devatec

TECHNICAL MANUAL

BLOWERPACK

FAN UNIT

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1 - Safety instructions

1.1 INTRODUCTION

You recently purchased the BlowerPack fan unit, and we hope you enjoy this product. Thank you for the trust you place in us. The safety instructions contained in this manual are intended for qualified personnel who are certified and authorized to commission, operate and maintain the device.

To get the best results from your device, we recommend to :

- Read carefully the assembly and installation instructions in this manual ;
- Keep this manual in a safe place for future reference ;
- Transmit this manual in case of sale or transfer of the device, in order to guarantee the transmission of information about it ;

SAFETY WARNINGS AND SYMBOLS USED IN THE MANUAL	
	**Danger! Caution.** General safety instruction, whose violation could lead to malfunctions and / or bodily harm to person and / or property damage.
	**Danger! High voltage.** There are high voltages inside the device or one of its components, the negligence of this warning can lead to serious bodily injury or death to people and / or significant material malfunctions.
	**Danger! High temperature.** Make sure that protective equipment is carried out and observe an adequate safety distance between materials that can be damaged by heat and the device.
	**Möbius strip.** Some components of the device are recyclable, the user is responsible for the disposal of these.

- If your package is damaged or missing, please make a complaint to your carrier with a receipt acknowledgement letter within 24 hours, and make a declaration to your Devatec agent.

- Pictures, graphics, and values may be subject to technical changes without notice.

- Keep this instruction manual carefully, and if you have any questions that are not answered in this manual, do not hesitate to contact us or consult your Devatec agent.

Our team will be pleased to be of assistance !

1.2 IMPORTANT NOTES

GENERAL	This manual contains all the details concerning the commissioning, operation and maintenance of the BlowerPack fan unit. **Maintenance, service, repairs, as well as the study of the risks and dangers associated with these operations must be carried out by qualified, competent and authorized personnel.** - Make sure that all risks or dangers are defined beforehand by an authorized person, especially for works-at-height. - We also recommend installing a security perimeter. - Make sure that the power supply is switched off before performing maintenance. - Please screw periodically all the connection terminals of the power cable.
INTENDED USE	The BlowerPack fan unit manufactured by Devatec is intended solely for humidification purpose, in air treatment station or in ambience. The user undertakes to use it according to the safety instructions given in this manual. **Improper use could result in serious hazards and damages to the user, third parties and materials.**
STORAGE	The device must be stored in a dry, frost-free place, protected from shocks and vibrations.
ELECTRICITY	The user ensures that electrical installation will be carried out by an authorized technician in this field. The installer has to provide the correct cable section as well as the magnethermic circuit breaker protection.
WARRANTY	Devatec, belonging to the group Armstrong International S.A., guarantees that its devices are **one (1) year** warranty. Devatec's liability will be limited exclusively to Devatec's repair or replacement of the part or product, excluding labor, disassembly or installation costs. Devatec may also decide to refund the purchase price of the product or part of it, at its discretion. The non-compliance of these above recommendations, additional mounting and / or transformation with components other than those provided with the device or any use other than what is explicitly stated, shall be considered as not in compliance with the prescriptions, and will invalidate the warranty.
LIABILITY	Devatec shall be not made liable for the consequences of incorrect installation, improper use of the devices and/or their components. We are committed to provide you the most complete manual, although, in the air treatment field, variations are so common that the information found in this document may be subject to changes without notice.

1.3 DECLARATION OF CONFORMITY

This device meets the requirements of the following European Directives :

89/336/EEC
98/37/EEC
73/23/EEC
2006/95/EEC
2004/108/EEC
2006/42/EEC

It is certified according to the following European standards :

EN 60335-1
EN 60335-2-88
EN 55022 classe B
EN 60204-1
EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6
EN 61000-6-2
EN 61000-6-3

DEVICE TYPE	Fan Unit
MODEL NAME	BlowerPack
MODEL YEAR	2018
CONSTRUCTOR	Devatec 185 Boulevard des Frères Rousseau 76550 Offranville - FRANCE

We the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s).

FRAMBOT Jean-François
General Manager
16.10.2018



1.4 RoHS DECLARATION

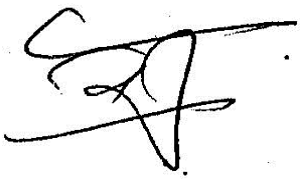
Devatec,

Confirms that the BlowerPack fan unit is manufactured in compliance with the European regulations :

2002/95/EU (RoHS)

This guideline regulates, after July 1st 2006, the use of mercury, cadmium, lead (soldering processes), chrome VI as well as PBB and PBDE.

