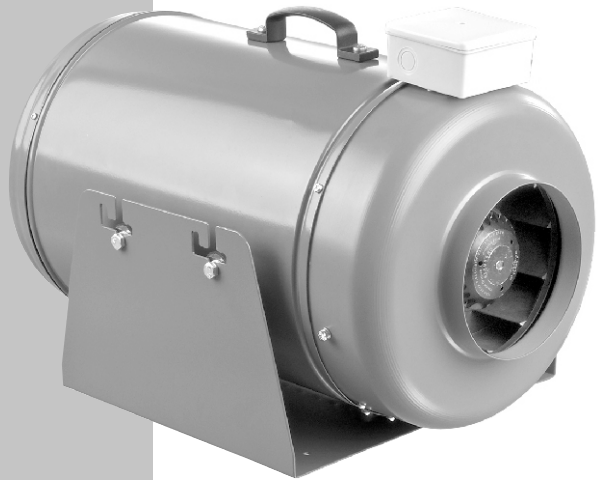


**SOUND-INSULATED
CENTRIFUGAL FANS IN
SOUND-INSULATED CASING**

VENTS VKMI Series

**USER'S OPERATION
MANUAL**





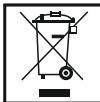
WARNING

Disconnect the fan from power mains prior to any connection, servicing and repair operations. Mounting and maintenance are allowed for duly qualified electricians with valid electrical work permit for electric operations at the units up to 1000 V after careful study of the present user's manual. The single-phase power grid must comply with the acting local electrical norms and standards. The fixed electrical wiring must be equipped with an automatic circuit breaker.

The fan must be connected to power mains through an automatic circuit breaker integrated into the fixed wiring system with the gap between the breaker contacts on all poles not less than 3 mm. Check the fan for any visible damages of the impeller and the casing before starting installation. The casing internals must be free of any foreign objects which can damage the impeller blades. Misuse of the device or any unauthorized modification is not allowed. The fan is not to be used 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.

Do not leave children unattended and do not let them play with the product. 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. Transporting medium must not contain any dust or other solid impurities, sticky substances or fibrous materials. Do not use the fan in the environment containing hazardous or explosive materials and vapours, i.e. spirits, gasoline, insecticides, etc.

Do not close or block the fan intake or extract vents in order to ensure the most effective air passage. Do not sit on the fan and do not put objects on the fan. Fulfill the requirements stated in this user's manual.



Recycle at the end of the service life.

Do not dispose the product with unsorted municipal trash.

Read the present user's manual carefully before proceeding with installation works. Compliance with the manual requirements ensures reliable operation and long service life of the product. Keep the user's manual available as long as you use the product. You may need to re-read the information on the product servicing.



DELIVERY SET

The delivery set includes:

1. Fan - 1 item;
2. Fixing bracket with fasteners - 1 pce (only for the fan with designation K).
3. User's manual;
4. Packing box.

BRIEF DESCRIPTION

The product described herein is a centrifugal fan for supply or exhaust ventilation of small and medium-sized rooms heated during winter time.

The fan is compatible with 100, 125, 150, 160, 200, 250, 315 mm air ducts.

VENTS VKMI XXX - basic model;

VENTS VKMI XXX R - fan with power cord and plug;

VENTS VKMI XXX U (U1) - fan with speed controller and electronic thermostat, built-in temperature sensor and power cord with plug (fig. 17);

VENTS VKMI XXX Un (U1n) - fan with speed controller and electronic thermostat, external temperature sensor fixed on 4 m cord with plug (fig. 17);

VENTS VKMI XXX P - fan with speed controller and power cord with plug (fig. 18);

VENTS VKMI XXX S - high-powered motor;

VENTS VKMI XXX Q - quiet operation motor;

VENTS VKMI XXX K - equipped with a versatile fixing bracket.

XXX - spigot diameter.

