

USER'S MANUAL

DVUT 300 PB EC V.2
DVUT 300 PBE EC V.2
DVUT 300 PBE2 EC V.2
DVUT 300 P1B EC V.2
DVUT 300 P1BE EC V.2
DVUT 300 P1BE2 EC V.2

DVUT 500 PB EC V.2
DVUT 500 PBE EC V.2
DVUT 500 PBE2 EC V.2
DVUT 500 P1B EC V.2
DVUT 500 P1BE EC V.2
DVUT 500 P1BE2 EC V.2

DVUT 800 PB EC V.2
DVUT 800 PBE EC V.2
DVUT 800 PBE2 EC V.2
DVUT 800 P1B EC V.2
DVUT 800 P1BE EC V.2
DVUT 800 PBE2 EC V.2



Single-room air handling unit

CONTENTS

Safety requirements.....	2
Purpose.....	4
Delivery set.....	4
Designation key.....	4
Technical data.....	5
Design and operating principle	8
Mounting and set-up.....	11
Connection to power mains	17
Technical maintenance.....	19
Troubleshooting.....	21
Storage and transportation regulations.....	21
Manufacturer's warranty	22
Certificate of acceptance.....	23
Seller information	23
Installation certificate.....	23
Warranty card.....	23

This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the DVUT P(1)B EC V.2 unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

SAFETY REQUIREMENTS

This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety. Children should be supervised to ensure that they do not play with the unit.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Cleaning and user maintenance shall not be done by children without supervision. Children shall not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a safety hazard.

Ensure that the unit is switched off from the supply mains before removing the guard.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

The appliance may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of the unit the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.

All operations described in this manual must be performed by qualified personnel only, properly trained and qualified to install, make electrical connections and maintain ventilation units.

Do not attempt to install the product, connect it to the mains, or perform maintenance yourself. This is unsafe and impossible without special knowledge.

Disconnect the power supply prior to any operations with the unit.

All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.

Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.

Connection of the unit to power mains is allowed by a qualified electrician with a work permit for the electric units up to 1000 V after careful reading of the present user's manual.

Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.

While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.

Misuse of the unit and any unauthorised modifications are not allowed.

Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.

Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.

Do not close or block the intake or extract vents in order to ensure the efficient air flow.

Do not sit on the unit and do not put objects on it.

The information in this user's manual was correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

Never touch the unit with wet or damp hands.

Never touch the unit when barefoot.

Do not install or use the product until all construction and finishing work has been completed in the room where it is to be installed.

BEFORE INSTALLING ADDITIONAL EXTERNAL DEVICES, READ THE RELEVANT USER MANUALS.



THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.

DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE

PURPOSE

The unit is designed to ensure continuous mechanical air exchange in houses, offices, hotels, cafes, conference halls, and other utility and public spaces as well as to recover the heat energy contained in the air extracted from the premises to warm up the filtered stream of intake air.

The unit is not intended for organizing ventilation in swimming pools, saunas, greenhouses, summer gardens, and other spaces with high humidity.

Due to the ability to save heating energy by means of energy recovery, the unit is an important element of energy-efficient premises.

The unit is a component part and is not designed for stand-alone operation. It is rated for continuous operation.

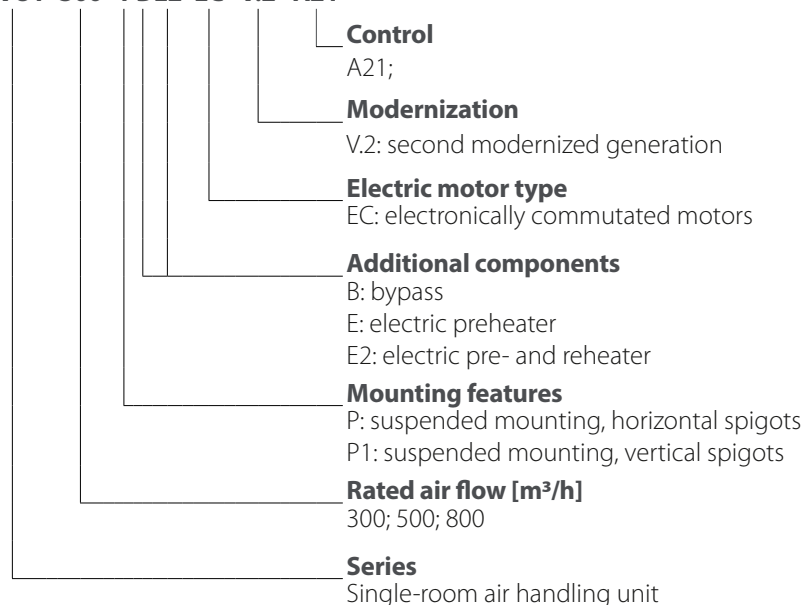
Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

DELIVERY SET

NAME	NUMBER	
	DVUT 300/500	DVUT 800
Air handling unit	1 pc.	1 pc.
User's manual	1 pc.	1 pc.
Key to a service panel	1 pc.	1 pc.
Mounting bracket	4 pc.	6 pc.
Mounting template	1 pc.	1 pc.
Packing box	1 pc.	1 pc.

DESIGNATION KEY

Designation key example: **DVUT 300 PBE2 EC V.2 A21**



TECHNICAL DATA

The unit is designed for indoor application with the ambient temperature ranging from +1 °C up to +40 °C and relative humidity up to 60 % without condensation. In cold, damp rooms, there is a possibility of freezing or condensation inside and outside the casing. In order to prevent condensation on the internal walls of the unit, it is necessary that the surface temperature of the casing is 2-3 °C above the dew point temperature of the transported air.

The unit should be operated continuously, and in cases where ventilation is not necessary, reduce the air flow of the fans to a minimum (20%). This will ensure a favorable indoor climate and reduce the amount of condensation inside the unit, which can damage electronic components. Never use the unit for dehumidification, for example, of new buildings.

The unit is rated as a Class I electrical appliance.

Hazardous parts access and water ingress protection rating:

- IP20 for the unit connected to the air ducts;
- IP44 for the unit motors.

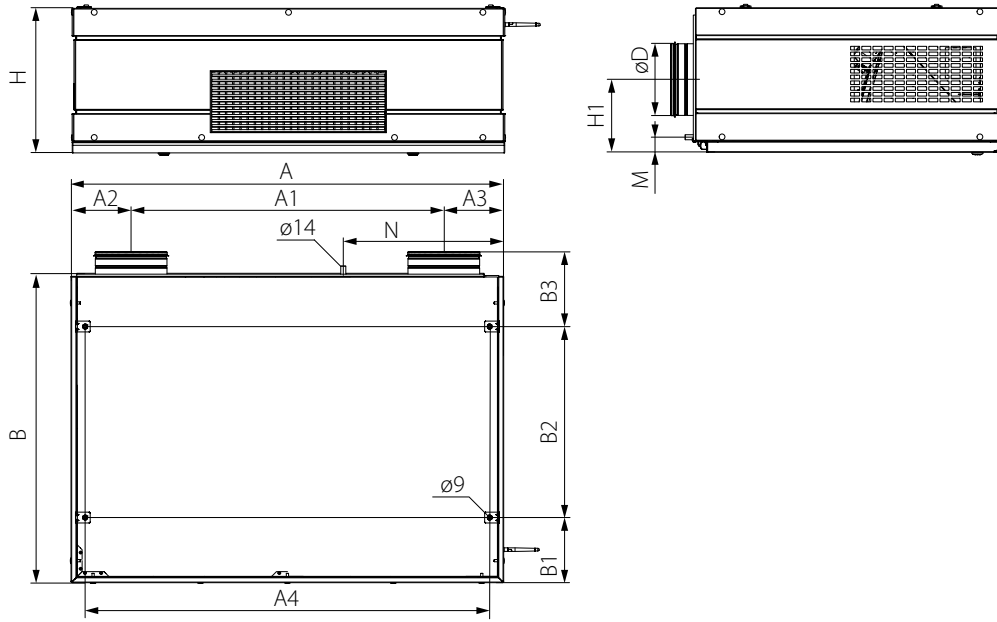
The unit design is constantly being improved, thus some models may be slightly different from those described in this manual.

