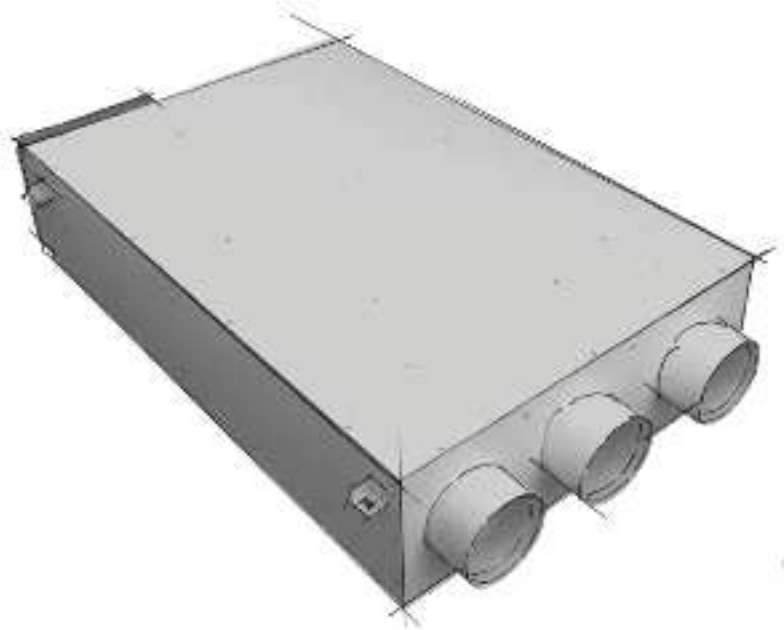


S E R I E S

E O S B

I N T E G R A T E D R E C O V E R Y U N I T



I N S T A L L A T I O N , U S E A N D M A I N T E N A N C E M A N U A L



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## **1-INTRODUCTION**

This manual contains instructions for the proper installation and maintenance of the unit. If these instructions are not complied, the manufacturer will not be responsible for damage to people, property or unit.

Installation and maintenance must be carried out only by qualified technicians.

During these operations, the technicians must comply with the common safety rules (wearing protective clothing for hands and eyes, ecc...).

Before working on the unit, disconnect the main power supply and make sure that it can not be restored by mistake.

Use only original spare parts.

Units contain moving parts: after removing the power supply, it is recommended to wait 5 minutes before opening the inspection panels.

The units are designed for air-conditioning in the residential and commercial sector, not exposed to dust or corrosive or explosive environments. The manufacturer shall not be liable in case of incorrect applications.

## **2-RECEIVING OF THE GOODS**

After receiving the unit, remove all packaging components. If the unit is damaged or incomplete, do not proceed with the installation. Check that the product label has got the same model number ordered.

Any complaints must be sent in writing immediately after receipt.

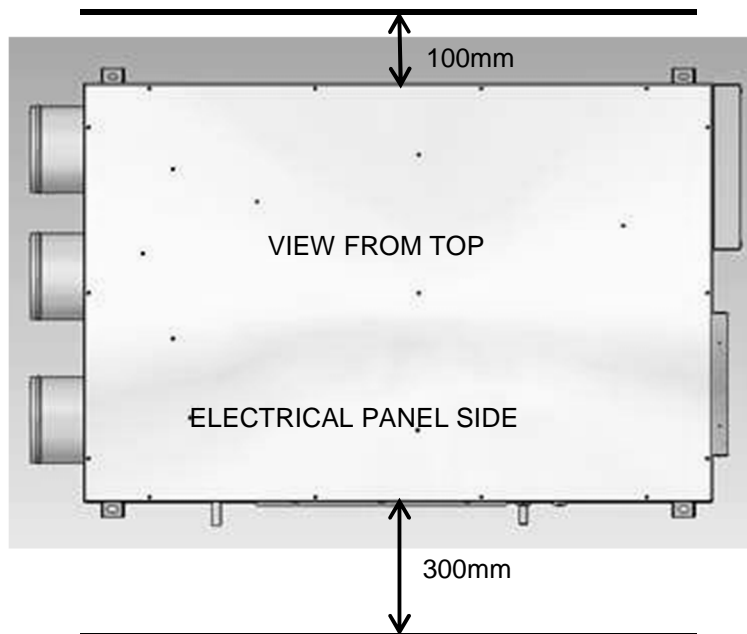
## **3-INSTALLATION OF THE UNIT**

The unit is designed for installation in horizontal false ceiling.

### **3.1-Placement**

It is advisable to place the unit in a central position respecting the aeraulic network, so that you do not have sections of ducts too long.

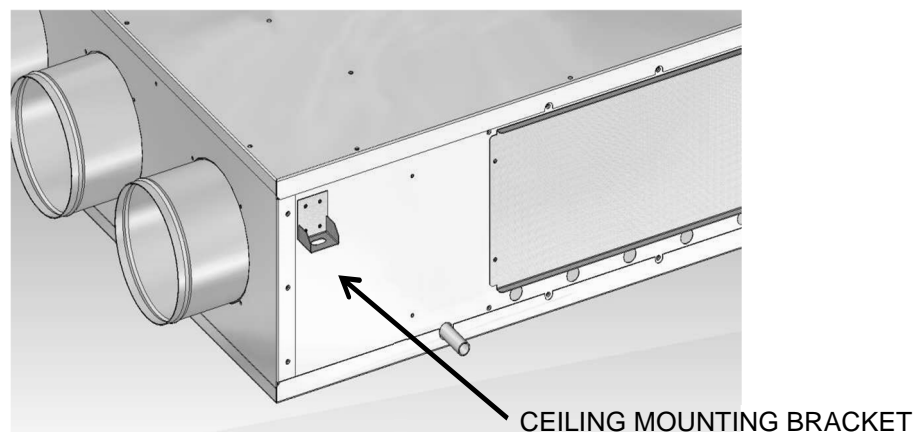
Place the unit in order to meet the minimum clearances required for normal maintenance and installation.



### 3.2 Fixing on the ceiling

First of all, make sure that the ceiling components and fasteners are adapted to support the weight of the unit.

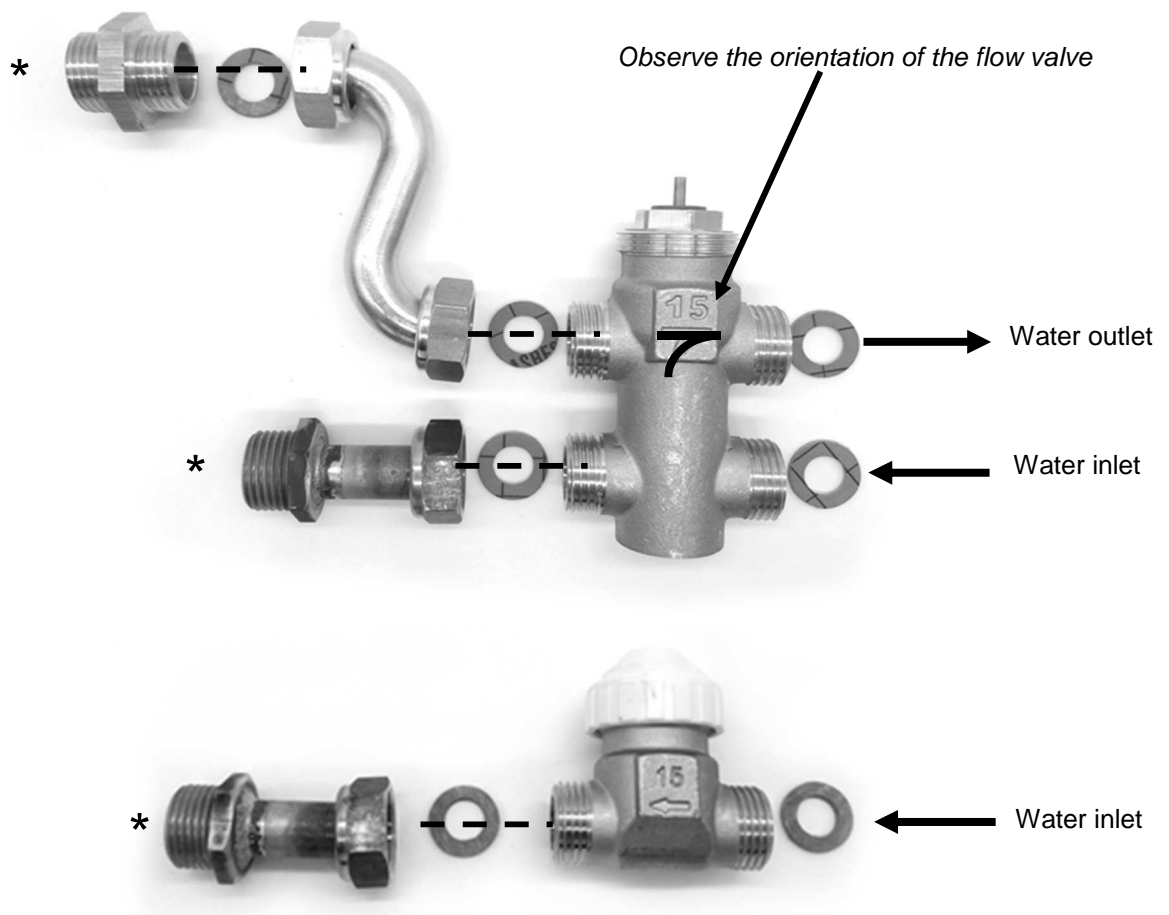
Fix the unit to the ceiling using the four supplied brackets, to the four corners of the unit.