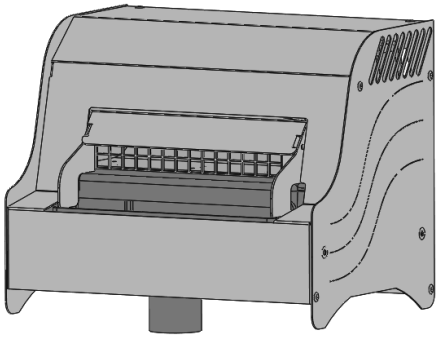
MINFRAY Jean-Marie
R&D Engineer
16.10.2018



2 - Overview

2.1 CHARACTERISTICS

The BlowerPack is a fan unit for steam humidification.
It spreads up to 33 kg/h of steam, in ambience.



2.2 IMPORTANT INSTRUCTIONS

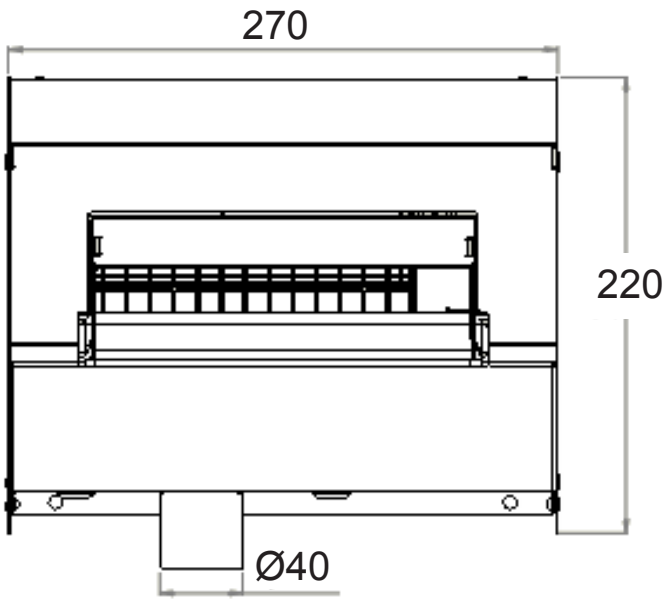
- Room temperature : < 60°C
- Ambient humidity : < 80% Relative Humidity
- Back side : this component heats during operation (up to 60°C). Make sure that the support of the device is not made of a heat-sensitive material.

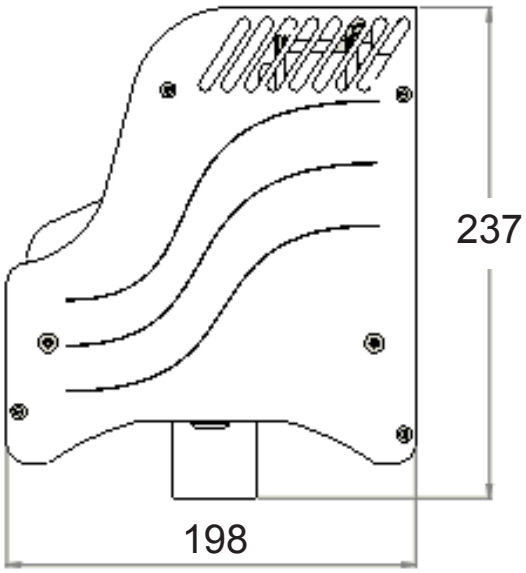
The BlowerPack fan unit is compatible with the full humidifier range : ElectroVap CMC, MC2, RTH-V2 & RTH-LC.

