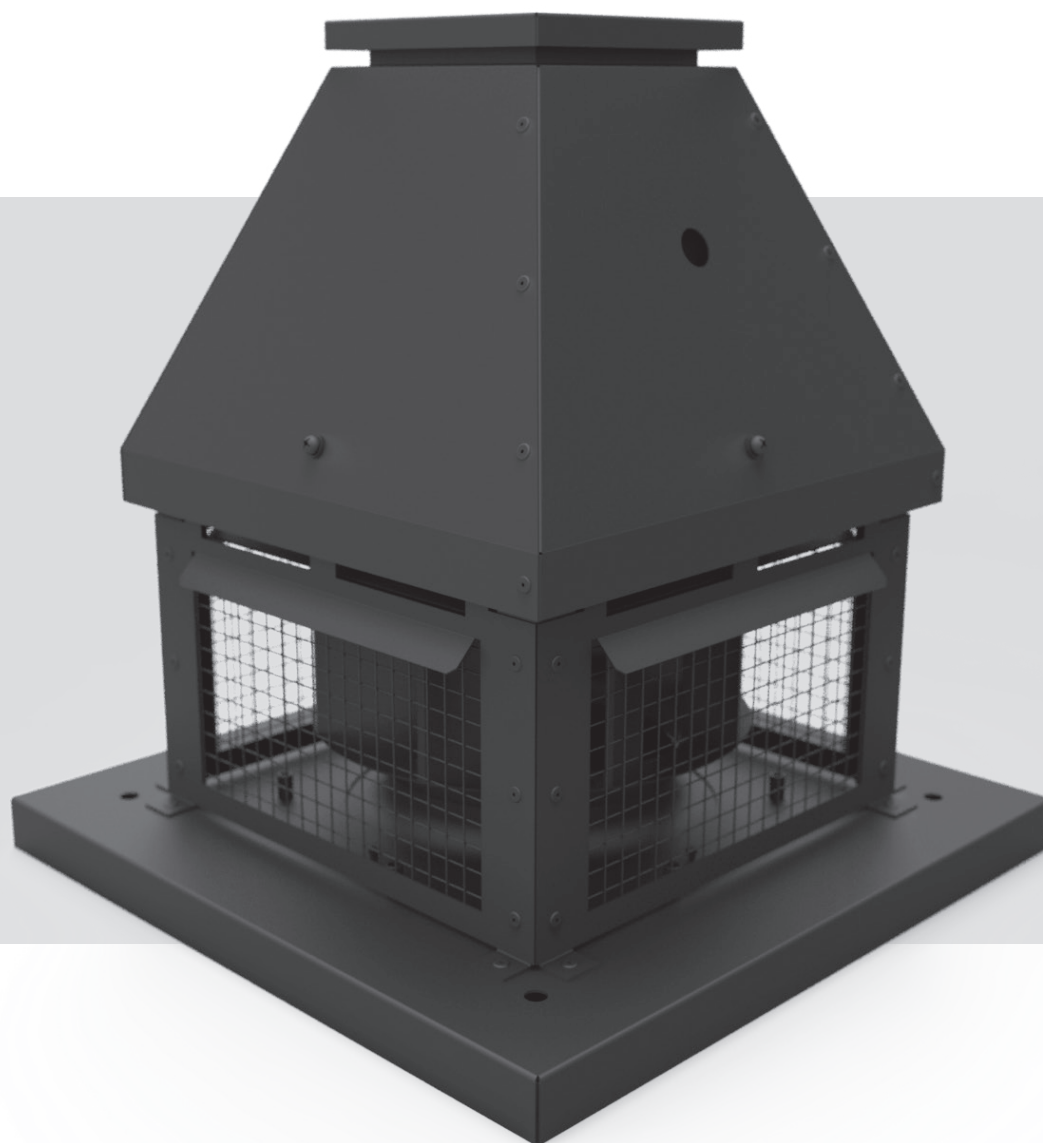


USER'S MANUAL

VKT Series



Roof-mounted
exhaust fan for fireplaces



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The user's manual consisting of the technical details, operating instructions and technical specification applies to the installation and mounting of the roof-mounted chimney exhaust fan VKT, (hereinafter « the the fan» or «the unit» as mentioned in the «Safety Requirements» and «Manufacturer's Warranty» sections as well as in warnings and information blocks).

