

AXIAL ROOF FAN

Tower-A
Tower-AL

EN

USER'S MANUAL

 **BLAUBERG**

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the Tower-A / Tower-AL unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

SAFETY REQUIREMENTS

This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety. Children should be supervised to ensure that they do not play with the unit.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Cleaning and user maintenance shall not be done by children without supervision.

Children shall not play with the appliance.

Connection to the mains must be made through a disconnecting device, which is integrated into the fixed wiring system in accordance with the wiring rules for design of electrical units, and has a contact separation in all poles that allows for full disconnection under overvoltage category III conditions.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

The appliance may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of the unit the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.

All operations described in this manual must be performed by qualified personnel only, properly trained and qualified to install, make electrical connections and maintain ventilation units.

Do not attempt to install the product, connect it to the mains, or perform maintenance yourself. This is unsafe and impossible without special knowledge.

Disconnect the power supply prior to any operations with the unit.

All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.

Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.

Connection of the unit to power mains is allowed by a qualified electrician with a work permit for the electric units up to 1000 V after careful reading of the present user's manual.

Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.

While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.

Misuse of the unit and any unauthorised modifications are not allowed.

Do not expose the unit to adverse atmospheric agents (rain, sun, etc.).

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

Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.

Do not close or block the intake or extract vents in order to ensure the efficient air flow.

Do not sit on the unit and do not put objects on it.

The information in this user's manual was correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

Never touch the unit with wet or damp hands.

Never touch the unit when barefoot.

BEFORE INSTALLING ADDITIONAL EXTERNAL DEVICES, READ THE RELEVANT USER MANUALS.



THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.

DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.

PURPOSE

The Tower-A / Tower-AL roof fans in metal casing are designed for ventilation systems in industrial premises as well as pools, apartment buildings, offices, hospitals, restaurants and other premises heated during the winter season.

The fan is mounted on the exhaust shaft of the air duct and is used only for exhaust ventilation.

DELIVERY SET

| NAME | NUMBER |
|---------------|--------|
| Fan | 1 pc. |
| User's manual | 1 pc. |
| Packing box | 1 pc. |

DESIGNATION KEY

Tower-A 200 2 E

Phases

E – single-phase

Number of poles

2; 4

Impeller diameter

200; 250; 300; 350

Series

Tower-A — axial roof fans with a steel impeller

Tower-AL 200

Impeller diameter

200; 250; 315

Series

Tower-AL — axial roof fans with an aluminium impeller

TECHNICAL DATA

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

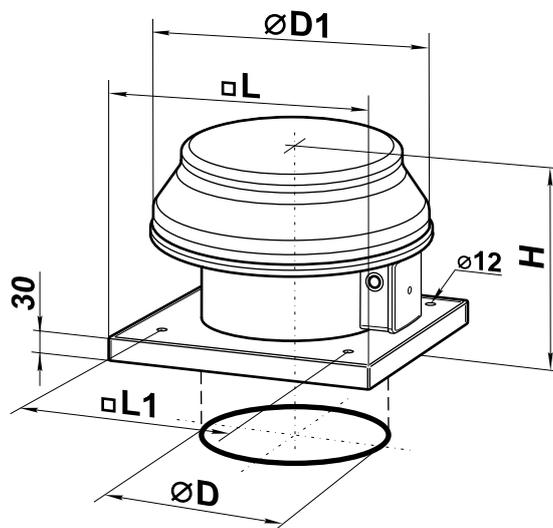
The fan is rated for continuous operation.

The fan is made of polymer-coated steel, which corresponds to the C3 atmospheric environment category according to ISO 12944-2.

Ingress protection rating against access to hazardous parts and water ingress is IP24 (IPX4).

The unit is rated as a class I electric appliance.

