



MOTOR **ECO**

HEAT RECOVERY SINGLE-ROOM UNIT



VENTO Ergo A25-1 Pro
VENTO Ergo A25-1 S Pro



EN

OPERATION MANUAL

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**ATTENTION**

The product is not allowed for use by children and persons with reduced physical, mental or sensory capacities, without proper practical experience or expertise, unless they are controlled or instructed on the product operation by the person(s) responsible for their safety. Supervise the children and do not let them play with the product.

**WARNING**

Do not dispose in domestic waste. The unit contains in part material that can be recycled and in part substances that should not end up as domestic waste. Dispose of the unit once it has reached the end of its working life according to the regulations valid where you are.

**WARNING**

Make sure the unit has no visible transport damages while accepting the goods. Check the ordered and the delivered goods for compliance.

**ATTENTION**

Read the operation manual prior to any electric installations. Connection of the unit to power mains is allowed by qualified professionals.


**WARNING**

Read the operation manual prior to any electric installations. Connection of the unit to power mains is allowed by a qualified electrician only. The rated electrical parameter are stated on the rating plate. No modifications of internal connections are allowed and will result in void warranty. Connect the fan only to power mains with valid electric standards. The unit must be connected to a correct mounted socket with a grounded terminal or connected to a fixed installed cable. Follow the respective electric standards, safety rules (DIN VDE 0100), TAB der EVUs. The house cabling system must be equipped with an automatic switch at the external input. Connect the unit to power mains through the automatic switch. The contact gap on all poles at least 3 mm (VDE 0700 T1 7.12.2 / EN 60335-1). Install the automatic switch to ensure prompt access.

**WARNING!**

Disconnect the unit from power mains prior to maintenance operations!

**ATTENTION**

After installation of the filters and the heat exchanger in the unit, press and hold the button  on the remote controller to reset the motor meter. A long sound signal confirms reset of the motor meter.

BLAUBERG Company is happy to offer your attention a new heat recovery single-room unit VENTO Ergo A25-1 Pro.

INTRODUCTION

The present operation manual contains a technical description, technical data sheets, operation and mounting guidelines, safety precautions and warnings for safe and correct operation of the unit. Read carefully and understand the operation manual, especially the safety requirements, before the unit mounting and start up. Keep the operation manual available as long as you use the unit.

GENERAL

The single-room unit is designed for efficient energy saving supply and exhaust ventilation of flats, houses, cottages and other small premises. The unit is equipped with a high-tech ceramic heat exchanger that provides the extract air heat recovery for warming up of filtered supply air. The heat recovery efficiency of the heat exchanger is up to 85 %. The unit is designed for indoor application with the ambient temperature ranging from -20 °C up to +50 °C and relative humidity up to 80 %. The unit is designed for external through-the-wall installation. The unit is designed for continuous operation always connected to power mains. The unit is allowed for operation only after final mounting that includes installation of protecting devices in compliance with DIN EN ISO 13875 (DIN EN OSI 12100) as well as other construction safety equipment. The unit design is regularly improved, so some models may slightly differ from those ones described in this operation manual.

SAFETY RULES

All operations related to the unit electrical connections, servicing and repair works are allowed only after the unit disconnection from power mains. All mounting and servicing operations are allowed by duly qualified personnel. The unit must be grounded! Please follow the safety regulations and working instructions (DIN EN 50 110, IEC 364). Make sure the impeller and the casing are not damaged before connecting the unit to power mains. The casing internals must be free of any foreign objects which can damage the impeller blades. Disconnect the unit from power mains prior to any operations related to the unit servicing and repair works. Misuse of the product or any unauthorized modification are not allowed. The unit is designed for connection to AC single-phase power mains, see „Technical Data“. The unit is rated for permanent operation during non-stop power supply. Take steps to prevent ingress of smoke, carbon monoxide and other combustion products into the room through open chimney flues or other fire-protection devices. Sufficient air supply must be provided for proper combustion and exhaust of gases through the chimney of fuel burning equipment to prevent back drafting. The maximum permitted pressure difference per living units is 4 Pa.

The transported air must not contain any dust or other solid impurities, sticky substances or fibrous materials.

The unit is not rated for operation in a flammable or explosive medium. Do not close or block the unit intake or exhaust vent not to disturb the normal air passage. Do not sit on the unit and do not put objects on the unit. In case of unusual sounds, smoke disconnect the unit from power supply and contact the service centre. Follow the operation manual guidelines to ensure trouble-free operation and long service life of the unit. Hazardous parts access and water ingress protection standard IP24.

STORAGE AND TRANSPORTATION RULES

Transportation of the unit is allowed by any vehicle provided the unit is transported in the original package and is protected against weather and mechanical damages. Use hoist machinery for handling and transportation to prevent possible mechanical damages of the unit. Fulfil the requirements for transportation of the specified cargo type during cargo-handling operations. Store the unit in a dry and cool place in the original packing. The storage environment must not be subjected to any aggressive and/or chemical evaporations, admixtures, foreign objects that may provoke corrosion and damage connection tightness. Store the unit in an environment with minimized risk of mechanical damages, temperature and humidity fluctuations. Do not expose the unit to the temperatures below +10 °C and above +40 °C. Connection of the unit to power mains is allowed after the unit has been kept indoor for minimum two hours.

MANUFACTURER'S WARRANTY

The product complies with the requirements according to the EU norms and directives, to the relevant EU-Low Voltage Equipment Directives, EU-Directives on Electromagnetic Compatibility. We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. The manufacturer hereby warrants normal operation of the product over the period of 2 years from the retail sale date provided observance of the installation and operation regulations. In case of failure due to manufacturing fault during the warranty period the consumer has the right to exchange it. If case of no confirmation of the sale date, the warranty period shall be calculated from the manufacturing date. The replacement is offered by the Seller. The manufacturer shall not be liable for any damage resulting from any misuse of or gross mechanical interference with the unit. Fulfil the operation manual requirements to ensure a trouble-free and long service life of the unit.

DESIGN AND OPERATING LOGIC

The unit consists of a telescopic duct with adjustable length, a ventilation unit and an outer hood. Two filters and a ceramic heat exchanger are installed inside of the telescopic air duct. The round Ø 107 mm air duct is made of plastic and has an adjustable length:

- 300 up to 570 mm for the models VENTO Ergo A25-1Pro;

- 120 up to 500 mm for the models VENTO Ergo A25-1 S Pro.

