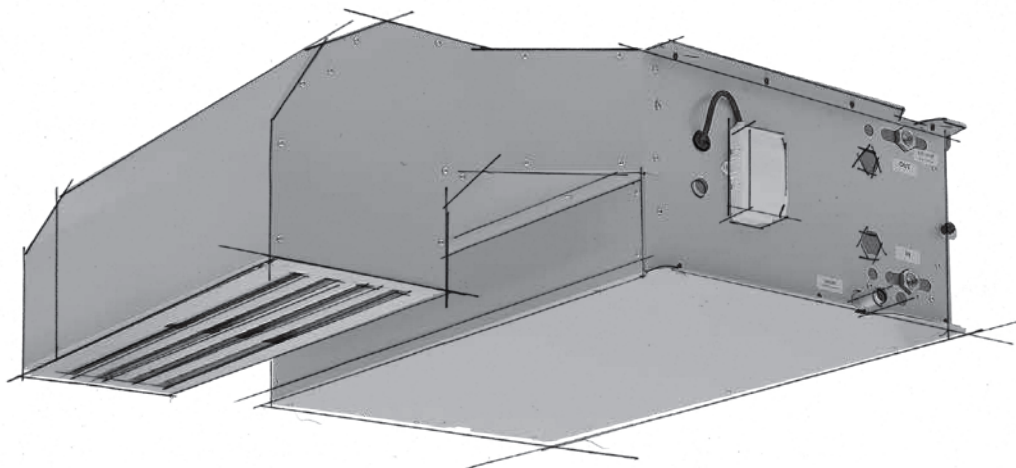




# FCB S E R I E S

FAN COANDA BOOSTER



INSTALLATION, USE AND MAINTENANCE MANUAL



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## 1- INTRODUCTION

This manual contains the instructions for a right installation and maintenance of the unit. If these instructions will be not respected, the manufacturer will not be responsible of damages to people, things and to the units.

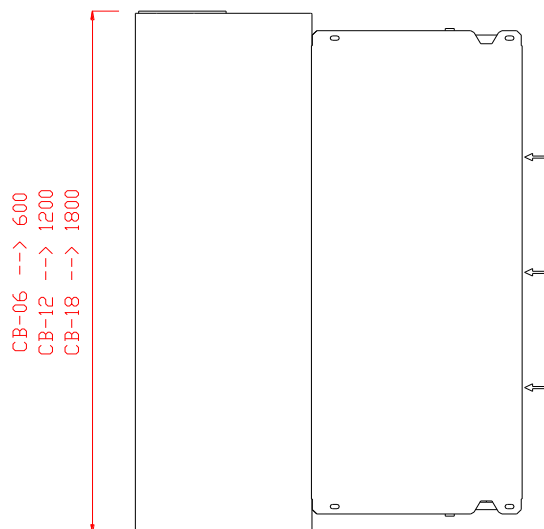
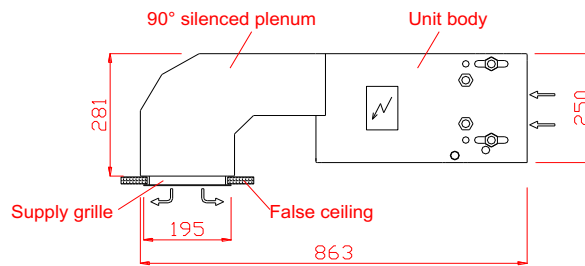
The installation and the maintenance must be done by qualified technician. During the operation, the technician must respect all the safety rules (protective clothes for hands and eyes, ...).

Before to work in the units, switch-off the power supply and be sure that nobody can switch-on it for mistake.

Use only originals of approved spare parts.

The units contain rotary components: after switching-off the power supply, we recommend to wait 5 minutes before to open the inspection panels, to give time to fan to stop.

The units are designed for residential and commercial air-conditioning, not exposed to rain, ice or extreme temperatures, not dusty and not explosive environment: the manufacturer will not be responsible in case of not correct applications.



## 2-RECEIVING

After receiving, clean the unit from all the packing components. If the units looks damaged or not completed, don't go on with the installation. Check in the label that the units received is the same of the ordered code.

Claims must be submitted by writing within 8 days from receiving.

## 3-INSTALLATION INSTRUCTIONS

The units are designed to be installed under-ceiling. Dimensions of the grille and of the unit are right to be installed in continuous ceiling or in 600x600mm modular block ceiling. Special dimensions can be requested to the manufacturer in case of different modular block ceiling dimensions.

### 3.1-Positioning

The unit is designed to supply air with Coanda effect (according to this effect, air flow is horizontal, and very closed to the ceiling). For this reason, the position of the unit and of the room furnishing (lamps,..) must be studied not to stop the air flow.