Parameter	DVUT 300 PB ECV.2			DVUT 500 PB ECV.2			DVUT 800 PB ECV.2								
	DVUT 300 P1B ECV.2	DVUT 300 PBE ECV.2	DVUT 300 P1BE ECV.2	DVUT 500 P1B ECV.2	DVUT 500 PBE ECV.2	DVUT 500 P1BE ECV.2	DVUT 800 P1B ECV.2	DVUT 800 PBE ECV.2	DVUT 800 P1BE ECV.2						
Power supply voltage, 50(60) Hz [V]	1~230			1~230			1~230								
Maximum unit power without electric heater [W]	204			238			346								
Preheater power [W]	-	1050		-	1050		-	1400							
Reheater power [W]	-	-	700	-	-	700	-	-	1050						
Max. unit current without electric heater [A]	1.5			1.7			2.4								
Max. unit current with electric heater [A]	-	7.7	11.7	-	9.3	12.6	-	6.2	8.7						
Rated air flow [m³/h]	300			510			600								
Rated power consumption without electric heater [W]	97			143											
Rated current without electric heater [A]	0.8			1.1											
Sound pressure level at 1 m distance* [dBA]	44			44			27	27	30						
Sound pressure level at 3 m distance* [dBA]	34			34			27	27	30						
Transported air temperature [°C]	-25...+40			-25...+40			-25...+40								
Casing material	Painted steel			Painted steel			Painted steel								
Insulation	25 mm, synthetic rubber			25 mm, synthetic rubber			40 mm, mineral wool	20 mm, mineral wool	20 mm, mineral wool						
Extract air filter	ISO Coarse >60% (G4)			ISO Coarse >60% (G4)			G4								
Supply air filter	ISO ePM1 70% (F7)			ISO ePM1 70% (F7)			F7								
Connected duct diameter [mm]	200			250			315								
Weight [kg]	78	119	79	121	80	123	126	163	128	165	130	167	194.5	195.5	196.5
Heat recovery efficiency [%]	83...92			83...96			72...90	69...87	78...90						
Heat exchanger type	Counter-flow			Counter-flow			Counter-flow								
Heat exchanger material	Polystyrene			Polystyrene			Polystyrene								
SEC class	A+	A+	A+	A+	A+	A+	A	A	A						

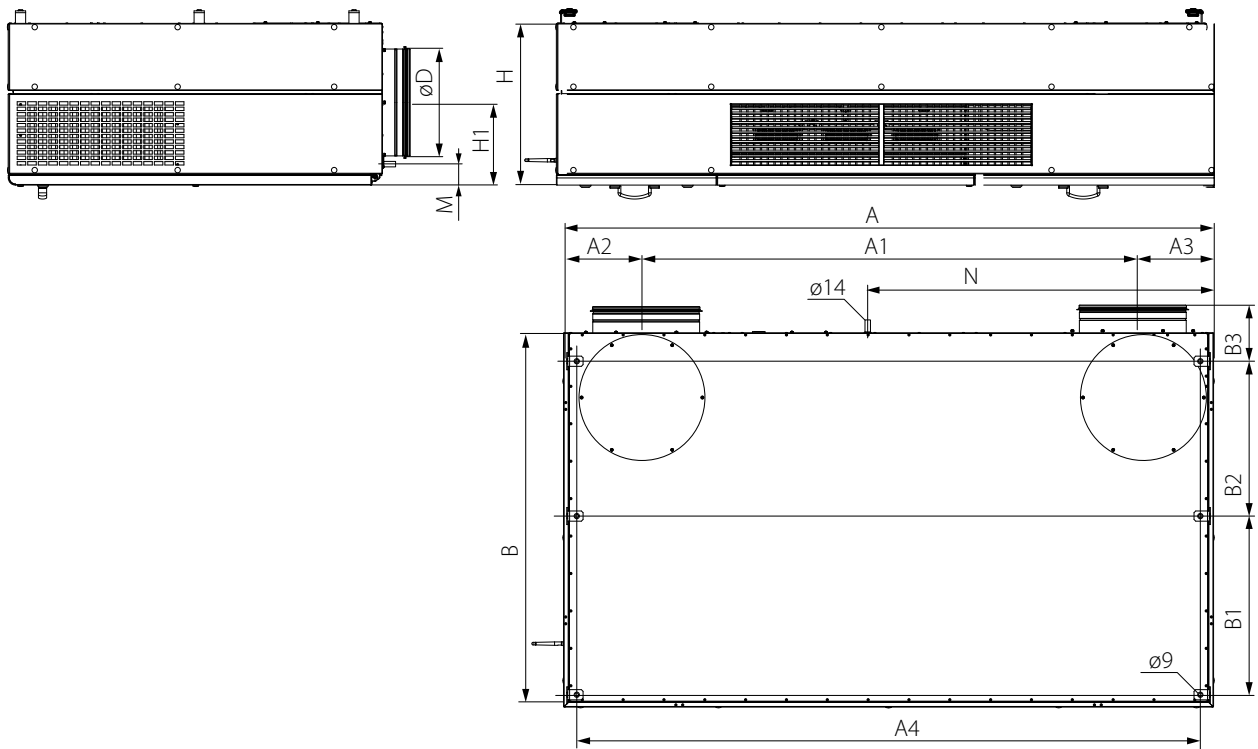
*Sound pressure level: dB(A) figures are average spherical free-field, at 70% airflow and 50 Pa, for comparative use only.

Unit with horizontal spigots (P)

DVUT 300/500 (P)

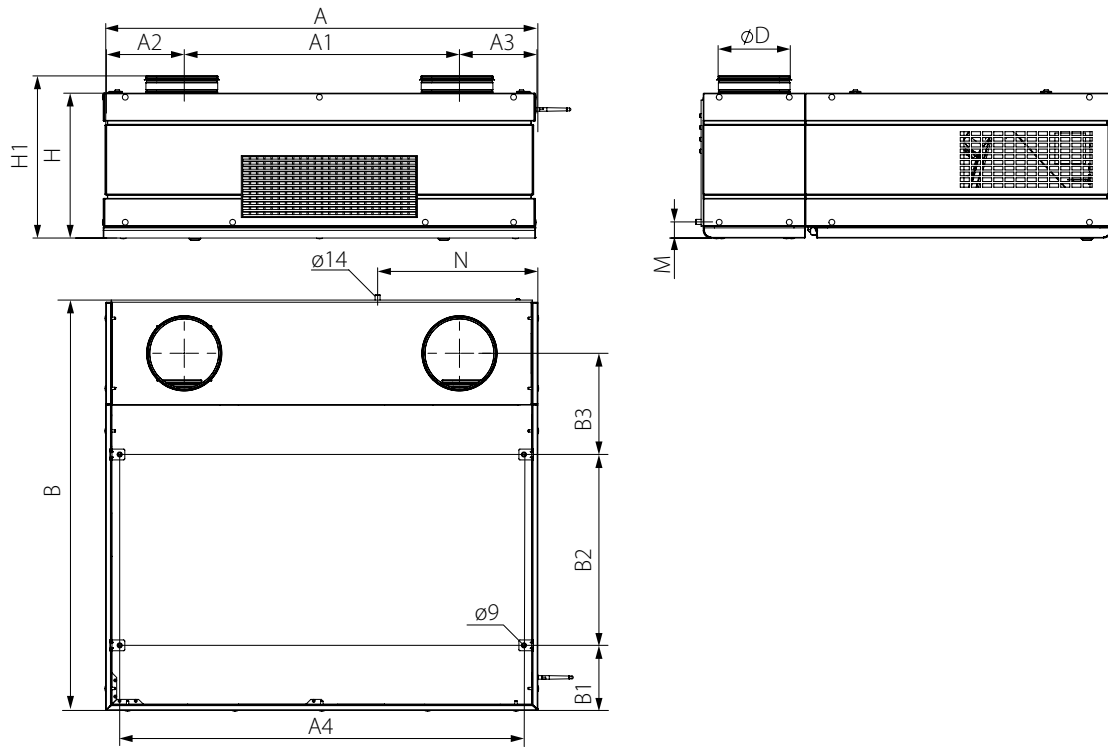


DVUT 800 (P)

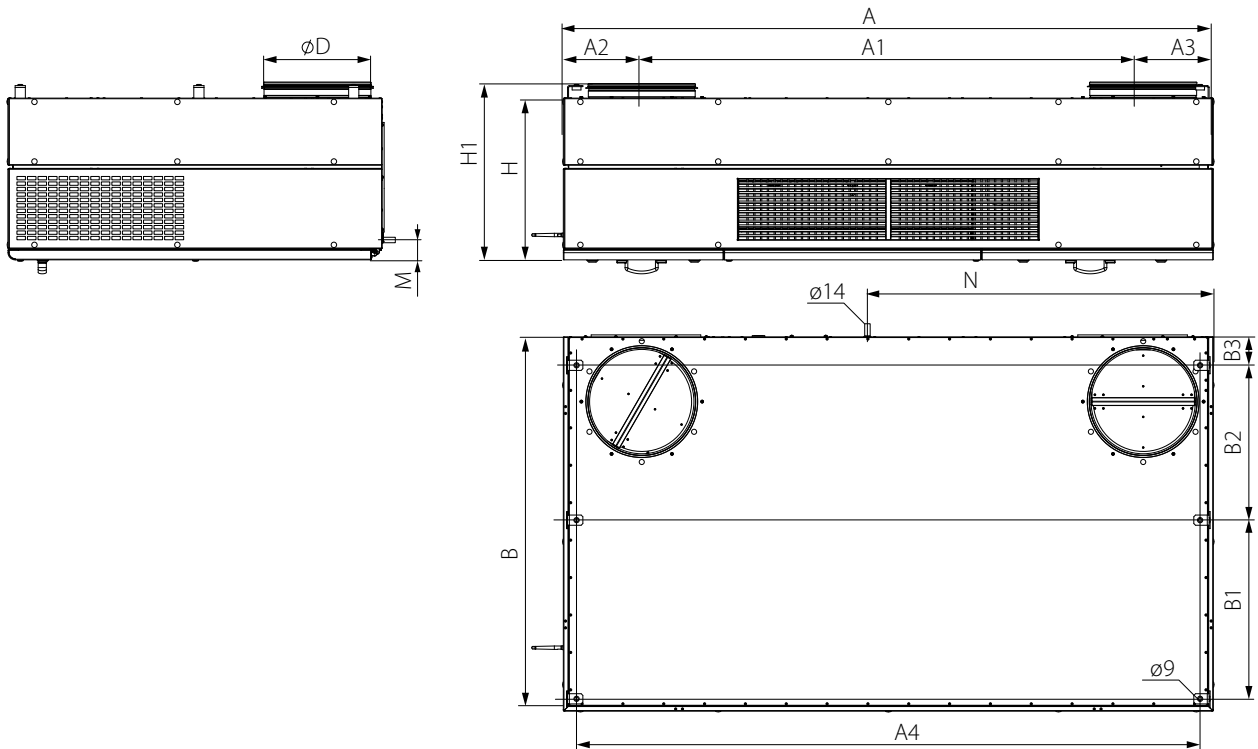


Unit with horizontal spigots (P1)