The unit is equipped with a high-tech ceramic heat exchanger with heat recovery efficiency up to 85 %. Due to the cellular structure it has a larger contact surface and high heat recovery efficiency. The ceramic heat exchanger is featured with excellent heat-conducting properties and heat accumulating capacity. The heat exchanger is used for extract air heat recovery and warming up of supply air. The cord inside the heat exchanger facilitates its removal for maintenance. The heat exchanger is installed on the insulation material used as a sealer as well.

The ventilation unit with a flat front panel is for installation on inner side. The

automatic shutters in the ventilation unit close the air duct when the unit is off.

Air is supplied and extracted with an axial reversible fan with EC motor and low energy demand. The motor has overheating protection and ball bearings for longer service life.

Two built-in filters with total filter class G3 and antibacterial coating are used for supply and extract air filtration and the heat exchanger anti-soiling protection. The unit is equipped with a motor meter with non-volatile memory. After 90 days non-stop operation the sound signal reminds of the need to clean or replace the filters. The signal is repeated every 5 minutes, until the filters are cleaned or replaced.

The outer hood to prevent ingress of large objects and water into the unit.

The unit operation modes are controlled with a remote controller or two three-position switches located on the unit casing.

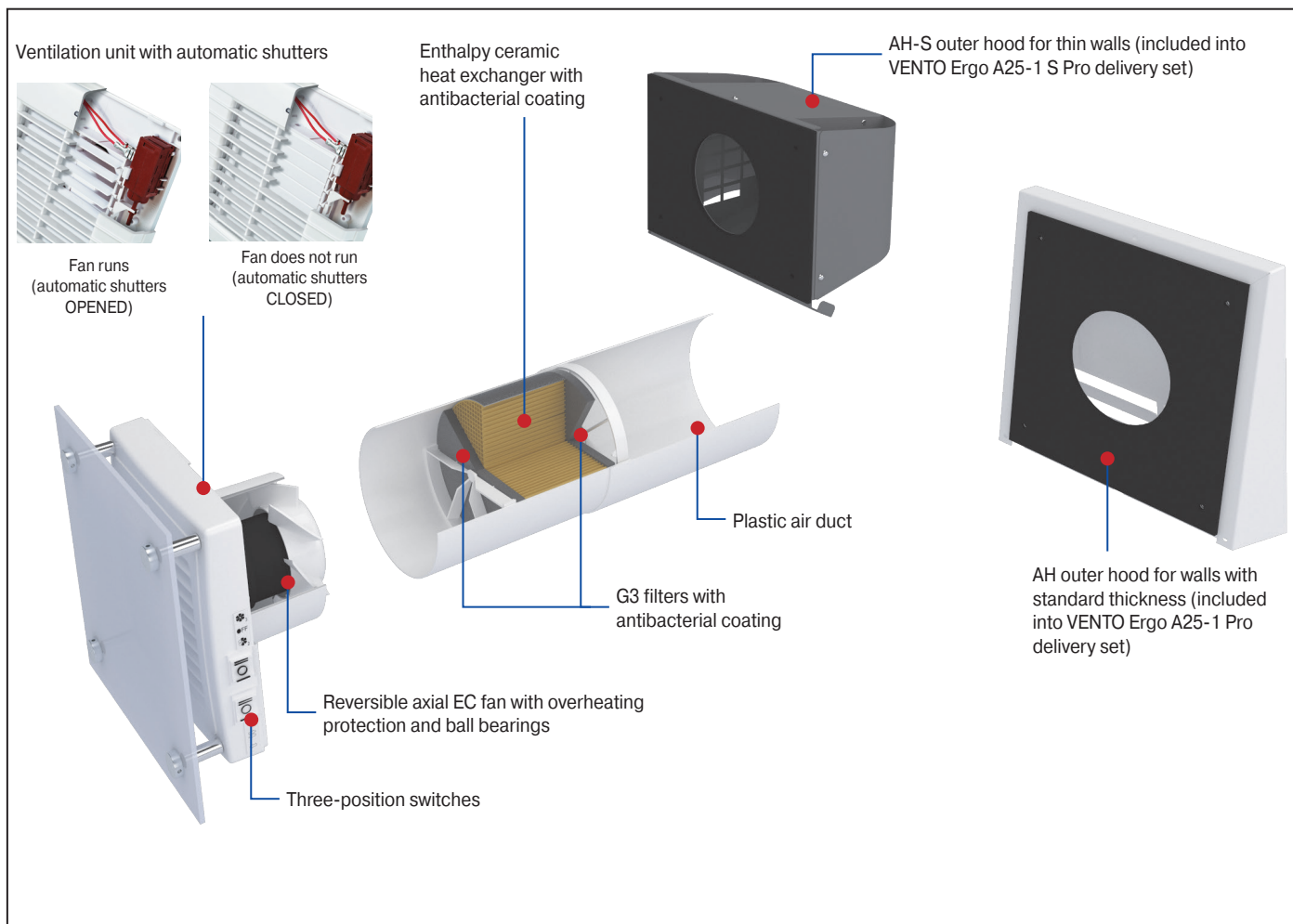


Fig. 1. Unit design

The unit has four ventilation modes:

- **Ventilation** - the unit operates in permanent extract or supply mode, depending of the CN7 jumper position. The jumper is set to extract (out) mode by default.
- **Air Supply** - the unit operates in supply mode no matter CN7 jumper position.
- **Passive Air Supply** – the fan is off, the automatic shutters are

- opened and the room is ventilated in the natural way.
- **Heat Recovery** – the unit operates in reversible mode with heat and humidity recovery. In **Heat Recovery mode** the air supply and air extract modes are changed every 70 seconds.

