



Inline centrifugal fan

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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 VKP / VKPF 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

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.

Only qualified electricians with a work permit for electrical units up to 1000 V are allowed for installation. The present user's manual should be carefully read before beginning works.

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 installation site of the fan must have protective elements that prevent foreign objects from entering the fan.

When starting, setting up and operating the fan, the exhaust and supply spigots must be protected to prevent injury from the rotating parts of the fan.

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.

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.

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

WARNING: If there are any unusual oscillating movements, immediately stop using the unit and contact the manufacturer, its service agent or suitably qualified persons.

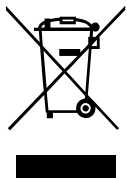
The replacement of parts of the safety suspension system device shall be performed by the manufacturer, its service agent or suitably qualified persons.

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.

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.

The mounting of the suspension system shall be performed by the manufacturer, its service agent or suitably qualified persons.

The appliance is to be installed so that the blades are more than 2.3m above the floor.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE**

PURPOSE

The Inline centrifugal 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.

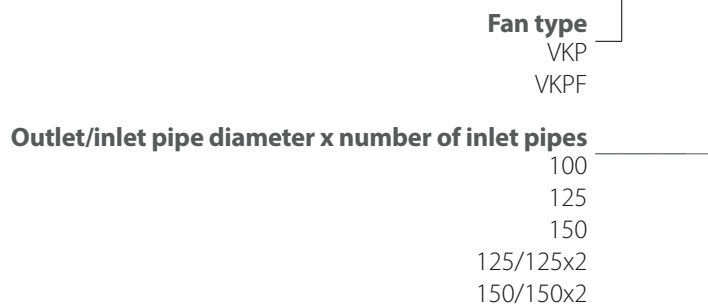
Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

DELIVERY SET

NAME	NUMBER
Fan	1 pc.
Mounting bracket	1 pc.
User's manual	1 pc.
Packing box	1 pc.

DESIGNATION KEY

Designation example: **VKP 150 / 150x2**



TECHNICAL DATA

The unit is designed for indoor application with the ambient temperature ranging from 32 °F up +113 °F °C and relative humidity up to 80 %.

The unit is rated as a Class I electrical appliance. Hazardous parts access and water ingress protection rating: IP22 for the assembled unit connected to the air ducts and IP44 for the unit motors.