DVUT 300/500 (P1)



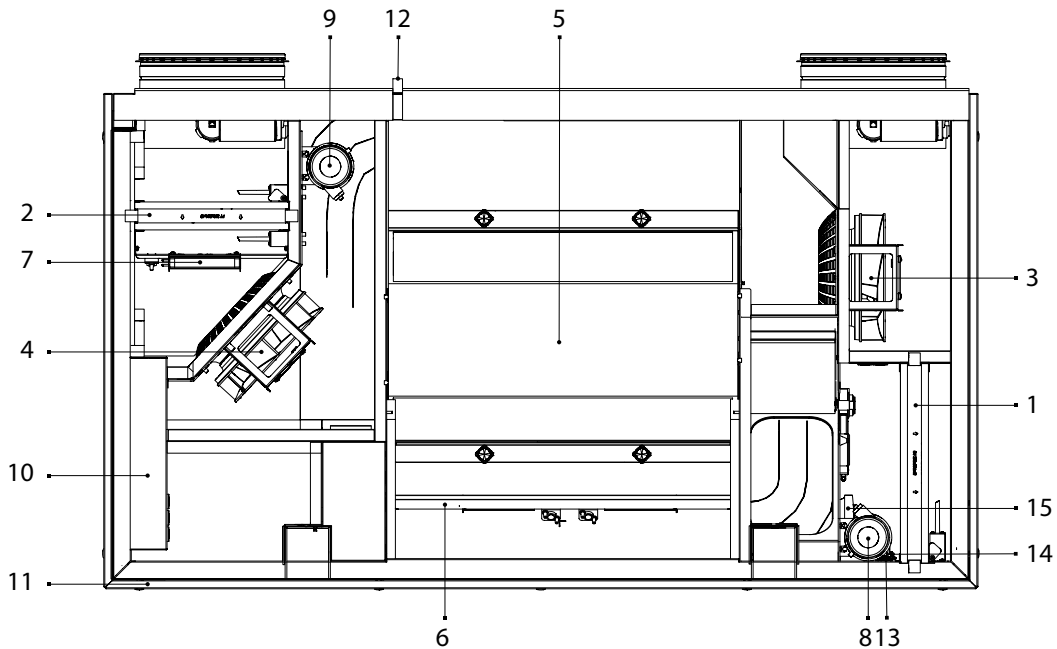
DVUT 800 (P1)



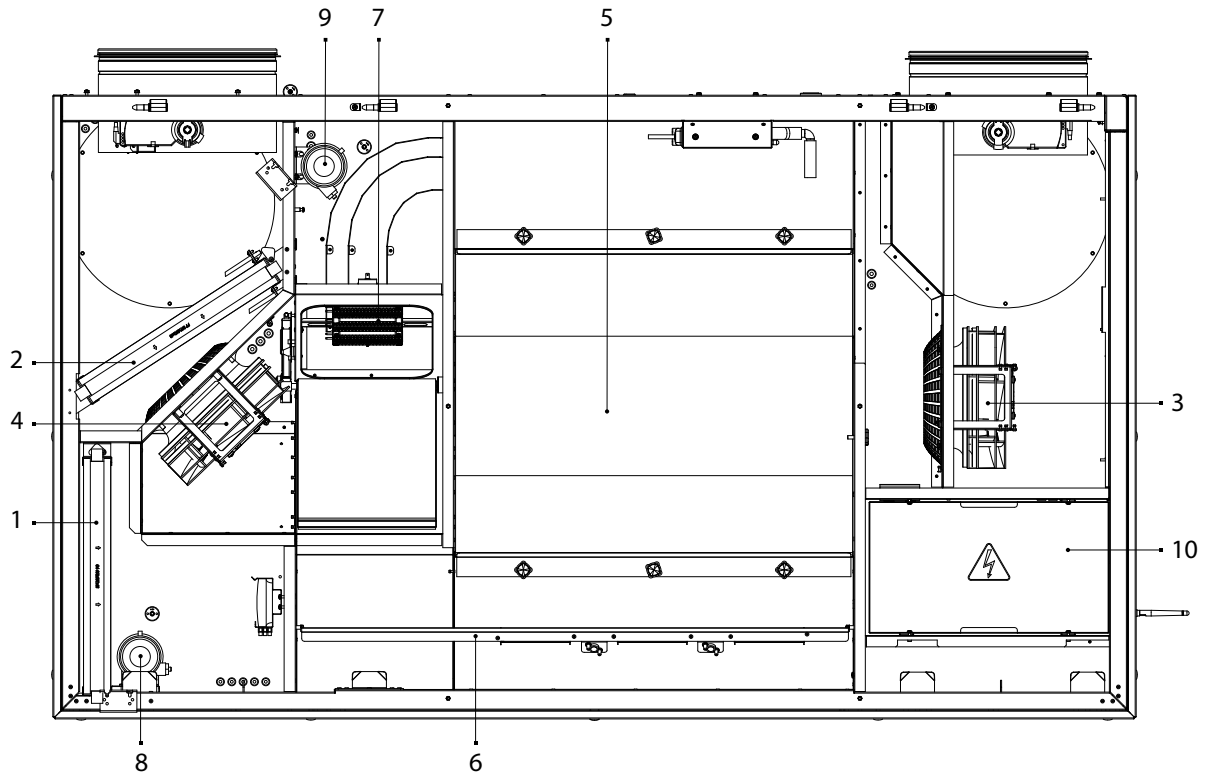
Model	Dimensions [mm]																							
	D	A	A1	A2	A3	A4	B	B1	B2	B3	H	H1	N	M										
DVUT 300 PB EC V.2	200	1200	867	166	166	1122	850	181	530	207	402	202	445	41										
DVUT 300 PBE EC V.2			764	218	218		1139			281		450	445	45										
DVUT 300 PBE2 EC V.2			250	1500	1135	186	186			1422		850	181	530	207	458	221	504	41					
DVUT 300 P1B EC V.2					964	268	268					1186			304		509	504	45					
DVUT 300 P1BE EC V.2					315	1910	1430			243		237			1832		1100	525	455	163	477	245	1337	71
DVUT 300 P1BE2 EC V.2							1474			230		206					1100			163		245	1337	71
DVUT 500 PB EC V.2	200	1200	867	166	166	1122	850	181	530	207	402	202	445	41										
DVUT 500 PBE EC V.2			764	218	218		1139			281		450	445	45										
DVUT 500 PBE2 EC V.2			250	1500	1135	186	186			1422		850	181	530	207	458	221	504	41					
DVUT 500 P1B EC V.2					964	268	268					1186			304		509	504	45					
DVUT 500 P1BE EC V.2					315	1910	1430			243		237			1832		1100	525	455	163	477	245	1337	71
DVUT 500 P1BE2 EC V.2							1474			230		206					1100			163		245	1337	71
DVUT 800 PB EC V.2	200	1200	867	166	166	1122	850	181	530	207	402	202	445	41										
DVUT 800 PBE EC V.2			764	218	218		1139			281		450	445	45										
DVUT 800 PBE2 EC V.2			250	1500	1135	186	186			1422		850	181	530	207	458	221	504	41					
DVUT 800 P1B EC V.2					964	268	268					1186			304		509	504	45					
DVUT 800 P1BE EC V.2					315	1910	1430			243		237			1832		1100	525	455	163	477	245	1337	71
DVUT 800 P1BE2 EC V.2							1474			230		206					1100			163		245	1337	71

DESIGN AND OPERATING PRINCIPLE

DVUT 300/500



DVUT 800



	DVUT P(1)BE CV.2	DVUT P(1)BE CV.2	DVUT P(1)BE2 CV.2
1 Exhaust air filter	■	■	■
2 Supply air filter	■	■	■
3 Extract fan	■	■	■
4 Supply fan	■	■	■
5 Heat exchanger	■	■	■
6 Supply air electric reheater			■
7 Supply air electric preheater		■	■
8 Pressure switch for extract filter contamination control	■	■	■
9 Pressure switch for supply filter contamination control	■	■	■
10 Control unit	■	■	■
11 Decorative panels	■	■	■
12 Drain pipe	■	■	■
13 CO ₂ sensor (not included in the delivery set)	■	■	■
14 HV-2 humidity sensor (not included in the delivery set)	■	■	■
15 VOC sensor (not included in the delivery set)	■	■	■

Warm extract air from the room flows into the unit and is cleaned in the extract filter. Then the air is moved through the heat exchanger and is exhausted outside with the extract fan.

Cold fresh air from outside flows through the air duct into the unit, where it is cleaned by the supply filter.

Then the air flows through the heat exchanger and is moved to the room by the supply fan.

Supply air is heated in the heat exchanger due to transfer of the heat energy of warm and humid extract air to the cold fresh air.

The air streams remain separated in the heat exchanger.

Heat recovery minimizes heat losses, which reduces costs for space heating in the cold season.

If the outside temperature drops down below -3 °C, the heat exchanger may freeze.

