

Use and Maintenance Manual



Portable radial fans

FAST-160-P

FAST-200-P

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1. Introductory Remarks

The purpose of the present User's Manual is to supply the Purchaser and the future User with directions within the range of application, installation, start-up and the operational use of the **FAST-P portable radial fans**.

Therefore, installing, start up and operational use are exclusively admissible after getting acquainted with the contents of the User's Manual.

With regard to continuity of work carried on improvement of our products, we reserve for ourselves the revision possibility of the draft and technological changes improving their functional features and safety. In case when improper function and faults are by noise or visually spotted, and they cannot be fixed on one's own, contact the manufacturer or representative.

The construction of the **FAST-P portable radial fans** meets the requirements of the current state of technology as well as the safety and health assurances included in:

- **2006/42/EC Machinery Directive** of the European Parliament and of the Council of 17 May, 2006 on machinery – amending the 95/16/EC (recast) /*Journal of Laws EC L157 of 09.06.2006, page 24*/
- **2014/35/EC Directive** of the European Parliament and of the Council of 26 February, 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits. /*Journal of Laws EC L96 of 29.03.2014*/

The appliance meets the requirements included in:

- **2009/125/EC (ErP) Directive** of the European Parliament and of the Council of October 21th, 2009 establishing a framework for the setting of ecodesign requirements for energy-related products / *Journal of Laws L 285 of 31.10.2009* /
- **327/2011 (EU) Guideline** of March 30th, 2011 on implementing the **2009/125/EC Directive** of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electric input power between 125W and 500 kW /*Journal of Laws L No. 90 of 06.04.2011*/

The device has been constructed and produced on the basis of following harmonized standards:

- **PN-EN ISO 12100:2012** – “Safety of machinery. Basic concepts, general principles for design. Risk assessment and risk reduction”.
- **PN-EN 60204-1:2010** – “Safety of machinery. – Electrical equipment of machines. Part 1: General requirements”.
- **PN-EN 60034-1:2011** – “Rotating electrical machines – Part 1: Rating data and parameters”.
- **PN-EN ISO 5802:2008** – “Industrial Fans – Performance testing in situ of installing”.
- **PN-EN ISO 13857:2010** – “Safety of machinery. Safe distances to prevent hazard zones being reached by upper and lower limbs”.

2. Application

FAST-P portable radial fans have been designed for air-supply ventilation or extraction ventilation of rooms and workplaces. They can be applied for general ventilation and for local exhausts/local extractions, among others for conveying the small size wood chippings and dust, arising during the technological machining of wood, paper, leather, fabric, plastic, etc.

In these applications FAST-P serves as a transport fan.

Additionally, FAST-P fans can be applied for drying the humid rooms by forcing multiple air exchanges and directing the outlet stream directly onto the humid wall.

3. Reservations of Producer

- A. Manufacturer is not liable for any consequences following from the operational use that is in contradiction to the purpose of application.
- B. Do not install any additional elements not belonging to the normal device structure or accessory set.
- C. Any structural changes or device modifications on one's own are not permitted.
- D. Protect the appliance's housing from mechanical damage.
- E. **The fan cannot be used for conveying the air contaminated with a mixture of flammable substances in form of gas, vapour, mist and dust that in connection with the air create explosive atmosphere.**
- F. **Do not use the fan for conveying the air containing viscous impurities that could accumulate (build up) on the device surface, especially on the impeller.**
- G. Neither use the fan for forwarding the air with aggressive pollutants which will destructively effect the device structure.
- H. During the use, the maximum impeller rotations should not exceed nominal rotations.
- I. Producer is not responsible for wounds, injuries, body laceration experienced by User or personnel during the improper operational use.

4. Technical Data

Table No.1

Type	Synchro-nous rotations	Supply voltage	Motor rate	Ingress protec-tion	Acoustic pressure level [dB(A)] from distance		Maximum volume flow	Maximum vacuum	Weight
	[1/min]	[V]	[kW]	IP	1m	5m	[m ³ /h]	[Pa]	[kg]
FAST-160-P	3000	230	0,75	54	87,5	78,0	2500	1800	27,2
FAST-200-P	3000	230	1,5	54	92,0	86,5	4000	2300	30,9

