

Airblock FG

Air handling unit with EC single-phase motor
Airblock FG modules for heating, cooling and
ventilating

► Installation and Operating Instructions

Keep these instructions in a safe place for future use!



Kampmann.de/installation_manuals

I498/10/20 EN I SAP-Nr. 1201142

KAMPMANN
Genau mein Klima.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

Key to symbols:



Caution! Danger!

Failure to comply with these instructions can result in serious personal injury or damage to property.



Danger from electrocution!

Failure to comply with these instructions can result in serious personal injury or damage to property from electrocution.

Please read these instructions carefully before starting assembly and installation work!

All persons involved in installation, commissioning and use of this product have a duty to pass these instructions onto parallel or subsequent trades right through to the end user or operator. Please retain these instructions until the unit is finally decommissioned!

Changes to the content or design can be made without prior notification!

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1. Intended Use

The Kampmann Airblock range offers an all-purpose air handling system for a range of different applications. Kampmann Airblock units are built in line with the state of the art and recognised safety regulations. Nevertheless their use can result in danger to people or damage to the unit or other material property if they are not properly installed or properly used.

The units are solely intended for heating, cooling and ventilation. Any use other than the use specified above is deemed not to be correct and proper. The user/operator of the unit alone will be liable for any damage resulting from this. Correct and proper use is deemed to include observing the instructions relating to safety, operation and commissioning/maintenance.

Any sound-absorbing measures needed, such as isolation of the air ducts, have to be done on site!

Protect the products from any moisture during storage and installation. Check the application with the manufacturer in case of any doubt. Any use other than the use specified above is deemed not to be correct and proper. The operator of the unit is solely responsible for any damage arising as a result of this.

The installation of this product requires specialist knowledge of heating, cooling, ventilation and electrical engineering. This knowledge, generally learned in vocational training in the fields mentioned in section 2, is not described separately. Damage caused by improper installation is the responsibility of the operator.

Airblock supply air modules are not suitable for connecting to cold water!

Chiller modules from the accessories range are intended for use for cooling mode. These are suitable for connection to CPW (cold potable water, type **302140) or for refrigerant (type **302230) and have an integral condensation tray below the heat exchanger for a horizontal fitting position.

Operating limits for the unit

Caution! Frost protection must always be used if there is a risk of frost!

Place of installation

Airblock FG is intended for use in dry, dust-free and frost-free interior rooms and must be protected from the wind and weather. Temperatures should ideally be between 5 °C and 30 °C.



2. Safety Information

Installation, assembly and maintenance work on electrical units should only be performed by a qualified electrician in compliance with the VDE guidelines. Ensure that the connection complies with the applicable VDE regulations and provisions laid down by the regional electricity providers.

Non-compliance with the regulations and operating instructions can result in the units malfunctioning with consequential damage and danger to people. The units can be incorrectly wired by the wires being swapped – danger of fatal injury!

Disconnect all parts of the system from the mains power supply and prevent them from being reconnected before starting any connection and maintenance work!

Check the electrical equipment on the fan regularly (see fan operating instructions). Replace loose connections and defective cables immediately.

Electrical charge ($>50\mu\text{C}$) between the mains conductor and protective conductor connection after disconnecting the mains supply with the parallel connection of several fans (e.g. model size 7 and 9).

- Ensure that sufficient protection against accidental contact is provided. The mains supply and PE must be short-circuited before working on the electrical supply.

There is voltage at terminals and connections even when the unit is switched off.

- Do not touch the unit until 5 minutes after disconnecting the voltage at all poles.

There is electrical voltage on the rotor and impeller in the event of a fault. The rotor and impeller have basic insulation.

- Do not touch when installed!

The fan will start up again automatically if control voltage is applied or when a speed setpoint is stored, e.g. after a power failure.

- Therefore, do not stand in the danger zone of the unit.
- Disconnect the mains voltage when working on the unit and secure it again being switched on again.
- Wait until the unit is at a standstill.
- Remove any tools used, the short-circuiting equipment or other objects from the unit after working on the unit.

High temperatures occur on the electronics housing of the fan.

- Risk of burns.

The fan has anti-lock protection.

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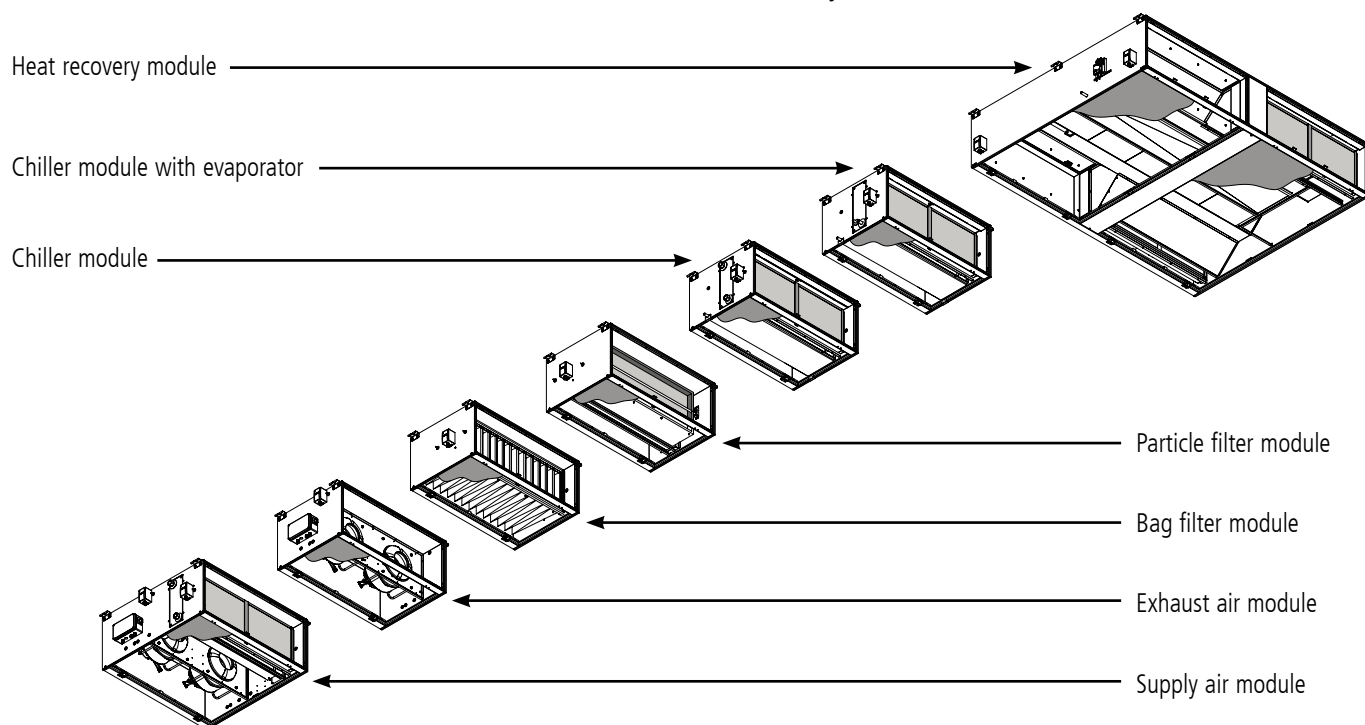
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3. Operation

The supply air module draws in room air or fresh air via the filter through the integral radial fan or fans and delivers this through the heat exchanger (heating medium LPHW). The heated air is fed into the room using suitable attachments. The exhaust air module consists of the fan section. The Airblock FG with attachments can be used for cooling (CPW, direct evaporator) or as an overpressure system with a particle filter class H13 for food stores. A bag filter module ISO ePM10 85% (in accordance with DIN EN 779) can also be fitted.

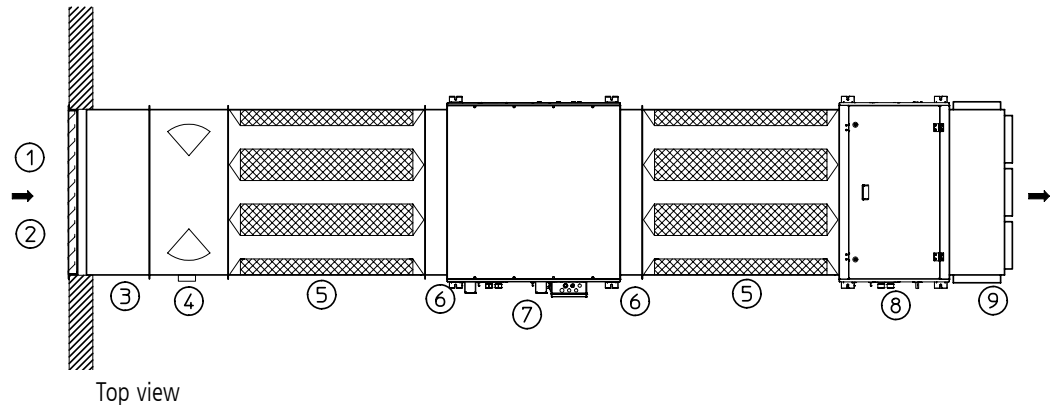
The components described in these instructions have a connection (electrics, hydraulics, condensation connection) with the direction of the air flow to the left.

The installation and maintenance of units with the connection to the right are carried out in the same way.



4. Standard System Set-up

- ① Weather protection grille
- ② Weather protection grille frame
- ③ Wall duct
- ④ Mixed air unit, short
- ⑤ Sound absorber
- ⑥ Insulated connections
- ⑦ Airblock supply air module
- ⑧ Airblock chiller module CPW
- ⑨ Flexible pipe connection unit



Example 1: Mixed air system

Installation in a suspended ceiling, fresh air intake through the wall; horizontal installation of the Airblock FG supply air module in a suspended ceiling.

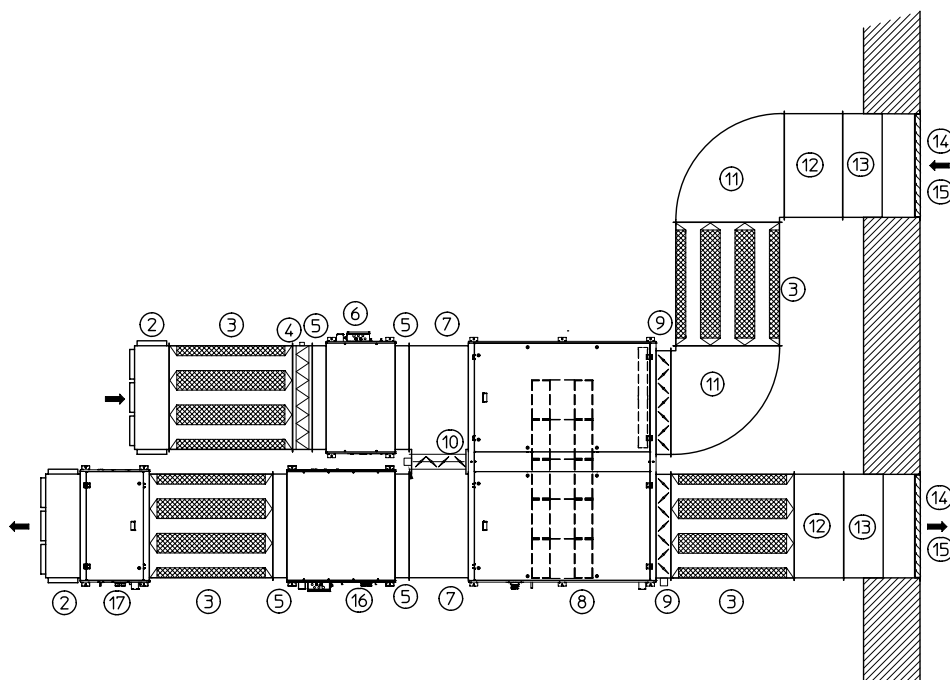
- Recirculating air /fresh air through the mixed air unit, short, regulated.
- Height alignment to the suspended ceiling using sliding supports.
- Recirculating air intake through linear grille.
- Supply air and intake side with sound absorber for noise reduction.
- Supply air side with optional chiller module.

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- ② Flexible pipe connection unit
- ③ Sound absorber
- ④ Compact filter unit
- ⑤ Insulated connections
- ⑥ Airblock exhaust air module
- ⑦ T-piece, compact
- ⑧ Heat recovery module (counterflow)
- ⑨ Louvre
- ⑩ Louvre, compact
- ⑪ 90° bend, long
- ⑫ Empty duct
- ⑬ Wall duct
- ⑭ Weather protection grille frame
- ⑮ Weather protection grille
- ⑯ Airblock supply air module
- ⑰ Airblock chiller module CPW



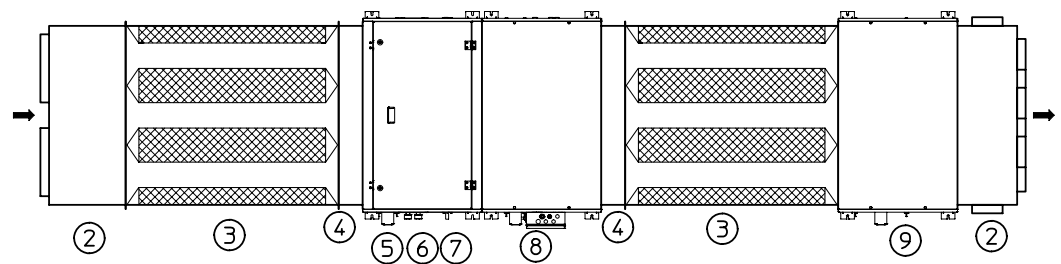
Example 2: Heat recovery system

Installation in a suspended ceiling, fresh air intake and extract air discharge through the wall; horizontal installation of the Airblock FG supply air module in a suspended ceiling.

- Fresh air intake via a weather protection grille through the wall
- Air routing through the heat recovery module for controllable heat recovery via a bypass.
- Recirculating air / heat recovery operation through a combined mixed air unit, compact (optional), regulated.
- Post-heating of the supply air through the LPHW element in the supply air module or cooling in the chiller module (optional).
- Supply of exhaust air through a flexible pipe connection unit, air routing through the heat recovery module for heat recovery.
- Extract air routing via a louvre and weather protection grille through the outer wall.

Note: The exhaust air module is arranged on the pressure side when using the mixed air unit (optional); an arrangement on the suction side is recommended for optimum flow of the heat recovery module!

