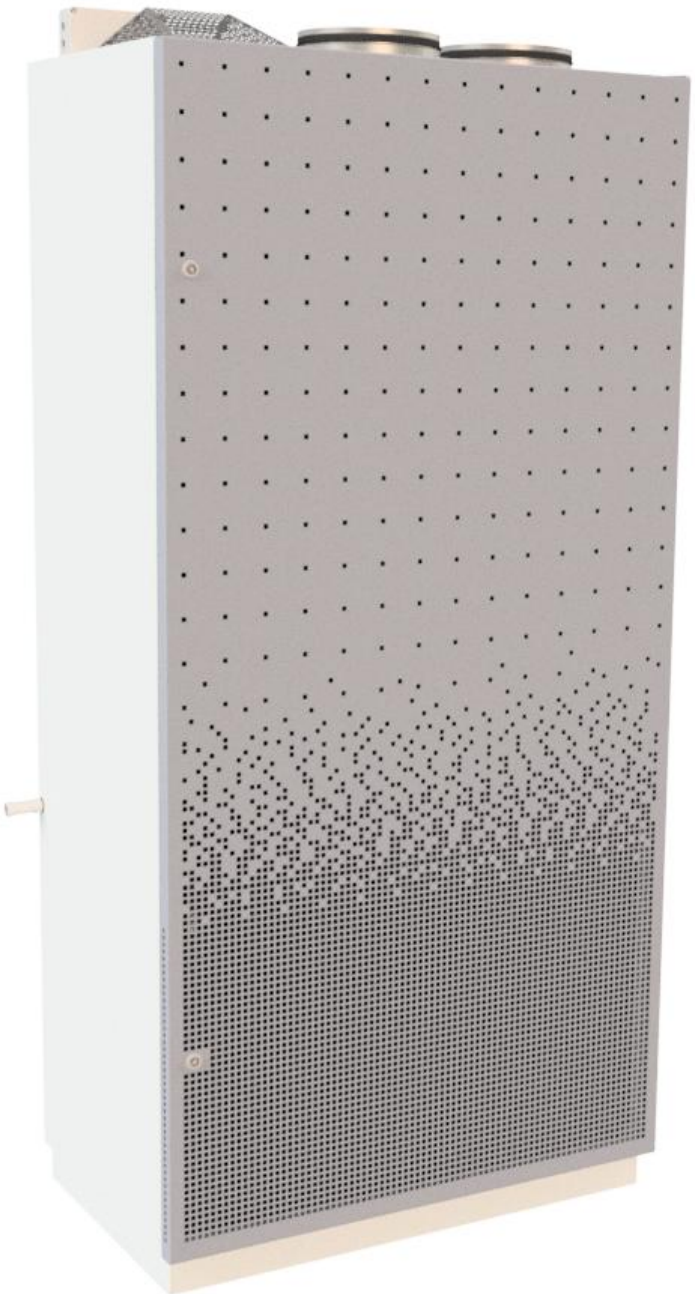
Operating Manual Unit

SupraBox DELUXE 500 V



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1. Security

1.1. Health and Safety Warnings

The following symbols indicate certain hazards or provide you with information on the safe operation of the ventilation unit:

Attention! Danger zone! Safety instruction!

Danger due to electric current or high voltage!

Crush hazard!

Caution! Hot surface!

Important note, information

This appliance carries dangerous electrical voltages and controls rotating mechanical parts. Death, serious injury or considerable material damage may result if the instructions in this operating manual are not followed.

Only suitably qualified personnel may work on these appliances. These personnel must be familiar with all warnings and measures given in these operating instructions for setting up and operating the appliance. The successful and safe handling of this appliance depends on the proper and professional transport, installation, operation and maintenance of the appliance.

The installation must not be carried out in rooms with conductive dust, corrosive or flammable gases, moisture, rain or excessive heat.

The electric SupraBox DELUXE control unit is not explosion-proof!

It is strictly forbidden to carry out work on parts that are live. The protection class of the open Unit is IP21! Dangerous voltages can be touched! The electrical SupraBox DELUXE control unit is not explosion-proof!

The appliance is operated with alternating voltage. The voltage level must correspond to the specifications on the rating plate. The SupraBox DELUXE and the integrated switch cabinet must be closed during operation.

Repairs may only be carried out by a specialist authorised by Rosenberg Ventilatoren GmbH. Fuses may only be replaced and may not be repaired or bypassed. Only the fuses specified in the electrical circuit diagram may be used. The absence of voltage must be checked with a two-pole voltage tester and operation is carried out with alternating voltage. The voltage level must correspond to the specifications on the rating plate. The SupraBox DELUXE and the integrated switch cabinet must be closed during operation.

The SupraBox DELUXE controller must be wired according to the wiring diagram. Incorrect wiring will lead to the destruction of the Unit. Any defects found in electrical systems / assemblies / equipment must be rectified immediately. If there is an acute danger until then, the appliance / system must not be operated in the defective condition.

1.2. Safety instructions

Compact ventilation units in the SupraBox DELUXE 500 V series are designed and manufactured according to the latest state of the art at the time of delivery. Extensive material, function and quality tests ensure a high level of benefit and a long service life. Nevertheless, these machines can be dangerous if they are used improperly or not as intended by untrained personnel.

Read these instructions carefully before unpacking the goods, before carrying out installation work and before any maintenance work!

Only operate the air handling unit when it is installed and with properly fitted safety guards or protective grilles. Rosenberg Ventilatoren GmbH supplies suitable and tested protective grilles mounted at the specified points.

The following work may only be carried out by trained specialists: Installation works.

- Electrical connection
- Installation of outdoor air and exhaust air duct
- Installation of the condensate drain
- Commissioning
- Maintenance work

Before working on electrically powered machines, disconnect them from the mains at all poles.

ATTENTION: All metal parts of the optionally available PTC reheating coil are live during operation! The corresponding connection plugs are also exposed! Before opening the appliance with the special spanner, the appliance must therefore be disconnected from the mains!
DANGER TO LIFE!

Shortly after operating the PTC reheating coil, it and the neighbouring surfaces in the appliance may still be hot! Risk of burns!

Authorised persons must be trained in accordance with the current accident prevention regulations of the relevant trade associations and instructed in the work area.

Please also observe any applicable regulations:

DGUV 1	'Principles of prevention'
DGUV 3	'Electrical systems and equipment'
DGUV 109-017	'Operation of load handling attachments and slings in hoist operation'
DGUV 68	'Industrial trucks'

2. Unit description

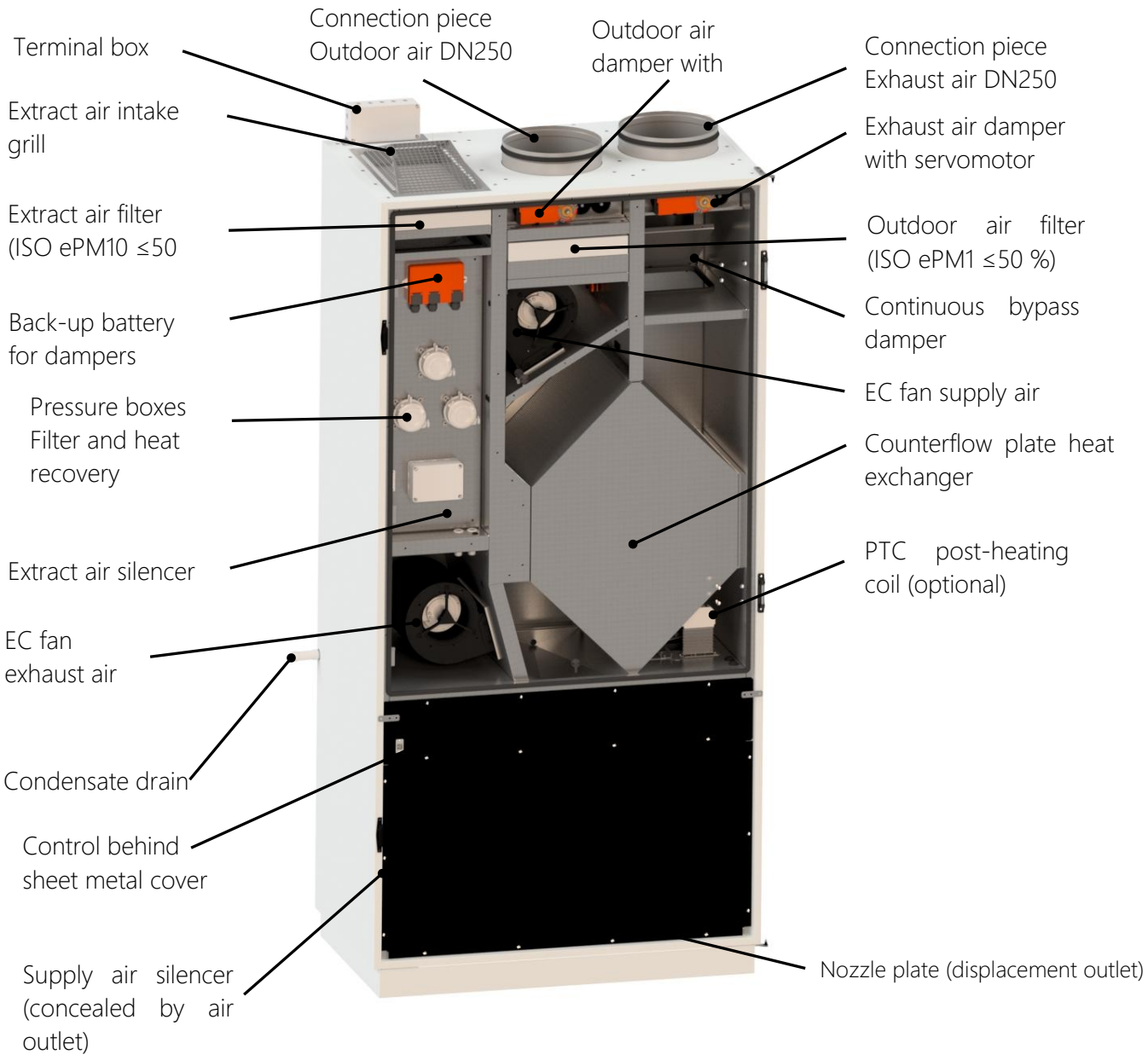
2.1. Technical features

The SupraBox DELUXE 500 V:

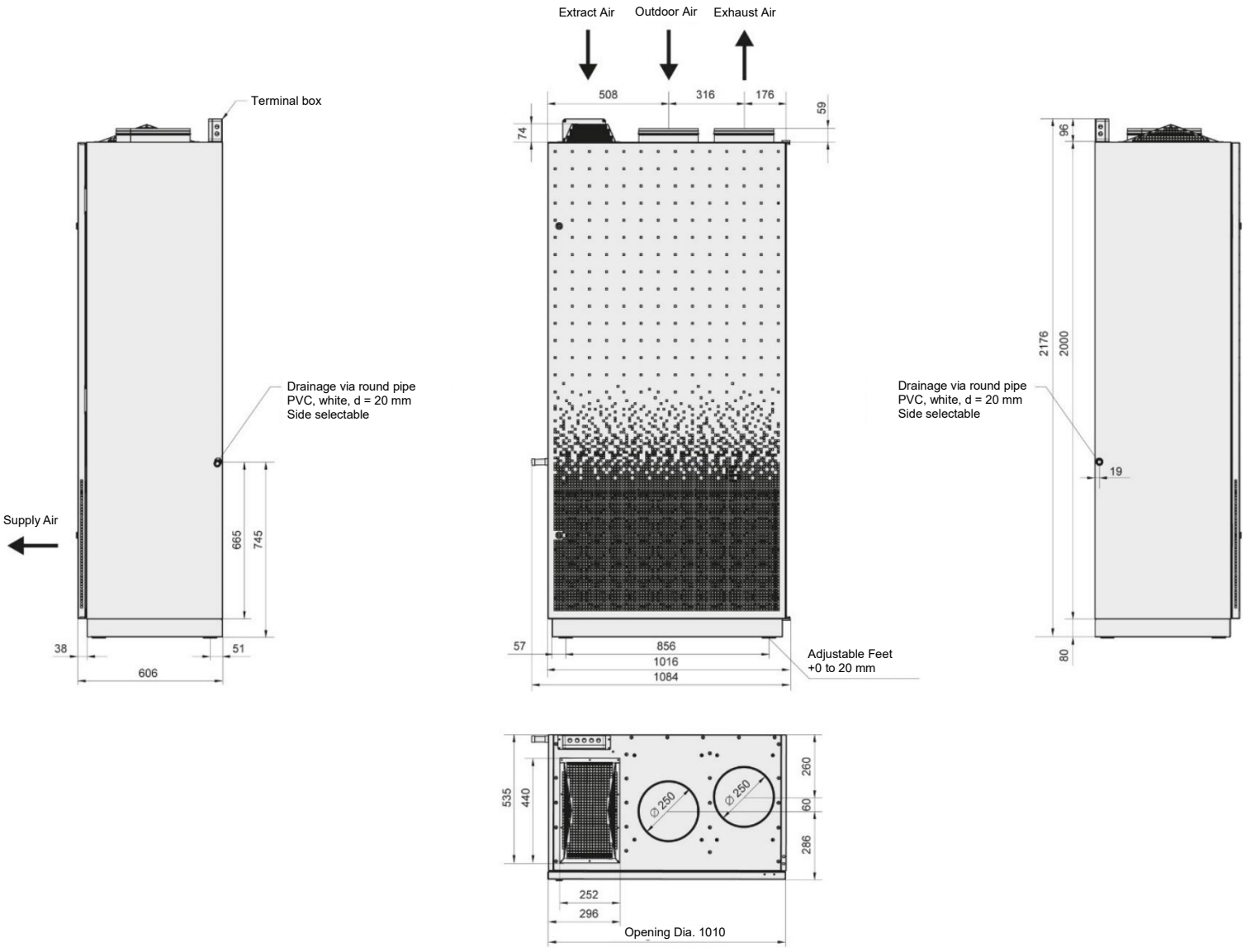
- is a decentralised, compact ventilation unit for highly efficient ventilation of a single room with outdoor air and simultaneous heat recovery from the exhaust air. The Unit is primarily used to minimise the CO2 content of the room air and can be operated with a maximum of 500 m^3/h (650 m^3/h in power mode) at 50 Pa pressure loss in the outdoor air and exhaust air ducts. The sound pressure level at a distance of 1 m is not exceeded at any time at the specified operating point. The heat recovery function can be bypassed with an integrated full bypass.
- Surfaces and built-in parts in accordance with VDI 6022, making the appliance easy to clean.
- has installed a highly efficient aluminium counterflow plate heat exchanger for heat recovery. Any condensate that occurs must be collected in a condensate tray in accordance with VDI 3803 Sheet 2 / Part 2 Point 7.3.1.3 and safely drained off.
- has direct-drive fans with forward-curved radial impellers, which are installed in the Unit with vibration damping. Each fan is equipped with an energy-saving and infinitely variable EC motor.
- is equipped with four height-adjustable feet to compensate for uneven floors.
- has a compact housing made of corrosion-resistant and powder-coated zinc and aluminium sheet (various RAL colours, coating thickness 60 µm).
- has a compact housing consisting of corrosion-resistant and powder-coated zinc and aluminium sheet (various RAL colours, layer thickness 60 µm). Has double-skinned side panels, appliance base, appliance lid, rear panels, front panel and doors with internal sound and heat insulation with an insulation thickness of 40 mm (min. 33 kg/m^3; λ = 0.042 W/mK).
- is equipped with electrical cabling with flame-retardant cables.
- is equipped with electrical cabling with flame-retardant cables - is supplied complete with integrated control unit. The control unit is mounted on a maintenance-friendly slide-in unit behind an inspection opening and is function-tested. The appliance is pre-wired except for the connection of external components.
- is set using an easy-to-understand control panel for wall mounting (accessory).

2.2. Position of the components

is set using an easy-to-understand control panel for wall mounting (accessory) The following illustration shows the installation position of the appliance components. The inspection and design doors are not shown.



2.3. External dimensions of the unit



2.4. Technical data

Casing	Double-skinned 40 mm frameless
Control voltage	24 VAC galvanically isolated from the mains voltage
Dimensions (L x T x H) [mm]	1000 x 606 x 2080 [mm] (without spigot, adjustment range feet +0 to +15 mm)
Nominal operating point	500m³/h, constant volume flow 650 m³/h in power mode
Fans	Forward curved in spiral housing, driven by highly efficient Rosenberg EC external rotor motors with integrated electronics
Power consumption at nominal point	2x 83 W (without reheating) at 500 m³/h 2x 150 W (without reheating) in power mode
SFP value at nominal point	598 Ws/m³ at 500 m³/h 831 Ws/m³ at 650 m³/h
SFP class at nominal point	SFP 0 at 500 m³/h SFP 2 at 650 m³/h
Heat recovery Efficiency	Counterflow plate heat exchanger with continuous bypass, up to η=92%*, corresponding to heat recovery class H1 *Maximum values for condensation; heat recovery coefficient depends on operating status
Air filter	Supply air panel filter: F7 308 x 482 x 48 [mm] (optional F9) dP(End): 200 Pa Return air panel filter: M5 260 x 443 x 48 [mm] dP(End): 150 Pa
Air connections	Vertical DN 250
Control	Infinitely variable CO2 demand control
Total current consumption Max.	At 500 m³/h: 1.33 A At 650 m³/h (power mode): 2.2 A
Sound pressure level (1m distance in the room)	34 dB(A) Measurement according to ISO 3744/3745, Accuracy class 1, Under optimum conditions
Weight incl. control	225 Kg

3. Transport and installation

3.1. Delivery and transport to the installation site

The SupraBox DELUXE 500 V must be visually inspected upon delivery to ensure that it is undamaged. This should be done before the box is unloaded from the transport vehicle. Furthermore, the completeness of the scope of delivery must be checked against the freight documents. Missing parts or damage must be recorded immediately on the freight documents and confirmed by the driver of the transport vehicle.

Upon receipt of the goods, the packaging, film and adhesive tape must be removed immediately to prevent condensation.

The system can be moved using a forklift truck or pallet truck.

Ensure that there is sufficient space during transport.

Avoid twisting or mechanical damage to the housing when lifting the appliance!

- Always keep service doors closed during transport!
- Only use suitable lifting gear for transport!
- Please note that excessive load on the housing parts can lead to damage!
- For your own safety, use suitable non-slip gloves and safety shoes during transport

Please note the following when *transporting with a forklift truck or pallet truck:*

Transport activities with industrial trucks require regular instruction of the authorised personnel in accordance with the relevant accident prevention regulations (in Germany DGUV 68 'Industrial trucks').
Vor jeder Ladetätigkeit ist die Tragfähigkeit des Flurförderzeuges zu überprüfen!

Attention! Unit is top-heavy! Only transport in pairs!

When transporting with a pallet truck, additional securing with lashing straps or safety belts may be necessary!

The fork length of the industrial truck must be longer than the depth of the transport pallet to be driven under. Forks that are too short will cause damage to the floor panels or the appliance frame.

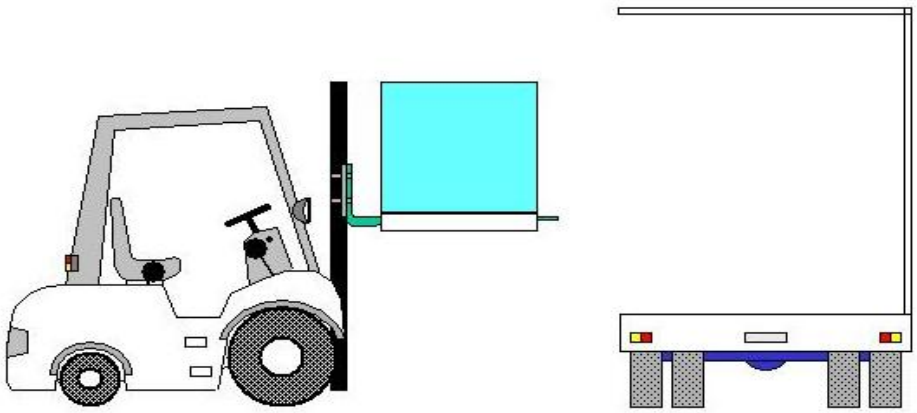


Illustration: Unloading by forklift truck

The following must be observed when *transporting with a gantry crane or mobile crane*:

Transport activities using cranes and load handling equipment require regular instruction of the authorised personnel in accordance with the relevant accident prevention regulations (in Germany VBG 9a 'Load handling equipment in hoisting operations')
Danger to life! It is forbidden for persons to stand under suspended loads!

Only use approved, undamaged, textile slings with a sufficiently large contact surface and edge protection for direct load attachment (looping under the load). (e.g.: lifting slings in accordance with EN1492-1 or round slings in accordance with EN1492-2)
The use of sling chains or sling ropes for direct load attachment is not permitted!

Avoid inclination angles of the lifting gear of more than 60°!

