



SOUND-INSULATED FAN



ISO-B

EN

USER'S MANUAL

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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 ISO-B 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 made by children without supervision.

Children shall not play with the appliance. The appliance is only to be used with the power supply unit provided with the appliance.

The appliance is only to be used with the power supply unit provided 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.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a safety hazard.

CAUTION: In order to avoid a safety hazard due to inadvertent resetting of the thermal cut-out, this unit must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

Ensure that the unit is switched off from the supply mains before removing the guard.

Fixing means for attachment to the ceiling such as hooks or other devices shall be fixed with a sufficient strength to withstand 4 times the weight of the appliance.

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.

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.

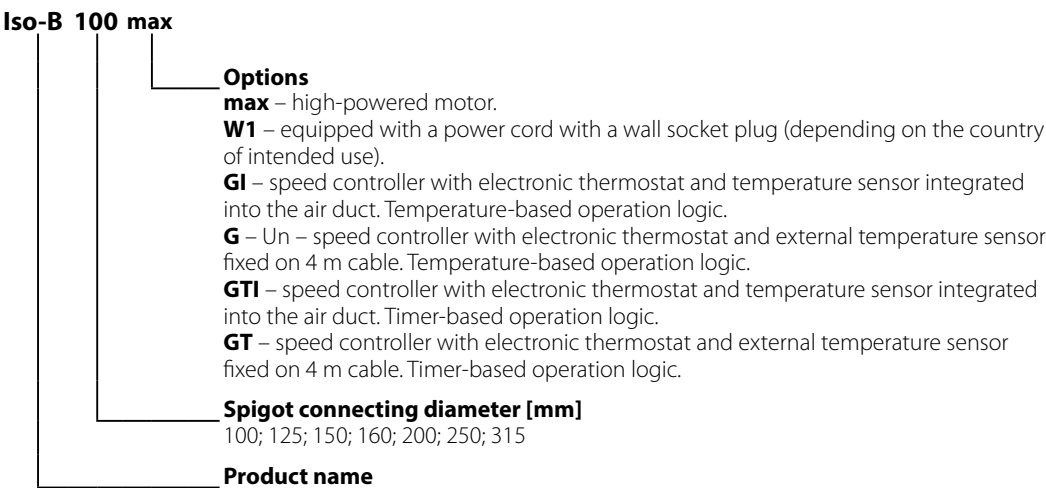
PURPOSE

The SOUND-INSULATED FAN is designed for supply and exhaust ventilation of domestic, public and industrial premises with high requirements to the noise level and with limited space for mounting.
The unit is rated for continuous operation.
The unit is a component part and is not designed for stand-alone operation.
Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

DELIVERY SET

NAME	QUANTITY
Fan	1 item
User's Manual	1 item
Shipping Box	1 item

DESIGNATION KEY



TECHNICAL DATA

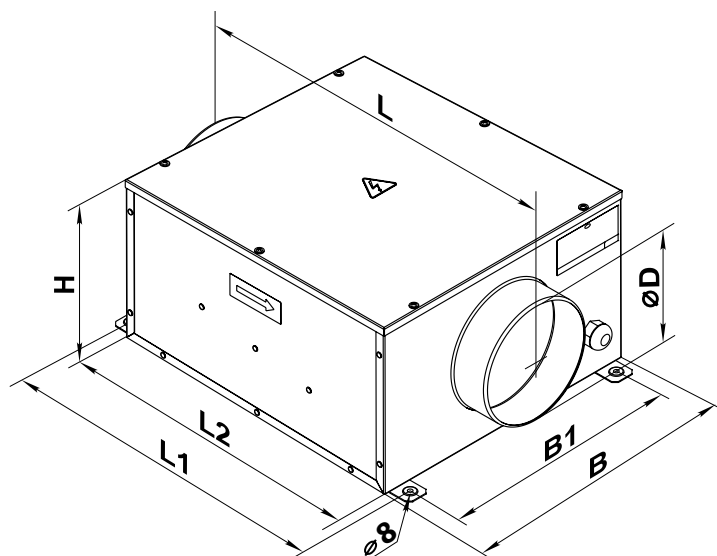


The fan is designed for operation in an enclosed area at ambient temperatures from -25°C up to +55°C at relative humidity of up to 80 at +25°C.