The fan design is constantly being improved, thus some models may be slightly different from those described in this manual.



| Model | DIMENSIONS [mm] | | | | | Weight [kg] |
|-----------------------|-----------------|------|-----|-----|-----|-------------|
| | Ø D | Ø D1 | H | L | L1 | |
| Tower-A 200 2E | 208 | 345 | 280 | 425 | 330 | 5,0 |
| Tower-A 250 2E | 262 | 405 | 280 | 425 | 330 | 7,0 |
| Tower-A 250 4E | 262 | 405 | 280 | 425 | 330 | 7,0 |
| Tower-A 300 2E | 314 | 555 | 340 | 585 | 450 | 10,5 |
| Tower-A 300 4E | 314 | 555 | 340 | 585 | 450 | 10,5 |
| Tower-A 350 4E | 364 | 555 | 350 | 655 | 535 | 12,0 |
| Tower-AL 200 | 208 | 345 | 280 | 425 | 330 | 6,1 |
| Tower-AL 250 | 262 | 405 | 300 | 425 | 330 | 7,2 |
| Tower-AL 315 | 314 | 555 | 380 | 585 | 450 | 11,5 |

MOUNTING AND SET-UP

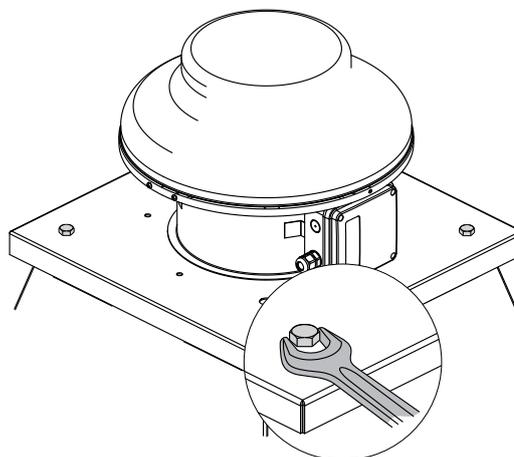
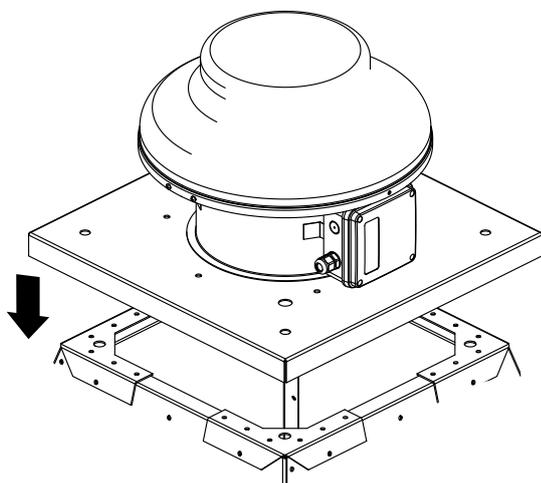


BEFORE MOUNTING MAKE SURE THE CASING DOES NOT CONTAIN ANY FOREIGN OBJECTS (E.G. FOIL, PAPER).