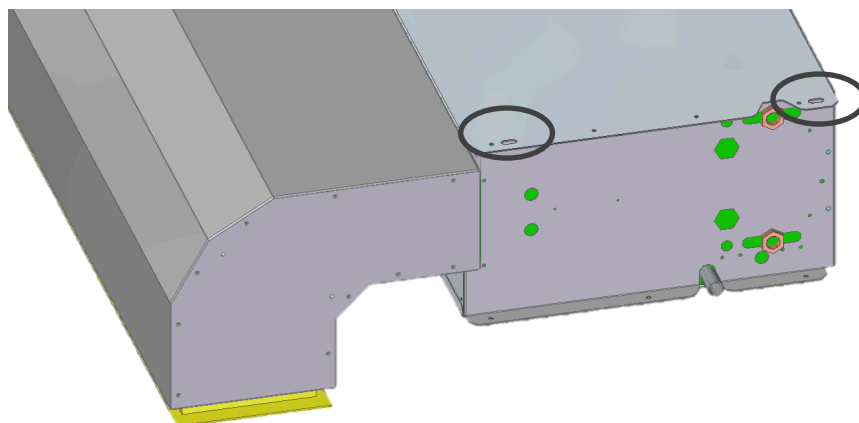
The position of the unit must be evaluated considering also the throw distance of the unit (refer to technical manual).

Respect the minimum distance needed for maintenance, (see dimensional drawings).

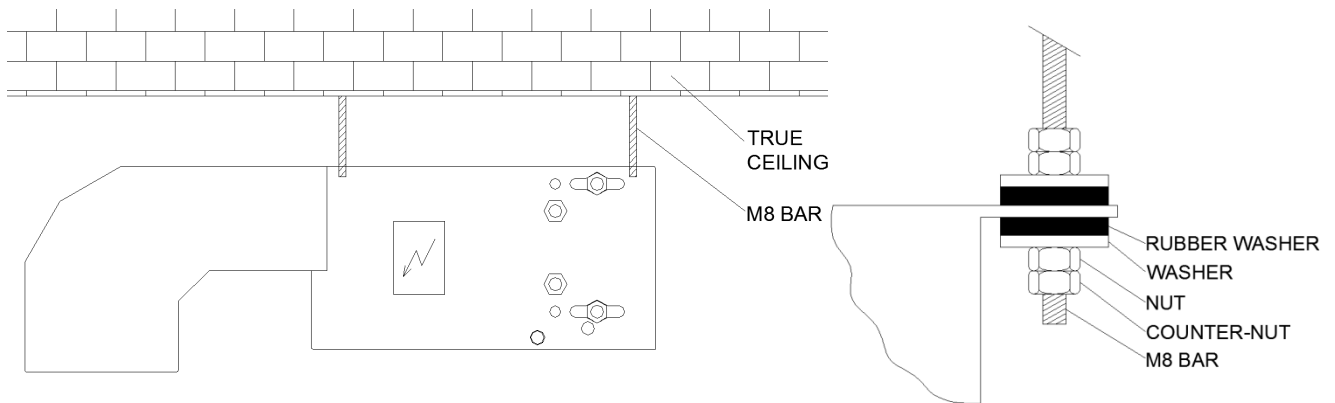
### 3.2-Fixing the unit to the true ceiling

First of all, be sure that the true ceiling and the components used are able to carry the weight of the units.

Fix the units to the true ceiling using the 20x10 holes in the right and left flanks. Units sizes 18 has also holes 20x10 in the plenum. For more information regarding the fixing holes, see dimensional drawings.



We suggest to install the units using M8 threaded bar and to block it using nuts and washers. Even if the fans have very low vibrations, we suggest to use rubber anti-vibrations.



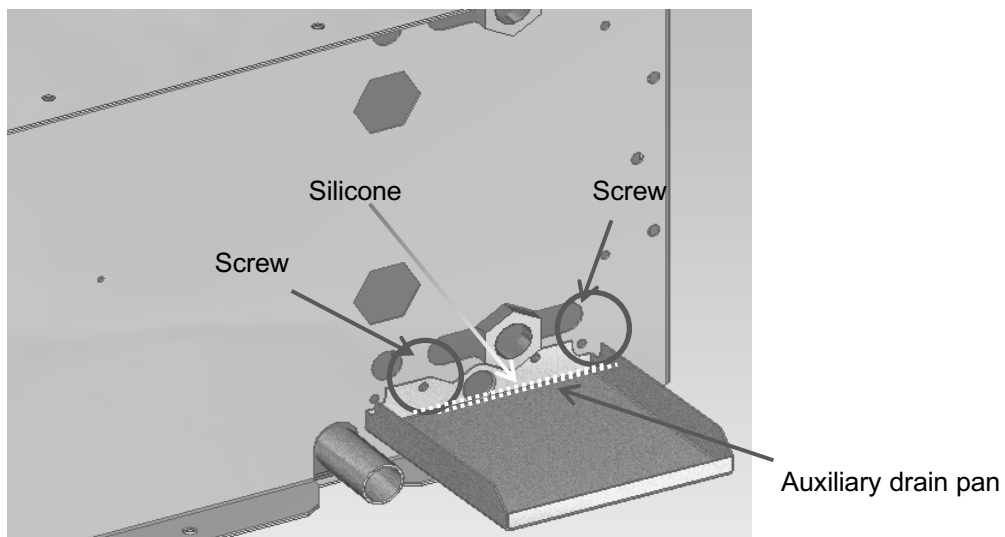
Before to close the counter-nuts, be sure that the unit is perfectly horizontal, without inclination.

