GB

VEX1000

Quick Guide



Original instructions

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1. Product information

1.1 Symbols, terms and warnings

Prohibition symbol

Failure to observe instructions marked with a prohibition symbol may result in serious or fatal injury.

Danger symbol

Failure to observe instructions marked with a danger symbol may result in personal injury and/or damage to the unit.

Stop and wait symbol



After switching off the AHU, please wait 4 minutes for the system to de-energise.

Use and designation of the manual

This instruction manual is for use with **EXHAUSTO VEX1000-type Air Handling Units (AHU)**.

The Quick Guide is intended as a reference document to provide the user with the necessary warnings and information to quickly cover the most relevant steps of the installation process in order to ensure swift and ready operation of the AHU.

The instructions must be fully observed to ensure personal safety and to protect the equipment and ensure its correct operation. EXHAUSTO A/S accepts no liability for accidents caused by equipment not used in accordance with the manual's instructions and recommendations.

For more detailed information on the dimensions, data points, application, handling and maintenance, please consult the **installation and assembly guide**

For more detailed information on the electrical aspects of the AHU, including setup, data sheets, and the connection of accessories, please consult the **electrical guide** and the **wiring diagrams**.

Warnings:

Prohibited

The VEX unit is not to be used to transport solid particles or in areas where there is a risk of explosive gases.

No duct connection

If one or more of the spigots is not connected to a duct: Fit a protective net to the spigots with a maximum mesh width of 20 mm (in accordance with EN294).

1.1.1 Opening the air handling unit

Do not open the service doors before the supply voltage has been disconnected at the supply disconnecting switch (main switch).

The supply disconnecting switch (main switch) is located on the control system panel on the AHU.



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1.1.2 Installation requirements and recommendations

Comfort ventilation

EXHAUSTO VEX AHUs are used for comfort ventilation tasks. For the operating temperature range for the unit - consult the mechanical guide.

Supply disconnecting switch and mini circuit breaker protection

The supply disconnecting switch (-Q1) and automatic fuses are built into the unit to provide internal overload and short-circuit protection.

Additional supply disconnecting switch

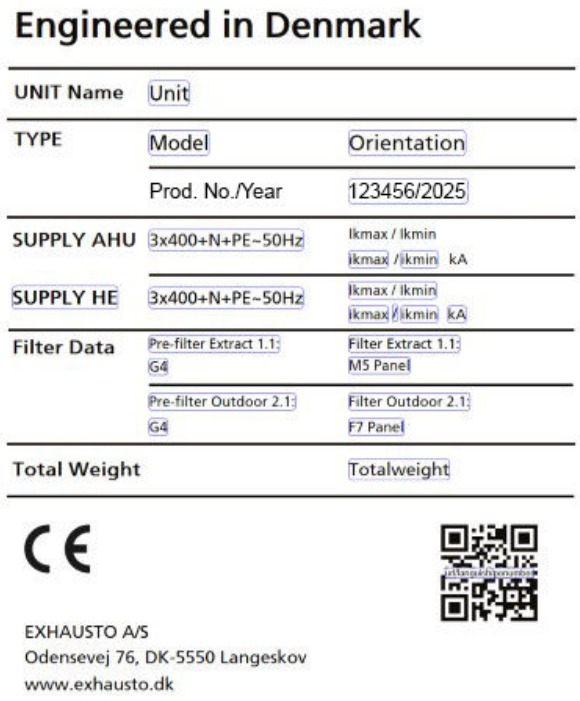
⚠ **If the VEX1000 is equipped with an electric heating coil, it is supplied by a separate supply disconnecting switch (main switch)**

⚠ **As such, when a heating coil is installed, both supply disconnecting switches must be switched off in order to de-energise the system**

1.1.3 Data plate

The VEX unit data plate shows:

- VEX unit, type
- Production number
- Supply data
- Filter data
- Weight
- QR Code for documentation access
- EXHAUSTO contact information



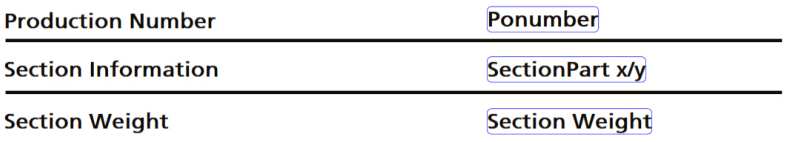
NB

Always have the production number ready when contacting EXHAUSTO A/S.

Important!

Always check whether the latest version of the manual is available.
Scan the QR codes on the side of air handling unit to access any attached documentation.