Hazardous parts access and water ingress protection ratings is IPX4.

The fan is rated as a class I electric appliance.

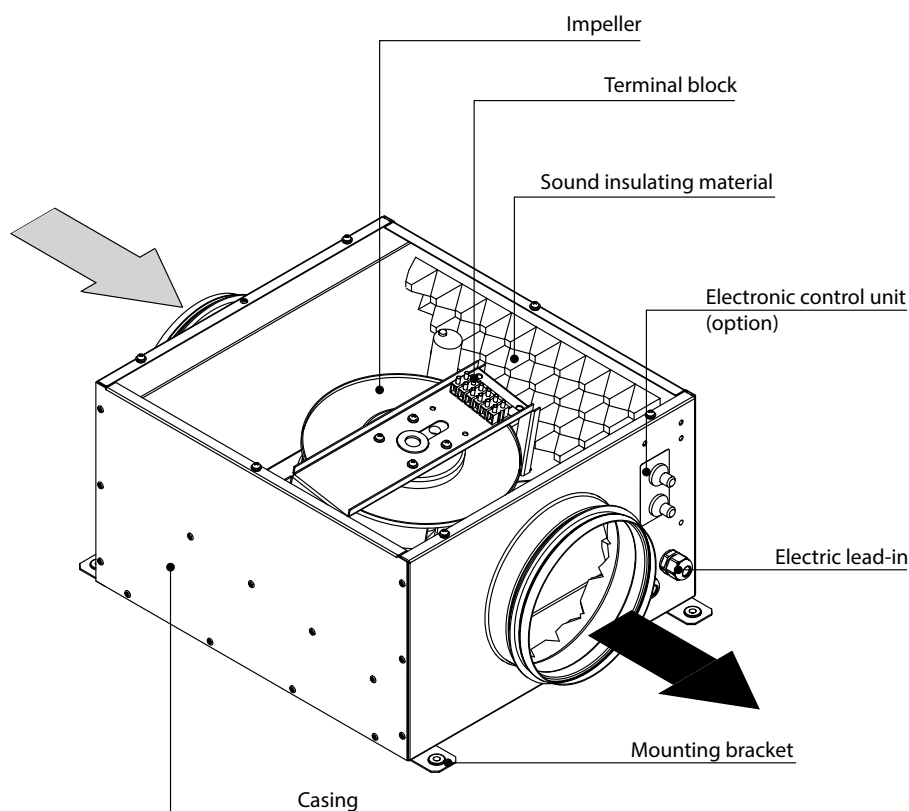
The fan design undergoes continuous improvement. Therefore, some models may slightly differ from the ones described herein.



Overall and connecting dimensions

Model	Dimensions [mm]							Weight [kg]
	ØD	B	B1	H	L	L1	L2	
Iso-B 100	99	322	280	192	447	380	350	5,4
Iso-B 125	124	322	280	192	447	380	350	5,4
Iso-B 150	149	352	310	212	477	410	380	6,4
Iso-B 160	159	352	310	212	477	410	380	6,4
Iso-B 200	199	432	368	287	588	506	480	10,0
Iso-B 200 max	199	432	368	287	588	506	480	12,0
Iso-B 250	249	432	368	287	588	506	480	12,5
Iso-B 315	314	502	438	397	648	566	540	15,5

DESIGN AND OPERATING LOGIC



The fan casing is made of galvanized steel sheets internally lined with heat- and sound-insulation layer. The round spigots are rubber sealed for airtight connection to the air ducts.