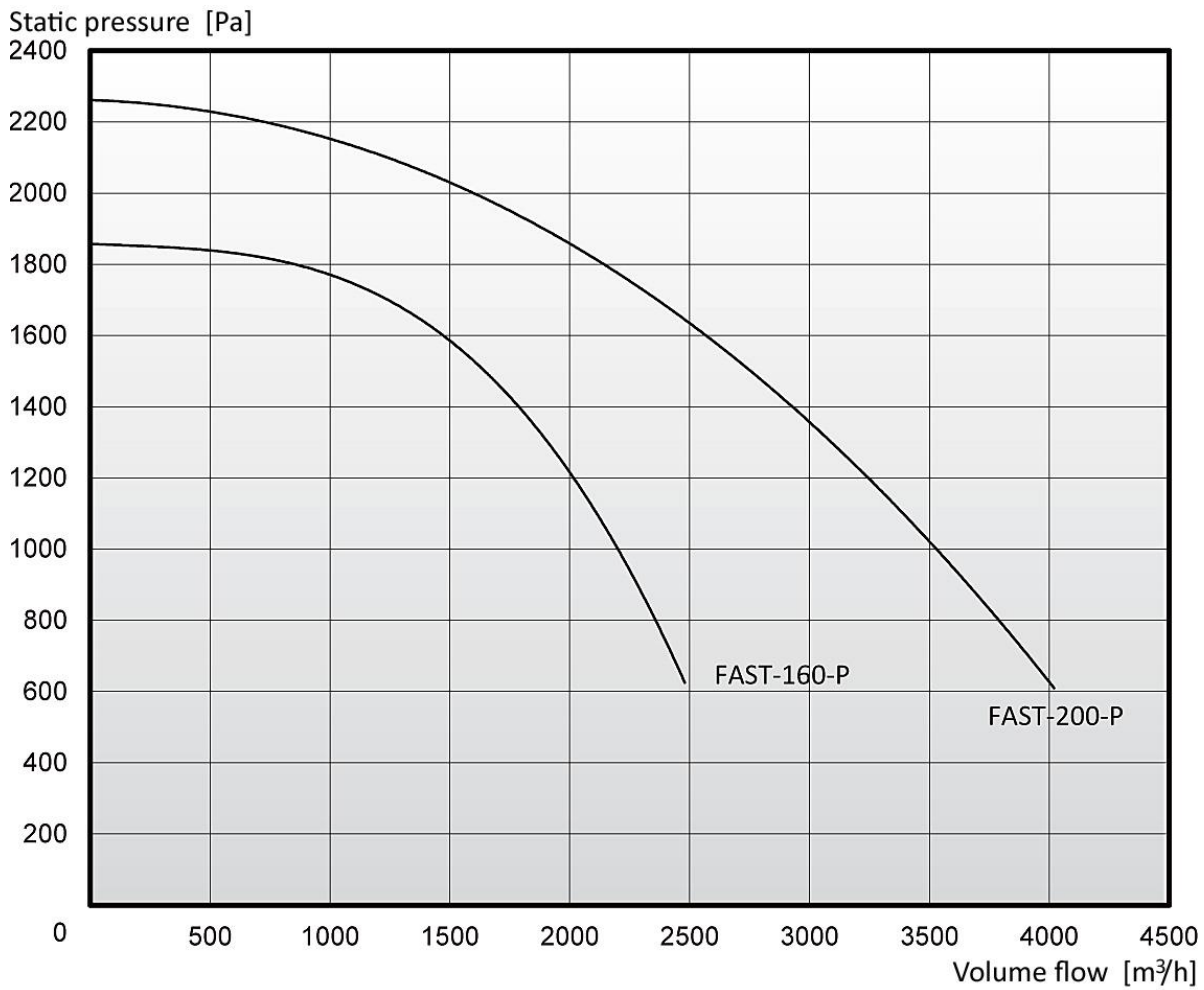


Fig. No.1 – FAST-P – Flow chart

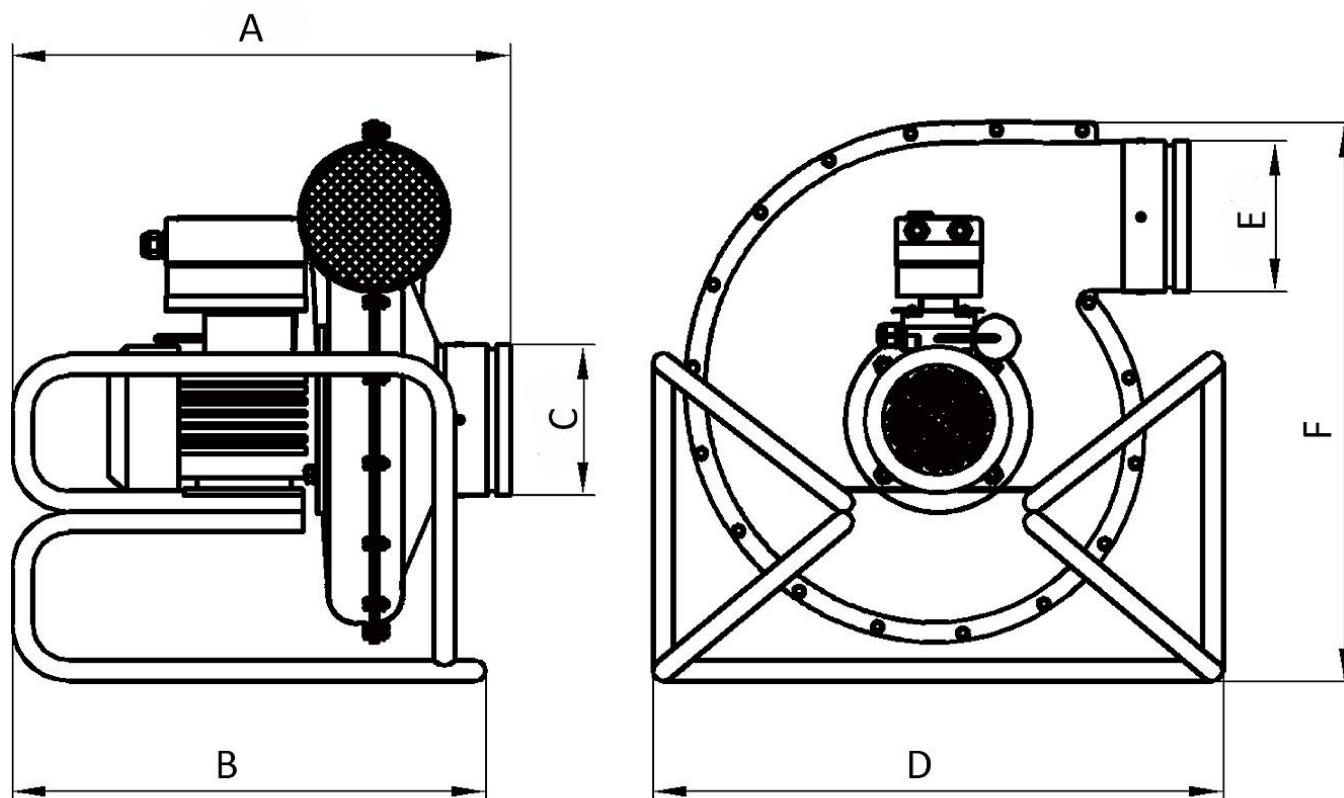


Fig. No.2 – FAST-P – Dimensions

Type of the fan	A	B	C	D	E	F
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
FAST-160-P	533	556	160	667	160	620
FAST-200-P	573	650	200	700	200	676

5. Structure and Function

The fan is driven directly. Impeller and housing are of cast aluminium. The impeller is directly mounted on the motor shaft. The framework is constructed of steel pipes, so it is easy to displace the fan deliberately on the even surface.

Inlet and outlet of the fan are adapted for hose attachment by means of clamps.

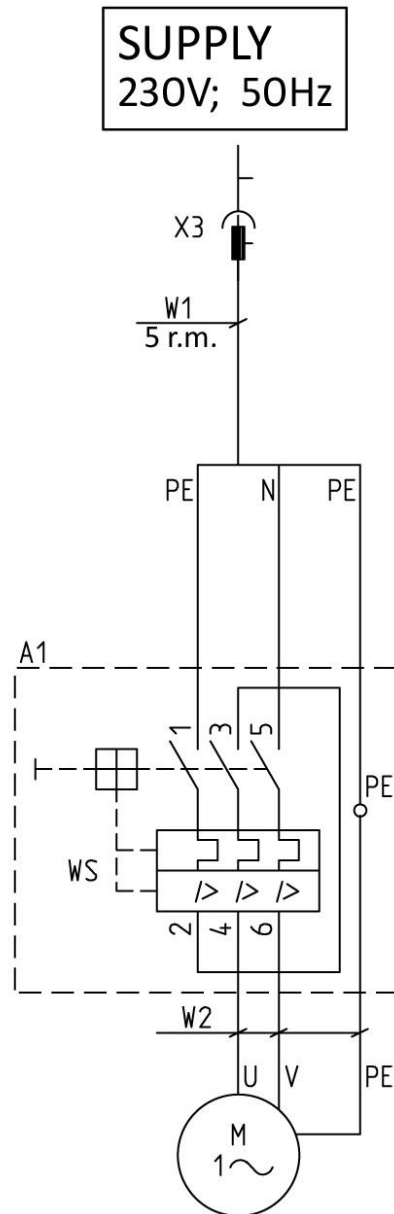
On the motor is located a motor protective switch with short-circuit- and overload protection. Each fan is equipped with a five-metre-long supply cable with a plug.

6. Assembly and Start-up

The fan do not require any special preparations for the start-up. Depending on the application, the fan should be equipped with adequate flexible hoses (see **Section 7**). The fan is switched on by a motor protective switch.

WARNING Do not approach with loose clothes/with the garment or your hand near the open inlet while the fan is in operation, as this could cause severe injury or disability! Do not look into the open inlet because of face injury/laceration.