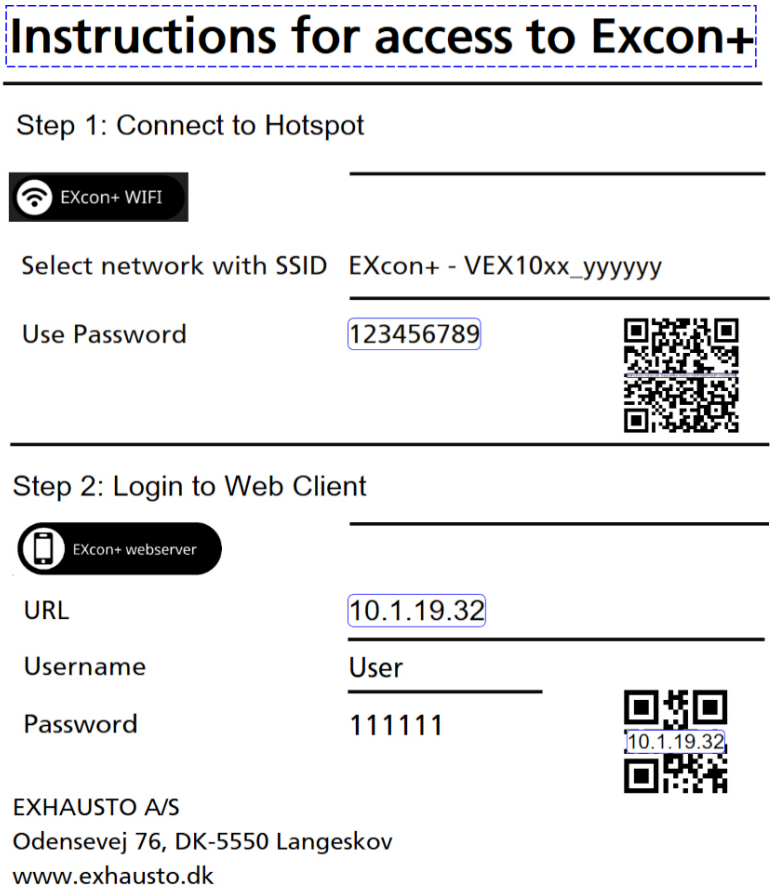
Section data plate



The VEX unit section data plates are located at the bottom of each section, and show:

- Production number
- Section information
- Section weight

EXcon+ data plate



The EXcon+ data plate shows how to establish a Wi-Fi connection and how to access the web client. Follow the steps and log in with the user name and password provided on the data plate.

Instead of manual entry, the QR codes can be used for automatic entry. When using a mobile phone, disconnecting mobile data may be of help.

HMI panel or web interface

Refer to the EXcon+ instructions for more info about accessing the technician menu to check the unit's operating status.

Level	Username	Password
Facility manager pro	user	111111
Commissioning technician	service	333333

1.1.4 Technical data

Technical data regarding the configuration of the VEX1000 unit, as well as coil connections etc., is given on the accompanying spec sheet from the EXselectPRO calculation program.

2. Handling

2.1 Location requirements

2.1.1 Requirements for underlying surface

When fitting the unit directly to an existing surface, the surface must be:

- Level
- Horizontal (±3 mm per meter)
- Hard
- Vibration-resistant

2.2 Unpacking

Supplied components

The following components are supplied:

- VEX1000 unit
- Supplied with accessories (as indicated in the EXselectPRO configuration included with the unit)

Packaging

The unit is delivered attached to a disposable pallet or placed on a wooden frame and wrapped in plastic.

NB

Once the plastic has been removed, the unit must be protected against dirt and dust:

- **Whenever possible, keep the unit closed during fitting.**

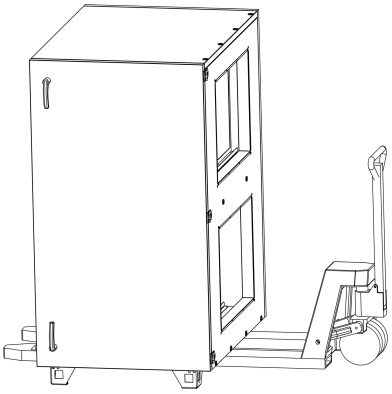
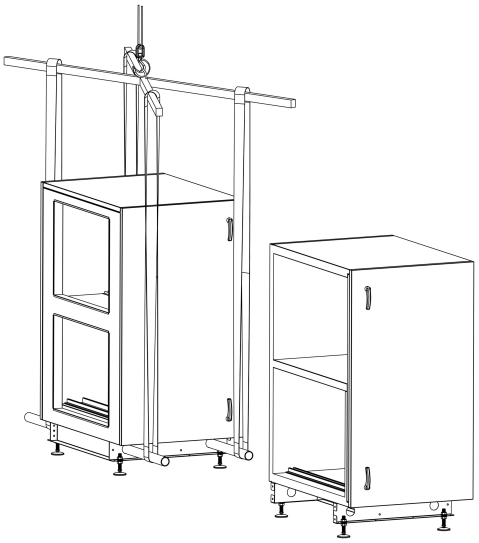
Clean unit before use