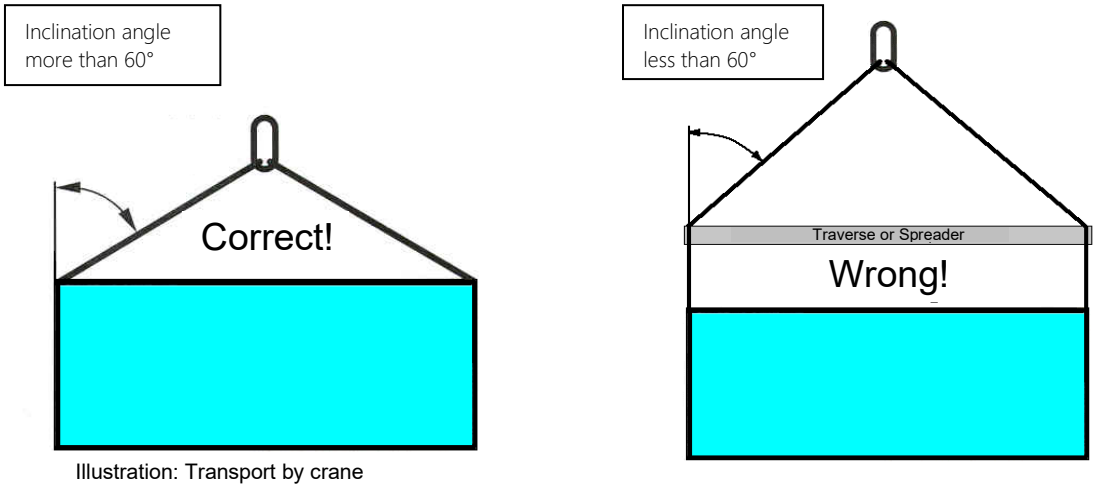


Illustration: Transport by crane

When lifting, please note that the load distribution in the functional part is generally asymmetrical! This is not visible from outside the functional part!

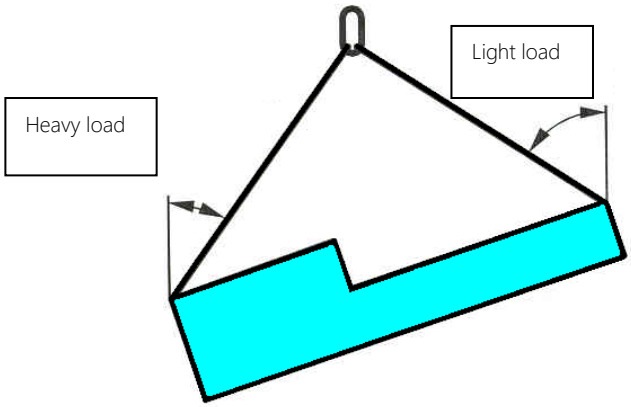


Illustration: Load

- Only use slings of the same length.
- Carry out all movements carefully and not jerkily.
- Do not set the system down hard and avoid bumping into it.

The following sequence must be observed when installing the SupraBox DELUXE 500V; the individual work steps are specified in more detail in the following chapters:

- Selecting the installation site
- Setting the condensate drain direction
- Set up and align the box in the installation room using the 4 levelling feet
- Connection of the outdoor and exhaust air duct
- Carrying out the electrical installation
- Connection of the condensate drain
- Setting the flow distributor
- Commissioning the Unit

In accordance with VDI 3803 Sheet 2 / Part 2, Point 8.1, the nozzles of the SupraBox DELUXE 500 V are covered with foil for dust protection and then the entire appliance is wrapped in foil. This packaging should only be removed shortly before commissioning.

3.2. Storage of devices

- Units and unit components must be unpacked, protected against dirt and damage, and stored in a dry place. Prolonged exposure to moisture from condensation must be avoided at all times due to the risk of white rust forming!
- Cover open pallets with tarpaulins. Protect functional parts from contamination (e.g. metal scraps, stones, wire, etc.).
- Unused openings and screw connections for cables, as well as module connections, connection sockets, doors, inspection hatches, etc., must be sealed. Any ingress of moisture may lead to faults; no liability is accepted for this.
- Maintain the storage temperature between -30°C and +40°C.
- To prevent white rust from forming, ensure sufficient ventilation.
- For storage periods exceeding 12 months, check that the fan bearings move freely before assembly.

Turn the impeller by hand.
Warning! Risk of getting caught in the impeller!

3.3. Electrical installation

Installation and electrical work may only be carried out by trained and instructed specialist personnel and in accordance with the applicable regulations!

The electrical connection may only be carried out by an authorised electrician in accordance with the VDE regulations and the guidelines of the local power supply company. The connection must be carried out exactly according to the circuit diagram and the wiring diagram. All screw connections must be checked before commissioning and tightened if necessary.

The SupraBox DELUXE 500 V has a terminal box with connection options for the following components:

- Control panel
- CO2 sensor
- smoke detector/fire alarm contact for complete switch-off of the appliance
- Outdoor temperature sensor
- Room temperature sensor
- Modbus RTU & RJ45 interface

When connecting the individual components, it is essential to follow the enclosed wiring diagram.

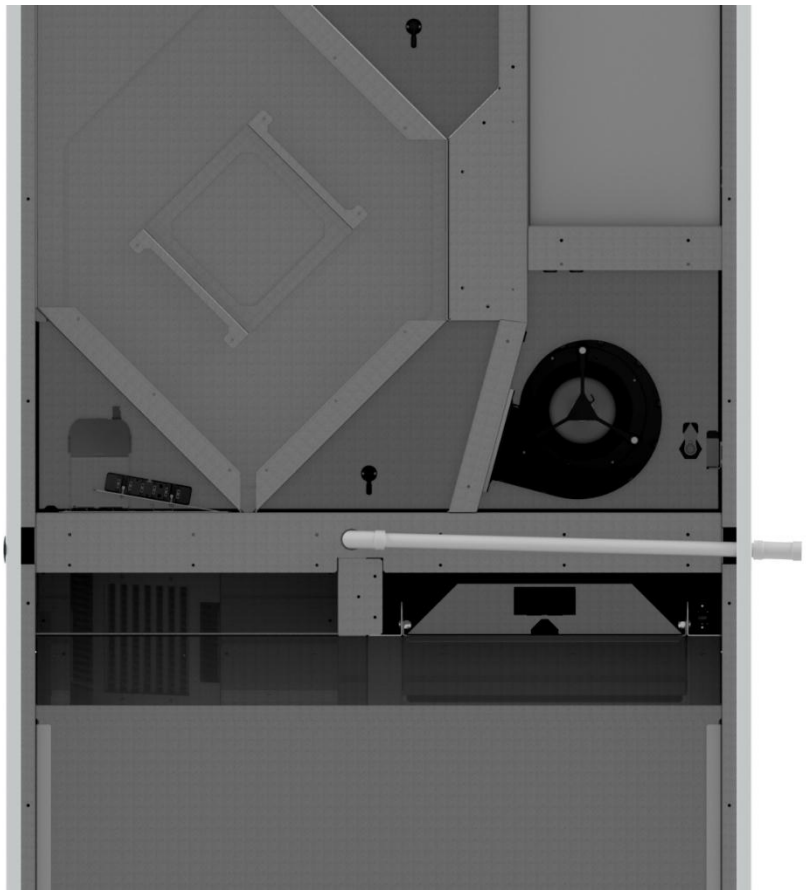
The two terminals for the smoke detector/fire alarm contact must be bridged in case no smoke detector/fire alarm contact is connected.

The maximum permissible cable length to the CO2 sensor and the control panel is 100 m.

3.4. Installation of the condensate drain

During the heating period, the strong cooling of the humid extract air in the counterflow plate heat exchanger produces condensate on the exhaust air side, which must be discharged into the waste water network via the condensate drain. The quantity to be discharged depends on the humidity in the room and the temperature of the outdoor air.

To prevent exhaust air from being blown into the room via the condensate drain, either form a siphon using a suitable hose connected to the appliance, as described below, or alternatively connect a suitable siphon (not included with the unit).



The minimum value for dimension H in mm is calculated from the overpressure in Pa above the tray divided by 10, i.e:

H [mm] = P [Pa] / 10 40-60 mm are completely sufficient for the SupraBox DELUXE 500V.

For hygiene reasons, the siphon on the appliance must not be connected directly to a wastewater pipe, but must have a free outlet. A floor drain in the room or a collecting funnel with a subsequent second trap as an odour trap to the wastewater network.

For longer pipes between the trap and the outlet point, ensure sufficient ventilation, diameter and gradient in accordance with sanitary engineering standards.

Before commissioning the ventilation unit, the built-in siphons must be filled with water via the filling opening. The function of the drainage system must be checked before commissioning the ventilation unit.

3.5. Information on the condensate connection

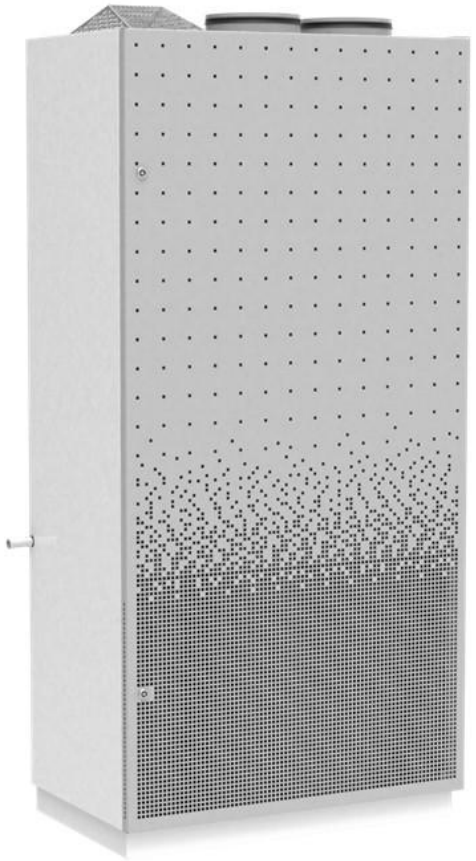
The condensate pipe of the SupraBox DELUXE 500 V series is made from a white PVC round pipe and is fitted with a connection piece on the side including a sleeve as shown in the appliance drawing. This is shown in the following drawing of the SupraBox DELUXE 500 V. The drawing shows the version with outdoor and exhaust air connection spigots on the right. The version on the top of the appliance on the left is mirrored vertically. The outlet side of the condensate drain can be changed on site. The PVC round pipe can be cut to length accordingly.