Unit operation logic in winter time

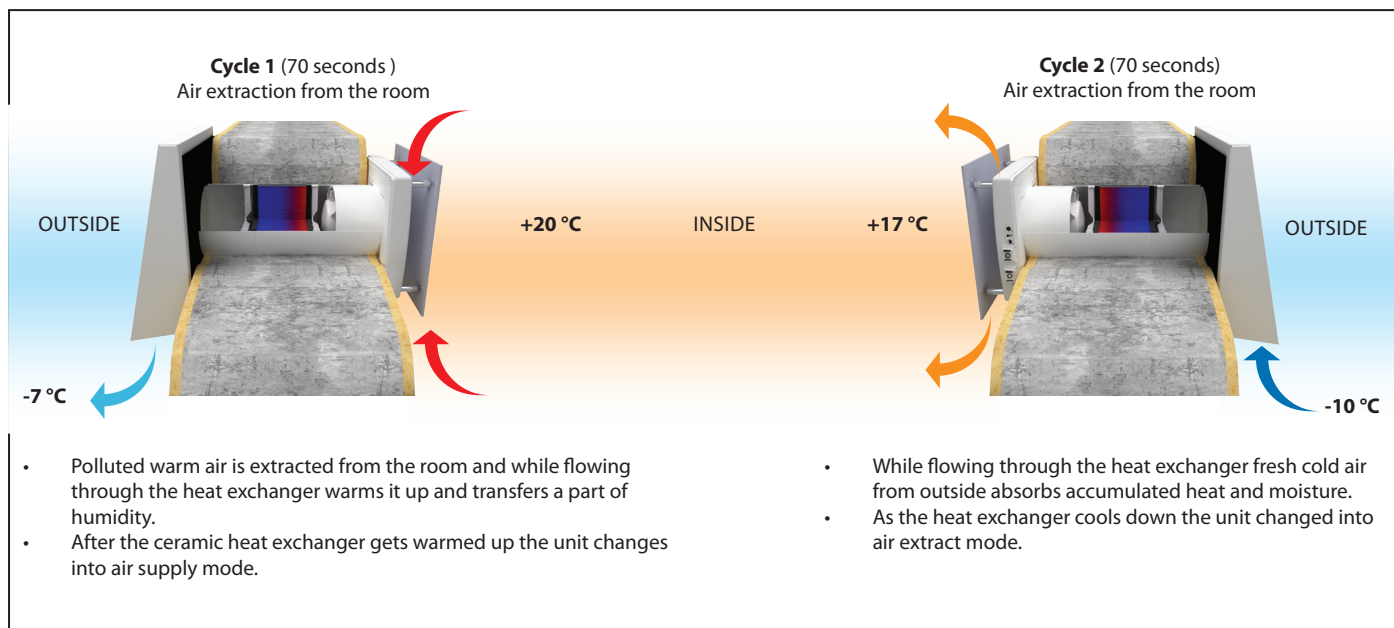


Fig. 2. Operation logic

MODIFICATIONS AND OPTIONS

VENTO Ergo A25-1 Pro

Unit with a flat front panel for 300 up to 570 mm walls.

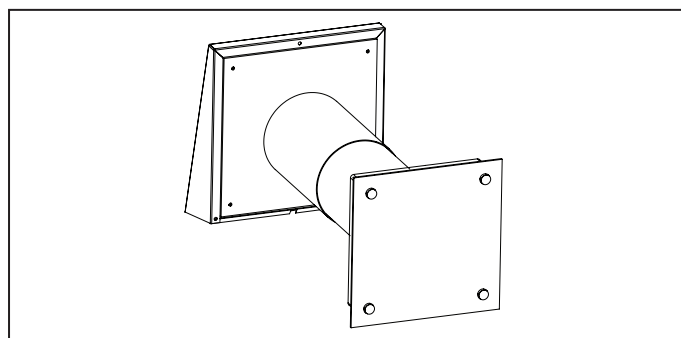


Fig. 3. VENTO Ergo A25-1 Pro

VENTO Ergo A25-1 S Pro

Unit with a flat front panel for 120 up to 500 mm walls.

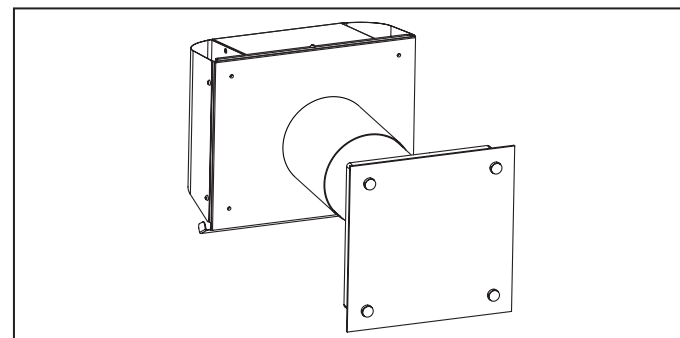


Fig. 4. VENTO Ergo A25-1 S Pro

ATTENTION

- ✓ Unit – 1 item;
- ✓ Fixing set – 1 item;
- ✓ Operation manual – 1 item;

- ✓ Remote controller – 1 item;
- ✓ Packing box – 1 item.

TECHNICAL DATA

Table 1. Technical data of the unit

Parameters	VENTO Ergo A25-1 Pro VENTO Ergo A25-1 S Pro		
Voltage / 50–60 Hz [V]	1~100–230		
Speed	1	2	3
Total unit power [W]	3.68	4.15	5.59
Total unit current [A]	0.024	0.027	0.038
Max. air flow [m ³ /h]	7	16	25
RPM	1250	1397	2541
Sound pressure level at 1 m distance [dB(A)]	31	35	43
Sound pressure level at 3 m distance [dB(A)]	19	22	29
Outdoor sound attenuation [dB(A)]	19		
Transported air temperature [°C]	from -20 up to +50		
Filter: extract / supply	G3		
Heat recovery efficiency [%]	up to 85		
Heat exchanger type	ceramic heat exchanger		
Ingress Protection Rating	IP24		