A freezing danger appears if the exhaust air temperature downstream of the heat exchanger is below +5 °C and the intake air temperature upstream of the heat exchanger is below -3 °C for units with air preheating and when the exhaust air temperature downstream of the heat exchanger is below +3 °C for units without preheating.

After increase of the exhaust air temperature the unit reverts to the previous operation mode.

Frost protection of the heat exchanger

- By reducing the speed (stopping) of the supply fan.
- Via a bypass duct with a bypass damper.
- By automatically switching on the electric supply air preheater.

When using a bypass duct, part of the cold air, bypassing the heat exchanger, enters the room, while the degree of heat recovery decreases.

When the speed of the supply fan decreases, the air exchange in the room is unbalanced, up to a lack of air exchange.

The use of an integrated preheater ensures a constant temperature and volume of the supply air at low ambient temperatures.

In this case, heat recovery is maintained, and the energy expended during the operation of the preheater reduces the load on the space heating system.

Heaters

Depending on the model the unit includes a preheater and a reheater of supply air (DVUT P(1)BE2 EC) V.2 or only a preheater (DVUT P(1)BE EC) V.2.

The preheater prevents freezing of the heat exchanger and is located in the intake air duct before the heat exchanger.

The reheater is located in the supply air duct after the heat exchanger.

Condensate drainage

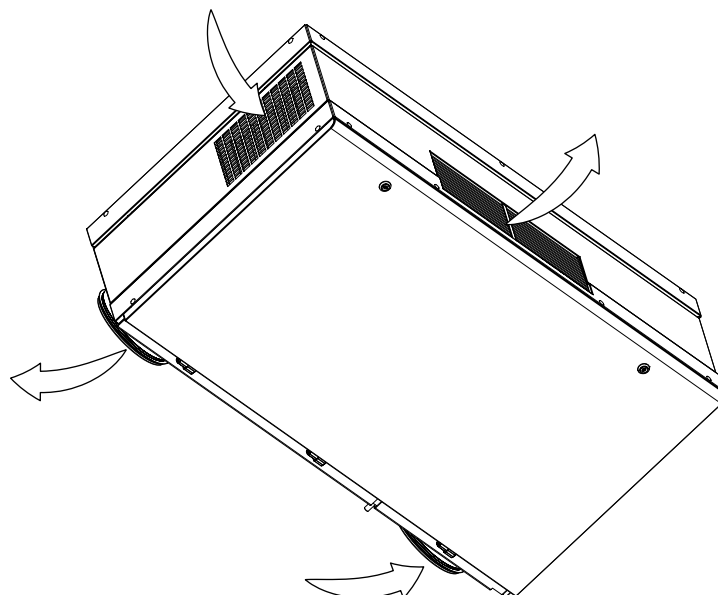
The difference between the supply and extract air flow temperature leads to condensate generation. Condensate is collected in the drain pan and is removed outside through the drain pipe.

Additional equipment

Additional equipment for the unit is available on a separate order.

- HV-2 humidity sensor;
- CO₂ sensor;
- VOC sensor.

The movement of air in the unit



MOUNTING AND SET-UP



BEFORE MOUNTING MAKE SURE THE CASING DOES NOT CONTAIN ANY FOREIGN OBJECTS (E.G. FOIL, PAPER).



WHILE INSTALLING THE UNIT ENSURE CONVENIENT ACCESS FOR SUBSEQUENT MAINTENANCE AND REPAIR



**THE UNIT MUST BE MOUNTED ON A PLANE SURFACE.
MOUNTING OF THE UNIT TO AN UNEVEN SURFACE CAN LEAD TO THE UNIT CASING DISTORTION AND OPERATION DISTURBANCE**

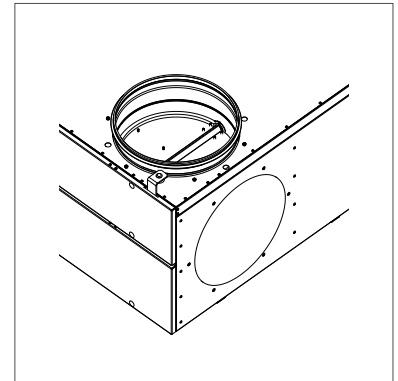
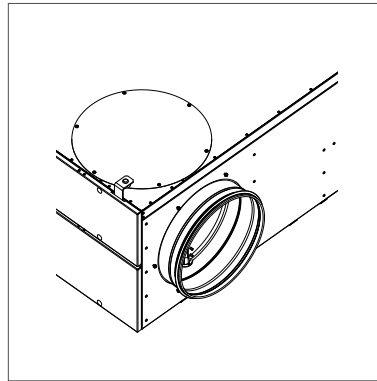
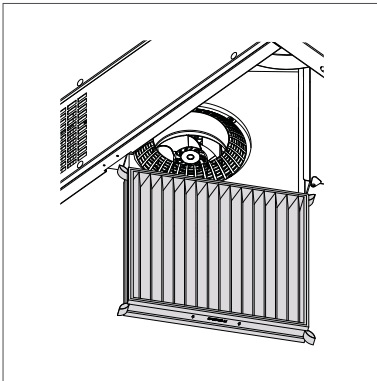
Before installing the DVUT 800 units, the direction of the air ducts can be changed if necessary.

To do this, use the key to open the door.

Release the supply air filter by turning the fasteners and pull on it toward yourself.

To change the direction of an air duct, remove the spigot with the drive, as well as the plug.

Then reinstall the spigot with the drive instead of the plug, and the plug instead of the spigot.



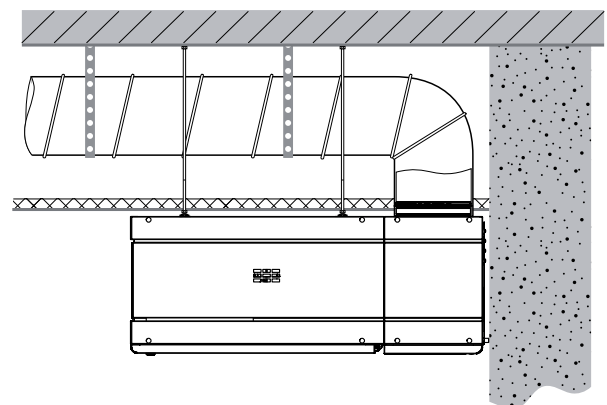
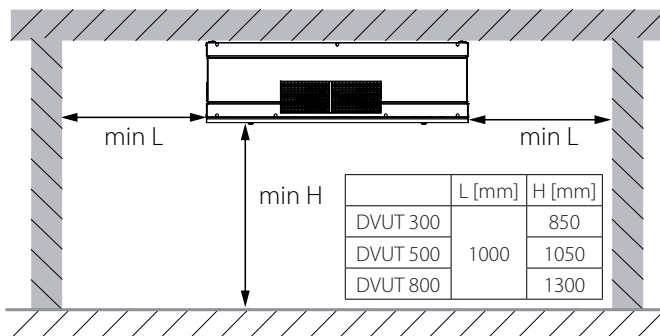
ATTENTION! Route the required wires and cables to the installation place prior to starting mounting.

Fasteners for the unit mounting are not included into delivery set and should be ordered separately.

While selecting appropriate fasteners consider the material of the mounting surface as well as the weight of the unit, refer technical data.

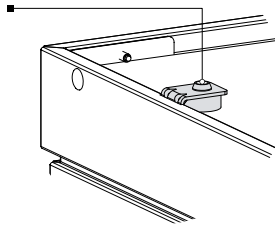
For selection of the fasteners please refer to a service technician.

The unit may be suspended on threaded rods or may be rigidly fixed to a horizontal surface by anchor bolts.

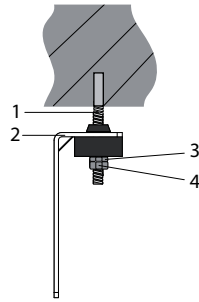


The unit is suspended using mounting bracket.

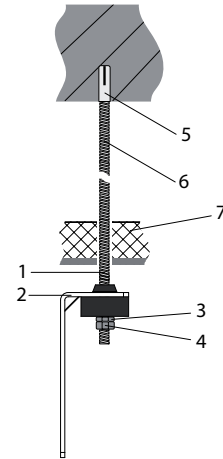
Opening for the unit mounting on the mounting surface



Fixing to the structural floor



Fixing through the suspended ceiling



1 - anchor screw; 2 - mounting bracket; 3 - nut; 4 - lock nut; 5 - anchor sleeve; 6 - threaded rod; 7 - suspended ceiling.

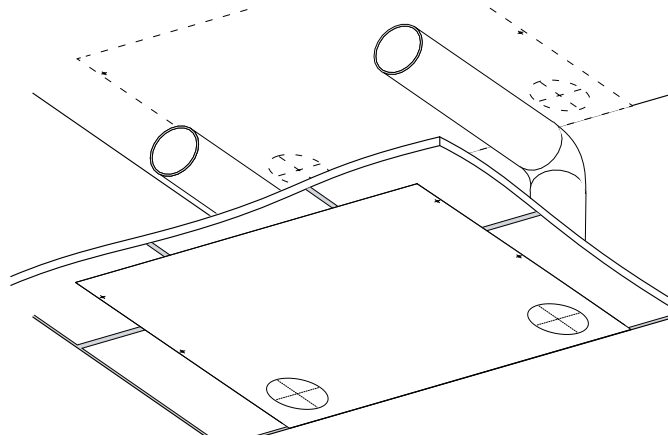
Always use two nuts!

