

# USER'S MANUAL



## FAN FOR SOLID FUEL BOILER VDK Series



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This user's manual consisting of the technical details, operating instructions and technical specification covers the installation and mounting of the VDK fan for solid fuel boiler (hereinafter referred to as «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:

	<b>WARNING!</b>
	<b>DO NOT!</b>

**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.



- 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 use damaged equipment or cables when connecting the unit to power mains.



- Unpack the unit with care.



- 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.



- 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.



- Use the unit only for its intended purpose.



- 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.

## ■ PURPOSE

The fan is designed for pumping the air in the combustion chamber of the solid fuel boiler and for optimizing fuel combustion. The fan facilitates the controlled process of fuel burning and combustion, boiler efficiency improving and combustion process automation. May be used for ventilation of premises and processing equipment.



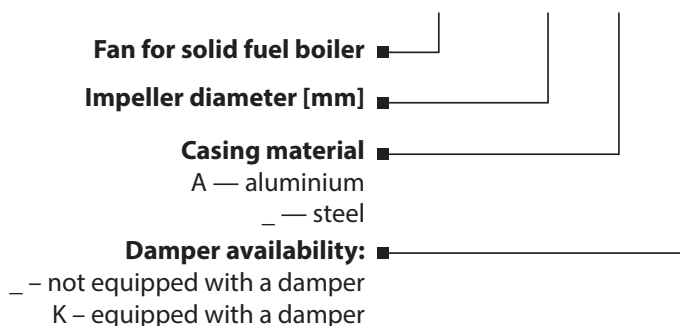
**THE UNIT MAY NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL OR SENSORY CAPACITIES, OR LACKING THE APPROPRIATE TRAINING. THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING. THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.**

## ■ DELIVERY SET

Fan	1 item
User's manual	1 item
Packaging	1 item

## ■ DESIGNATION KEY

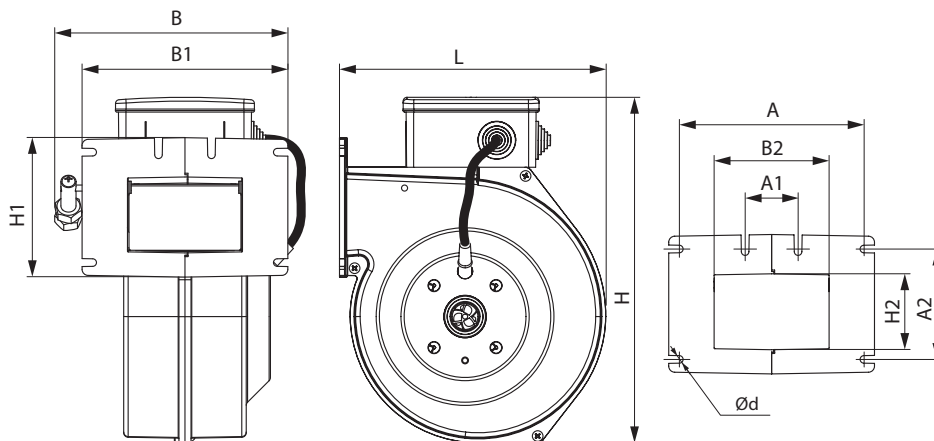
### VDK - X - X - K



## ■ TECHNICAL DATA

The fan is designed for indoor application.

The unit design is constantly being improved, so some models can slightly differ from those ones described in this manual.

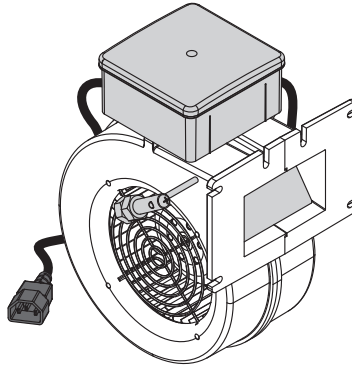


Model	Dimensions [mm]										
	Ød	A	A1	A2	B	B1	B2	H	H1	H2	L
VDK 120	6,3	122	35	73	154	136	76	229	92	50	176

Technical data	Model	
	VDK 120	
Voltage [V]	1~ 230	
Frequency [Hz]	50	60
Power [W]	65	81
Current [A]	0,29	0,35
Max. air capacity [m³/h]	273	282
Maximum pressure, Pa	335	435
RPM	2350	2390
Sound pressure level at 3 m distance [dB(A)]	56	57
Maximum transported air temperature [°C]	-15 +40	-15 +40
Ingress protection rating	IP 44	

## ■ DESIGN AND OPERATING PRINCIPLE

The motor with an external rotor and an impeller with forward-curved blades is attached to the fan casing. Casing material is aluminium alloy or painted cold rolled sheet steel. The fan inlet is protected by a grid. The fan outlet is flanged. A gravity damper installed on the outlet side of the fan blocks air access to the boiler when the fan is turned off.



