

VX 5

EN

OPERATING MANUAL
DRYING UNIT

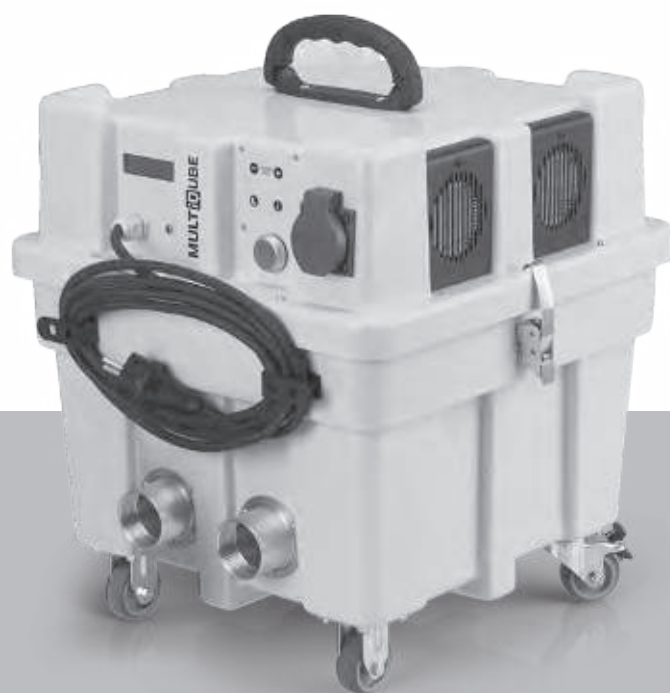


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Safety

Read this manual carefully before starting or using the device. Store the manual near the device or its site of use!

Observe the following instructions:

- Do not use the device in potentially explosive rooms.
 - Do not use the device in atmospheres containing oil, sulphur, chlorine or salt.
 - Set the device up in an upright and stable position.
 - The device is designed for indoor use. Do not use the device at a humidity level of more than 90 % or in the rain.
 - Ensure that the air inlet and outlet are not obstructed.
 - Ensure that the suction side is kept free of dirt and loose objects.
 - Do not cover or transport the device during operation.
 - When using cable drums, always unroll the cable completely.
- ⚠ During damage restoration, provide a sufficient fresh air supply! The room temperature must not exceed 35 °C. Ventilate several times a day. If necessary, direct the exhaust air produced by the VX out of the room. You can also set up the VX in another room (not outdoors!) and direct the air current needed for drying to the inside.**
- Make sure to keep the dust exposure as low as possible in low pressure operation by using suitable micro filters (fig. 2).

- Make sure that the suction strainer (fig. 4) is used when the device is operated with excess pressure.
- Repair and maintenance work on electrical equipment may only be carried out by an electrically skilled person.
- On construction sites, the compressors must only be operated with an upstream residual current device (RCD) 30 mA.
- Do not operate the device in a heavily dust-loaded environment (e. g. during grinding work).

Intended use

The turbines are to be used in low and excess pressure mode for insulation drying of floating screeds, flat roofs (warm roof constructions) and hollow floorings. They are intended to transport non-aggressive and non-explosive gaseous media. Any other use is regarded as non-intended use.

Improper use

The devices are not suitable for the inflation of bouncy castles or similar objects. Media other than those listed as intended use must not be transported.

Personnel qualifications

The compressors may only be operated by expert persons who have been instructed in the operation of the devices and trained in insulation drying techniques. The operating manual is to be consulted for this purpose. Instructed persons have been informed of and, if necessary, trained for the tasks they were entrusted with as well as of potential hazards resulting from inappropriate behaviour.

Scope of delivery

Standard scope of delivery:

- 1 x compressor
- 1 x suction strainer fig. 4
- 2 x connectors 50/38 mm
- 1 x operating manual

Optionally available accessories:

- door gap nozzle PlanoPro (Art. no. 6.100.000.160)
- MultiQube silencer NR 19 (fig. 1; no. 1); Art. no. 6.100.000.120
- Quad distributor Pro (fig. 3); Art. no. 6.100.000.142

Description of the device

The compressors of the VX series are used for drying insulation layers. In case of excess pressure drying, the roomair is blown into the humid insulation layer via bore holes, the insulation layer absorbs the humidity and returns it to the environment via the expansion joints.