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

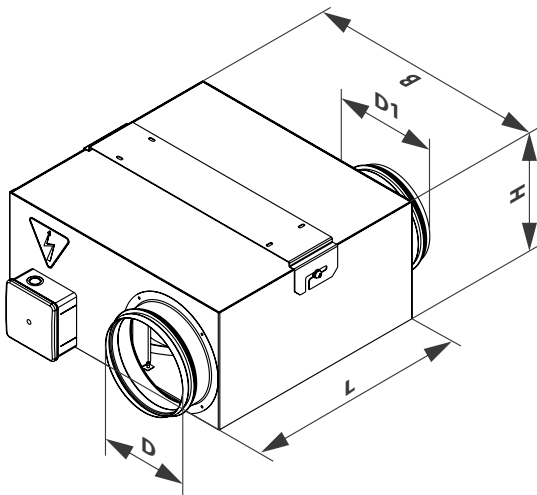
Air flow capacity: up to 360 CFM

Power consumption: 30-119 W

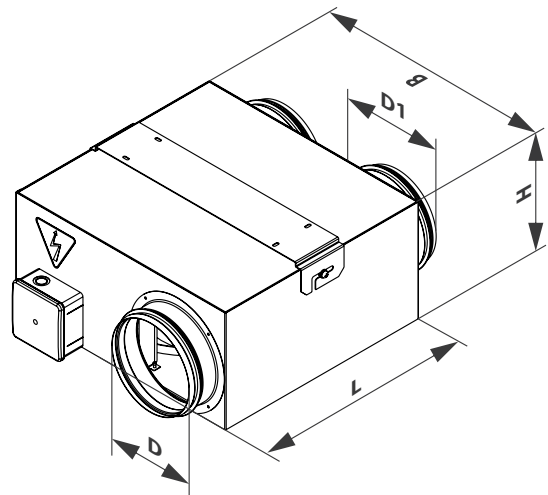
Sound level: 3.7-4.5 Sones

Model	Duct Dia.	Watts*	Amps*	Sones @10 ft	CFM vs. Staic Pressure [Ps] in.W.G.											Max. Ps	Volt/Hz
					0"	0.1"	0.2"	0.3"	0.4"	0.5"	0.6"	0.7"	0.8"	0.9"	1"		
VKP 100	4"	30	0.27	3.7	104	98	94	89	84	77	69	61	52	43	33	1.2	120/60
VKP 125	5"	66	0.54	4.2	220	214	208	202	196	190	184	178	172	160	150	2.4	120/60
VKP 125/125x2	5"/5"	74	0.61	4.2	244	234	223	213	204	194	183	170	160	150	140	1.9	120/60
VKP 150	6"	101	0.82	4.5	300	292	283	274	266	257	248	238	229	219	210	3.0	120/60
VKP 150/150x2	6"/6"	119	1	4.5	360	348	332	316	302	289	272	259	245	323	220	3.0	120/60
VKPF 125/125x2	5"/5"	80	0.68	3.5	267	256	246	234	216	195	177	152	55			0.84	120/60

* The parameters Watts, Amps are stated in 0.2" in.W.G. Static Pressure.



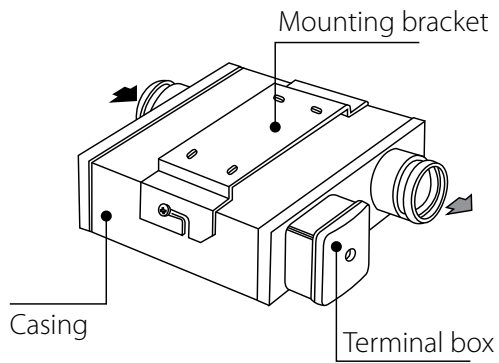
Pic. 1 Inline dryer booster fan



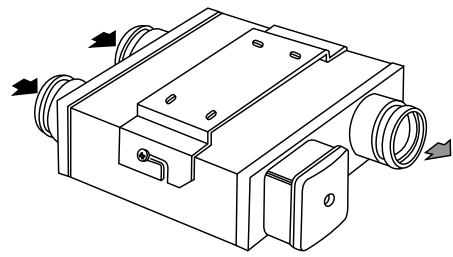
Pic. 2 Twin intake fan

Model	Measurements [in.]					Picture
	Ø D	Ø D1	L	B	H	
VKP 100	4"	4"	13 7/8"	9 7/8"	6 3/8"	1
VKP 125	5"	5"	16 3/16"	12 3/16"	7 1/2"	1
VKP 150	6"	6"	18 3/16"	15 7/16"	7 1/2"	1
VKP 125/125x2	5"	5"	16 3/16"	12 3/16"	7 1/2"	2
VKP 150/150x2	6"	6"	18 3/16"	15 7/16"	7 1/2"	2
VKPF 125/125x2	5"	5"	10 5/8"	11 7/64"	7 31/64"	2

UNIT DESIGN AND OPERATING PRINCIPLE



1 inlet – 1 outlet



2 inlets – 1 outlet

The fan consists of a metal casing with a turbine with backward curved blades fixed to a flange. The terminal box with an operating capacitor and a terminal box inside is attached to the casing end face. The flange with the turbine and the fixing bracket with mounting slots is screwed to the back or front panel of the fan casing depending on its model.

INSTALLATION AND SET-UP



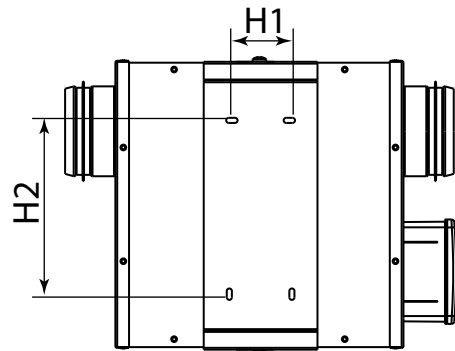
BEFORE MOUNTING MAKE SURE THE CASING DOES NOT CONTAIN ANY FOREIGN OBJECTS (E.G. FOIL, PAPER).