To attain the best performance of the unit and to minimise turbulence-induced air pressure losses connect straight air duct sections to the unit spigots. The minimum straight air duct length is equal to 1 air duct diameter on intake side and 3 air duct diameters on outlet side. If there are no air ducts or the air ducts are short, it is necessary to protect internal unit parts from ingress of foreign objects at one or more unit spigots. To prevent uncontrollable access to the fan the spigots may be covered with a protecting grille or other protecting device with mesh width not more than 12.5 mm.

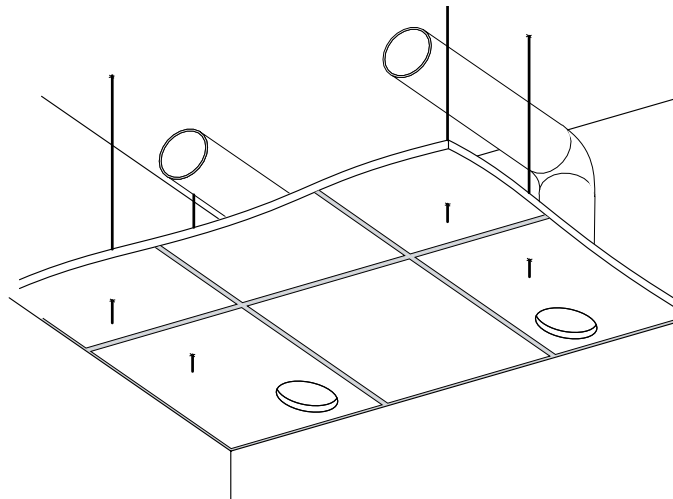
MOUNTING OF THE UNIT WITH VERTICAL SPIGOTS

(exemplified by DVUT 300/500)

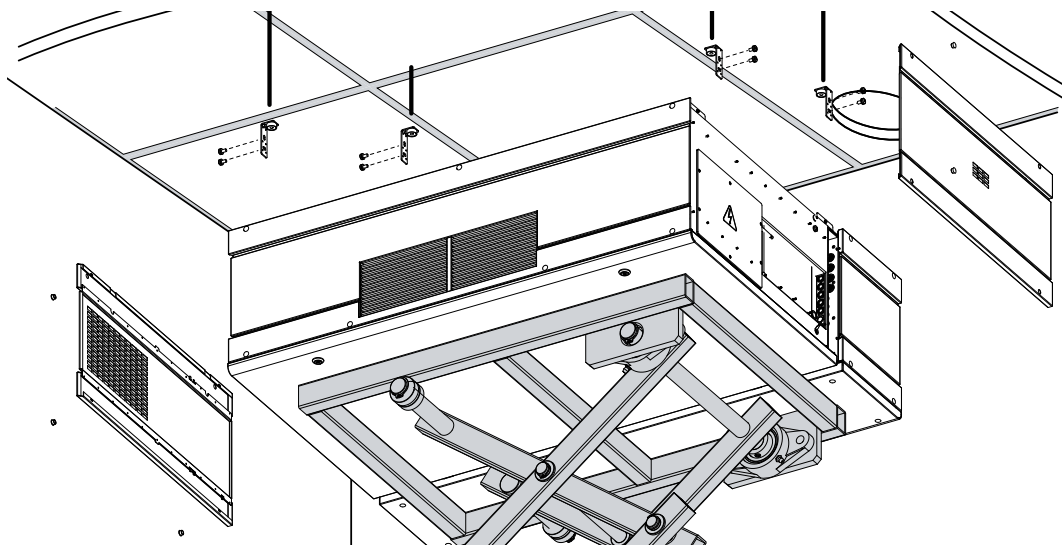
Using the mounting template mark the holes on the structural floor and suspended ceiling.



Prepare the holes for connecting air ducts \varnothing 220 mm (DVUT 300) or \varnothing 270 mm (DVUT 500).
Install threaded rods in the structural floor and make appropriate through-holes in the suspended ceiling.



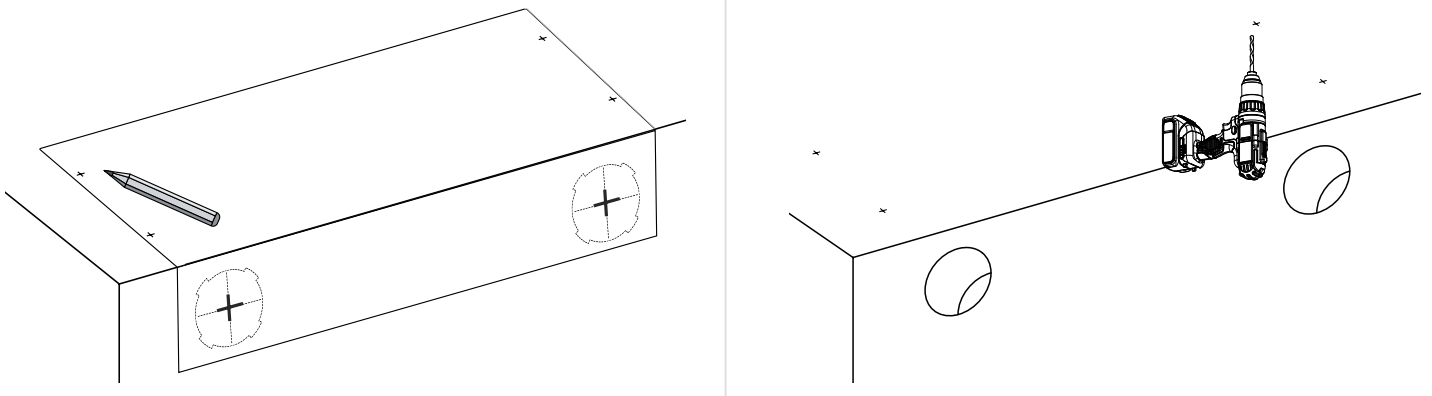
To access the mounting brackets, remove side decorative panels by removing the plugs.
Secure the unit with brackets while connecting the unit spigots to the air ducts.
Connect decorative panels and plugs.



MOUNTING OF THE UNIT WITH HORIZONTAL SPIGOTS

(exemplified by DVUT 300/500)

Mark the holes using the mounting template. Using the marking drill the holes for mounting and through-holes in the wall for installation of the air ducts \varnothing 230 mm (DVUT 300) or \varnothing 290 mm (DVUT 500) \varnothing 355 mm (DVUT 800).



Install the air ducts in the wall (purchased separately).

The air duct walls must be heat-insulated for freezing prevention.

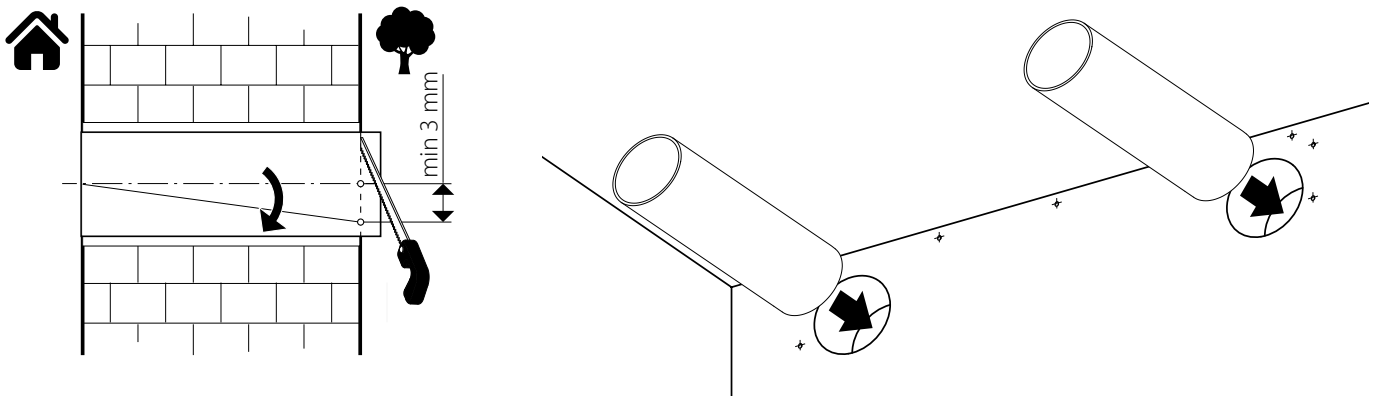
Insert the air ducts in the holes with the minimum slope of 3 mm downwards to the outside.

For installation use the supplied polystyrene wedges (purchased separately).

Cut the air ducts to be flush with the outer wall side to install ventilation grilles (purchased separately).

The air duct length may be adjusted before its installation in the wall and after completion of mounting.

In the first case the required air duct length must be calculated prior to installation and in the second case sufficient access to the outer wall must be provided for adjustment of the air duct length after it is installed and fixed.