## ■ MOUNTING AND SET-UP



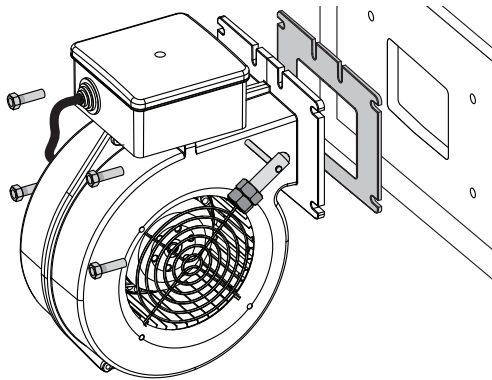
**MAKE SURE THE UNIT IS NOT DAMAGED BEFORE OPERATING IT. OTHERWISE DO NOT USE A DAMAGED UNIT AND CONTACT THE SELLER. DO NOT MOUNT THE UNIT ON UNEVEN SURFACE. WHILE TIGHTENING THE FASTENERS DO NOT APPLY EXCESSIVE FORCE TO PREVENT UNIT CASING DEFORMATION.**

Before mounting the unit adjust the weigh position by moving it along the axis so that the gravity damper closes the outlet opening of the fan.

The fan is mounted to the solid fuel boiler with a flange and screws.

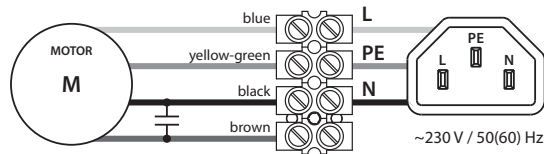
It's advisable to use a gasket between a flange and a boiler.

Screws and a gasket are not included in the delivery.



## ■ CONNECTION TO POWER MAINS

Connect the fan to single-phase AC 230 V / 50(60) Hz power mains by using the 3x0,75 mm<sup>2</sup> pre-wired power cord with the IEC power connector compliant with the EN 60320 C13 10 A / 250 V standard. The connection is made to the control unit of the boiler. The power supply connection diagram of the fan is shown in the figure below. The control unit is not included in the delivery.



## ■ TECHNICAL MAINTENANCE

Once a year check the fan for wear or damage, clean the impeller blades and check the electrical connection status to ensure continuous operation of the unit.

## ■ TRANSPORTATION AND STORAGE REGULATIONS

Store the unit in the manufacturer's original packing box in a dry closed ventilated premise with temperature range from +5 °C to + 40 °C.

Storage environment must not contain aggressive vapours and chemical mixtures provoking corrosion, insulation and sealing deformation.

Use hoist machinery for handling and transportation to prevent possible mechanical damages of the unit.

Follow the applicable moving regulations specific to the particular cargo type while loading and unloading.

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.**



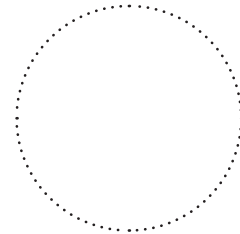
**USERS' CLAIMS SHALL BE A SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE SALE DATE STAMP.**

## ■ ACCEPTANCE CERTIFICATE

<b>Unit Type</b>	Fan for solid fuel boiler
<b>Model</b>	VDK _____
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<p>is compliant with the technical specifications and is hereby declared ready for service. 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.</p>	
<b>Quality Inspector's Stamp</b>	

## ■ SELLER INFORMATION

<b>Seller</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>E-mail</b>	
<b>Purchase Date</b>	



Seller's Stamp

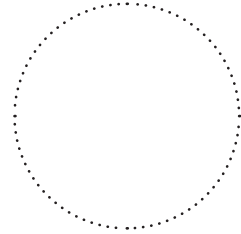
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.

**Customer's Signature**

## ■ MOUNTING CERTIFICATE

The unit has been connected to power mains pursuant to the requirements stated in the present user's manual.

<b>Company Name</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>Installation Technician's Full Name</b>	
<b>Installation Date:</b>	<b>Signature:</b>



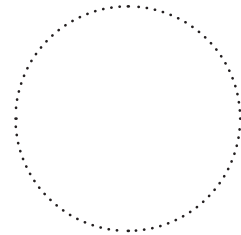
Installation  
Company Stamp

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:**

## ■ WARRANTY CARD

<b>Unit Type</b>	Fan for solid fuel boiler
<b>Model</b>	VDK _____
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<b>Purchase Date</b>	
<b>Warranty Period</b>	
<b>Seller</b>	



Seller's Stamp



V119EN-01