DEVICE	Maximal Steam flow (kg/h)	Weight (kg)	Fan N°	db*	Supply (V)	Power (W)	Air flow (m3/h)
BlowerPack - BP 10	10	3	1	30	230	30	110
BlowerPack - BP 30	33	3	1	40	230	30	160

*measured 1 m away from the unit

DIMENSIONS (mm) :

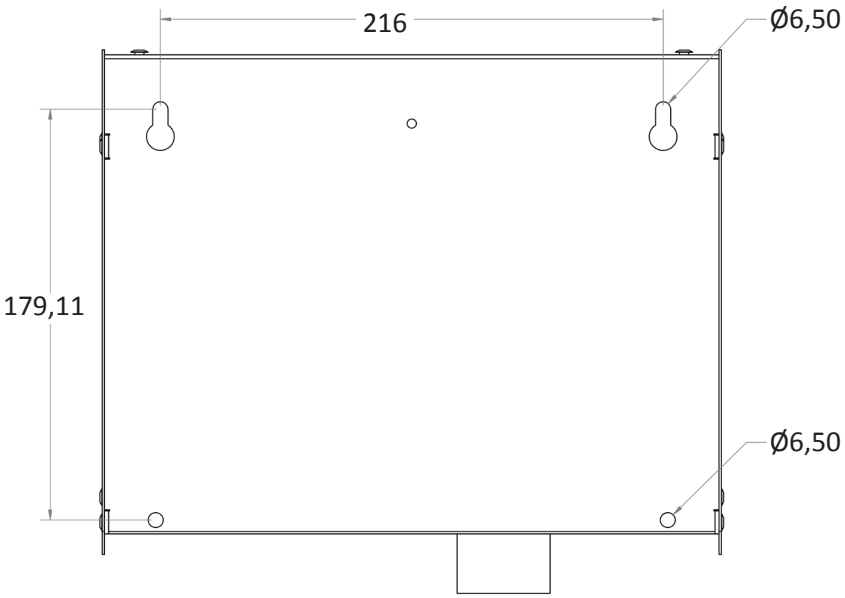




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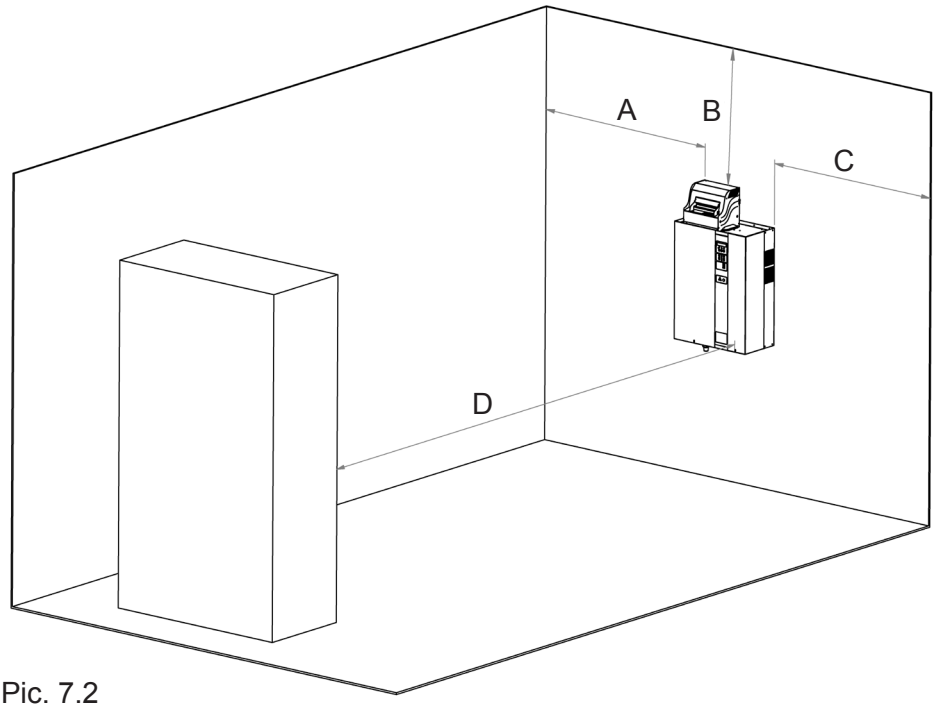
3 - Installation

3.1 WALL FIXING



For the wall fixing :
in the backside of your device there are two slotted holes and two mounting holes, that will help you keep the unit against the wall.
Please note the example presented (pic. 7.1).

Pic. 7.1 BlowerPack backside



Pic. 7.2

REFERENCE	MINIMUM DISTANCE	
	BP 10	BP 30
A	0.5 m	0.5 m
B	0.5 m	1 m
C	0.5 m	0.5 m
D	5 m	5 m

Make sure that the distances are met, if measurement gap and distances are not maintained, it may result in serious injury and/ or equipment malfunction (pic. 7.2).