We advise to use the threaded rods fixed to the ceiling, which allow you to adjust the incline of the unit.  
After completing the installation, the unit must have an incline towards the side of the electrical panel of about 2 ° to allow a good flow of the condensate drain

### 3.3-Hydraulic connections (only for version with water coil W)

The valve is delivered disassembled to prevent damages during transportation and installation. For installation, follow these steps:



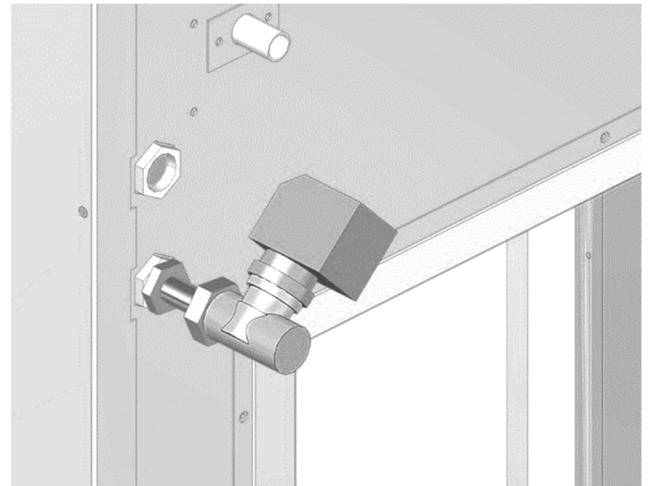
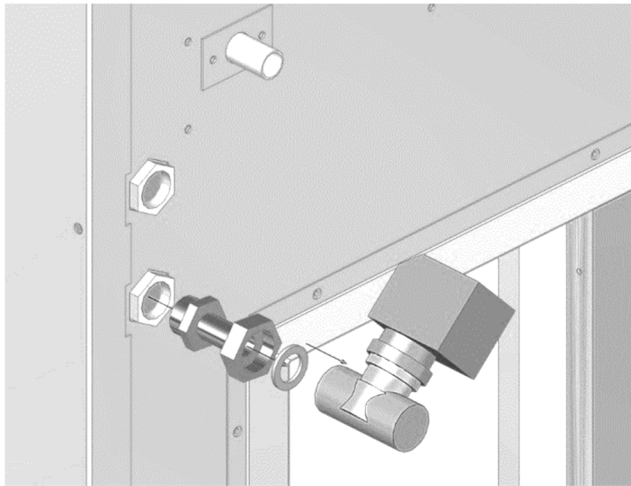
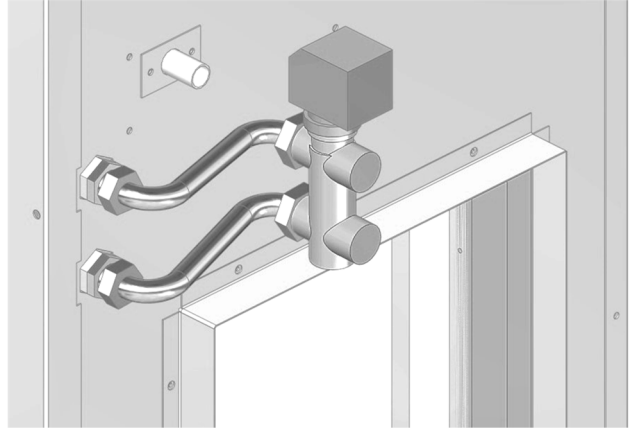
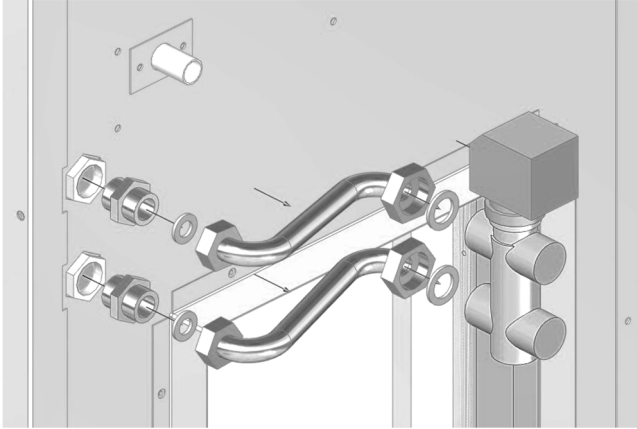
\* = Fix to the coil connections with a suitable sealant (in teflon or hemp)

*Components of the valve mounting kit*

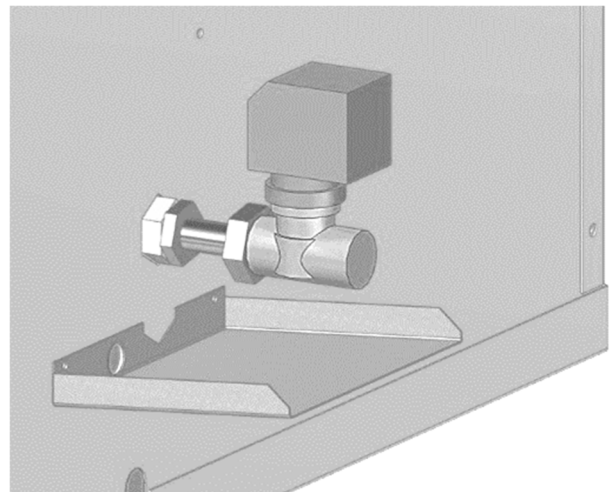
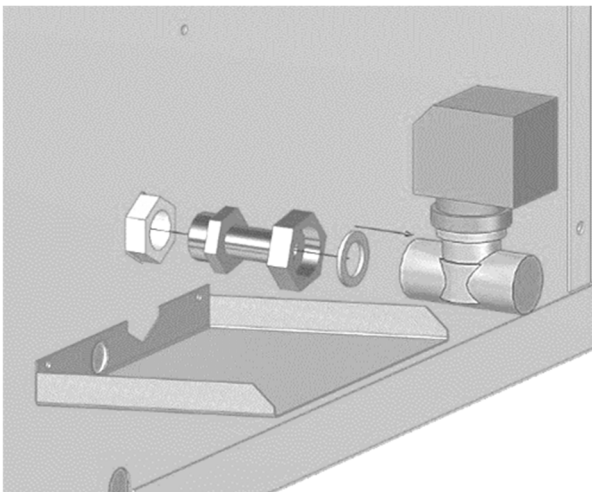
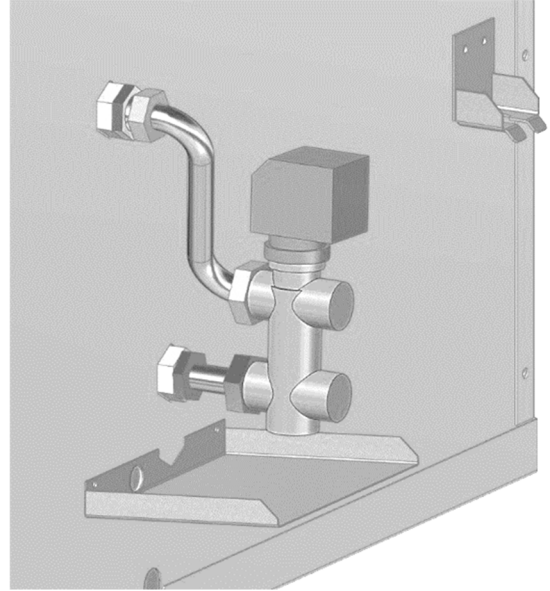
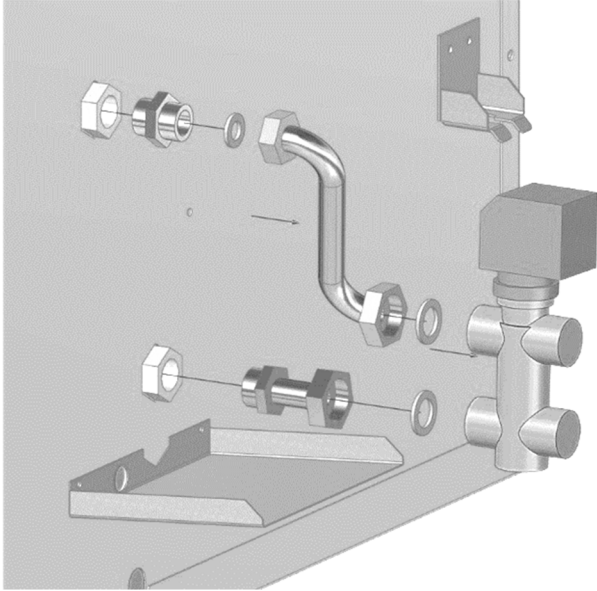
After assembling the pipes of the valve, install the actuator and connect it to the electrical panel of the unit as shown in the diagram of the unit.

