Air handling unit

VEX1010RSR

VEX1010RS

New compact series with rotary heat exchanger in horizontal design - 11 sizes, up to 9340 m³/h and a comprehensive accessories program

VEX1000-Mono-EXH-Angled-Shadow_Product_002.png

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 9340 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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Supplementary characteristics

- 1x230V or 3x400V power supply
- Mixing section (VEX1030 – 1080)
- Duct silencers
- Outdoor units (Roof, plinth, doorstop, 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
- Option for extract and/or exhaust air outlet positioned on top
- Class 3 damper

Accessories

Description	Variants
Stand for Control Panel VEX1005RS - VEX1065RS	CPSTAND1
Factory mounted baseframe	#BASEFRAME10xx
Roof for outdoor installation incl. storm bracket for doors	#ROOFW/SB10xx
Heater, Control Panel	#HEATERPANEL
Damper Ø315 Class 3 - Factory mounted	#DP315C3
Damper actuator 20Nm Modbus Spring/Return	#SF24A-MOD
Damper actuator 10Nm Modbus	#NM24A-MOD
High efficiency sorption rotary heat exchanger with humidity transfer	#SORP.ER10xx
High efficiency epoxy coated rotary heat exchanger for corrosive environment	#EPOXYER10xx
Integrated water heating coil - 1 row	#HW1
Integrated water heating coil - 2 rows	#HW2
Integrated heating electric coil 3kW 1x230V	#HE3590X460
Integrated cooling coil - 2 rows	#CW2
Integrated cooling coil - 4 rows	#CW4
Integrated DX coil for VEX1010 configurable	#DXC-1010
FLF315-Ø315, flex connection	FLF315
Duct silencer ø315 L=500	2027750
Duct silencer ø315 L=1000	2027751
Syphon water trap, overpressure	SIPHONOP
EXCON+ 3.5» HMI touch display	HMI3350TOUCH
2» HMI touchpanel Temperature sensor, Modbus, outdoor	2018641
PTH kit with measuring nipple and hose	PTH4000
CO2 sensor, duct	2005689
CO2 duct sensor analogue 0–10 V	KCO2
CO2 room sensor analogue 0–10 V	RCO2
Air quality sensor - excl. MIO	RLQ
HYRK, room humidity sensor	HYRK
Duct hygrostat 1-stage. Measuring range 35...100% Indoor	S-KH-10U
HW050X08002U0UL	2025140
PIR sensor	2009595
Manual override to comfort mode excl. MIO - incl. cable	TIMERBUTTON3

Filters

Description	Variants
VEX 1010 Panel filter ePM10 60%	FP1010SE360
VEX 1010 Panel filter ePM1 55%	FP1010SE155
VEX 1010 Panel filter ePM1 80%	FP1010SE180
VEX 1010 Bag filter ePM10 60%	FB1010SE360
VEX 1010 Bag filter ePM1 55%	FB1010SE155
VEX 1010 Bag filter ePM1 80%	FB1010SE180
VEX1010 Pre filter Panel ISO Coarse 85%	FP1010SC85P
VEX1010 Pre filter Panel ePM10 60%	FP1010SE360P
VEX1010 Pre filter Panel ePM1 55%	FP1010SE155P

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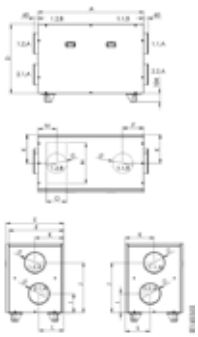
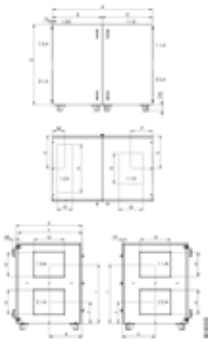
Dimensional data

A (mm)	1347
D (mm)	1135
E (mm)	720
F (mm)	683
I (mm)	274
J (mm)	794
K (mm)	355
L (mm)	305
M (mm)	224
N (mm)	450
O (mm)	250
P (mm)	264
Ø (mm)	315
Weight (kg)	207





Airflow data

Minimum airflow	130
Max. airflow ErP (m³/h)	1280

Electrical datas

Voltage (V)	1x230
Frequency (Hz)	50
Maximum current - unit (A)	5,7
Max. electrical output of unit (kW)	1,4

Regulatory data

Strengt of unit housing	D2
Tightness at negative pressure of -400 Pa	L1
Tightness at positive pressure of +700 Pa	L2
Filter bypass Leakage	F9
Thermal transmittance	T2
Thermal bridging factor	TB2

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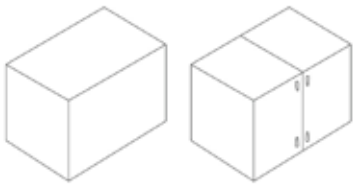
Installation



VEX1000 leveres færdigtestet i enten 1 eller 2 moduler fra fabrikken.

VEX1005 til VEX 1020 leveres som et samlet modul, mens VEX1030 til VEX1080 leveres i to moduler. Dette gør at VEX1000 nemt kan transporteres til montagestedet.

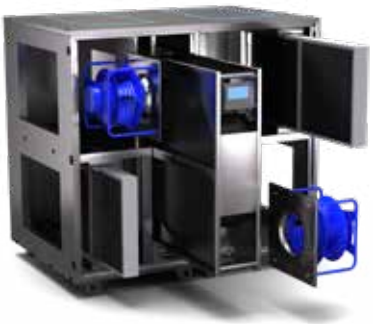
MECHANICAL PERFORMANCE: In accordance with DS/EN 1886 and certified by Eurovent

> 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

VEX1000 is delivered fully tested in either 1 or 2 modules from the factory.
VEX1005 to VEX 1020 are delivered as a complete module, while VEX1030 to VEX1080 are delivered in two modules.

The product can be delivered on adjustable mouting feets or mounted together on a baseframe.

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



VEX1000RS is available with the option for extract and/or exhaust air nozzle placed at the top of the unit to provide greater flexibility at the installation site. For units with round side nozzles and rectangular top nozzles, transition piece from square to round are offered.

NOTE. VEX1000 with rotary heat exchanger is also available with 4 top nozzles. See under the product VEX1000RT.

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.

Flexible placement of control box
Control and electrical panel are included in a separate control box, which can be mounted beside the unit or on the wall, up to 10 m from the VEX-unit. In this way, the box can be placed where it is most appropriate in terms of service and maintenance.

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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.