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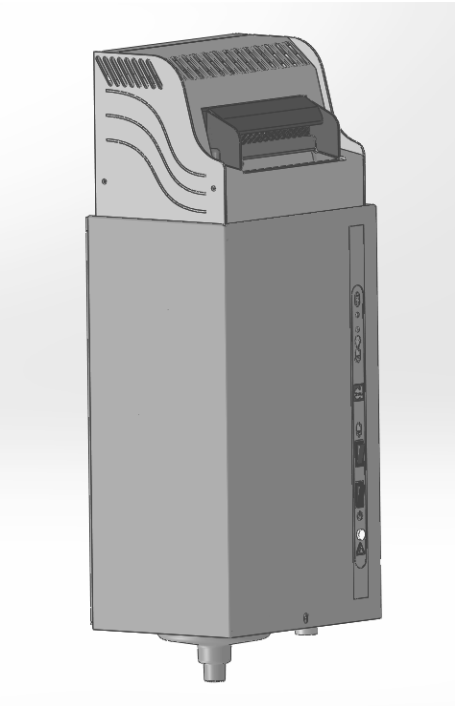
3.2 BP SET ON THE TOP OF THE HUMIDIFIER

The BlowerPack fan unit can be installed on the top of the following humidifiers ElectroVap (fig. 8.1, 8.2) :

-**CMC, MC2 5 à 15** equipped with a small cylinder with an outlet of Ø40 (recommended noiseless model)
-**MC2 5 à 15** equipped with a small cylinder with an outlet of Ø25 (standard model, reducer needed Ø40/ Ø25, optional)
-**MC2 20 à 30**
-**RTH-LC 3 à 15** equipped with a tank with an outlet of Ø25 (standard model, reducer needed Ø40/ Ø25, optional)
-**RTH-LC 20 à 30**
-**RTH-V2 5 à 30** (reducer needed Ø60/ Ø40, optional)

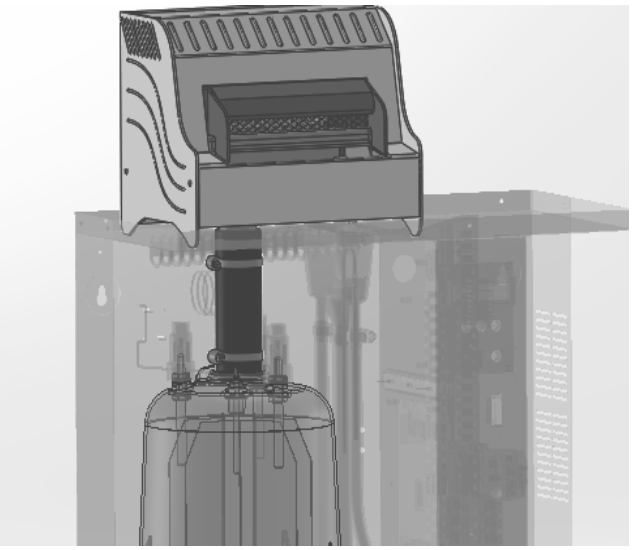
For both mounting methods, it is essential to take into account the minimum distances (pic. 7.2).

The steam connection between the ventilation unit and the humidifier is ensured by a Ø40 mm steam hose fixed by 2 hose clamps.
A Ø60/40 mm adaptor union should be used for RTH-V2 humidifiers.



Electrovap CMC with BP fan unit

Pic. 8.1



Humidifier ELMC with BP fan unit

Pic. 8.2

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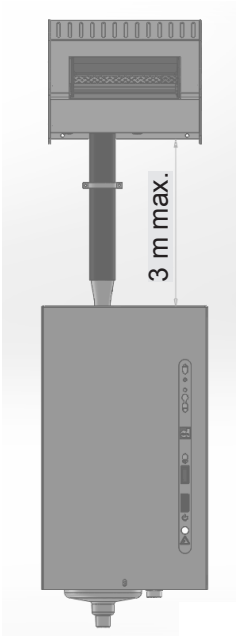
3.3 WALL MOUNTING

The Blower Pack fan unit can be wall mounted (fig. 9. 1), it is essential that the minimal installation distances be met (pic. 9.1 et 9.2).