SAFETY REQUIREMENTS

Read the user's manual carefully prior to installing and operating the unit.

Fulfil the user's manual requirements as well as the provisions of all the applicable local and national construction, electrical and technical norms and standards.



The warnings contained in the user's manual must be considered most seriously since they contain vital personal safety information.

Failure to follow the rules and safety precautions noted in this user's manual may result in an injury or unit damage.

After a careful reading of the manual, keep it for the entire service life of the unit.

While transferring the unit control the User's manual must be turned over to the receiving operator.

Symbol legend:

	WARNING!
	DO NOT!

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- The unit must be grounded!



- Do not lay the power cable of the unit in close proximity to heating equipment.



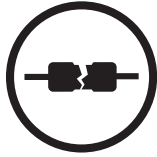
- While installing the unit follow the safety regulations specific to the use of electric tools.



- Do not change the power cable length at your own discretion.
- Do not bend the power cable.
- Avoid damaging the power cable.
- Do not put any foreign objects on the power cable.



- Unpack the unit with care.



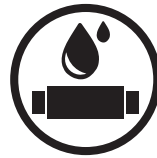
- Do not use damaged equipment or cables when connecting the unit to power mains.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Do not allow children to operate the unit.



- Disconnect the unit from power mains prior to any technical maintenance.



- Do not store any explosive or highly flammable substances in close proximity to the unit.



- When the unit generates unusual sounds, odour or emits smoke disconnect it from power supply and contact the Seller.



- Do not open the unit during operation.



- Do not direct the air flow produced by the unit towards open flame or ignition sources.



- Do not block the air duct when the unit is switched on.



- In case of continuous operation of the unit periodically check the security of mounting.



- Do not sit on the unit and avoid placing foreign objects on it.



- Use the unit only for its intended purpose.

PURPOSE

The roof-mounted centrifugal fan with horizontal air discharge is designed for both general ventilation and smoke extraction systems. The fan can withstand up to 5 hours of operation at smoke temperatures up to +200 °C.

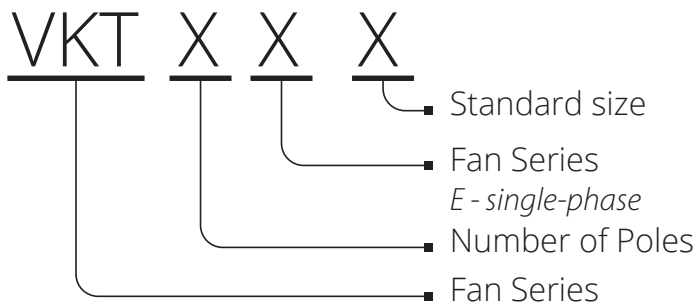


ATTENTION! THE FAN MUST ALWAYS BE SWITCHED ON DURING THE CHIMNEY OPERATION!

