



## FD 4000 VENTILATOR

### **BEDIENUNGSANLEITUNG** USER MANUAL

 DE Ventilator

 EN Ventilator

**EC Declaration of Conformity, IIA**  
**In conformity with EC Machine Directive 2006/42/EC,**

**For unit series:** Ventilators  
**Type:** FD 4000

HEYLO GmbH of Im Finigen 9, D-28832 Achim, Germany, declares that, if they are fitted, maintained and used in conformity with the operating instructions and the generally accepted engineering standards, the machines mentioned are in keeping with the fundamental safety and health requirements of the "Machine Ordinance" as well as with the regulations and standards mentioned hereinafter.

**Applicable EC directives:**

EC Machinery Directive	2006/42/EG
Low Voltage Directive	2014/35/EU
EMC Directive	2014/30/EU
EMC Directive	2009/125/EG
RoHS	2011/65/EU

In case of unauthorised changes of the machine, the directives shall forfeit their validity.

**Applied standards:**

DIN VDE 0700 Part 1 and Part 30  
DIN EN 55014-1:2012-05  
EN 60 335-1  
EN 60 335-2-30



Achim, 14th November 2016

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Dr. Thomas Wittleder  
- Managing Director -

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## 1. General aspects

### **CAUTION: Read carefully before starting up!**

Please observe the notes in the operating instructions carefully. In case of non-observation, the warranty claims will become void. The manufacturer shall not be liable for any damage and/or consequential damage resulting.

<b>Introduction</b>	This chapter contains general information on the unit and manual.
<b>Target group</b>	This manual is intended for technicians who install the unit, carry out maintenance work and replace faulty parts.
<b>Copyright</b>	The duplication of this manual in whole or in part shall be permitted only upon written approval of HEYLO GmbH.
<b>Reservation</b>	HEYLO GmbH reserves the right to carry out modifications and improvements on the product and in the manual at any time without previous announcement.
<b>Disposal</b>	The unit has been designed for many years of operation. If it has to be disposed of, the competent legal regulations have to be observed in an environmentally-gentle manner.

### **DANGER OF ELECTRIC SHOCK**

#### **WARNING! The unit has to be earthed.**

- Use indoors only.
- Protect against spray water.
- If the motor or the winding has got wet, they have to be dried completely prior to use.
- Cleaning can be carried out by compressed air, a vacuum cleaner or by wiping with a moist cloth. Never use a hose or high-pressure cleaner.
- Plug the power plug only into a socket secured by ground fault circuit interrupter.
- Never interrupt the grounding.

### **FIRE HAZARD**

- Keep the air inlet and the protective grille free from choking and dirt. A reduced air current may lead to the motor overheating. Do not use in the vicinity of curtains or other things that may clog the air inlet opening.
- Do not use in the vicinity of open fire and heat sources.
- Do not use or store in areas where combustible vapours of petrol, solvent or diluting agents are present.

### **Safety guidelines**

#### **WARNING! Prior to opening the housing for cleaning and maintenance purposes always remove the mains plug.**

- Always set up the unit on a solid and plane surface.
- Switch off the device and remove the plug prior to lifting or moving the unit. The strong air current makes the control of the unit difficult.
- Check the power cable prior to use. Do not use the unit with a damaged cable. Replace the cable by a cable of the same type with the corresponding current strength. Protect the cable against damage by switching the unit off first of all and then pulling the power cable. Never pull the cable, but get hold of and pull the plug.
- The unit has been designed for operation at 230 V / 50 Hz. Check whether the socket is earthed.
- Handle the unit with care. Do not drop, throw or place on an instable surface, from where the unit may drop. Rough handling may damage the unit and may lead to dangerous situations or may void the guarantee.
- Keep away from children. Make sure that the unit is not accessible to children when operated unattended.

## 2. Use

Ventilator FD 4000 is the ideal working instrument for industry, modern craftsmen and service providers - for ventilation of workplaces, drying of rooms and wall surfaces after damage.

FD 4000 is set up quickly. On account of the various setup positions, the ventilator can be used very flexibly. On account of the high protection class, the FD 4000 is especially suitable for the rough use on building sites.