- ② Flexible pipe connection unit
- ③ Sound absorber
- ④ Insulated connections
- ⑤ Pre-filter as slide-in filter
ISO Coarse 90%
- ⑥ Airblock chiller module
- ⑦ Droplet separator
- ⑧ Airblock exhaust air module
- ⑨ Particle filter module

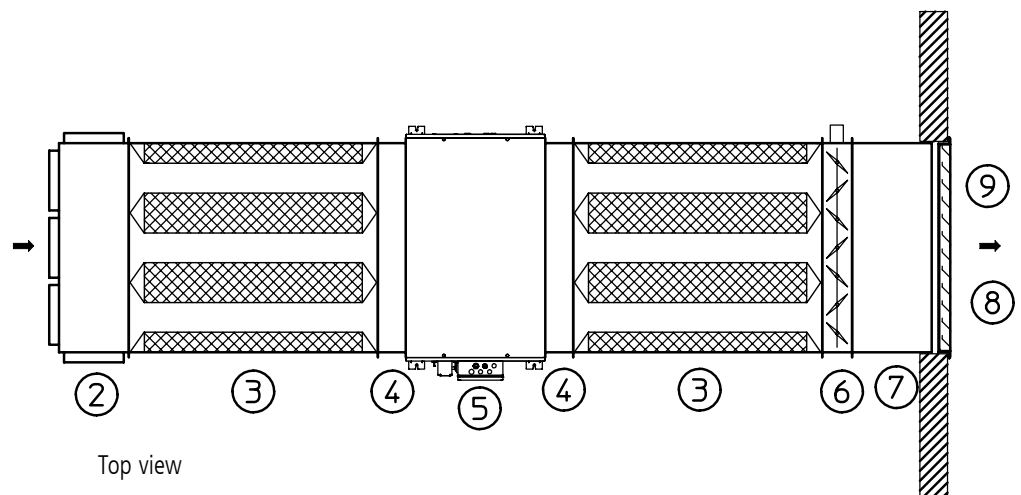


Example 3: Overpressure system (as recirculating air system)

Installation in a suspended ceiling; horizontal installation of the Airblock FG exhaust air module in a suspended ceiling.

- Recirculating air intake through a flexible pipe connection unit and sound absorber.
- Cooling of the air (as required) through the chiller module with a mounting option for a droplet separator (optional).
- Filter insert ISO Coarse 90% (optional) can be used as a pre-filter in the filter holder of the chiller module.
- Downstream particle filter H13.
- Air discharge through a flexible pipe connection unit with distribution to several flexible pipes (spiral ducts) and supply air slot outlets above the sales counter.

- ② Flexible pipe connection unit
- ③ Sound absorber
- ④ Insulated connections
- ⑤ Airblock exhaust air module
- ⑥ Louvre
- ⑦ Wall duct
- ⑧ Weather protection grille
- ⑨ Weather protection grille frame



Top view

Example 4: Exhaust air system

Installation in a suspended ceiling, exhaust air intake through the ceiling; horizontal installation of the Airblock FG exhaust air module in a suspended ceiling.

- Air intake through a flexible pipe connection unit and sound absorber.
- Extract air routing via a louvre and weather protection grille through the outer wall.

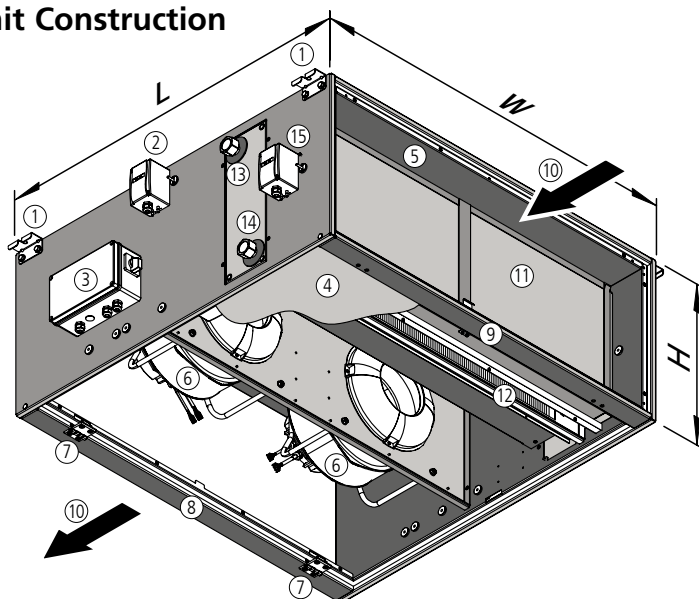
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5. Supply Air Module (incl. Heat Exchanger and ISO ePM2,5 65% Filter)

5.1 Unit Construction



Airblock FG supply air module

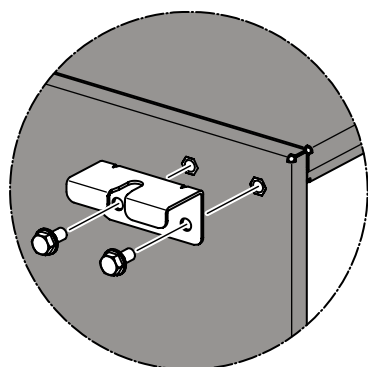


Fig.: Securing the suspension brackets

- ① Suspension bracket with slot (4 no., included in pack)
- ② Flow rate transmitter (optional accessory)
- ③ Motor terminal box
- ④ Service hatch, pre-fitted* (indicated as an opening)
- ⑤ Housing
- ⑥ 230 V EC fan
- ⑦ Screw-on hinge for service hatch* (2 no. pre-fitted)
- ⑧ Connecting strut on air discharge side
- ⑨ Connecting strut on air intake side
- ⑩ Direction of air flow
- ⑪ Filter insert ISO ePM2,5 65%
- ⑫ Heat exchanger
- ⑬ Flow connection
- ⑭ Return connection
- ⑮ Differential pressure transmitter (optional accessory)

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

Module dimensions

| Model | Supply air module | | | |
|---------|-------------------|--------------|---------------|-------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 6 | 1000 | 740 | 390 | 73 |
| Model 7 | 1000 | 940 | 390 | 87 |
| Model 8 | 1100 | 940 | 490 | 98 |
| Model 9 | 1100 | 1140 | 490 | 119 |

All dimensions are external dimensions.

5.2 Installation

The Airblock housing ⑤ has four suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

- Seal all joints with sealing tape. Screws and sealing tape are included in the delivery.
- Several Airblock filter or chiller modules can be screwed together from the inside using the connection sets included.
- Make sure that there is adequate working space for the operation and maintenance of the respective Airblock modules and attachments when installing the units. This applies in particular to the connection side area (heating medium / electrical connection ⑬ / ⑭ + ③ etc.).
- Provide rubber pads on site to decouple noises.
- Align the unit in a horizontal position.
- Please note the following: The filter ⑪ can only be removed from below for maintenance purposes!
- **Caution:** Remove the ISO ePM2,5 65% filter from the supply air module with a heat recovery module combination! Only one filter level is provided for the design of the Airblock units.
- Connect the frost and filter monitoring ⑮ to the control (see wiring diagrams).

Note: Service hatches are to be provided on site below and alongside the modules (connection side) for the installation and maintenance of the Airblock modules!

5.3 Hydraulic Connections

- Connect the flow and return lines ⑬ + ⑭ according to the labelling on the housing.
- Provide for a shut-off, ventilation and drainage.

Please note the following for connecting the heat exchanger ⑫:

- **Hold the connections on the heat exchanger with a wrench or other suitable tool when connecting the pipework.**
- **Note: It is intended that the heat exchanger will be removed from the side for maintenance purposes!**

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5.4 Electrical Wiring

Damage can be caused by the use of incompatible switching devices and by the use of inadequate protective equipment. The manufacturer does not accept any warranty in these cases.

Only connect up in systems that have an all-pole trip breaker from the mains power with a minimum contact opening of 3 mm! Lay electrical cables so that they are tension-free and not under stress!

All models require a 230 V/ 50/60 Hz power supply and can be controlled via a combined 0-10V / PWM control input. Models 8 and 9 can be operated alternatively via an integrated MODBUS RTU interface. A 24 V power supply is also required for the operation of a flow rate and/or differential pressure transmitter.

When using residual current circuit breakers for motors with EC technology these must be sensitive to all types of current (type B). We recommend a tripping current of 300 mA and time-delayed tripping (super-resistant, characteristic K) for optimum operating safety.

First connect up the protective conductor „PE“ on the motor terminal box. Connect the unit according to the applicable wiring diagram as indicated in the table:

| Model | Without flow rate transmitter Factory-fitted CAD no. | With flow rate transmitter Factory-fitted CAD no. |
|-------|---|--|
| 6 | 13084 | not possible |
| 7 | 13085 | not possible |
| 8 | 13086 | 13228 |
| 9 | 13087 | 13229 |

A potential-free 250 V / 6 A (AC1) / 2 A (AC3) changeover contact is available in the motor terminal box for the switch position 0 or power failure message. A fan error message is signalled for models 8 and 9 regardless of the control type.

| Electrical data for EC motor | | | |
|------------------------------|-------------------|--------------|---------|
| Type | Voltage/frequency | Max. current | Output |
| 06300300/06300600 | 230 V/ 50/60 Hz | 1.4 A | 0.17 kW |
| 07300300/07300600 | 230 V/ 50/60 Hz | 2.8 A | 0.34 kW |
| 08300300/08300600 | 230 V/ 50/60 Hz | 3.2 A | 0.73 kW |
| 09300300/09300600 | 230 V/ 50/60 Hz | 6.4 A | 1.46 kW |

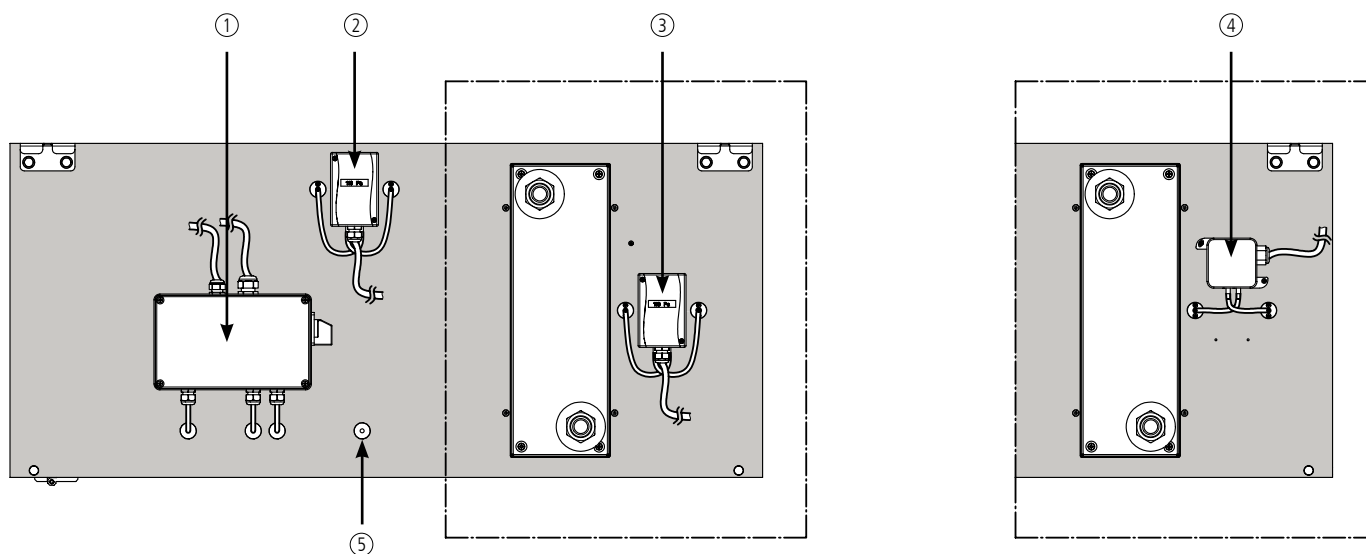
Please refer to the fan operating instructions for more information!

5.5 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Frost protection thermostat | ...0F0 | Model 6: 30468 Models 7, 8, 9: 30668 | enclosed |
| Filter differential switch, for use with supply air module type **300300, chiller module type **302140, heat recovery module type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Differential pressure transmitter, filter or fan | ...00P or ...P00 | | enclosed |
| Flow rate transmitter for flow rate control | ...V00 | | enclosed |

It is possible to combine the components, e.g. ...VFP.



- ① Motor terminal box
- ② Flow rate transmitter
- ③ Differential pressure transmitter
- ④ Differential pressure switch PS 600
- ⑤ Cable duct for the frost protection thermostat installed on the inside

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5.6 Maintenance

5.6.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!



The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.

5.6.2 Opening the Service Hatches



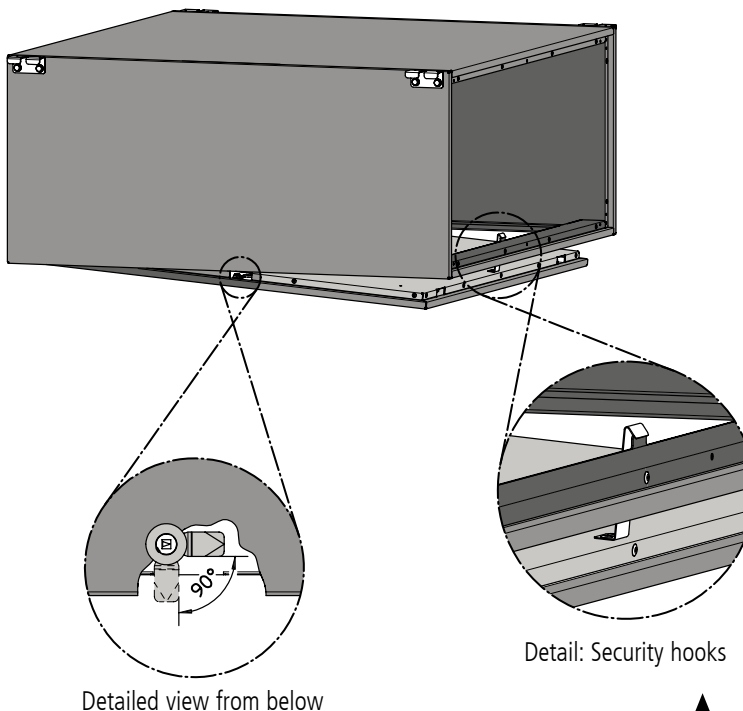
Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weights up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

Opening the service hatch (simplified diagram of a module)



5.6.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.