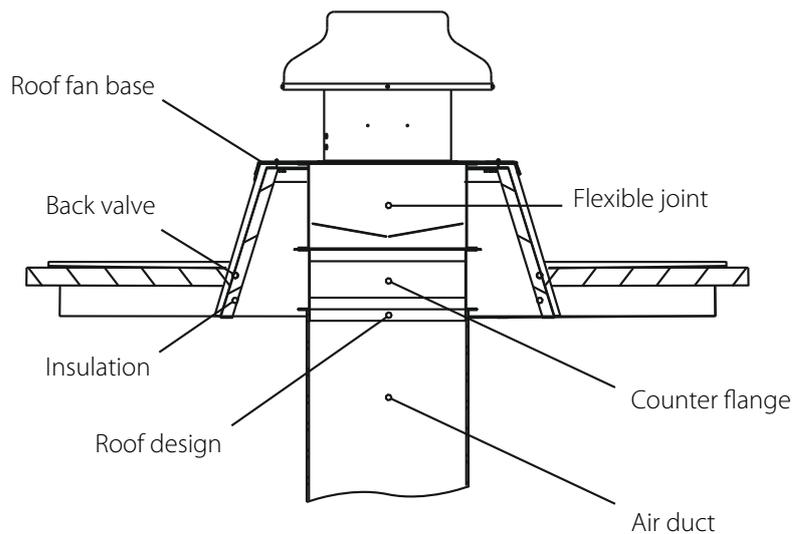


WHILE INSTALLING THE UNIT ENSURE CONVENIENT ACCESS FOR SUBSEQUENT MAINTENANCE AND REPAIR

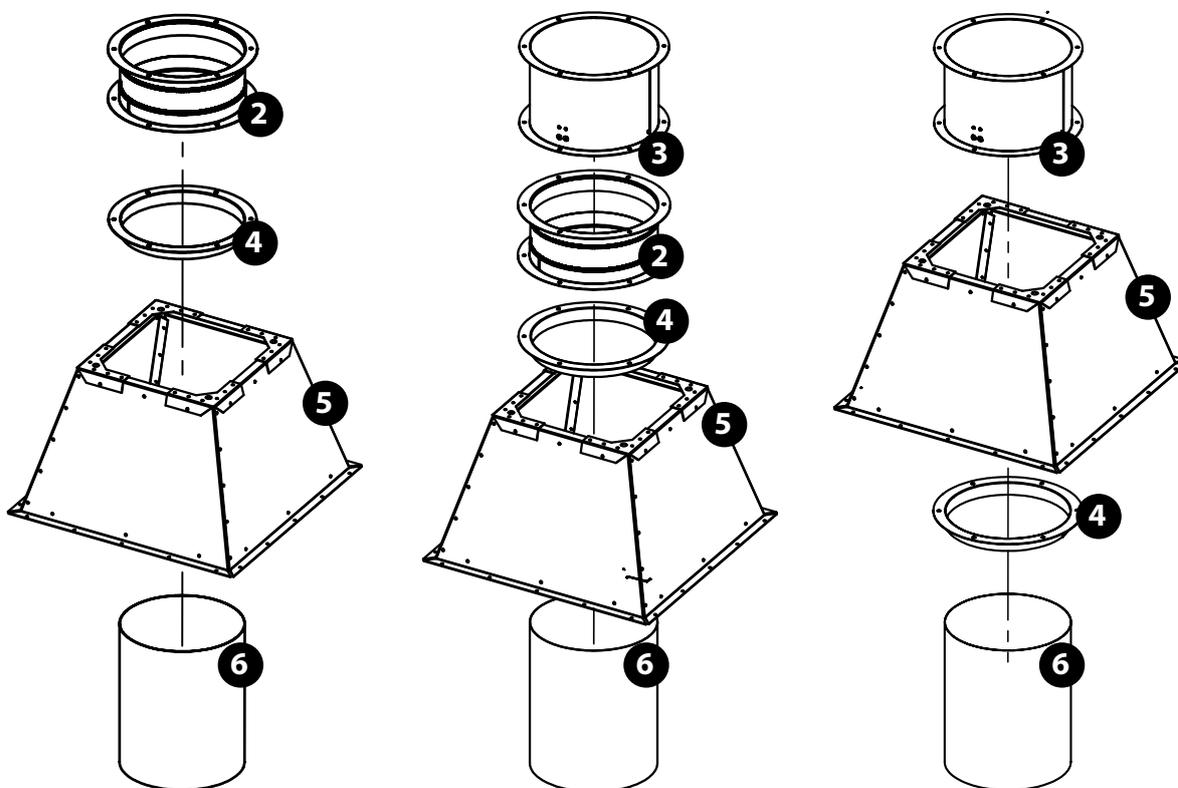
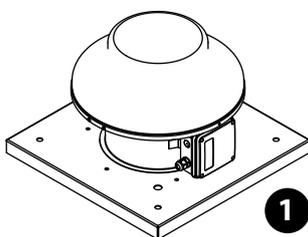
- The fan is designed for roof mounting directly above an air duct or a ventilation shaft. Rigid mounting to a stationary even surface is carried with a connecting plate.
 - If the fan is installed directly on a smooth roof, a stand must be provided to prevent water and snow from falling into the ventilation shaft exhaust opening.
 - To prevent water and snow from falling into the ventilation shaft, the fan can be mounted on a mounting frame.
 - The fan is connected to the ventilation duct by means of a counter flange, which is attached directly to the fan base.
 - The fan base has holes for fixing bolts that attach the fan to a stationary even surface or to a mounting frame.
- The mounting frame, counter flange and mounting bolts are not included in the delivery set and must be purchased separately.