Once the VEX1000 unit is fitted, it must be checked and thoroughly cleaned. All dust, debris and metal shavings must be vacuumed up.

2.3 Transport

Transport equipment

Transport the VEX unit in one of the following ways:

Method	Drawing
Using a pallet truck or fork-lift truck: **IMPORTANT**: The forks on the lifting equipment must be long enough to prevent damage to the bottom of the unit.	
Installation on base frame - split: Use straps and lifting yokes to prevent damage to the unit.	

3. Mechanical assembly

3.1 Installing the unit

Description The VEX1000 unit is installed in a horizontal position.

3.1.1 Installed directly onto the floor

The requirements for the floor surface must be met, see the section entitled "Requirements for underlying surface."

NB After installation, make sure the VEX1000 unit is completely level, otherwise fit the adjustable set screws supplied with the unit.

3.1.2 Installation of unit with multiple sections

Some VEX1000 units are supplied with 2 or 3 sections (3 sections if the mixer section is included). They are assembled using both external (1) and internal joint bracket. Make sure the sections are fully assembled before clamping

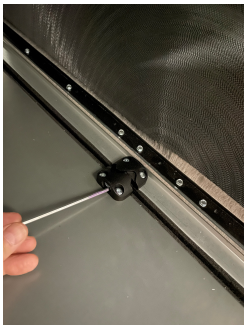
1	Start with the internal brackets in back and front top and bottom.
2-3	The internal brackets are then clamped together in the middle of the sections, both at the top and the bottom.
4-5	Mount the external brackets that are supplied with the unit.
6	Tighten the external brackets.



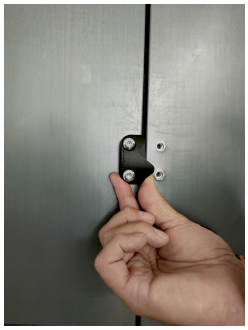
1



2



3



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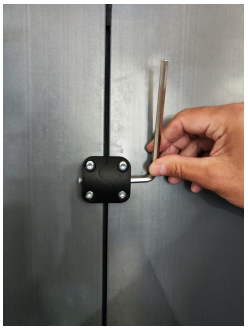

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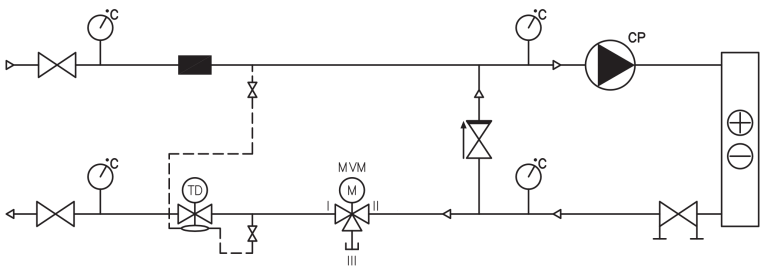
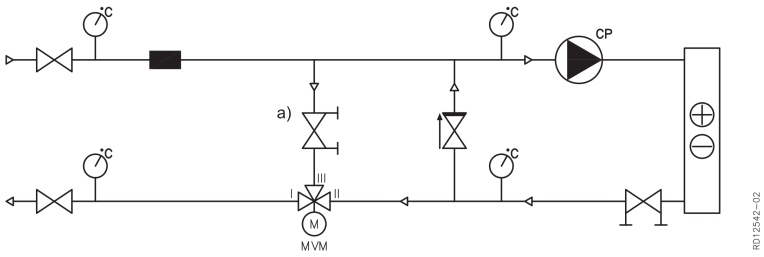
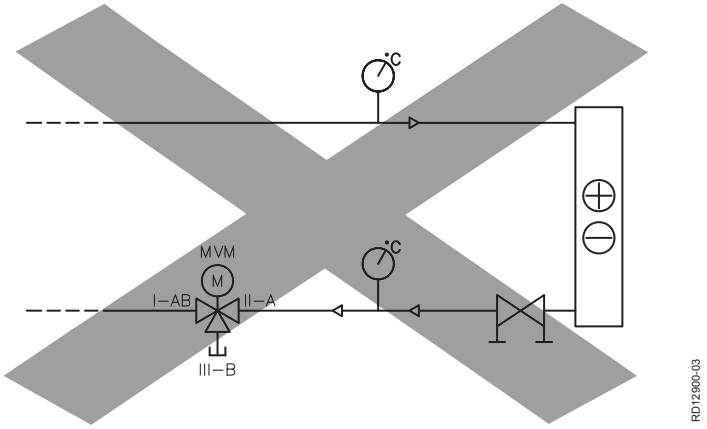
3.1.3 Connecting the heating/cooling coils