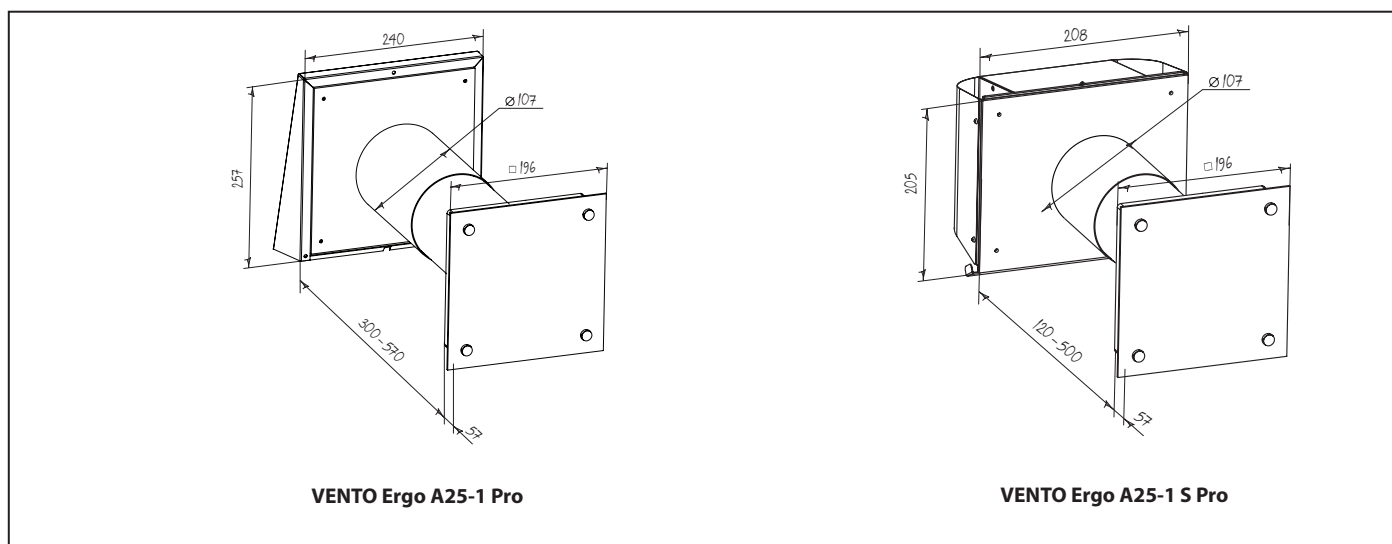


Fig. 6. Overall dimensions

MOUNTING

The unit is designed for through-the-wall mounting in the building outer wall. Mounting sequence:

1. Prepare a round core hole through the outer wall. The size is shown in the figure 7.

While mounting several connected in series units provide a recess for the cable layout during the hole preparation to enable series connection of several units.

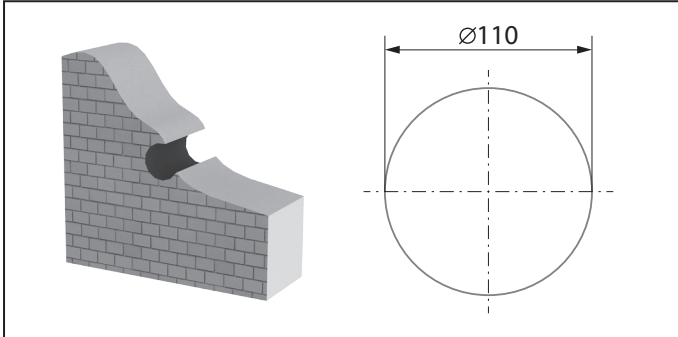


Fig. 7.

2. Install the telescopic air duct in the wall. The protruding telescopic air duct on outer wall side must be equal to the distance A, fig. 8:

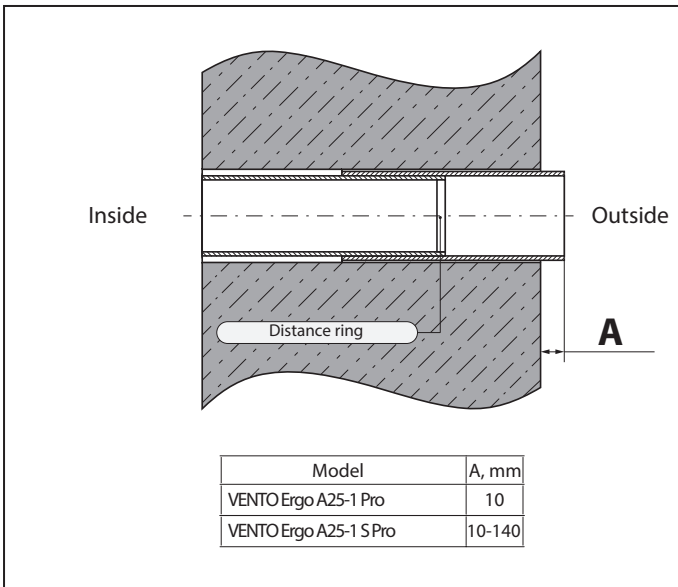


Fig. 8.

3. Fill the gaps between the wall and the telescopic air duct with a mounting foam.

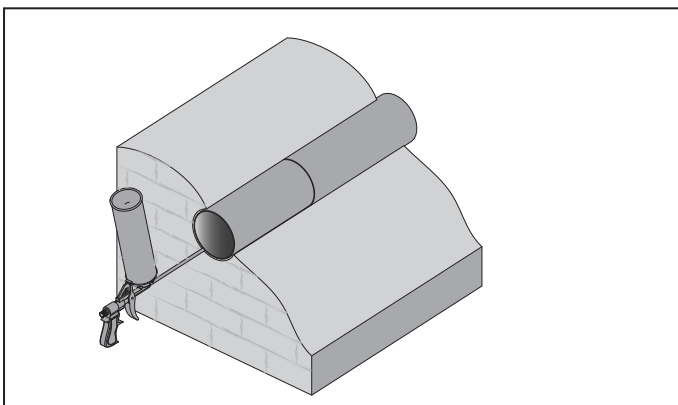


Fig. 9.

4. Install the filter, the ceramic heat exchanger, another filter and the air flow rectifier in the telescopic air duct.

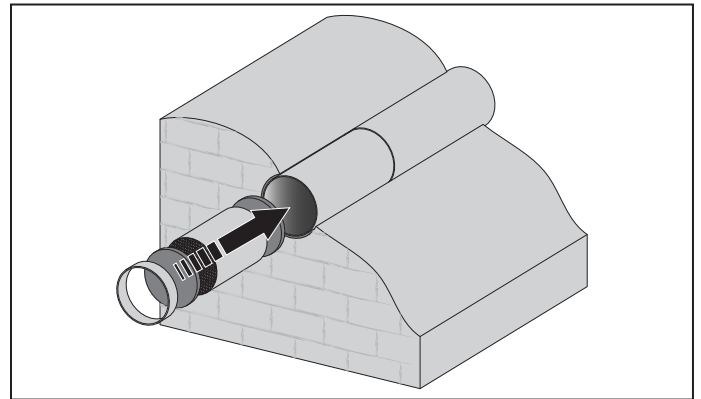


Fig. 10.

5. Mark the fastening holes for the outer ventilation hood:

- Fig. 11a for VENTO Ergo A25-1 Pro. Drill 40 mm holes for the dowel 6x40.