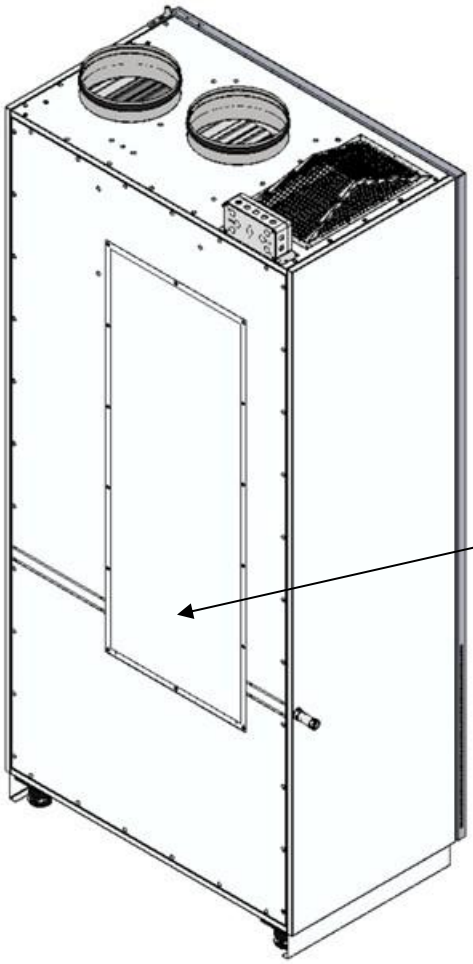
The RDP 20 pipe from Linum Europe nv is used, which is connected using a moulded part. As standard, the SupraBox DELUXE 500 V is supplied with a sleeve at the end of the pipe to ensure a watertight connection between the standard PVC round pipe and the pipe connected by the installer. The dimensions of the PVC round pipe, the moulded part and the extension piece are as follows:

- PVC round pipe Ø outside: 20 mm
- PVC round pipe wall thickness: 1.25 mm
- Moulded parts Ø inside: 20 mm

CAUTION! No additional pipes or hoses are supplied.

The following picture shows an example of a SupraBox DELUXE 500 V with the sleeve of the condensate connection:



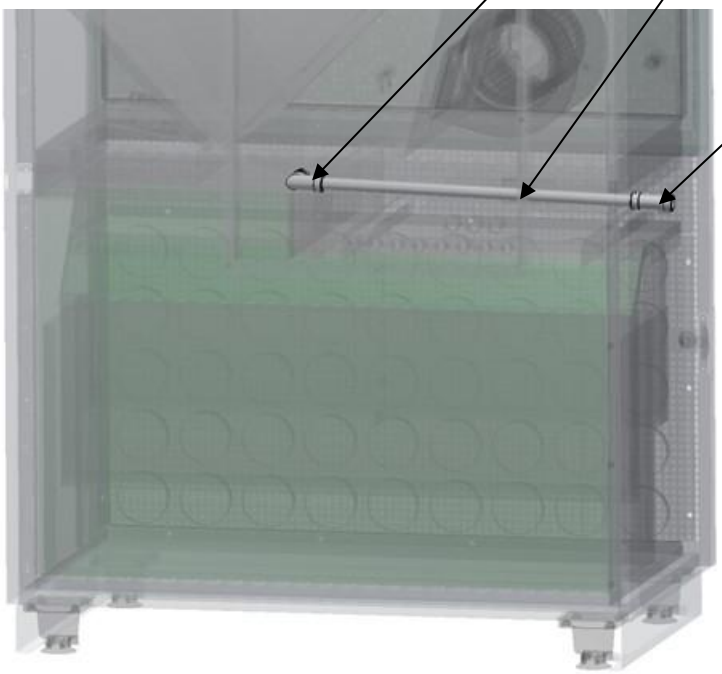


Cover changeover area towards condensate drain

Elbow / bend 90° for round tube PVC white

PVC round pipe

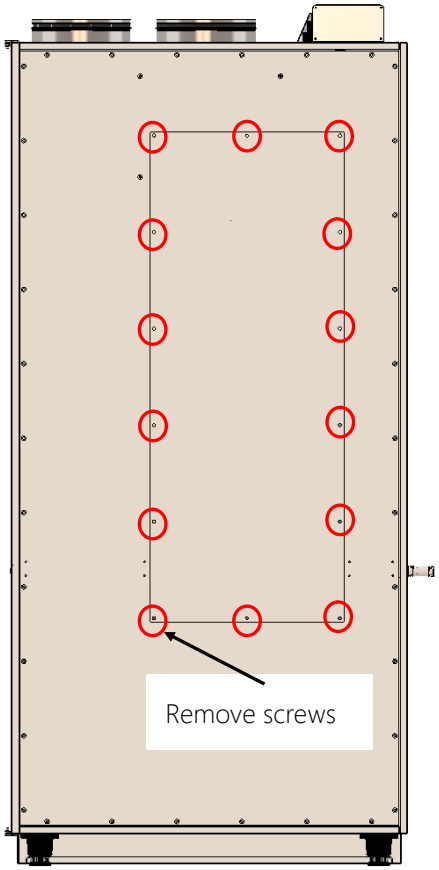
Transition sleeve extension piece for round pipe PVC white

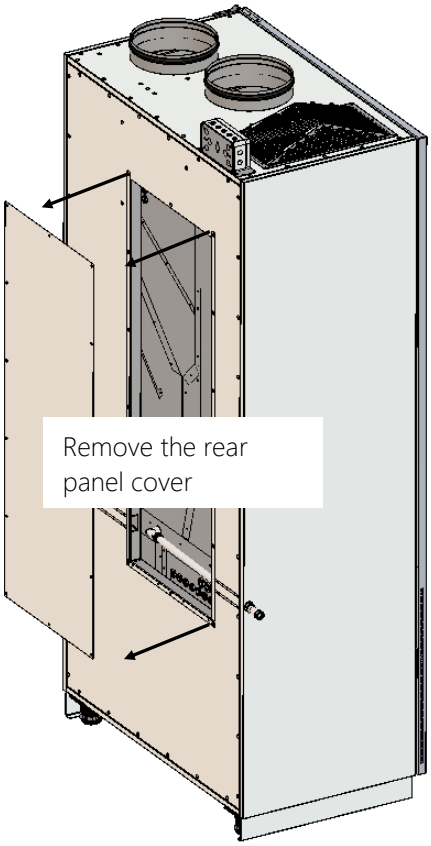


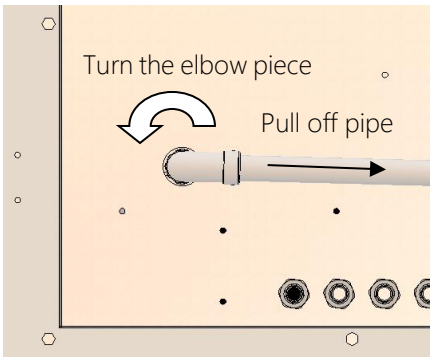
3.6. Setting the condensate drain direction

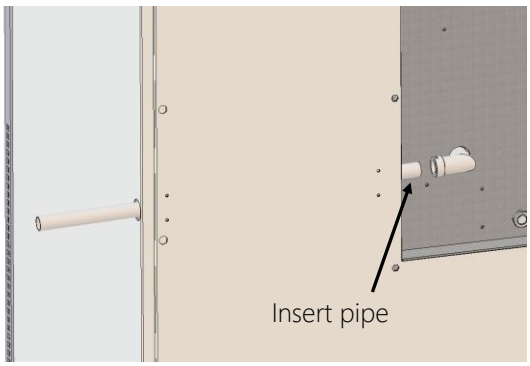
If the SupraBox DELUXE 500V is positioned to the right or left of a wall, or if there is a condensate drain to the left or right of the appliance, the condensate drain pipe can be moved accordingly.

To do this, open the rear panel cover by loosening the labelled screws.
Carefully pull the condensate pipe out of the elbow and rotate this elbow by 180°. Then insert the loosened condensate pipe from the other side into the square channel of the rear panel and push it firmly onto the elbow. The rear panel cover can then be refitted.







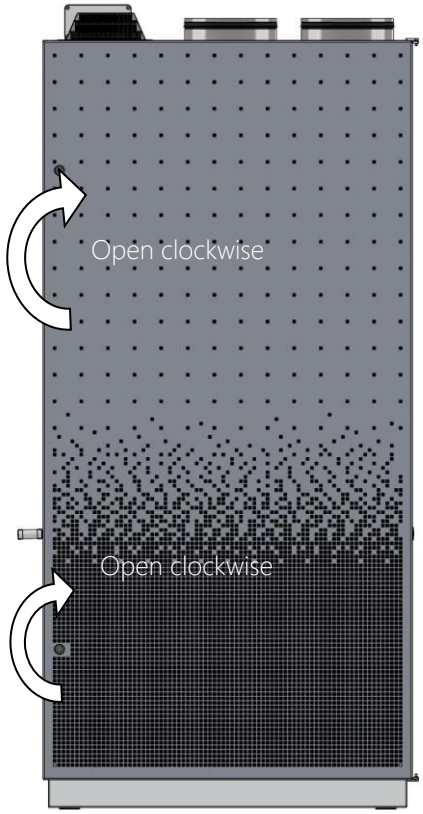


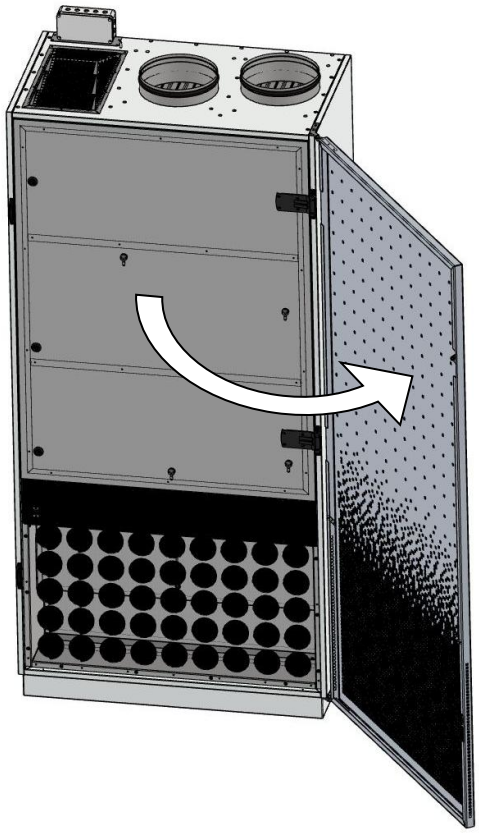
3.7. Adjusting the flow distributor

Adjust the nozzles to the installation location of the appliance:

The recommended nozzle settings can be found in the following diagrams.

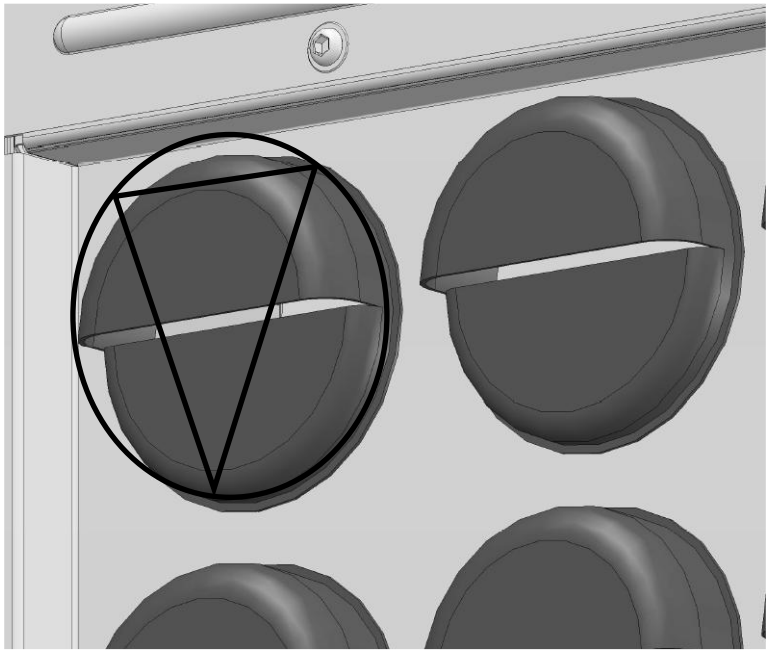
Select according to your installation location (view of the appliance from the room)!