The fan is equipped with a bipolar asynchronous motor with an external rotor and a centrifugal impeller with backward curved blades. The motor is equipped with built-in overheating protection with automatic reset. The motor ball bearings with a specially selected lubricant reduce the fan noise and ensure maintenance-free operation.

The model Iso-B...max is equipped with a high-powered motor.

MOUNTING AND SETUP

The inline fan Iso-B is designed for direct connection to round air ducts. The casing has mounting brackets to facilitate the fan installation. In case the fan is mounted on flexible joints attach the fan to a structural unit by means of supports, suspension links or brackets. The fan may be installed in any position in consideration of the air flow direction (as indicated by the arrow on the fan casing).

To attain the best performance of the fan and to minimize turbulence-induced air pressure losses while mounting connect the straight air duct section to the fan spigots on both sides of the fan. The minimum straight air duct length is equal to 1 air duct diameter on the intake side and 3 air duct diameters on the exhaust side. No filters or any other similar devices are allowed to be installed in these sections. While installing the fan ensure convenient access for subsequent maintenance and repair.

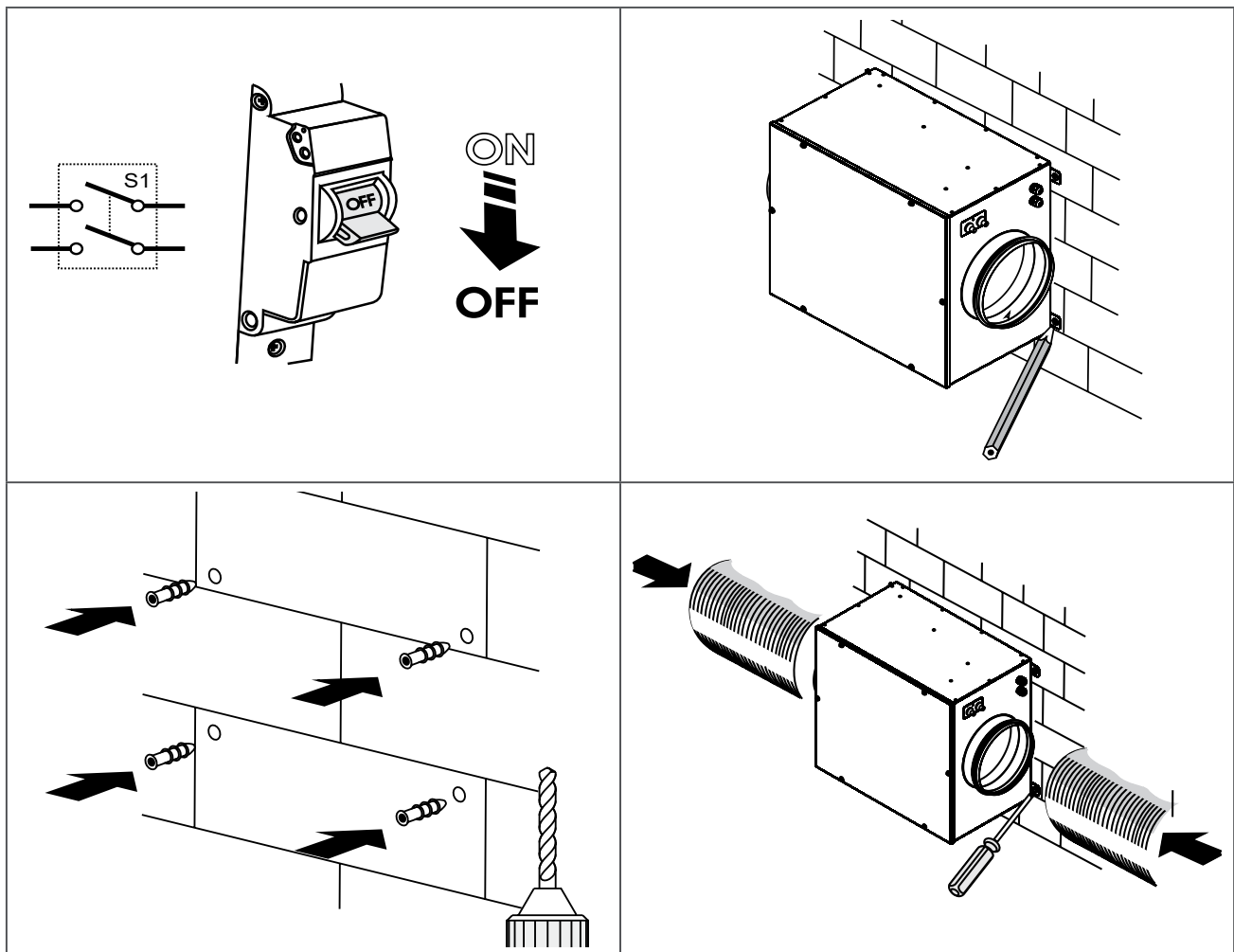
After unpacking the fan, prior to starting the mounting:

- Carefully read the user's manual and the installation, operation and maintenance guidelines.
- Check the fan for integrity and make sure there are no transportation damages.

Follow the safety regulations during the fan set-up and operation.

The fan mounting is as follows:

- Make sure that the fan is disconnected from power mains.
 - Apply the markings for mounting of the fixing brackets onto the mounting surface.
 - Drill the holes and fasten the fan on the brackets by using appropriate fasteners (e.g. expansion anchors).
- Connect the air ducts to the fan.



CONNECTION TO POWER MAINS

The product is intended to be connected to a network with the parameters specified in the «Technical Specifications» section, in accordance with the corresponding electrical connection diagram.

Depending on the fan configuration there are two possible options for power mains connection:

- via the plugged power cable;
- via the terminal box.

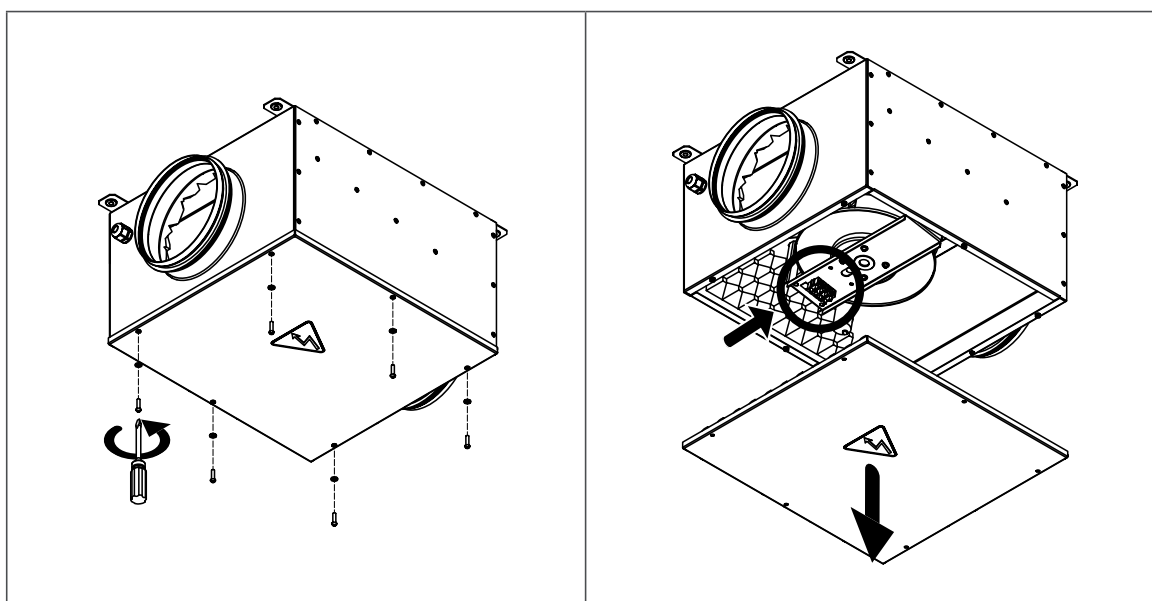
For electric installations use insulated, durable and heat-resistant electric leads (cables, conductors). Connect the fan to power mains through the external automatic circuit breaker installed at the power input and integrated into the house cabling. The circuit breaker location must ensure free access for emergency shutdown of the fan.