## 3. Setting up the unit

Ensure a secure location for setting up the ventilator. The unit must not be operated in puddles or in the area of splashing water. Check to see that no foreign matter is captured by intake air and gets into the fan wheel.

### Selecting a working position

THE FD 4000 is constructed so that it can work in several position. Every position uses a different angle in order to immediately direct the air flow to where it is required for effective drying. The arrow at the side of the unit shows the direction of air flow.

*Vertical* - Place the FD 4000 on the feet (put handle sideways) which are a longer way from each other in order to let the ventilation air flow in parallel through the room.

(1) *Front side down* - Place the FD 4000 on all four feet, with the grid facing downward on the switch side. In this position, air is directed downward to the floor for targeted drying.

(2) *Tilted back* - Place the FD 4000 on the narrow feet (handle up). Tip the FD 4000 back until the unit sits at an angle on the bottom feet. In this position, air is directed upward for drying parts which are located higher.

(3) *Stacked operation* - Place one FD 4000 on a solid, even surface onto the feet which are a longer way from each other (handle sideways). Put a second FD 4000 onto it so that its rubber feet sit in the dents on the lower unit. When stacking units on each other, exercise caution in order to avoid injuries due to units falling down.

(4) *Tilted forward* - Place the FD 4000 onto the narrow feet (handle up). Tip the FD 4000 forward until the unit sits at an angle on the bottom feet. In this position, air flows in parallel to the bottom of the unit.

(5) *Front side up* - Place the FD 4000 on all four feet, with the grid facing upward on the switch side. In this position, air is immediately directed upward in order to dry the ceiling, for example.

(6) *Stack for storage* - FD 4000 ventilators mesh together so that it is easy to store and transport them. Set up the units, with the grids facing each other. Turn the units a bit until the feet are not in line any more.



1.Floor

2.Wall

3. Power ventilator

4.Carpet

5.Ceiling

6.stackable

## 4. Cooling and ventilating

Overheated rooms can be cooled using the high-volume air flow of a blower. Put the device on the floor or another even surface and allow air from cooler areas or from outside to flow in. The feed temperature of the air must not exceed 60 deg. C!

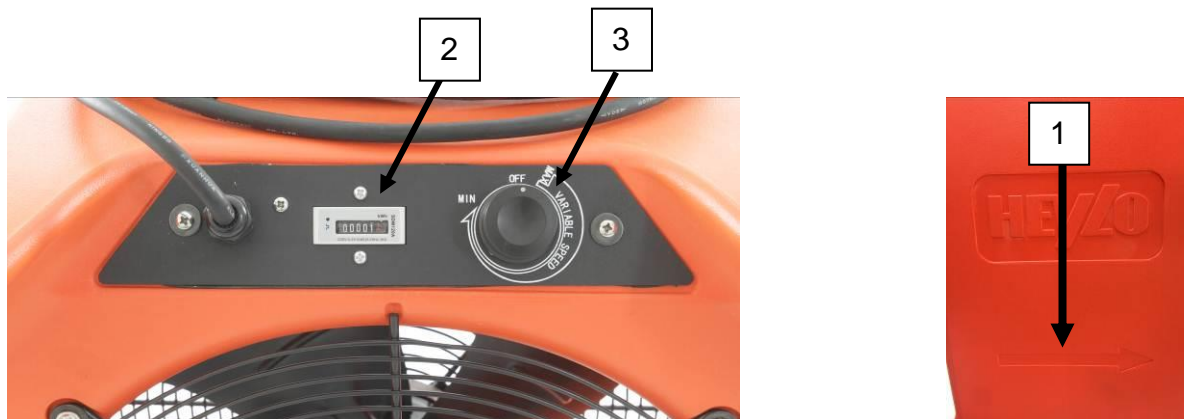
## 5. Operation

1. Set up the unit with the direction of the fan towards the requested operating position. The direction of the air stream is indicated by the direction arrow on the side of the unit (1).
2. Push the plug into an earthed 3-pole 230 V shockproof socket.
3. Before switching the unit on, note the meter reading of the energy meter (2). After completion of the work, the meter reading can be passed on to an insurance, for example.
4. Set switch (3) to "Off" on any fan speed. When set to "MAX", the ventilator runs with highest air flow rate.
5. Prior to leaving the device, check for perfect operation. Never move the FD 4000 when switched on.

