

Reco-Boxx ZXR / ZXA / Flat

Installation instructions

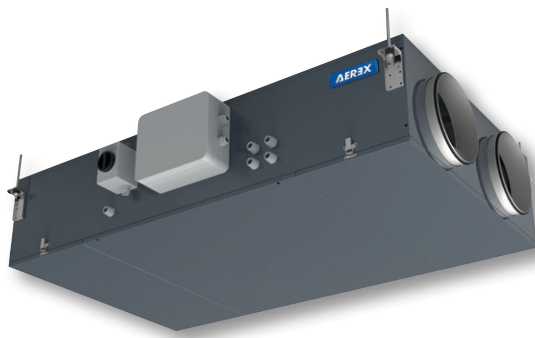


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1.0 Installation instructions

Exchanger	Sizes	Integrated pre-heating	Integrated post-heating	Handing	Fan
Reco-Boxx ZXR Counterflow	1000/1600/1800/2300/ 2700/2900/3200/4200/ 4700/6200/7000	Yes, electrical	Yes, electrical or water	Left / Right	Backward (BW)
Reco-Boxx ZXA Counterflow	900/1500/1900/ 2500/2800/3700	Yes, electrical	Yes, electrical or water	Left / Right	Backward (BW)
Reco-Boxx Flat-H / Flat-OUT Counterflow	550/650/1000/1400/1700/ 2100/2500/2700/3300/3700	Yes, electrical	Yes, electrical or water	Left / Right	Backward (BW)

2.0 Basic safety instructions

2.1 Intended use

This ventilation unit with heat recovery is used in centralised or decentralised ventilation systems. The unit provides controlled ventilation and air extraction in, for example, offices, school classrooms and other similar spaces. The units are intended for ceiling-mounted installation because they have outside air/outgoing air sockets on the sides and/or discharging upwards. Please note that the unit is very heavy, weighing approx. 210 kg. The unit may only be used if installed permanently, in dry indoor spaces and with connected ventilation ducts. DN 250 connection for geniovent.x 600 H and DN 315 connection for geniovent.x 900 H. The units do not have unit switches. Scope for completely disconnecting the unit from the power supply should be provided by the customer. These ventilation units are only intended for domestic use and similar purposes. No other or additional use is intended.

2.2 Specialist installer qualifications

The ventilation unit may only be installed, set up, retrofitted, started up, cleaned and maintained by a trained specialist in accordance with these instructions. You are deemed a trained specialist if your education, training or experience in ventilation technology mean that you can competently and safely undertake installation in accordance with the planning requirements and these instructions and are able to recognise and avoid risks resulting from incorrect installations and settings and the dangers resulting from them. Only a qualified electrician is permitted to work on the electrics. You are deemed a qualified electrician if you are familiar with the relevant standards and guidelines, can competently and safely create electrical connections in line with the attached wiring diagram and are able to recognise and avoid risks and dangers associated with electricity on the basis of your technical training and experience. Repair work may only be undertaken by an authorised AEREX specialist. After successful installation and commissioning, instruct users in the ventilation unit and associated control unit.

2.3 Non-intended use

The ventilation unit must not be used in the following situations under any circumstances. Read all the safety instructions.

Risk of combustion/fire from flammable materials, liquids or gases in the vicinity of the ventilation unit. Do not place any flammable materials, liquids or gases near the ventilation unit, which may ignite in the event of heat or sparks and catch fire.

Risk of death if an air-ventilated fireplace is connected to an exhaust gas system, which itself has multiple connections. The air-ventilated fireplace may result in exhaust fumes being transferred to other living units. Risk of death, for example from carbon monoxide. Never use the ventilation unit if there are air-ventilated fireplaces in the living unit that are connected to exhaust gas systems, which themselves have multiple connections.

Explosion hazard. Explosive gases and dust may ignite and cause serious explosions or fire. Never use ventilation unit in an explosive atmosphere.

Explosion hazard. Explosive substances in lab extraction units may ignite and cause serious explosions or fire. Aggressive substances may damage the ventilation unit. Never use ventilation unit in combination with a lab extraction unit.

Risk to health from chemicals or aggressive gases/vapours. Chemicals or aggressive gases/vapours may present a risk to health, especially if the ventilation unit distributes them into rooms. Never use the ventilation unit to convey chemicals or aggressive gases/vapours.

Damage to the unit.

- If operated during the build phase, potential damage to unit caused by contamination of the ventilation unit and ventilation ducts. Ventilation unit operation is not permitted during the build phase
- Grease and oil vapours from range hoods may contaminate the unit and ventilation ducts and reduce efficiency. Never use ventilation unit in combination with range hoods, that are connected directly to the controlled domestic ventilation exhaust air channel. In rooms with

greasy exhaust air, e.g. kitchens, only use ventilation valves with a grease filter. Recommendation: In terms of energy consumption, use range hoods in circulating air mode.

- Corrosion of metal parts inside the ventilation unit by additional components in the exhaust duct. Do not use components which affect temperature, humidity or air volumes on the exhaust duct, for example if a drying cabinet is connected to the exhaust duct.

2.4 Safety instructions

Read and observe all the safety instructions.

Risks for those who are not trained specialists, children and persons with reduced physical, sensory or mental capabilities or a lack of knowledge. Ventilation unit may only be installed, commissioned, cleaned and maintained by persons who can safely recognise and avoid the risks associated with this work.

Risk to health if filters are not replaced or if there are no air filters. Heavily soiled or moist air filters can accumulate harmful substances (mould, germs, etc.). This may also happen if the ventilation unit is shut down for an extended period. If there are no air filters, the ventilation unit and ventilation ducts become dirty. Unfiltered substances may enter the rooms.

- Never operate ventilation unit without air filters.
- Only use original filters.
- Recommendation: continuous operation.
- Observe filter change display. Change the air filter every 6 months.
- If the ventilation unit has not been used for a long time, always replace the air filters.

Risk to health if ventilation unit is not correctly cleaned/maintained.

Clean/service the ventilation unit regularly, at least every 2 years. This is the only way of ensuring that the ventilation unit is running hygienically.

Risk of death from toxic air and air containing pollutants (smoke, vapours) in the surrounding area – in the event of a fire or chemicals accident etc. Switch the entire ventilation system off immediately until the outside air is safe again.

Risk during transport from heavy or falling loads.

- Observe applicable safety and accident prevention requirements.
- Note permissible maximum loading capacity of lifting gear.
- Do not stand under a suspended load.
- Exercise caution when lifting. Note transport weight (ventilation unit 210 kg) and centre of gravity of ventilation unit (centre).
- Only transport ventilation unit to installation site using suitable means of transport (e.g. a lifting fixture) and with the help of several people.
- Check unit for transport damage. Do not commission a damaged unit.

Risk from inadequate load-bearing capacity of the base/ceiling construction. Only install ventilation unit on a base/ceiling construction with an installation/attachment surface with an adequate load-bearing capacity (at least 300 kg/m²).

Risk of injury from handling pointed housing parts or those with sharp edges, e.g. on housing panels, railings, mounting feet or pointed parts of front doors. Wear protective gloves.

Risk of injury if work is carried out by unqualified staff. Specialist knowledge is needed for the safe transport, installation, electrical connection and commissioning of the ventilation unit. Only have this work carried out by a specialist installer or qualified electrician.

Risk of injury when working at heights.

Risk of injury when working at heights. Use appropriate climbing aids (ladders). Stability should be ensured, if necessary have the ladders steadied by a 2nd person. Ensure that you are standing securely and cannot lose your balance and that there is no one under the ventilation unit.

Danger of injury from damaged ventilation unit. Switch the ventilation unit off immediately if you discover damage or faults that could endanger persons or property. Prevent further use until the issue has been fully rectified.

Intended operation not ensured if installed incorrectly. A ventilation unit not installed correctly may result in operation not as intended.

- Only install ventilation unit in accordance with the planning documents.
- In particular, note the information on insulating ventilation channels and sound deadening. Recommendation: Use tubular sound absorber for sound-deadened installation of ventilation unit.

Risks from parts which may affect the ventilation system which are added or modified at a later date.

- Parts (range hood, air-ventilated fireplace etc.) which are added or modified at a later date may result in health risks and operation which is not permitted.
- Parts may only be added or modified at a later date if system compatibility is established/ensured by a planning office. If using an exhaust air range hood or air-ventilated fireplace, this must be accepted by a regional master chimney sweep.

Risk from operating with ventilation unit not fully installed (open unit / without ventilation ducts).

- Running fans can be touched. Electric components are a potential source of electric shock. Danger of burning on units with a heat register.
- If the ventilation unit is open, all the supply circuits must be switched off (mains fuse off), secured against being accidentally switched back on and a visible warning sign must be attached.
- Only operate ventilation unit if fully installed, if all ventilation ducts are attached and the front doors are closed.
- Do not reach into running fans.
- The heat register and/or protective grilles of the heat register may be very hot. Before touching, check whether heat registers and/or protective grilles are still hot. Do not touch hot surfaces.

Risk of injury if unit components (heat register, heat exchanger etc.) fall down during removal. Sometimes these can be hard to pull out/slide in.

- Ensure that you are standing securely and cannot lose your balance and that there is no one under the unit.
- When removing and installing the components, support them from below with a hand.

Risk of injury and health risk when using accessory elements which have not been approved.

The ventilation unit is tested with original accessories and components (e.g. air filter, heat register, heat exchanger).

- The unit may only be operated with original components.
- Modifications and alterations to units are not permitted and release the manufacturer from any guarantee obligations and liability.

Danger of electric shock.

Before opening the front doors and installing the electrics, switch off all supply circuits and secure them against being accidentally switched back on again. Attach a warning sign in a clearly visible place.

Danger if the relevant regulations for electrical installations are not observed.

- Before removing the electronics cover and installing the electrics, switch off all supply circuits and secure them against being accidentally switched back on again. Attach a warning sign in a clearly visible place.
- Be sure to observe the relevant regulations for electrical installation; e.g. DIN EN 50110-1. In Germany, particularly observe VDE 0100, with the corresponding sections.
- A mains isolation device with contact openings of at least 3 mm at each pole is mandatory.
- Only connect the ventilation unit to a permanent electrical installation.
- Units may only be operated using the voltage and frequency shown on the rating plate.

Damage to unit in the event of moisture ingress.

The ventilation unit has IP 40 degree of protection.

- Do not install ventilation unit outdoors.
- Protect ventilation unit from moisture and wetness

Exercise caution when handling packaging materials.


















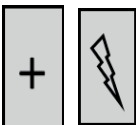

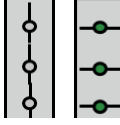
Store packaging material out of the reach of children.

Risk of death when operating with air-ventilated fireplaces.

Ensure sufficient supply air intake during operation with air-ventilated fireplaces. Note maximum permissible pressure difference per residential unit. The consent of a professional chimney sweep is needed in all cases. Ventilation units may only be installed in rooms, apartments or housing units of a comparable size, in which air-ventilated fireplaces are installed if:

- a parallel operation of air-ventilated fireplaces for liquid or gaseous fuels and the air-extracting equipment can be prevented via safety devices, or
- the extraction of exhaust gas from the air-ventilated fireplaces is monitored by a special safety device. In the case of air-ventilated fireplaces for liquid or gaseous fuels, the fireplace or the ventilation system must be switched off if the safety device is triggered. In the case of air-ventilated fireplaces for solid fuels, the ventilation system must be switched off if the safety device is triggered. In order to permit the intended operation of ventilation systems equipped with the central ventilation units with heat recovery, it must be possible to shut off any combustion air ducts or exhaust gas ducts from air-ventilated fireplaces. For exhaust gas ducts of fireplaces for solid fuels, the shut-off device may only be operated by hand. It must be possible to identify the position of the shut-off device from the setting of the operating handle. This is considered to be fulfilled if a soot blocking device is deployed.

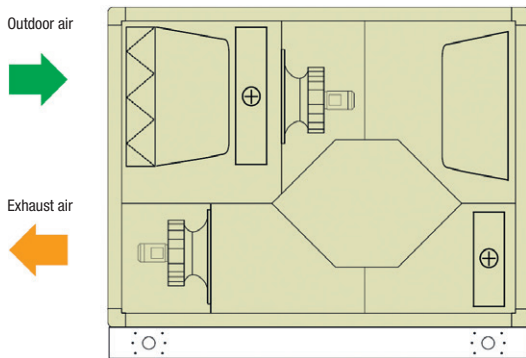
3.0 Symbols and abbreviations

	BW	BACKWARD CURVED FAN			
	BF	BAG FILTER		PF	PLEATED FILTER
	RX	RedARY HEAT EXCHANGER		PX	PLATE HEAT EXCHANGER
	WARNING			<p>Electronic boards contains ESD sensitive components.</p> <p>Wear antistatic wrist strap connected to protective earth before to manipulate them.</p> <p>In alternative, discharge by touching the unit, handle boards at corners only and use antistatic gloves.</p>	
	Must be connected by a qualified Electrician. Warning! Hazardous voltage.				
	OUTDOOR AIR		Air from outdoor to the AHU		
	SUPPLY AIR		Air from the AHU to the building		
	EXTRACT AIR		Air from the building to the AHU		
	EXHAUST AIR		Air from the AHU to outdoor		
	COOLING COIL	BA-		NV / KW	HEATING COIL (WATER/ELECTRICAL)
	SILENCER	GD		CTm	MOTORISED DAMPER
	PRESSURE SENSOR	P		Tx	TEMPERATURE SENSOR No = x (1,2,3...)
	SLIP CLAMP Sliding bar and screws are not included	SC		MS	FLEXIBLE CONNECTION
CIRCULAR DUCT CONNECTION		ER	For inlet	SR	For outlet

4.0 Product overview

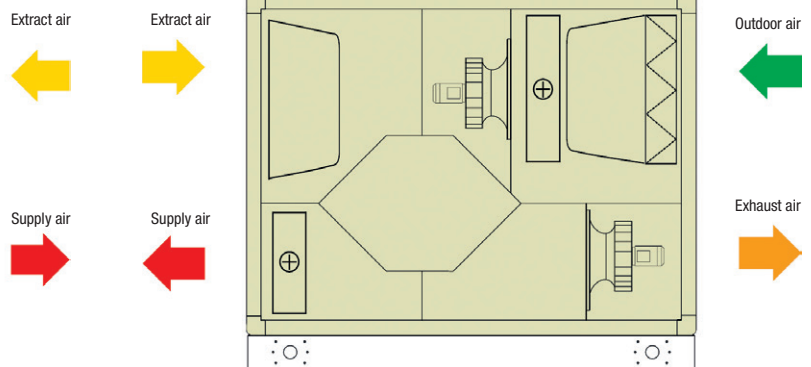
4.1 General overview

Right hand unit (supply air to the right)