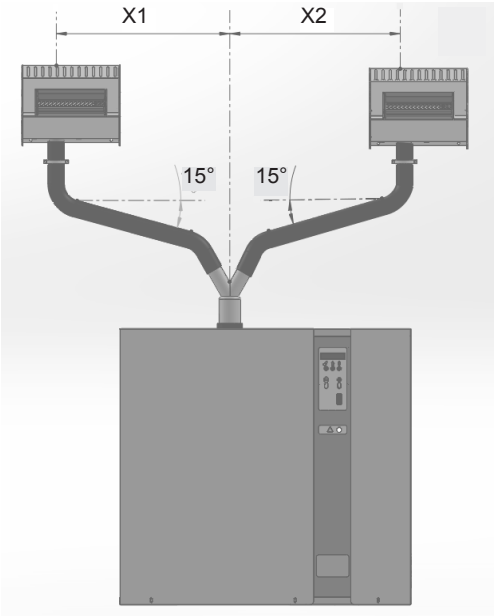
In specific applications, you might have a steam outlet for 2 fan units (pic. 9.2), the 15° minimum rise of the steam hose must be met and you must balance out the steam hose lenght, which should result in : X1 (3 m maxi) = X2 (3 m maxi).

The steam hose must be fixed to the wall before connecting it to the BlowerPack.

Pic. 9.1



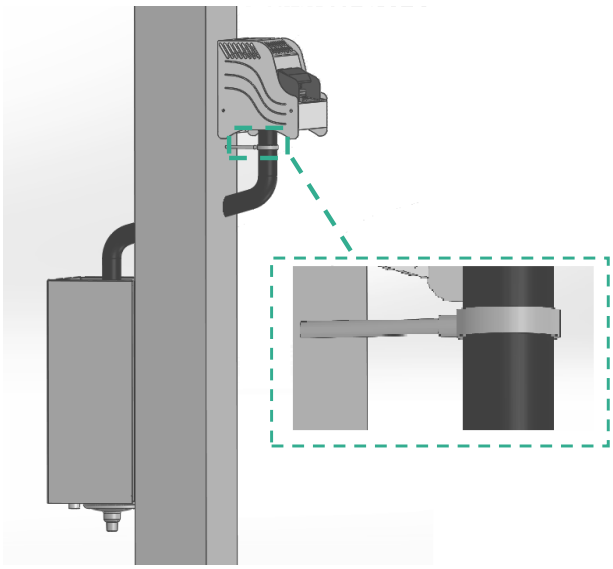
Pic. 9.2



Y shaped stainless steel connection Ø60mm -2xØ40mm (code: DIV0019)

It is possible to install the fan unit far from the humidifier, in another room (pic. 9.3).
Make sure that the maximum steam hose lenght (3 m) between the humidifier and the BlowerPack fan unit is fully observed.