Due to constant improvements the design of some models may slightly differ from those ones described in this manual.



WARNING

OPERATION RULES

The fan is designed for connection to single-phase AC 220...240 V / 50 Hz power mains and is rated for continuous operation always connected to power mains.

Air flow direction in the system must match the pointer in the fan casing.
Ingress protection rating IPX4.

The fan designation, parameters, overall dimensions and structural features are shown in tables 1, 2 and on figure 1.

The fans are allowed for operation at the ambient temperature as stated in table 2.
The fan requires grounding.

Table 1

Fan type	Dimensions, mm						
	A	B	D	H	C	h	c
VKMI 100 Q / VKMI 100	580	310	98	310	298	200	200
VKMI 125 Q / VKMI 125	580	310	123	310	298	200	200
VKMI 150 Q / VKMI 150 / VKMI 150 S	595	360	149	280	344	220	220
VKMI 160 Q / VKMI 160 / BKMI 160 S	595	360	159	280	344	220	220
VKMI 200 / VKMI 200 S	625	410	198	320	389	250	250
VKMI 250 Q / VKMI 250	625	410	248	320	389	250	250
VKMI 315 / VKMI 315 S	675	460	313	320	449	250	250

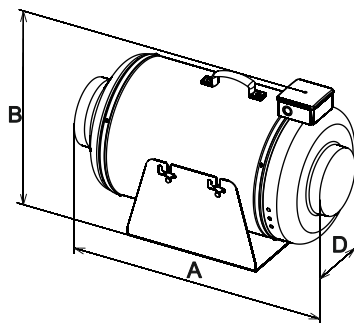
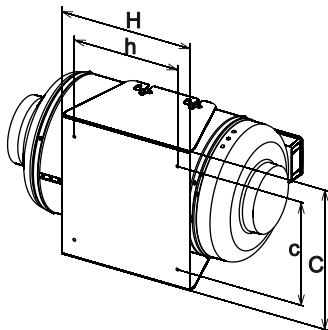


Table 2

Fan type	Voltage [V / Hz]	Power [W]	Current [A]	Max. air capacity [m ³ /h]	RPM [min ⁻¹]	Noise level, 3 m [dBA]	Max. transported air temperature [°C]
VKMI 100 Q	220-240/50	60	0,37	210	2620	30	-25 +55
VKMI 100		73	0,32	270	2830	41	-25 +55
VKMI 125 Q		60	0,37	255	2535	30	-25 +55
VKMI 125		75	0,33	355	2800	41	-25 +55
VKMI 150 Q		75	0,33	470	2515	40	-25 +55
VKMI 150		98	0,43	555	2705	41	-25 +55
VKMI 150 S		116	0,52	645	2625	44	-25 +55
VKMI 160 Q		73	0,33	470	2500	40	-25 +55
VKMI 160		98	0,43	555	2660	41	-25 +55
VKMI 160 S		115	0,52	645	2650	44	-25 +55
VKMI 200		154	0,67	950	2375	42	-25 +50
VKMI 200 S		193	0,84	1100	2780	45	-25 +45
VKMI 250 Q		158	0,69	1190	2315	46	-25 +50
VKMI 250		194	0,85	1310	2790	46	-25 +50
VKMI 315		171	0,77	1400	2600	46	-25 +50
VKMI 315 S		296	1,34	1880	2720	48	-25 +45

MOUNTING

The fan is designed for horizontal installation on the feet, fig. 2. The fan may be equipped (modification VKMI XXX K) with a fixing bracket with vibration dampers (or delivered separately) to facilitate the fan mounting in horizontal or vertical position to the floor, to the wall or to the ceiling, fig. 3.

If the fan is mounted outdoors it should be protected against the elements and moisture ingress, e.g. by means of a top hood above the fan in case of vertical mounting and by 1 diameter air duct in case of horizontal mounting. The outlet spigot must always be connected to air duct. The fan mounting sequence is shown in fig. 4-10 and 11-16. Wiring diagram for a fan model without power cable and a plug is shown in fig. 11.