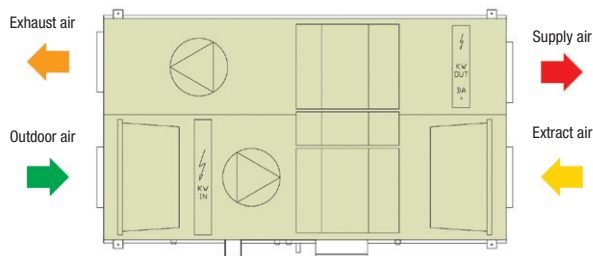


Reco-Boxx ZXR-R

Right hand unit (supply air to the right)

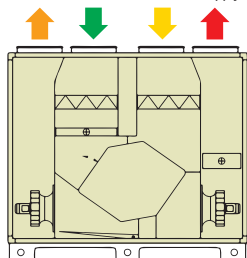


Reco-Boxx ZXR-L



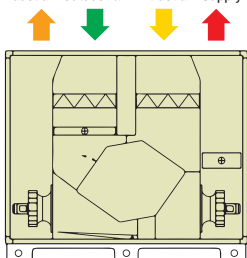
Reco-Boxx Flat-H-R (Top view)

Exhaust air Outdoor air Extract air Supply air

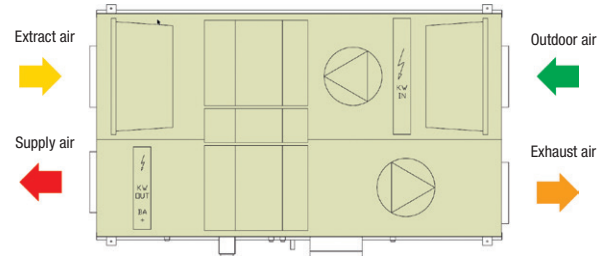


Reco-Boxx ZXA-R 900/1500/1900

Exhaust air Outdoor air Extract air Supply air

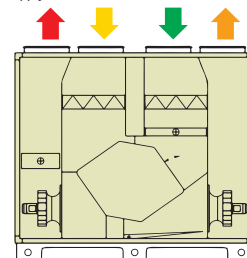


Reco-Boxx ZXA-R 2500/2800/3700



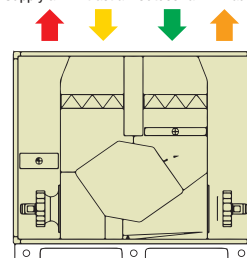
Reco-Boxx Flat-H-L (Top view)

Supply air Extract air Outdoor air Exhaust air



Reco-Boxx ZXA-L 900/1500/1900

Supply air Extract air Outdoor air Exhaust air



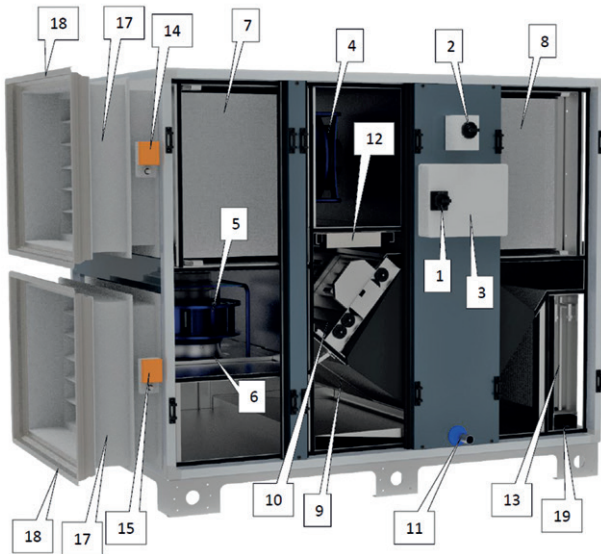
Reco-Boxx ZXA-L 2500/2800/3700

ATTENTION: The difference between left and right Flat units is the factory placement of the controls box on opposite sides.

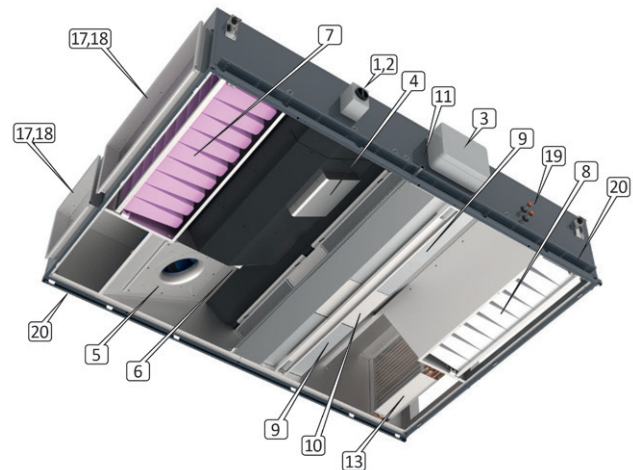


ATTENTION

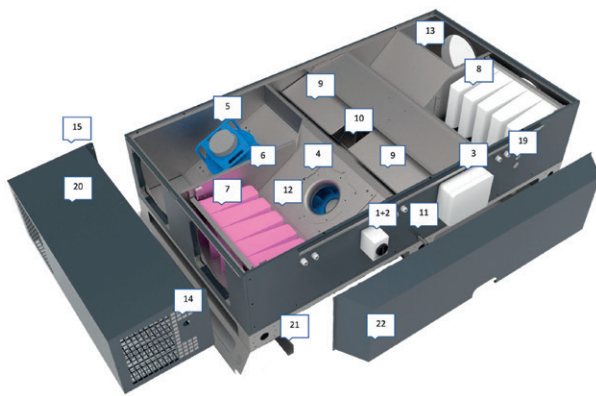
Right and left hand units have different article numbers and should be ordered accordingly. Main version described in the manuals is always the hand right version.



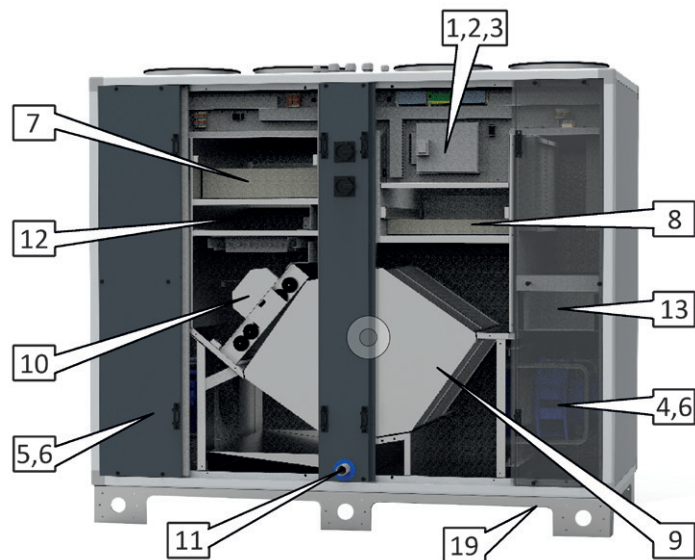
Reco-Boxx ZXR



Reco-Boxx Flat-H



Reco-Boxx Flat-OUT



Reco-Boxx ZXA

NOTE: Illustrations show right-hand version (-R);
Left versions (-L) are mirror images.

1. Main switch for power supply AHU
2. Main switch for power supply electrical coils (both internal pre-heating and post-heating)
3. Electrical cabinet
4. Supply fan
5. Extract fan
6. DDM-Set for CA-airflow measurement (option)
7. Outdoor air filter (bag or pleated)
8. Extract air filter (bag or pleated)
9. Heat exchanger
10. Modulating 100% bypass
11. Drain pan and drain pipe

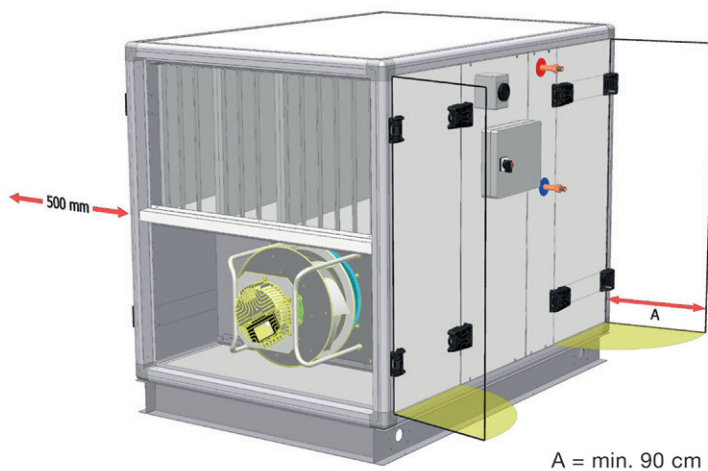
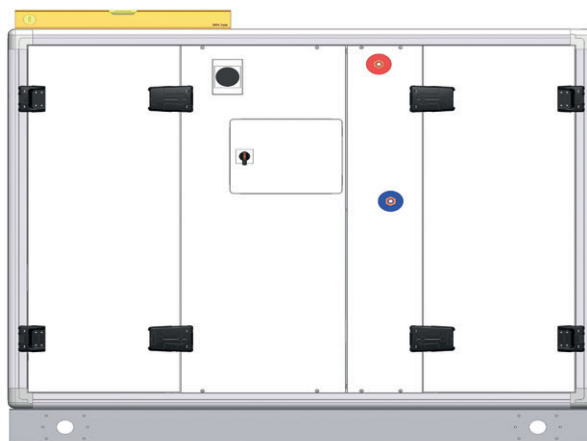
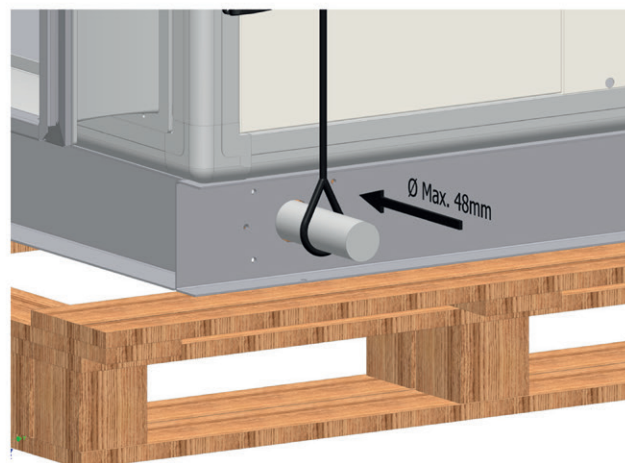
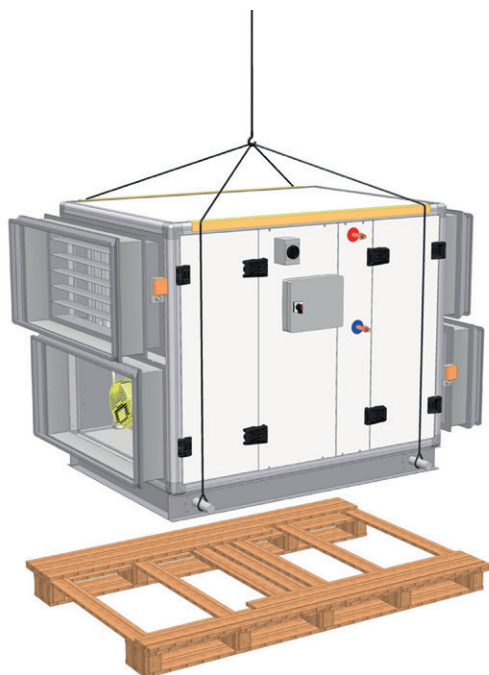
12. Preheating coil (accessory for Counterflow-equipments)
13. Internal post-heating water or electrical coil (accessory)
14. Motorised damper (accessory)
15. Motorised damper (accessory))
16. Access panel (Flat only)
17. Flexible sleeve (accessory)
18. Slip clamp (accessory)
19. Water connection for post-heating (accessory)
20. Box I/O (inlet / outlet)
21. Additional feet 205 mm (accessory)
22. Protection cover

1, 2 and 3 must be installed by a qualified electrician



Note: internal electrical coils, motorised dampers, internal fan-pressure sensors, flexible connections and slip-clamps must ordered and are all pre-installed and factory wired. The internal heating water-coil accessory is pre-installed, but must be connected, hydraulically and electrically, by the installer.

5.0 Unloading and transport



Note: Images are examples and do not represent the original device!



If it is necessary to dismantle and re-assemble the unit due to the delivery through size-limited openings; the unit must be specifically ordered from the factory with the “dismantle option”. For information on how to dismantle and re-assemble the unit please download the “Dismantling and Re-Assembly guide” on our website.

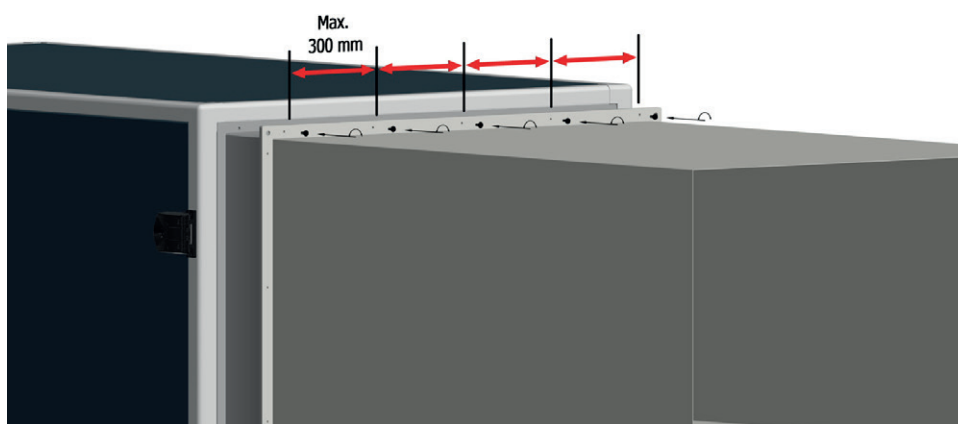
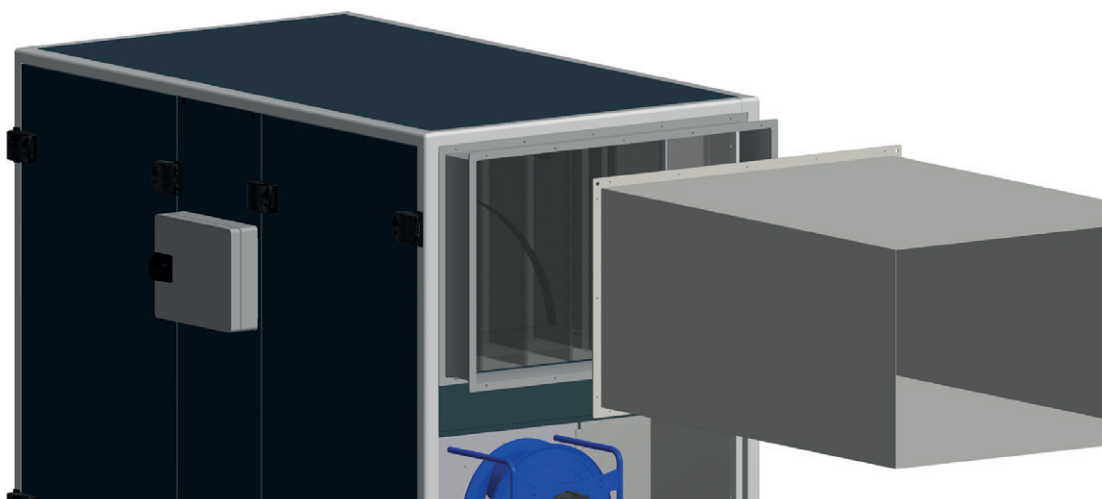
6.0 Installation

Since some of the wiring is dependent on the chosen functionality, connection of external controls signals such as 0–10 V signals are described in the “Operation and Maintenance Manual” downloadable on our website.