Observe the directions of input / output of the water of the valve connections

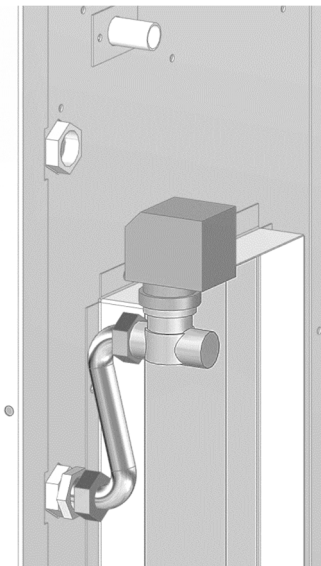
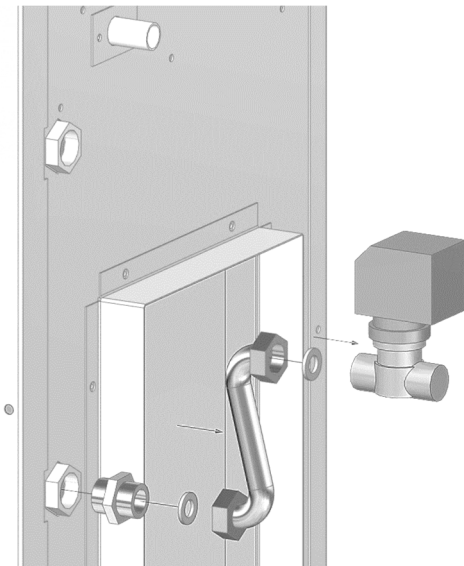
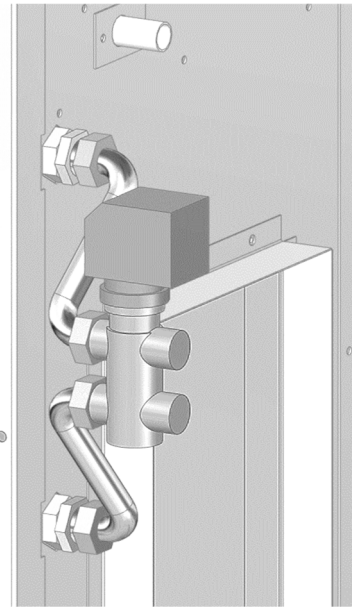
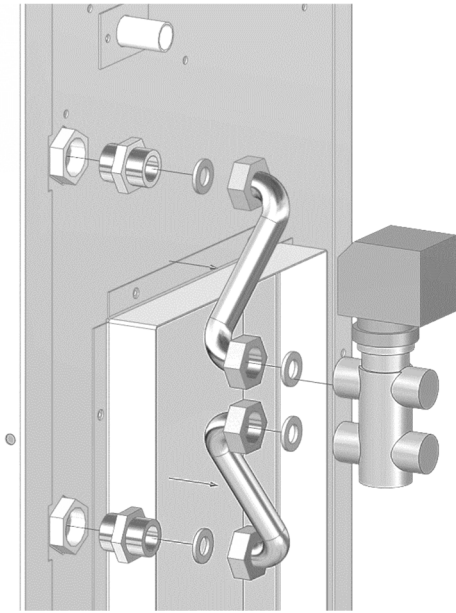
Valve mounting on vertical EOSB6



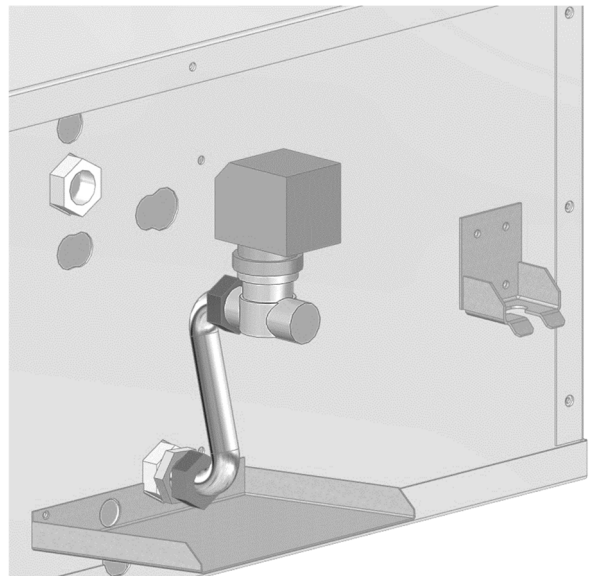
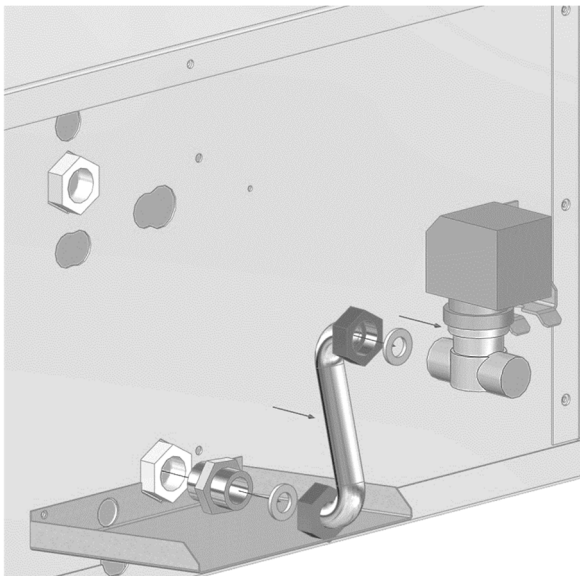
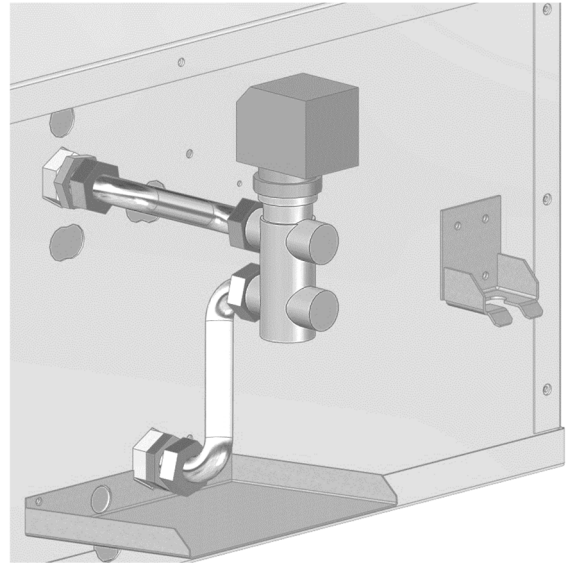
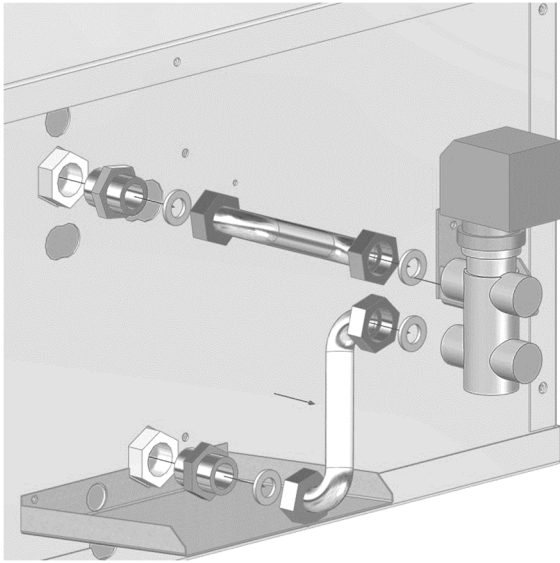
Valve mounting on horizontal EOSB6



Valve mounting on vertical EOSB3

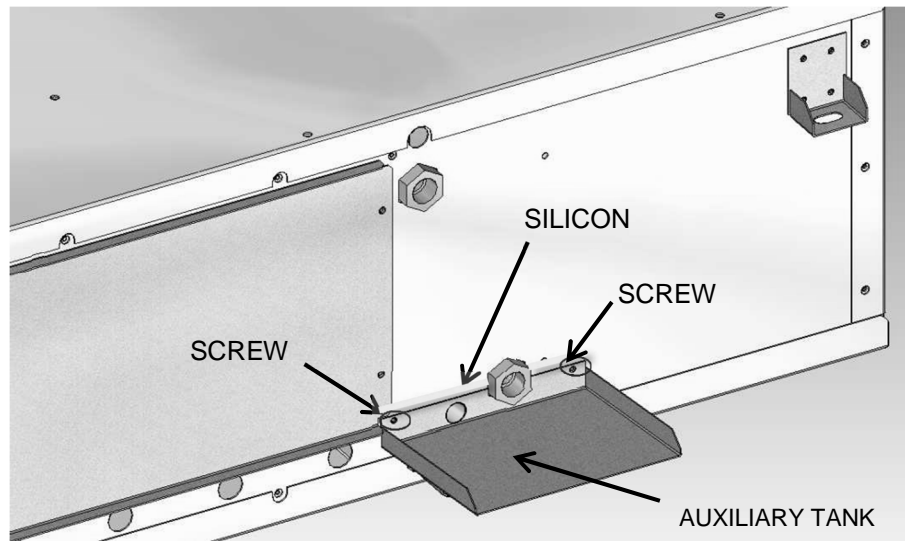


Valve mounting on horizontal EOSB3



Connect the hydraulic pipes carefully, without causing damages to the valve or to the coil. The pipes must be supported with brackets and their weight must not rest on the fittings of the unit.