MAINTENANCE

The product surfaces must be regularly (once in 6 months) cleaned from dirt and dust (fig. 19-21).

Disconnect the fan from power mains prior to any maintenance operations.

For cleaning use a soft cloth or brush and mild detergent water solution.

Avoid water dripping on the electric components (fig. 22).

Wipe the surfaces dry after cleaning.

TRANSPORTATION AND STORAGE RULES

Transport the product by any transportation vehicle in the manufacturer's original package.

Store the delivered product in the manufacturer's original packing box in a dry ventilated premise with the temperature range from +5°C up to + 40°C and relative humidity less than 80%.

The storage environment must not contain dust, acid or alkali vapours that may cause corrosion of the product parts.

ELETRONICS CONTROL LOGIC

VKMI U fan (fig. 17) is equipped with the electronic module TSC (speed controller with electronic thermostat) for automatic fan speed (air capacity) control depending on air temperature.

The terminal block module has two control knobs:

- for setting the motor speed;
- for setting electronic thermostat threshold.

The light indicator on the front panel shows thermostat operation.

Set the desired thermostat temperature (operating threshold) by turning the thermostat control knob clockwise to increase and counter clockwise to decrease the setpoint.

Set the desired impeller speed (air flow) by turning the impeller speed control knob in the same way.

The control logic has temperature and timer-dependent patterns.

Temperature pattern (VKMI U):

Is used to keep air temperature to within 2°C. The speed switches are rare.

As air temperature rises beyond the set temperature controller threshold, the fan is switched to maximum speed.

As air temperature falls 2°C below the set temperature threshold or if the initial temperature is below the set threshold, the fan runs with pre-set speed.

Timer pattern (VKMI U1):

Is used for exact maintaining of air temperature. The speed switches are more frequent as compared to the temperature sensor mode but in any case the switching cycle does not exceed 5 minutes.

As air temperature rises beyond the set temperature controller threshold, the fan is switched to maximum speed.

As air temperature falls below the set temperature threshold, the fan switches to the pre-set speed 5 minutes after timer countdown.

If the initial temperature was below the set threshold, the fan runs with pre-set speed.

The fan **VKMI P** (fig. 18) is equipped with a speed controller that enables fan switching on and off, smooth speed (air flow) control from minimum to maximum value.

MANUFACTURER'S WARRANTY

The fan is manufactured at the factory of "Ventilation systems" PrJSC (hereinafter referred to as the Manufacturer).

By purchasing this product the customer confirms to have read and agreed to the terms, rules and requirements related to operation, storage, transportation, mounting, adjustment, connection, maintenance and repair as well as warranty obligations with respect to this product as set forth in the manufacturer's accompanying documentation to the product.

The manufacturing company sets forth the warranty period (service life) of the product as 24 months following the sale date via retail network subject to the customer's ensuring compliance with the rules of transportation, storage, mounting and operation of the product.

In case of any malfunction of the product through the fault of the Manufacturing company within the warranty period (service life), the customer shall have the right to elimination of the manufacturing defects by means of warranty servicing performed free of charge.

The warranty servicing implies performance of activities related to elimination of defects in the product aimed to provide intended use of the product by the customer.

The defects are eliminated either by replacing or repairing such a product or a part (component) thereof.

NOTE!

With the purpose of performing warranty servicing you please produce User Manual or other relevant substituting document and the payment document as an evidence of the purchase with indication of the sale date.

The product model shall comply with that one specified in the User Manual or other relevant substituting document.

With the purpose of performing warranty servicing please contact the trade company where you purchased the product.

If warranty servicing on the spot proves impossible, you will be provided with the necessary information regarding rendering of this service.