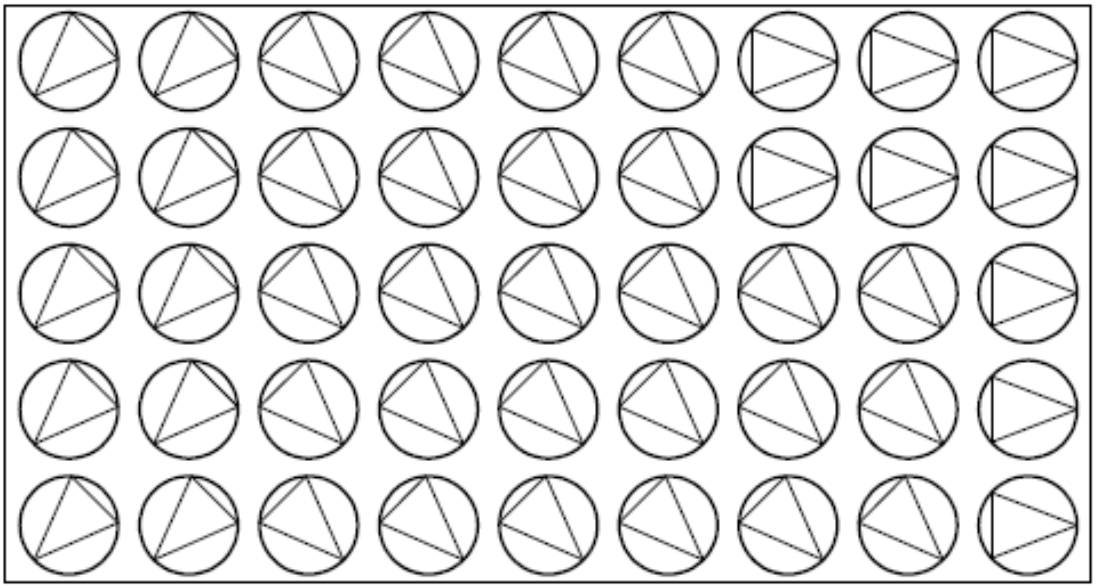


To do this, open the design door of the SupraBox DELUXE 500 V using the triangular spanner supplied.

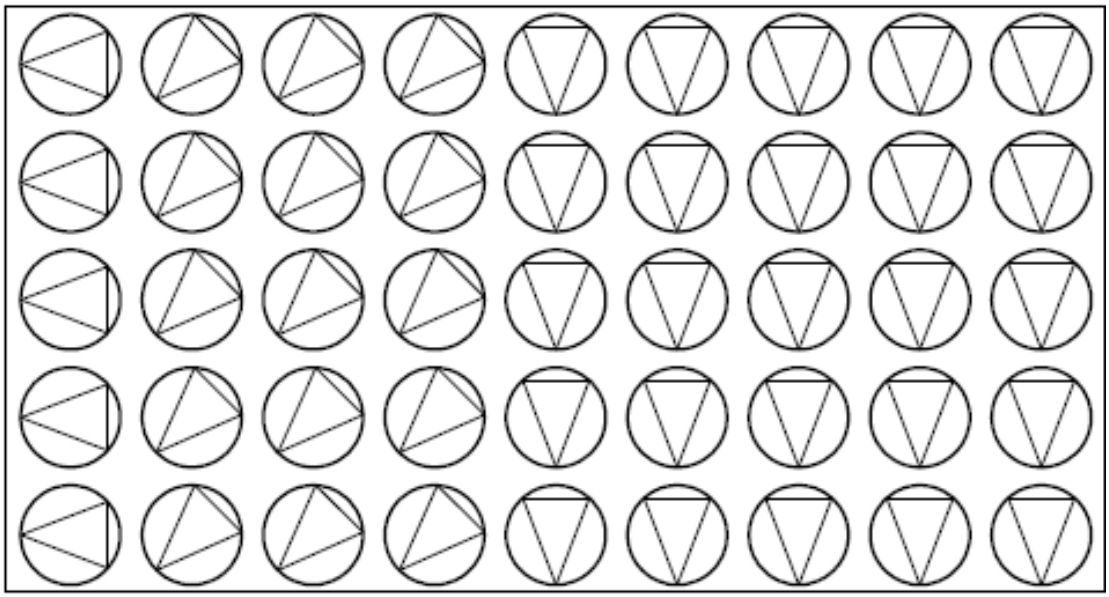
You can then turn the nozzles to the specified positions by hand:



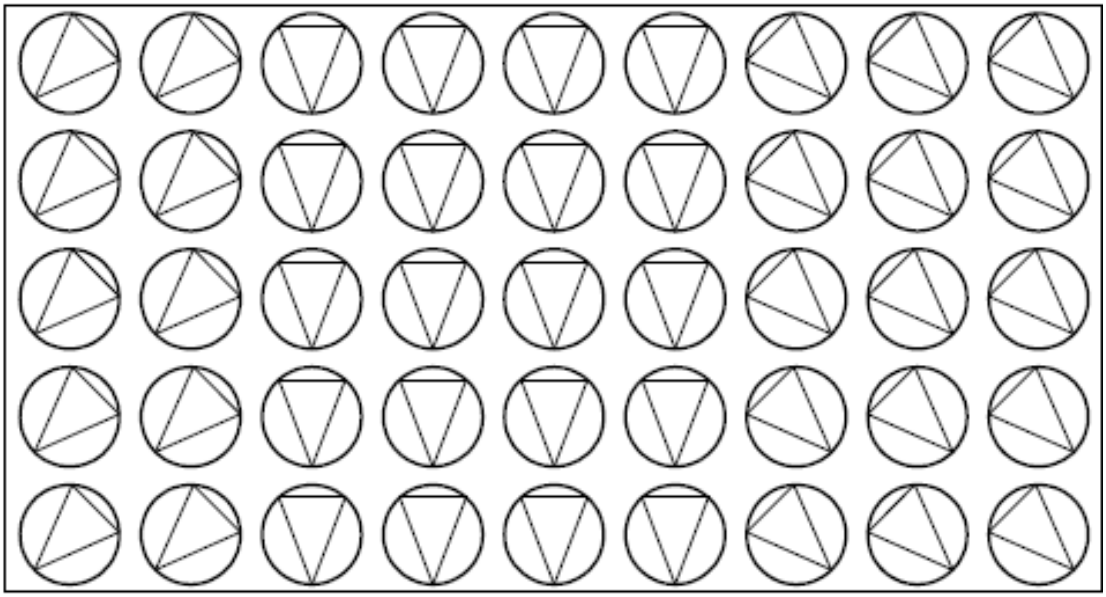
Outdoor air and exhaust air spigot on the left, location on the left on the wall:



Outdoor air and exhaust air spigot on the right, location on the right on the wall



Outdoor air and exhaust air spigot on the right, centre of the wall



3.8. Setting up the appliance and making the air connections

The SupraBox DELUXE must only be installed in a suitable location with the following characteristics

- The substrate must be firm and have sufficient load-bearing capacity.
- The substrate must be level and torsion-free.
- The inclination of the substrate to the horizontal must not exceed 2%

The assumption of static or dynamic building functions by the SupraBox DELUXE is not permitted. If this results in damage or consequential damage to the building, the warranty obligation of Rosenberg Ventilatoren GmbH expires.

Uneven floors can be levelled out using the height-adjustable feet on the appliance
When positioning the SupraBox DELUXE, sufficient clearance must be provided between the operating side of the appliance and the spatial boundaries for maintenance purposes. Permanent accessibility to the appliance must be guaranteed.

When working on and with sheet metal parts, there is a risk of cutting and crushing injuries. Suitable gloves must be worn!

4. Commissioning the SupraBox DELUXE

Before commissioning the SupraBox Deluxe units, the following points must be checked:

- Check that the unit has been correctly positioned, connected and installed.
- Ensure air inlets are unobstructed, and intake openings are clear.
- Check that the fan impellers rotate freely.
- Check the screw connections on all connections.
- Only switch on the electric heater after the fan has been switched on.
- Remove any protective films.
- Visually inspect the unit seals for damage.
- Readjust the service doors at the hinges.
- Ensure the doors are closed.
- Test the fans for proper operation.
- The pressure monitoring for the plate heat exchanger is preset at the factory. However, it may be necessary to make adjustments. If the differential pressure switch is triggered shortly after the system is switched on, we recommend the following procedure:

1. Set the trigger threshold to 400 Pa directly on the differential pressure switch (rotary knob).
2. If the system operates fault-free at 100% of the air flow rate without any icing or fouling of the heat exchanger, reduce the trigger threshold by 50 Pa and start up the system.
3. Repeat step 2 until the anti-icing protection is triggered. If this occurs, for example, at 250 Pa, set the threshold to 300 Pa.

Warning! If the points listed above are not checked, dangerous system conditions may arise during the subsequent initial commissioning, which could compromise the functionality and safety of the system.

Warning! When taking the system out of service, ensure that it is de-energised and, if optional heat exchangers are fitted, drain the water to prevent freezing.

5. Function and operation of the SupraBox DELUXE

5.1. Operation

The SupraBox DELUXE is operated using a surface-mounted control unit (accessory).

Further operating options and information can be found in the separate operating instructions for controlling the SupraBox DELUXE.

5.2. PTC post-heating (optional)

On request, the SupraBox DELUXE 500 V can be equipped with a PTC reheater. The desired supply air temperature is set via the control panel of the SupraBox DELUXE. If the SupraBox DELUXE 500 V is equipped with PTC, the heating output is controlled via the supply air temperature sensor integrated in the Unit and the control unit in the form of a 0-10V signal.
Please also refer to the following installation instructions.

CAUTION! The new PTC post-heating coils are not compatible with SupraBox DELUXE Units before 01 April 2021. The updated control with article number H43-73050VZ (SBD 500V) and H42-73075HZ (SBD 750H) is required

5.2.1. Safety instructions for PTC post-heating

Installation and electrical work may only be carried out by trained and instructed specialist personnel and in accordance with the applicable regulations!

All metallic surfaces of the PTC reheating coil and all blade terminals of the wiring are live during operation!