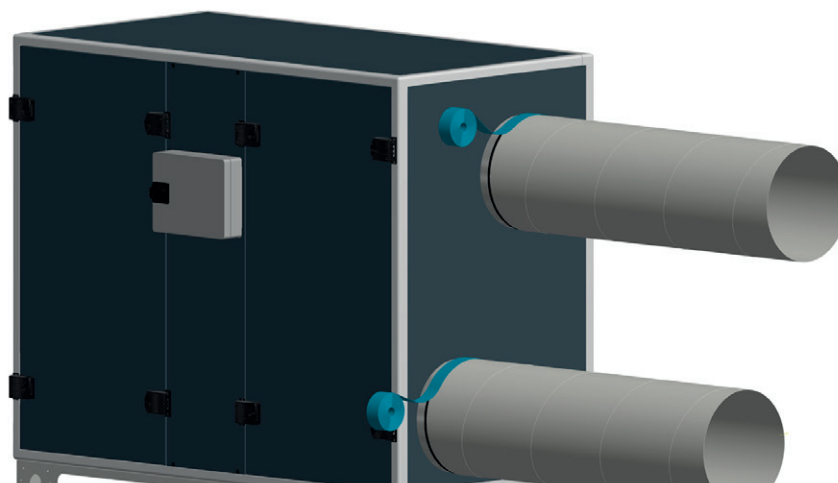
6.1 Mechanical installation

Note: Some accessories are shipped inside of the unit.

Square duct connections with canvas connector (SGTS)

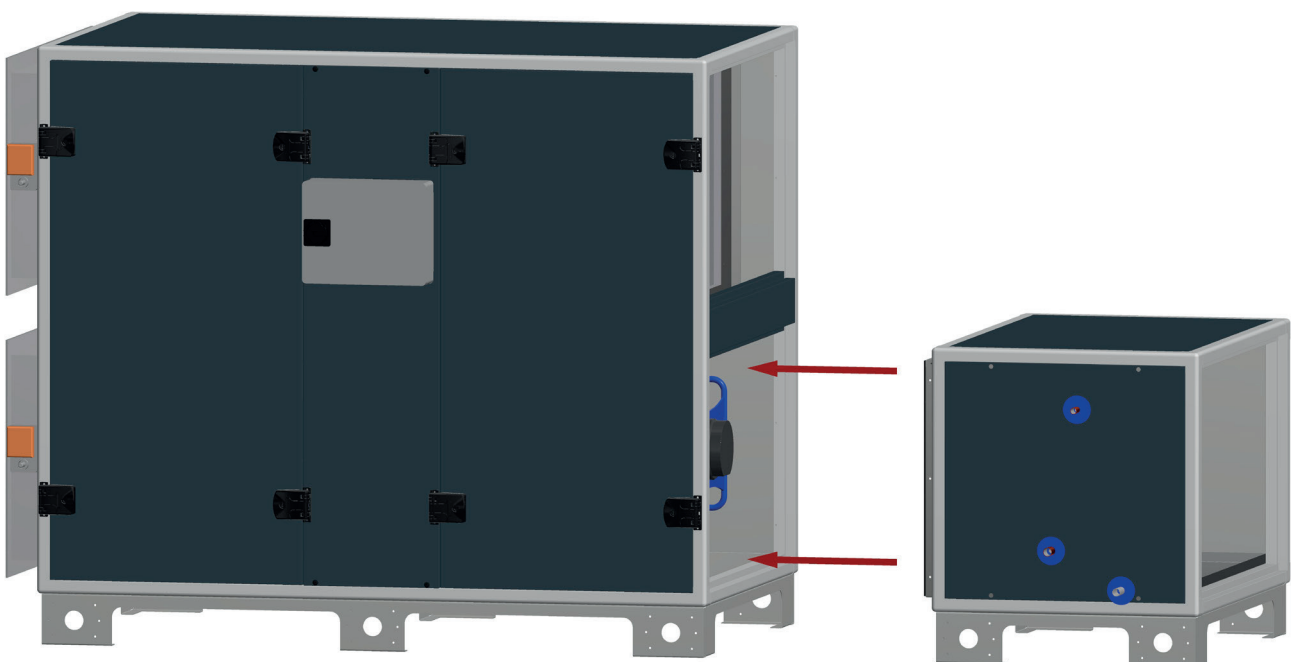
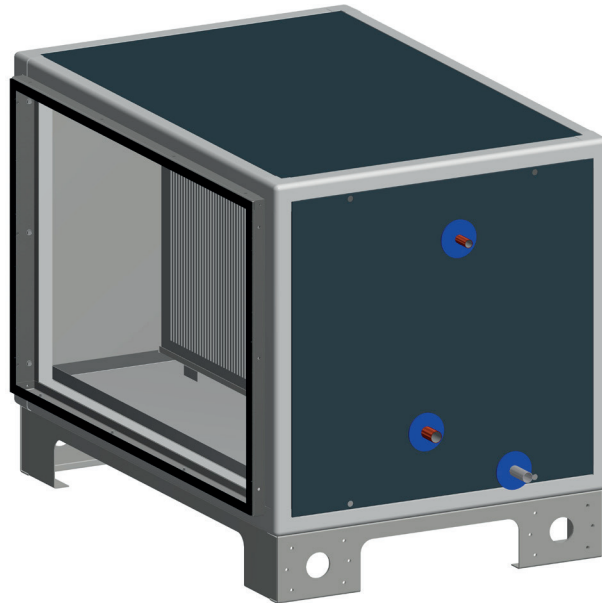


Round duct connections with canvas connector (SGTS)



Mechanical connection of external post-heating and cooling registers NHKR+EBA (square connections)

External Heat exchanger (NHKR)

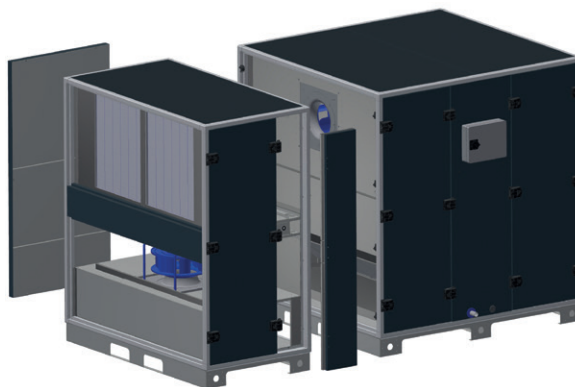




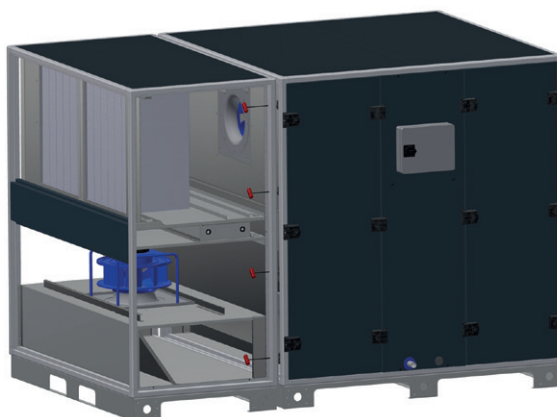
Assembly procedure for Reco-Boxx 4700-6200-7000 ZXR multi-block units



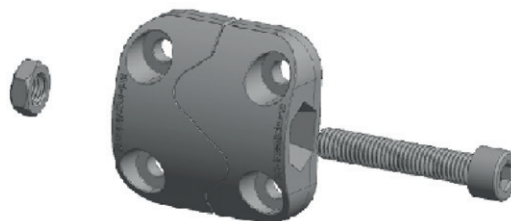
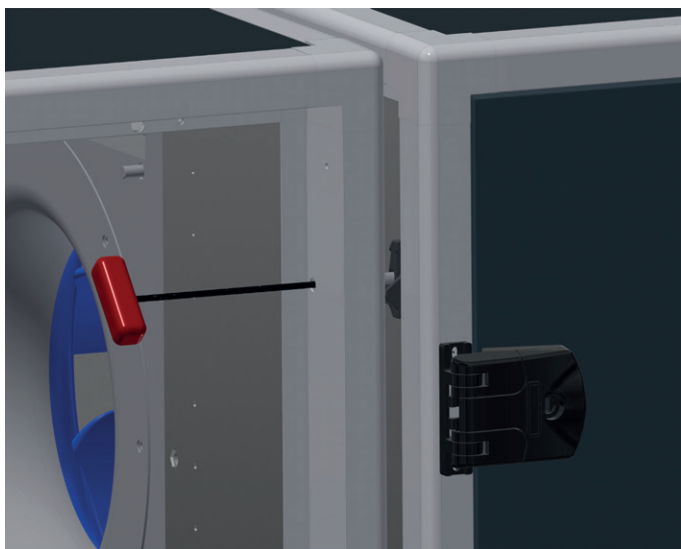
1. Remove the front and rear doors of the secondary block.



2. Place the 2 blocks side by side.



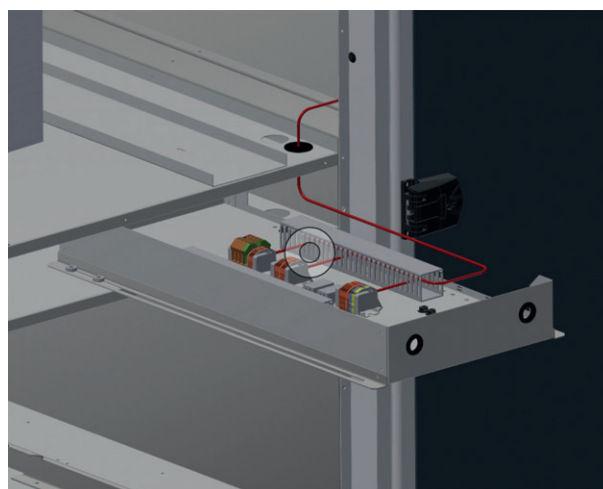
3. Using a hexagonal key, tighten the clams screws (4 at the front and 4 at the back).
Insert the tool through the bore hole in the profile.



4. Blank off the profile holes with the small black plugs to ensure suitable tightness.



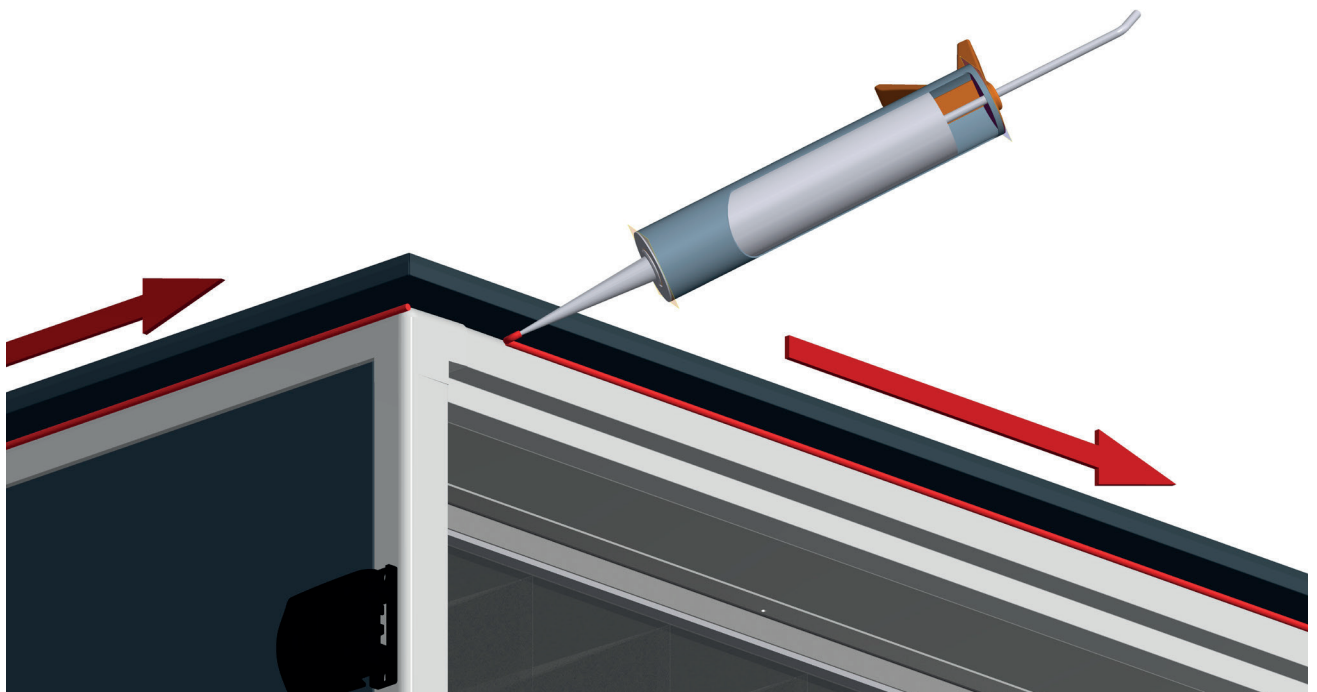
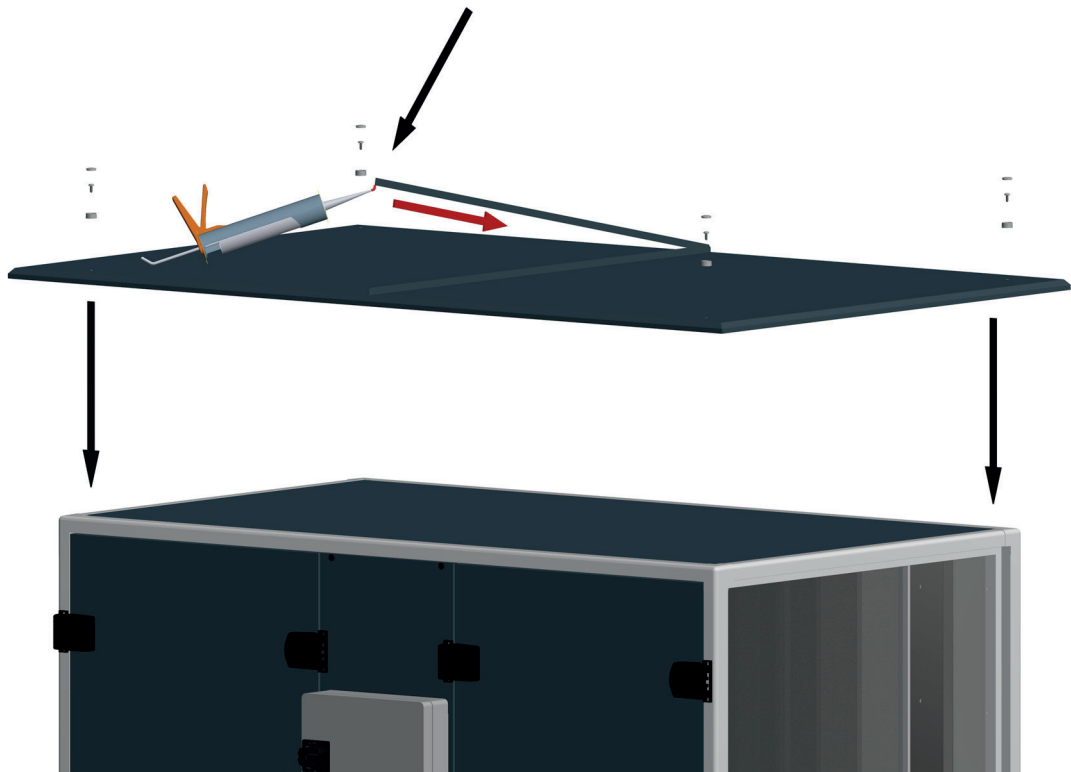
5. Connect the jumper wires of the main block to the terminal blocks inside a sliding connection box.