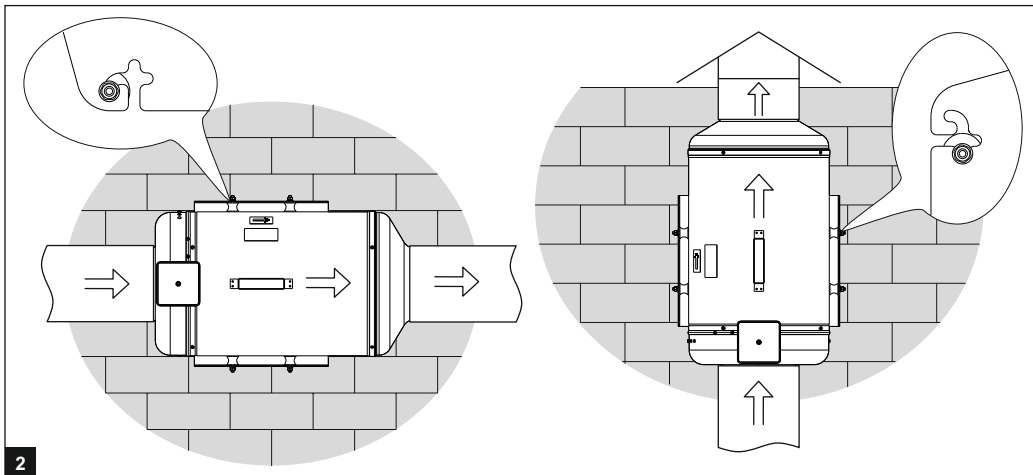
Manufacturer's warranty shall not apply in the following cases:

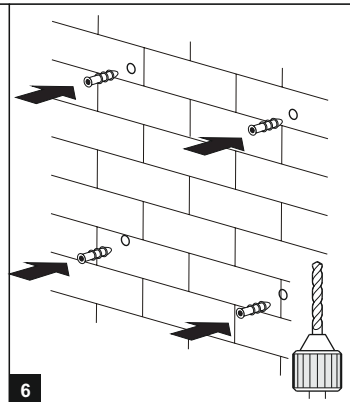
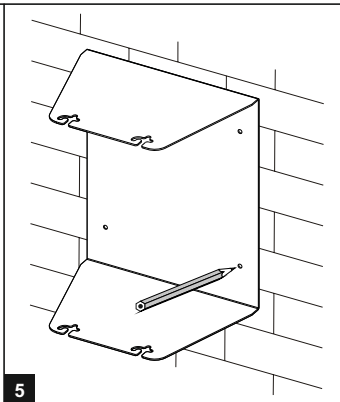
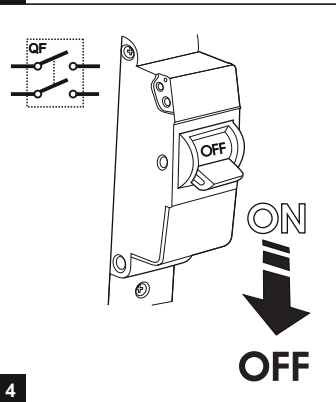
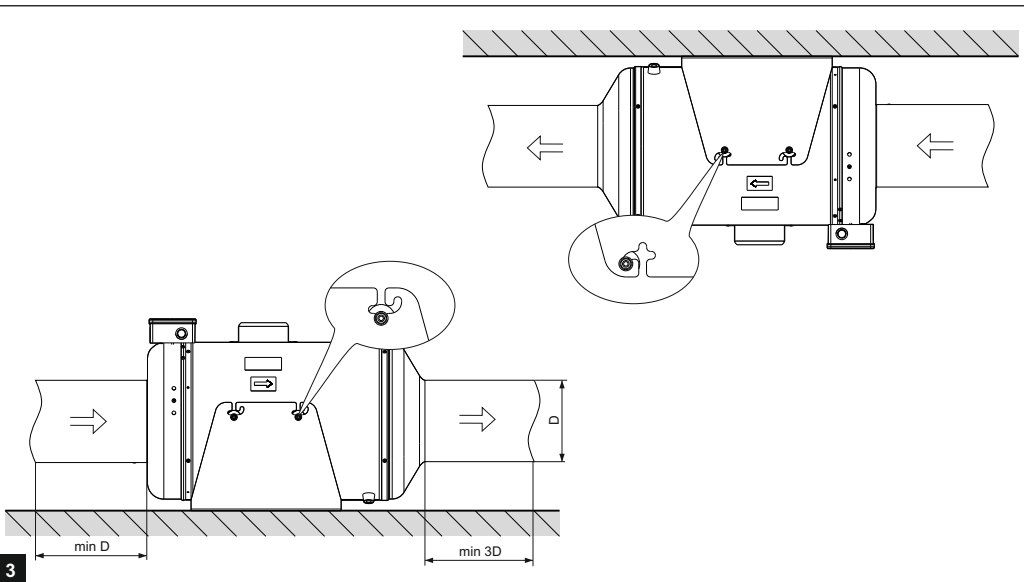
- if the customer fails to provide the product in complete according to the package contents specified in the User Manual or other relevant substituting document, including any components disassembled by the customer;
- in case of incompliance of the model or marking of the product with data specified on the product packaging and in the User Manual or other relevant substituting document;
- in case of non-timely technical maintenance of the product by the customer (dust, mud, oil condensate, foreign particles);
- in case of causing external damage to the product by the customer ('damage' shall not apply to external changes of the product required for the product mounting);
- in case of altering the product design or further reworking of the product;
- in case of replacing and using parts, units and components of the product not prescribed by the manufacturing company;
- in case of other use of the product other than intended use;
- in case of the customer's violating product operation rules;
- in case of connecting the product to electric mains of voltage exceeding voltage value specified in the user's manual;
- in case of step voltage that resulted in the product failure;
- in case of the customer's performing unauthorised repair of the product;
- in case of performing repair of the product by third persons unauthorized by the manufacturing company;
- in case of warranty period (service life) expiry;
- in case of the customer's violating transportation rules assuring prevention of damaging and/or destruction of the product;
- in case of the customer's violating product storage rules;
- in case of performing unlawful actions by third persons with respect to the product;
- in case of force majeure (fire, flood, earthquake, war, hostilities of any kind, blockade);
- in case of absent seals, provided such seals are prescribed by the User Manual or other relevant substituting document;
- in case of unavailable warranty card;
- in case of unavailable payment document to confirm the purchase with indication of the sale date.