### Notes on MID counter:

The unit is fitted with an MID counter. This energy metre is in conformity with German Weights and Measures Act, and is considered calibrated for up to eight years after manufacture (manufacturing date is rendered on the counter).

Thus, according to the German Office of Weights and Measures the counter is suitable and approved for the determination of energy consumptions.



## Transport

During transport in a vehicle, the FD 4000 has to be secured by safety straps in order to prevent that it slips and is damaged or passengers are injured.

### NOTE!

Safely load to prevent that impact of the motor, fan blades or parts in the inside are damaged.

## 6. Maintenance / repair

**CAUTION:** Always switch off the fan and remove the mains plug before maintenance and repair. The fan wheel may continue turning when the housing is opened, and the unit is switched on.

### Before every use

Check power cable: Check the power cable for cuts, abrasions and damage. Do not use the unit when the cable has been damaged.

### Weekly maintenance

Clean the protective grille: Check the fan propeller wings for dirt, dust and deposits. Deposits of fluff and dust reduces the air flow and may lead to overheating of the motor which constitutes a fire hazard. Use a moist cloth to clean the fan propeller wings or use compressed air. Remove all collected fluff and other materials from the protective grille. Use a vacuum cleaner or a moist cloth to remove fluff and dust from the motor and the cover of the protective grille. **WARNING!** Make sure that no water penetrates the motor.

**External inspection:** Check external parts, and make sure that they are attached correctly. Check the unit for abnormal noises. Repair or replace parts as required.

**Housing cleaning:** Use a moist cloth to clean the housing. The original shine of the unit can be restored using HEYLO POWER CLEAN plastic cleaner (Art. No 1800104).

When working in atmospheres with mould contamination, the disinfectant CITROX can be used. Under the article No. 1800204 is can be ordered in 5-litre container + spray bottle, article No. 1800301.

### Monthly maintenance

**Check the electric system:** Check the power cable for damage in regular intervals. Regularly remove the fan, and check the cablework for worn cables, loose attachments and discoloration. Replace or repair damaged cables, if and when required. **WARNING!** Damaged cables may cause electric shocks or fire.

**Ball bearings of the motor:** The ball bearings of HEYLO ventilators have a life-time lubrication. For this reason, do not lubricate.

## 7. Technical data

Model	FD 4000
Power consumption max. (kW)	0.178
Current consumption (A) (low/max)	0.85 / 1.05
Air flow rate cum/h (low/max.)	2873 / 4150
Compression (Pa) max.	150
Electric connection (V/Hz)	230/50
Volume 3m dB(A) min / max	51 / 63
Height / Width / Depth (mm)	665 / 520 / 500
Weight (kg)	13.5

**CAUTION:** Within the scope of further development, technical data may be changed without prior announcement. Some values are approximate values.