5.6.4 Fan Motor

The external rotor motor ⑥ of the Airblock is maintenance-free. The motor's ball bearings, sealed on both sides, are greased for life. In contrast, deposits on the fan and inlet nozzle reduce the air volume and must be removed:

- Unscrew the turn bolt fasteners and open the service hatch ④. Swivel the service hatch fully downwards. The fans are now freely accessible for cleaning purposes.
- Check the fan and inside of the housing at regular intervals (at least once a year) and clean if dirty.

Please refer to the respective fan operating instructions for more information! Remove the protection securing the system from being switched on after completing the work.

5.6.5 Cu/Al Heat Exchanger

The heat exchanger ⑫ requires no maintenance if the system is properly maintained, i.e. if the filter is monitored and changed regularly. However, please proceed as follows if maintenance or repairs are required:

- Carry out a visual inspection of the heat exchanger. To do this, open the service hatch ④.
- The heat exchanger can be removed through the side service hatch. First remove the flow and return pipes. Then loosen the screws on the heat exchanger fastenings and pull out the heat exchanger sideways.
- Observe the safety information in 5.3.
- Residual water may remain in the heat exchanger once it has been emptied.

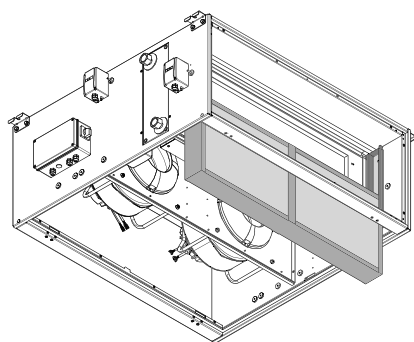
Cleaning the heat exchanger:

- Blast the Airblock CU/AL heat exchanger with appropriate compressed air or flush the heat exchanger with a suitable medium to remove accumulated dust. Proceed extremely carefully as the aluminium fins bend very easily and then restrict the air flow! (Bent fins have to be straightened with an appropriate tool).

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Filter change on the supply air module (service hatch hidden)

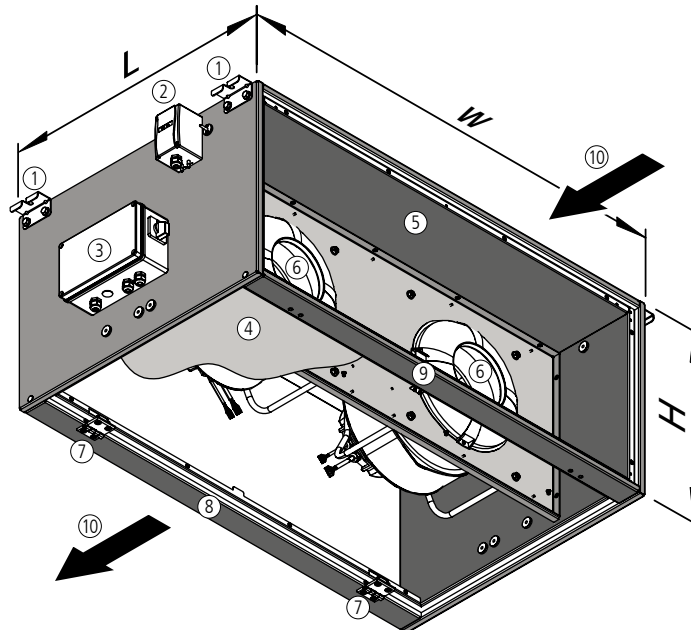
5.6.6 Filter Change

Observe the safety information on page 14, sections 5.6.1 and 5.6.2! Filter cartridge ISO ePM2,5 65% in a Fiberplast frame ⑪ (with supply air module).

- Check the filter cartridge ISO ePM2,5 65% ⑪ at least once a year (more often if necessary). The filter cartridge must be changed if it is dirty.
- Open the service hatch ④ and unlock the safety catches. Pull out the filter cartridge ISO ePM2,5 65% downwards. Use a collection bag if necessary to avoid dirt and dust dropping down.
- This filter folds in the middle with model 9 units. This makes it easier to remove and it can be folded to save space with disposal so that very little dirt can drop out.
- Push the replacement filter cartridge into the filter opening and lock the filter catches. Replacement filter cartridges ISO ePM2,5 65% are available as accessories. Filter cartridges ISO ePM2,5 65% cannot be recycled.
- Dispose of the dirty filter. Filter cartridges ISO ePM2,5 65% are metal-free and fully incinerable.

6. Exhaust Air Module

6.1 Unit Construction



- ① Suspension bracket with a slot
(4 no., included in pack)
- ② Flow rate transmitter (optional accessory)
- ③ Motor terminal box
- ④ Service hatch, pre-fitted*
(indicated as an opening)
- ⑤ Housing
- ⑥ EC fan
- ⑦ Screw-on hinge for service hatch*
(2 no. pre-fitted)
- ⑧ Connecting strut on air discharge side
- ⑨ Connecting strut on air intake side
- ⑩ Direction of air flow

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

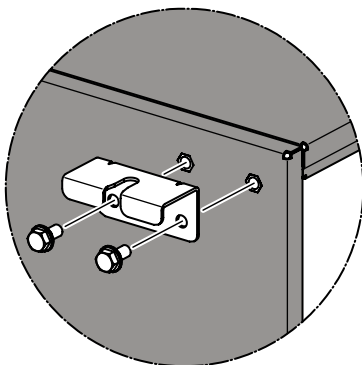


Fig.: Securing the suspension brackets

Module dimensions

| Model | Exhaust air module | | | |
|---------|--------------------|-----------------|------------------|----------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 6 | 600 | 740 | 390 | 43 |
| Model 7 | 600 | 940 | 390 | 51 |
| Model 8 | 700 | 940 | 490 | 61 |
| Model 9 | 700 | 1140 | 490 | 77 |

All dimensions are external dimensions.

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6.2 Installation

The Airblock housing ⑤ has four suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

- Seal all joints with sealing tape. Screws and sealing tape are included in the delivery.
- Several Airblock filter or chiller modules can be screwed together from the inside using the connection sets included.
- Make sure that there is adequate working space for the operation and maintenance of the respective Airblock modules and attachments when installing the units. This applies in particular to the connection side area (electrical connection ③ etc.).
- Provide rubber pads on site to decouple noises.
- Align the unit in a horizontal position.

Note: Service hatches are to be provided on site below and alongside the modules (connection side) in the case of suspended ceilings or encased units for the installation and maintenance of the Airblock modules!

6.3 Electrical Wiring



Damage can be caused by the use of incompatible switching devices and by the use of inadequate protective equipment. The manufacturer does not accept any warranty in these cases.

All models require a 230 V / 50/60 Hz power supply and can be controlled via a combined 0-10V / PWM control input. Models 8 and 9 can be operated alternatively via an integrated MODBUS RTU interface. A 24 V power supply is also required for the operation of a flow rate and/or differential pressure transmitter.

When using residual current circuit breakers for motors with EC technology these must be sensitive to all types of current (type B). We recommend a tripping current of 300 mA and time-delayed tripping (super-resistant, characteristic K) for optimum operating safety.

Then connect up the protective conductor „PE“.

Connect the unit according to the applicable wiring diagram as indicated in the table:

| Model | Without flow rate transmitter Factory-fitted CAD no. | With flow rate transmitter Factory-fitted CAD no. |
|-------|---|--|
| 6 | 13084 | not possible |
| 7 | 13085 | not possible |
| 8 | 13086 | 13228 |
| 9 | 13087 | 13229 |

A potential-free 250 V / 6 A (AC1) / 2 A (AC3) changeover contact is available in the motor terminal box for the switch position 0 or power failure message. A fan error message is signalled for models 8 and 9 regardless of the control type.

| Electrical data for EC motor | | | |
|------------------------------|-------------------|--------------|---------|
| Type | Voltage/frequency | Max. current | Output |
| 06300300/06300600 | 230 V/50/60 Hz | 1.4 A | 0.17 kW |
| 07300300/07300600 | 230 V/50/60 Hz | 2.8 A | 0.34 kW |
| 08300300/08300600 | 230 V/50/60 Hz | 3.2 A | 0.73 kW |
| 09300300/09300600 | 230 V/50/60 Hz | 6.4 A | 1.46 kW |

Please refer to the respective fan operating instructions for more information!

1.50 Airblock FG

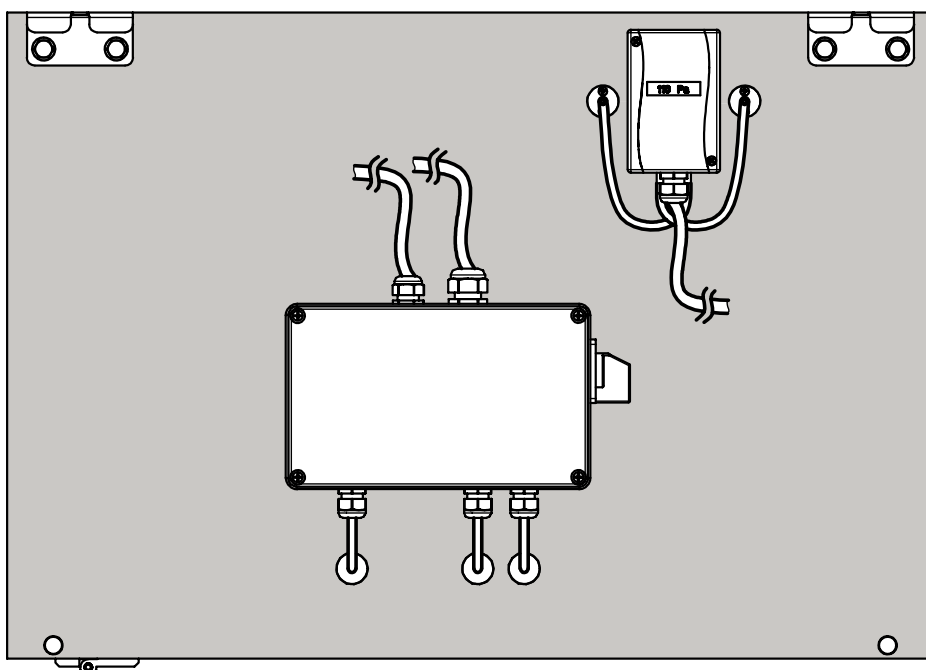
Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

6.4 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Fan differential pressure transmitter | ...P00 | | enclosed |
| Flow rate transmitter for flow rate control | ...V00 | | enclosed |



6.5 Maintenance

6.5.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!



The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.

6.5.2 Opening the Service Hatches



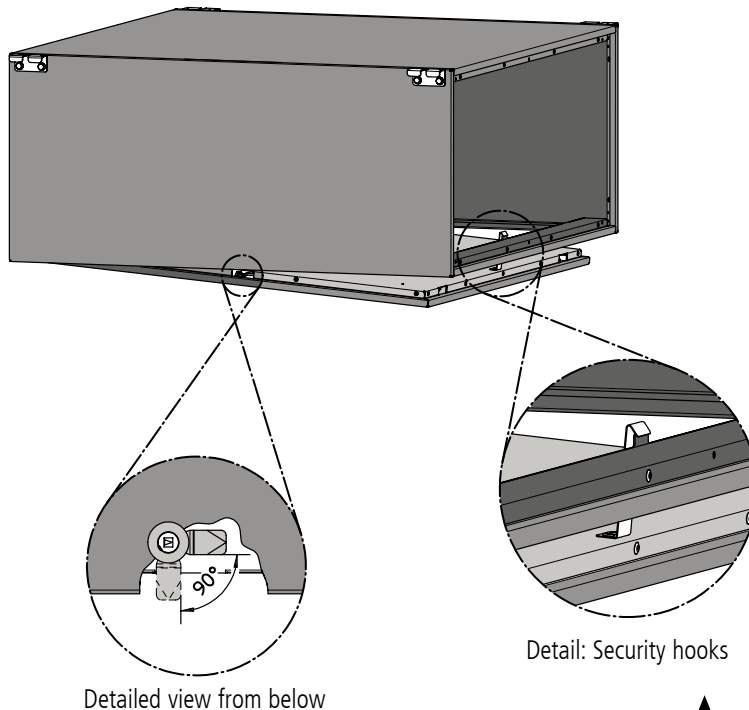
Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weights up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

Opening the service hatch (simplified diagram of a module)



1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

6.5.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.

6.5.4 Fan Motor

The external rotor motor ⑥ of the Airblock is maintenance-free. The motor's ball bearings, sealed on both sides, are greased for life. In contrast, deposits on the fan and inlet nozzle reduce the air volume and must be removed:

- Unscrew the turn bolt fasteners and open the service hatch ④. Swivel the service hatch fully downwards. The fans are now freely accessible for cleaning purposes.
- Check the fan and inside of the housing at regular intervals (at least once a year) and clean if dirty.

Please refer to the respective fan operating instructions for more information! Remove the protection securing the system from being switched on after completing the work.

7. Commissioning the Fan Modules

Check the following before commissioning the unit:

- Is the protective conductor connected properly on all units?
 - Are all the lines connected properly as per the wiring diagrams?
 - Do all cables comply with the necessary cross-sections?
 - Are both DIP switches set correctly when controlled via the MODBUS RTU interface?
Model 8: ON
Model 9: OFF
 - With a flow rate and/or differential pressure transmitter: Is the voltage 24 V in each case?
- Take into account information on the commissioning of other parts of the system.
 - The Airblock can be put into operation after conducting the above checks by switching on the power supply to the motor terminal box, switching on the fan modules on the motor terminal box and changing the 0-10 VDC input signal or by transmitting a signal via the MODBUS RTU interface.

Check the following after commissioning the unit:

- Are all the impellers running smoothly or are grinding noises audible?
Determine the cause as soon as grinding noises become audible.