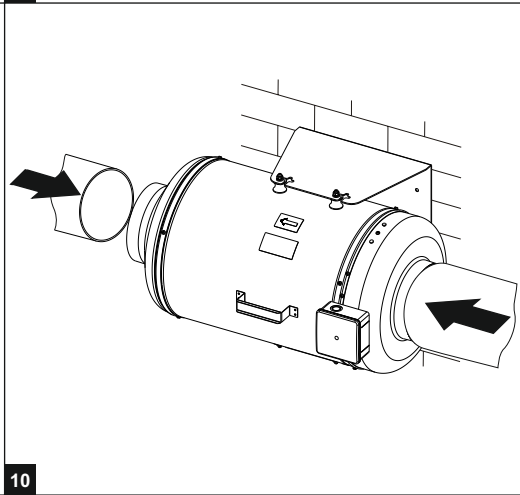
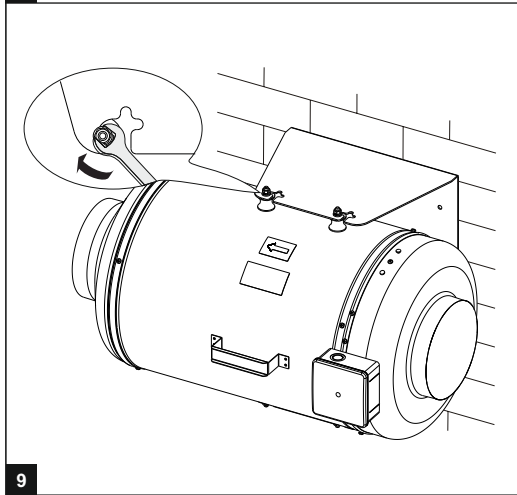
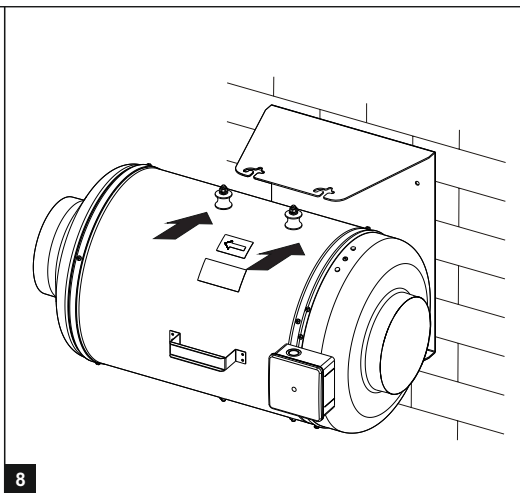
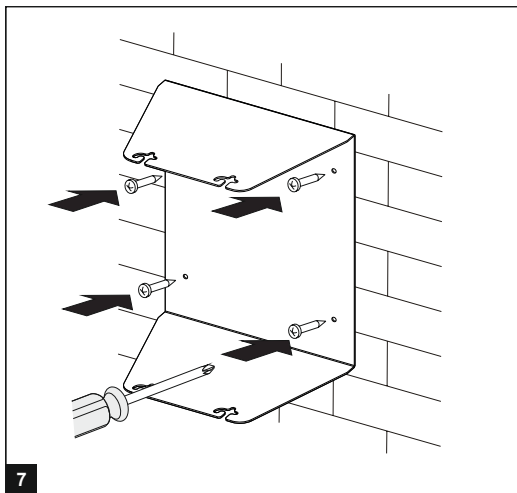
The manufacturing company shall be responsible for defects arising through its fault prior to the moment of transferring the product to the ownership of the customer.