## 8. Fault finding and correction

**WARNING:** Maintenance work shall have to be carried out with the unit switched off, i.e. with mains plug removed.

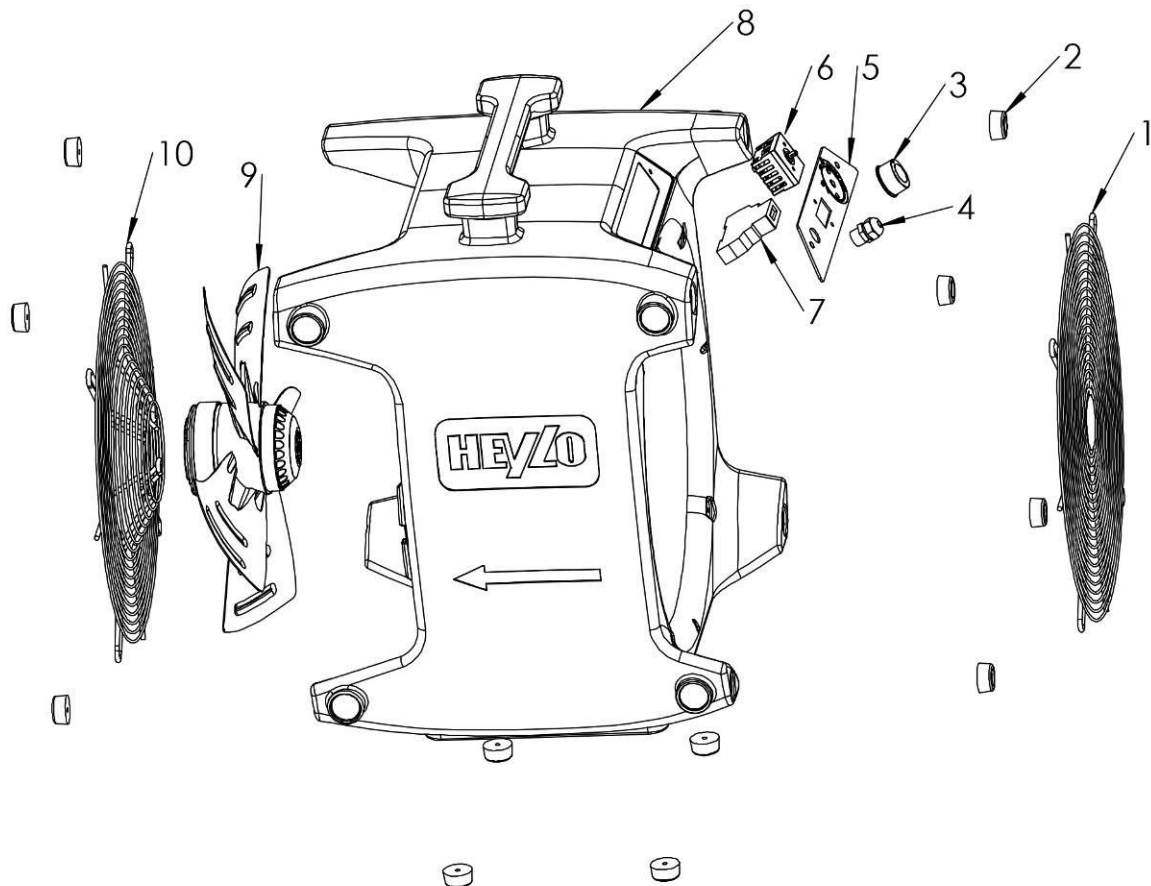
PROBLEM	CAUSE	Versi on	SOLUTION
<b>Motor is not running</b>	No power to unit. The unit has not been switched on. Impeller is blocked. Air inlet or outlet is blocked.  Switch has broken off.  Loose wiring.	B B B B  AST  AST	Connect the unit; check the fuse. Switch the unit on. Remove the reason for the blockage. Switch the unit off and let it cool down; then remove blockage. Order replacement switch from the dealer or HEYLO. Check wiring and tighten, if required.
<b>The motor is running, but the impeller turns irregularly or makes contact</b>	A heavy impact has bent the motor suspension so that the impeller jams.  A heavy impact has caused the motor to slip out of the suspension so that the impeller jams.	AST  AST	Remove the motor from the housing, replace or repair the bent motor suspension.  Remove the motor from the housing, then place the motor in the suspension correctly.
<b>Unit vibrates excessively</b>	Collection of dirt on the wheel. Unbalance of the impeller. Impeller is bent. Motor shaft is bent.	B  AST AST AST	Clean impeller.  Balance or replace the impeller. Replace impeller. Replace motor.

B = User | AST = Authorised service technician

Ask your local dealer for spare parts or get in touch with HEYLO service department.