INSTALLATION CHART



INSTALLATION EXAMPLES



1 – roof fan; 2 – flexible joint*; 3 – back valve*; 4 – counter flange*; 5 – mounting frame*; 6 – air duct*.

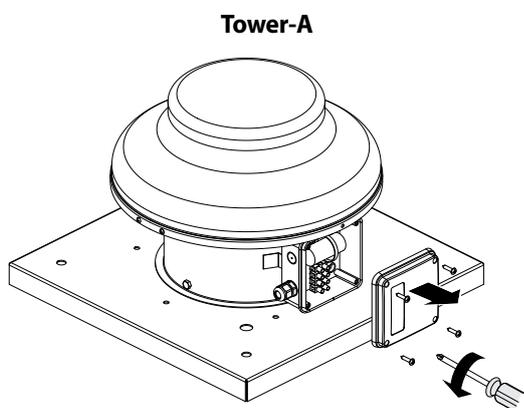
* Not included in the delivery set, ordered separately.

CONNECTION TO POWER MAINS

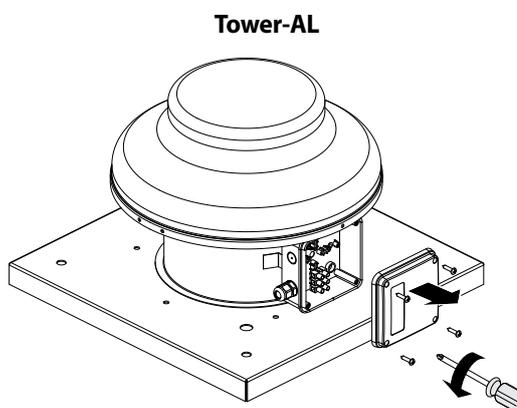
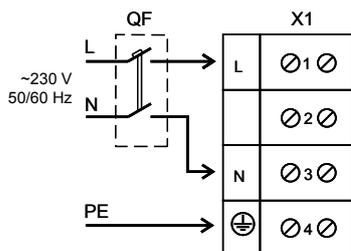
 **ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.**

- The unit is rated for connection to power mains with the parameters specified in the “Technical data” section, according to the wiring diagram.
- The connection must be made using durable, insulated and heat-resistant conductors (cables, wires). The actual wire cross section selection must be based on the maximum load current, maximum conductor temperature depending on the wire type, insulation, length and installation method.
- The product must be connected to power mains according to the wiring diagram and layout of terminals.
- The external power input must be equipped with an automatic circuit breaker QF built into the stationary wiring to open the circuit in the event of overload or short-circuit. The position of the external circuit breaker must ensure free access for quick unit power-off. The trip current of the automatic circuit breaker must exceed the maximum current consumption of the unit (refer to the “Technical data” in section or to the unit label). It is recommended to select the rated current of the circuit breaker from the standard series, following the maximum current of the connected unit. The circuit breaker is not included in the delivery set and can be ordered separately.