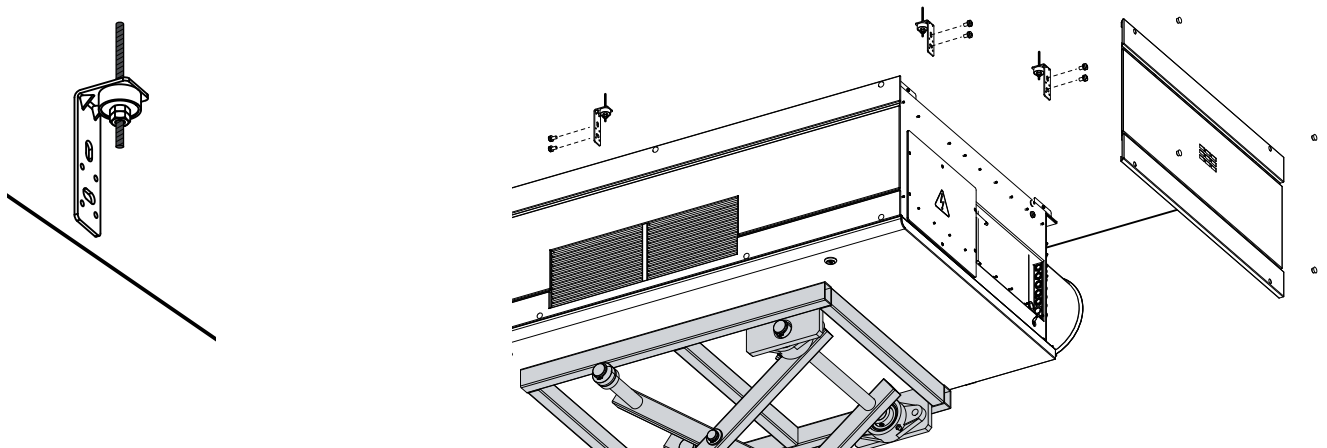


To access the mounting brackets, remove side decorative panels by removing the plugs.

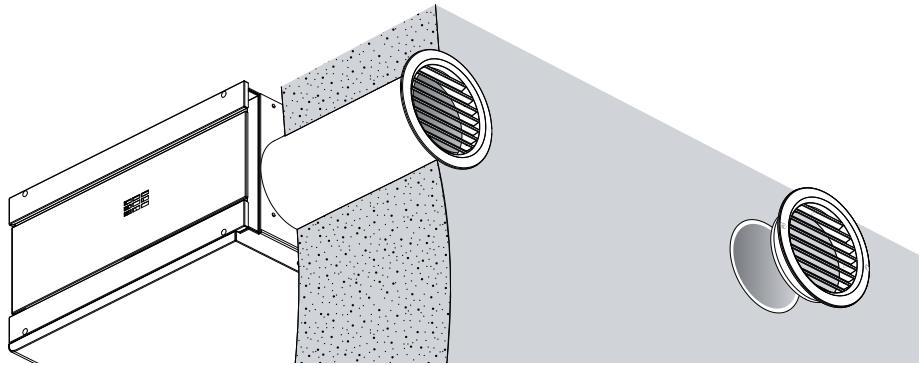
Install the brackets into the ceiling.

Connect the unit spigots to the air ducts in the wall and secure the unit using the brackets.

Connect decorative panels and plugs.

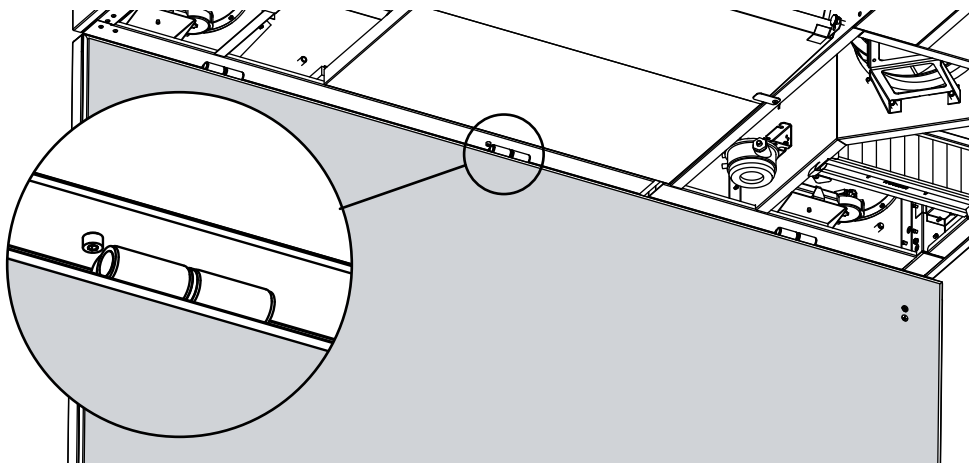


Secure external ventilation grilles to the outside wall of the building.
Grilles are not included in the delivery set, they are ordered separately.



REMOVING THE ACCESS DOORS

Access doors can be removed if required.
Prior to removing the doors, unscrew the locking screw and disconnect the locking cables.

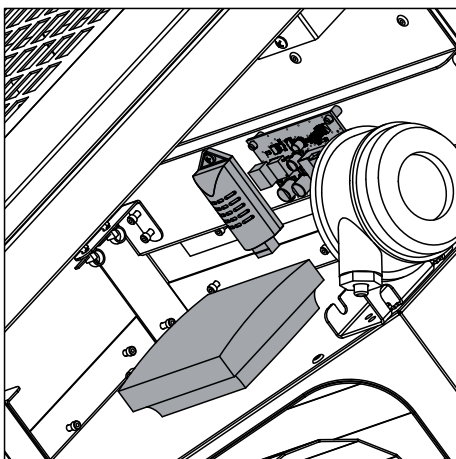


ATTENTION! Be sure to install the locking screw when hanging the door to prevent them from slipping.

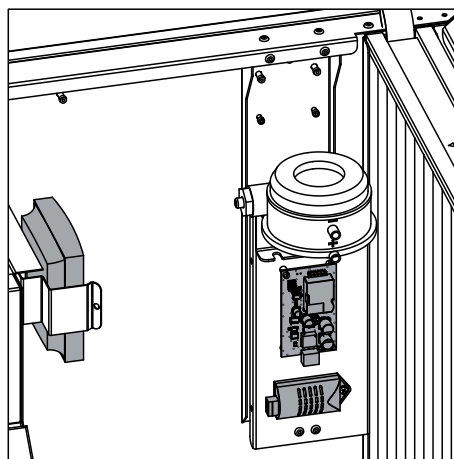
INSTALLATION AND CONNECTION OF HUMIDITY, CARBON DIOXIDE (CO₂-3) AND AIR QUALITY (VOC) SENSORS

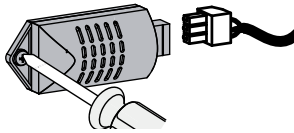
Sensors are not included in the delivery set, they are ordered separately.
Humidity, CO₂, VOC sensors should be installed on the exhaust air duct wall upstream the heat exchanger.

DVUT 300/500

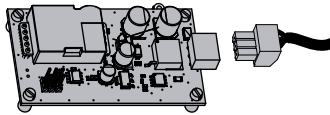


DVUT 800

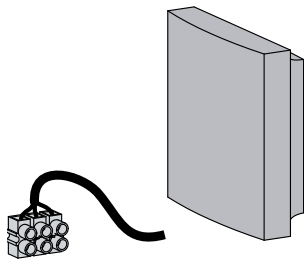




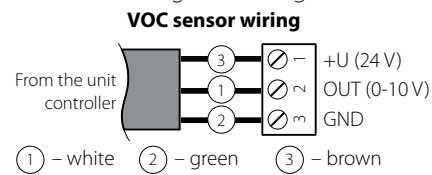
HV-2 humidity sensor is connected to the connector on the cable (installed by the manufacturer).



Install the CO2-3 sensor circuit board on the partition wall and connect the cable with the connector (installed by the manufacturer)



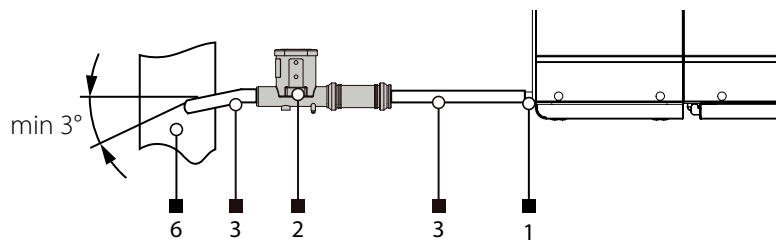
To install the VOC sensor, disassemble the sensor in accordance with the instructions supplied with it. Secure the sensor casing on the partition wall with screws. Connect the sensor according to the diagram below.



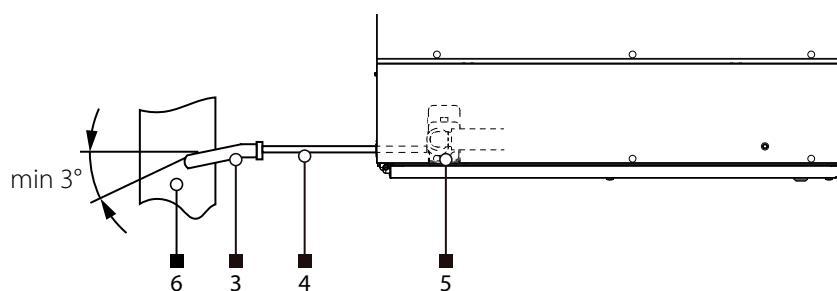
Assemble the sensor in the reverse order.

CONDENSATE DRAINAGE

The DVUT 300/500 is equipped with a drain pan to collect and remove condensate using a drain pipe.



For DVUT 800 units equipped with a drain pump, it is necessary to connect the flexible hose coming from the pump into the sewage system. The pump makes it possible to pump water out of the unit in a timely manner. Refer to the pump user manual for connection to the sewage system.