In case of low pressure drying, a drying chain (fig. 1) consisting of water separator, air filter and compressor is used to suck the air out of the insulation layer. The air sucked out of the bore holes is separated from solid particles and water drops inside the water separator. Particles and mould spores are filtered out by the HEPA and F7 filters.

Should there be any concerns relating to air pollution due to fibres or spores from inside the insulation layer (GefStoffV: Ordinance on Hazardous Substances), the use of the low pressure procedure is compulsory in order to filter the polluted air. The silencer allows to effectively decrease the volume in occupied buildings.

The humid air has to be dried additionally by adequately powerful mobile dehumidifiers.

- To be able to use the high performance of the VX compressors, it is necessary to operate the optional quad distributor Pro (fig. 3) with at least two 38 mm hoses. If no quad distributor can be used, the hose diameter should be at least 50 mm, for otherwise there might be performance losses of up to 10 %.
- This VX distributor is equipped with self-regulatory step switches.
- The device comes with 4 power stages: stage 1 with 100 m³/h; stage 2 with 150 m³/h and stage 3 with 180 m³/h as well as the boost stage with up to 245 m³/h. In addition, there is a "whisper mode" with 100 m³/h as well. For each of these steps, the VX tries to achieve the target air volume, regardless of the construction.

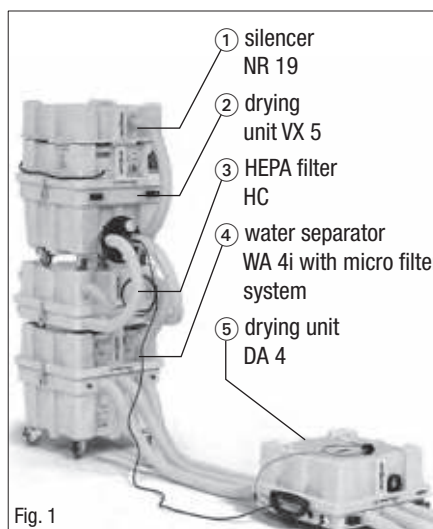


Fig. 1



Fig. 2



Fig. 3



Fig. 4

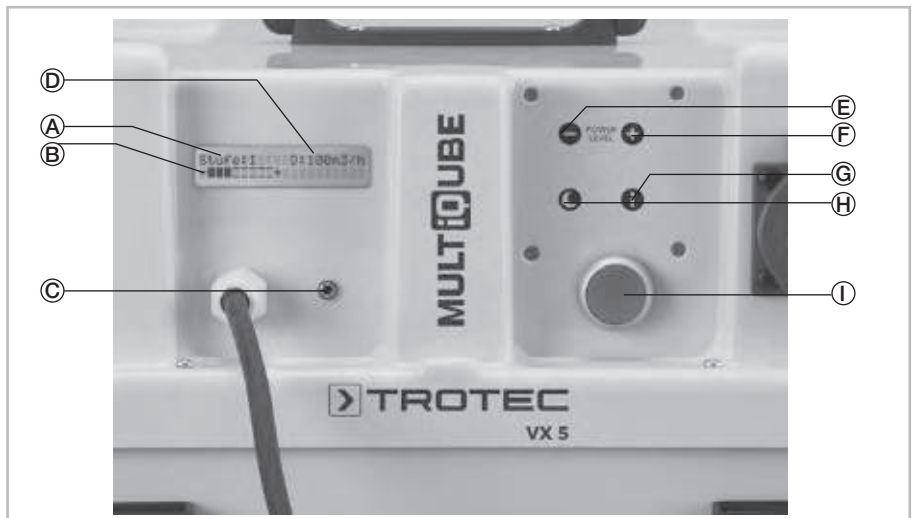
⚠ The turbines are suited for transporting clean air only. If the transported medium contains solid particles or other impurities, it is necessary to install suitable filters on the suction side (e. g. water separators, micro filters). If impurities enter into the turbine, this might damage the turbine.

⚠ During damage restoration, provide a sufficient fresh air supply! Ideally, the room temperature should not exceed 35 °C. Ventilate several times a day. If necessary, direct the exhaust air produced by the VX out of the room. You can also set up the VX in another room (not outdoors!) and direct the air current needed for drying to the inside.