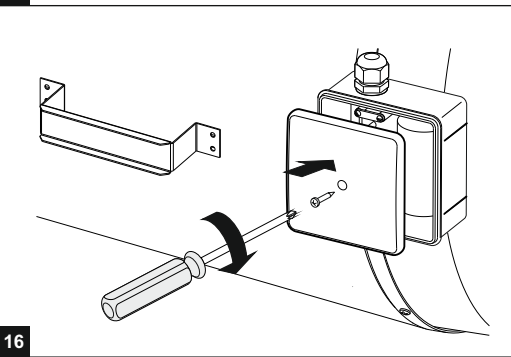
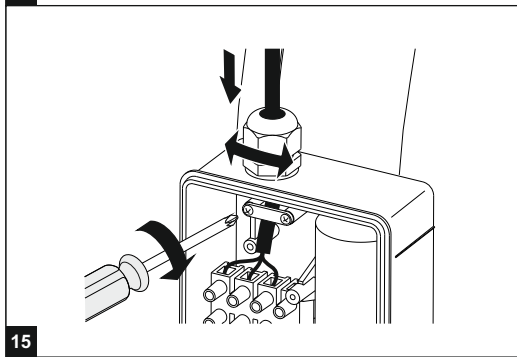
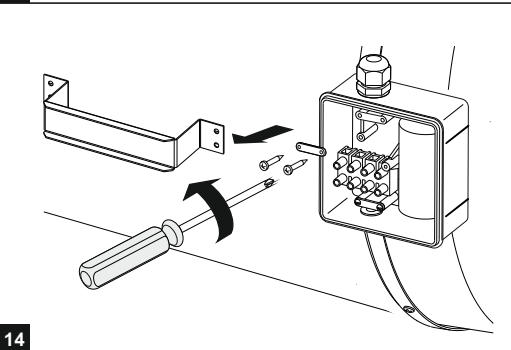
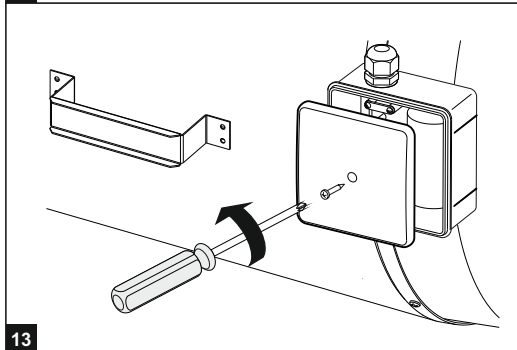
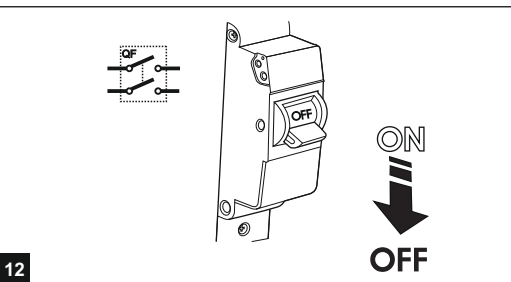
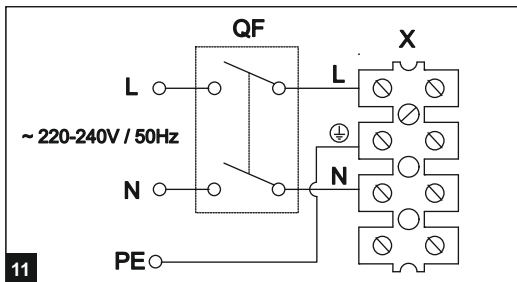
The manufacturing company shall not be responsible for defects arising after transferring the product to the customer and caused by the customer's violating the rules of transportation, storage, assembly and operation of the product, or by actions of third persons, an accident or force majeure circumstances.