### 3.3- Hydraulic connections

Connect water pipes to the unit with attention, without create damages to the coil or to the valve. The pipes weight must be supported by brackets and not by coil connections.

Respect IN/OUT label near the connections.

If the unit is supplied with valve, install the auxiliary drain pan (to be fixed with two screws) and seal with silicone.



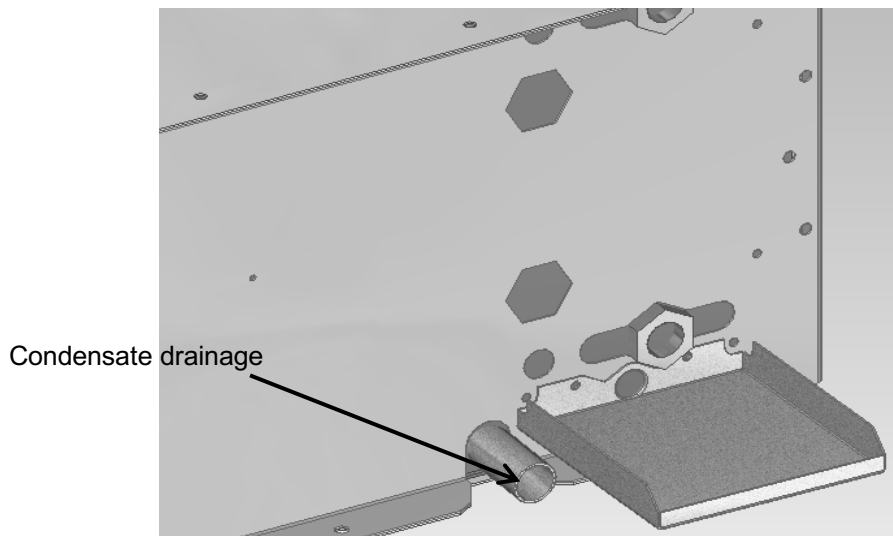
We suggest to install manual shut-off valve in all water connections, because in this way will be easier to do supplementary maintenance in the coil

When the pipes will be filled with water, eliminate air from the coil using the valve positioned near the connection (indicated with labels in the flank of the unit). In case of freezing risk, add anti-freezing additive in the pipes or discharge the pipes during winter.

### 3.4-Condensate drainage

The condensate drainage pipes must have a sufficient inclination to the bottom; if it's not possible, install a condensate drainage pump.

To prevent the penetration of odors from outside, we recommend forming a siphon in the line.

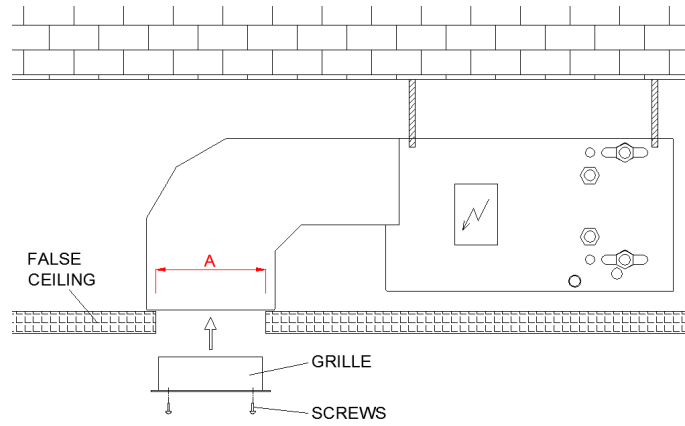


### 3.5-False-ceiling installation

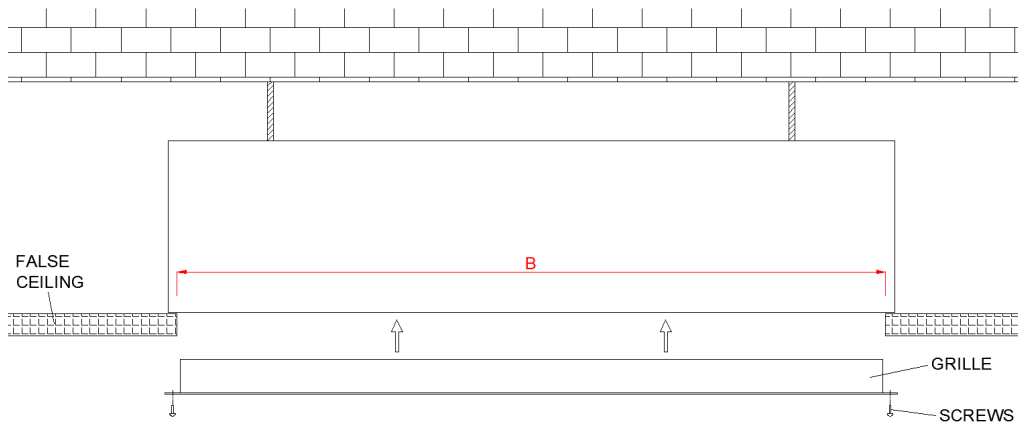
To install the grille, must be made a rectangular hole in the false ceiling of the following dimensions:

	FCB-06	FCB-12	FCB-18
A	175	175	175
B	560	1160	1760

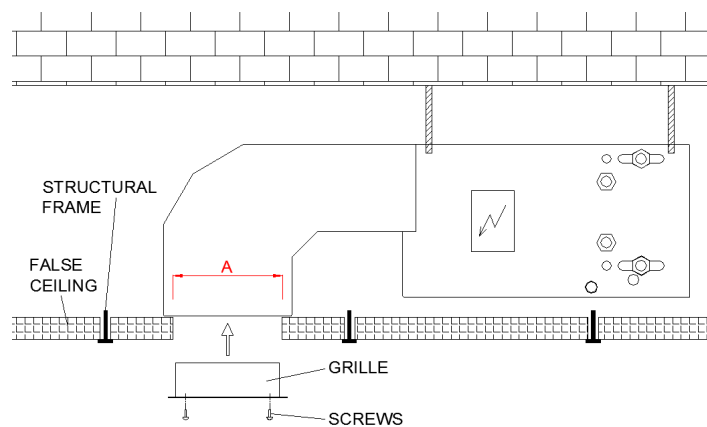
Insert the grille in the rectangular hole from the bottom side and fix it with the M4 screws.



*Installation in standard false-ceiling (lateral view)*



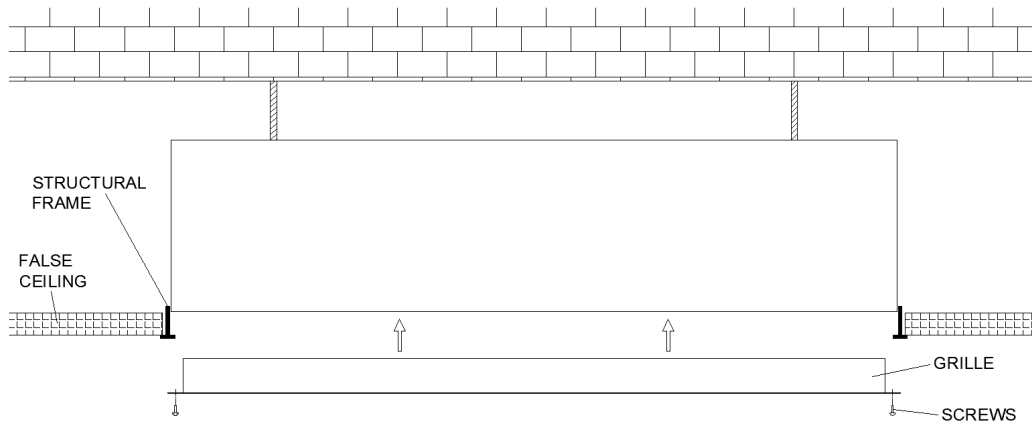
*Installation in standard false-ceiling (frontal view)*



*Installation in modular block false-ceiling (lateral view)*



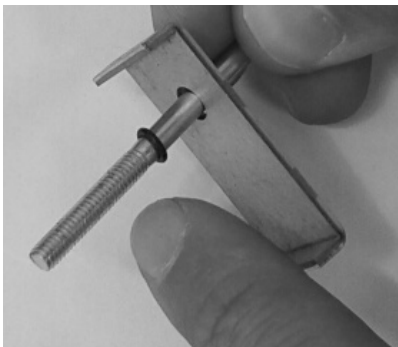
# INSTALLATION, USE AND MAINTENANCE MANUAL



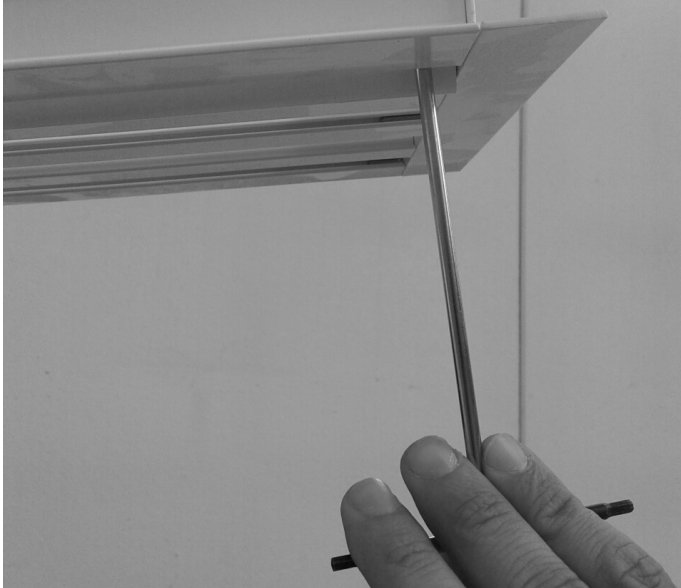
*Installation in modular block false-ceiling (frontal view)*