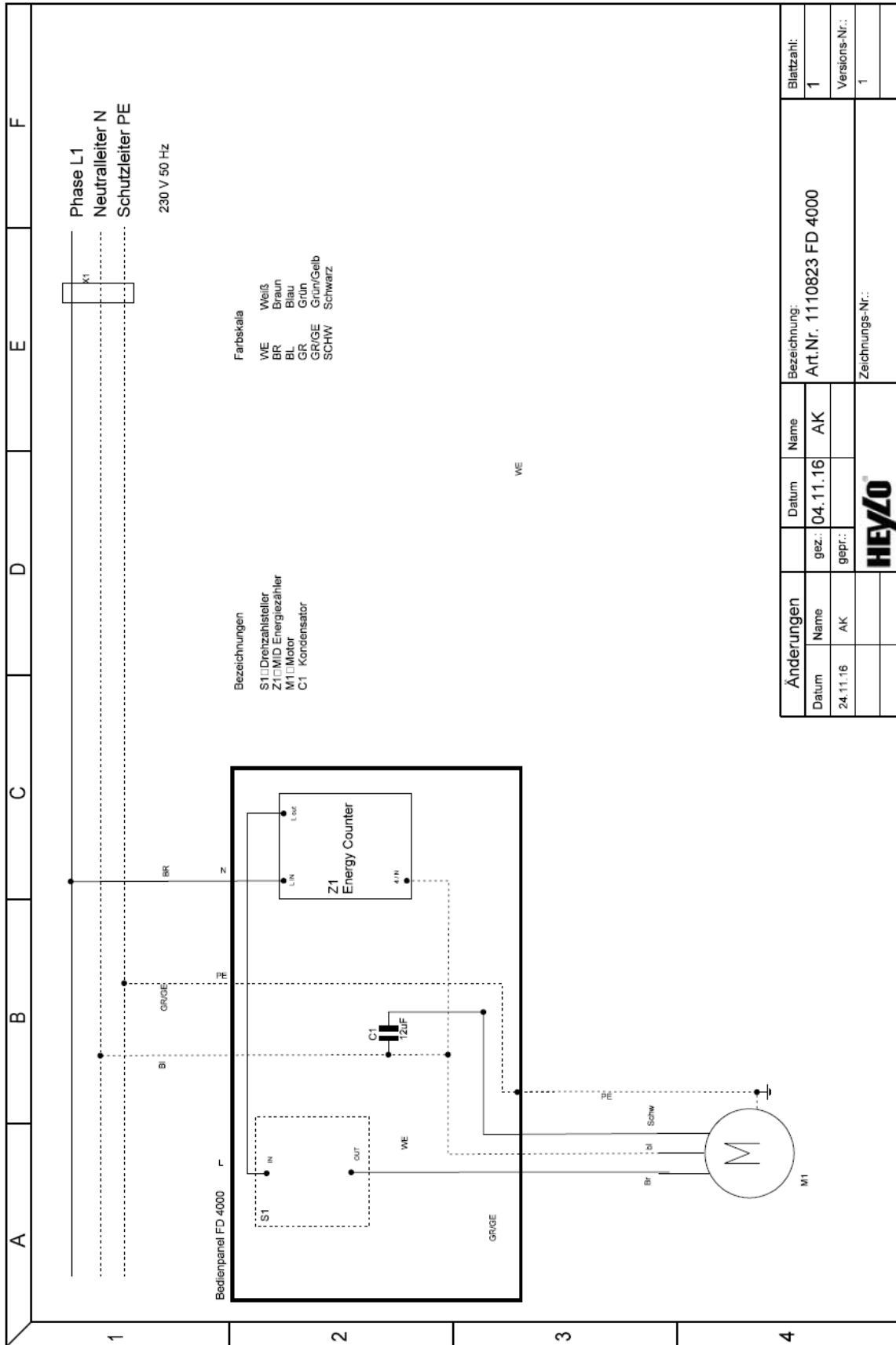
**9. List of spare parts**

Item	HEYLO - Art. No.	Description
1	1761600	Protective grille - inlet side
2	1761601	Rubber foot
3	1761602	Rotary toggle
6	1761603	Switch
9	1761604	Motor including fan wheel
10	1761605	Protective grille - exhaust side





# 10. Wiring diagram



## **SIE HABEN FRAGEN? WIR HELFEN IHNEN GERN!**

### **HEYLO Kundendienst – Technischer Support und Service**

Tel. +49 (0) 42 02 – 97 55 15

Fax +49 (0) 42 02 – 97 55 97

E-Mail: [service@heylo.de](mailto:service@heylo.de)

### **Kaufmännische Beratung**

Tel. +49 (0) 42 02 – 97 55 - 0

Fax +49 (0) 42 02 – 97 55 97

E-Mail: [info@heylo.de](mailto:info@heylo.de)

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[www.heylo-mietservice.de](http://www.heylo-mietservice.de)

### **HEYLO GmbH**

Im Finigen 9

28832 Achim

[info@heylo.de](mailto:info@heylo.de)

[www.heylo.de](http://www.heylo.de)