6. The assembly procedure is now complete.



Installation of roof for mounting outdoors (only Reco-Boxx ZXR and optional NHKR)

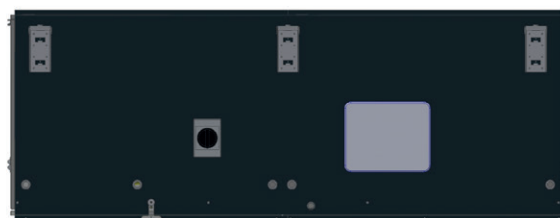


Mechanical installation (Reco-Boxx Flat-H)

Monoblock units Reco-Boxx 550...2700 Flat-H

Warning: make sure the ceiling construction is stable. With a suitable construction at the intended physical professionally hang up using sound-insulated mounting brackets. Note the weight!

M10 M10 M10



weight specifications
(empty weights without
optional heating register):

Reco-Boxx 550 Flat-H: 105 kg
Reco-Boxx 650 Flat-H: 125 kg
Reco-Boxx 1000 Flat-H: 195 kg
Reco-Boxx 1400 Flat-H: 230 kg
Reco-Boxx 1700 Flat-H: 270 kg
Reco-Boxx 2100 Flat-H: 325 kg
Reco-Boxx 2500 Flat-H: 325 kg
Reco-Boxx 2700 Flat-H: 360 kg
Reco-Boxx 3300 Flat-H: 610 kg (3 parts)
Reco-Boxx 3700 Flat-H: 610 kg (3 parts)



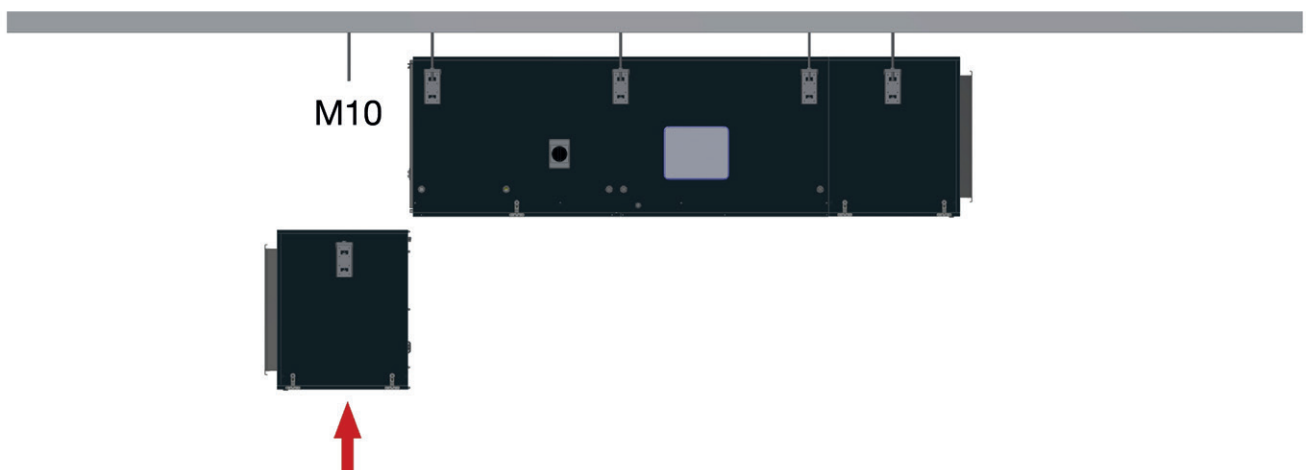
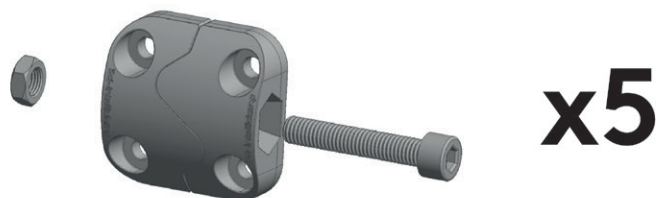
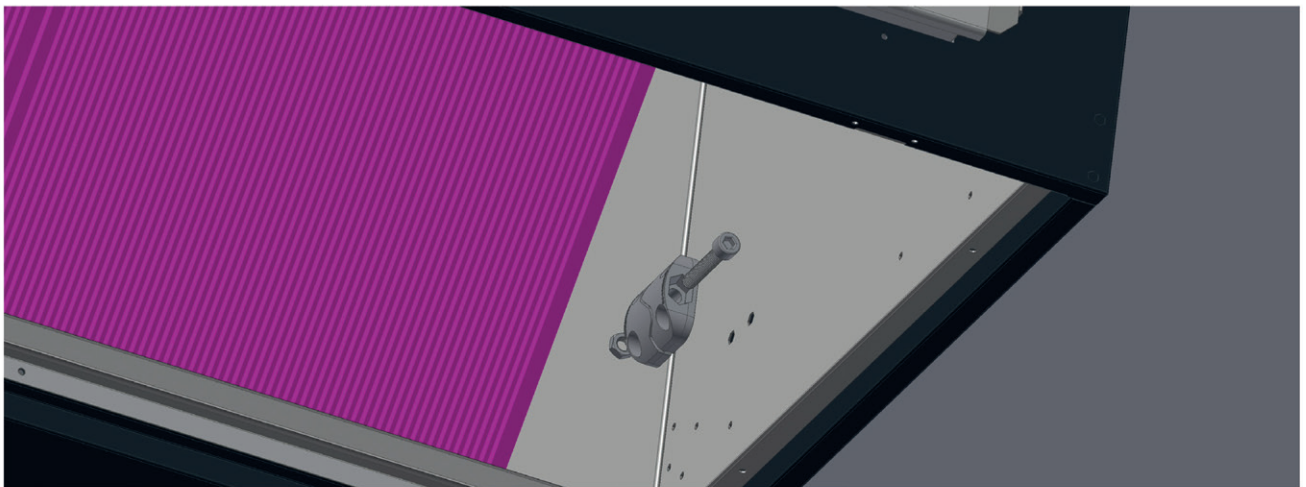
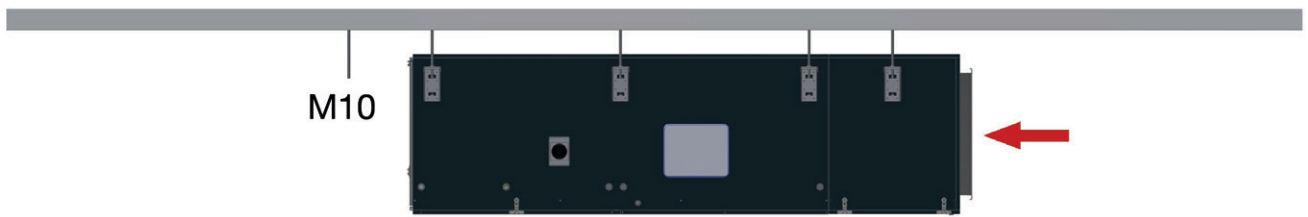
Multiblock units Reco-Boxx 3300 & 3700 Flat-H

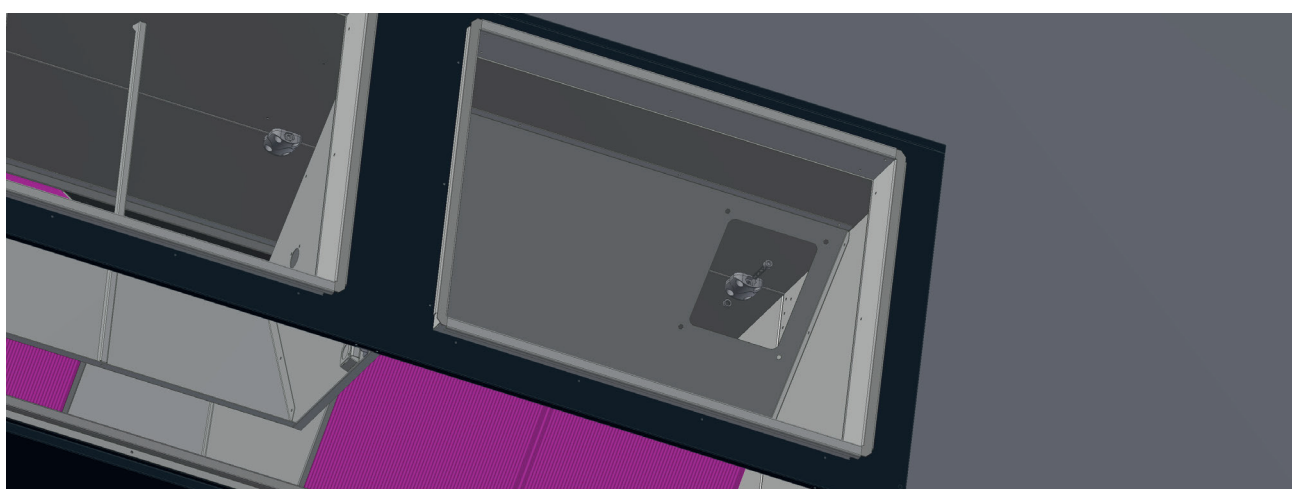
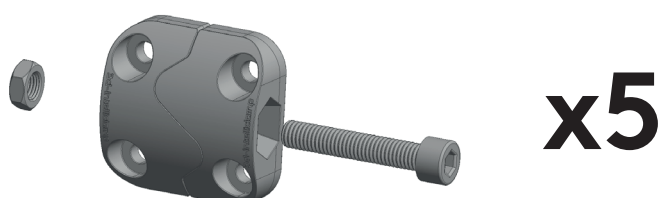
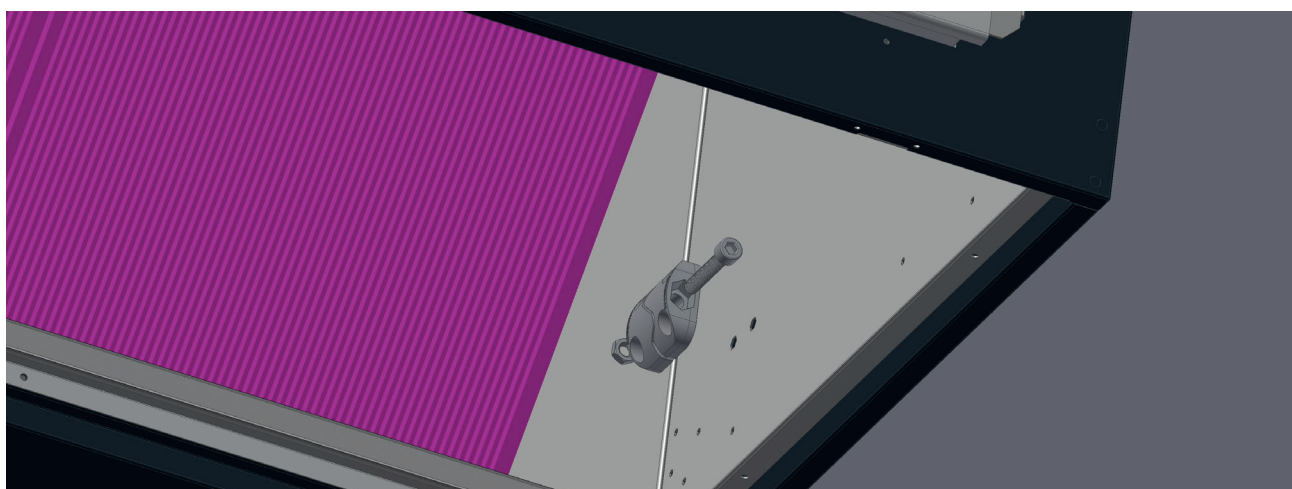
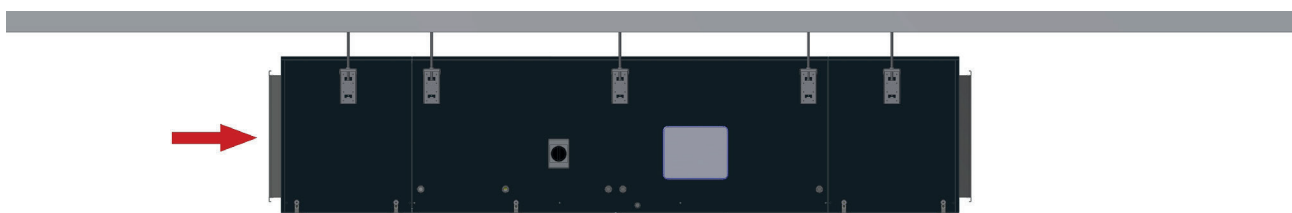
M10