The appliance doors may therefore only be opened with the special key supplied when the appliance is disconnected from the mains!

The PTC reaches a temperature of up to 220°C!

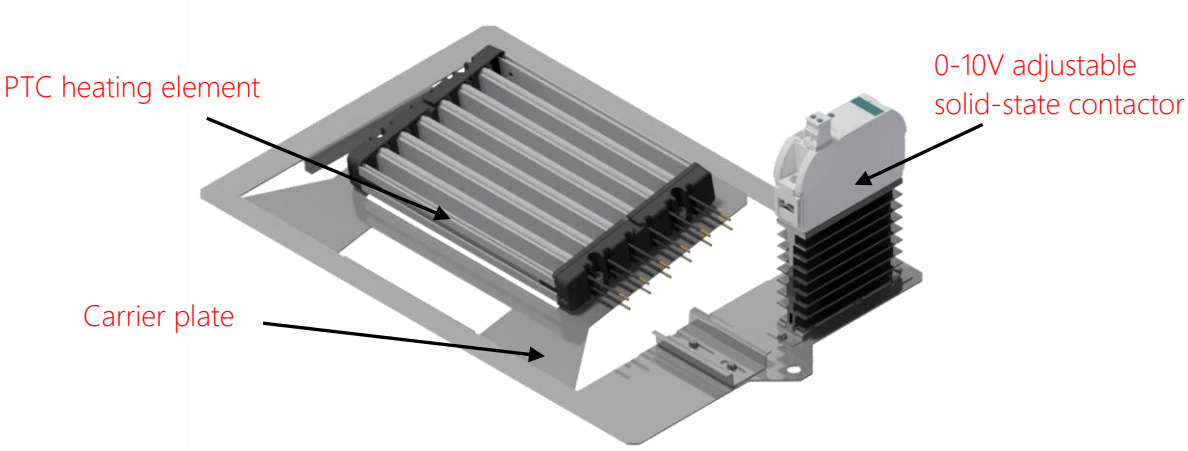
Allow the PTC to cool down before opening the appliance!

Danger of burning!

5.2.2. Structure of the PTC post-heater

The PTC post-heater is installed in the area between the counterflow plate heat exchanger and the control unit and consists of:

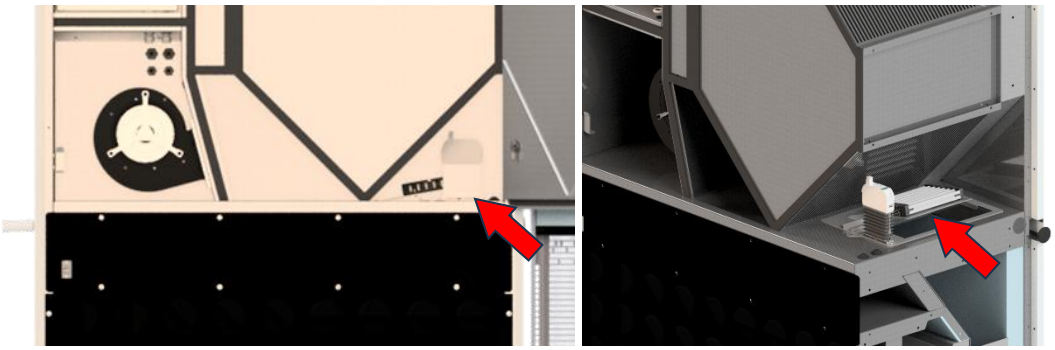
- Carrier plate
- PTC element, electrically insulated
- 0-10V adjustable solid-state contactor
- Terminals with connected connection cables

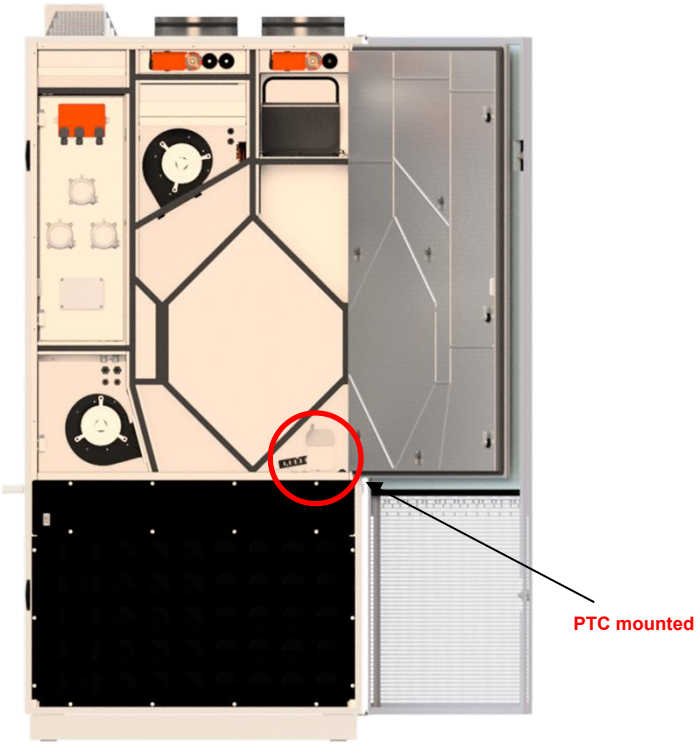


5.2.3. Installation of the PTC post-heater

The assembly here using the example of the SupraBox DELUXE 500 V (SBD050VGXIS00D):

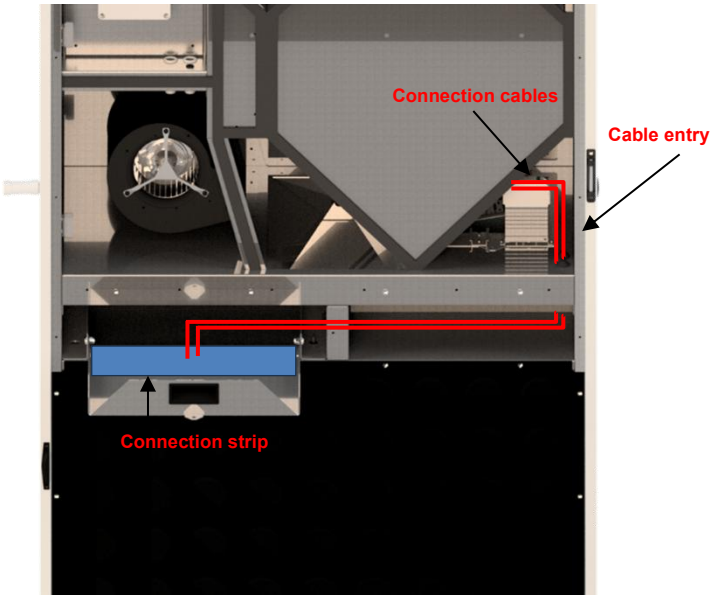
- All-pole disconnection of the SupraBox DELUXE 500 V power supply
- Opening the design and maintenance doors of the SupraBox DELUXE 500 V
- Carefully insert the upgrade into the floor cut-out of the supply air duct





- If the PTC electric reheater is correctly positioned and secured in the cut-out in the base of the unit, the screws securing the protective bulkhead of the control module must be removed. To allow easier access to the control board, it can be pulled out using the handle provided on the bracket. A locking mechanism prevents the control module from being pulled out completely.

- The connection cable for the PTC electric reheating coil must now be run through the intermediate floor and connected to the control unit. Please refer to the circuit diagram supplied with the SupraBox DELUXE 500 V.



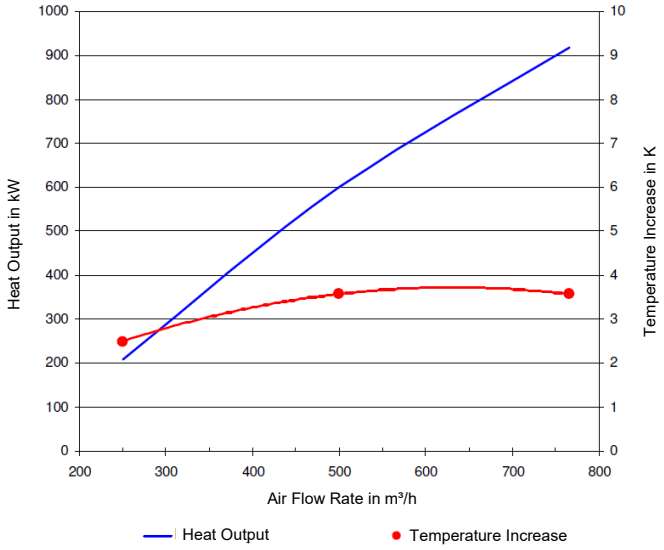
- The control plate must then be reinserted, secured and protected against unauthorised access by means of the protective covering.

- **CAUTION!** The setpoint on the control panel should be at least 2K below the room's extract air temperature to prevent a short-circuit between the supply and extract air flows upstream of the unit. Excessively high temperatures cause unnecessary energy consumption and therefore operating costs.
- The design and maintenance doors can now be closed and secured, and the unit can be put back into operation.

The PTC element is supplied with voltage and the signal for the heating power via the controller.
The great advantage of the PTC is its high operational reliability, which is why no flow monitor is required. If the PTC is operated without an air flow, it automatically limits its power consumption as the temperature rises.

5.2.4. Heat output of the PTC post-heater

The PTC post-heating in the SupraBox DELUXE 500V is able to raise the supply air temperature after the counterflow plate heat exchanger by approx. 7 K, depending on the air volume flow. This is generally sufficient to ensure thermal comfort even at very cold outdoor temperatures and low room and extract air temperature



6. Maintenance / Cleaning

6.1. Safety instructions for maintenance

Installation and electrical work may only be carried out by trained and instructed specialist personnel and in accordance with the applicable regulations!

Disconnect the appliance from the mains before starting any work!

Wait for the fan impellers to come to a standstill!

Secure the Unit against being switched on again!

All metallic surfaces of the PTC and all blade terminals of the cabling are live during operation!

The appliance doors may therefore ONLY be opened with the special key supplied when the appliance is disconnected from the mains!

The PTC reaches a temperature of up to 220°C!

Allow the PTC to cool down before opening the appliance!

Danger of burn!