Install the auxiliary drain pan under the valve and apply silicone on the edge.



*Fixing auxiliary tray*

*It is recommended to install the manual shut-off valves, in order to make maintenance on the unit without draining the system.*

After and during the loading of the system, remove the air from the coil using the vent valve located above the coil (it's indicated with a label on the side of the unit). In case of risk of frost, add antifreeze additives or download the pipes in the winter.

### **3.4-Refrigerant connections**

***NOTE (only for version with direct expansion coil DE)***

The unit is equipped with a spigot copper solder. The coil is supplied without refrigerant. During the welding operation, it is recommended not to aim the flame against the side of the unit. After welding, check the tightness of the circuit to 40bar.

Pipes must be supported with brackets and their weight must not rest on the fittings of the unit and they also need to be covered with thermal insulation to the wired side of the unit.

### **3.5-Condensate drain**

The unit is equipped with two condensate drains, one for the pan of the coil and one for the recovery.

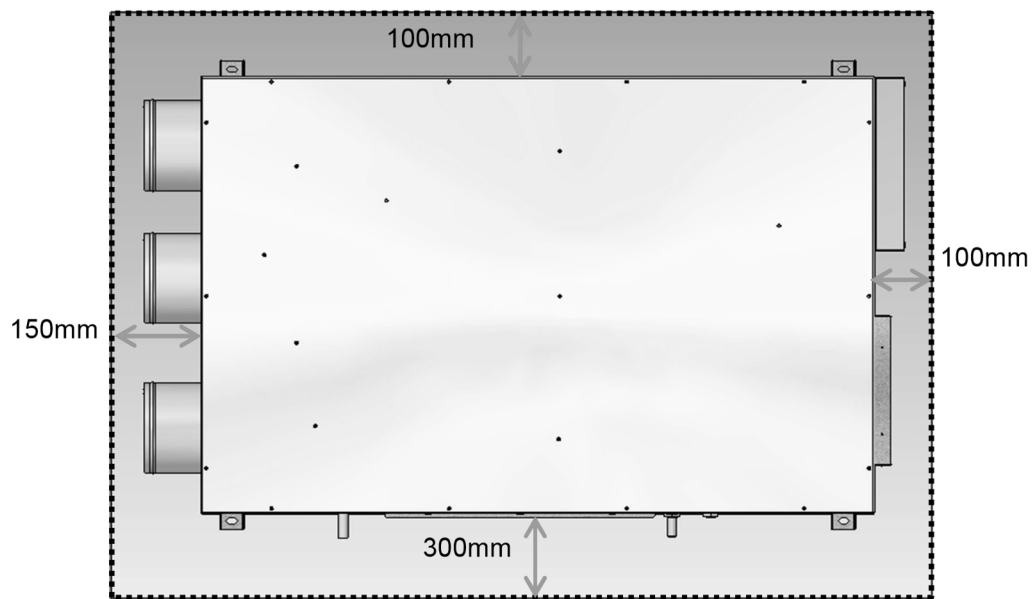
The exhaust pipes must have an incline enough to allow proper water drainage; if it is not possible, install a drain pump.

To prevent the return of unpleasant odors, it is compulsory to form a syphon in the discharge line.

### 3.6- False ceiling

In order to carry out the ordinary and extraordinary maintenance of the unit, it is necessary to provide a manhole inspection of the dimensions shown in the figure.

To reduce the noise radiated into the environment, it is recommended to use an insulating false ceiling in the area where the unit is installed.



*Manhole Inspection*

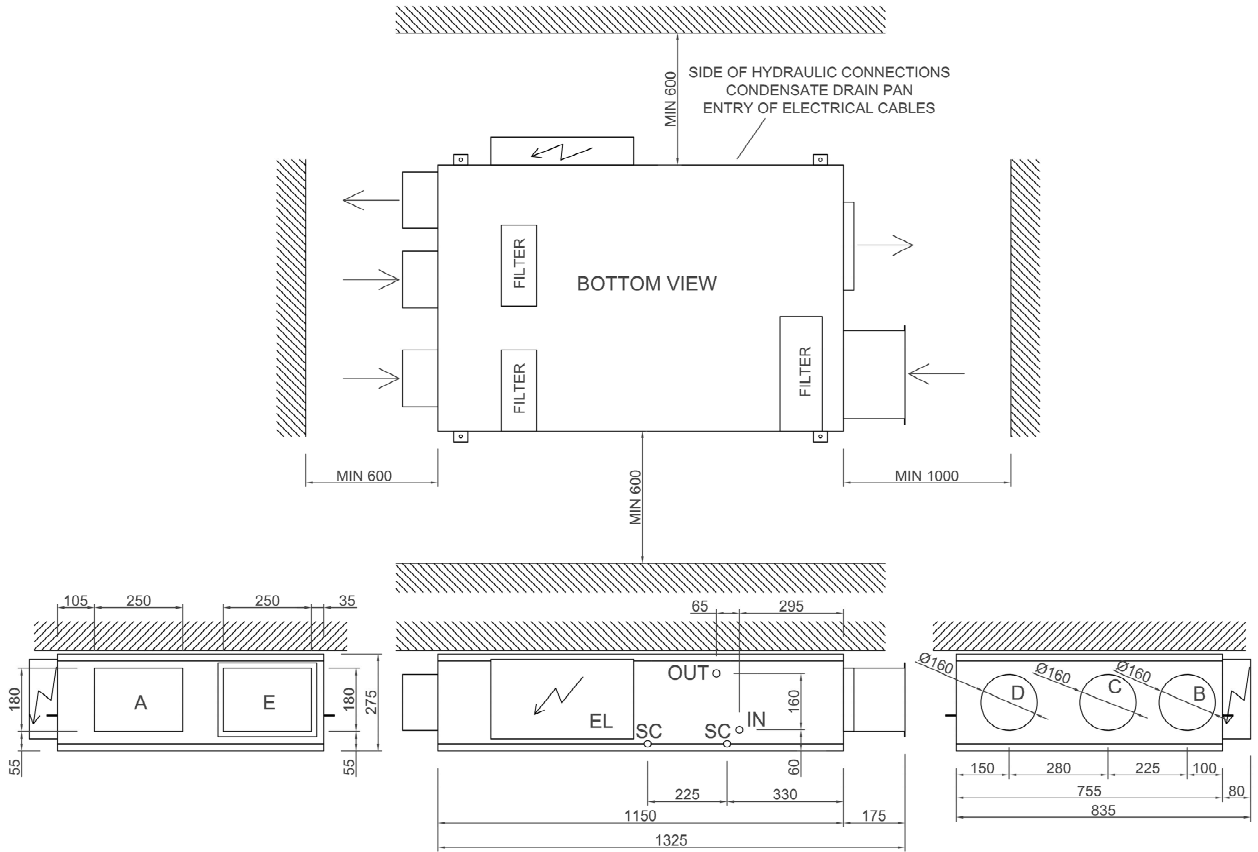
### 3.7- Aeraulic connections

We suggest to install air flow regulation systems in each duct and/or grille.

Ducts must be supported and fixed to the wall or ceiling; duct weight must not be in charge to unit connections.

Respect the duct connections as shown in the next pages.