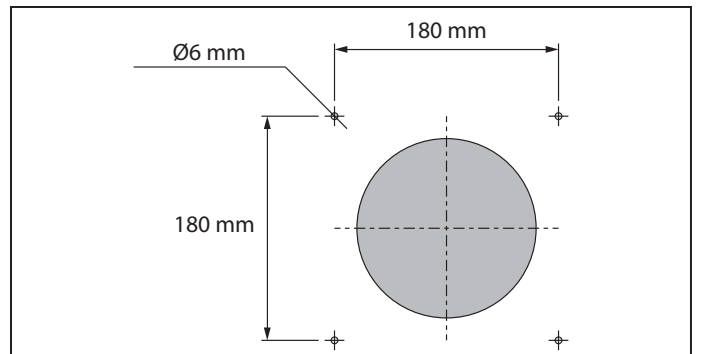


Fig. 11a.

Fig. 11b for VENTO Ergo A25-1 S Pro. Drill 40 mm holes for the dowel 6x40.

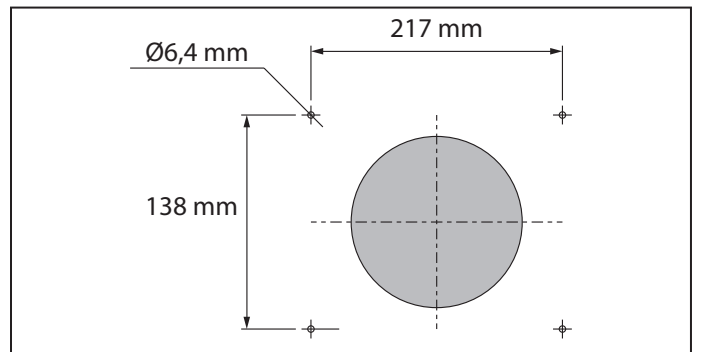


Fig. 11b.

6. Insert the dowels 6x40 from the delivery set into the holes.

7. Disassemble the outer ventilation hood to enable access to the fastening holes:

- Fig. 12a – VENTO Ergo A25-1 Pro model. Remove the upper part of the outer ventilation hood.

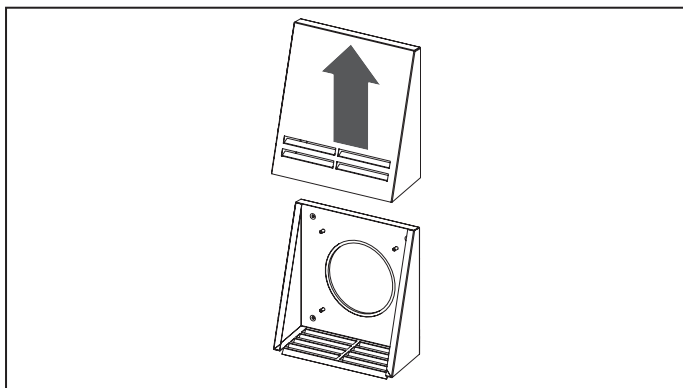


Fig. 12a.

- Fig. 12b – VENTO Ergo A25-1 S Pro model. Loosen 5 screws and take off the upper part of the outer ventilation hood.

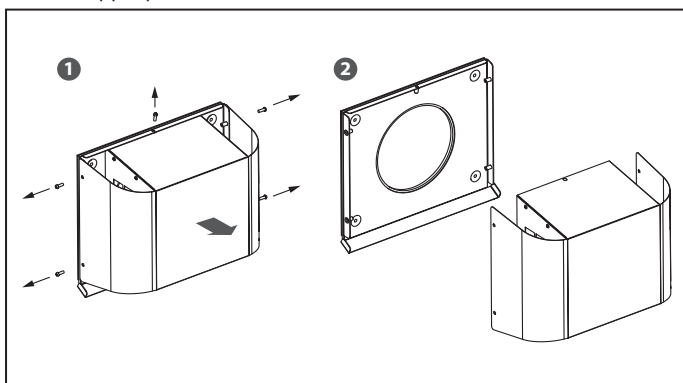


Fig. 12b.

8. Fix the back part of the outer hood on the wall.

- Fig. 13a – VENTO Ergo A25-1 Pro model. Fix the back part of the outer ventilation hood to the wall with the screws 4x40 from the delivery set.

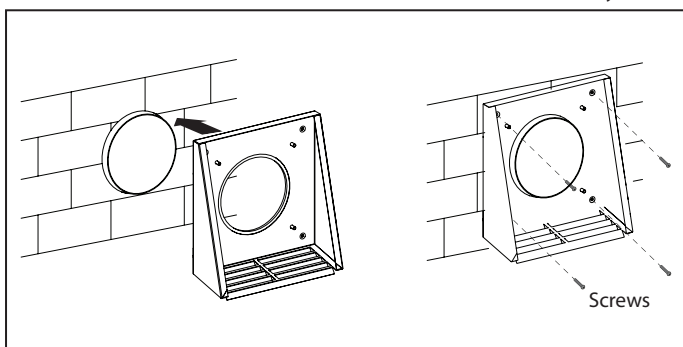


Fig. 13a.

- Fig. 13b – VENTO Ergo A25-1 S Pro model. Fix the back part of the outer ventilation hood to the wall with the screws 4x40 from the delivery set.

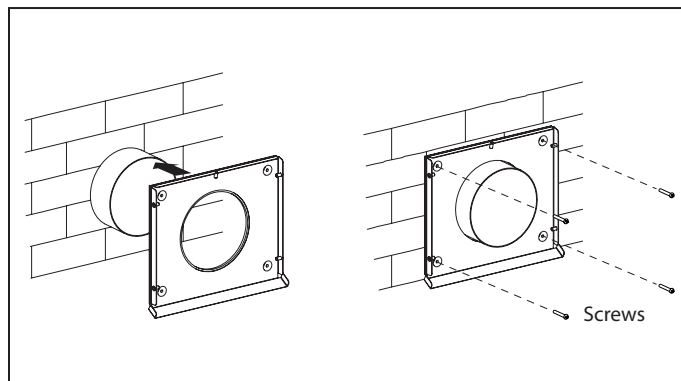


Fig. 13b.

9. Install the upper part of the outer ventilation hood:

- Fig. 14a. VENTO Ergo A25-1 Pro model.