In case of any activities related to maintenance and other activities carried out on the device, it is important to disconnect the fan from the power supply system.



CAUTION:

1. Insulation class: I
2. Ingress protection: IP54
3. Settings of the WS motor protective switch

$$I_t = 1,1I_n$$

where I_t means rated current of the motor

Fig. No.3 – FAST-P – Connection diagram to the power supply system

7. Operational Use

In application where the fan is used for local extraction ventilation, fasten at the fan inlet a hose of appropriate diameter, and at the hose end an adequate nozzle.

For air supply system, lead a hose (fastened at the fan outlet) into the ventilated room.

In application for humid rooms – simply put the fan inside the room, whereby the fan outlet ought to be directed towards the humid wall, while the suction hose leads outdoors.

The fan can also be placed outdoors, under the condition that it is protected from atmospheric factors, and the hose (from the outlet side) is forwarding the air into the room.

8. Trouble Shooting Guide

	Problem	Possible reason	Corrective action
1.	The appliance is not forwarding the air.	The plug is removed / withdrawn from the socket.	Insert the plug
		The supply cable is damaged.	Replace the faulty supply cable.
		Motor disconnecter is faulty.	Replace the motor disconnecter.
2.	Sudden vibrations of the fan occur.	An object (reducing the air flow) got stuck in the impeller.	Disconnect the appliance from the power supply and remove the object from the impeller.
		Impeller is damaged.	Replace the impeller for new.

9. Maintenance

The appliance does not require any maintenance treatment. The everyday activities consist only in keeping the device clean.

Once a year, the fan ought to be submit to a technical revision, according to the Use and Maintenance Manual for fans.

WARNING Technical revisions ought to be carried out exclusively by a qualified person and after the appliance is disconnected from the power supply system.

10. Occupational Health and Safety

Start-up and maintenance are exclusively admissible after getting acquainted with the contents of the present Use and Maintenance Manual.

Manufacturer accepts no liability for any consequences following from device application that is in contradiction with the purpose of application.

11. Transport and Storage

The fans ought to be transported on pallets, protected with foil.

During the transport the appliance has to be protected from mechanical damages.

The device has to be stored in a dry and well ventilated room and in area free from aggressive substances.

12. Terms of warranty

The period of warranty for the purchased device is indicated in the “Card of Warranty”.

The warranty does not comprise:

- mechanical damage and dysfunctions caused by User,
- device failures caused during use which was in contradiction with the purpose of operational use and the present Use and Maintenance Manual,
- damages being effected during improper transport, storage or incorrect maintenance.

Infringement of the Section 3 “Reservations of producer” of the User’s Manual and especially modifications undertaken by User on one’s own shall cause the loss of warranty validity.

DECLARATION OF CONFORMITY EC No.

Manufacturer (eventually the authorized representative / importer):

name: **KLIMAWENT S.A.**

address: **81-571 Gdynia, ul. Chwaszczyńska 194**

A person authorized for issuing the technical documentation:

name and address:

hereby declares that the appliance:

name: **Portable radial fan**

type/model: **FAST-P**

serial number: year of production:

meets the requirements of the subsequent European Directives:

- **2006/42/EC Directive** of the European Parliament and Council of May 17th, 2006 – for machines – amending the 95/16/EC directive (recast) *Journal of Laws EC L 157 of 09.06.2006, page 241*
- **2014/35/EC Directive** of the European Parliament and Council of February 26th, 2014 on the harmonisation of the laws of the Member States – relating to making available on the market of electrical designed for use within certain voltage limits *Journal of Laws EC L96 of 29.03.2014*
- **2009/125/EC Directive (ErP)** of the European Parliament and of the Council of October 21th, 2009 establishing a framework for the setting of ecodesign requirements for energy-related products *Journal of Laws L 285 of 31.10.2009*
- **327/2011 (EU) Regulation** of March 30th, 2011 on implementing the **2009/125/EC Directive** of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electrical input power between 125W and 500kW *Journal of Laws L No. 90 of 06.04.2011*

meets the requirements of following harmonized standards:

- **EN ISO-12100:2012** Safety of machinery – Basic concepts, general principles for design. Risk assessment and risk reduction.
- **EN 60204-1:2010** Safety of machinery – Electrical equipment of machines. Part 1: General requirements.
- **EN 60034-1:2011** Rotating electrical machines – Part 1: Rating data and performance.
- **EN ISO 5802:2008** Industrial fans – Performance testing in situ of installing.
- **EN ISO 13857:2010** Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs.

.....
place, date

.....
signature of authorised person

.....
name, surname, function of the signatory

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KRS 0000308902 Company stock
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NIP: 958 159 21 35
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NOTES:



Producer:

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