To fix the grille, do as follows :

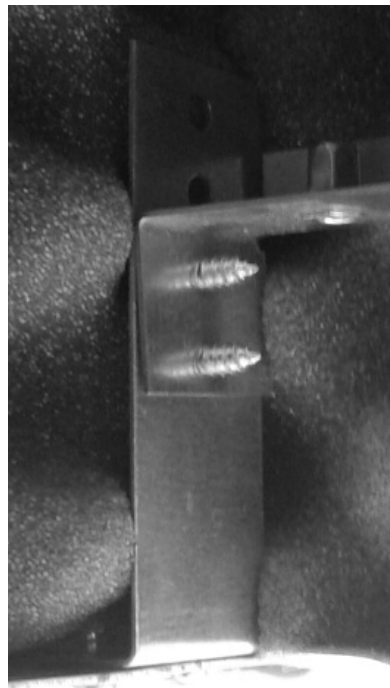
- Push the four C elements in the four corners of the grille and place the M4 screw as in picture. Fix the screw with O-ring.



- Using esagonal screw-driver, fix M4 screws on the threaded brackets of the plenum

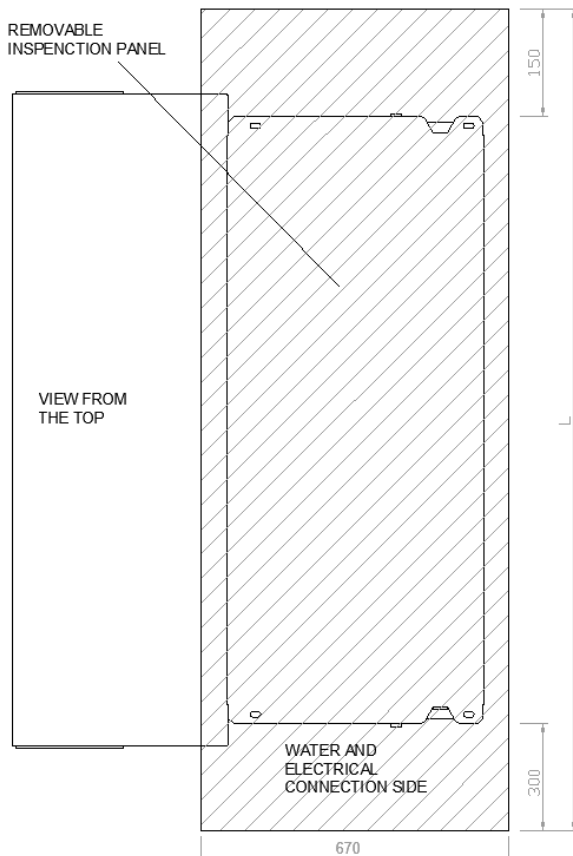
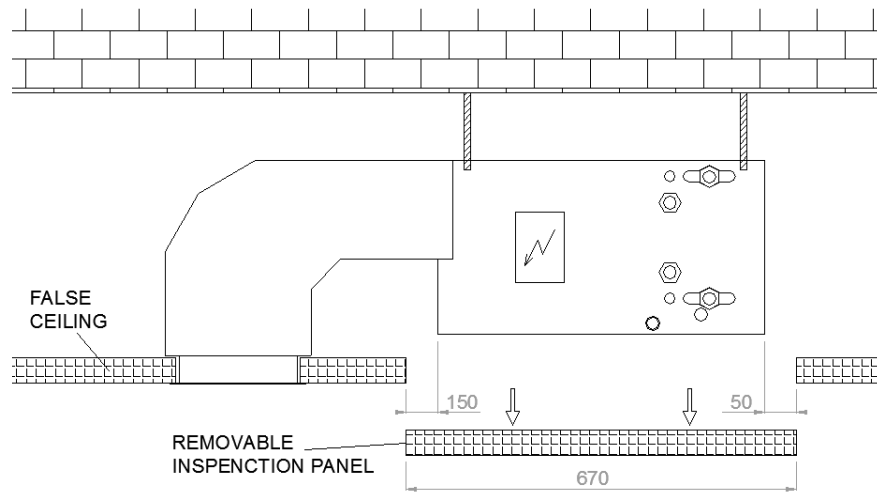


- According to the thickness of false-ceiling, the bracket of the plenum can be positioned in higher or lower position

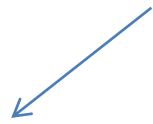


To allow accessibility to the unit, a removable inspection panel is needed in the false-ceiling, as shown in the following drawings.