Switching off the units:

- Switch off the unit during operation via the control input.
- Do not switch the unit off and on (e.g. in cycle mode) via the mains power.
- Make sure that the earth conductor connection is disconnected last when disconnecting the unit.
- Observe the safety information in section 2.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

8. Connecting Airblock Modules

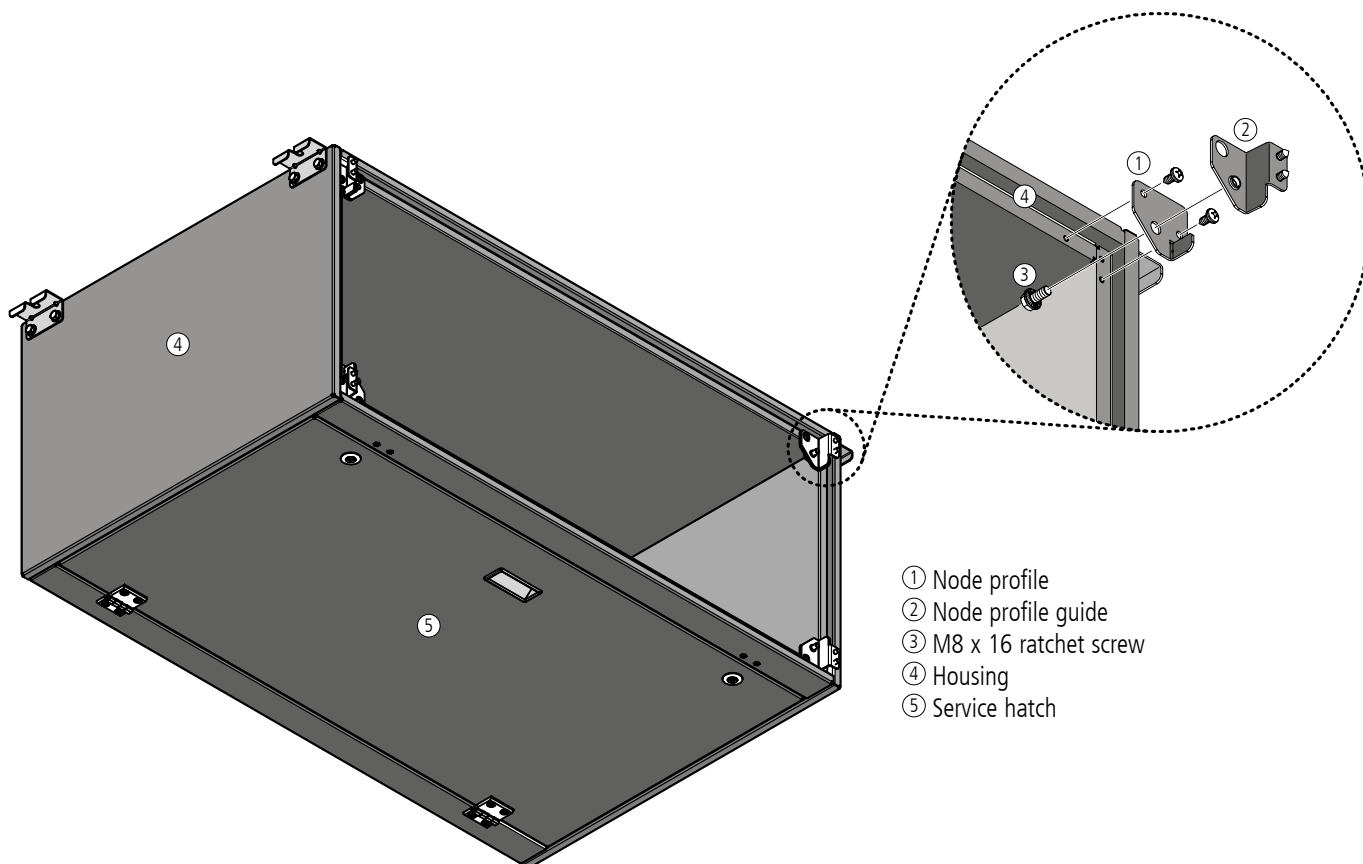


Fig. Airblock module (simplified diagram)

Screw the modules together using the connecting elements included in the pack. Screw two modules to four connection points in the corners of the housing.

Installation steps for a connection point:

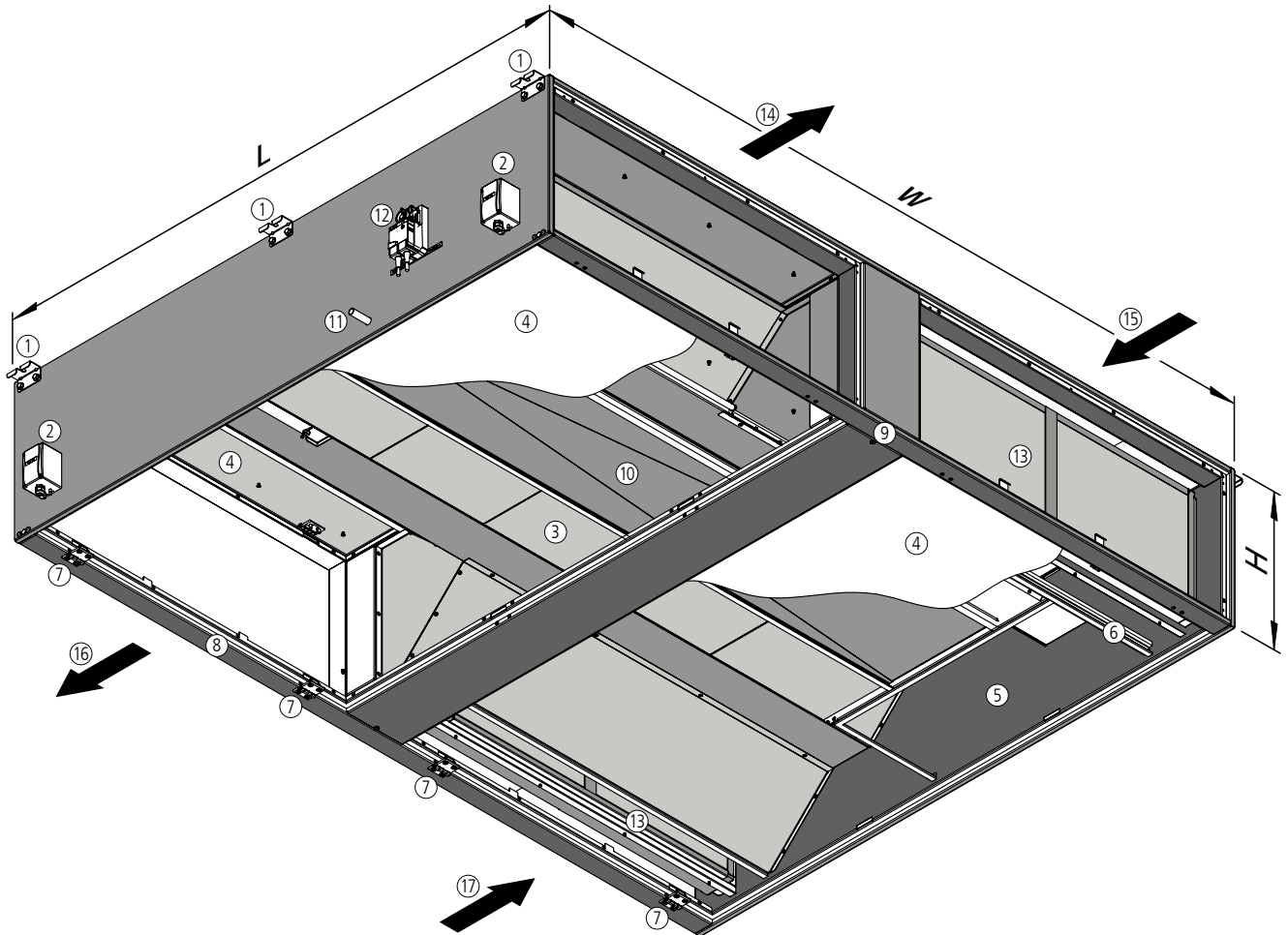
The corners of the housing can be accessed through the service hatch. The filter inserts (ISO ePM10 70%, ISO ePM2,5 65% or H13) must be removed from the module if necessary to ensure optimum accessibility.

1. Open service hatch ⑤.
2. Use two tapping screws to screw the node profile ① to the housing ④.
3. Use two tapping screws to screw the node profile guide ② to the adjacent housing.
4. Position the modules in such a way that the drill holes of the screwed node profile ①, node profile guide ② and housing are located one above the other; use the M8 x 16 ratchet screw to screw the modules to the connection point.

9. Heat Recovery Module

9.1 Unit Construction

Note: 2 service hatches are fitted on the top and underside of the units to ensure optimum accessibility for maintenance purposes.



- | | |
|---|--|
| ① Suspension bracket with slot (6 no., included in pack) | ⑧ Connecting strut on air discharge side |
| ② Differential pressure transmitter (optional accessory) | ⑨ Connecting strut on air intake side |
| ③ Counterflow heat exchanger | ⑩ Condensation tray |
| ④ Service hatch, pre-fitted* (indicated as an opening) | ⑪ Drain connection on condensation tray |
| ⑤ Housing | ⑫ Flap servomotor (accessory) |
| ⑥ Bypass flap | ⑬ Filter |
| ⑦ Screw-on hinge for service hatch* (2 no. pre-fitted) | ⑭ Extract air |
| | ⑮ Fresh air |
| | ⑯ Supply air |
| | ⑰ Exhaust air |

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

Module dimensions

| Model | Heat Recovery Module | | | |
|---------|----------------------|-----------------|------------------|----------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 6 | 1600 | 1640 | 390 | 211 |
| Model 7 | 1600 | 2040 | 390 | 237 |
| Model 8 | 1900 | 2040 | 490 | 322 |
| Model 9 | 1900 | 2440 | 490 | 361 |

All dimensions are external dimensions.

9.2 Installation

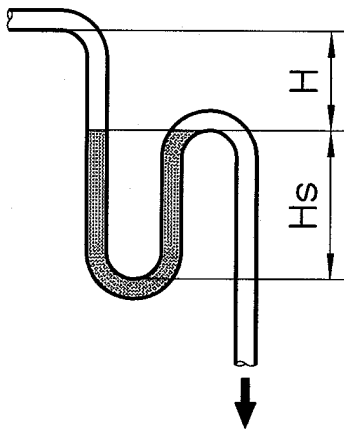
The Airblock housing ⑤ has six suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

The heat recovery module has a condensation tray ⑩ with a gradient on all sides and a condensation drain connection on the side ⑪.

- Align the unit in a horizontal position!
- Any condensation produced has to be drained off individually or through a collecting line via the siphon connected to the condensation drain connection.
- Condensation must be able to drain freely. Make sure that the condensation drain connection has an appropriate free area.
- Lay a condensation line without any kinks or restrictions with a gradient to the sewage pipe on site.
- Choose the correct condensation line diameter.
- Protect the siphon in the condensation line against drying out (use a ball siphon if necessary).

Note: Service hatches are to be provided on site below and alongside the modules (connection side) for the installation and maintenance of the Airblock modules!

Note: The filters ⑬ can be removed from above and below for maintenance purposes!



Sealing water height H_s

Condensation drains

- A siphon needs to be connected to all available condensation drain connections.
- Ensure an adequate sealing water height (H_s) (see adjacent Fig.)

Sealing water height:

$$H_s = H + 50 \text{ mm}$$

H = static negative pressure in the unit (mm H_2O)

(1 mm H_2O = 9.81 Pa)

Min. water trapp height = 60 mm

9.3 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Filter differential pressure switch, for use with supply air module type **300300, chiller module type **302140, heat recovery type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Filter differential pressure transmitter | ...00P | | enclosed |

A 24 V power supply is also required for the operation of a filter differential pressure transmitter.



9.4 Maintenance

Observe the maintenance intervals prescribed by the legislature. The intervals are dependent on various factors (e.g. structural conditions, level of dirt, etc.) and may therefore differ from the manufacturer's recommendations. If an increased level of dirty is detected during regular checks, adjust the required maintenance intervals according to the actual wear and tear.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions



9.4.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!

The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.

9.4.2 Opening the Service Hatches



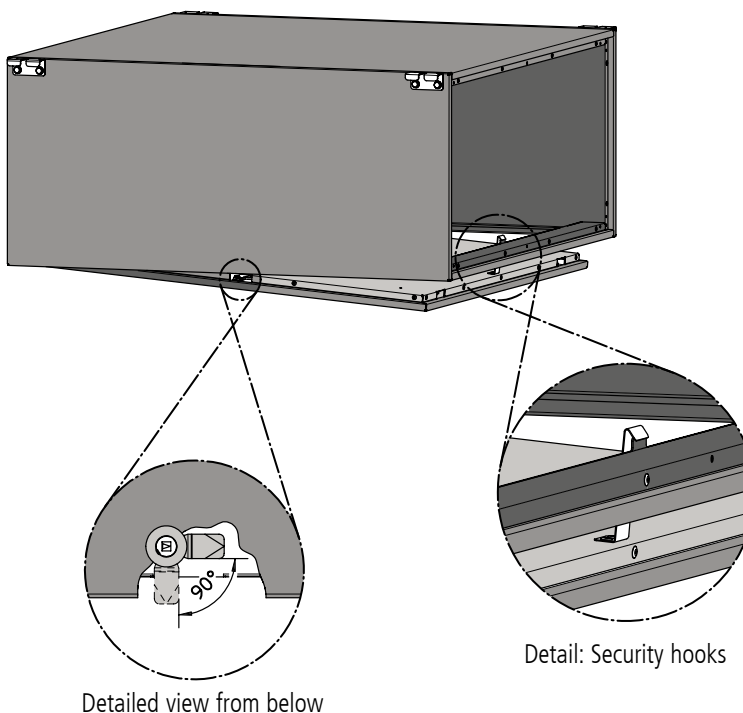
Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weighs up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

Opening the service hatch (simplified diagram of a module)



9.4.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.

Heat recovery modules are fitted with two service hatches ④ on the top and underside.

9.4.4 Counterflow Heat Exchanger

Counterflow heat exchangers ③ require no maintenance if the system is properly maintained, i.e. if the filter is monitored and changed regularly (see page 32). However, please proceed as follows if maintenance or repairs are required: Open the service hatches and carry out a visual inspection of the counterflow heat exchanger to check for dirt.