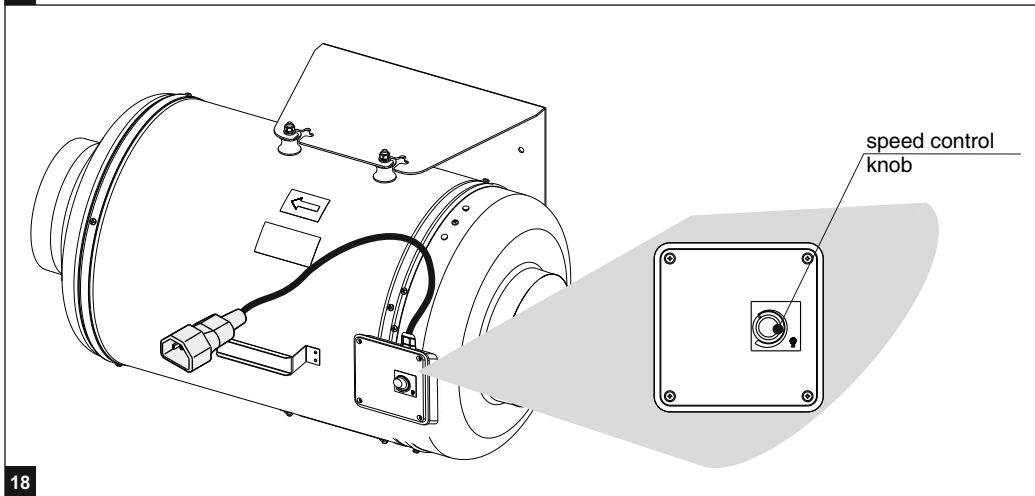
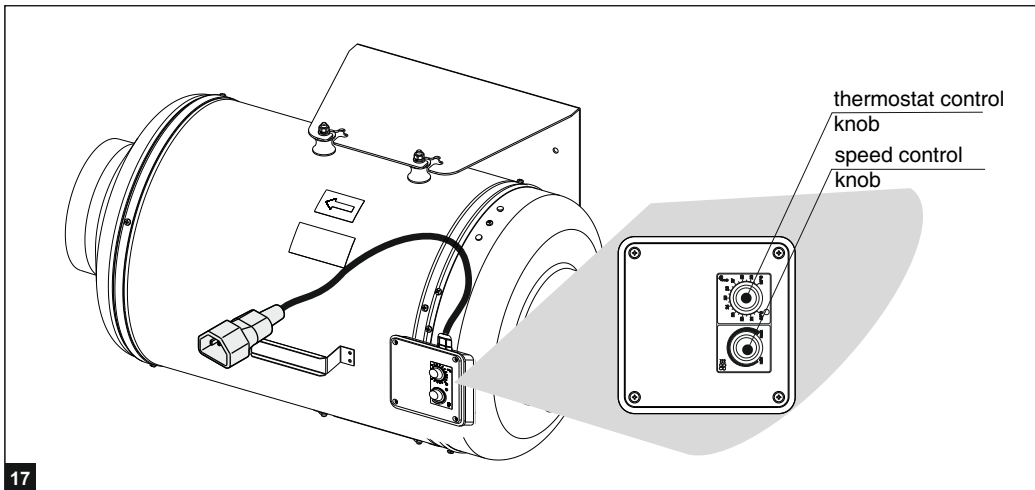
The manufacturing company shall not be responsible for damage to health and property of the customer caused by the customer's violating the User Manual or other relevant substituting document; other use of the product by the customer other than its intended use, or by failure of the customer to comply with warnings and other information on the product specified in the User Manual or other relevant substituting document, or by the customer's violating the rules of transportation, storage, mounting, maintenance and operation of the product stated in the operation manual or other substituting document.

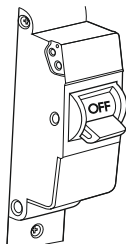






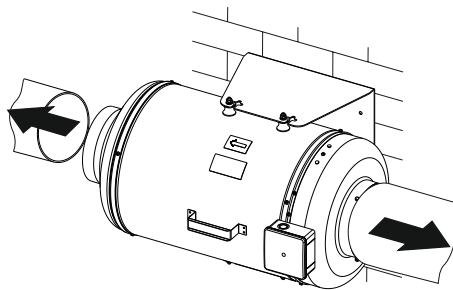




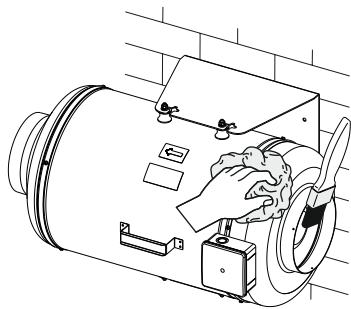


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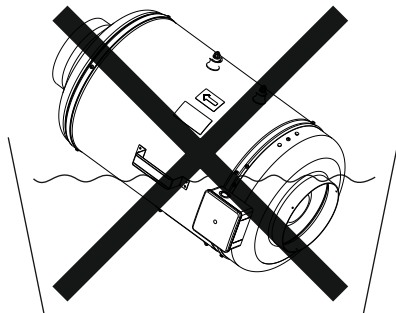
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ACCEPTANCE CERTIFICATE

The fan is recognized as serviceable.

100

125

150

VKMI

160

Q

R

U

1

n

200

S

P

250

315

Stamp of the acceptance inspector

Date of production

Sold by

name of the vendor, stamp of the shop

Date of sale

(mark the proper model)