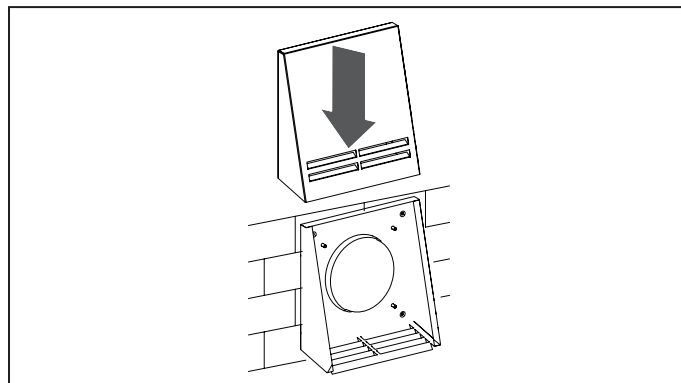


Fig. 14a.

- Fig. 14b. VENTO Ergo A25-1 S Pro model.

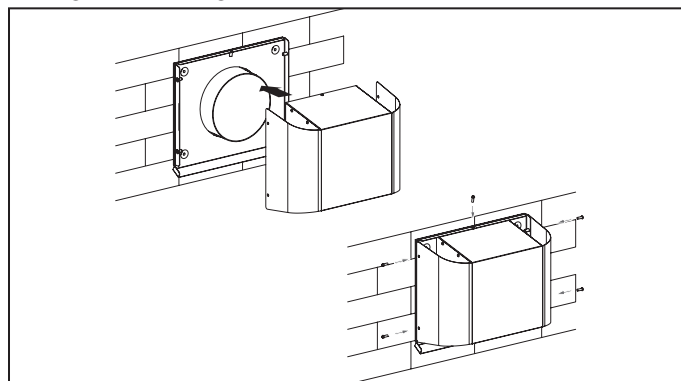
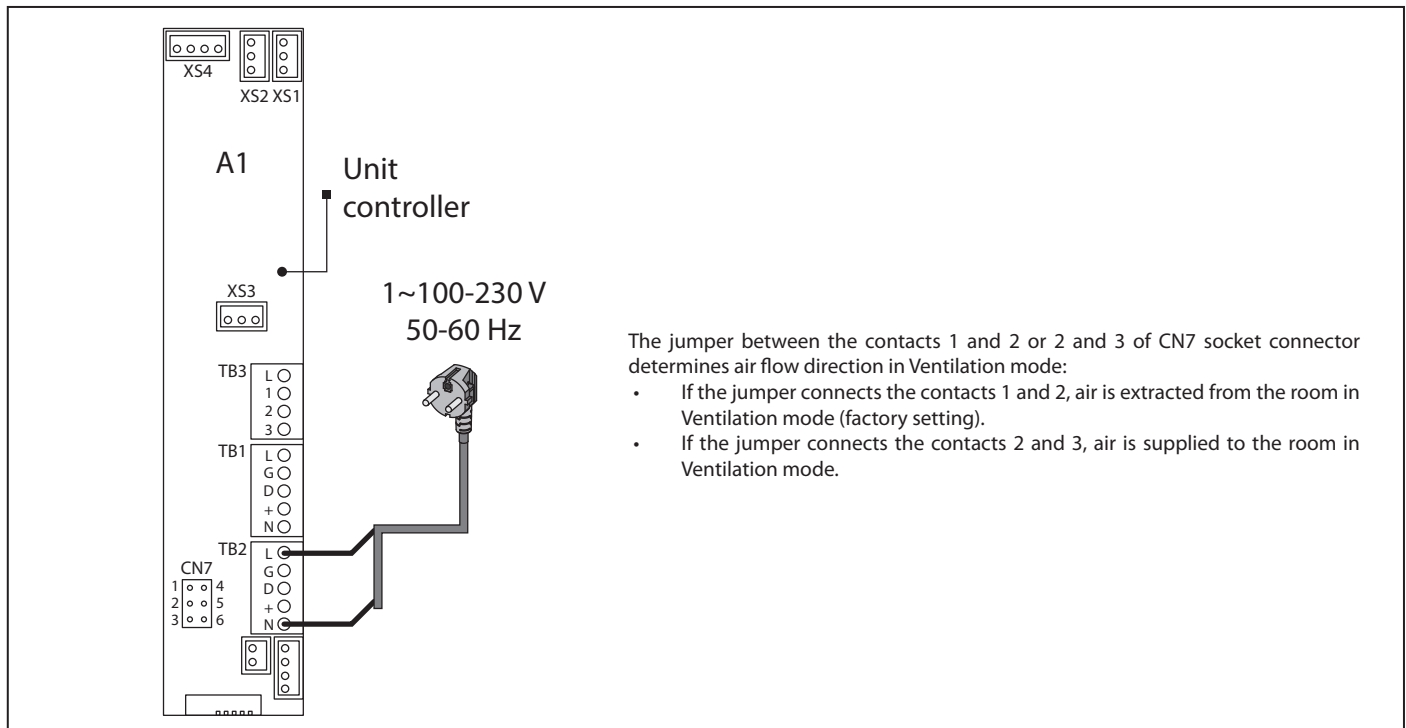


Fig. 14b.

CONNECTION TO POWER MAINS

The unit is rated for connection to single-phase alternating current power mains 1~100-230 V / 50-60 Hz. The unit is delivered ready to plug-in and must be connected to power supply via a pre-wired power cable with a euro plug.



The jumper between the contacts 1 and 2 or 2 and 3 of CN7 socket connector determines air flow direction in Ventilation mode:

- If the jumper connects the contacts 1 and 2, air is extracted from the room in Ventilation mode (factory setting).
- If the jumper connects the contacts 2 and 3, air is supplied to the room in Ventilation mode.

Fig. 15. Wiring diagram

UNIT CONTROL

The unit is operated with the switches on the ventilation unit casing, Fig. 16 or with the remote controller, Fig. 17.

The unit control with the operation switches on the unit casing has limited functionality:

1. Activation of the speed 2 and speed 3 only;
2. Setting three of four possible ventilation modes.

The remote controller has a wider control functionality.

Humidity control function is possible from the remote controller only!