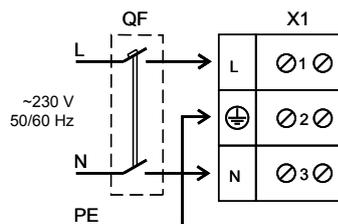
ACCESS TO THE TERMINAL BLOCK



Power mains connection diagram for single-phase motor-driven Tower-A fan



Power mains connection diagram for single-phase motor-driven Tower-AL fan



TECHNICAL MAINTENANCE



DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

MAKE SURE THE UNIT IS DISCONNECTED FROM POWER MAINS BEFORE REMOVING THE PROTECTION.



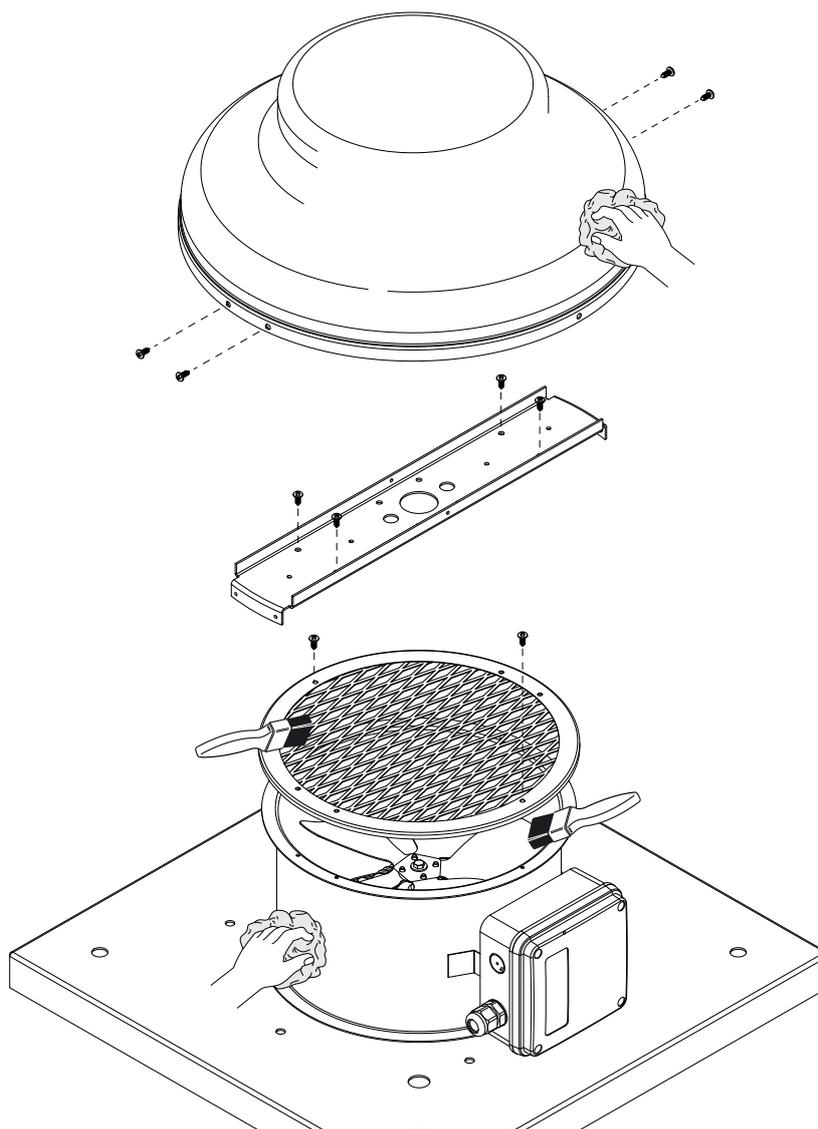
PRIOR TO COMMENCING ANY TECHNICAL MAINTENANCE PUT UP A PROHIBITORY SIGN ON THE FAN STARTING PANEL:

“DO NOT SWITCH ON! MEN AT WORK!”



