remove the polystyrene drain pan. First, remove the four screws that secure the cross bars and remove the bars.



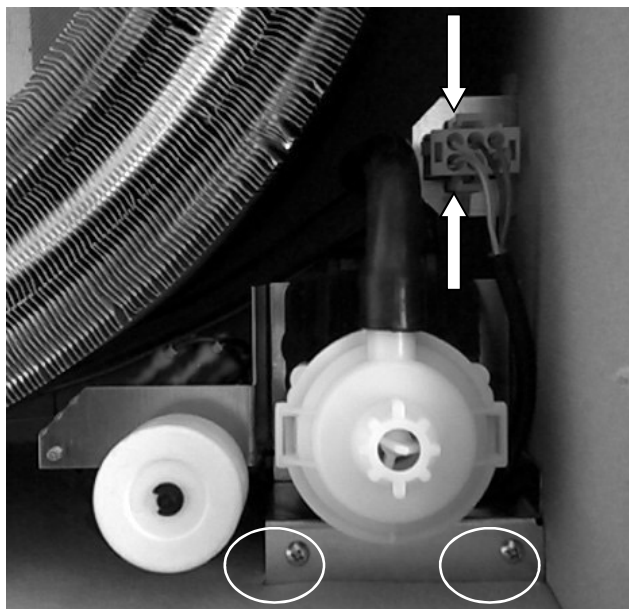
Remove drain pan support bars

Remove the polystyrene drain pan, pulling it gently to prevent damage. Do not overturn the drain pan because there may be water inside.



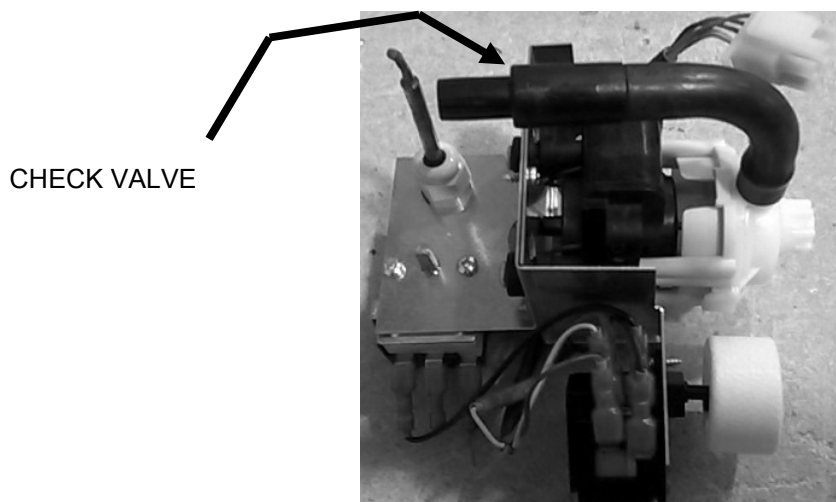
Remove drain pan (circular)

To remove the pump, release the connector from its support, applying pressure with your fingers as shown in the picture. Then unscrew the two screws circled in the picture.



Removing pump

Removing the assembly pump and disconnect the rubber tube, so that the check valve remains integral with the pump assembly, as in the picture below.



Pump Assembly

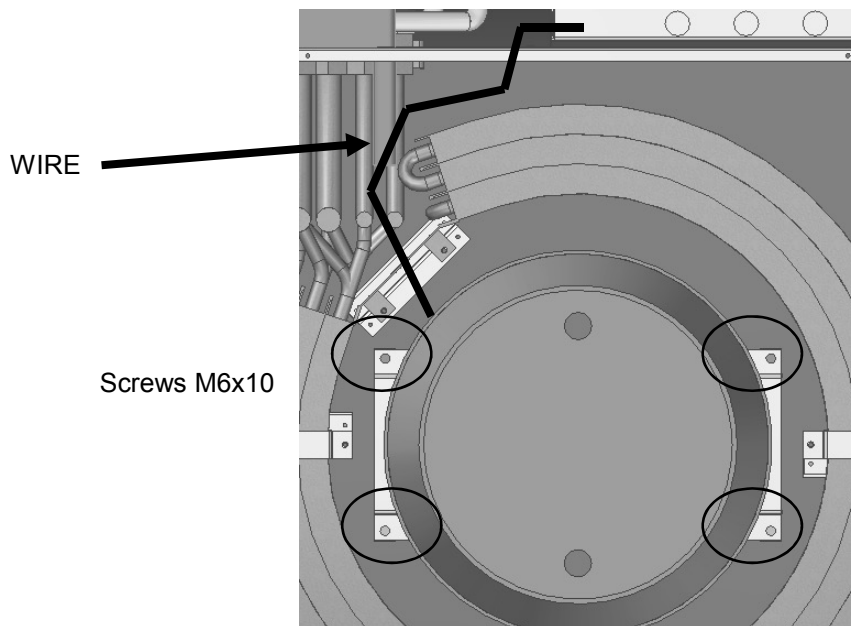
To reassemble the pump, follow the steps above to the contrary.