Proceed as follows if a high level of dirt is visible:

1. Unscrew the M6 flat-head screws (2 no.) from the central support and remove the central support.
2. Remove the condensation tray; loosen the M6 ratchet screws (4 no.).
 - Pull out the condensation tray with drain connection from the side panel on the connection side and remove it in a downward direction.
 - Please note that residual water may remain in the condensation tray.
3. Remove the counterflow heat exchanger; – unscrew the wing screws (2 no.) until the clamping profile can move freely.
 - Push the clamping profile to the side via the slots until the counterflow heat exchanger can be removed in a downward direction.
 - Remove and clean the heat exchangers one by one.
 - Install the components in the reverse order to removing them.

Note: The removal of the components described refers to vertically installed units. Maintenance is carried out in the same way with horizontally installed units as the service hatches and central supports are installed on both the top and underside. Only the condensation tray is installed on the underside. The removal of the condensation tray with vertically installed units is therefore not applicable.

Cleaning the condensation tray:

Clean the condensation tray and droplet separator (optional) at regular intervals.

Cleaning the heat exchanger:

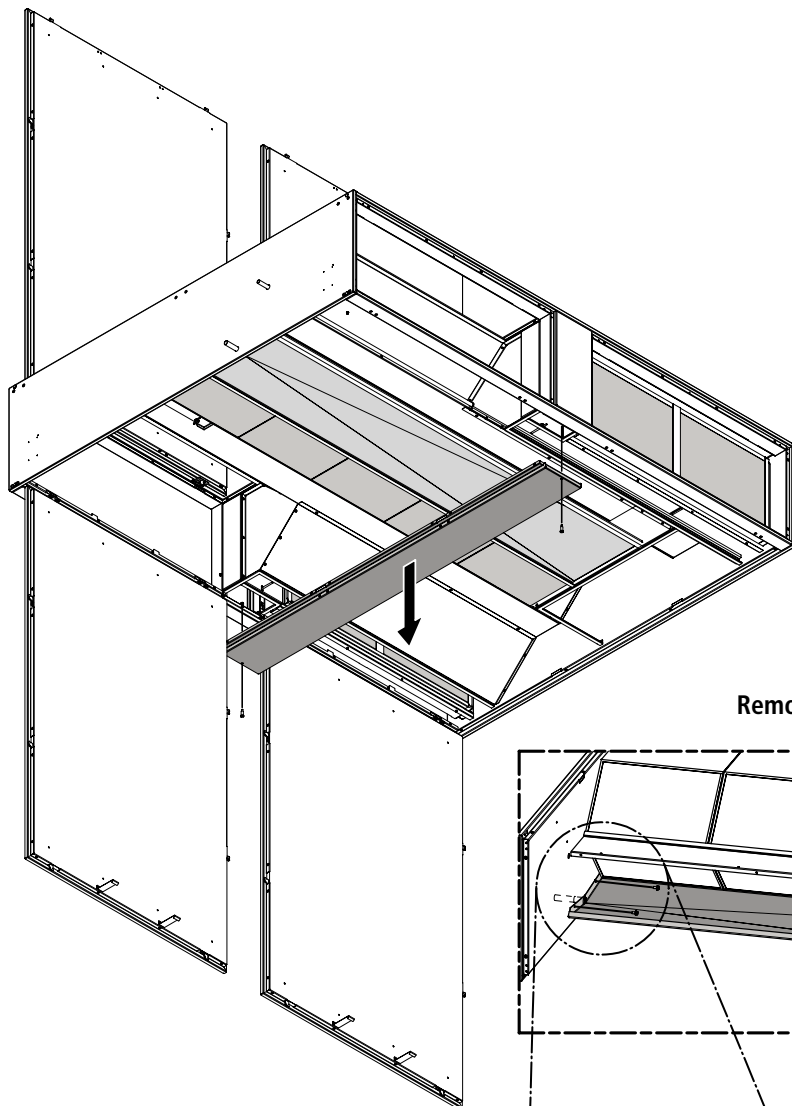
- Blast the counterflow Airblock modules with appropriate compressed air or flush the heat exchanger with a suitable medium to remove accumulated dust. Proceed extremely carefully as the aluminium fins bend very easily and then restrict the air flow! (Bent fins have to be straightened with an appropriate tool).

1.50 Airblock FG

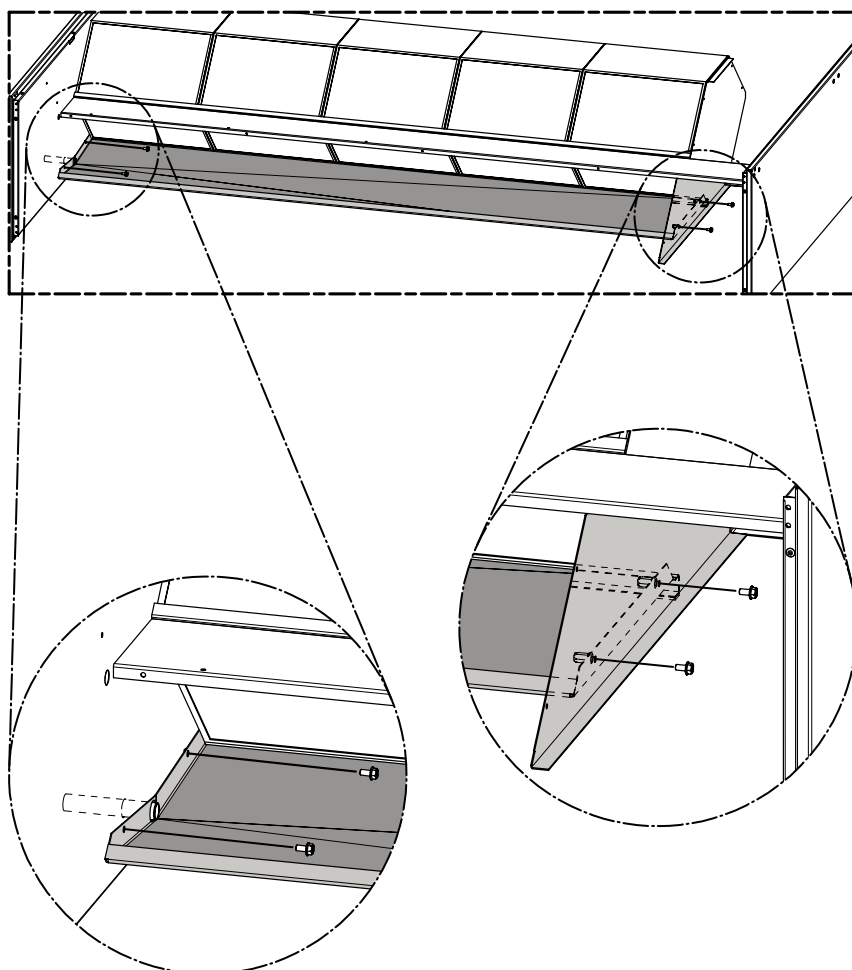
Slimline air handling unit for decentralized, dynamic air treatment

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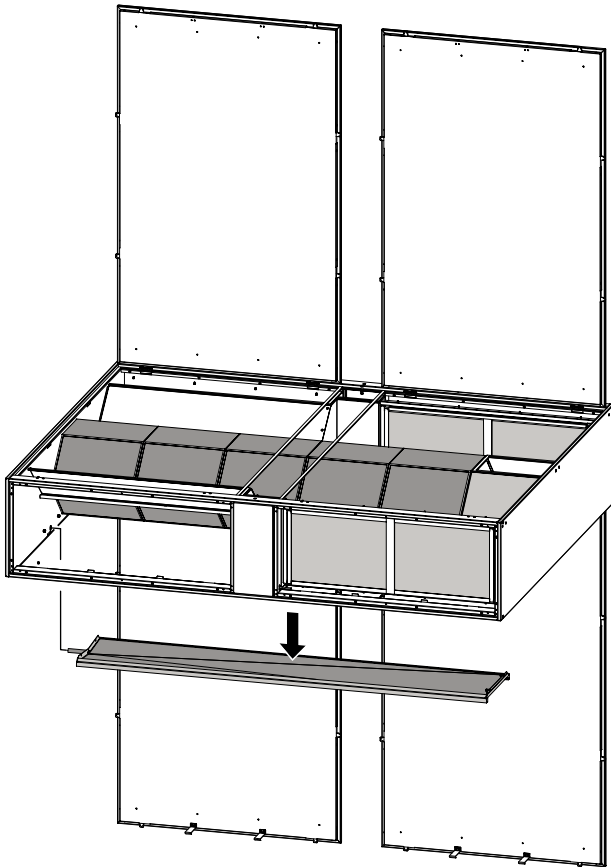
Unscrewing the central support



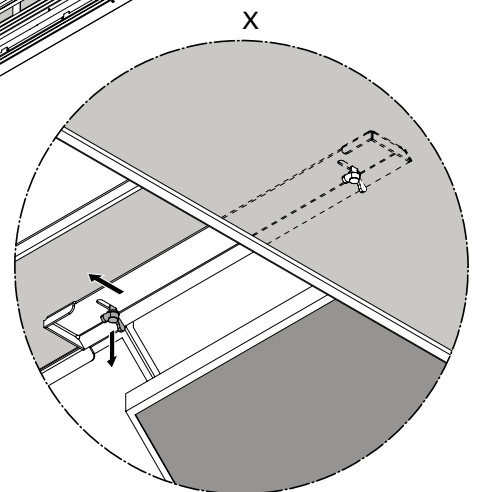
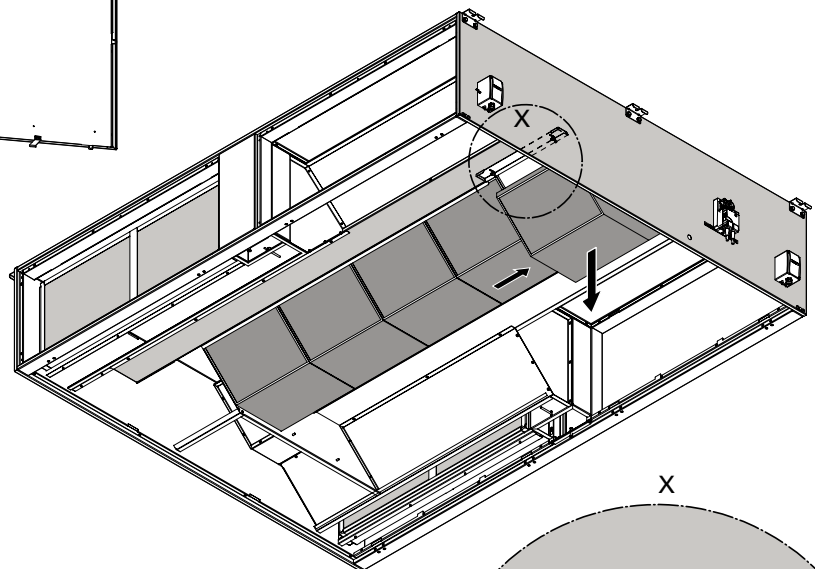
Removing the condensation tray (details)



Removing the condensation tray



Removing heat recovery units



1.50 Airblock FG

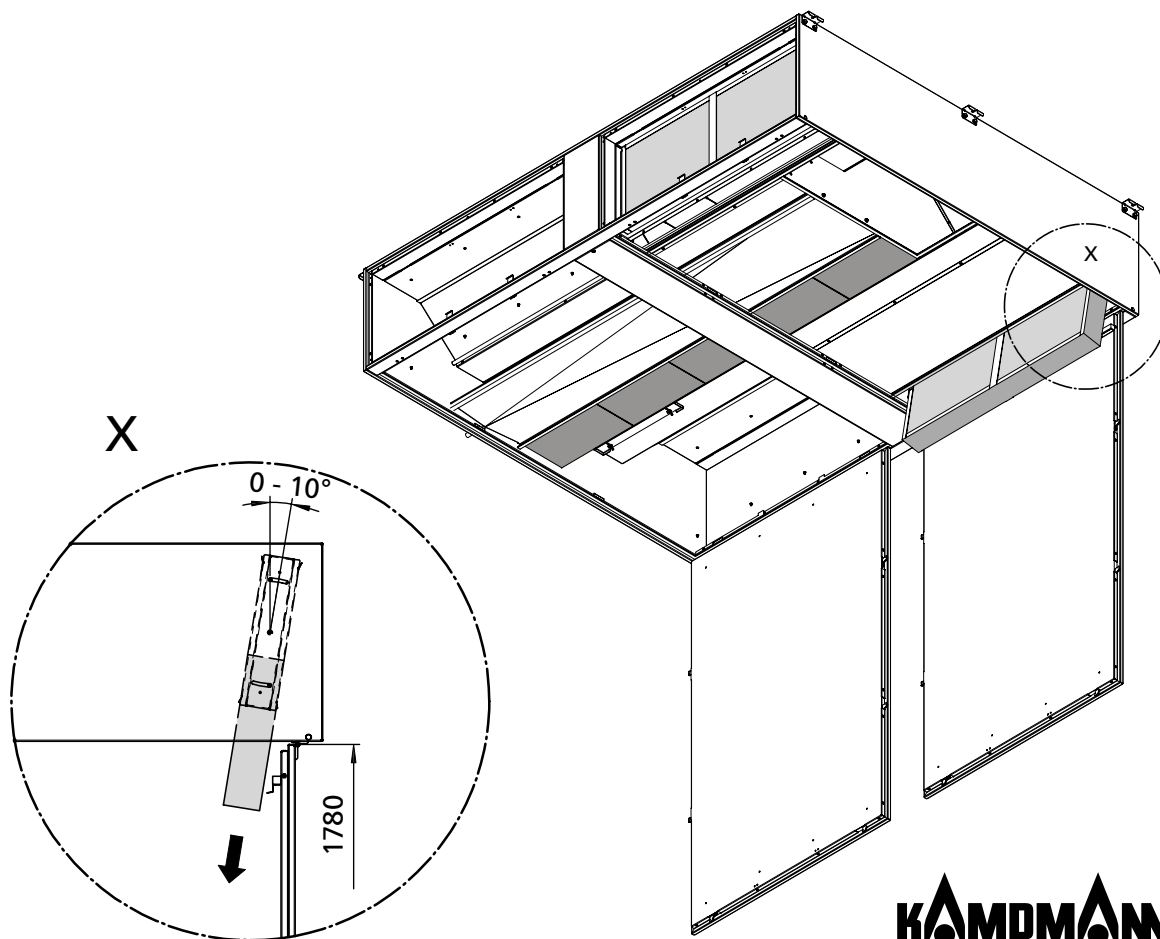
Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

9.4.5 Filter Change

Observe the safety information on page 27 + 28, sections 9.4.1 and 9.4.2!
Filter cartridge in a Fiberplast frame ⑬ (filter class: ISO ePM10 70% for exhaust air and ISO ePM2,5 65% for fresh air as per DIN EN 779).