AVOID LIQUID SPILLS ON THE MOTOR! DO NOT USE AGGRESSIVE SOLVENTS AND SHARP OBJECTS FOR CLEANING!

- The technical maintenance includes periodic cleaning of the fan surfaces from accumulated dust and dirt.
- When carrying out fan maintenance, it is necessary to partially disassemble it in order to access contaminated parts of the fan. The impeller blades require thorough cleaning once in 6 months.
- Use a soft dry cloth or compressed air to remove dust.
- Carry out wet cleaning using a warm water and a mild household detergent solution.
- Protect the electric motor against liquid ingress.
- Do not immerse the unit in water!
- Do not use parts aggressive solvents or sharp objects as they may damage the impeller.



TROUBLESHOOTING

| Problem | Possible reasons | Troubleshooting |
|--|---|--|
| The fan does not start when switching on. | No power supply. | Check the electrical connections and the power switch status. |
| | Jammed motor. | Turn off the fan. Troubleshoot the impeller jamming Restart the fan. |
| Automatic circuit breaker tripping after the fan start-up. | Overcurrent as a result of short circuit in the electric circuit triggering the automated circuit breaker. | Від'єднайте вентилятор від електромережі та зверніться до сервісного центру. Не вмикайте вентилятор повторно! |
| Low air flow. | Air ducts or other ventilationsystem elements are clogged. The impeller is clogged. Air ducts are damaged. Air dampers are closed. | Disconnect the fan from power mains and contact the Seller. Do not turn on the fan again! Clean the air ducts and other ventilation system elements as well as the impeller. Check the air ducts for damage. Make sure the air dampers and louvre shutters are open. |

If troubleshooting steps are too difficult to carry out, contact the Seller.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 °C to +40 °C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors 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 packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.

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, installation, 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 get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes 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 paperwork 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 packaging 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.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in 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.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- 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 paperwork certifying the unit purchase.



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



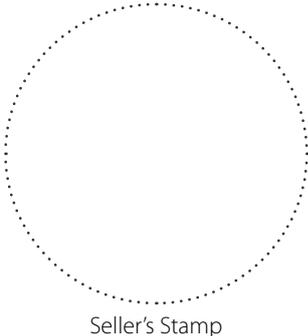
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP

CERTIFICATE OF ACCEPTANCE

| | |
|----------------------------------|----------------|
| Unit Type | Axial roof fan |
| Model | |
| Serial Number | |
| Manufacture Date | |
| Quality Inspector's Stamp | |

SELLER INFORMATION

| | |
|---|--|
| Seller | |
| Address | |
| Phone Number | |
| E-mail | |
| Purchase Date | |
| This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted. | |
| Customer's Signature | |

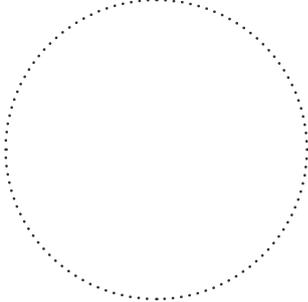


Seller's Stamp

INSTALLATION CERTIFICATE

The _____ unit is installed pursuant to the requirements stated in the present user's manual.

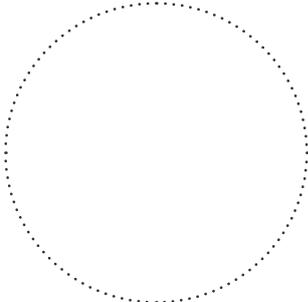
| | |
|--|-------------------|
| Company name | |
| Address | |
| Phone Number | |
| Installation Technician's Full Name | |
| Installation Date: | Signature: |
| The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer. | |
| Signature: | |



Installation Stamp

WARRANTY CARD

| | |
|-------------------------|----------------|
| Unit Type | Axial roof fan |
| Model | |
| Serial Number | |
| Manufacture Date | |
| Purchase Date | |
| Warranty Period | |
| Seller | |



Seller's Stamp