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

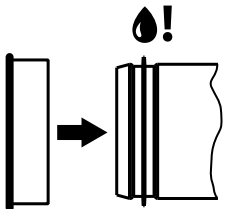
The fan is suitable both for horizontal and vertical installation. To get the best performance of the unit and to minimize turbulence-induced air pressure losses, connect the straight air duct section to the spigots on both sides of the unit while installing. Minimum straight air duct length: equal to 1 air duct diameter on intake side and to 3 air duct diameters on outlet side. No filters or any other similar devices are allowed to be installed in these sections.

Model	Dimensions, in	
	H1	H2
VKP 100 VKP 125 VKP 125/125x2	2 3/8"	7 7/8"
VKP 150		9 13/16"
VKPF 125/125x2		7 3/4"



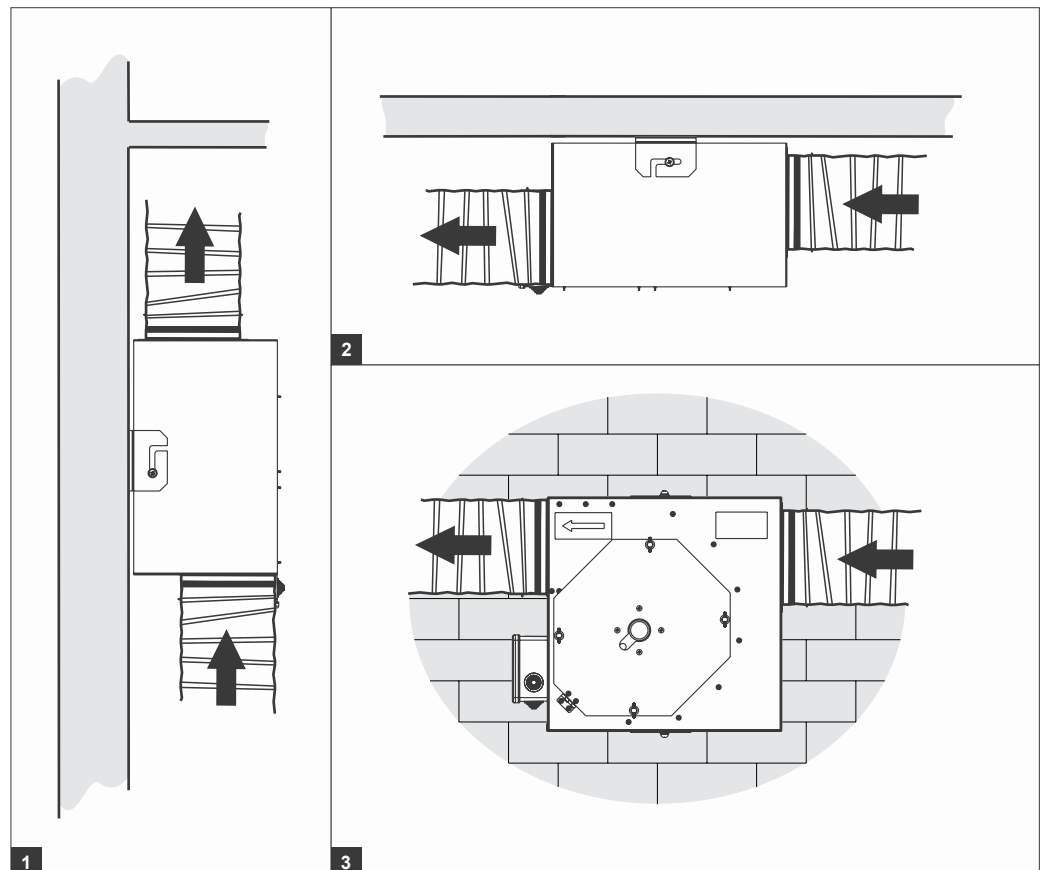
Typical installation of fan

Different variants of wall and ceiling mounting of vertical and horizontal fans are shown on Pic. 1-3.