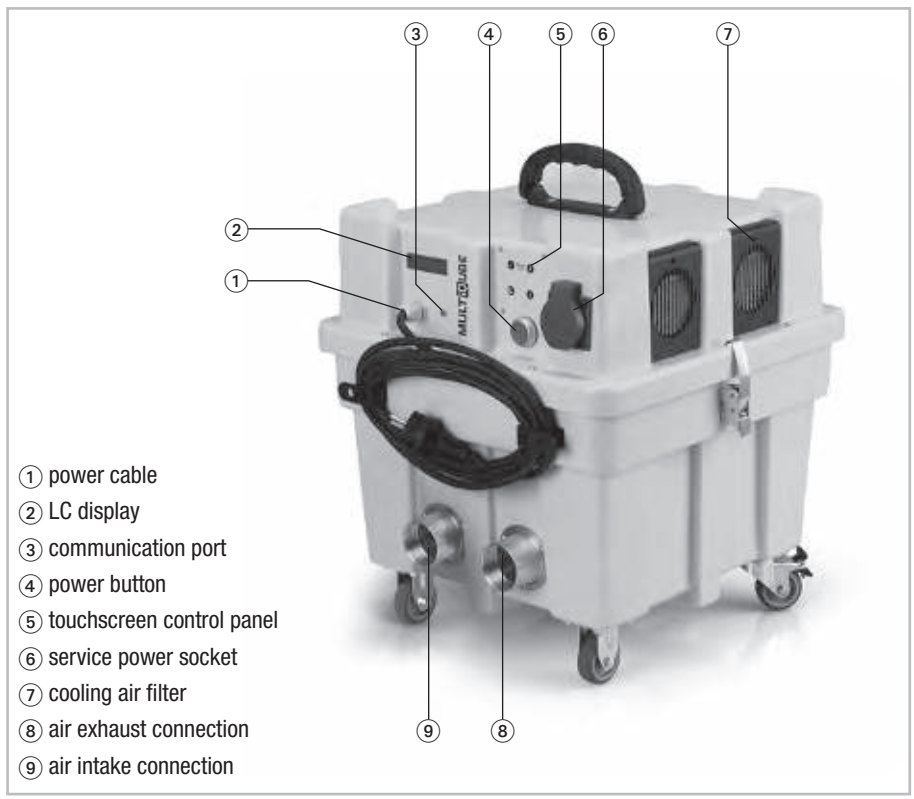
The compressor is equipped with a multi-functional LC display. Besides giving information on the work stage, air flow rate etc., its background colour changes. Making use of the traffic light system, it indicates how suitable your drying installation is. An optimal air flow rate is indicated by a green background colour when the compressor is running. If the display is illuminated in yellow, this means that the installation is OK but the flow conditions for the dry air are not optimal. Drying can be carried out without any difficulties while the display is yellow. A red background indicates an uneconomic operation. The compressor should not be permanently operated in this condition.

Start-up

- Install the compressor according to the selected procedure.
- Use suitable hoses (observe number and diameter) to set up the drying installation.
- Remove any sealing plugs on the intake or exhaust connection!
- Use a water separator for the vacuum procedure! In this case, connect the mains plug of the VX 5 compressor to the socket of the water separator. This way, the water separator can switch off the compressor if the amount of water is too high. This leaves the water separator enough time to pump off the accumulated water. Once the water tank of the water separator is empty, the compressor switches back on and operates in the previously chosen setting.
- For drying operations, only use cables and sockets complying with the regulations. In addition to the 16 A fuse, the socket should also be secured by a 30 mA residual current device (RCD).
- Use the power button to switch the compressor on. The following working stages are available:
 - 3 power stages 1-3
 - stage 4: boost stage
 - whisper mode
- If an upstream MultiQube DA has been connected, all three valves should be opened.



- Ⓐ indication of the selected power stage
- Ⓑ indication of the motor power
- Ⓒ plug socket for connection to a DA 4 or a DA 4 M
- Ⓓ indication of the air volume flow
- Ⓔ decrease power stage
- Ⓕ increase power stage
- Ⓖ button for indication of operating hours and power consumption
- Ⓗ whisper mode
- Ⓘ power button



- ① power cable
- ② LC display
- ③ communication port
- ④ power button
- ⑤ touchscreen control panel
- ⑥ service power socket
- ⑦ cooling air filter
- ⑧ air exhaust connection
- ⑨ air intake connection

- Check its structure via the LCD monitor.
 - green: optimal air volume flow
 - yellow: limit range
 - red: air flow rate too low - installation must be optimized
- In boost mode, the motor runs at its maximum performance.
- In whisper mode, the compressor runs with a max. motor power of 60 %, thus reducing the noise emission at night. The night mode is automatically left after 10h and the compressor starts to run at its previously chosen power stage again. Selecting another stage via the touchscreen will also stop the night mode.
- The communication port is used for data transfer to the DA4 control unit. The data can then be forwarded (USB and modem or USB only).