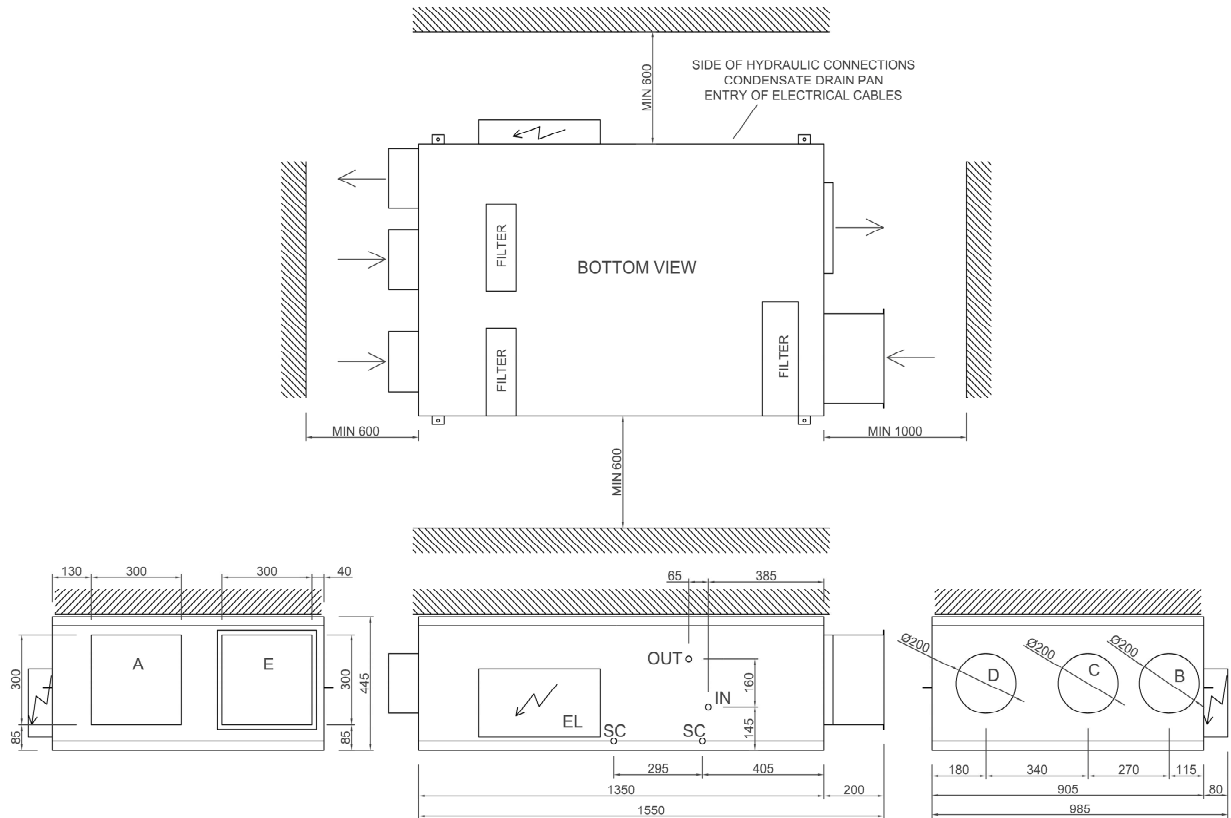
# EOS3HW



<b>A</b>	Room inlet
<b>B</b>	Exhaust
<b>C</b>	External air intake
<b>D</b>	Exhaust air suction
<b>E</b>	Recirculation air suction

<b>IN</b>	Main coil IN	1/2"
<b>OUT</b>	Main coil OUT	1/2"
<b>SC</b>	Condensate drain	d.16
<b>EL</b>	Electrical cables inlet	

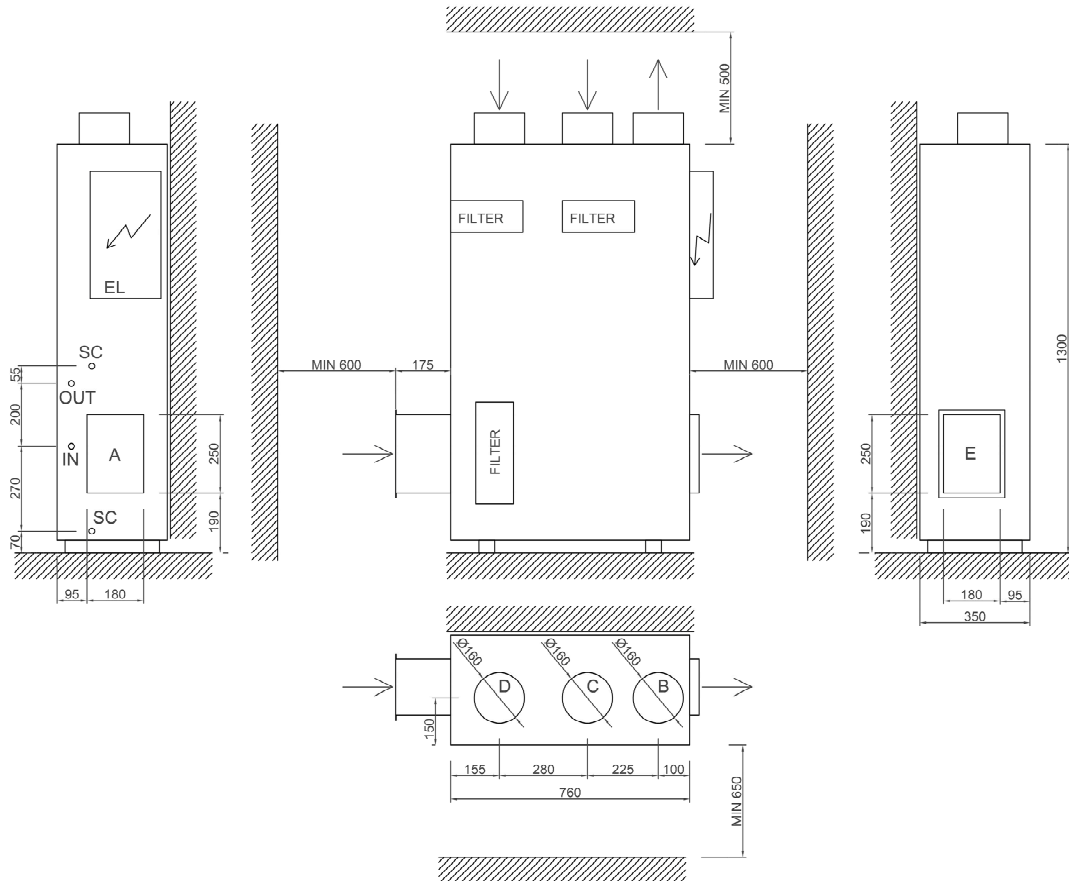
# EOS6HW



<b>A</b>	Room inlet
<b>B</b>	Exhaust
<b>C</b>	External air intake
<b>D</b>	Exhaust air suction
<b>E</b>	Recirculation air suction

<b>IN</b>	Main coil IN	1/2"
<b>OUT</b>	Main coil OUT	1/2"
<b>SC</b>	Condensate drain	d.16
<b>EL</b>	Electrical cables inlet	

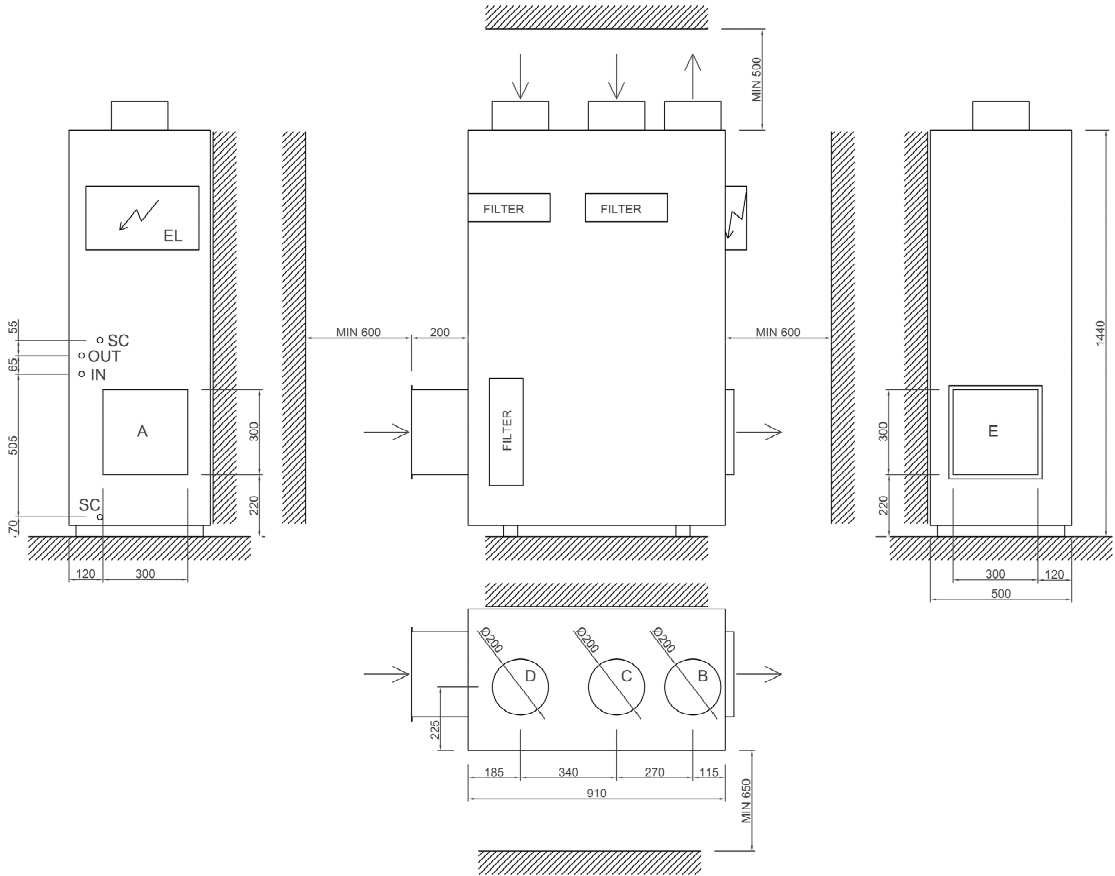
# EOS3VW



<b>A</b>	Room inlet
<b>B</b>	Exhaust
<b>C</b>	External air intake
<b>D</b>	Exhaust air suction
<b>E</b>	Recirculation air suction