Pic. 9.3

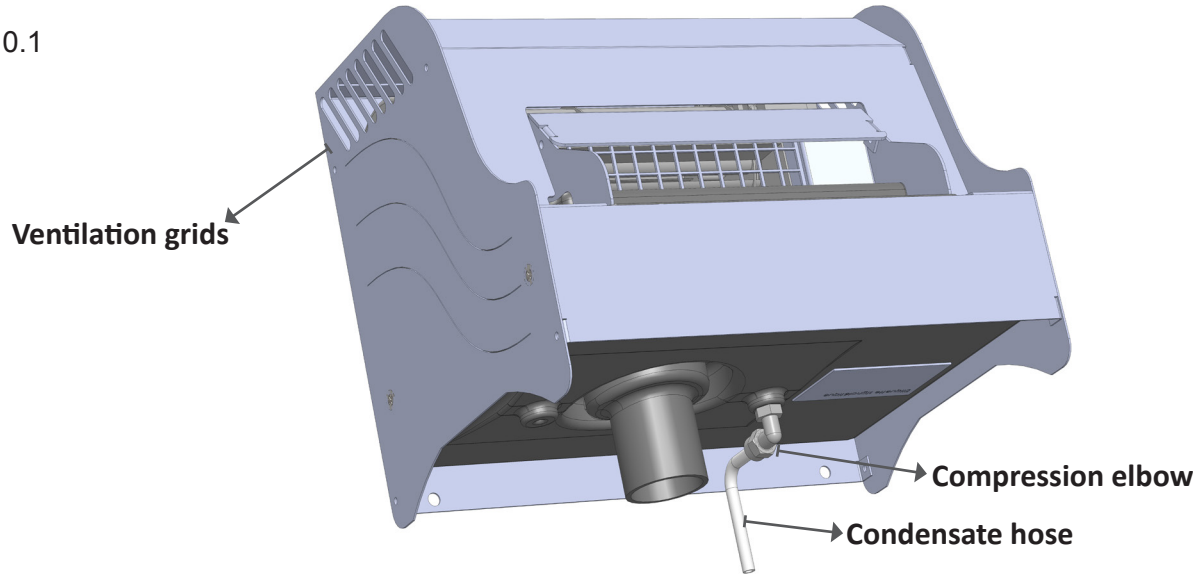


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3.4 CONDENSATE HOSE & ELECTRICAL WIRING

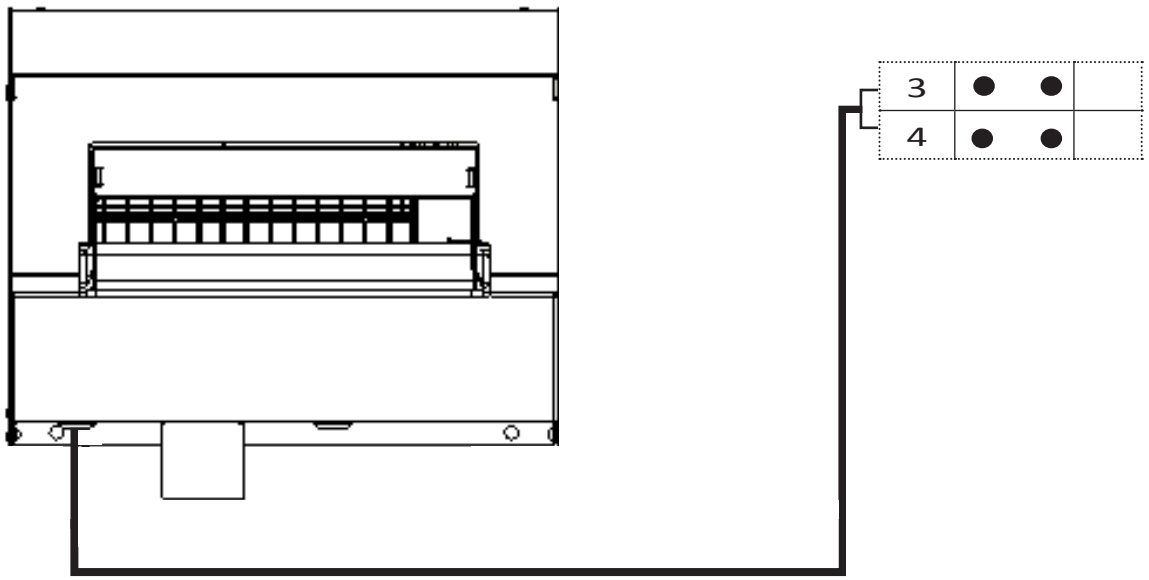
Only for the BlowerPack 30 fan unit, it is essential to connect the condensate hose (included with the device) to the waste water system (pic. 10.1).

Pic. 10.1



The electrical wiring must be done on terminals 3 & 4 on the DIN rail of the humidifiers : ElectroVap™ CMC, MC2, RTH-V2 and RTH-LC (pic. 9.2).

Pic. 10.2 BlowerPack connection on the DIN rail of the steam humidifier



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4.1 PROCEDURE TO ENTER YOUR ACCESS CODE FOR THE ELMC HUMIDIFIERS RANGE

It is essential to preset the terminals 3 & 4 of your humidifier.

To do this, enter the menu 152 in order to activate « TERMINALS 3-4 (230V) ROOM VENTIL. » function (pic. 11.1).

To enter the 152 menu :

- Switch the device on
- Press the key « 1 » as much as needed until you see « CHANGING CONFIGURATION MENU »
- In order to enter the access code, press key « 1 », when the first digit flashes press keys « 2-3 » to increase-decrease the numbers you want to choose and press « 1 » to enter the following numbers of your acces code, repeat this procedure for each number of the code
- To validate each choice press « 1 »