6.2. Maintenance checklist according to VDI 6022

Pos.	Function	Measures to be taken if necessary	Every 3 months	Every 6 months	Every 12 months	Every 24 months
1	Check air diffusers in the façade for damage and corrosion.	Cleaning and maintenance.			X	
2	Check heat exchanger without dehumidification for soiling and leaks	Cleaning.		X		
3	Check heat exchanger with dehumidifier, condensate tray and drain for corrosion and hygienic condition.	Re Cleaning.	X*			
4	Check flaps for leaks and closing in the event of a power failure.	Maintenance of the flap				
5	Check the hygienic condition and seal of the air filter.	Replace filter medium, clean filter chamber.			X	
6	Check the heat recovery unit for dirt, leaks and condensate drainage.	Replace seals, clean heat recovery unit and condensate drain.		X		
7	Check fan for function.	Maintenance.				X
8	Check frost protection triggering for heat exchanger.	Maintenance.			X	
9	Check room operating unit.	Maintenance.				X

X* during dehumidification time

The fields marked with an 'X' indicate the following activities:

- Testing random samples as part of an inspection
- Function-preserving cleaning, lubrication, readjustment
- Replacement in case of wear, consumption or defect

6.3. Filter change

6.3.1. General information

If one of the filters is clogged up to the specified final pressure loss, this is signalled by the control unit on the control panel (see separate operating instructions for the control unit).

The maintenance of filters is succeeded via the unit's door.

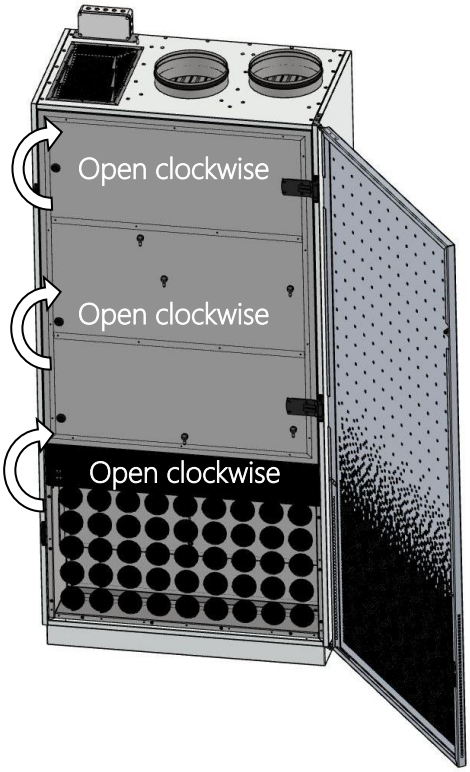
There is an ISO ePM10 ≥50 % (formerly M5) panel filter in the extract air and an ISO ePM1 ≥50 % (formerly F7) in the outdoor air. An ISO ePM1 ≥ 80 % filter is also available as an option.

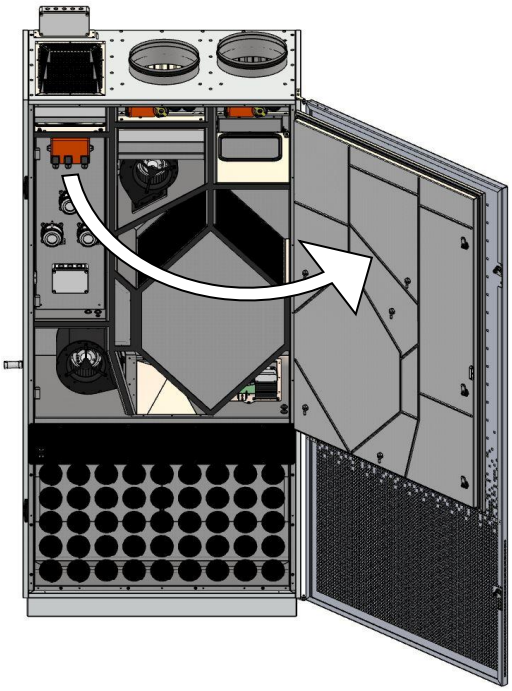
Panel filters must not be cleaned and must be completely replaced. The filter material is considered hazardous waste and must therefore be disposed of properly.

The built-in filters can be removed without tools by loosening the clamping inserts.

6.3.2. Removing the filters

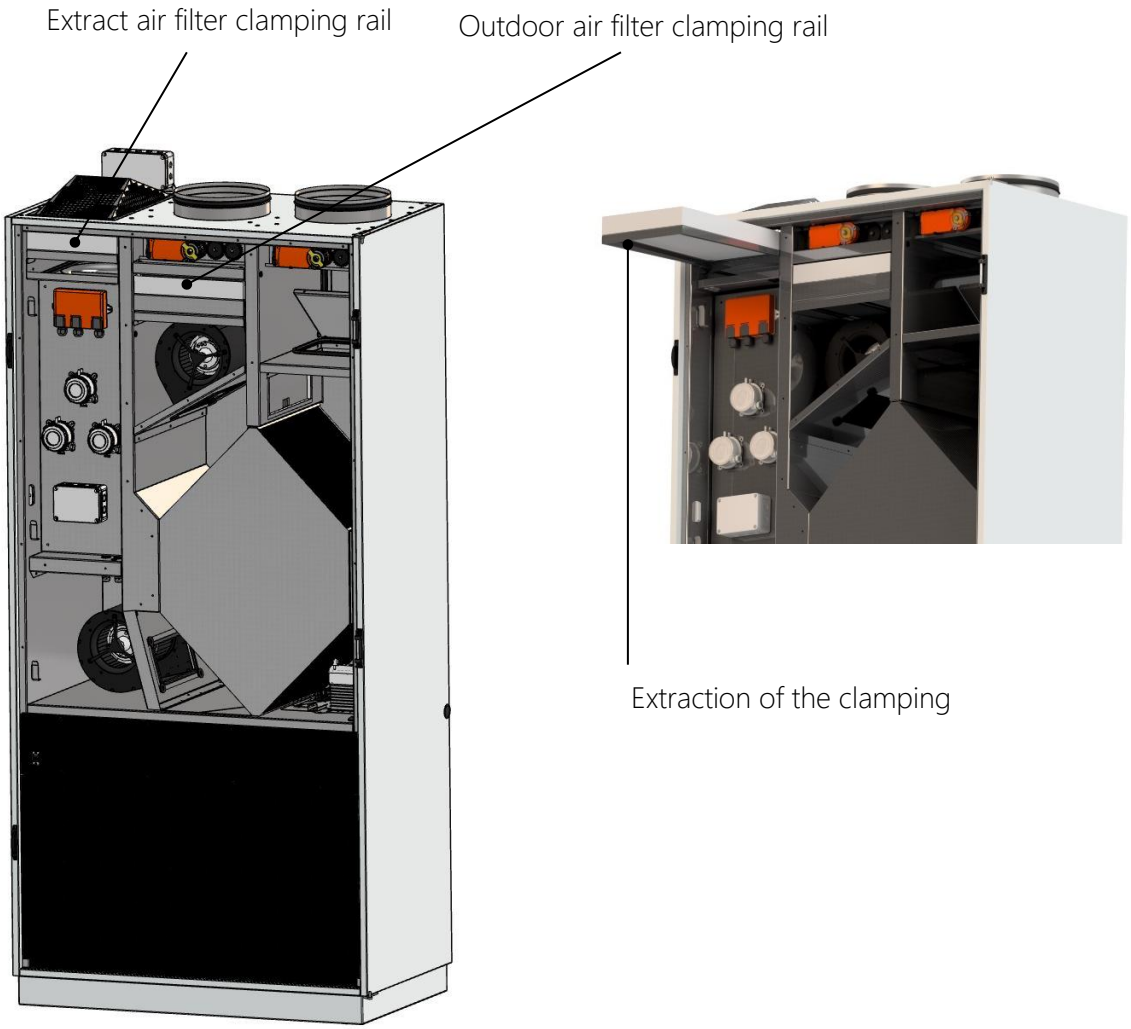
To do this, open the design door using the special key supplied.
Then open the maintenance door using the special key supplied.





The filters are maintained via the inspection door. The extract air contains an ISO ePM10 ≥50 % (formerly M5) extract air filter measuring 260 x 443 x 48 [mm]. An ISO ePM1 ≥50 % (formerly F7) with the dimensions 308 x 482 x 47 [mm] is located in the outdoor air.

If the filter is dirty, this is indicated by the control unit. The air filters are removed by pulling out the clamping plates. Panel filters are always replaced completely. The filter material is classified as hazardous waste and must be disposed of accordingly.



6.3.3. Installation of the new filters

The base of the housing must be cleaned before installing the new filter. See chapter 6.3.4 Cleaning work on the appliance

When inserting a new filter, observe the printed air direction arrow. The filters are fixed in place in the reverse order to that described for removal.

6.3.4. Cleaning work on the appliance

Die Reinigungsarbeiten dürfen nur durch qualifiziertes und besonders geschultes Fachpersonal (in Deutschland nach VDI 6022) durchgeführt werden.

6.3.5. Cleaning surfaces

Coarse soiling on the surfaces in the appliance can be removed dry with a hoover.

Damp cloths can be used for other soiling on the inside and outside of the unit. The water used for this and, if necessary, the cleaning agent should have a neutral pH value (6-8). Recommended cleaning agents for surface disinfection:

- Dismozon pur (Bode Chemie)
- Melsitt (B.Braun)
- Antifect (Schülke & Mayr)
- Clorina (Lysoform)

6.3.6. Cleaning the counterflow plate heat exchanger

Coarse dirt can be removed dry with a hoover.
The suction pipe must not be placed on the fins of the plate heat exchanger, as these are very sensitive.

The fins of the counterflow plate heat exchanger are very sensitive! They can be easily deformed by mechanical cleaning! Therefore, ONLY clean with extreme caution!

6.3.7. Cleaning the flaps

Coarse dirt can be removed with a hoover. The servomotors can be unlocked using a strong magnet, which is located in the transparent orange part, to turn the louvres manually to the open/closed position.

6.3.8. Inspection of the silencers

Supply air silencer
The installed PTC support plate may need to be removed for a visual inspection. The silencer can then be checked using a suitable small inspection mirror and a light.

For a thorough check of the silencer, the supply air flow distributor must also be removed.

If the supply air silencer needs to be replaced, this must be obtained from Rosenberg.

Extract air silencer
The extract air filter must be removed for a visual inspection. The silencer can then be checked using a suitable small inspection mirror and a light.

To replace the extract air silencer, both the plate with the pressure sockets and the servomotor battery as well as the bulkhead plate above the silencer must be removed. The sealing seams on the silencer must also be cut open. The silencer can then be levered off the false floor and pulled out to the front.

If the extract air silencer needs to be replaced, this must be obtained from Rosenberg.

7. Disposal and recycling

Meaning of the crossed-out dustbin

Do not dispose of electrical appliances with household waste, but take them to your own disposal centre. Contact the authorities to find out which disposal systems you can use at.

If electrical appliances are disposed of in landfill sites, hazardous substances can enter the groundwater and harm your health.

If you replace old appliances with new ones, your dealer is obliged to dispose of the old appliance free of charge.