The internal heating or cooling coil can be connected to the pipe system using boiler hoses to prevent vibrations from spreading to the pipe system if needed.

Type	Method	Simplified diagram
Mixing loop 1	Variable flow in the primary circuit (supply) and constant flow in secondary circuit (VEX unit)	
Mixing loop 2	Constant flow in the primary circuit (supply) and the secondary circuit (VEX unit) a) When there is no heating/cooling requirement, valve adjustment must be based on the required primary circuit water flow	
⚠	Do not connect the heating or cooling coil like this! Connection without circulation pump risks frost damage!	

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3.1.4 General warnings for a unit with DX (Direct Expansion) cooling



Note that the coolant from the evaporator must be collected and disposed of in accordance with national regulations concerning the disposal of coolants.



Note that if the door is opened in the cooling section, there is a risk of frostbite from touching cold components.



If coolant has escaped into the room, personnel may only be present in the room if they are wearing respiratory protection. Coolant is odourless, but displaces oxygen in the room and thus can lead to suffocation.

3.1.5 Connecting DX cooling

Connection of the DX section must be performed by an authorised cooling company.



The pipe layout must be carried out by an authorised cooling technician



The pipes must be laid manually.



The permitted pressure, which is stated for the cooling coil, must be maintained. (Max pressure is 42 bar)



Avoid contact with coolant and use personal protective equipment in accordance with national regulations.

4. Electrical installation

4.1 Scope of installation



The work must be performed by an authorised electrician, in accordance with locally applicable regulations and legislation.

4.2 Dimensioning and installation

4.2.1 Dimensioning and installation

- The supply cable must be dimensioned and installed in accordance with applicable regulations and legislation.
- The earth terminal (PE) must always be connected.

4.2.2 Installation prerequisites

The installer must, in accordance with local applicable laws and regulations, install one line fuse and a supply cable.

4.2.3 Line fuse

The line fuse is used for:

- Short-circuit protection of the VEX1000 unit.
- Short-circuit protection of supply cable.
- Overload protection of supply cable.

4.2.4 Supply cable

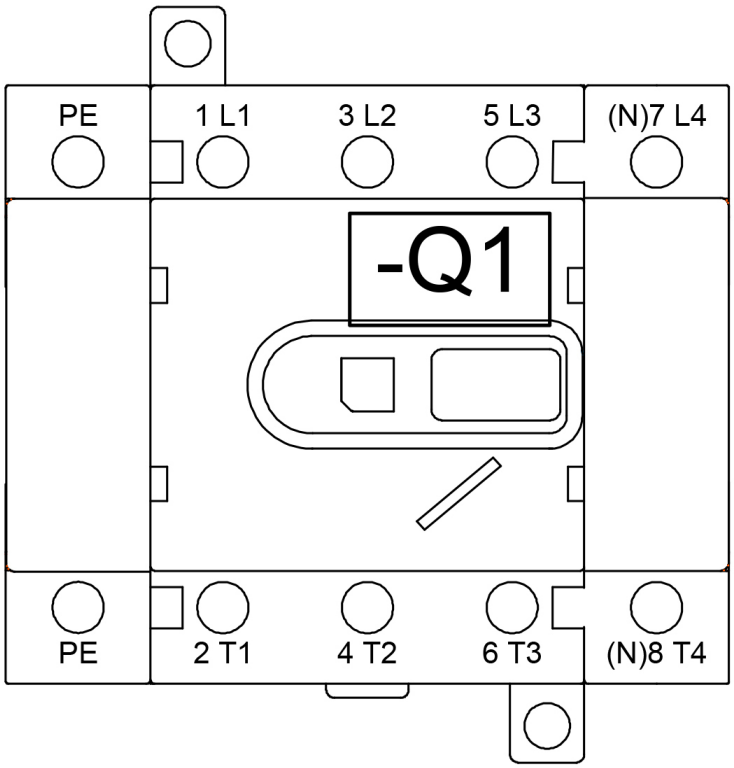
When dimensioning the supply cable, the conditions at the installation site, including temperature, cable layout and voltage drop must be taken into consideration.