The recommended trip current of the circuit breaker is 2 A for Iso-B 315 and 1 A for all other modifications. The recommended minimum conductor cross section is 0.75 mm². The conductor selection shall be based on the maximum permissible wire heating depending on the wire type, its insulation, length and installation method (i.e. overhead, in pipes or inside the walls).

THE POWER MAINS CONNECTION STEPS ARE AS FOLLOWS:

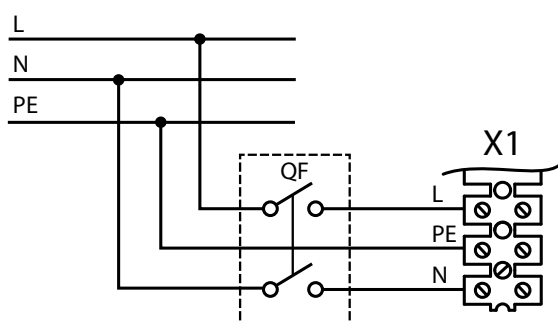
1. Internal fan connections:

- Remove the screws securing the casing bottom panel.
- Remove the casing bottom panel;
- Route the power supply cable through the sealed electric lead-in the side wall.
- Strip the wire tips for 7–8 mm.
- Connect the wires to the terminal block in accordance with the electrical wiring diagram and the terminal designations as shown in.
- Insert the wires into the respective terminals until the insulation stops against the metal part and secure the wires with clamping screws.
- Assemble the fan.



2. Connection via a terminal box.

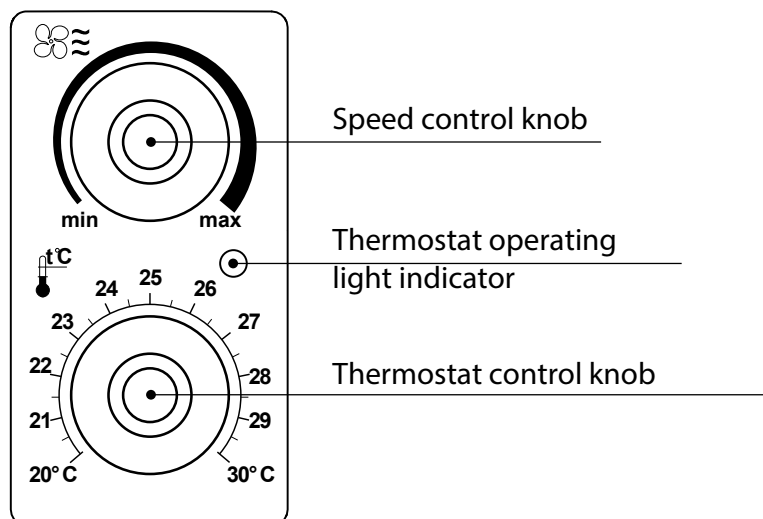
In case of the fan connection to the power mains via a terminal box use the same wiring diagram and terminal markings.



X1 - Terminal Block;
QF - is an automatic circuit breaker.
 Not included in the delivery set.

CONTROL

Depending on the configuration the fan may be equipped with an electronic temperature and speed control unit. Iso-B fan is a perfect solution for ventilation of premises requiring permanent temperature control (i.e. greenhouses). The fan is equipped with an electronic temperature and speed control unit and automatically changes the impeller speed (air flow rate) with respect to the temperature in the ventilation duct or in the premise.