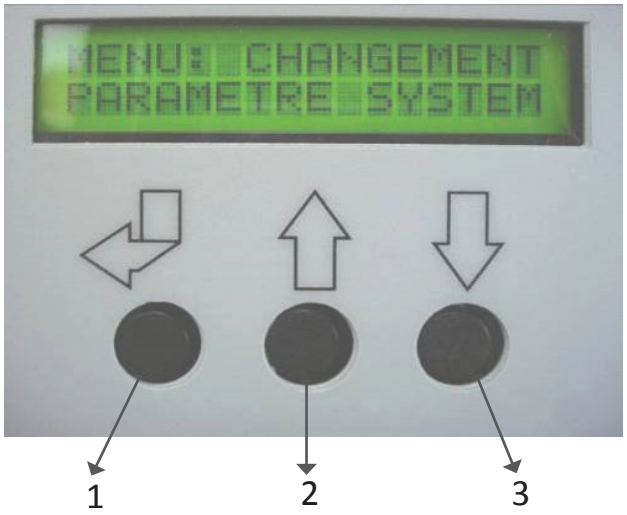
As a reminder, the code to enter is : 1.5.2.

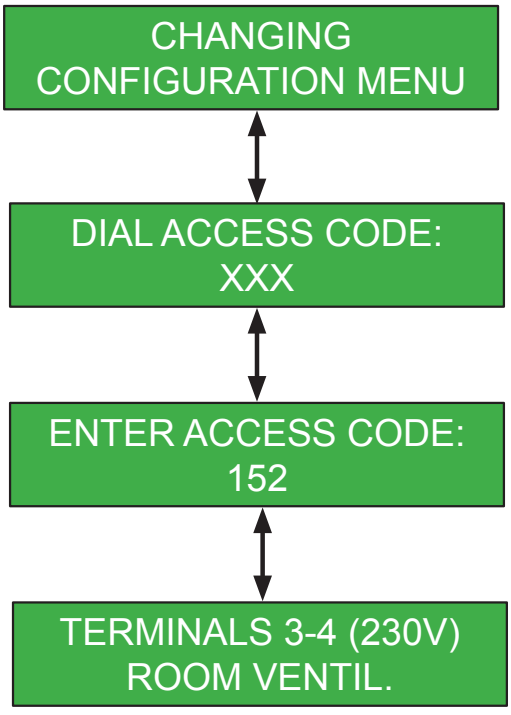
Once in the menu, press the keys to access to the desired sub-menu and select the following setting :

« TERMINALS 3-4 (230V) ROOM VENTIL. », your BlowerPack is ready for use.

Menu to activate the fan unit mode

Scroll down to this sub-menu, then press key « 1 », the parameter flashes and you can change with key « 3 » to YES, press key « 1 » to validate your choice.





For the RTH humidifiers range : please connect the BlowerPack electrical wiring on terminals 3 & 4 on the DIN rail (pic. 10.2)