- 1 – drain pipe; (DVUT 300/500); 2 – siphon; 3 – connecting pipe; 4 – inner flexible hose (DVUT 800);
- 5 – drain pump (included in the DVUT 800 delivery set); 6 – sewage system

ATTENTION! Keep the minimum slope of 3° while mounting the pipes to provide correct water drainage.

Before starting operation of the unit make sure that the water flows freely into the sewage collection system, otherwise condensed water may build up in the unit during the heat exchanger operation, which may cause equipment failure and water ingress into the premises. The condensate drain system is designed for use in premises with ambient temperature above 0 °C!

If the expected air temperatures are below 0 °C, the condensate drainage system must be equipped with heat insulation and pre-heating facilities.

CONNECTION TO POWER MAINS



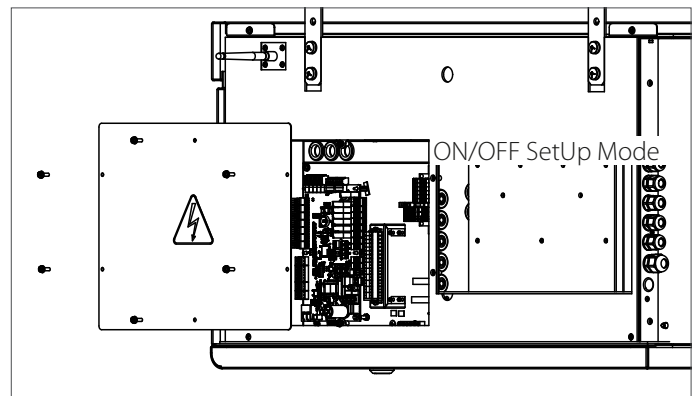
**POWER OFF THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
THE UNIT MUST BE CONNECTED TO POWER SUPPLY BY A QUALIFIED ELECTRICIAN.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE
MANUFACTURER'S LABEL.**

The unit is designed for connection to power mains with the parameters specified in the technical data table.

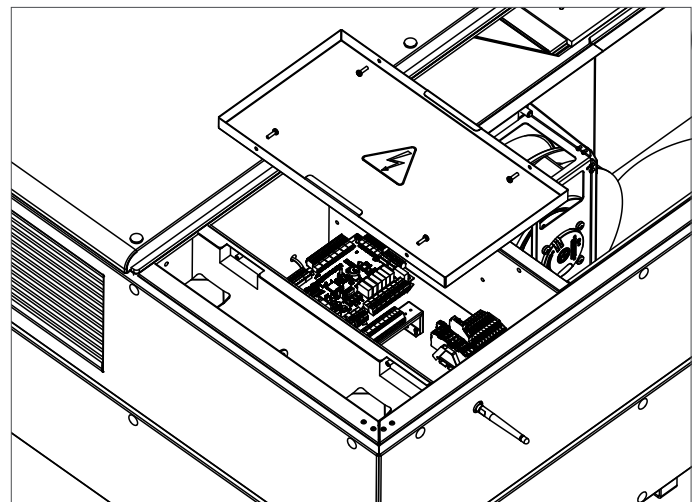
- The unit must be connected to power mains using insulated electric conductors (cables, wires). The actual wire cross section selection must be based on the maximum load current, maximum conductor temperature depending in the wire type, insulation, length and installation method.
- The external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the electric circuit in case of overload or short-circuit. The circuit breaker installation place must provide quick access for emergency shutdown of the unit. The trip current of the automatic circuit breaker must exceed the maximum current consumption of the unit (refer to the technical data table). The recommended trip current of the circuit breaker is the next current in the standard trip current row following the maximum current of the connected unit. The circuit breaker is not included in the delivery set.

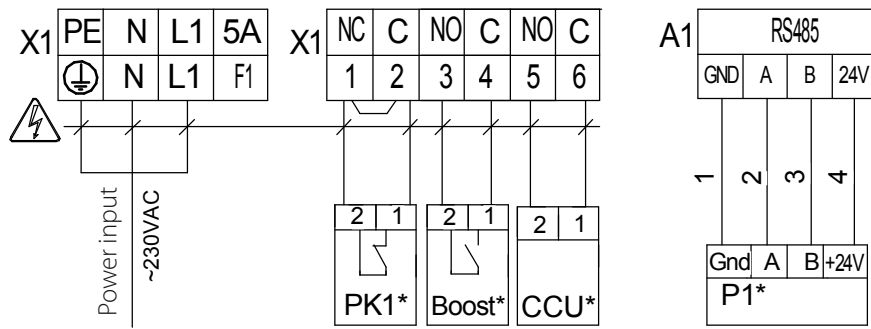
ADDITIONAL EXTERNAL CONTROL UNITS CONNECTION

To access the terminal block (DVUT 300/500), disconnect the side decorative panels, then remove the terminal box cover by unscrewing the screws.



To access the terminal block (DVUT 800), use the key to open the unit access door, then remove the terminal box cover by unscrewing the screws.



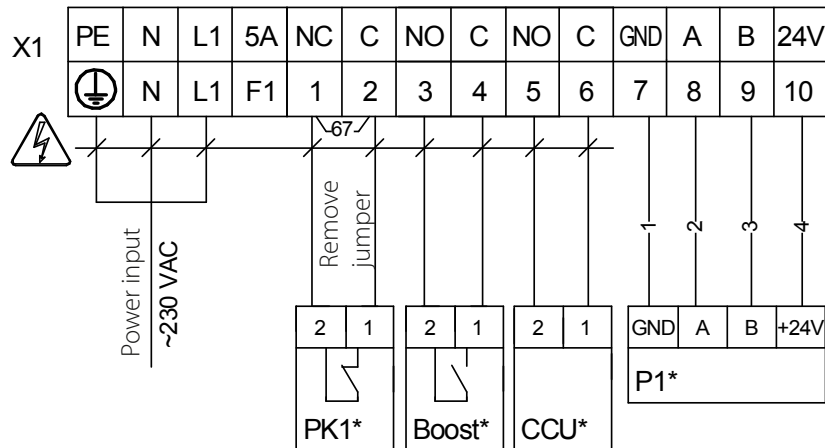
**External wiring diagram
DVUT 300/500**


Designations	Name	Cable type	Contact type	Note
PK1*	Fire alarm panel	2x0.75 mm ²	NC	Remove the jumper, ~250 AC
CCU*	Cooler control	2x0.75 mm ²	NO	3 A, 30 DC/~250 AC
P1*	External control panel	4x0.25 mm ²		
Boost*	Contact ON/OFF, Boost mode	2x0.75 mm ²	NO	~250 AC
F1	Fuse 5A			5x20, slow

*Additionally connected devices are not included in the delivery set, purchased separately.



— **ELECTRIC SHOCK HAZARD!**

**External wiring diagram
DVUT 800**


Designations	Name	Cable type	Contact type	Note
PK1*	Fire alarm panel	2x0.5 mm ²	NC	Remove the jumper 67, ~250 AC
CCU*	Cooler control	2x0.5 mm ²	NO	3 A, 30 DC/~250 AC
P1*	External control panel	4x0.5 mm ²		
Boost*	Contact ON/OFF, Boost mode	2x0.5 mm ²	NO	~250 AC
F1	Fuse 5A			5x20, slow

*Additionally connected devices are not included in the delivery set, purchased separately.



— **ELECTRIC SHOCK HAZARD!**

TECHNICAL MAINTENANCE



DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

MAKE SURE THE UNIT IS DISCONNECTED FROM POWER MAINS BEFORE REMOVING THE PROTECTION.

Maintenance operations of the unit are required 3-4 times per year. Maintenance includes general cleaning of the unit and the following operations:

1. Filter maintenance.

Clogged filters increase air resistance in the system and reduce supply air volume.

Clean the filters as required, but not less than 3-4 times per year.

Upon elapsing of 3000 operating hours the controller reminds about the need to replace or clean the filters. In this case clean or replace the filters and reset the filter timer.

Filter cleaning with a vacuum cleaner is allowed.

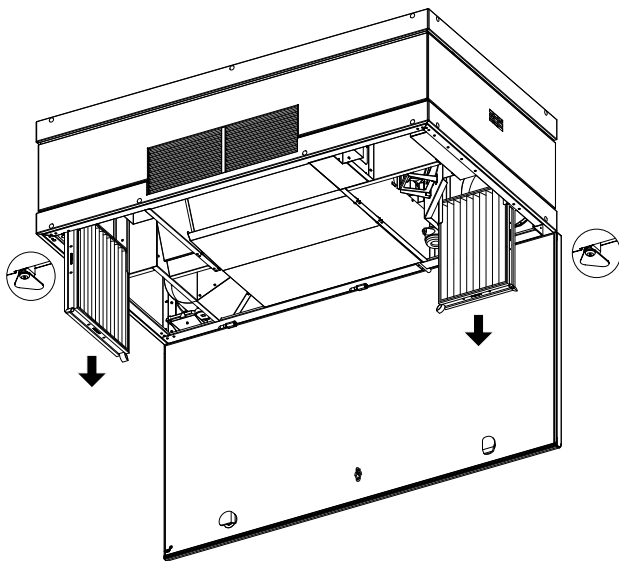
After two consecutive cleanings the filters must be replaced.

For new filters of the type stated in the technical data, please contact to the unit Seller.