DELIVERY SET

Name	Quantity
Fan	1 piece
User's Manual	1 piece
Package box	1 piece

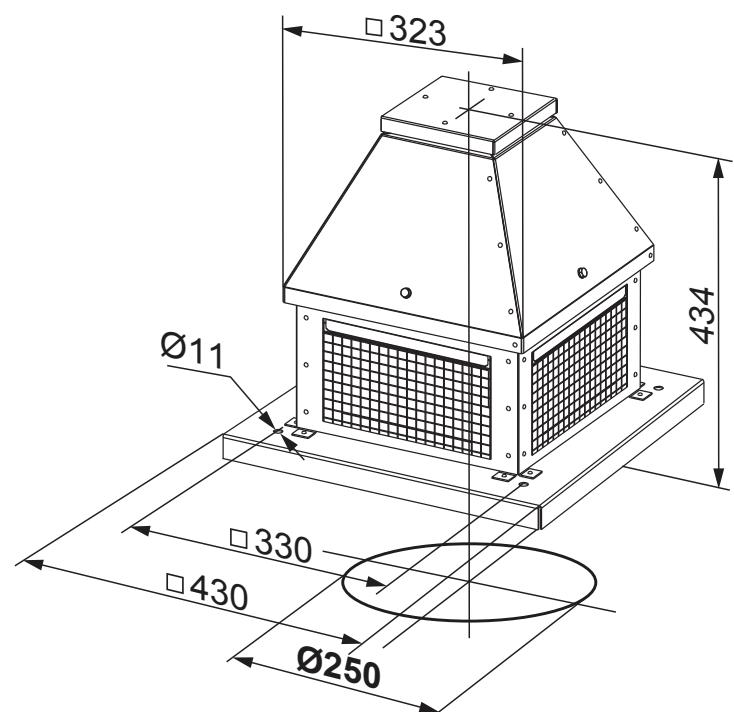
DESIGNATION KEY



Fan designation example:
VENTS VKT 4E 250 is a roof-mounted high-temperature fan for fireplaces with a four-pole electric motor and impeller diameter 250 mm.

TECHNICAL DATA

Voltage, [V] / 50 Hz	1~230
Power, [W]	96
Current, [A]	0,6
Air capacity, [m ³ /h]	1000
Rotation speed, [rpm]	1500
Noise level at 3 m, [dB(A)]	52
Max. transported air temperature, [°C]	200
IP rating	IP44
Weight, [kg]	14,6



DESIGN AND OPERATING LOGIC

The fan casing is made of galvanized polymer coated and weather resistant steel. The fan has a protective grille to prevent accidental touching and penetration of foreign objects.

The metal frame is treated with a heat-resistant polymer coating for an extended service life and weather protection.

The fan is equipped with a 96 W single-phase asynchronous electric motor designed for 230 V / 50 Hz supply mains voltage. The fan has thermal insulation for high-temperature environments while the roller bearings ensure a long and trouble-free operation.

A specially designed impeller minimizes soot and carbon deposits for smooth operation.

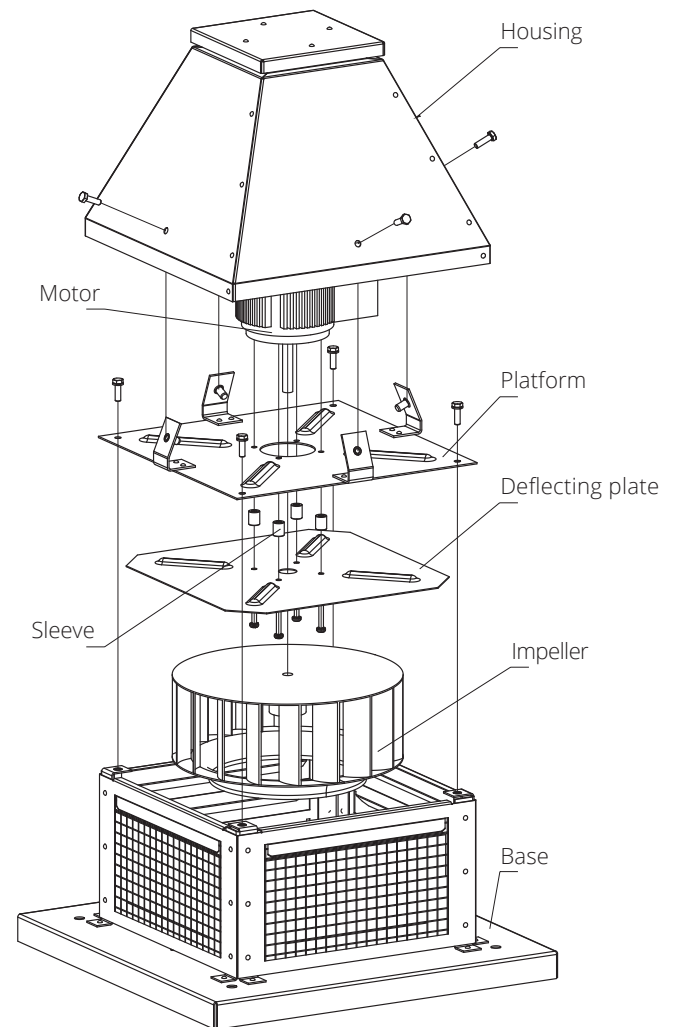
The electric motor drives an impeller with backward-curved blades. The motor is offset from the handled air stream. The motor compartment is isolated from the air stream with an air cushion created between the deflecting plate and the deck. Any precipitation or dust which may penetrate from the top of the motor is blocked off by the protective housing with a sealed electric lead-in. The electric lead-in is not included in the delivery set and must be purchased separately. The electric lead-in must withstand the temperature up to +200 °C.