<b>IN</b>	Main coil IN	1/2"
<b>OUT</b>	Main coil OUT	1/2"
<b>SC</b>	Condensate drain	d.16
<b>EL</b>	Electrical cables inlet	

# EOS6VW



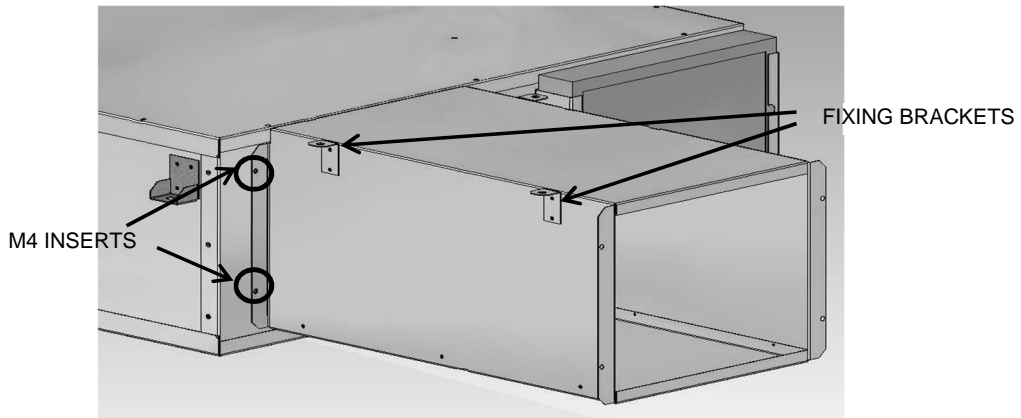
<b>A</b>	Room inlet
<b>B</b>	Exhaust
<b>C</b>	External air intake
<b>D</b>	Exhaust air suction
<b>E</b>	Recirculation air suction

<b>IN</b>	Main coil IN	1/2"
<b>OUT</b>	Main coil OUT	1/2"
<b>SC</b>	Condensate drain	d.16
<b>EL</b>	Electrical cables inlet	

## 4-INSTALLATION OF THE AERAULIC ACCESSORIES

### 4.1-Outlet noise reducer

The outlet noise reducer can be installed directly on the delivery of the unit, using the four M4 threaded inserts included on the unit. Alternatively, it can be inserted in the duct and fixed to the ceiling using the four supplied brackets.



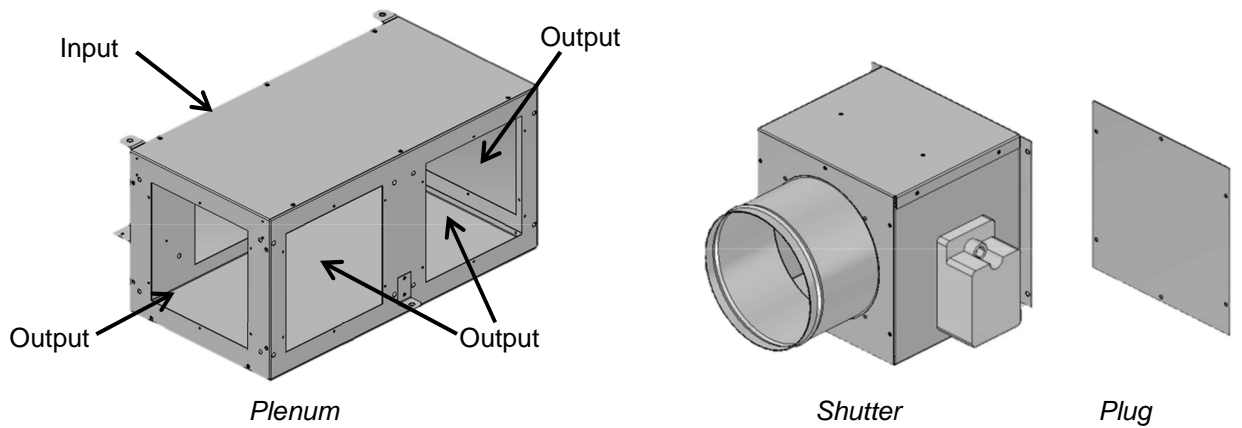
*Installation of the noise reducer*

### 4.2-Plenum Multi-zone (areas 2/3/4)

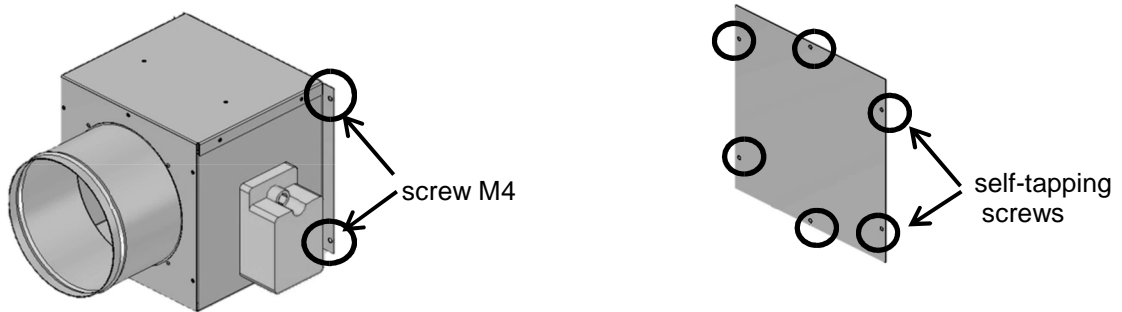
At the plenum multi-zone, it is necessary to provide an inspection hatch on the false ceiling in order to make the maintenance on motorized dampers and pressure transducer.

In order to give several possibilities of installation, the dampers are not supplied assembled with the plenum.

Based on the structure of the aeraulic system, the dampers can be installed in any duct connection; the unused connections have to be plugged with caps.



The dampers must be fixed to the plenum with M4 screws, using the threaded inserts provided on the plenum; the caps are fastened with self-tapping screws in the holes provided on the plenum.

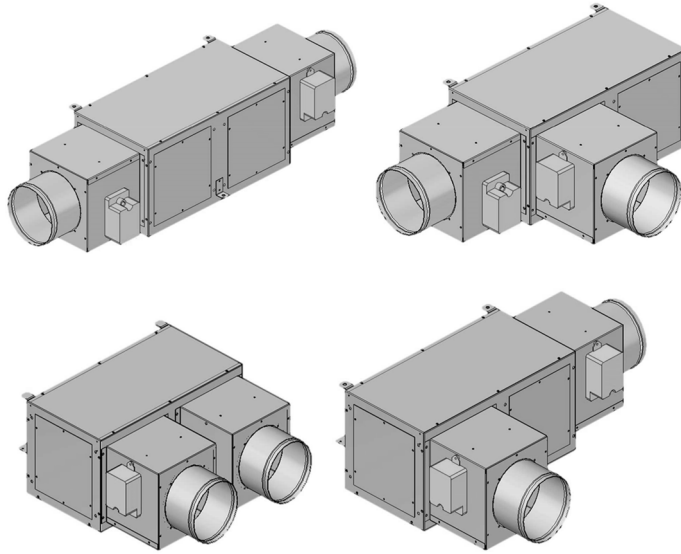


The plenum has four duct connections, and consequently there will be:

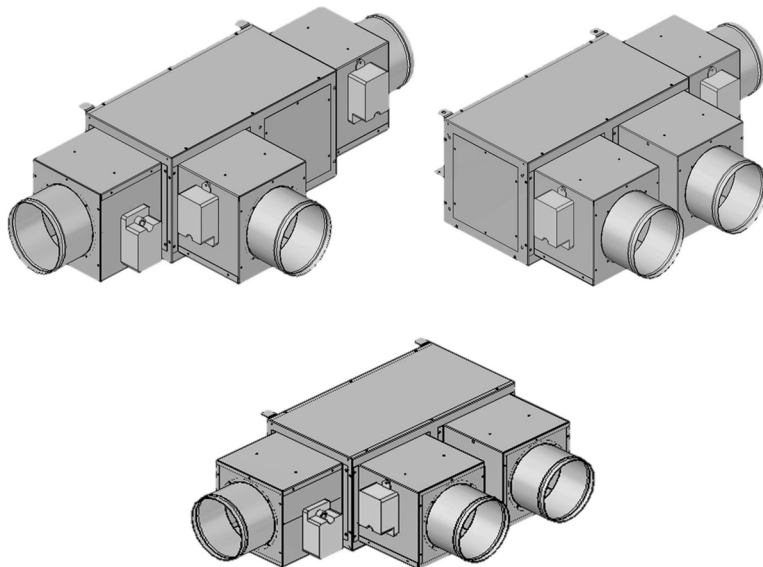
- 2 zone Plenum multi-zone: 2 dampers and 2 caps
- 3 zones Plenum multi-zone: 3 dampers and 1 cap
- 4 zone Plenum multi-zone: 4 dampers and no cap