- Check the filter cartridges ⑬ at least once a year (more often if necessary). The filter cartridge must be changed if it is dirty.
- Open the service hatches ④ and unlock the safety catches. Then pull out the filter cartridges downwards or upwards. The filter must be moved past the service hatch when the service hatches are fully opened to the bottom (swivel range = 1780 mm). To do this, the slide-in rail in which the filter sits can be swivelled 10°. The filter can be pulled out easily in a downward direction in a swivelled state (see dimension 1780 mm). Use a collection bag if necessary to avoid dirt and dust dropping down.
- This filter folds in the middle with model 9 units. This makes it easier to remove and it can be folded to save space with disposal so that very little dirt can drop out.
- Push the replacement filter cartridge into the filter opening and lock the filter catches. Replacement filter cartridges are available as accessories. Filter cartridges cannot be recycled.
- **Caution:** Swivel the filter holder back into the vertical position before closing the service hatches!
- Dispose of the dirty filter. Filter cartridges are metal-free and fully incinerable.



10. Chiller Module

10.1 Unit Construction

Please refer to the enclosed instructions from the pump manufacturer for technical data on the condensation pump!

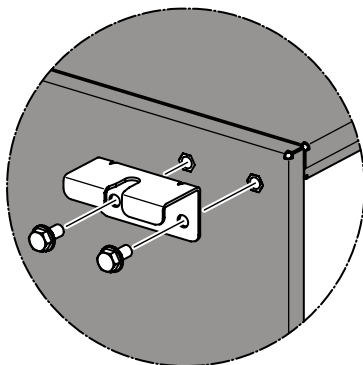
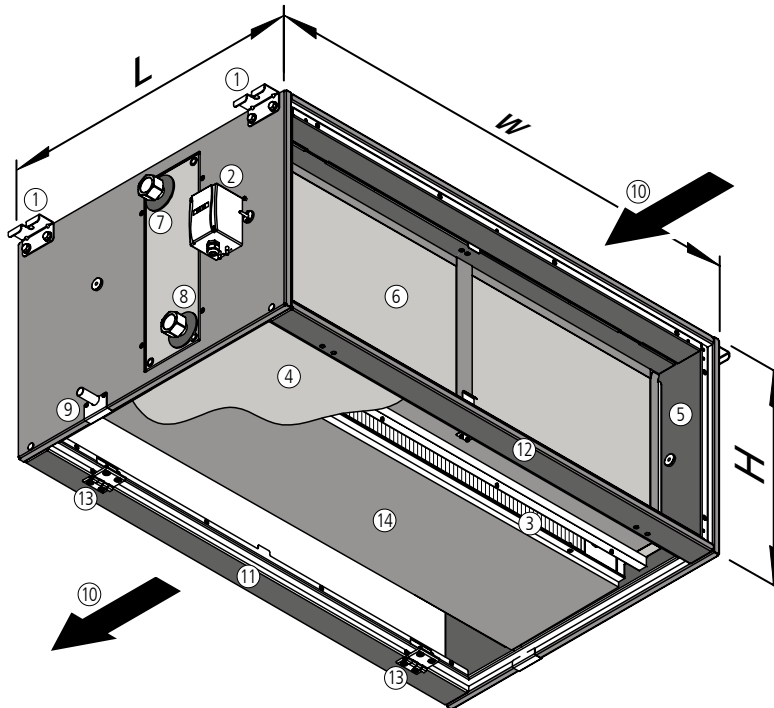


Fig.: Securing the suspension brackets

- ① Suspension bracket with slot (4 no., included in pack)
- ② Differential pressure transmitter (optional accessory)
- ③ Heat exchanger
- ④ Service hatch, pre-fitted* (indicated as an opening)
- ⑤ Housing
- ⑥ Filter
- ⑦ Flow connection
- ⑧ Return connection
- ⑨ Drain connection on condensation tray
- ⑩ Direction of air flow
- ⑪ Connecting strut on air discharge side
- ⑫ Connecting strut on air intake side
- ⑬ Screw-on hinge for service hatch* (2 no. pre-fitted)
- ⑭ Condensation tray

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

Module dimensions

| Model | Chiller module | | | |
|---------|----------------|--------------|---------------|-------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 6 | 700 | 740 | 390 | 49 |
| Model 7 | 700 | 940 | 390 | 57 |
| Model 8 | 700 | 940 | 490 | 63 |
| Model 9 | 700 | 1140 | 490 | 71 |

All dimensions are external dimensions.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

10.2 Installation

The Airblock housing ⑤ has four suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

The chiller module has a condensation tray ⑭ with a gradient on all sides and a condensation drain connection on the side ⑨.

- Align the unit in a horizontal position!
- Any condensation produced has to be drained off individually or through a collecting line via the siphon connected to the condensation drain connection.
- Provide all water-bearing components (pipes, valves, connections) all the way to the unit with vapour diffusion-tight insulation!
- Only use suitable pipe brackets for cooling mode (refrigeration clamps).
- Install safety-related components (e.g. expansion tanks, positive pressure and overflow valves).
- Condensation must be able to drain freely. Make sure that the condensation drain connection has an appropriate free area.
- Lay a condensation line without any kinks or restrictions with a gradient to the sewage pipe on site.
- Choose the correct condensation line diameter.
- Protect the siphon in the condensation line against drying out (use a ball siphon if necessary).

Note: Service hatches are to be provided on site below and alongside the modules (connection side) for the installation and maintenance of the Airblock modules!

Condensation drains

- A siphon needs to be connected to all available condensation drain connections.
- Ensure an adequate sealing water height (H_s) (see adjacent Fig.)

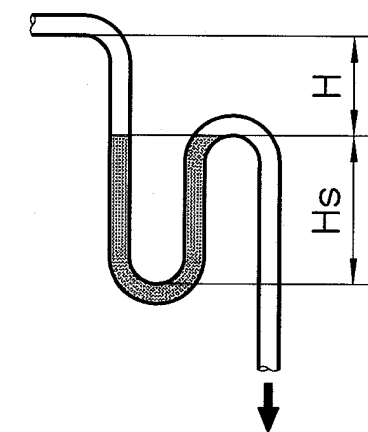
Sealing water height:

$$H_s = H + 50 \text{ mm}$$

H = static negative pressure in the unit (mm H_2O)

(1 mm WS = 9.81 Pa)

Min. water trapp height = 60 mm



Sealing water height H_s

10.3 Hydraulic Connections

- Connect the flow and return lines ⑦ + ⑧ according to the labelling on the housing.
- Provide for a shut-off, ventilation and drainage.

Please note the following for connecting the heat exchanger:

- **Hold the connections on the heat exchanger with a wrench or other suitable tool when connecting the pipework.**
- Make sure that there is adequate working space for the operation and maintenance of the respective Airblock modules and attachments when installing the units. This applies in particular to the connection side area (heating medium / electrical connection ⑦ / ⑧ + ② etc.).
- **Note: It is intended that the heat exchanger ③ will be removed from the side for maintenance purposes!**

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

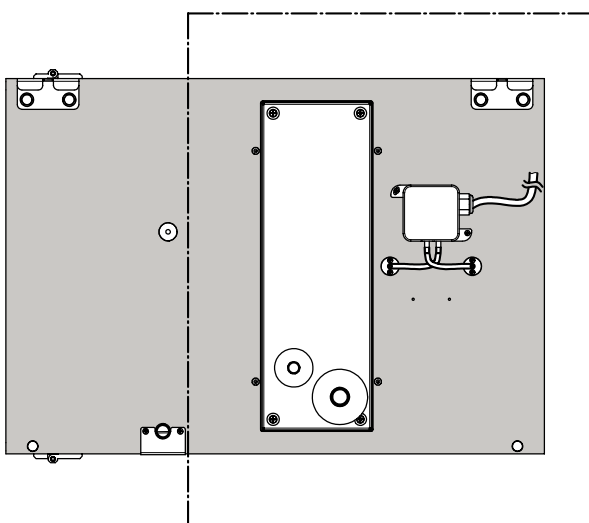
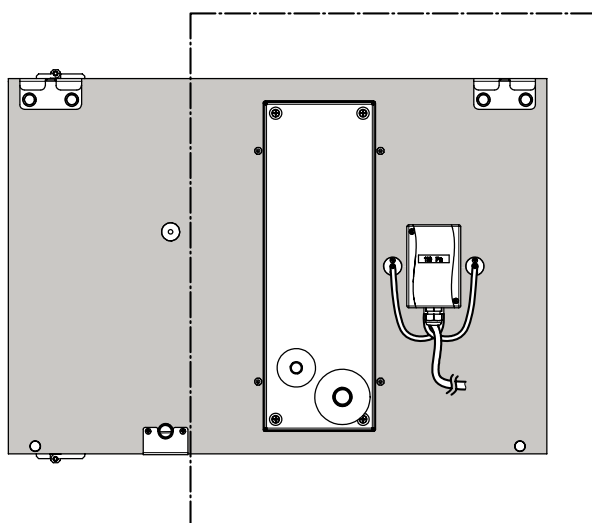
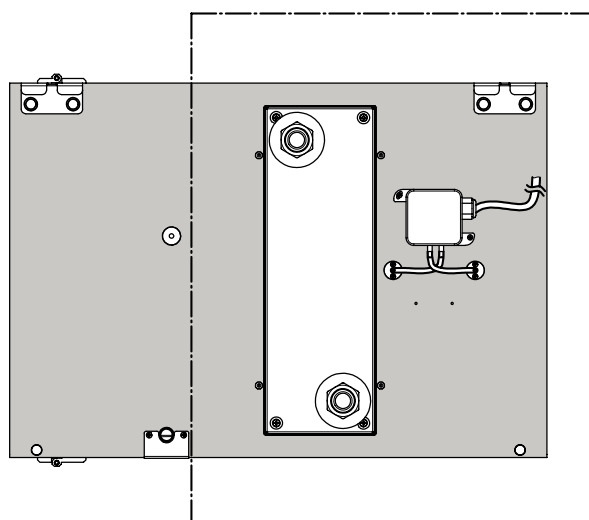
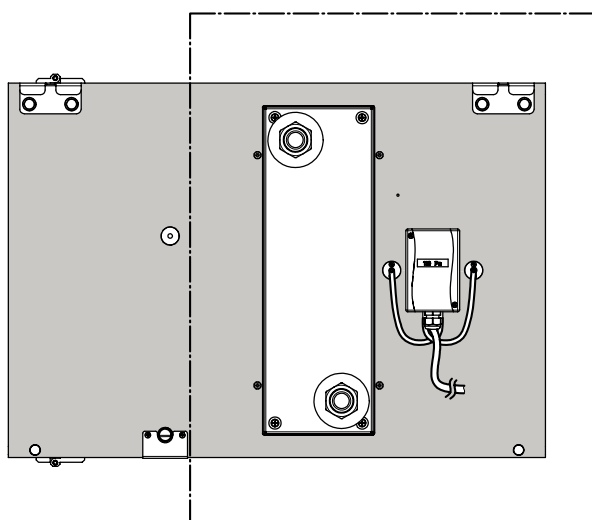
10.4 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Frost protection thermostat | ...0F0 | Model 6: 30468 Models 7, 8, 9: 30668 | enclosed |
| Filter differential pressure switch, for use with supply air module type **300300, chiller module type **302140, heat recovery type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Filter differential pressure transmitter | ...00P | | enclosed |

It is possible to combine the components, e.g. ...0FP

A 24 V power supply is also required for the operation of a filter differential pressure transmitter.



10.5 Maintenance

Observe the maintenance intervals prescribed by the legislature. Periodic maintenance is dependent on the basic conditions, see also maintenance of the heat exchanger and maintenance of the filter ⑥ on pages 38 and 39.

10.5.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!



The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.

10.5.2 Opening the Service Hatches



Note: 2 service hatches are fitted on the top and underside of the units to ensure optimum accessibility for maintenance purposes.

Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weighs up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

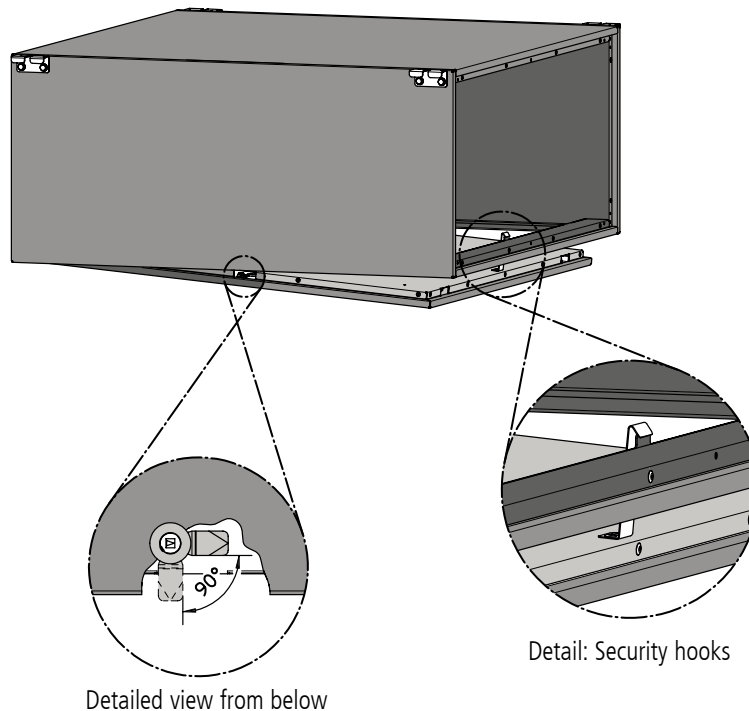
1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

Opening the service hatch (simplified diagram of a module)



10.5.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.

Chiller modules are fitted with two service hatches ④ on the top and underside.

