

CMEV air handling unit

VEX1045RSR

VEX1045RS

New compact series with rotary heat exchanger in horizontal design. With a total of 11 unit sizes for airflows up to 8500 m³/h as well as a wide range of accessories, you will easily find a VEX1000 that fits exactly to your needs.



PRODUCT BENEFITS

- Compact design - High performance with minimum space requirements
- All modules from VEX1005 to VEX1065 fit through a standard door
- Removable components and integrated coils make installation, maintenance, and cleaning easy

REGULATIONS AND COMPLIANCES

Eurovent Certification no. : 16.01.020

Principles of operation

VEX1000 brings fresh, filtered air into the building and recovers heat from the exhaust air using the high-efficiency heat exchanger. The incoming air can be heated and/or cooled using a complete range of integrated cooling and heating coils.

VEX1000 is a compact unit designed to deliver the highest possible air capacity with the least possible space requirement.

VEX1000RS can be equipped with automatic leakage control, ALC™, which eliminates the transfer of particles, aerosols, viruses, etc., from exhaust air to supply air through the heat exchanger. Thus, you get all the benefits of a rotary heat exchanger without leakage:

- Moisture transfer provides improved indoor climate and higher productivity
- Does not require defrosting
- Saves energy by cooling recovery
- No need to handle condensation
- Compact design

Product description

New compact series with rotary heat exchanger in horizontal design. With a total of 11 unit sizes for air volumes up to 8500 m³/h and a wide accessory program, you will easily find a VEX1000 that fits precisely to your needs. We call it Perfect Fit.

The Eurovent-certified VEX1000 series is equipped with highly efficient and energy optimized components. All components are easy to pull out for inspection, service, repair, or cleaning.

VEX1000 modules are optimized to deliver the highest possible air capacity with the smallest possible space requirement. All modules from VEX1005 to VEX1065 can pass through a standard door. If you need more air capacity or have extra limited access conditions, the product can be delivered as SPLIT, where the unit is assembled after transportation.

The automatic leakage control function, ALC™, gives you all the benefits of a rotary heat exchanger while eliminating the recirculation of particles, aerosols, viruses, etc.

VEX1000 is delivered with integrated EXcon+ automation, which has a built-in WiFi connection for quick connection with tablet, HMI, or PC. A new intuitive user interface makes the installation, commissioning, and adjustment of the indoor climate in your building easy and quick.

Fields of application

Multi-occupancy residential housing, New, Refurbishment, Non-residential buildings, Schools

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VEX1045RSR**VEX1045RS****Supplementary characteristics**

1x230V or 3x400V power supply

Mixing section (VEX1030 – 1080)

Duct silencers

Outdoor units (Roof, plinth, doorstep, damper motor cover, electric heater for control box)

Shut-off damper

Integrated coils (Water, Electric, DX)

External casing for DX and combined water heating and cooling coil with drip tray and droplet separator

Patented automatic leakage control (ALC™)

Rotating heat exchanger with sorption and epoxy coating

Choice between bag and panel filter

Choice between integrated EXcon+ control, controller ready or without control

Flexible duct connections

Inlet and exhaust hoods

Class 3 damper

Accessories

Description	Variants
Hood 700x500 mm	Hood700X500
Damper 700x500 Modbus	LS700X500M
Outdoor damper 700x500 Modbus	LS700X500M-OD
Damper 700x500 Modbus Spring/Return	LSR700X500M
Outdoor damper 700x500 Modbus Spring/Return	LSR700X500M-OD
Cooling water ext. coil 700x500 2 rows (insulated)	CW2-700X500I
Cooling water ext. coil 700x500 4 rows (insulated)	CW4-700X500I
DX ext. coil 700x500 (insulated)	DX-700X500I
Cooling water ext. coil 700x500 2 rows (non-insulated)	CW2-700X500U
Cooling water ext. coil 700x500 4 rows (non-insulated)	CW4-700X500U
DX ext. coil 700x500 (non-insulated)	DX-700X500U
Flexible connection 700x500 mm	FLF700X500
Duct silencer 700x500x1000	2027756
Duct silencer 700x500x1500	2027757
Air quality sensor - excl. MIO	RLQ
RH sensor HTH6202	2005685
PIR sensor	2009595
Fire Thermostat	BT40-70
CO2 duct sensor analogue 0–10 V	KCO2
CO2 room sensor analogue 0–10 V	RCO2
PTH kit with measuring nipple and hose	PTH4000
HYRK, room humidity sensor	HYRK