The housing ventilation openings ensure proper air circulation and removal of heat generated by the motor. The ventilation openings are arranged in such a way so as to prevent penetration of rainwater inside.

The air is discharged horizontally through the service openings in the air grilles attached to the base. The air grille bars provide extra protection against precipitation.

WARNING!

The fan must be operated with the maximum speed at the transported air temperature exceeding +200 °C. At this temperature conditions the use of a speed controller is forbidden for fire safety reasons and for overheating prevention.

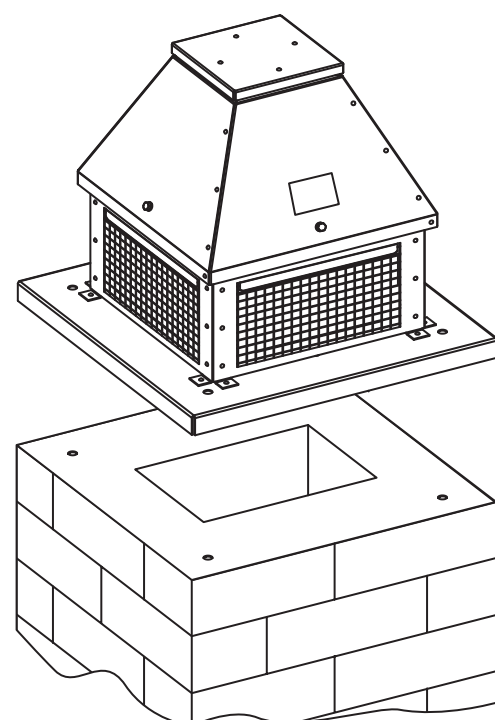


MOUNTING AND SET-UP

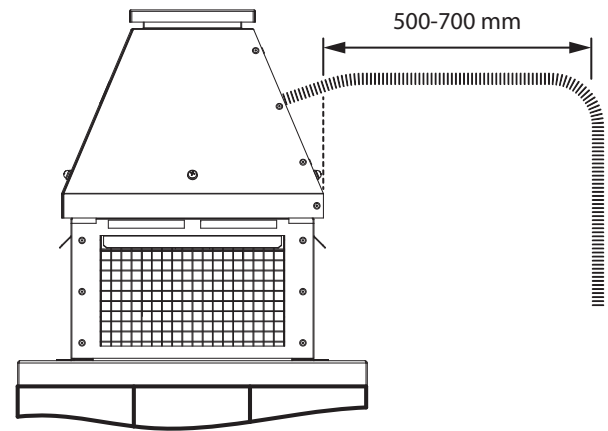
- Unpack the fan and check for any cuts in the electric wires and cracks in the insulation. Inspect the fan casing to make sure it is free from any cracks and deformations. Set the impeller in motion and check that it rotates freely without catching against the inlet flange and the casing.
- Prior to power mains connection make sure that the power mains parameters comply with the technical data on the fan sticker attached to the protective housing.