The front panel of the electronic module has the following controls and indicators:

- Speed control knob for low speed setting.
- Temperature control knob for temperature setting.
- Thermostat operating indicator.
- The fan is available in two modifications:
 - with a temperature sensor built into the fan duct («GI»/«GTI» option);
 - with a remote temperature sensor attached to a 4 m long cable («G»/«GT» option).

Operation of Iso-B fans equipped with an electronic temperature and speed control unit.

Set the desired air temperature (thermostat set point) by turning the thermostat control knob and the minimum rotation speed (air flow rate) by turning the speed control knob. If the air temperature increases above the thermostat set point the fan switches to the high speed (maximum air flow rate). If the temperature decreases below the thermostat set point the fan switches to the pre-set lower speed. To avoid frequent motor speed switches when the air temperature in the duct is equal to the set temperature point, the speed switch delay is activated. There are two switch delay patterns for various cases:

Iso-B...GI: The motor switches to high speed as the air temperature exceeds 2 °C above the set thermostat set point. The motor reverts to the pre-set lower speed as the air temperature drops below the thermostat set point. This pattern is used to keep air temperature to within 2 °C. In this case the motor speed switches are rare.

Iso-B...GTI: As the air temperature exceeds the set thermostat set point, the motor switches to higher speed and the switch delay timer is activated for 5 min. The motor reverts to lower speed as the air temperature drops down below the thermostat set point and only after 5 minutes countdown. This pattern is used for exact air temperature control. The speed switches for the fan with **GTI** option are more frequent as compared to the operating logic of the fan with **GI** option, however the minimum operating cycle at one speed is 5 minutes.

TECHNICAL MAINTENANCE

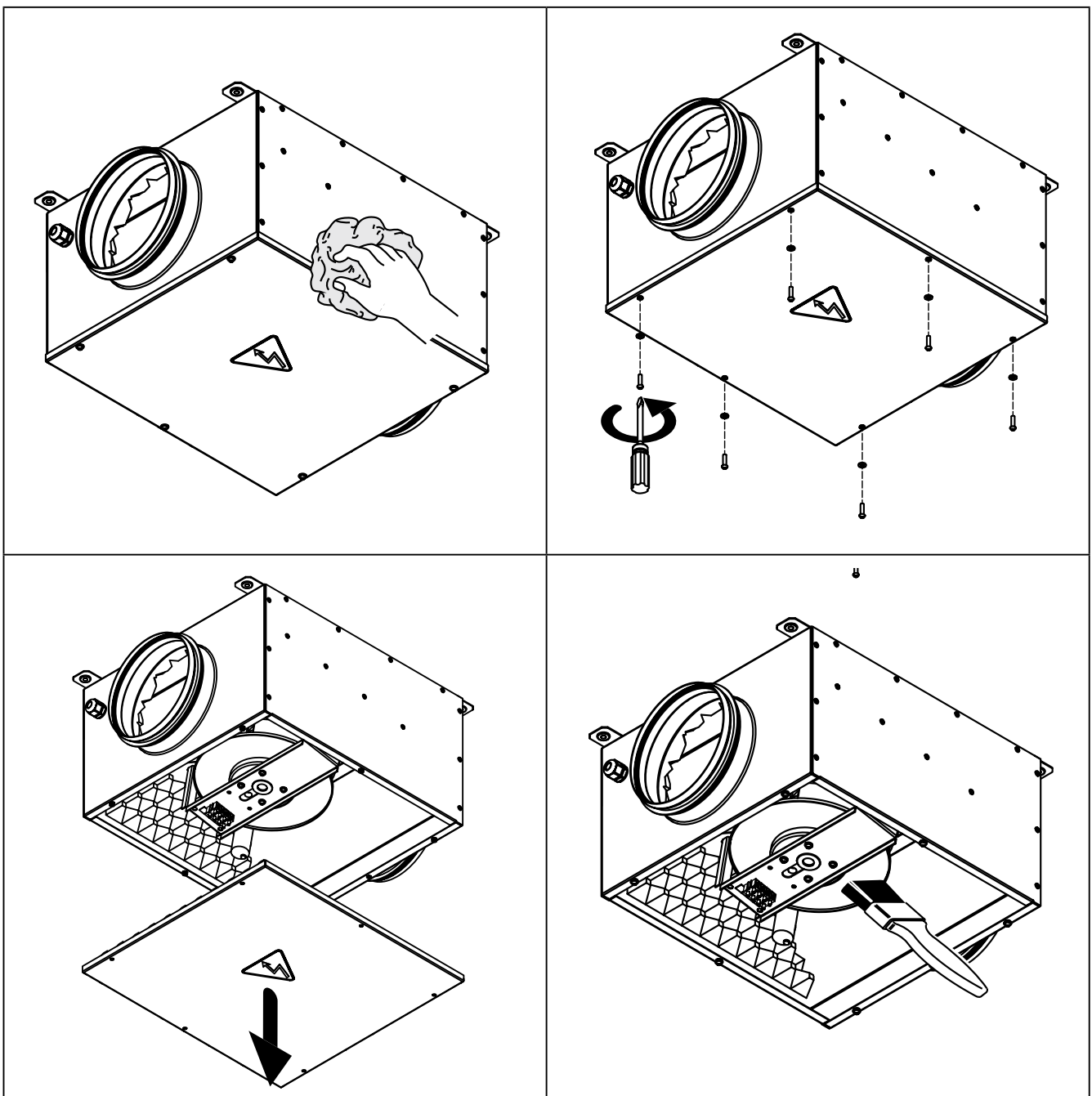
Disconnect the fan from power mains prior to any maintenance and repair operations. Make sure the rotating parts do not move. Maintenance means regular cleaning of the fan surfaces of dirt and dust.