# INSTALLATION, USE AND MAINTENANCE MANUAL

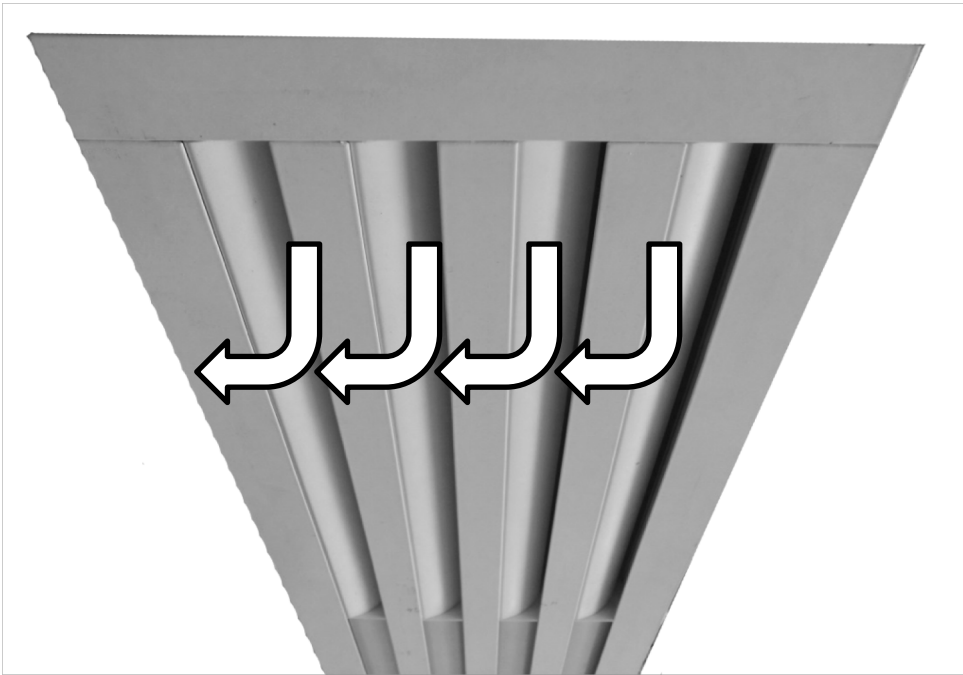


	FCB-06	FCB-12	FCB-18
L (mm)	1300	1560	2080

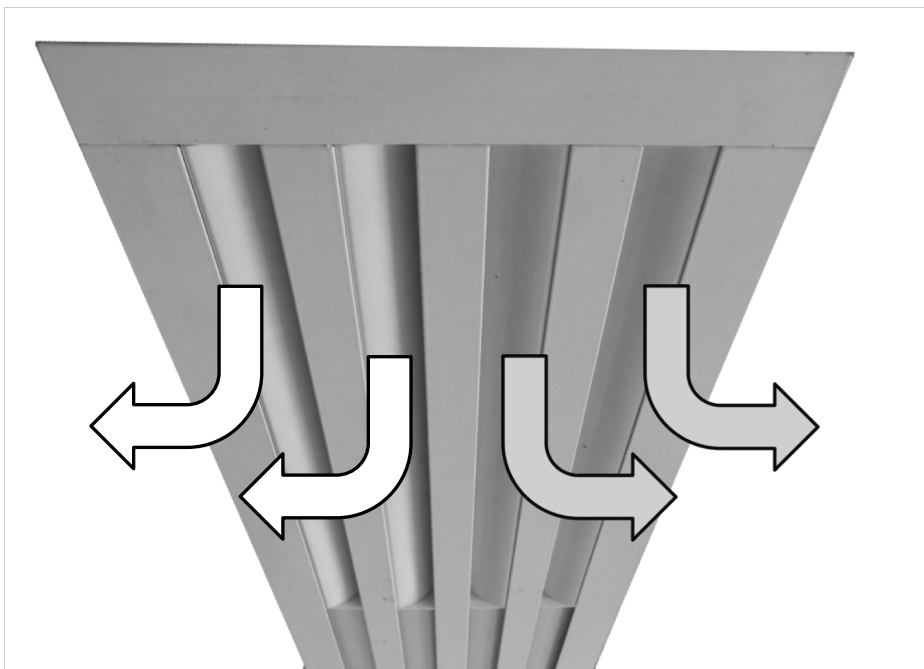


### 3.6-Slots position regulation

The grille has 4 slots, that can be manually regulated to have one or two air flow direction. Usually, after the first regulation, the same slot position can be used in cooling and heating mode : so no other manual adjustment is required.