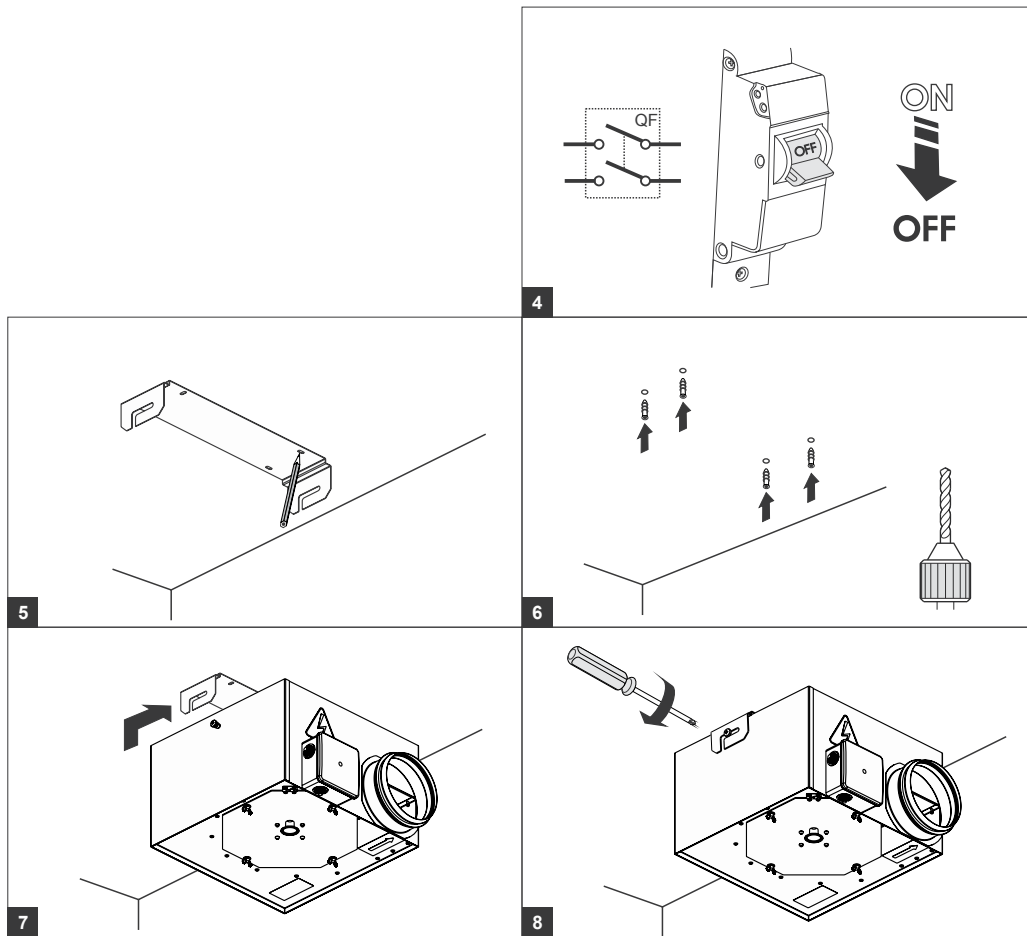
CAUTION!

If necessary, close the fan spigot with a plug, lubricate the rubber seal of the spigot with silicone grease. Silicone grease for rubber seals is purchased separately, plugs are available on request.



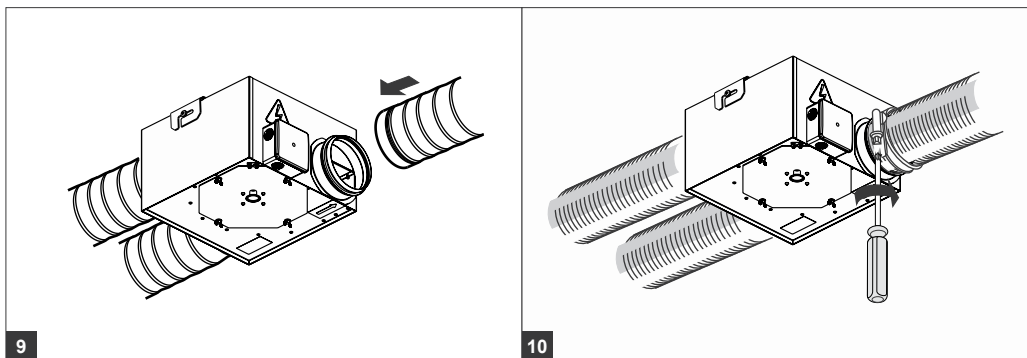
Fan mounting sequence:

The process of fan mounting with the use of a bracket together with four screws and dowels is shown on Pic. 4-8.



The process of ventilation shaft attachment is shown on Pic. 9-10.

Air flow direction should match the direction of an arrowhead placed on the fan case.



To ensure quiet operation of ENERGY STAR qualified inline fans, each fan shall be installed using sound attenuation techniques appropriate for the installation. Insulated flexible type duct work (recommended for all bathroom exhaust applications) will result in quieter operation. We recommend minimum 8" of insulated flexible duct between any exhaust grill and fan for low noise level. Flexible duct should be connected to the fan with hose clamps (VENTS C series is recommended), aluminum foil tape or both. All connections should be as airtight as possible to maximize system performance and eliminate air leakage. When using flexible type duct work, duct should be as tight and straight as possible. In case you intend to use non-flexible ducts we recommend to install flexible connectors (VENTS VVG series is highly recommended) which are designed to exclude the vibration transmission from fans to air duct. Remove any insulation from the area where you will be mounting the fan. Insulation should never be installed over any part of an exhaust fan. Keep the insulation at least 3" away from the fan case.

CONNECTION TO POWER MAINS

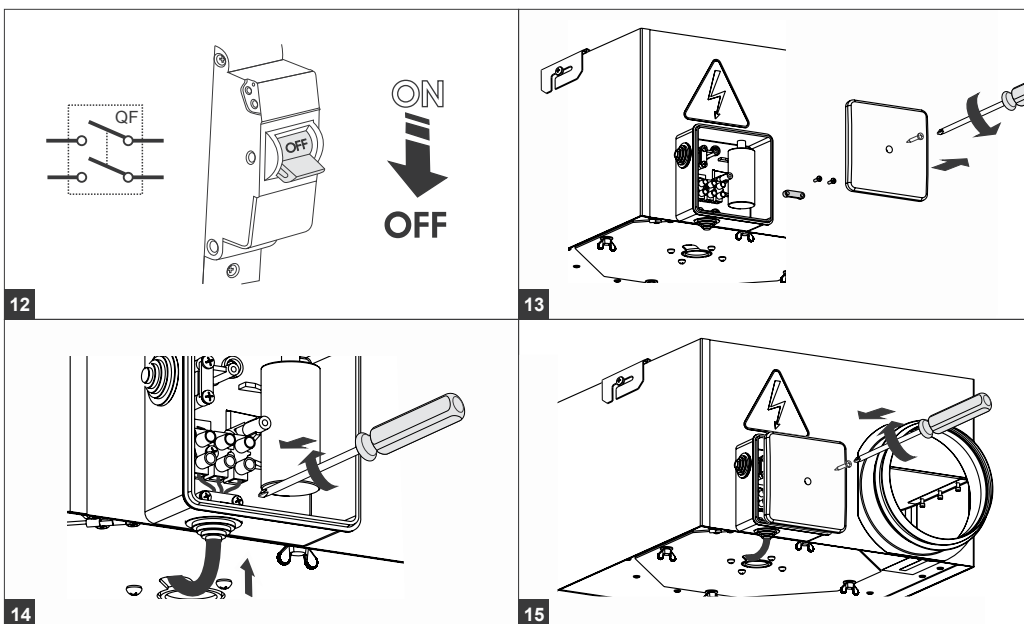
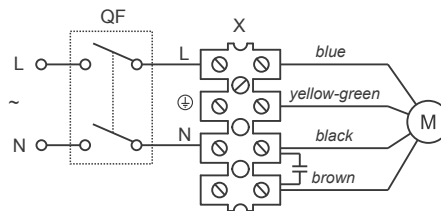


DISCONNECT THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.
CONNECTION OF THE UNIT TO POWER MAINS IS ALLOWED BY A QUALIFIED ELECTRICIAN WITH A WORK PERMIT FOR THE ELECTRIC UNITS UP TO 1000 V AFTER CAREFUL READING OF THE PRESENT USER'S MANUAL.
THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE MANUFACTURER'S LABEL.