INSTALLATION, USE AND MAINTENANCE MANUAL

12.3-Fan

To remove the fan, you must first remove the front panel and the polystyrene drain pan (as in paragraph 8.2).

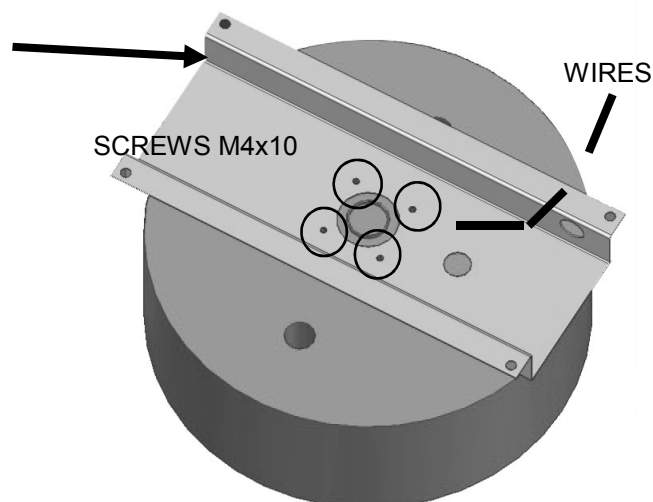
Disconnect the cable or cables of the fan from the terminals of the electrical box. Unscrew the four screws (M6x10 hex head) that secure the motor support bracket to the bottom of the unit.



Screws fastening bracket fan

Remove the fan-metal bracket from the unit, pulling the cable through the cable guides. Unscrew the four screws (M4x10) that secure the fan to the bracket, pulling the cable from the cable guides of the bracket.

BRACKET WIRES



WARNING:

During reassembly, make sure that the four screw M4x10 are not batting in the bottom of the threaded hole (possibly add washer)

Viti fissaggio ventilatore a staffa

After replacing the fan, reassemble all components performing the same operations in reverse order.

13-TROUBLESHOOTING

Fault	Possible fault	Remedy
The fan does not turn	There is no current	Check the circuit breaker / fuse
	The thermostat is damaged	Check if there is power to the terminals of the fan (and/ or 0-10V signal for EC)
	The cables are not connected	Monitor the implementation of all electrical connections with in the scheme
	Capacitor broken	Replace the capacitor (AC motor)
Insufficient air flow	Dirty filter	Clean or replace the filter
	Selected speed low	Select a higher speed (max or med)
Noisy fan	Damaged fan	Visually check that the fan is intact
	Fan loose	Check that the fan is fixed firmly to the bottom of the box
	Selected speed high	Select a lower speed (min or med)
In summer comes out hot air or cold air out in the winter	Water too hot	Check that the incoming water is less than 10 ° C in summer or above 40 ° C in winter
	Water flow low	Check that the dT between water input and output is at most 7K
	Valve closed	Check that all manual valves are open to interception
	Pump route	The float has closed the valve for pump alarm
	Valve Actuator broken	Check that the actuator has opened the valve
	Air in the coil	Vent drums and pipes
Condensation on the panel	Water too cold	Raise the water inlet temperature
	Speed too low	Increase the speed of the fan (med or max)
Dripping from the pan	Condensate drain clogged	Control the outflow of the exhaust pipe
	Pan counter slope	Check that the tray is level or tilted slightly towards the drain
	Float broken	The float switches the pump
	Pump route	The pump does not work or is dirty (clogged)
	Check valve stuck	The check valve prevents the passage of water
	Water pipes are not insulated	Insulate all chilled water pipes
	Defective seals	Check seals of hole connection
	Dirty pan	Clean the pan to allow the normal flow of condensate

14-WASTE DISPOSAL

At the end of his service, the unit must be disposed of in compliance with local regulations on waste disposal.

The main materials present are: copper, aluminum, steel, polystyrene, plastic.



NOTE:

Aertesi srl reserves the right to introduce at any time whatever modifications deemed necessary for improving the product with possible modification of the relevant technical data

WESTERNTM
AIRCONDITIONING
WARMTEPOMPEN

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