Below we illustrate the possible installations:

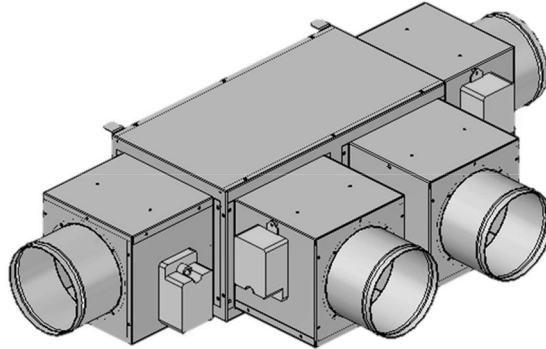
2 ZONE PLENUM



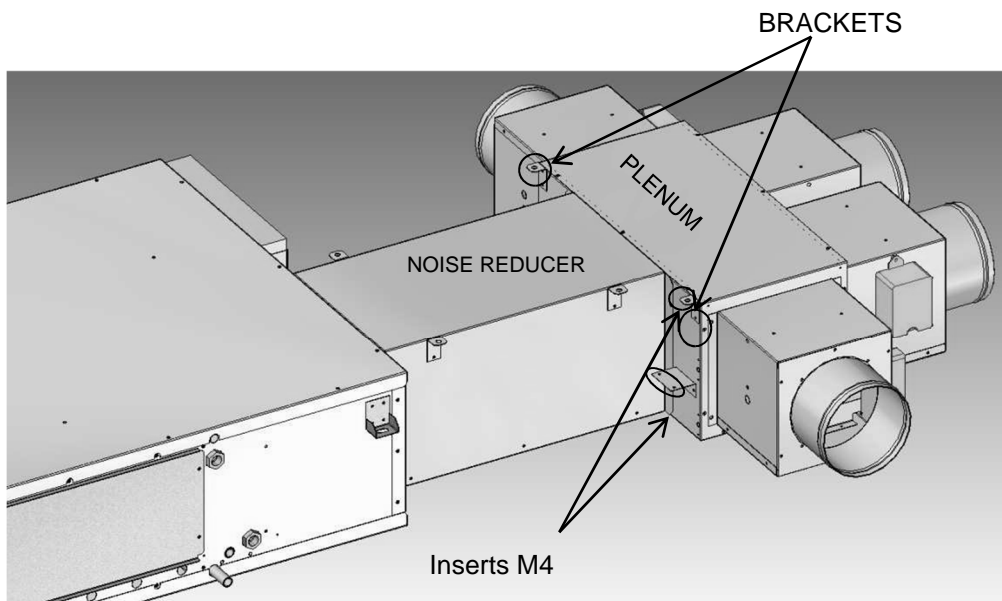
3 ZONE PLENUM



## 4 ZONE PLENUM



The plenum multi-zone can be directly coupled to the outlet noise reducer by tightening the screws M4 in the threaded inserts; alternatively it can be inserted in the duct. It is always advisable to fix it to the ceiling using the supplied brackets.



## 5- WALL INSTALLATION OF THE CONTROL

The unit is standard supplied with a control complete with graphic display to be installed on the wall. Inside there is a temperature sensor, so it must be installed in the main room of the treated area, at a height between 1.2 and 1, 5m away from sources of heat or sunlight.

Using the accessories supplied, the control can be installed:

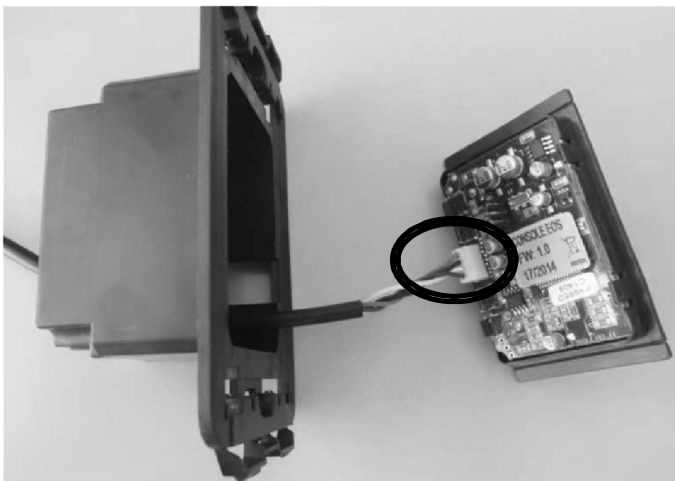
- Built-in using a recessed box with three modules (not included in the supply): in this case you can use the most common frames Gewiss, Bticino and Viman.
- Outside of the wall, using the adapter included with the supply.

### 5.1-Recessed installation

- 1) Open a window on the bottom of the plastic holder and let pass the cable connector.

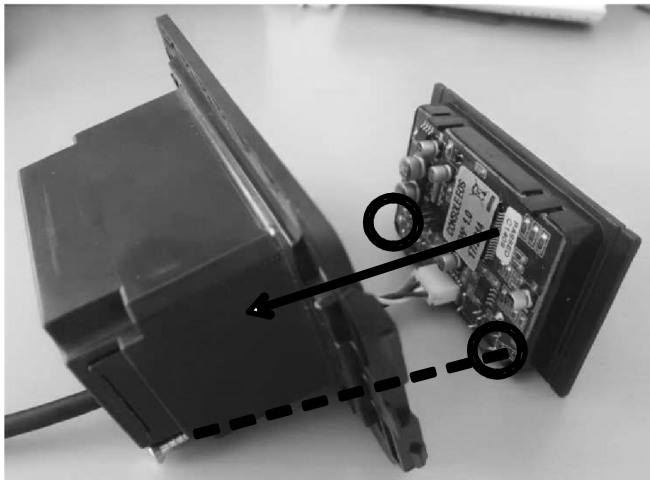


- 2) Connect the cable to the display board.



- 3) Push gently the display inside the plastic bottom, tightening the two screws.

CAUTION: The two screws must be in correspondence with the 2 holes in the corners of the board.



- 4) Depending on the shape of the frame, it may be necessary to break along the lines pre-sketched on the plastic edge of the thermostat



- 5) Attach the wall mounting box and apply the frame.



## 5.2-Installation outside of the wall

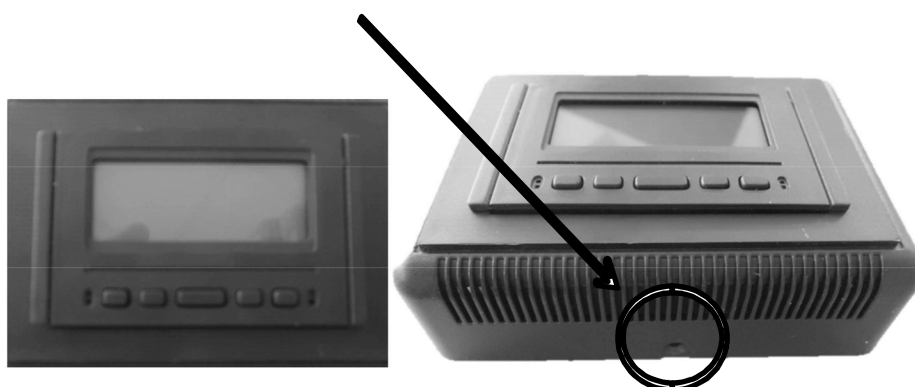
- 1) Fix the bottom plate to the wall with two screws. The screws used must be suitable for your wall. If needed, insert dowels.



- 2) Pass the cable through the wall bracket and connect the cable to the display board.



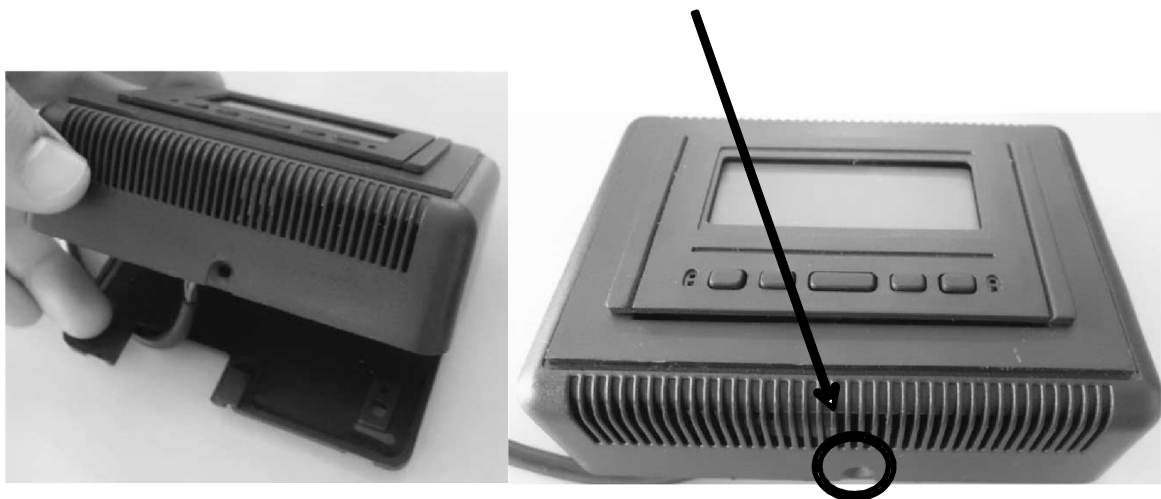
- 3) Push gently the display inside the wall bracket. Make sure that the hole in the wall bracket is oriented downward



- 4) Attach the cover to the back side of the card, by passing the cable through the groove on the cover. Tighten the screws of the cover, making sure they are in correspondence with the holes of the card.