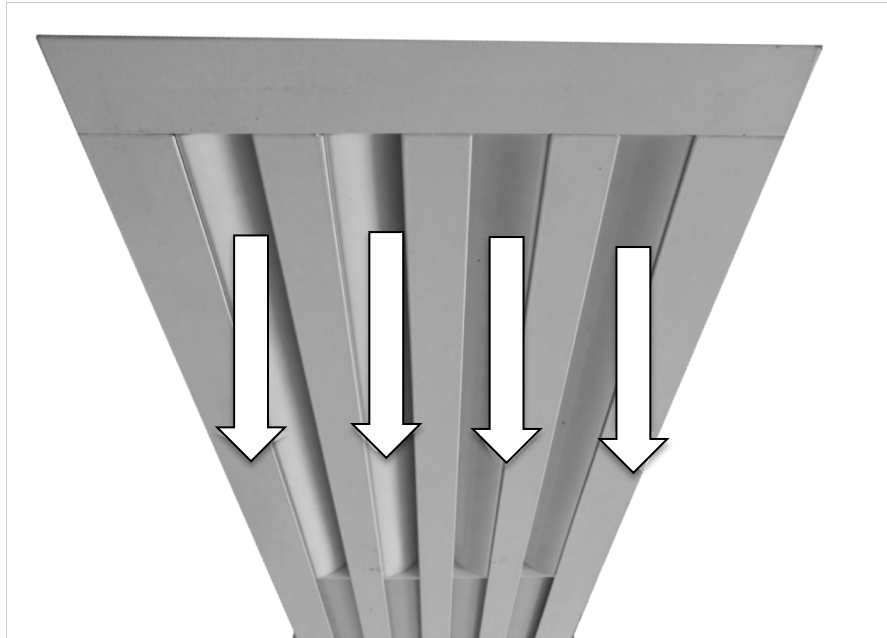


*Slot position: one air flow direction (coanda effect)*



*Slot position: two air flow direction (coanda effect)*

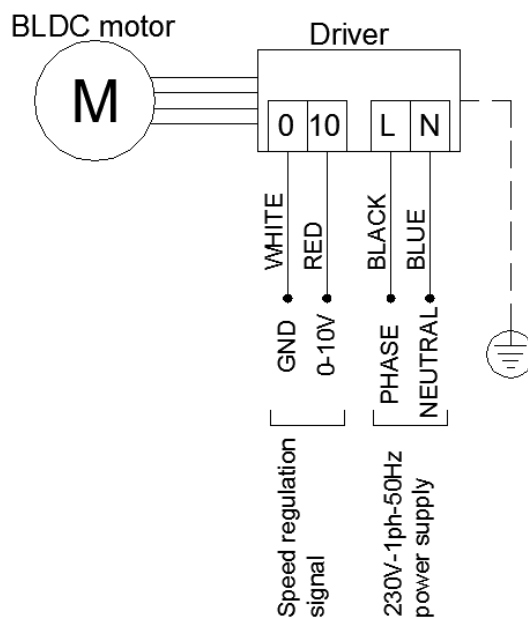
In heating mode, if false-ceiling is more than 3m high, may be necessary to change slots position, in order to have vertical air flow.



*Slot position: vertical air flow*

## 4- Electrical connections

Before to work on the electrical wiring, switch-off the power supply and be sure that nobody can switch-on it for mistake. Check that the available power supply (voltage, number of phases and frequency) is the same of the label motor. Install a thermic breaker switch or a fuse switch to protect the unit.