- The unit is rated for connection to 1~120 V/60 Hz power mains.
- The unit must be connected to power mains using insulated electric 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 external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the electric circuit in case of overload or short-circuit. The circuit breaker installation place must provide quick access for emergency shutdown of the unit. The trip current of the automatic circuit breaker QF must exceed the maximum current consumption of the unit (refer to the technical data table). The recommended trip current of the circuit breaker is the next current in the standard trip current row following the maximum current of the connected unit. The automatic circuit breaker is not included in the delivery set.

To connect the fan to the power network it is necessary to:

- shut off the power network (Pic.12);
- remove the cover from the terminal box (Pic.13);
- remove the clamping bar (Pic. 14);
- lay out the cables through the terminal box lug, remove the insulation from the cables ends for ¼ of an inch (6-7mm) length, connect them to proper terminals up to the stop of insulation and fix with screws (Pic.14);
- place back the clamping bar, tighten up the lug and install the cover on the terminal box (Pic.15).



TECHNICAL MAINTENANCE



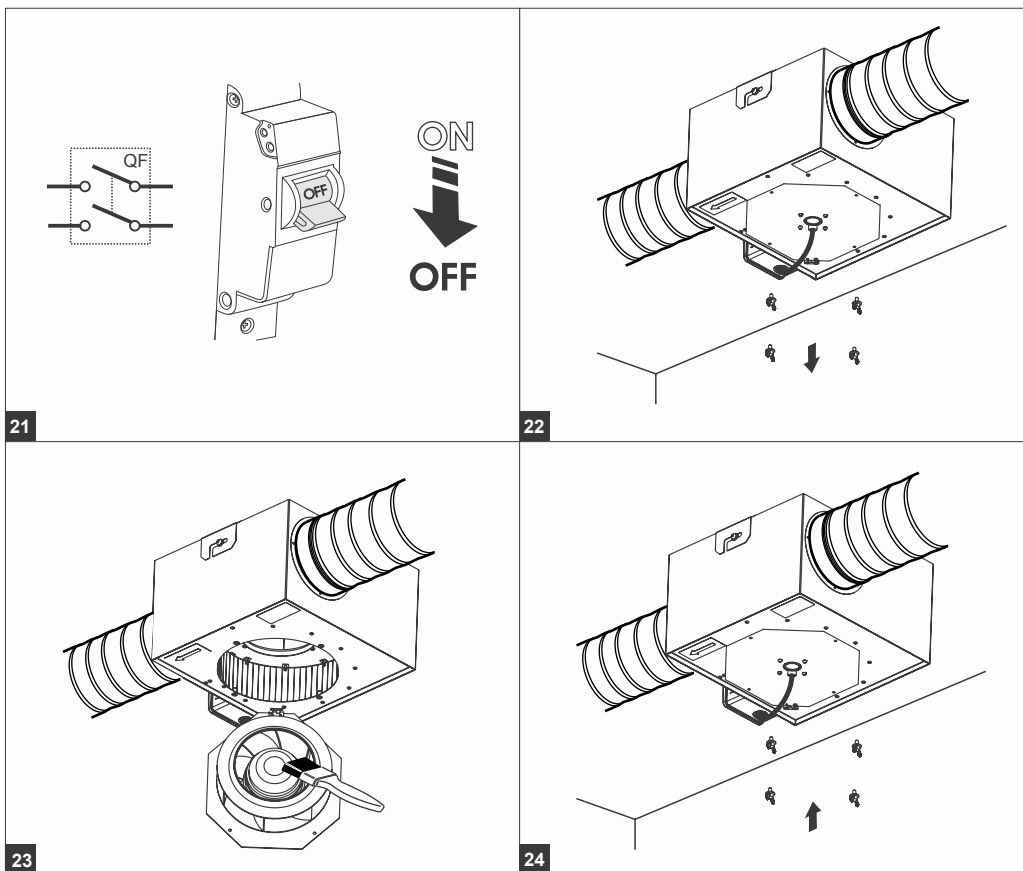
DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

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

The technical maintenance includes periodic cleaning of the surfaces from accumulated dust and dirt. The impeller blades require thorough cleaning once in 6 months.