10.5.4 Cu/Al Heat Exchanger

The heat exchanger ③ requires no maintenance if the system is properly maintained, i.e. if the filter is monitored and changed regularly (see page 39). However, please proceed as follows if maintenance or repairs are required:

- Carry out a visual inspection of the heat exchanger. To do this, open the service hatch ④.
- The heat exchanger can be removed through the side service hatch. To do this, first remove the flow and return pipes ⑦ + ⑧. Then loosen the screws on the heat exchanger fastenings and pull out the heat exchanger sideways.

Check the condensation tray ⑭ and droplet separator (if fitted) at regular intervals and clean them if necessary.

Cleaning the heat exchanger:

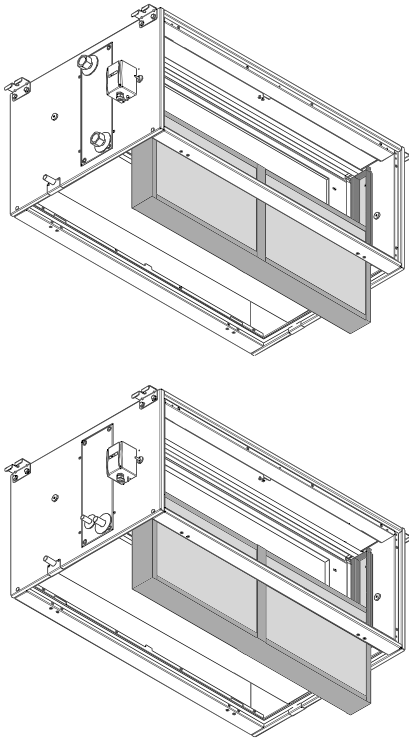
- Blast the Airblock CU/AL heat exchanger with appropriate compressed air or flush the heat exchanger with a suitable medium to remove accumulated dust. Proceed extremely carefully as the aluminium fins bend very easily and then restrict the air flow! (Bent fins have to be straightened with an appropriate tool).

10.5.5 Filter Change (Optional)

Observe the safety information on page 37, sections 10.5.1 and 10.5.2! Filter cartridge in a Fiberplast frame ⑥ (optional with the chiller unit).

If your chiller module is fitted with a filter:

- Check the filter cartridge ⑥ at least once a year (more often if necessary). The filter cartridge must be changed if it is dirty.
- Open the service hatch ④ and unlock the safety catches. Pull out the filter cartridge downwards. Use a collection bag if necessary to avoid dirt and dust dropping down.
- This filter folds in the middle with model 9 units. This makes it easier to remove and it can be folded to save space with disposal so that very little dirt can drop out.
- Push the replacement filter cartridge into the filter opening and lock the filter catches. Replacement filter cartridges are available as accessories. Filter cartridges cannot be recycled.
- Dispose of the dirty filter. Filter cartridges are metal-free and fully incinerable.



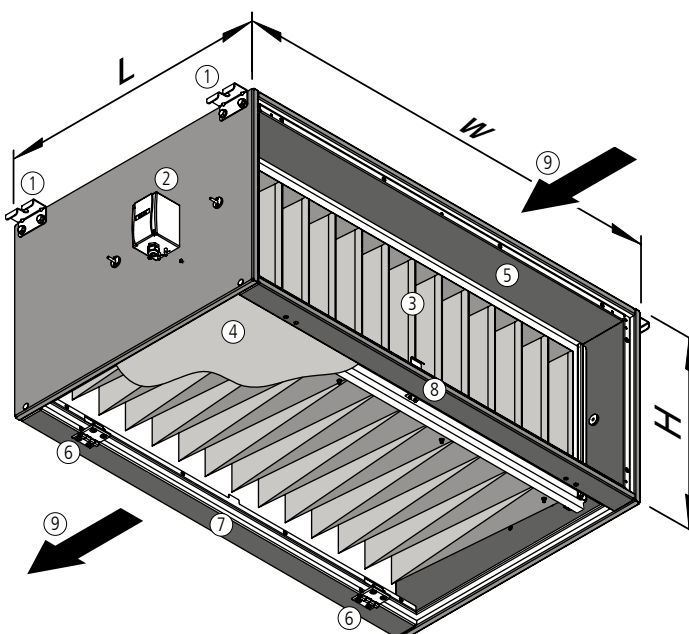
1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

11. Bag Filter Module

11.1 Unit Construction



Airblock FG bag filter module

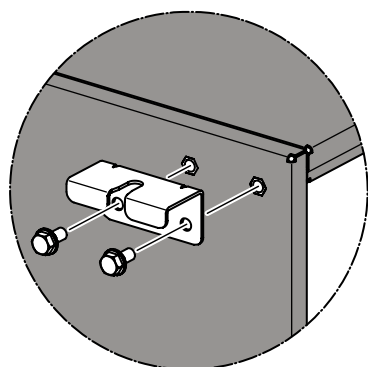


Fig.: Securing the suspension brackets

- ① Suspension bracket with slot (4 no., included in pack)
- ② Differential pressure transmitter (optional accessory)
- ③ Bag filter
- ④ Service hatch, pre-fitted* (indicated as an opening)
- ⑤ Housing
- ⑥ Screw-on hinge for service hatch* (2 no. pre-fitted)
- ⑦ Connecting strut on air discharge side
- ⑧ Connecting strut on air intake side
- ⑨ Direction of air flow

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

Module dimensions

| Model | Bag filter module | | | |
|---------|-------------------|--------------|---------------|-------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 6 | 700 | 740 | 390 | 40 |
| Model 7 | 700 | 940 | 390 | 46 |
| Model 8 | 700 | 940 | 490 | 49 |
| Model 9 | 700 | 1140 | 490 | 55 |

All dimensions are external dimensions.

11.2 Installation

The Airblock housing ⑤ has four suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

- Seal all joints with sealing tape. Screws and sealing tape are included in the delivery.
- Several Airblock filter or chiller modules can be screwed together from the inside using the connection sets included.
- Make sure that there is adequate working space for the operation and maintenance of the respective Airblock modules and attachments when installing the units. This applies in particular to the connection side area (electrical connection ② etc.).
- Provide rubber pads on site to decouple noises.
- Align the unit in a horizontal position.
- Note: The filter ③ can only be removed from below for maintenance purposes!

Note: Service hatches are to be provided on site below and alongside the modules (connection side) for the installation and maintenance of the Airblock modules!

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

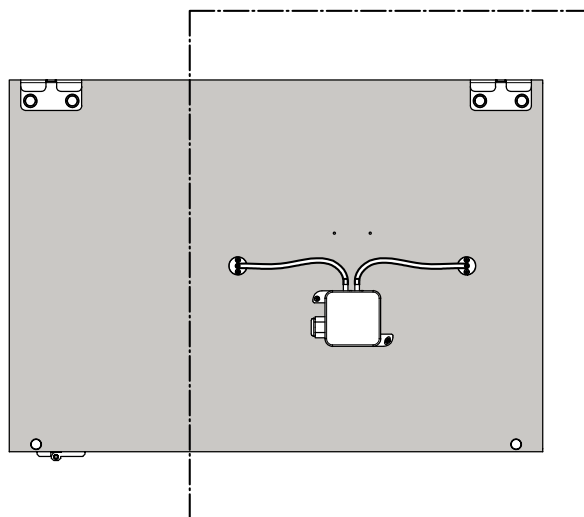
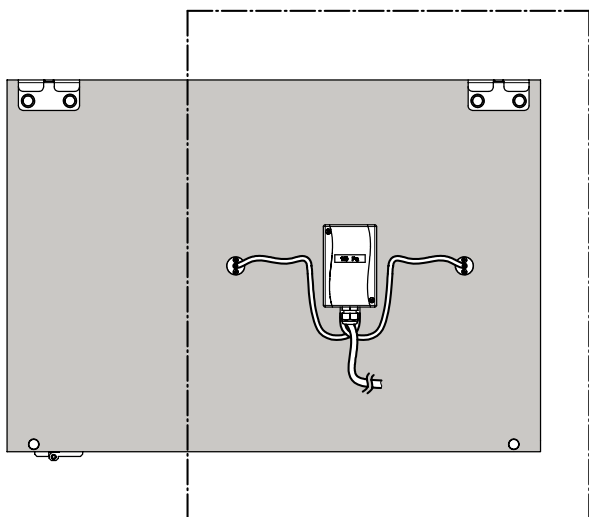
Installation and Operating Instructions

11.3 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Filter differential pressure switch, for use with supply air module type **300300, chiller module type **302140, heat recovery type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Filter differential pressure transmitter | ...00P | | enclosed |

A 24 V power supply is also required for the operation of a filter differential pressure transmitter.



11.4 Maintenance

11.4.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!



The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.

11.4.2 Opening the Service Hatches



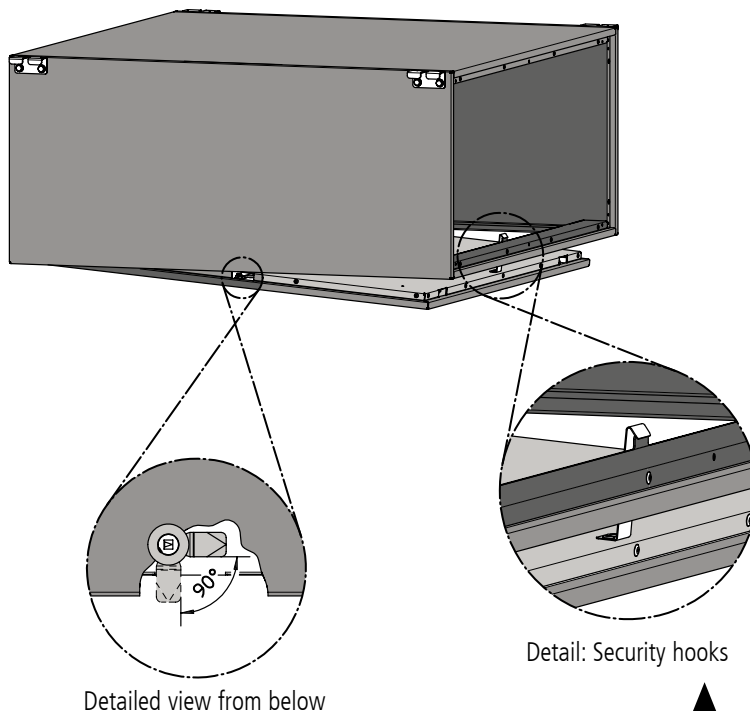
Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weights up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

Opening the service hatch (simplified diagram of a module)



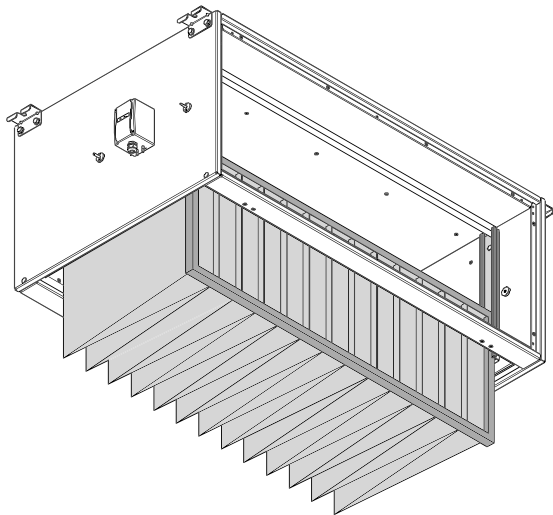
1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

11.4.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.



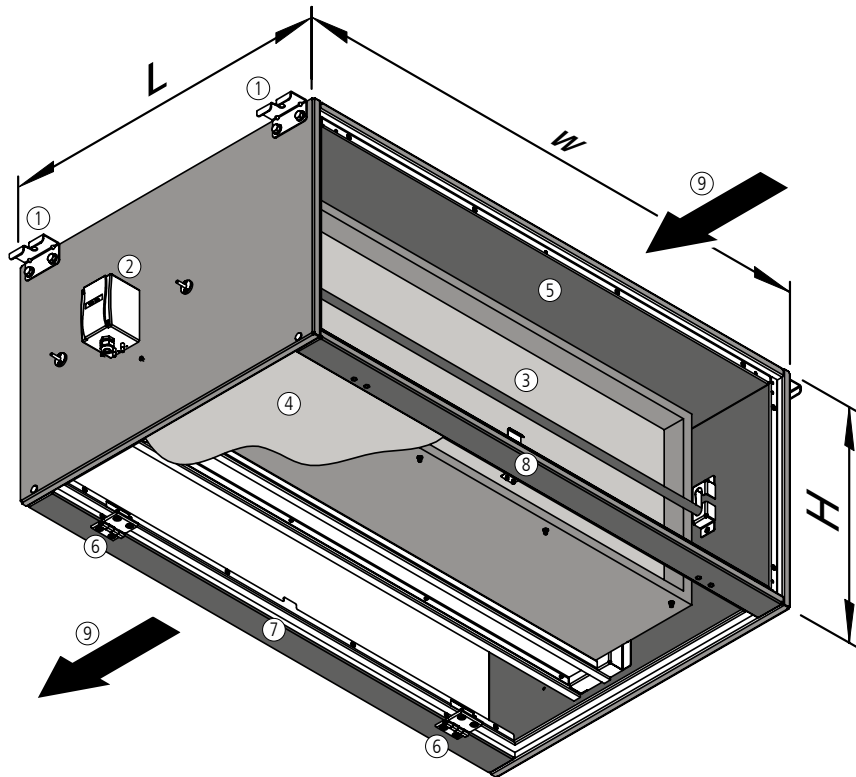
Filter change on the bag filter module
(service hatch hidden)

11.4.4 Filter Change

- Check the filter cartridge ISO ePM10 85% ③ at least once a year (more often if necessary). The bag filter must be changed if it is dirty.
- To do this, open the service hatch ④ of the bag filter module and pull out the bag filter downwards. The filter on the discharge side can be gently pressed together. Use a collection bag if necessary to avoid dirt and dust dropping down.
- Insert a replacement bag filter ISO ePM10 85% (available as an accessory). Bag filters ISO ePM10 85% cannot be recycled.