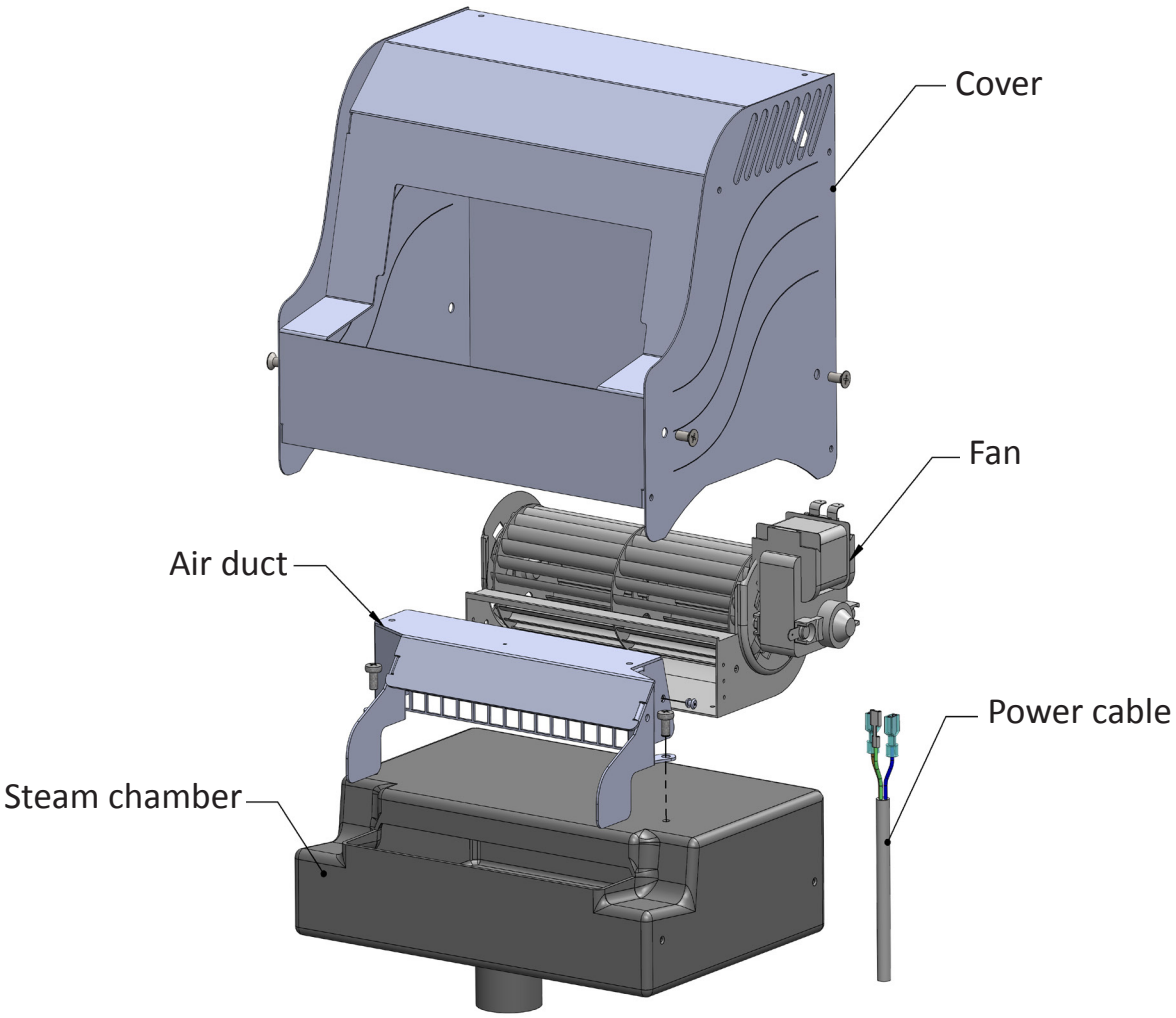
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5.1 DISMANTLING & CLEANING

Before each season : make sure that the ventilation grids and the condensate hose are not clogged with dust or any other thing (pic. 10.1).

If necessary, you may open the BlowerPack to access each of its components. For this purpose, proceed as follows :

- Take the BlowerPack and the steam humidifier out of operation and disconnect them from the power grid
- Unscrew the 2 screws located on each side of the outer cover and remove the cover
- Clean any accumulated dust with a brush if necessary
- Remount the cover and fix it with the screws located on each side of it



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6 - Troubleshooting

Few operating problems should appear with the BlowerPack.
The assembly is simple and strong, specially designed to ensure proper operation for several years.

However, there may be some problems with improper installation:

1- Drops of water are projected outside the device

a. For the BlowerPack 30, make sure that the condensate hose and the compression elbow have not been accidentally clogged during assembly.
Check that the silicone hose is not pinched or clogged (pic. 10.1).

b. Check that the unit is installed in a flat and stable place.

c. Make sure that the connection of the steam chamber has been well-made and verify that the hose clamps are fully tightened. Whenever possible, a cylinder with an outlet of Ø40 should be preferred.

2- The BlowerPack does not trigger when launching the humidifier

a. The connection of the BlowerPack may not be correctly performed. Check that the fan box is properly connected to terminals 3 and 4 on the DIN rail of the humidifier (see Chapter 6 - Commissioning).

b. Check that the humidifier is set correctly and that the function «TERMINAL 3-4 (230V) CAISSON VENTILA.» of the menu 152 is activated (this is normally activated by default).

3- Drops formation on the sides of the air duct

It’s normal. In contact with air and metal, steam condenses and creates drops. These will follow the sides of the duct and fall back into the steam chamber without causing any concern.

4- Visible steam at 2 meters from the BlowerPack

It’s normal. When the steam of the nozzle mixes with the colder air, it condenses into microscopic droplets entrained in the airflow, producing a «visible steam». Very quickly, these droplets are absorbed by the air and the visible steam disappears.

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7 - Notes

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Devatec keeps developing its products.
For that reason, characteristics and specifications of the products may change without prior notice.

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