Fan installation on the chimney brick masonry:

Install the fan onto the chimney brick masonry and fix it through the holes in the fan base.

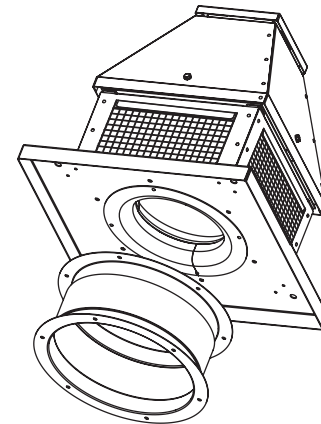
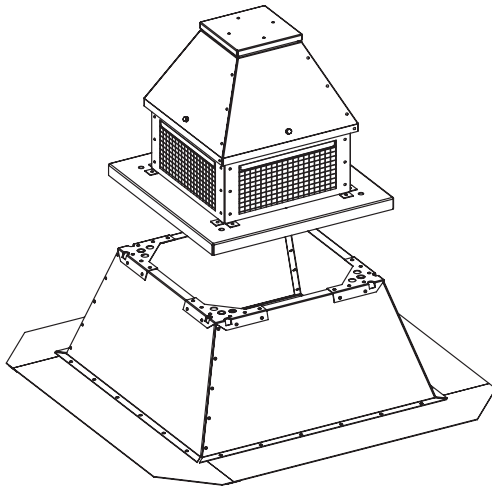


Warning! Route the cable through the spiral wrap hose or through a protective metal pipe. It must be located at least 500-700 mm away from the fan.



Fan installation options in general ventilation systems:

- Roof-mounted fan attachment to frame (RKV 250-310 model, ordered separately).
- Round duct attachment to the fan via a flexible connector (GKV 250-315 model, ordered separately).



For general ventilation only!
Do not use for smoke extraction!

Note:

The upper part of the chimney may differ in size from the fan base. However, if the chimney cross-section is below 15x15 cm or the equivalent diameter is below 17 cm the chimney may not function properly resulting in an insufficient draught.

CONNECTION TO POWER MAINS



DISCONNECT THE UNIT FROM POWER SUPPLY PRIOR TO ANY ELECTRIC INSTALLATION OPERATIONS.

INSTALLATION SHALL ONLY BE PERFORMED BY A PROFESSIONAL ELECTRICIAN QUALIFIED FOR UNASSISTED OPERATIONS WITH ELECTRICAL INSTALLATIONS UP TO 1000 V AFTER CAREFUL STUDY OF THE PRESENT USER'S MANUAL.

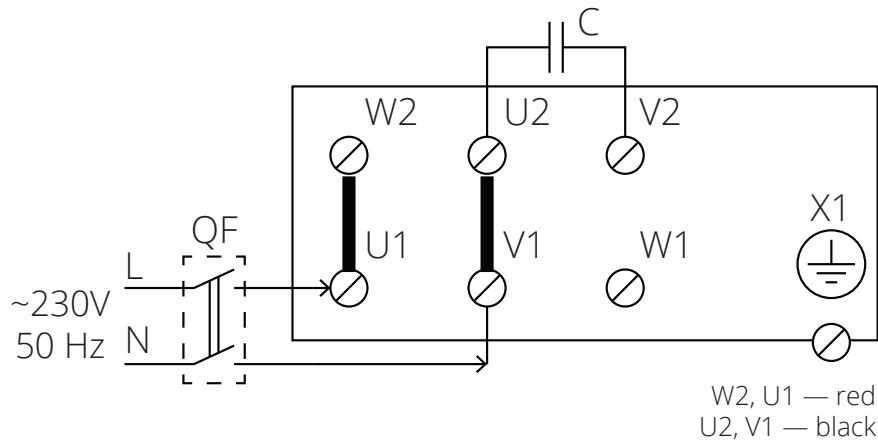
THE RATED ELECTRICAL PARAMETERS ARE STATED ON THE RATING PLATE. ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.