12 Particle Filter Module

12.1 Unit Construction



Airblock FG particle filter module

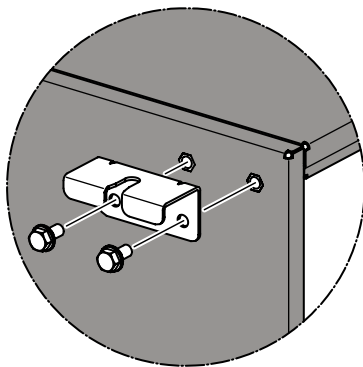


Fig.: Securing the suspension brackets

- ① Suspension bracket with slot (4 no., included in pack)
- ② Differential pressure transmitter (optional accessory)
- ③ Particle filter
- ④ Service hatch, pre-fitted* (indicated as an opening)
- ⑤ Housing
- ⑥ Screw-on hinge for service hatch* (2 no. pre-fitted)
- ⑦ Connecting strut on air discharge side
- ⑧ Connecting strut on air intake side
- ⑨ Direction of air flow

* The service hatch and screw-on hinges can be rotated 180° and fitted on site depending on the space requirements; the screw-in hinges can be fixed to the connecting strut on the air discharge side and the connecting strut on the air intake side. Screw the screw-in hinges to the desired connecting strut using two M6x16 countersunk screws.

Module dimensions

| Model | Particle filter module | | | |
|---------|------------------------|--------------|---------------|-------------|
| | Length L [mm] | Width W [mm] | Height H [mm] | Weight [kg] |
| Model 7 | 700 | 940 | 390 | 62 |
| Model 8 | 700 | 940 | 490 | 63 |
| Model 9 | 700 | 1140 | 490 | 72 |

All dimensions are external dimensions.

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

12.2 Installation

The Airblock housing ⑤ has four suspension points ① as standard as screwable mounting brackets with a slot fixing for universal installation. All Airblock modules are suitable for the installation of accessories or attachments with standard duct connection profiles thanks to the connecting flange with several fixing holes.

- Seal all joints with sealing tape. Screws and sealing tape are included in the delivery.
- Several Airblock filter or chiller modules can be screwed together from the inside using the connection sets included.
- Make sure that there is adequate working space for the operation and maintenance of the respective Airblock modules and attachments when installing the units. This applies in particular to the connection side area (electrical connection ② etc.).
- Provide rubber pads on site to decouple noises.
- Align the unit in a horizontal position.
- Note: The filter ③ can only be removed from below for maintenance purposes!

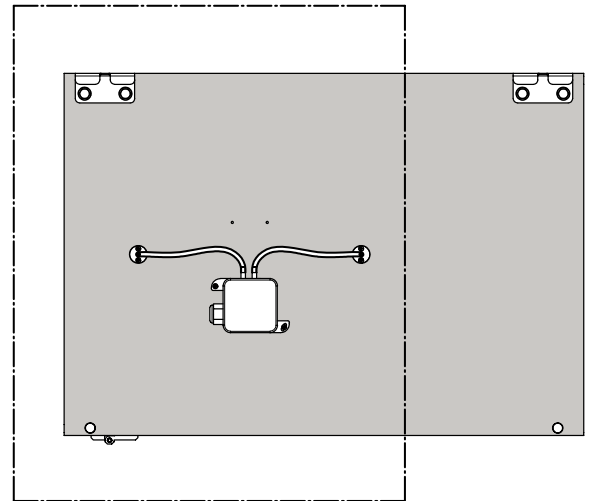
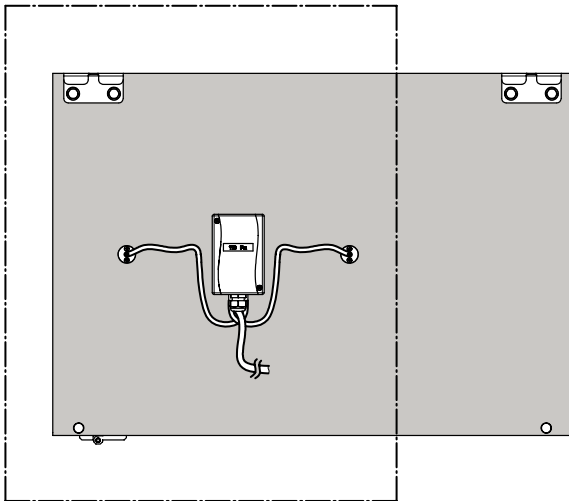
Note: Service hatches are to be provided on site below and alongside the modules (connection side) for the installation and maintenance of the Airblock modules!

12.3 Control Components

Please refer to the enclosed technical information for technical data on the following accessories delivered separately or fitted at the factory.

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Filter differential pressure switch, for use with supply air module type **300300, chiller module type **302140, heat recovery type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Filter differential pressure transmitter | ...00P | | enclosed |

A 24 V power supply is also required for the operation of a filter differential pressure transmitter.



1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

12.4 Maintenance

12.4.1 Safety Information



Disconnect all parts of the system and secure them against being switched on again before any wiring and maintenance work!



The housing must only be opened once the motor has come to a standstill. Risk of injury!

Check the function of all components after completing the work.



12.4.2 Opening the Service Hatches

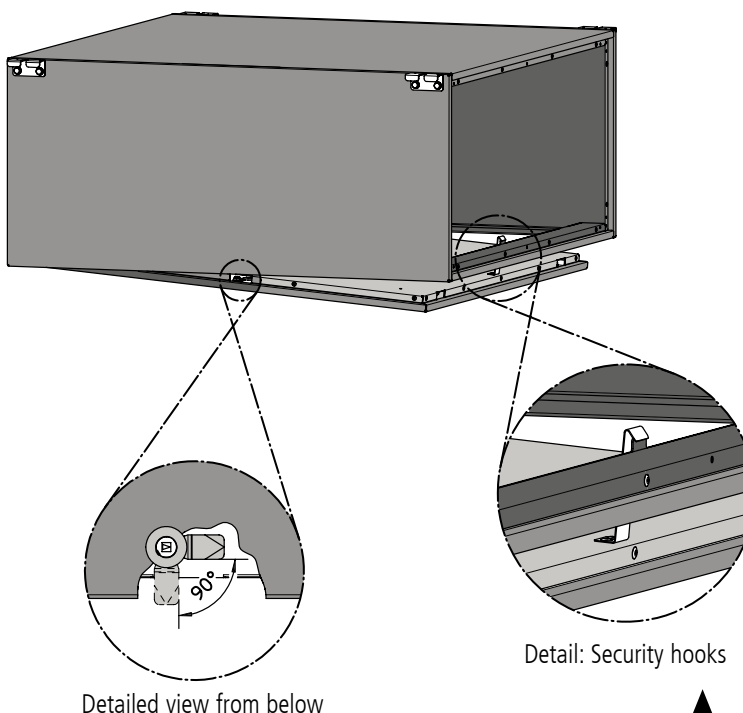
Stand on a solid surface to carry out maintenance on the Airblock FG, e.g. a lifting platform. Do not use a ladder! Do not stand within the swivel range of the hatch!

Caution! Two people are needed to open the service hatch ④! The hatch weights up to 20 kg depending on the model. Never open the service hatch further than 90°!

Steps:

1. Rotate the turning bolt (4 or 6 no. per service hatch) 90° inwards using the square box spanner enclosed.
2. Lower the service hatch until the safety hook automatically hooks into the lug of the housing connecting strut; the safety hook prevents the service hatch suddenly flapping downwards.
3. Lift the service hatch slightly; push back the safety hook until it can be moved past the lug of the housing connecting strut.
4. Carefully lower the service hatch to the desired position.

Opening the service hatch (simplified diagram of a module)



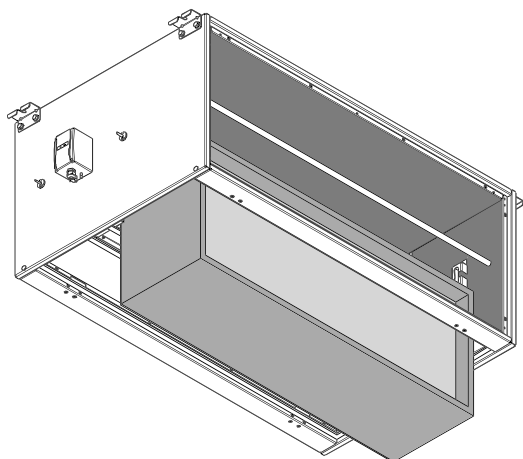
12.4.3 Housing

The galvanised, double-walled housing ⑤ of the Airblock modules is maintenance-free. Dirt on the outer housing has no influence on the operation of the unit. Dirt on the inside of the housing indicates a lack of maintenance.

12.4.4 Filter Change

The particle filter class H13 ③ must be checked at least once a year and replaced on reaching the filter service life or final pressure drop:

- To do this, open the service hatch ④ on the particle filter module.
- Then loosen the clamping rod on the clamping mechanism and remove this.
- Pull out the filter carefully. Use a collection bag if necessary to avoid dirt or dust dropping down!
- Insert the replacement particle filter class H13. Pay attention to the correct direction of air flow (see arrow).
- Insert the clamping rod again and tighten this carefully to ensure that there is a good seal to the counter frame.
- Dispose of the dirty filter.



**Filter change on the particle filter module
(service hatch hidden)**

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions

13. Spare Parts

13.1 Filter

| Overview of replacement filter types | | | | | |
|--|-----------|----------|----------|----------|----------|
| Model | Unit size | Model 06 | Model 07 | Model 08 | Model 09 |
| Replacement bag filter ISO ePM10 85% for bag filter module | | 06013170 | 07013170 | 08013170 | 09013170 |
| Replacement particle filter H13 for particle filter module | | 06013130 | 07013130 | 08013130 | 09013130 |
| Replacement filter cartridge ISO Coarse 90% for supply air and compact filter module, in Fiberplast frame | | 06013240 | 07013240 | 08013240 | 09013240 |
| Replacement filter cartridge ISO ePM10 70% for heat recovery, supply air and compact filter module, in Fiberplast frame | | 06013250 | 07013250 | 08013250 | 09013250 |
| Replacement filter cartridge ISO ePM2,5 65% for heat recovery, supply air and compact filter module, in Fiberplast frame | | 06013270 | 07013270 | 08013270 | 09013270 |

13.2 Control Components

| Description of accessory | Type suffix for Airblock type | Type of accessory/ spare part supplied separately | Enclosed technical information from manufacturer |
|---|-------------------------------|---|--|
| Frost protection thermostat | ...0F0 | Model 6: 30468 Models 7, 8, 9: 30668 | enclosed |
| Filter differential pressure switch, for use with supply air module type **300300, chiller module type **302140, heat recovery type **301700, particle filter module type ** 303130 and bag filter module type **303170 | ...00D | 30267 | |
| Differential pressure transmitter, filter or fan | ...00P or ...P00 | | enclosed |
| Flow rate transmitter for flow rate control | ...V00 | | enclosed |

It is possible to combine the components, e.g. ...VFP.

A 24 V power supply is also required for the operation of a flow rate and / or differential pressure transmitter.

14. Declaration of Conformity**EU-Konformitätserklärung**

EU Declaration of Conformity

Déclaration de Conformité CE

Deklaracja zgodności CE

EU prohlášení o konformite

Wir (Name des Anbieters, Anschrift):

We (Supplier's Name, Address):

Nous (Nom du Fournisseur, Adresse):

My (Nazwa Dostawcy, adres):

My (Jméno dodavatele, adresa):

KAMPMANN GMBH & Co. KG**Friedrich-Ebert-Str. 128-130****49811 Lingen (Ems)****erklären in alleiniger Verantwortung, dass das Produkt:**

declare under sole responsibility, that the product:

déclarons sous notre seule responsabilité, que le produit:

deklarujemy z pełną odpowiedzialnością, że produkt:

deklarujeme, vědomi si své odpovědnosti, že produkt:

Type, Modell, Artikel-Nr.:

Type, Model, Articles No.:

Type, Modèle, N° d'article:

Typ, Model, Nr artykułu:

Typ, Model, Číslo výrobku:

Airblock FG 1500063*; 1500073***; 1500083***;**
1500093*; 1500063***; 1500074***;**
1500084*; 1500094*****
auf das sich diese Erklärung bezieht, mit der / den folgenden Norm(en) oder normativen Dokumenten übereinstimmt:

to which this declaration relates is in conformity with the following standard(s) or other normative document(s):

auquel se réfère cette déclaration est conforme à la (aux) norme(s) ou autre(s) document(s) normatif(s):

do którego odnosi się niniejsza deklaracja, jest zgodny z następującymi normami lub innymi dokumentami normatywnymi:

na který se tato deklarace vztahuje, souhlasí s následující(mi) normou/normami nebo s normativními dokumenty:

DIN EN 55014-1; -2**DIN EN 61000-3-2; -3-3****DIN EN 61000-6-1; -6-2; -6-3****DIN EN 60335-1; -2-40****Elektromagnetische Verträglichkeit****Elektromagnetische Verträglichkeit****Elektromagnetische Verträglichkeit****Sicherheit elektr. Geräte f. den Hausgebrauch und ähnliche Zwecke**
Kampmann GmbH & Co. KG
 Friedrich-Ebert-Straße 128-130
 49811 Lingen (Ems)

 Registergericht: Osnabrück, HRA 205688
 USt-IdNr: DE313505294
 Kampmann.de

 Persönlich haftende Gesellschafterin:
 Kampmann Beteiligungsgesellschaft mbH
 Sitz: Lingen (Ems)

 Registergericht: Osnabrück, HRB 211684
 Geschäftsführer: Hendrik Kampmann

1.50 Airblock FG

Slimline air handling unit for decentralized, dynamic air treatment

Installation and Operating Instructions



Gemäß den Bestimmungen der Richtlinien:

Following the provisions of Directive:
Conformément aux dispositions de Directive:
Zgodnie z postanowieniami Dyrektywy:
Odpovídající ustanovení směrnic:

2014/30/EU EMV-Richtlinie
2014/35/EU Niederspannungsrichtlinie

Lingen (Ems), den 01.09.2020

Ort und Datum der Ausstellung

Place and Date of Issue
Lieu et date d'établissement
Miejsce i data wystawienia
Místo a datum vystavení

Hendrik Kampmann

Name und Unterschrift des Befugten

Name and Signature of authorized person
Nom et signature de la personne autorisée
Nazwisko i podpis osoby upoważnionej
Jméno a podpis oprávněné osoby

2/2

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Sitz: Lingen (Ems)

Registergericht: Osnabrück, HRB 211684
Geschäftsführer: Hendrik Kampmann

KAMPMMANN
Genau mein Klima.

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