- Pressing **i** while the device is switched on allows you to see the number of operating hours and the energy consumption.

Shutdown

- Use the power button to switch the compressor off.
- Wait until the motor has come to a standstill.
- Reinsert the sealing plugs removed during start-up.

Care and maintenance

- Always remove the mains plug from the mains socket first.
- Check the cooling air filter and exchange after around 6 months or if required.
- Regularly check cables and plugs. Damaged cables and plugs must be replaced.
- Maintenance and repair work should only be carried out by Trotec.

⚠ Suction side: The compressors of the VX series have a strong suction air flow. Small objects and particles can be sucked in and lead to injuries. Pay attention that no person is standing near the inlet or outlet opening while the compressor is running. If there is no tube or hose connection assembled on the suction side, the air inlet grid (fig. 4) must be installed.

⚠ Blow-out side: The compressors of the VX series have a strong outlet air flow. Sucked-in objects and particles may be ejected at a high speed and lead to injuries. Therefore never hold your hand to the outlet opening.

⚠ Attention: The outgoing air may reach 60–70 °C.

Troubleshooting

Little or no air is sucked in or blown out:

- Check the installation and, if necessary, add relief openings to improve the air circulation and to operate the compressor within its operating range.

Motor is not running:

- Check whether voltage is applied.
- Check the electrical connections and safety installations.
- Check whether the thermal protection has been activated.

Motor switches off during operation:

The compressor has been overheated due to improper operation and switched off by the thermal protection. This could be due to the following causes:

- High counter pressure on the blow-out side has led to overheating.
- Too strong flow resistance on the suction side has led to overheating in suction mode.
- Wait until the motor has cooled down, switch off the device and switch it on again.
- Check the installation and add relief openings to improve the air circulation and to operate the compressor within its operating range.
- Check whether the two cooling air filters are soiled or clogged.

⚠ Permanent or repeated overheating may destroy the motor electronics. Avoid overheating the device and provide a sufficient air circulation (see also "Safety" and "Start-up"). If necessary, direct the warm air out of the room. Room temperatures above 35 °C are to be avoided during operation.

Technical data

Excess pressure /

low pressure. 270 / 220 mbar

Air flow rate max. 250 m³/h

Motor voltage 1 ~ 230 V / 50 Hz

Motor power/motor current. 1.2 kW / 5.5 A

Main fuse 16 A

Important information on recycling!



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and Council of 27th January 2003 concerning old electrical and electronic equipment. At the end of its life, please dispose of this device in a manner appropriate to the relevant legal requirements.

Declaration of conformity



EC Declaration of Conformity
(Translation of the original)

The manufacturer: **TROTEC® GmbH & Co. KG**
Grebbener Straße 7
D-52525 Heinsberg

herewith declares that the compressors have been produced in accordance with the CE guidelines on mechanical engineering as indicated in the following standards.

Important note:

In case of improper use, installation, maintenance etc. or unauthorized changes of the factory-supplied device version, this declaration loses its legal validity.

Device version: Compressor

Series: VX 5 2.0

Applicable regulations: EC Machinery Directive (2006/42/EC)
EC Directive about electromagnetic compatibility (2004/108/EC)

Applied national standards and technical specifications:

EN 60204-1, VDE 0113-1:2009-10,
EN 55011:2011

Heinsberg, 11 November 2014



Managing Director: Detlef von der Lieck

TROTEC® GmbH & Co. KG

Grebbener Straße 7 • D-52525 Heinsberg • Tel.: +49 24 52962-400 • Fax: +49 2452962-200 • E-mail: info@trotec.de • www.trotec.de

Managing Director: Detlef von der Lieck

• Amtsgericht Aachen HRA 5232(Commercial Register, Section A, no. 5232 at the Local Court Aachen)

Trotec GmbH & Co. KG

Grebener Str. 7
52525 Heinsberg

📞 +49 2452 962-400

📠 +49 2452 962-200

info@trotec.com

www.trotec.com