The fan is rated for connection to 230 V / 50 Hz single-phase alternating current mains. The fan connections (cables and wires) must be durable, insulated and heat-resistant. The external power input (230 V / 50 Hz) must be equipped with an automatic circuit breaker with a magnetic trip integrated into the stationary wiring to disconnect all the mains phases. The location of the QF external circuit breaker must ensure free access for quick shutdown of the fan. The recommended rated trip current of the circuit breaker is 1 A, the recommended minimum conductor cross-section is 0.75 mm². The conductor section selection shall be based on the maximum permissible wire heating which depends on the wire type, its insulation, length and installation method. The power lead quality and installation must ensure failsafe durable fan operation.

The electrical connections must be terminated on the terminal block located inside the fan casing in accordance with the wiring diagram and the terminal designations.



ENSURE PROPER AND SAFE GROUNDING!



The wiring diagrams and rotation direction stickers are located inside the terminal box.

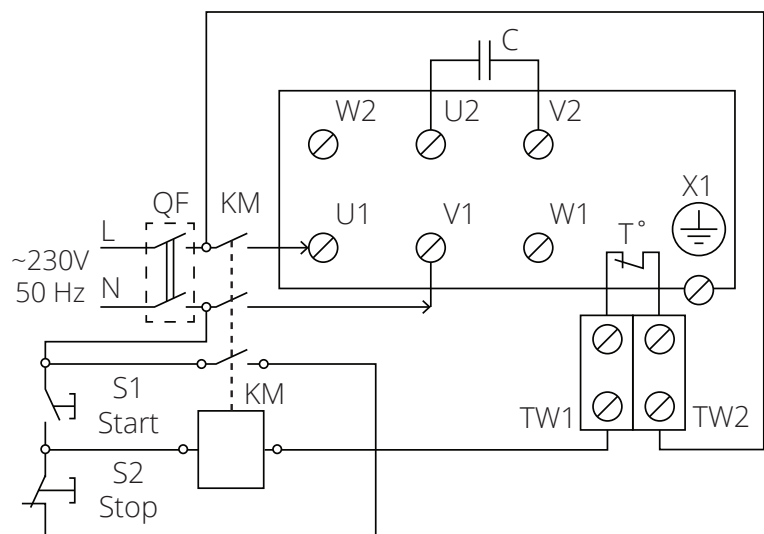
Attention! Connect the fan to power supply in compliance with the wiring diagram shown on the figure on the right.

The recommended wiring diagram example with a motor overheating protection is shown on the figure.

The terminals TW1, TW2 are leaded outside from the normally closed contact of the motor overheating protection. This contact must be connected in series to the power supply circuit of the coil of the magnetic starter KM (U_{power} = 230 V, I = 10 A) that activates the motor after pressing the S1 button.

In case of the motor overheating the contact opens and disconnects the starter coil to cut off power supply to the motor and stop it.

The automatic circuit breaker QF, the magnetic starter KM, the control buttons S1 and S2 are not included in the delivery set and must be installed by the user.



- X1: fan terminal block
- C1: capacitor
- QF: automatic circuit breaker
- KM: motor starter
- S1, S2: control buttons
- (QF, KM, S1, S2 are not included in the delivery set)

MAINTENANCE



DISCONNECT THE UNIT FROM POWER SUPPLY BY PULLING THE PLUG OUT OF THE SOCKET PRIOR TO ANY ELECTRIC INSTALLATION OPERATIONS.

Maintenance means regular cleaning of the unit surfaces of dust. To remove dust use a soft brush, cloth or a vacuum cleaner. Do not use water, abrasive detergents, solvents, sharp objects. Clean the impeller blades every 6 months. To clean the impeller use a warm detergent solution, but make sure to keep the water off the electric motor.

TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
The fan does not start on power-up.	No electric power.	Check the electrical connections and the power switch status.
	Motor jamming.	Turn the fan off. Troubleshoot the impeller clogging. Switch the fan back on.
The circuit breaker activates upon the unit power-up.	The automatic circuit breaker is triggered by an abnormally high current consumption due to a short circuit.	Disconnect the fan from the power mains and contact the service centre. Do not switch off the fan until the malfunction has been troubleshooted!
Low air flow.	Clogging of air ducts or other ventilation system elements due to contamination. Impeller contamination. Damaged air ducts. Closed air dampers.	Clean the air ducts and other ventilation system elements as well as the impeller. Check the air ducts for damage. Make sure that the air dampers and louvre shutters are open.
Excessive noise or vibration.	Loose threaded joints, contaminated impeller.	Clean the fans. Tighten any loose threaded joints.
	Worn out bearings, foreign objects in the impeller.	Contact the service centre.
	Unstable electric power supply or electric motor malfunction.	Contact the service centre.

STORAGE AND TRANSPORTATION RULES

Store the unit in the manufacturer's original packing box in a dry ventilated premise at ambient temperatures from +5 °C up to +40 °C. Storage environment must not contain aggressive vapours and chemical mixtures provoking corrosion, insulation and sealing deformation. Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit. Follow the handling requirements applicable for the particular type of cargo.

The unit can be carried in the original packing by any mode of transport provided proper protection against precipitation and mechanical damage.

Avoid sharp blows, scratches or rough handling during loading and unloading.

MANUFACTURER'S WARRANTY

The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, mounting and operation regulations.

Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation the user is entitled to elimination of faults by the manufacturer by means of warranty repair at the factory free of charge.

The warranty repair shall include work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:

- Routine technical maintenance;
- Unit installation / dismantling;
- Unit setup.

To benefit from warranty repair the user must provide the unit, the user's manual with the purchase date stamp and the payment document certifying the purchase.

The unit model must comply with the one stated in the user's manual.

Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:

- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packing and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- User's violation of the unit installation regulations.
- User's violation of the unit control regulations.
- Unit connection to the power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in the power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- User's violation of the unit transportation regulations.
- User's violation of the unit storage regulations.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment document certifying the unit purchase.



FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.



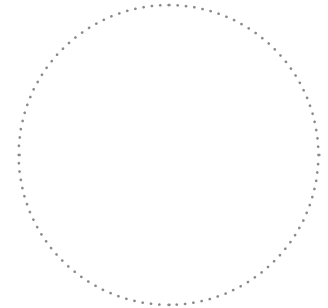
USERS' WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.

ACCEPTANCE CERTIFICATE

Unit Type	Roof-mounted exhaust fan for fireplaces
Model	VKT _____
Serial Number	
Manufacture Date	
Is recognized as serviceable. We hereby declare that the 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.	
Quality Inspector's Stamp	

SELLER INFORMATION

Shop name	
Address	
Telephone	
E-mail	
Sales date	



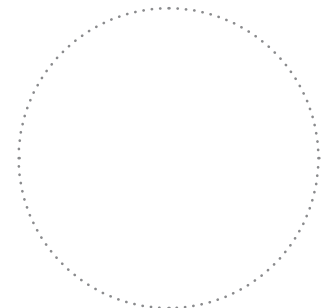
Seller's seal

This is to certify delivery of the complete fan with the user's manual. The warranty terms are acknowledged and accepted.

Customer's signature	
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INSTALLATION CERTIFICATE

The roof-mounted exhaust fan for fireplaces VKT _____ has been connected to power mains pursuant to the requirements stated in the present user's manual.	
Company Name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:



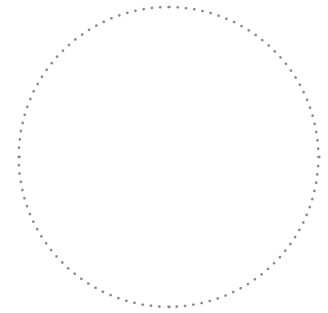
Installation Company Stamp

The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.

Signature:	
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WARRANTY CARD

Unit Type	Roof-mounted exhaust fan for fireplaces
Model	VKT _____
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	



Seller's Stamp



V105EN-02