8. Customer service, service, manufacturer's address

Rosenberg Ventilatoren GmbH products are subject to constant quality control and comply with the applicable regulations.
If you have any questions in connection with our products, please contact the installation company of your ventilation system, one of our branches or contact us directly:

Rosenberg Ventilatoren GmbH
Maybachstraße 1-9
D – 74653 Künzelsau-Gaisbach
Phone: +49(0)7940 142-0
Fax +49(0)7940 142-125
info@rosenberg-gmbh.com
www.rosenberg-gmbh.com

9. Certifications

9.1. EU Declaration of Conformity (low voltage and EMC)

EU-Konformitätserklärung / *EU-Declaration of conformity*
Im Sinne der Niederspannungsrichtlinie 2014/35/EU und der EMV-Richtlinie 2014/30/EU
as defined by the low voltage directive 2014/35/EU and the EMC-directive 2014/30/EU

KE_103BB0416A4_Kompaktgeräte

Hersteller / *Manufacturer*

Rosenberg Ventilatoren GmbH
Maybachstraße 1
D- 74653 Gaisbach

Für die nachfolgende Maschine / *For the following machine*

Produktbezeichnung / *Designation of the machine*:	**Typ- oder Serienbezeichnung / *Model or type of machine***
WRG-Gerät / *HRS-Unit*	SupraBox COMFORT ... / SupraBox DELUXE...
Kompakt Lüftungsgerät / *Compact Air Handling Unit*	CompactAir-Center...

erklären wir in alleiniger Verantwortung, dass sie den grundlegenden Anforderungen entsprechen, die in den nachfolgend bezeichneten Harmonierungsrechtsvorschriften festgelegt sind.

we declare under our sole responsibility, that they meet the basic requirements that are laid down in the harmonization legislation designated below.

- **Niederspannungsrichtlinie (2014/35/EU) / low voltage directive (2014/35/EU)**
- **EMV-Richtlinie (2014/30/EU) / *EMC-Directive (2014/30/EU)***

Folgende harmonisierte Normen wurden angewandt / *The following harmonized standards were applied:*

EN 60204-1	EN 61000-6-2	EN 61000-6-3

Diese Konformitätserklärung zur Einhaltung der EMV-Richtlinie bezieht sich ausschließlich auf gemäß der Betriebsanleitung angeschlossene und eigenständig betriebene Ventilatoren bei sinusförmiger Stromversorgung. Beim Einbau der Maschine in eine Anlage sowie sonstige Ergänzungen (z.B. Anschluss von Reglern) ist der Hersteller der Anlage für die Einhaltung der EU-Richtlinien verantwortlich.

This declaration of conformity to the compliance with EMC-Directive is valid only for fans which are connected according to the operating instructions and operated independently in reference to sinusoidal current supply. The Manufacturer of this completed system is responsible for the compliance with the EU-directives in case of integration in it or to other component such as controllers.

Die EU-Konformitätserklärung wurde ausgestellt / *EU-Declaration of conformity was issued:*

Gaisbach, Germany, 20.04.2016
Ort, Datum / Place, Date

ppa. Manfred Müller
(Technischer Leiter AHU /
Technical Director AHU)

9.2. EU Declaration of Conformity (ERP Directive)

EG-Konformitätserklärung / EC *declaration of conformity*

im Sinne der ErP-Richtlinie 2009/125/EG
as defined by the ErP directive 2009/125/EC

KE_SupraBox_ErP_Lot6.doc

Hersteller / *Manufacturer* **Rosenberg Ventilatoren GmbH**
Maybachstraße 1
D- 74653 Gaisbach

Hiermit erklären wir in alleiniger Verantwortung, dass die nachfolgend bezeichneten Maschinen den Anforderungen aus der Verordnung 1253/2014/EU zur Durchführung der ErP-Richtlinie 2009/1525/EG entsprechen.

Herewith we declare under our sole responsibility that the machines designated below meet the requirements of the regulation 1253/2014/EU to perform the ErP-directive 2009/125/EC.

Bezeichnung der Maschine / ***Designation of machinery***:

Kompakt-Lüftungsgerät/ ***Compact Air Handling Unit***

Maschinentyp / ***Machinery type***:

SupraBox COMFORT… ; SupraBox DELUXE… ***SupraBox COMFORT… ; SupraBox DELUXE…***

Angewandte technische Normen, insbesondere/
Applied technical standards, in particular: *EN 13053*

Wichtiger Hinweis:
Diese Konformitätserklärung zur Einhaltung der ErP-Richtlinie 2009/125/EG und der Verordnung 1253/2014/EU ist nur in Verbindung mit den ErP-bezogenen Daten in der Produktinformation gültig. Die Verwendung eines Mehrstufenantriebs oder Drehzahlreglers ist nach Verordnung 1253/2014/EU vorgeschrieben und muss, falls nicht bereits im Lieferumfang enthalten, bauseits entsprechend den Anforderungen aus der Verordnung sichergestellt werden.

Important Remark:
This declaration of conformity related to the ErP Directive 2009/125/EC and the regulation 1253/2014/EU is valid only in combination with the ErP related data on the product information. The usage of a multi-speed drive or variable speed drive is required according regulation 1253/2014/EU and must be ensured, either within the delivery scope or provided by customer according regulation's requirements.

Gaisbach, Germany, 09.02.2016
Ort, Datum / Place, Date

ppa.
ppa. Manfred Müller
(Technischer Leiter AHU /
Technical Director AHU)

9.3. EU Declaration of Conformity (EC Declaration of Incorporation)

EG-Einbauerklärung / EC-*declaration of Incorporation*

im Sinne der EG-Maschinenrichtlinie 2006/42/EG
as defined by the EC-Machinery Directive 2006/42/EC

EE103BB0416A5_Kompaktgeräte

Hersteller / *Manufacturer*

Rosenberg Ventilatoren GmbH
Maybachstraße 1
D- 74653 Gaisbach

Hiermit erklären wir, dass die unvollständige Maschine / *Herewith we declare that the incomplete machine*

Produktbezeichnung: / ***Designation of the machine:***	**Typ- oder Serienbezeichnung: /** ***model or type of machine:***	**ab Baujahr: /** ***since year of manufacture:***
WRG-Gerät / *HRS-Unit*	SupraBox COMFORT ... / SupraBox DELUXE...	2016
Kompakt Lüftungsgerät / Compact Air Handling Unit	CompactAir-Center	2016

den grundlegenden Anforderungen der Richtlinie 2006/42/EG entspricht, insbesondere: / *meets the basic requirements of the guideline 2006/42/EC, in particular:*

Anhang I, Artikel 1.1.2, 1.1.5, 1.3.2, 1.4.1, 1.5.1, 1.7.3

Des Weiteren den einschlägigen Bestimmungen nachfolgender Richtlinien / *Furthermore, in accordance with the requirements of the following directives:*

Niederspannungsrichtlinie (2014/35/EU) / *Low voltage directive (2014/35/EU)*

EMV-Richtlinie (2014/30/EU) /*EMC-Directive (2014/30/EU)*

ErP-Richtlinie (2009/125/EG) / *ErP-Directive (2009/125/EC)*

Ferner erklären wir, dass die speziellen technischen Unterlagen nach Anhang VII Teil B erstellt wurden und verpflichten uns diese auf Verlangen den Marktaufsichtsbehörden über unsere Dokumentationsabteilung in schriftlicher oder elektronischer Form zu übermitteln.
Moreover, we declare that the relevant technical documentation according to Appendix VII, Part B, have been issued and we commit ourselves to forward the documents on request to the market regulators as written documents or electronically.

Die Inbetriebnahme der unvollständigen Maschine wird solange untersagt, bis diese in eine Maschine eingebaut wurde, welche dann den Bestimmungen der EG-Maschinenrichtlinie 2006/42/EG entspricht.
The commissioning of the incomplete machine is prohibited until the incomplete machine has been installed in a machine which then meets the requirements of the EC Machinery Directive 2006/42/EC.

Name des Dokumentationsbevollmächtigten: /
Name of representative for documentation: David Schubert

Adresse der benannten Person: /
Address of the nominated Person: Siehe Herstelleradresse /
see manufactures address

Die EG-Einbauerklärung wurde ausgestellt / *EC-declaration of Incorporation was issued:*

Gaisbach, Germany, 20.04.2016
Ort, Datum / *Place, Date*

ppa. Manfred Müller
(Technischer Leiter AHU /
Technical Director AHU)

9.4. ERP data sheet

Rosenberg Ventilatoren GmbH
Maybachstraße 1
D-74653 Künzelsau-Gaisbach

SupraBox DELUXE 500 V Höhe: 2078 mm Breite: 997 mm Tiefe: 522 mm Gewicht: 206 kg 40 mm Wandst.

Gerätetyp:	**NWLA** (Nicht-Wohnraum-Lüftungsanlage)	Gerätebauart:	**ZLA** (Zwei-Richtung-Lüftungsanlage)
Art des Antriebs:	Drehzahlregelung		

SVL int:	**1192** W/(m³/s)
SVLint Limit (2016):	**1629** W/(m³/s)
SVLint Limit (2018):	**1349** W/(m³/s)

Gesamtgeräteeigenschaften:	
Art des WRS:	**Gegenstrom-Plattenwärmetauscher**
Thermischer Übertragungsgrad (nach EN13053):	**82** %

Zuluft-Eigenschaften:		**Abluft-Eigenschaften:**	
Volumenstrom:	**500** m³/s	Volumenstrom:	**500** m³/s
dpsext:	**50** Pa	dpsext:	**50** Pa
el. Eingangsleistung:	**0,12** kW	el. Eingangsleistung:	**0,11** kW
dpsint:	**246** Pa	dpsint:	**154** Pa
dpsadd:	**40** Pa	dpsadd:	**14** Pa
Luftgeschwindigkeit:	**1,13** m/s	Luftgeschwindigkeit:	**1,48** m/s
Etastat(327/2011/EU):	**36,7** %	Etastat(327/2011/EU):	**36,7** %
Filtereinstufung:	**F7**	Filtereinstufung:	**M5**
Schalldruckpegel $L_{pA2(1m)}$:	**35** db(A)	Schalldruckpegel $L_{pA2(1m)}$:	**35** db(A)

Allgemeine Eigenschaften:	
Filterwarnanzeige:	Zur Erfüllung der Verordnung 1253/2014/EU müssen die eingebauten Filter mit einer optischen Anzeige- oder akustischen Warnvorrichtung in der Steuerung ausgestattet werden, die ausgelöst wird, sobald der Druckabfall am Filter den höchstzulässigen Wert überschreitet.
Thermischer Bypass:	Der nach der Verordnung 1253/2014/EU geforderte thermische Bypass des WRS wird über einen am WRS angebrachten Bypass realisiert
Antrieb:	Wird ein Lüftungsgerät ohne Regelung bestellt und geliefert, so ist zur Erfüllung der Verordnung 1253/2014/EU ein Mehrstufenantrieb oder Drehzahlregler vorzusehen.
Entsorgungshinweise:	zu finden unter www.rosenberg-gmbh.com
Eingebaute Ventilatoren entsprechen der Richtlinie 2011/125/EU	

10. Notes