- 5) Apply the wall bracket to the bottom plate (previously fixed to the wall), making the cable through the groove. Fix the wall bracket to the plate with a screw, using the hole on the bottom side of the wall bracket.



## 6-THERMOSTAT PLENUM INSTALLATION

The multi-zone plenum accessory is supplied with room thermostats, one for each zone.

The thermostats are made to be installed in a recessed box of three modules (not supplied).

It is compatible with the most common plates Bticino, Vimar, Gewiss.

It is recommended to install it in the main room of the treated area, at a height between 1.2 and 1,5m away from sources of heat or sunlight.

Flush-mounting in 3-module 503 embedded boxes by means of 2 screws (supplied).

Connection with the user and power source through two bipolar screw terminals for 2,5mm<sup>2</sup> cables.

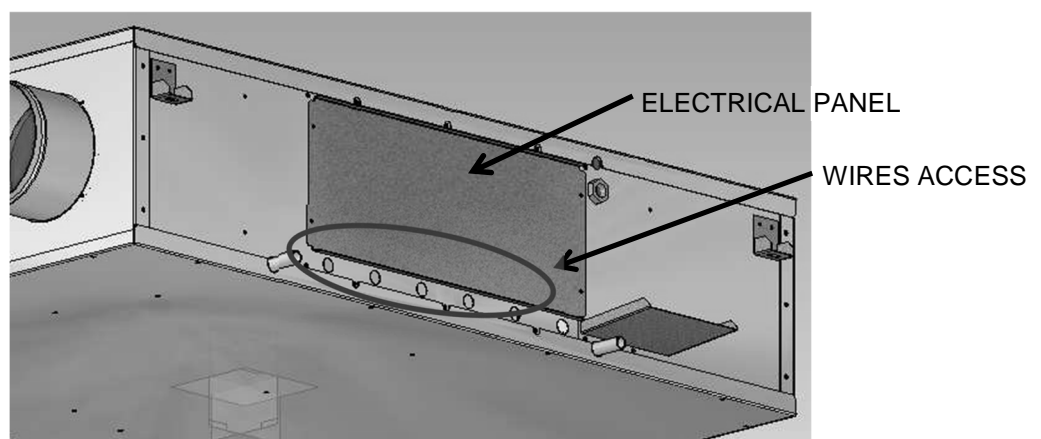
## 7-ELECTRICAL CONNECTIONS

Before making any electrical connections, disconnect the power supply and make sure that no one can accidentally turn it on.

Check that your power supply (voltage, number of phases and frequency) is the same of the one printed on the label of the unit.

Install a main thermic switch or a fuse to protect and to section the unit.

Pass the cable in low voltage and signal (RS 485) in separate cable ducts from cables 230V. To access the electrical components, remove the cover plate of the electrical panel. The passage holes of the cables are placed under the closure panel.



*Electrical panel*

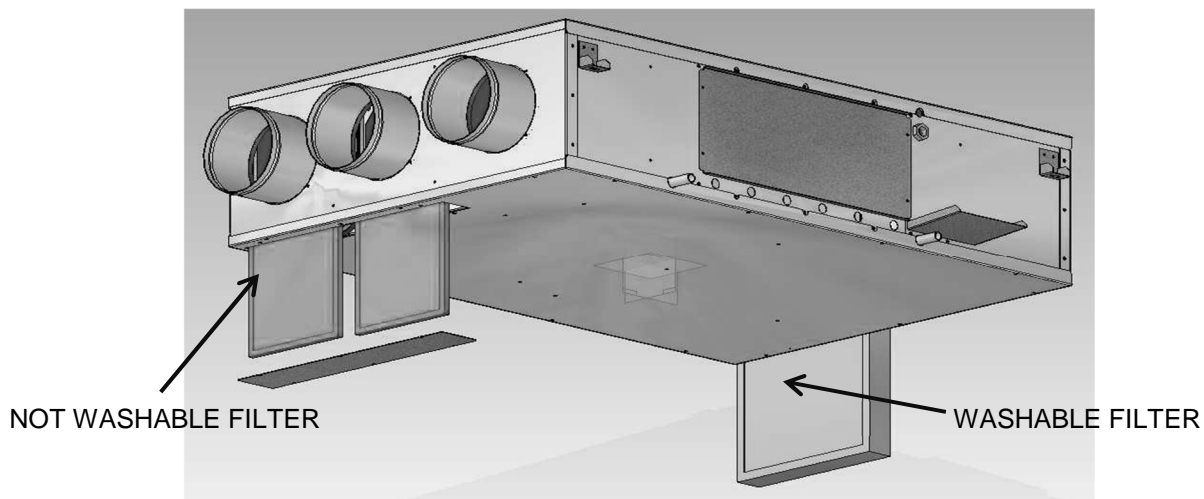
For the electrical connections, refer to the specific wiring diagram

## 8-MAINTENANCE

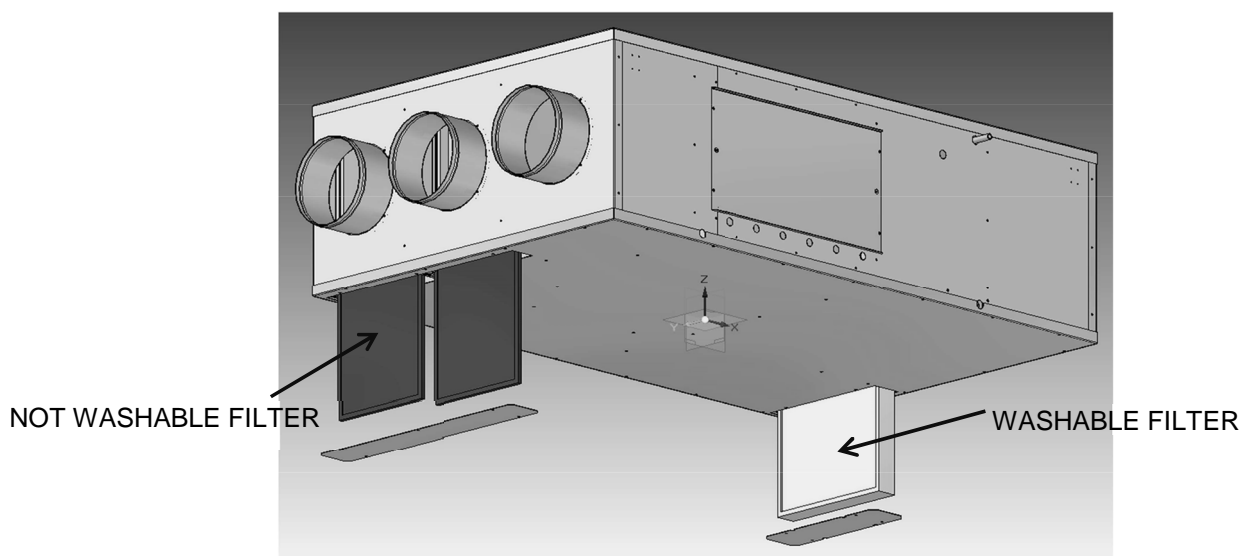
### 8.1-Usual maintenance (every 6 months)

Cleaning the filters: depending on the quantity of dust present in the room, the filter may need more frequent maintenance. The filter placed on the outlet for recirculation is made of polypropylene and it can be washed with warm water. The filters placed in the external air inlet and exhaust air outlet are made of synthetic fibers and they are not washable, so they must be replaced when dirty.

If during the inspection the filters appear to be damaged, they must be replaced. To remove the filters, unscrew the screws that secure the slots inspection and remove them by sliding them along the guides.



Filter inspection EOS3



Filter inspection EOS6

General controls: Ensure that the electrical and water connections and all screws are properly tightened. Check that the carpentry is not damaged by rust or corrosion and that there are no abnormal vibration or noise with working fans.

### 8.2-Special maintenance

To access internal components, remove the bottom panel by removing the screws that secure it to the unit. In case of faults or malfunctions, please contact Service Dept.



*At any time the producer reserves the right to introduce whatever modifications considered necessary to improve the product with possible modification of the relevant technical data*