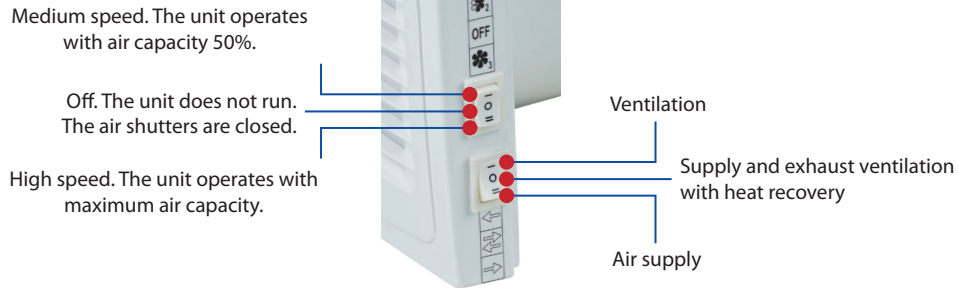


Fig. 16. Control switches on the ventilation unit

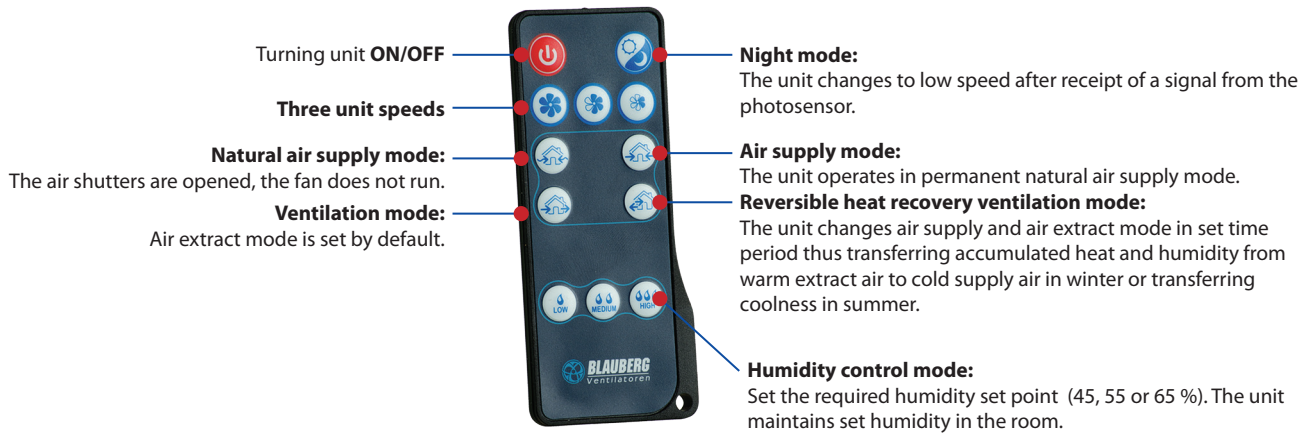


Fig. 17. Remote controller

Operation with the remote controller



Turn the switches on the ventilation unit to OFF position prior to using the remote controller.



Function		Button
1	Unit ON/OFF	
2	Night mode	
Activation Activation of the Night Mode is confirmed with a long sound signal. If the Night Mode function is activated the unit changes to low speed as soon as it gets dark in the room.		
Deactivation Exit from the Night Mode is confirmed by a short sound signal.		
3	Speed setting	
First speed – slow speed		
Second speed – medium speed		
Third speed – maximum speed		
4	Operation mode setting	
Changeover to Passive Supply . Natural ventilation of a room when the fan is off.		
Changeover to Air Supply Mode . Air is supplied to the room at the set speed. All the connected in series units operate in Air Supply Mode no matter of the CN7 jumper position.		
Changeover to the Ventilation Mode . All the connected in series units operate either in Air Extract or Air Supply Mode depending on the CN7 jumper position. By default the jumper is set to Air Extract mode.		
Changeover to Heat Recovery Mode . The unit changes air supply and air extract cycles and operates in reversible mode with heat recovery. The unit operates 70 seconds Air Supply Mode, then 70 seconds in Air Extract Mode.		
5	Humidity control (available only for Heat Recovery mode) If the indoor humidity exceeds the set point, the unit switches to high speed. If the humidity is within $\pm 5\%$, the unit operates at medium speed. If the indoor humidity is below the set point, the unit changes to low speed. Press any speed control button to deactivate the humidity control function.	
45 %		
55 %		
65 %		

MAINTENANCE

The unit maintenance involves periodic cleaning of the unit surfaces and cleaning or replacement of the filters.

1. Fan maintenance (once a year).

Take off the ventilation unit and clean the fan blades, fig. 20. Remove dust with a soft brush, cloth or a vacuum cleaner. Do not use water, abrasive detergents, solvents, sharp objects. Clean the impeller blades once in a year.

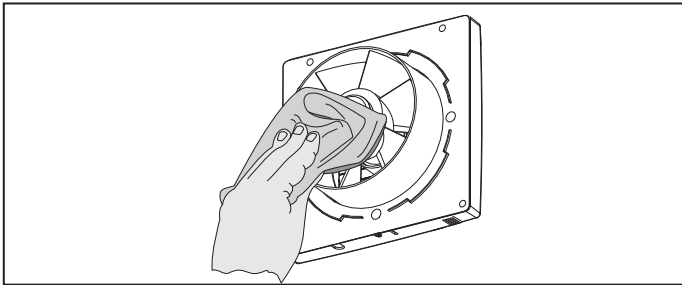


Fig. 20.

2. Heat exchanger and filter maintenance (4 times per year).

Pull out the air flow rectifier, fig. 21. Remove the filter in front of the heat exchanger. Pull the cord to remove the heat exchanger from the air duct supporting it with the hand to avoid its damage. Remove the filter behind the heat exchanger.

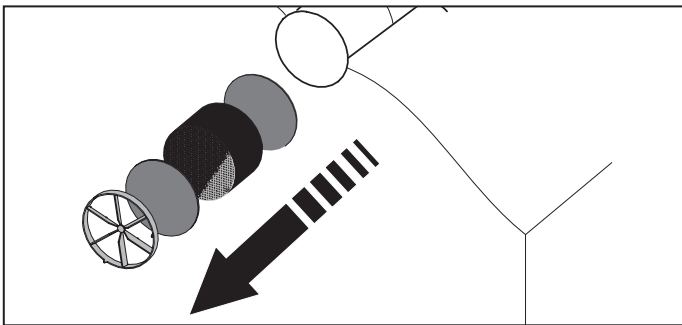


Fig. 21.


Clean the filters as often as required, but at least once in three months. After 90 days of non-stop operation the sound signal reminds of the need to clean or replace the filter. The signal is repeated every 5 minutes. In this case turn the unit off and clean or replace the filters.