The fan surfaces need to be cleaned of dirt and dust regularly by using a soft, wet cloth and mild detergent (Pic. 21-24). Do not allow liquids to come in contact with the electric motor. Wipe surfaces dry after cleaning.

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



TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
The fan does not start.	No power supply.	Make sure that the unit is properly connected to the power mains and make any corrections, if necessary.
	Jammed motor.	Turn off the fan. Troubleshoot the motor jamming. Restart the fan.
Circuit breaker tripping during the fan start.	Excessive electric current consumption caused by a short circuit.	Turn off the fan. Contact the Seller.
Noise, vibration.	The fan impeller is soiled.	Clean the impellers.
	The screw connection is loose.	Check the screw connection and tighten the screws if needed.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +41 °F to +104 °F 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

Production meets standard operating requirements in the USA and Canada.

Vents US warrants to the original purchaser of the unit that it will be free from defects in materials or workmanship for a period of 24 months from the date of original purchase. The Vents US warrants to the original purchaser of the unit that the integrated control unit will be free from defects in materials and workmanship for a period of 24 months from the date of original purchase.

THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

During the stated warranty period, Vents US will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service. This warranty does not cover (a) normal maintenance and normal service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by Vents US), faulty installation or installation contrary to recommended installation instructions. Labor to remove and replace products is not covered. The duration of any implied warranty is limited to the time period specified for the express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

VENTS US OBLIGATION TO REPAIR OR REPLACE, AT VENTS US OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. VENTS US SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE.

Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty supersedes all prior warranties. If proof of sales date is absent, warranty period is calculated from the production date. The unit can be exchanged at the following address:

Vents-US
400 Murray Road, Cincinnati, OH 45217, USA
Tel: 1-888-640-0925, 513-583-5786, Fax: 513-268-4597
E-mail: support@ventsus.com
www.vents-us.com

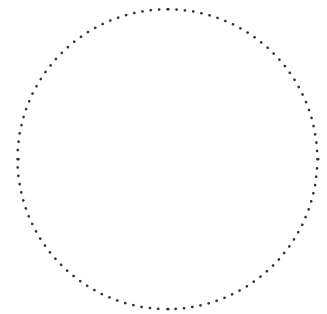
Please follow guidelines in this manual for product problem-free operation.

CERTIFICATE OF ACCEPTANCE

Unit Type	Inline centrifugal fan
Model	
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

SELLER INFORMATION

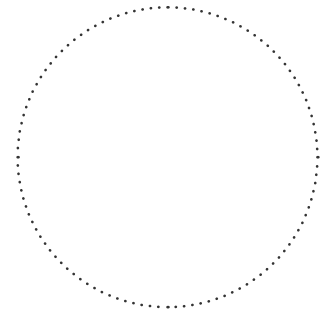
Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	



Seller's Stamp

INSTALLATION CERTIFICATE

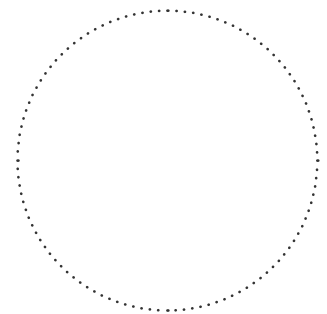
The _____ unit is installed pursuant to the requirements stated in the present user's manual.	
Company name	
Address	
Phone Number	
Installation Technician's Full Name	
Installation Date:	Signature:
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
Signature:	



Installation Stamp

WARRANTY CARD

Unit Type	Inline centrifugal fan
Model	
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	



Seller's Stamp