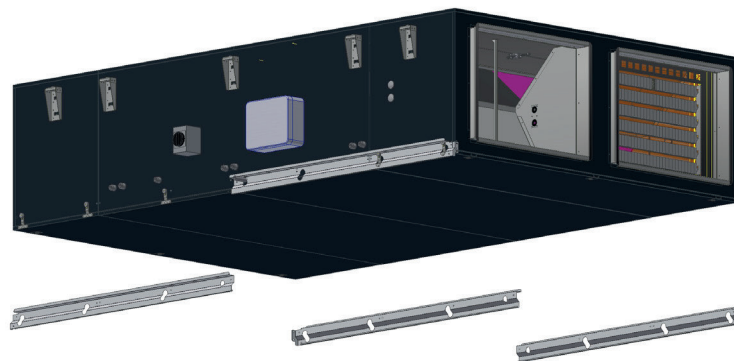
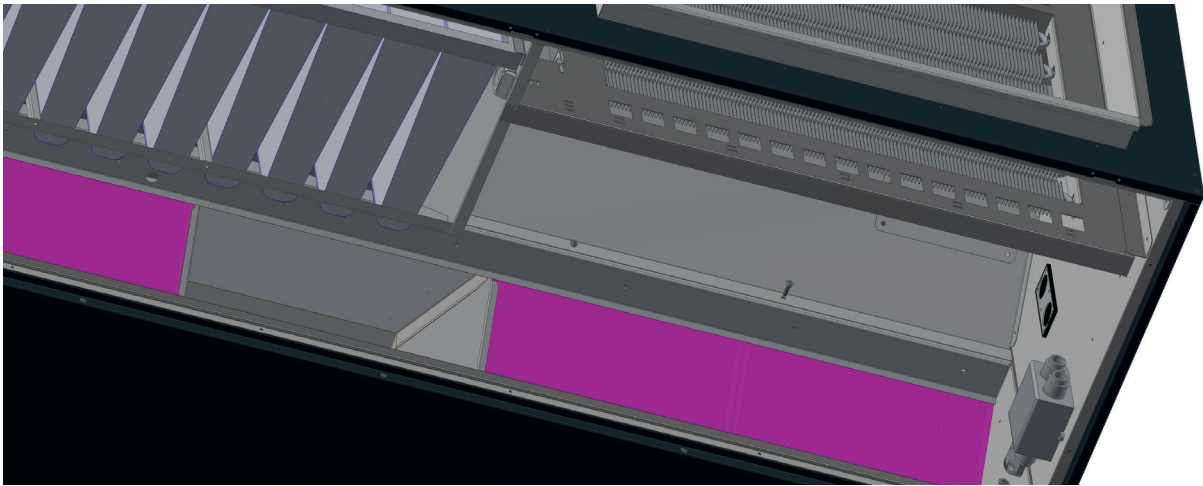
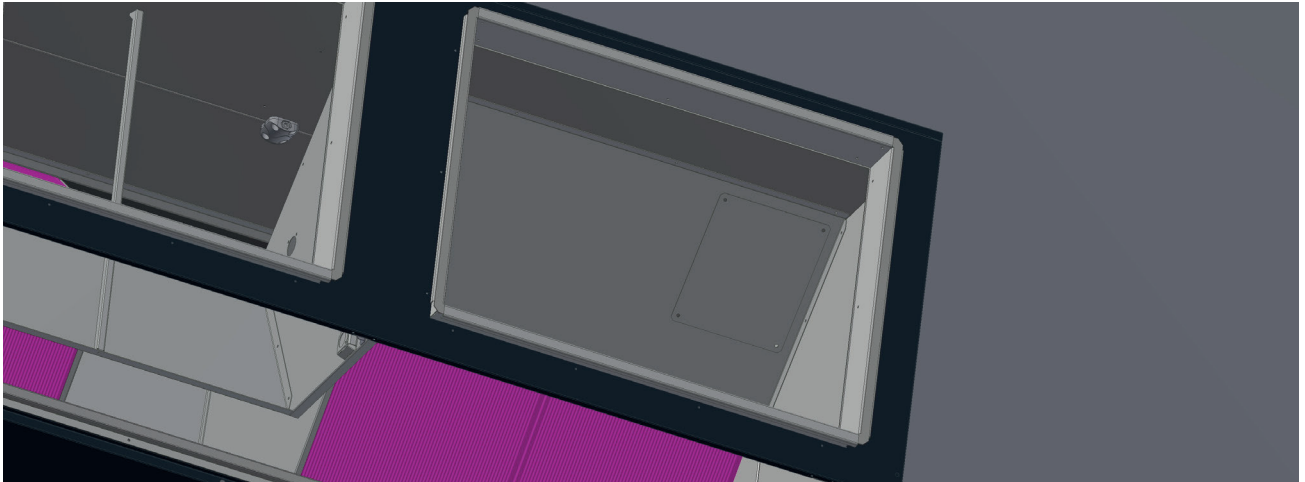


M10

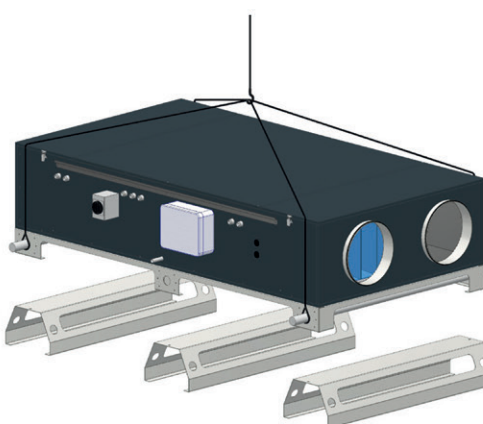
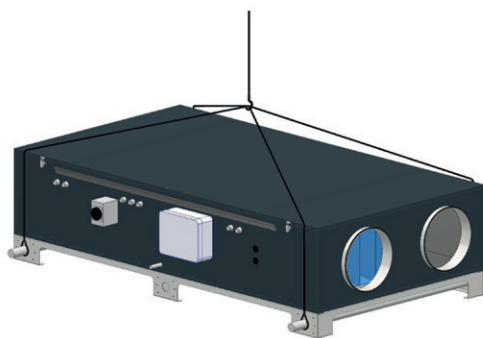




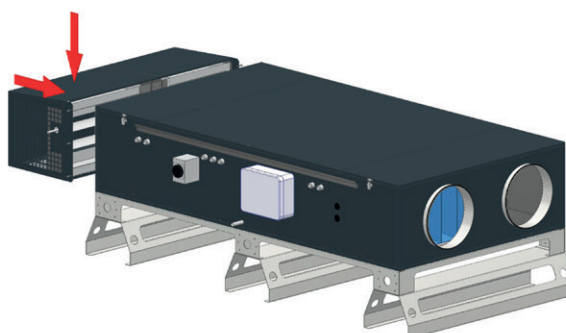
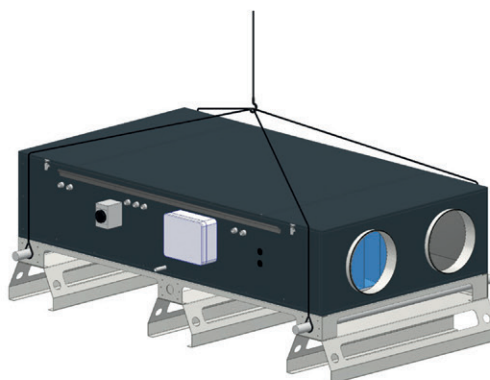


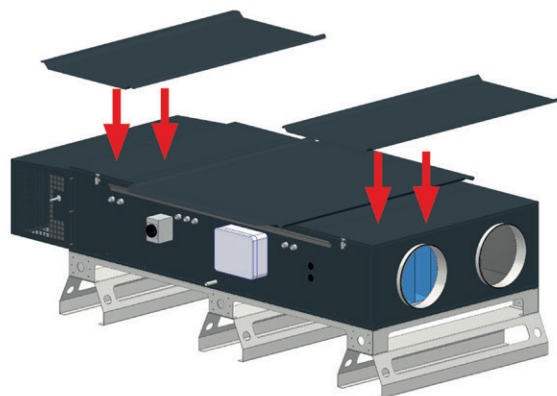
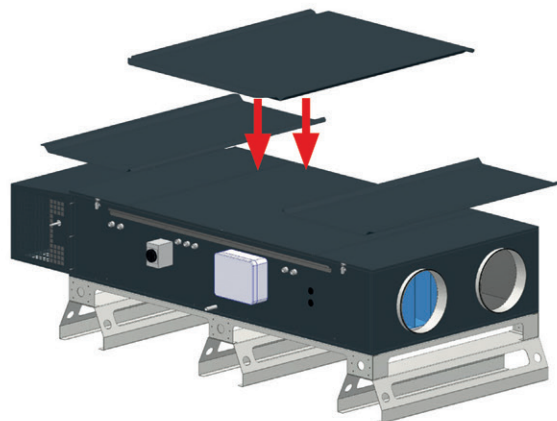
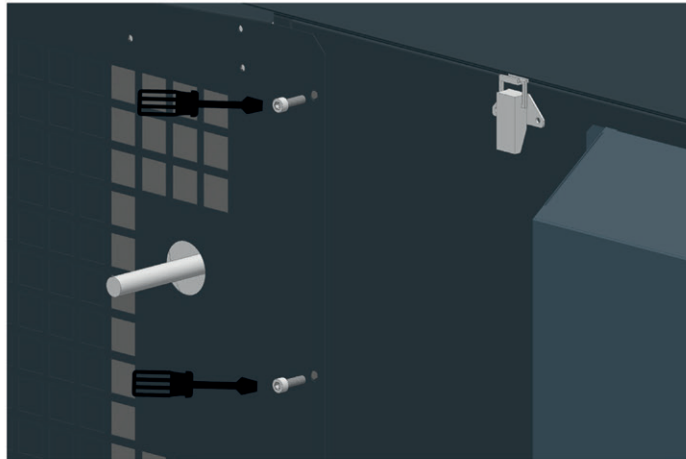


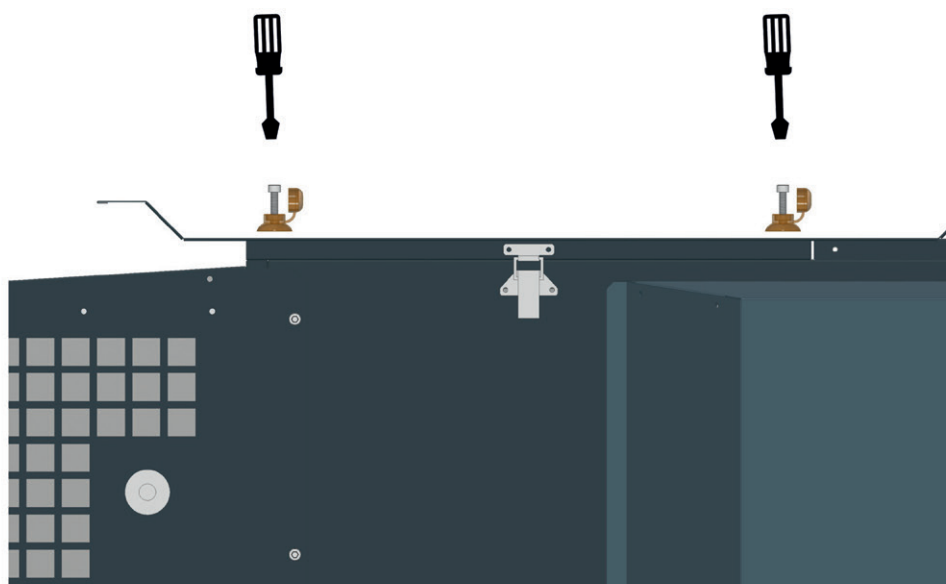
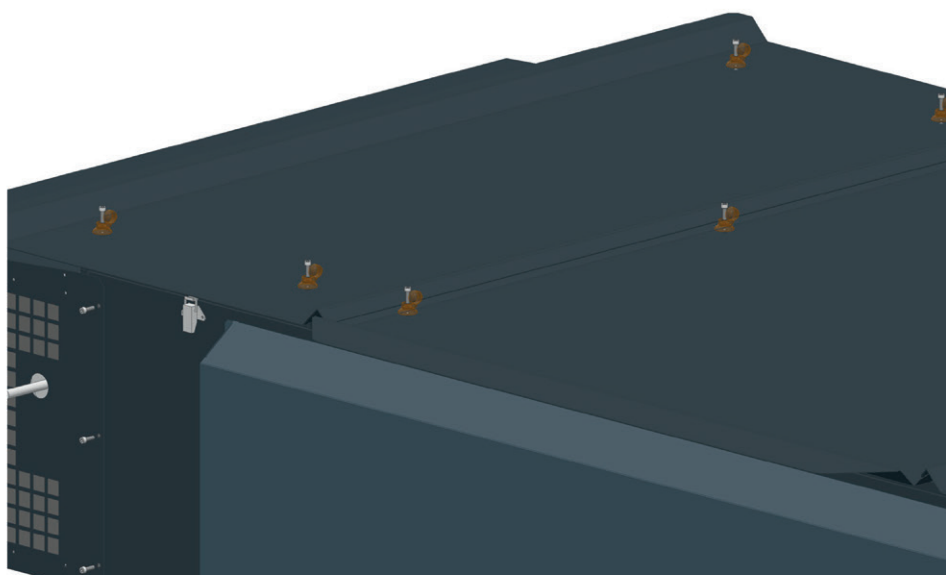
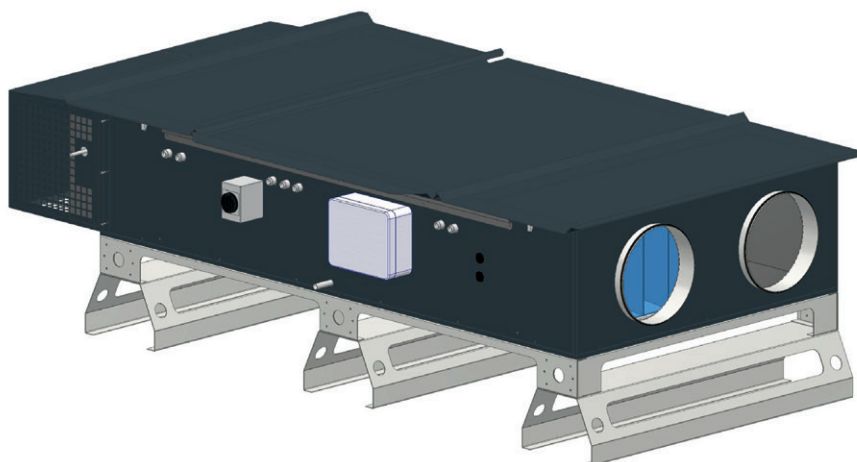
Mechanical installation Flat-OUT