The impeller blades require thorough cleaning every 6 months. Clean the blades as follows:

- Disconnect the fan from power supply.
- Wipe the exterior surfaces of the fan casing.
- Undo the screws and remove the casing bottom panel.
- Clean the impeller blades using a soft brush or a vacuum cleaner.

Protect the motor and circuit board from water ingress. Blade cleaning must be performed with care so as not to displace the balancing weights of the impeller.

Perform all the above operations in the reverse order after cleaning.



TROUBLESHOOTING

Problem	Possible Reasons	Troubleshooting
The fan does not get started.	No connection to power supply.	Make sure that the fan is properly connected to the power mains and make any corrections, if necessary.
	Jammed motor.	Switch off the fan. Troubleshoot an electric connection error. Restart the fan.
Circuit breaker tripping during the fan start.	Excessive electric current consumption caused by a short circuit.	Turn the fan off. Contact the Seller.
Noise and vibration.	Clogged impeller.	Clean the fan impeller.
	Loose screw connections.	Check the tighten the fastening screws.

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



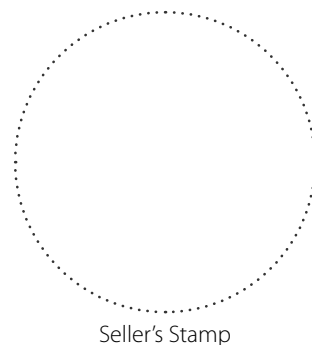
USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP

CERTIFICATE OF ACCEPTANCE

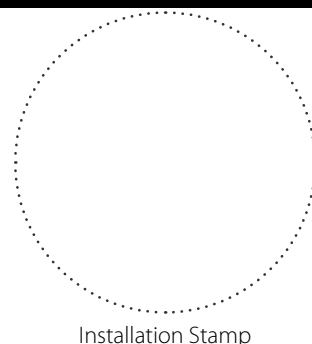
Unit Type	SOUND-INSULATED FAN
Model	
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

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	

**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:	

**WARRANTY CARD**

Unit Type	SOUND-INSULATED FAN
Model	
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	