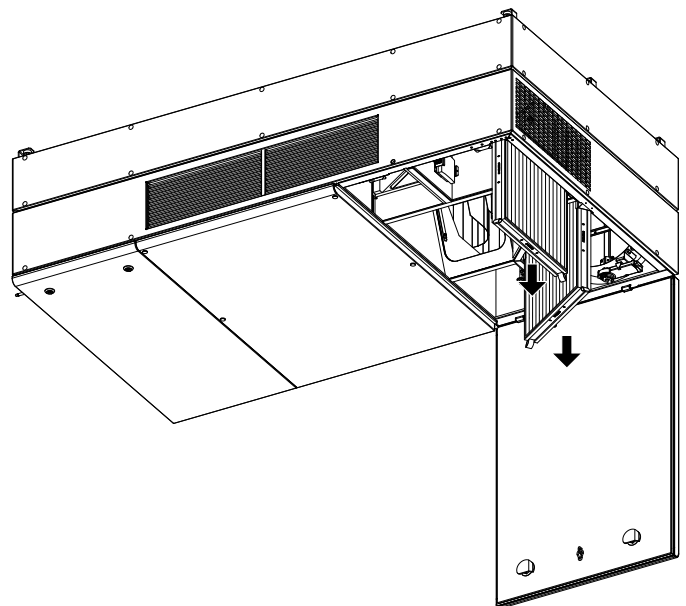
Steps for removal of the filters:

1. Disconnect the unit from power supply.
2. Open the service door using the key.
3. Turn the latches to release the filters.
4. Pull the filters to remove.
5. After completion of maintenance install the filters in the reverse order.

DVUT 300/500



DVUT 800



2. Heat exchanger maintenance (once per year).

Some dust may accumulate on the heat exchanger even in case of regular maintenance of the filters.

Regular cleaning of the heat exchanger is required to maintain high heat recovery efficiency.

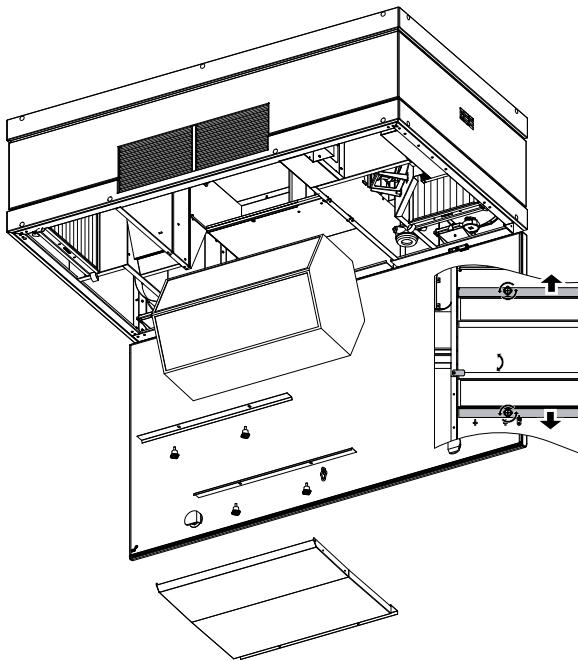
To clean the heat exchanger pull it out of the unit and clean it with compressed air or a vacuum cleaner.

After cleaning install the heat exchanger back in the unit.

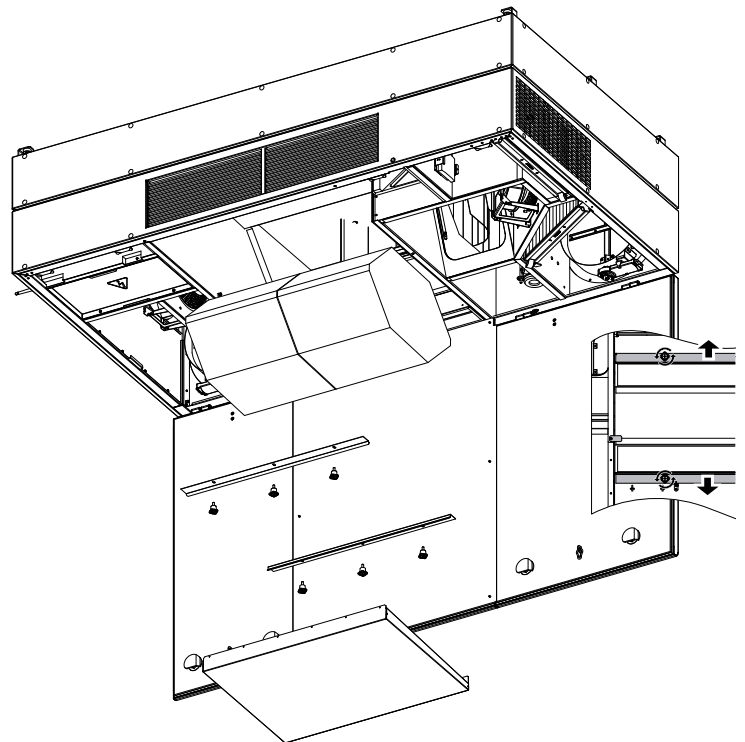
Steps for removal of the heat exchanger:

1. Disconnect the unit from power supply.
2. Open the service door using the key.
3. Disconnect the hose from the drain pipe and remove the drain pan by pulling it towards you and downwards.
4. Unscrew the screws on the bars holding the heat exchanger:
5. Release the heat exchanger by turning the latches.
6. Remove the heat exchanger by pulling it towards you.
7. After completion of maintenance install the heat exchanger in the reverse order.

DVUT 300/500



DVUT 800



3. Fan maintenance (once a year).

Even in case of regular maintenance of the filters, some dust may accumulate inside the fans and reduce the fan performance and supply air flow. Clean the fans with a soft cloth, brush or compressed air. Do not use water, aggressive solvents or sharp objects as they may damage the impeller.

4. Maintenance of air intake devices (twice per year).

The supply grille may get clogged with leaves and other objects, which reduces the unit performance and supply air delivery. Check the supply grille twice per year and clean it as required.

5. Air duct system maintenance (every 5 years).

Even regular fulfilling of all the maintenance operations described above may not completely prevent dust accumulation in the air ducts, which reduces the unit performance. Duct maintenance means regular cleaning or replacement.

6. Control unit maintenance (as required).

The control unit is located inside of the unit casing.

For accessing the control unit remove the fixing screws on the panel and remove the control unit lid.

TROUBLESHOOTING

TROUBLE	POSSIBLE REASONS	TROUBLESHOOTING
The fan(s) do(es) not get started during activation of the unit.	No power supply.	Make sure the power supply line is connected correct. Otherwise troubleshoot a connection error.
	Motor or impeller clogging.	Turn the unit off. Troubleshoot the fan clogging. Clean the blades. Restart the unit.
	System failure. The list of the system alarms is stated in the user's manual (control panel).	Go to the active alarm page, detect a system failure and troubleshoot it. Contact the unit Seller if your efforts to troubleshoot the alarm independently fail.
Automatic circuit breaker tripping after the unit start-up.	Over-current as a result of short circuit in the electric circuit.	Turn the unit off. Contact the unit Seller.
Low air flow.	Low set fan speed.	Set higher speed.
	Clogged filters, fans or heat exchanger.	Clean or replace the filters. Clean the fans and the heat exchanger.
	Clogged or damaged air ducts, diffusers, louver shutters, grilles or other ventilation system components.	Clean or replace the air ducts, diffusers, louver shutters, grilles or other ventilation system components.
Low supply air temperature.	Clogged extract filter.	Clean or replace the extract filter.
	Contaminated heat exchanger.	Clean the heat exchanger.
Noise, vibration.	Clogged impeller or impellers.	Clean the impeller or impellers.
	Loose screw connection in the fan or in the casing.	Tighten the screws of the fans or the casing against stop.
	No anti-vibration connectors on the connection spigots.	Install the rubber anti-vibration connectors.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range +5 °C...+40 °C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- Damage to the unit casing and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT



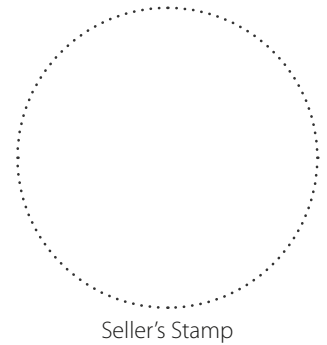
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP

CERTIFICATE OF ACCEPTANCE

Unit Type	Single-room air handling unit
Model	
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

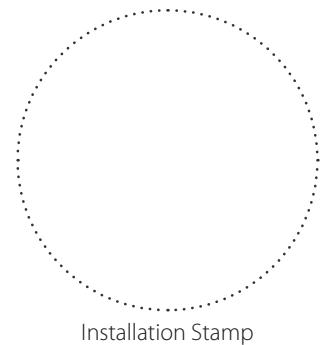
SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	



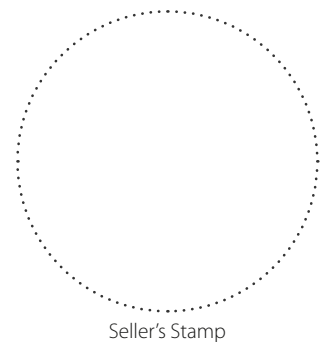
INSTALLATION CERTIFICATE

The _____ unit is installed pursuant to the requirements stated in the present user's manual.	
Company name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
Signature:	



WARRANTY CARD

Unit Type	Single-room air handling unit
Model	
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	





VENTS