To clean the filters flush those with water or use a vacuum cleaner, fig. 22. Install the dry filters into the air duct. Contact a local distributor for the new filters stated above in the section „Technical data“.

Even regular filter maintenance may not completely prevent dust accumulation on the heat exchanger unit. Clean the heat exchanger with a vacuum cleaner at least once a year to maintain its high heat recovery efficiency.



ATTENTION

After installation of the filters and the heat exchanger in the unit, press and hold the button  on the remote controller to reset the motor meter. A long sound signal confirms reset of the motor meter.

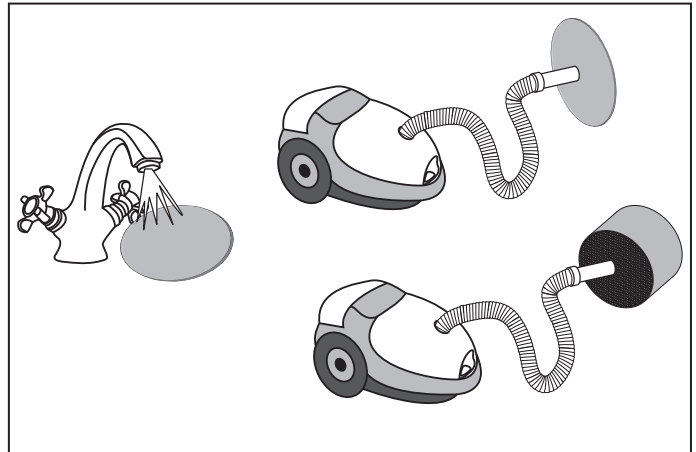


Fig. 22.

3. Outer ventilation hood maintenance (once a year).

The outer ventilation hood grill may get clogged with leaves and other objects that reduce the unit performance. Check the outer ventilation hood twice a year and clean it as often as required.

Cleaning of the outer ventilation hood:

- remove the upper part of the outer ventilation hood:

Fig. 23 for VENTO Ergo A25-1 Pro.

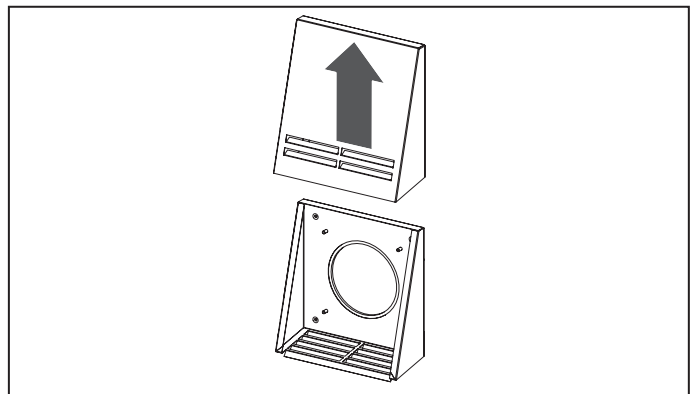


Fig. 23.

Fig. 24 for VENTO Ergo A25-1 S Pro.

- clean the outer ventilation hood and the air duct.

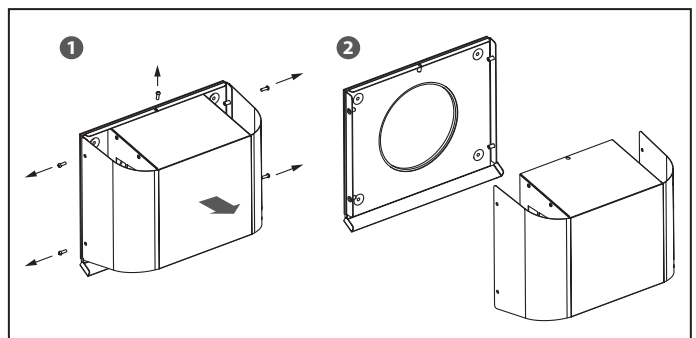


Fig. 24.

TROUBLESHOOTING

Fault	Possible reasons	Fault handling
The fan does not start when the unit is on.	No power supply.	<ul style="list-style-type: none"> • Make sure of correct power supply, otherwise troubleshoot the connection error.
	Jammed motor, soiled impeller blades.	<ul style="list-style-type: none"> • Turn the unit off. • Troubleshoot the motor jam and the impeller clogging. Clean the blades. • Restart the unit.
Automatic switch tripping during the unit start.	Short circuit in power grid as a result of short circuit.	<ul style="list-style-type: none"> • Turn the unit off. • Contact the seller.
Low air flow.	Low set fan speed.	<ul style="list-style-type: none"> • Set higher speed.
	The filters, the fan or the heat exchanger are soiled.	<ul style="list-style-type: none"> • Clean or replace the filter. • Clean the fan and the heat exchanger. • Refer page 12 for maintenance of the heat exchanger and the filters.
Sound signals.	The motor meter is actuated.	<ul style="list-style-type: none"> • Refer page 12 for maintenance of the heat exchanger and the filters.
Noise, vibration.	The impeller is soiled.	<ul style="list-style-type: none"> • Clean the impeller.
	Loose screw connection of the unit casing or the outer ventilation hood.	<ul style="list-style-type: none"> • Tighten the screws of the unit or the outer ventilation hood.

ACCEPTANCE CERTIFICATE**Heat recovery single-room unit**

VENTO Ergo A25-1 Pro		VENTO Ergo A25-1 S Pro	
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is recognizes as serviceable.

The unit complies with the requirements according to the EU norms and directives, to the relevant EU-Low Voltage Equipment Directives, EU-Directives on Electromagnetic Compatibility.

We hereby declare that the following product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This certificate is issued following test carried out on samples of the product referred to above.

Approval mark

Manufacturing date _____

CONNECTION CERTIFICATE**Heat recovery single-room unit**

VENTO Ergo A25-1 Pro		VENTO Ergo A25-1 S Pro	
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is connected to power mains in compliance with the operation manual requirements by the professional:

Company _____

Name _____

Date _____ Signature _____

WARRANTY CARD

VENTO Ergo A25-1 Pro		VENTO Ergo A25-1 S Pro	
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SELLER

SALES DATE

REPRESENTATIVE IN EU

BLAUBERG Ventilatoren GmbH
Aidenbachstr. 52
D-81379 Munich, Germany