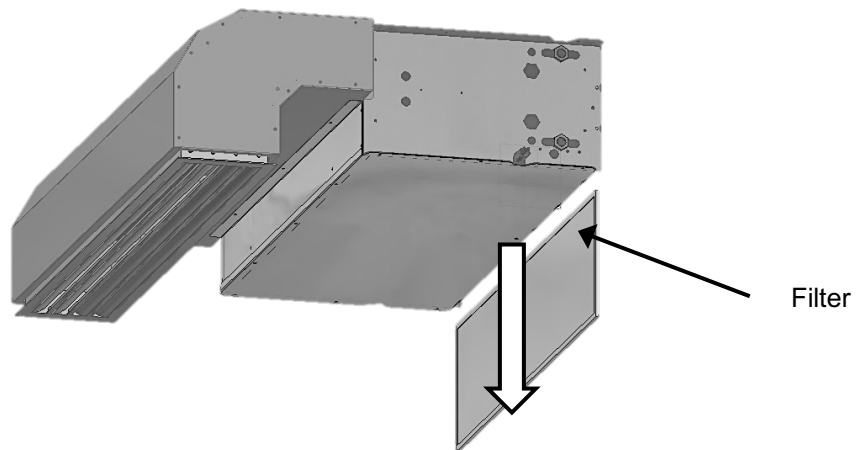


*Motor electric wiring*

## 5- Maintenance

### 5.1-Ordinary maintenance (every 6 months)

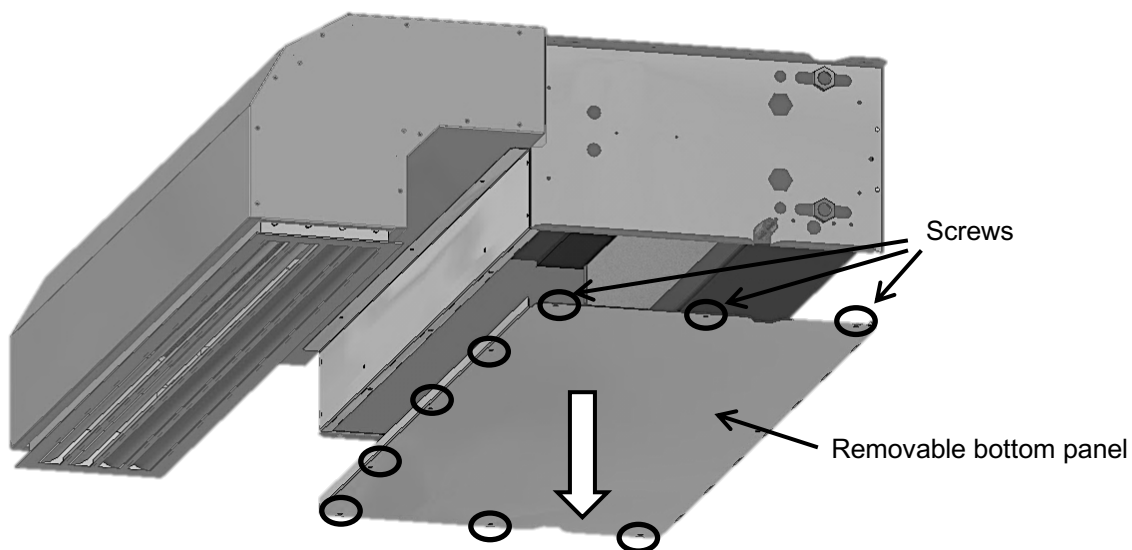
Filter cleaning : according to the pollution level of the environment, filter can be cleaned more often than usual.. Standard filter is made in polypropylene and is washable with warm water. If during the inspection the filter looks damaged, must be replaced with a new one. To remove the filter, turn the block and slip-off the filter from the bottom.



General checks : check that electrical and hydraulic connections and all screws are well closed. Check that the casing is not damaged (by rust or corrosion) and that there aren't strange vibrations or noise when the fan is running.

### 5.2-Extraordinary maintenance

To access to the internal components of the unit (fan and coil) , remove the bottom panel, screwing-off the screws as in the picture below.

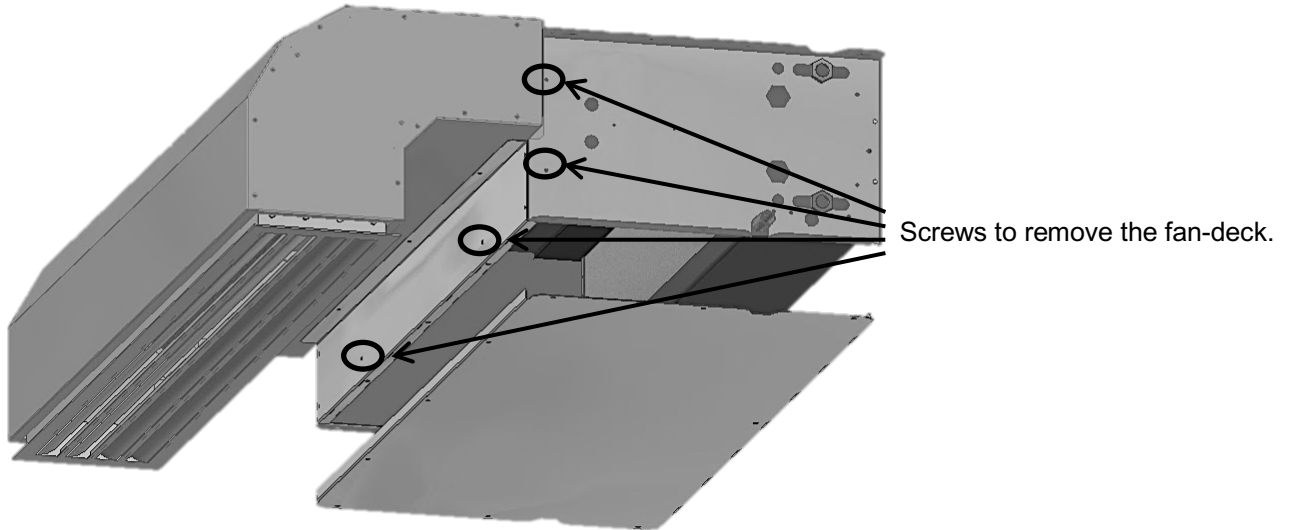


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To remove the fan-deck, screw-off the screws as in the picture below.



To remove the drain pan and the coil, screw-off the screws as in the picture below.