Filters

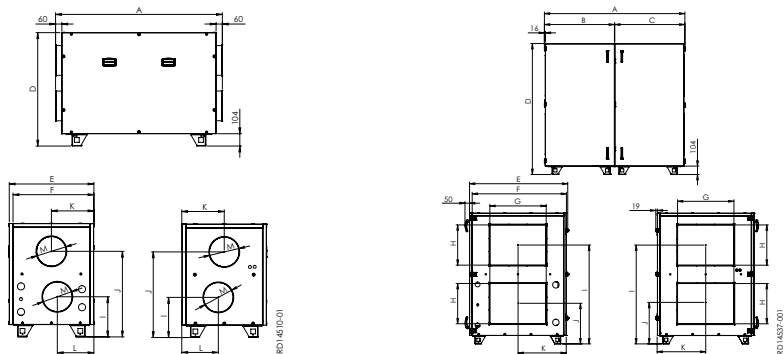
Description	Variants
VEX1045 Pre filter Panel ePM1 55%	FP1045SE155P
VEX 1045 Panel filter ePM10 60%	FP1045SE360
VEX1045 Pre filter Panel ISO Coarse 85%	FP1045SC85P
VEX1045 Pre filter Panel ISO Coarse 85% Carbon	FP1045SC85CP
VEX1045 Pre filter Panel ePM10 60%	FP1045SE360P
VEX 1045 Panel filter ePM1 55%	FP1045SE155
VEX 1045 Panel filter ePM1 80%	FP1045SE180
VEX 1045 Bag filter ePM1 55%	FB1045SE155
VEX 1045 Bag filter ePM1 80%	FB1045SE180
VEX 1045 Bag filter ePM10 60%	FB1045SE360

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Dimensional data

A (mm)	1730
B (mm)	865
C (mm)	865
D (mm)	1524
E (mm)	1217
F (mm)	1172
G (mm)	700
H (mm)	500
I (mm)	1125
J (mm)	400
K (mm)	600
Weight (kg)	450



Airflow data

Minimum airflow	610
Max. airflow ErP (m³/h)	4600
Max. airflow (m³/h)	6175

Installation



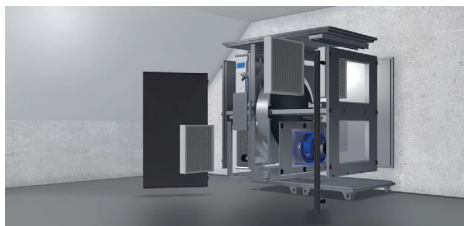
MECHANICAL PERFORMANCE: In accordance with DS/ EN 1886 and certified by Eurovent

- > Strength of unit casing: D2 (M)
- > Leakage at negative pressure of -400 Pa: L1 (M)
- > Leakage at positive pressure of +700 Pa: L2 (M)
- > Filter bypass leakage: F9 at negative and positive pressure
- > Thermal transmittance: T2 (M)
- > Thermal bridging factor: TB2

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VEX1000 delivered fully tested in either 1 or 2 modules from the factory.

The product can be delivered on adjustable feet or mounted together on a plinth.

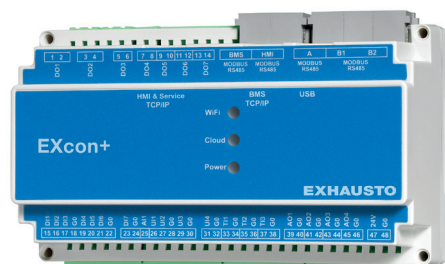
Automation and electrical panels are included in a separate automation box, which can be mounted next to the unit or on the wall.

A quick guide is included, which instructs on easy and fast assembly of the product. Detailed instructions and service guides are easily accessed via the QR code on the front of the unit.

For projects with extra limited access conditions, VEX1000 can be delivered as SPLIT, where the unit can be easily and quickly disassembled, transported into the building, and reassembled.

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VEX1000 can be delivered with 3 control options:

- > Integrated EXcon+ control (Standard) – The unit is equipped with EXcon+. All internal electrical and control components in the unit are connected to the included control box and tested from the factory.
- > Controller Ready (Option) – All internal electrical and control components in the unit are connected to the electrical and control box, which is prepared for the installation of alternative control chosen by the customer. (External control components are not included)
- > Without control (Option) – The unit is delivered without a control box, control, electrical wiring, and sensors. The customer is responsible for their own electrical and control setup. (Controls and motors for rotating heat exchanger, fans, and dampers are included)

The new EXcon+ control ensures optimal indoor climate management in virtually all application areas.

The intuitive user interface adapted to predefined user groups and optimized calendar function ensures easy and quick setting and adjustment of the indoor climate.

EXcon+ control is used to manage, among other things, air flow, heating, and cooling. How and when control switches between built-in functions are set in the operating program. The program can, if necessary, be overridden by temporary manual control, after which it returns to the active operating program.

Choosing EXcon+ provides, in addition to a wide range of standard control modes, the opportunity to use EXHAUSTO's patented Automatic Leakage Control (ALC™) and Dynamic Pressure Control (aDCV).

- > Automatic Leakage Control (ALC™) allows taking advantage of a rotary heat exchanger without transferring contaminated air via the heat exchanger.
- > Dynamic Pressure Control (aDCV) enables optimized operation with constant pressure regulation of ventilation systems with variable air volumes. Through the patented adaptive pressure regulation, up to 20% energy savings can be achieved compared to a demand-controlled system with constant pressure regulation (DCV).

EXcon+ control can be operated from a control panel, BMS, or web server over a network or via integrated WiFi. WiFi can be easily accessed from your tablet or PC by following the quick guide that comes with the control box.

EXcon+ network communication supports BacNet over TCP/IP and MODBUS over RS485 or TCP/IP.