4.2.5 Electrical connection/data

The unit's described power consumption can be found in the supplied configuration from the calculation program ExSelectPro.

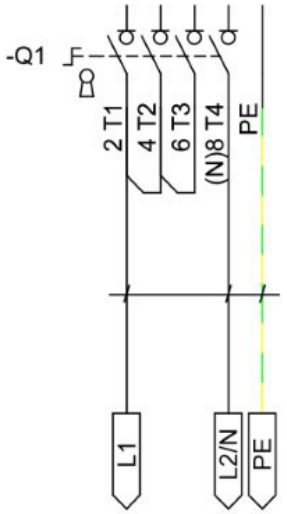
4.2.6 Main power

The main power supply cable should be connected directly to the supply disconnecting switch (main switch), tagged -Q1, as seen in the illustration below.



4.2.7 Supply connections

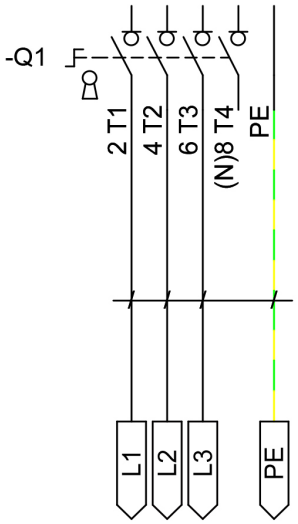
VEX1000 - Control panel 230 VAC, 50 Hz/50 Hz with one (1) heater.
These connections apply to 230 VAC, TT and TN-S power grid.
Wiring diagrams: 0440681/0440682



230VAC

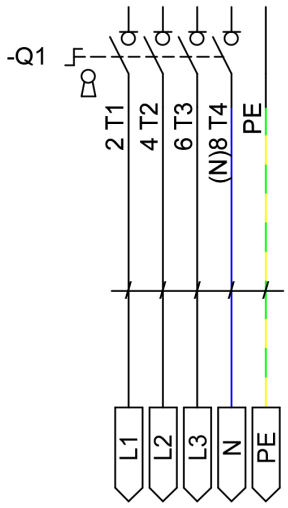
In Denmark and Germany, a three-phase installation is legally required due to local legislation that stipulates a maximum current consumption of 16 A for single-phase installations.

VEX1000 - Control panel 3x230 VAC, 50 Hz.
These connections apply to 3x230 VAC, TT and TN-S power grid.
Wiring diagrams: 0440683



3x230VAC

VEX1000 - Control panel 3x400 VAC + N, 50 Hz.
These connections apply to 3x400 VAC, TT and TN-S power grid.
Wiring diagrams: 0440684



3x400VAC

4.2.8 Installation requirements and recommendations

Supply disconnecting switch and mini circuit breaker protection

The supply disconnecting switch (-Q1) and automatic fuses are built into the unit to provide internal overload and short-circuit protection.

Additional supply disconnecting switch for VEX1000 unit with electric heating coil

If the VEX1000 is equipped with an electric heating coil, it is supplied by a separate supply disconnecting switch (main switch)

As such, when a heating coil is installed, both supply disconnecting switches must be switched off in order to de-energise the system

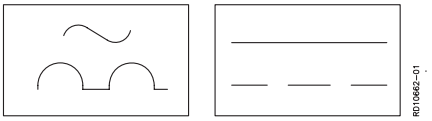
Residual Current Device

- **The unit must have protection against indirect contact.**

If RCD protection is fitted in the installation, they must be of a type that meets the following requirements:

VEX1000

PFI type B switch that breaks the circuit on registering a fault current with DC content (pulsating DC) or stray residual current in accordance with EN 61008. The fault current switches must be marked with the following symbol:



- **Disconnection time must be max. 0.3 s.**

Current leakage

RCD protection of 300 mA is recommended, as leakage currents of more than 30 mA can occur.

4.2.9 Short-circuit current

The minimum and maximum short-circuit current IKmin and IKmax is stated in the supplied electrical documentation from EXselect Pro, on the data plate, as well as the electrical heating coil if included.

Scan code and go to addresses at
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