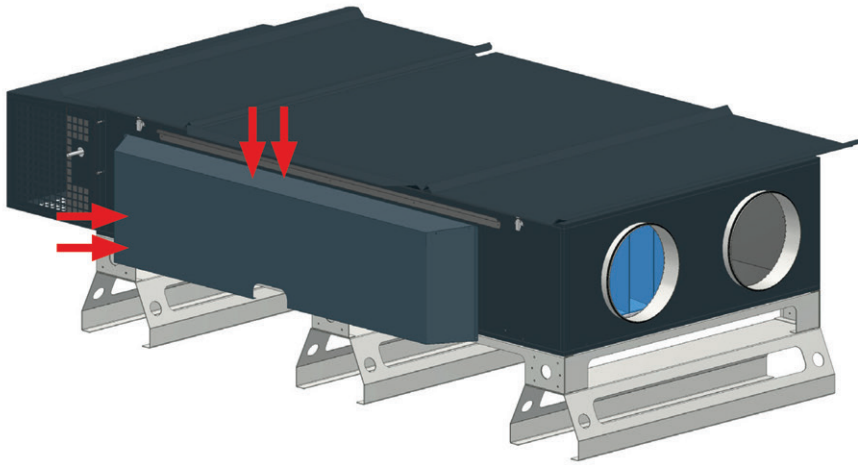


(Ref. No. 0043.1539 GR 1400 Flat OUT;
Ref. No. 0043.1540 GR 1700 Flat OUT)







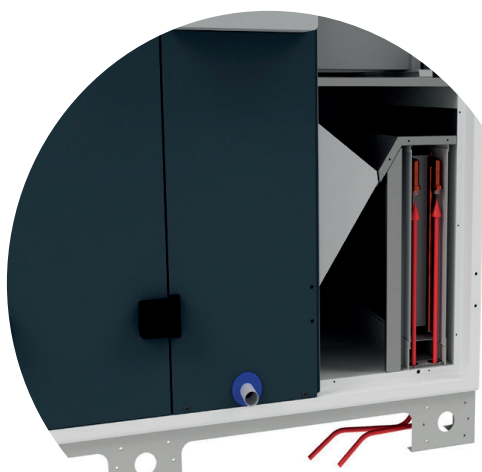


6.2 Hydraulical installation

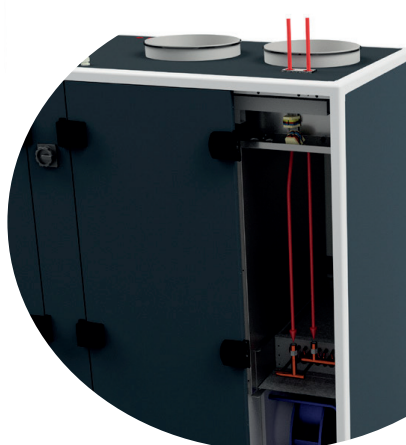
Internal post-heating coil

Guide the prefabricated, enclosed stainless steel corrugated hoses through the openings provided and connect them professionally to the water reheating register.

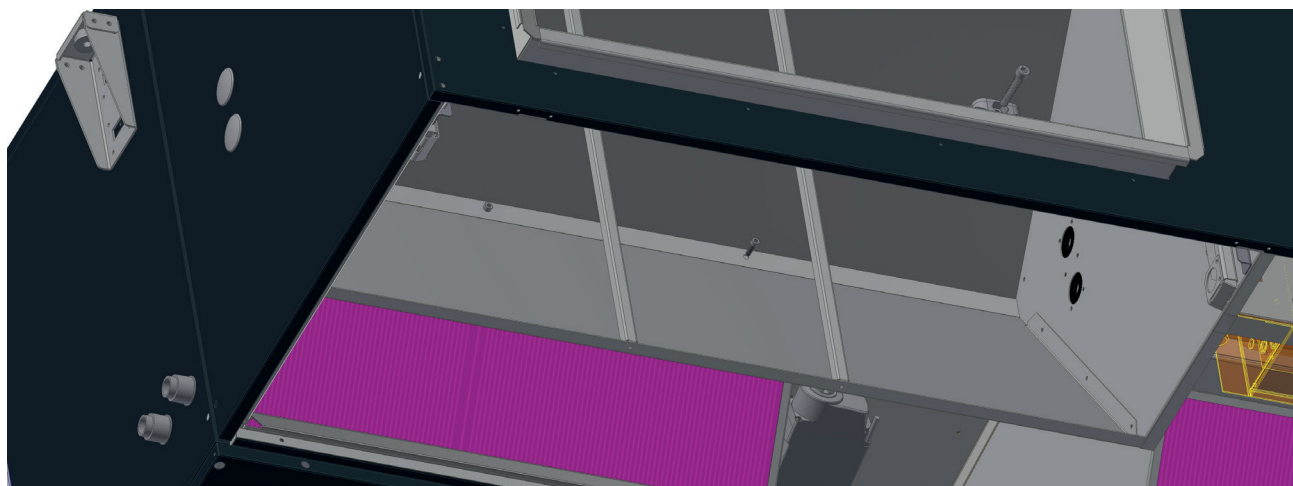
ATTENTION: Do not overload the connection nipple on the register (counter-lock).



Reco-Boxx ZXR-R



Reco-Boxx ZXA-R



Reco-Boxx Flat-H-R

Note: Left versions are mirror images

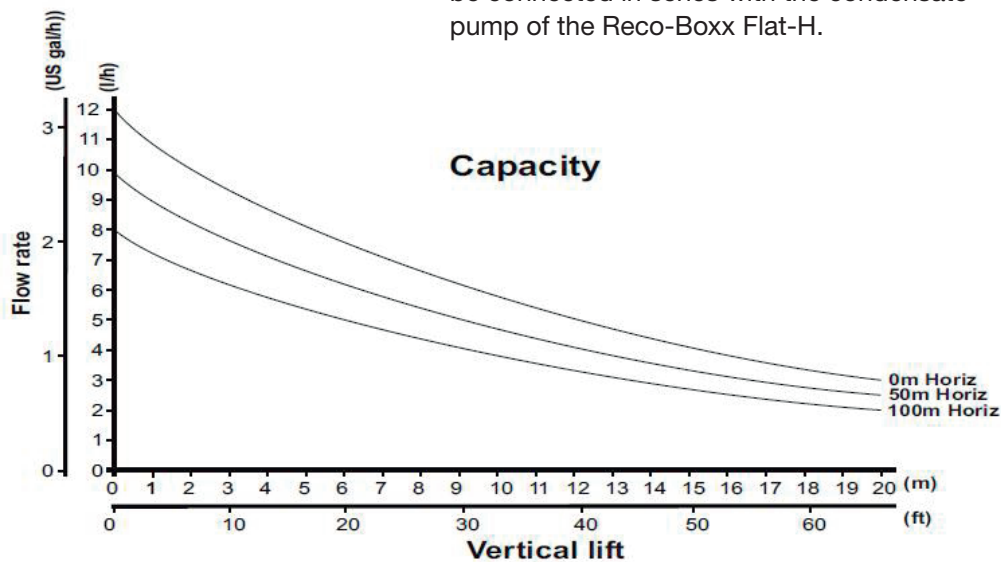
6.3 Condensate pump / Condensate drain

Condensate pump for Reco-Box Flat-H and optional NHKR with EBA 4C or 4X.

Specifications	Power supply:	120/240 Vac, 50/60 Hz Auto sensing
	Power consumption:	16 W max., 0.25 W when idle
	Alarm relay:	5A, 30 Vdc, 250 Vac Break on fault
	Capacity:	12 litres/hour max. (3.17 US gal/h)
	Maximum head:	Vertical >20 m (65 ft), Horizontal >100 m (328 ft) Suction 1 m max. (3.28 ft)
	Ambient temp:	0 – 40°C
	Water temp:	25°C max.
	Material:	Flame retardant ABS UL94 5VA
	Discharge tube:	6 mm (1/4") ID
	Dimensions:	160 x 43 x 34 mm (6.3" x 1.7" x 1.3")
	IP:	68

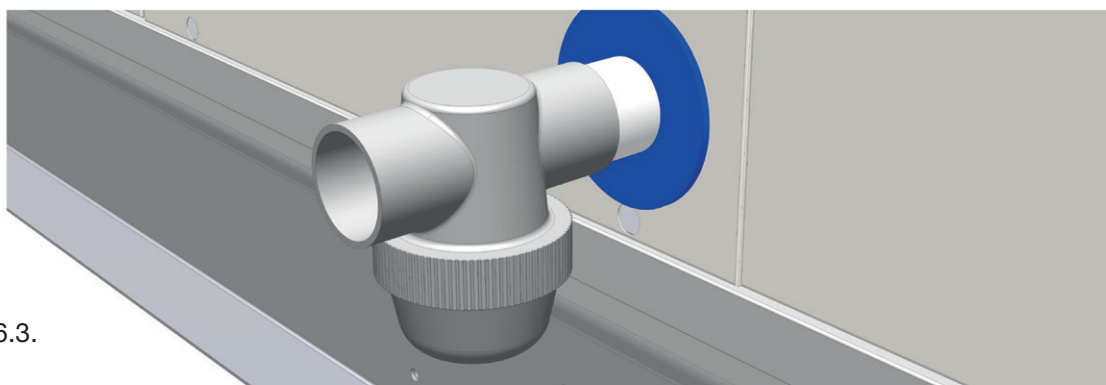
Note:

Condensate pump(s) is/are optional. If ordered at the same time as the Reco-Boxx Flat-H and NHKR with EBA 4C/4X, the condensate pump is factory-installed and electrically connected in the Reco-Boxx Flat-H. The condensate pump in the NHKR must be connected in series with the condensate pump of the Reco-Boxx Flat-H.



Drain-pan connection for Rexo-Boxx with counterflow

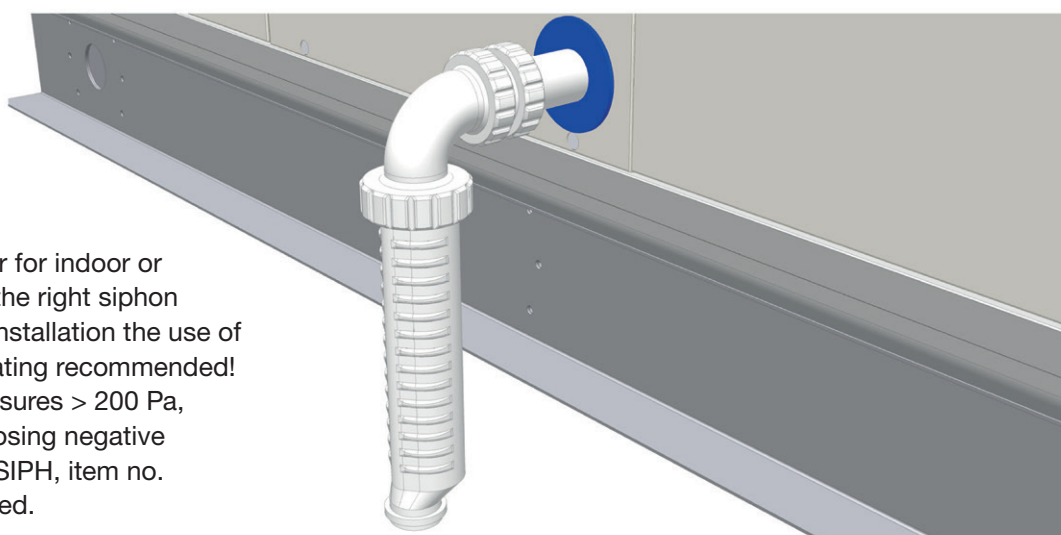
Syphon for indoor installation



Note:

Reco-Boxx Flat (-H) devices can be optional via a condensate pump feature, see 6.3.

Syphon for outdoor installation

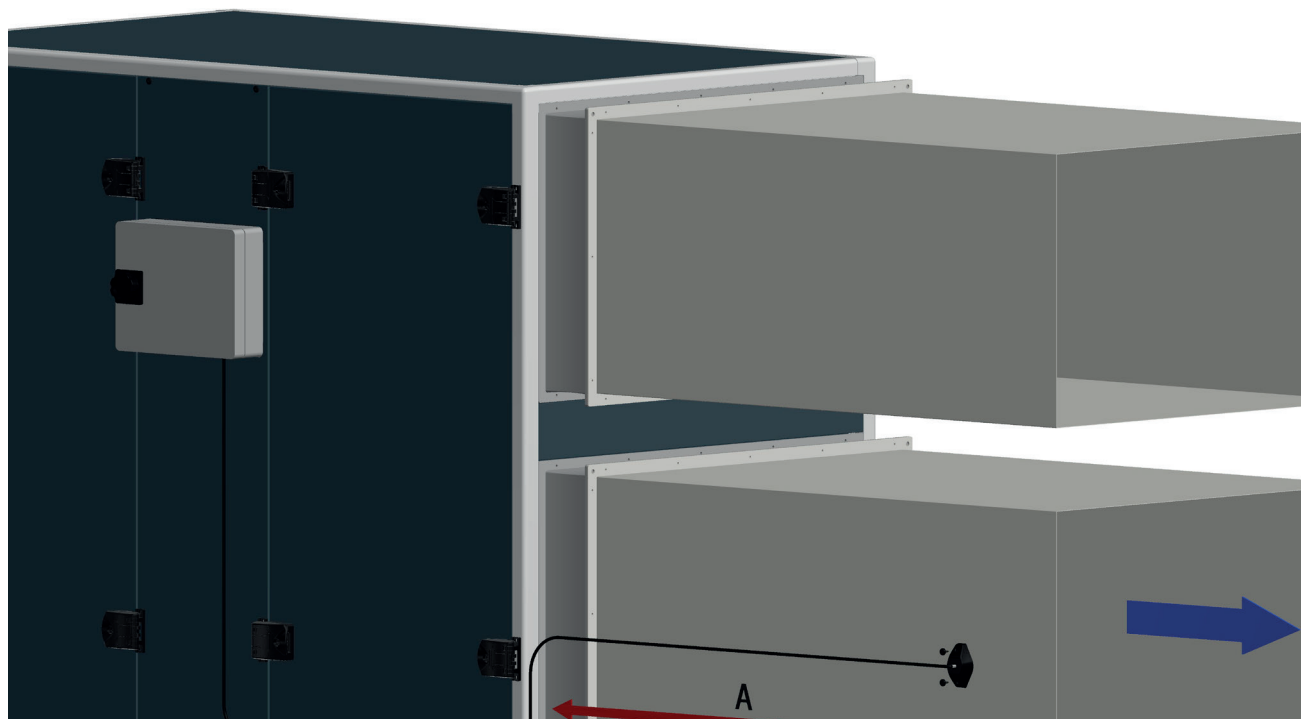


Note:

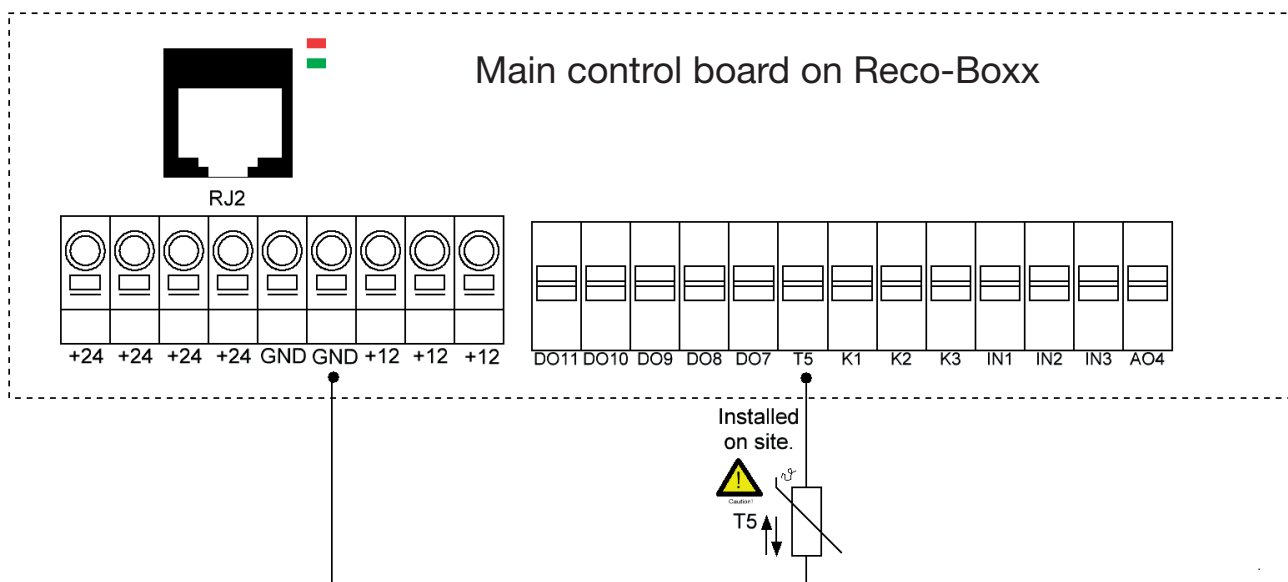
Depending on the order for indoor or Outdoor installation is the right syphon included. For outdoor installation the use of a condensate trace heating recommended! At higher negative pressures $> 200 \text{ Pa}$, a self-filling and self-closing negative pressure syphon (AX-USIPH, item no. 0043.0699) must be used.

6.4 Electrical connections (Fig. exemplary)

Supply air temperature sensor T5



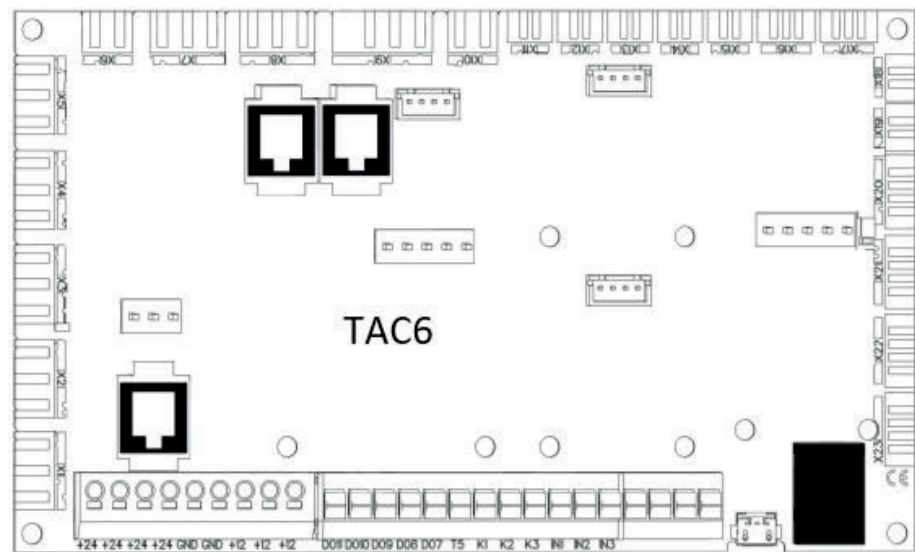
A = minimum 1.5 m



T5 Supply Air temp. sensor

In the supply air duct approx. 1.5 m behind the supply air socket or after the optional NHKR in the even place duct part.

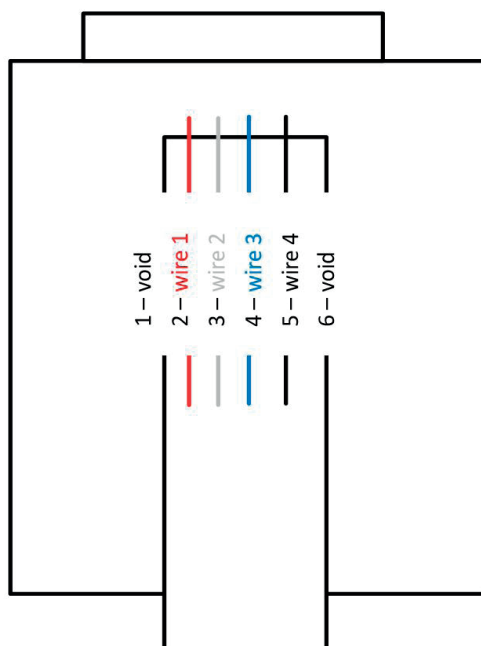
Connection Touchpanel TP-Touch



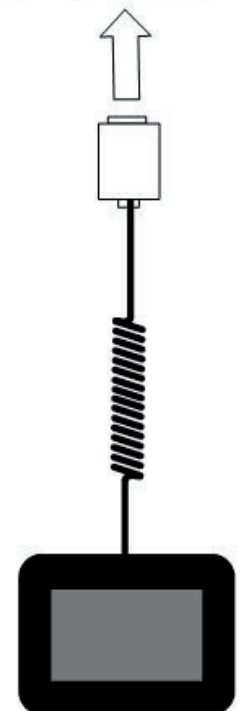
Extender cable wiring

In installation where an extender cable is necessary, this last one must conform to the RS-485 Standard with twisted pair conductors. The cable must be shielded. Conductor Area min 0.2 mm. The total length must not exceed 100 meters.

2 pairs connected to RJ12 connectors at cable extremities, straight wired. Pinout for each connector as in figure below (colors are indicative for the wires of the extender cable):

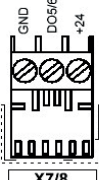
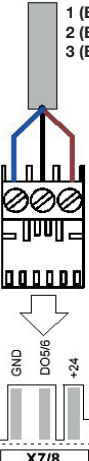
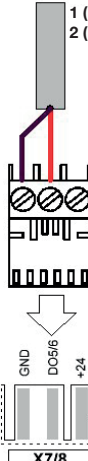




Touchpanel TP-Touch
(Ref. No. 0041.0165)



Electrical cable: Installaters need to foresee extra electrical cable length for easier future maintenance of the RLT unit.

Electrical connection of outside and exhaust air flaps

Without flap drive (SMO)	Reco-Boxx ≤ 3200 ZXR & all Flat-H /OUT		Reco-Boxx ≥ 4700 ZXR & 3700 ZXA	
	SMO1 (ON/OFF) 5Nm	SMO2 (Spring return) 4Nm	SMO1 (ON/OFF) 10Nm	SMO2 (Spring return) 10Nm
 <p>Screw connector set by default on control board (XLEM 005461)</p> <p>X7/8</p>	<p>1 (Blue) = GND 2 (Brown) = +24 VDC 3 (Black) = DO5/6</p>  <p>Screw connector (XLEM 005461)</p> <p>X7/8</p>	<p>1 (Black) = GND 2 (Red) = DO5/6</p>  <p>Screw connector (XLEM 005461)</p> <p>X7/8</p>	<p>1 (Blue) = GND 2 (Brown) = +24 VDC 3 (Black) = DO5/6</p>  <p>Screw connector (XLEM 005461)</p> <p>X7/8</p>	<p>1 (Black) = GND 2 (Red) = DO5/6</p>  <p>Screw connector (XLEM 005461)</p> <p>X7/8</p>
<p>X7 = Damper 1 (Exhaust) X8 = Damper 2 (Supply)</p>				

SMO1 = Servo motor ON/OFF without spring return
SMO2 = Servo motor with spring return



Notice:
Only use flap actuators with a rated voltage of 24 V DC!

6.4.1 Electrical power supply

	SIZE	AHU WITHOUT ACCESSORIES		ELECTRICAL HEATER 400V		ELECTRICAL HEATER 230 V	
Reco-Boxx Flat-H / Flat OUT	550	1 X 230 V	3,1 A	/	/	1 X 230 V	13 A
	650	1 X 230 V	3,1 A	/	/	1 X 230 V	13 A
	1000	1 X 230 V	5,3 A	3 X 400 V	6,5 A	/	/
	1400	1 X 230 V	5,3 A	3 X 400 V	8,7 A	/	/
	1700	1 X 230 V	4,9 A	3 X 400 V	8,7 A	/	/
	2100	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	2500	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	2700	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	3300	1 X 230 V	12,7 A	3 X 400 V	17,3 A	/	/
	3700	1 X 230 V	12,7 A	3 X 400 V	17,3 A	/	/
Reco-Boxx ZXR	750	1 X 230 V	5,3 A	3 X 400 V	4,3 A	/	/
	1000	1 X 230 V	5,3 A	3 X 400 V	4,3 A	/	/
	1300	1 X 230 V	5,3 A	3 X 400 V	8,7 A	/	/
	1600	1 X 230 V	5,3 A	3 X 400 V	8,7 A	/	/
	1800	1 X 230 V	4,9 A	3 X 400 V	10,8 A	/	/
	2300	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	2700	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	2900	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	3200	1 X 230 V	7,7 A	3 X 400 V	17,3 A	/	/
	4200	1 X 230 V	12,7 A	3 X 400 V	21,7 A	/	/
	4700	1 X 230 V	12,7 A	3 X 400 V	21,7 A	/	/
	6200	3 X 400 V + N	6,5 A	3 X 400 V	32,5 A	/	/
	7000	3 X 400 V + N	6,5 A	3 X 400 V	32,5 A	/	/
Reco-Boxx ZXA	900	1 X 230 V	5,3 A	3 X 400 V	4,3 A	/	/
	1500	1 X 230 V	5,3 A	3 X 400 V	8,7 A	/	/
	1900	1 X 230 V	7,7 A	3 X 400 V	8,7 A	/	/
	2500	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	2800	1 X 230 V	7,7 A	3 X 400 V	13 A	/	/
	3700	1 X 230 V	12,7 A	3 X 400 V	17,3 A	/	/



All internal components (fans, controls, sensors, actuators...) to the control board are pre-wired. The power supply must be connected to the safety isolating switch by a qualified electrician. Earthing is obligatory.



All electrical connections must be made by a qualified electrician and in accordance with local rules and regulations.



Residual current circuit breaker: 300 mA, Klasse B or B+

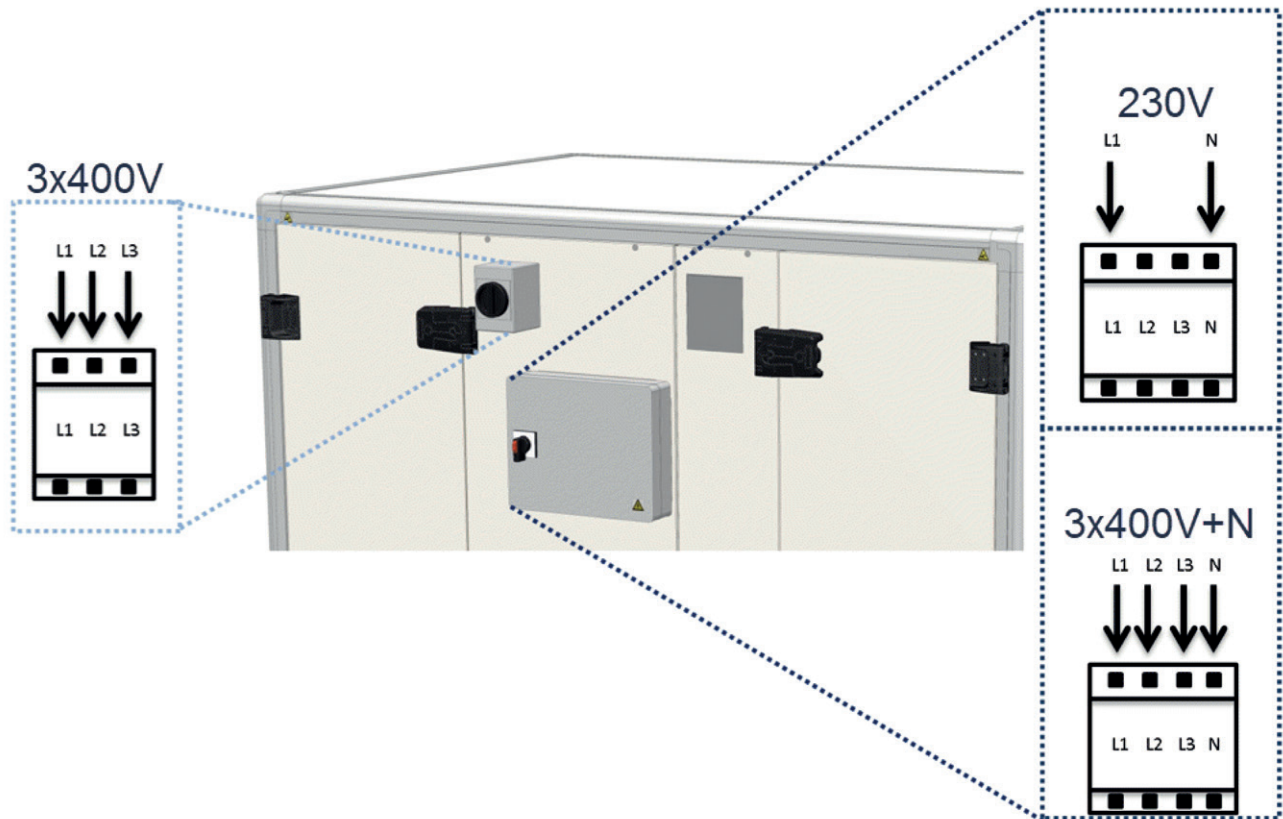


Fuse protection (D-type, "slow"; D-10.000 A – AC3

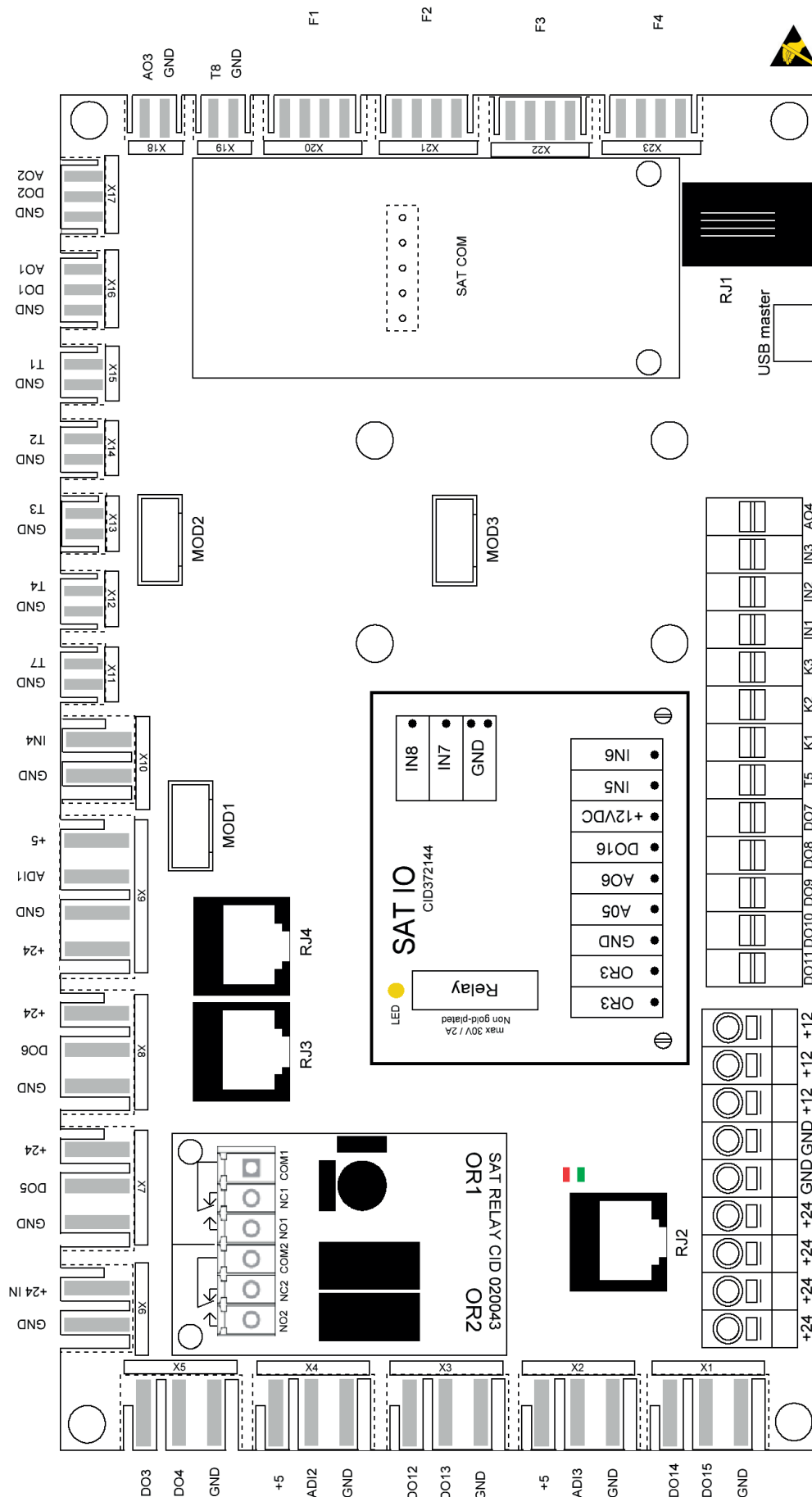


Please refer to our selection software for more detailed information of any specific lay-out or configuration.

All internal components (fans, controls, sensors, actuators...) to the control board are pre-wired at the factory. The power supply must be connected to the safety isolating switch by a qualified electrician. Earthing is obligatory according EN61557. The fuses are of D-type.



Main control board TAC6 DG



Legend for main control board TAC6 DG

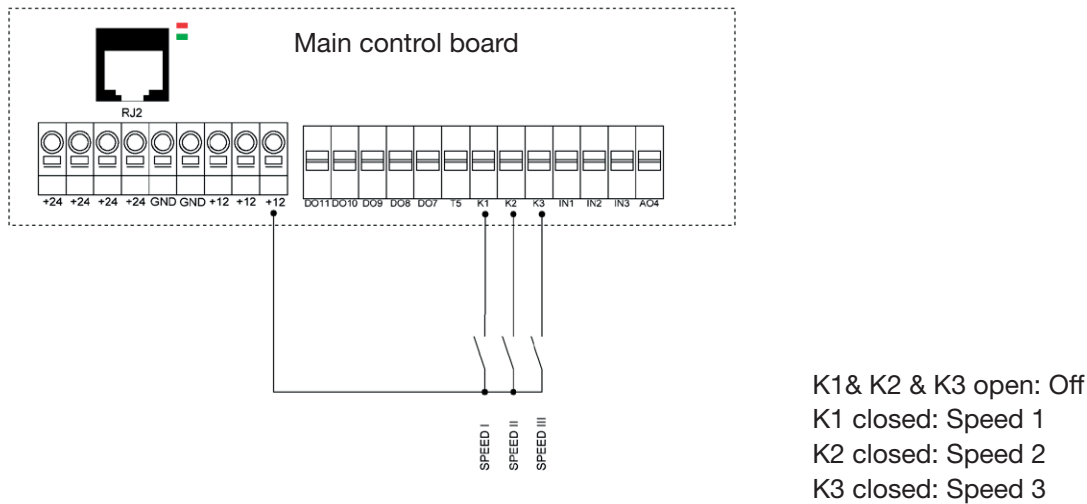
AO1 = output 0-10V for external hydraulic postheater (option)	T1 = Afrom outdoors T° sensor (prewired)
DO1 = KWout = output PWM for KWout power regulation (option - prewired)	T2 = from indoors T° sensor (prewired)
DO2 = KWin- PX: output PWM for KWin power regulation (option - prewired) RX SPEED PWM - RX (prewired)	T3 = to outdoors T° sensor (prewired)
AO2 = RX SPEED 0-10V - RX (option)	T5 = Ssupply T° sensor for IBA/KWout coil (option)
AO3 = 00-10 V output to control cooling capacity	T7 = NV/IBA/EBA anti freeze protection T° sensor (option - prewired for IBA)
AO4 = output 0-10V for internal hydraulic postheater (option - prewired)	T8 = Cooling coil frost protection sensor
DO3 = BYPASS OPEN- PX (with rotary actuator) (prewired)	IN1 = FIRE ALARM
DO4 = BYPASS CLOSE - PX (with rotary actuator) (prewired)	IN2 = BOOST
DO5 = DAMPER 1 (with or without spring return, I _{max} = 0.5A DC) (option - prewired)	IN3 = BYPASS ACTIVATION OVERRIDE
DO6 = DAMPER 2 (with or without spring return, I _{max} = 0.5A DC) (option - prewired)	IN4 = Drain pan full contact (only for LP/OUT Unit - prewired)
DO7 = HEAT OUTPUT (open collector; V _{max} =24 VDC; I _{max} =0,1 A)	K1: Airflow MODE = m³/h K1
DO8 = COOL OUTPUT (open collector; V _{max} =24 VDC; I _{max} =0,1 A)	Demand/Pressure control = START/STOP
DO9 = ALARM OUTPUT (open collector; V _{max} =24 VDC; I _{max} =0,1 A)	Torque MODE = %torque K1
DO10 = AL dPA OUTPUT (open collector; V _{max} =24 VDC; I _{max} =0,1 A)	K2: Airflow control = m³/h K2
DO11 = FAN ON OUTPUT (open collector; V _{max} =24 VDC; I _{max} =0,1 A)	Demand/Pressure control = 0-10V INPUT
ADI1 = BYPASS POS - PX RX SPEED FEEDBACK - RX (prewired)	Torque control = %torque K2
ADI2 = SUPPLY FILTER dPa	K3: Airflow control = m³/h K3
ADI3 = EXTRACT FILTER dPa	Demand/Pressure control = % BEI K3 oder 0-10-V-EINGANG
	Torque control = %torque K3
F1 = FAN 1 (SUPPLY)	RJ1 = RJ12 connector for Touchpanel TP Touch (option)
F3 = FAN 3 (EXHAUST)	RJ2 = RJ12 connector for Modbus Pressure CP mode (option)
	RJ3 = RJ12 connector for DDM-Set Modbus Pressure CA mode on supply flow (option - prewired)
SAT COM = SAT MODBUS or SAT KNX or SAT ETHERNET or SAT WIFI - (option)	RJ4 = RJ12 connector for DDM-Set Modbus Pressure CA mode on exhaust flow and defrost detecting (option - prewired)
SAT RELAY: only used for Reco-Boxx Flat, then premounted and prewired	
SAT RELAY OR1 – linear bypass actuator - forward	GREEN LED ON = POWERED ON
SAT RELAY OR2 – linear bypass actuator - backward	RED LED ON = ALARM
	+24 = +24V DC (min: +22V DC; max: +26V DC). 0,8 A max
	+12 = +12V DC (min: +11,49V DC; max: +12,81V DC). 0,3 A max

7.0 Test start

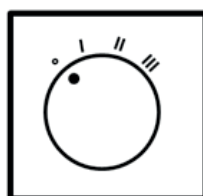
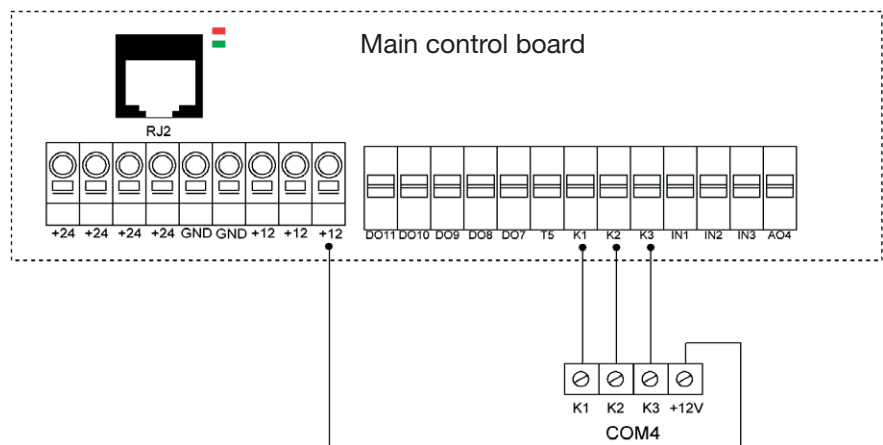
Reco-Boxx-air handling unit

Quick test start on site with factory settings (not yet commissioned). This is designed to make an initial functional test.

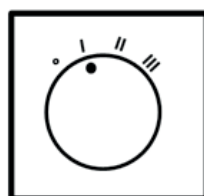
A complete Set-up must be performed afterwards. Accessories are preconfigured with standard settings as listed in the Operation and Maintenance Manual downloadable on our website.



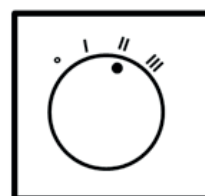
7.1 Test start with position switch (COM4)



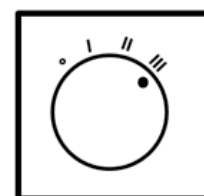
OFF



Speed 1



Speed 2



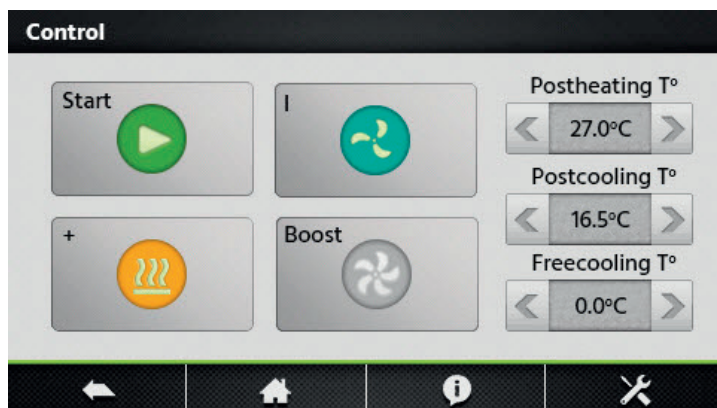
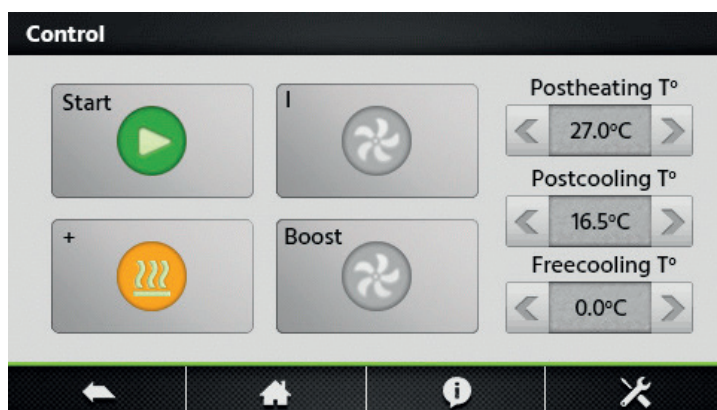
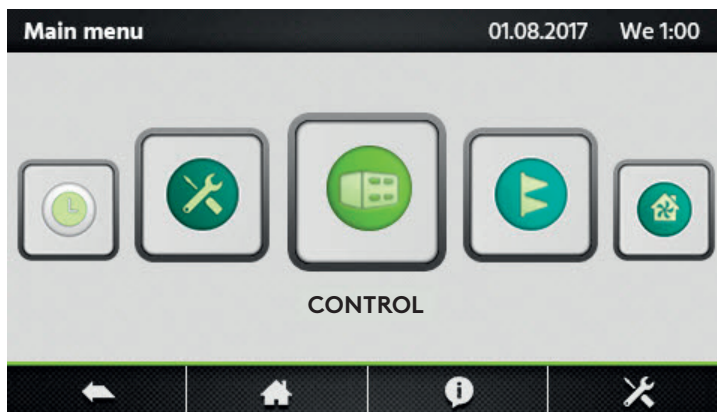
Speed 3

7.2 Test start with Touchpanel TP-Touch

At the first start up, the basic setup menu will be activated automatically for the commissioning, with also advanced parameter for master selection “contacts K1-K2-K3 master” which must be set to NO.

After the commissioning, this parameter is still available in menu Settings/Advanced Settings.

Main menu: Control



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