

Thermo-bug® basic 3.0
Operating instructions

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Contents

04	General information
05	Technical data
06-07	Safety notes
08-10	Description of the machine
11	Scope of application
12	Commissioning
13	Operating the machine
14	Description of how the machine works
15	Maintenance, repair & cleaning
Annex	Copy of the declaration of conformity

General information

Before operating this high temperature fan heater, please read these operating instructions carefully and familiarise yourself with how the appliance works and its operation.

Always check the appliance for obvious damage before operating it and only start operation if there is no visible damage.

In order to prevent damage and injury, it is necessary to observe the instructions and, in particular, the safety notes listed in this operating manual.

We accept no liability whatsoever for damage and injury resulting from improper handling and use, or if the appliance is used for purposes other than for which it is intended. Consequently, the warranty claim will be invalid.

Attention: In accordance with the application method, this appliance works at very high temperatures. There is a risk of fire. Please pay attention to the corresponding safety notes!

Attention: Parts of the appliance and the air / objects in the operating range of the appliance can become very hot. Protect yourself with appropriate protective equipment, especially gloves,

and ensure that no other persons have access to the area to be heated! Please pay attention to the symbol on the appliance:



Attention: Ensure that there is an adequate escape route so that you can leave the operating range of the appliance without any hindrance at any time!

Attention: Ensure that another person monitors the user who is located within the operating range of the appliance and that this person can initiate rescue measures if necessary!

Pay attention to the occupational health and safety regulations!

Technical data

Dimensions	Width: 670 mm, Depth: 330 mm, Height: 600 mm
Weight	approx. 19 kg
Operating voltage	Three-phase current 3 x 220 - 240 V / star circuit
Rated voltage	400 V, 50 Hz three-phase alternating current with neutral conductor
Rated power	9000 kW
Operating voltage input / mains connection	CEE built-in plug 16A
Heater output (switchable to two levels)	Level 1: 4.5 kW Level 2: 9.0 kW
Power without heating (air circulation)	approx. 90 kW
Electrical safety	Safety class I
Setting the control temperature	30 °C - 70 °C in increments of 1 °C
Control accuracy	+/- 0.5 °C
Measuring interval	1 second
Fault detection time	< 2 seconds
High performance fan:	Ø 300 mm, 1800 m³/h
Noise level:	52.5 dB
1 internal temperature sensor:	0 °C – 80 °C
Safety thermostat (ST) automatic shutdown	at 80 °C (additional independent electromechanical temperature safety switch)

Safety notes

- Seal off the area to be heated and mark the area sufficiently.
- Make sure that no other persons have access to the area to be heated, especially those who, due to their age, psychological or mental condition, are unable to detect a hazardous situation due to high surface and ambient temperatures. Make sure that no other persons than those named in the user profile on page 11 use or operate the appliance.

- Make sure that children do not have access to this appliance or to the packaging materials of this appliance. Film, plastic bags and small parts may pose a risk of swallowing and suffocation.

- Lay the mains connection cable in such a way that there is no danger of tripping. The mains connection cable must not be bent, crushed or laid over sharp edges. Make sure that the mains connection cable is not damaged by contact with hot objects.

- Make sure that all objects, equipment and adjacent structures in the room to be heated are able to withstand

the set control temperature and will not be damaged. In particular, both the electrical installation on which this unit is operated and the mains extension cable must have appropriate temperature resistance.

- Make sure that no flammable media are in the immediate vicinity of the appliance while the fan heater is in operation. In order to avoid overheating the appliance and the associated fire hazard, the appliance must not be covered. Please pay attention to the symbol on the appliance:



- Make sure that there are no media which are easily flammable in the room to be heated.
- Make sure that these operating instructions are always available with this appliance, especially when you make this appliance available to other persons or when you instruct other persons to use or operate this appliance.
- Only use the appliance in dry, closed rooms.

- Do not use this appliance in a damp environment or in the immediate vicinity of wet areas such as washbasins, showers, bathtubs, swimming pools, etc. Strong vibrations indicate a defective fan. Vibrations may cause the appliance to move by itself from its original location. Do not use the appliance if you notice vibrations.

- Do not use the appliance as a room heater in inhabited rooms or in vehicles.

- Always operate the appliance on the floor. Ensure that the appliance is always on a level, horizontal and non-flammable surface.

- Do not insert any foreign objects into openings on the appliance. There is a risk of electric shock or damage to the appliance.

- Never open the appliance. Maintenance and repair work may only be carried out by authorised service contractors (see page 15 Service contractors).

- Set up the appliance in such a way that the mains plug is always accessible. In order to disconnect the appliance from the mains on all poles, the mains plug must be disconnected from the mains.

Description of the machine

Description page 8, 9 and 10.





Socket for additional fan

Mains connection CEE 16A

Circuit breaker for socket

Scope of application

Thermo-bug basic 3.0 is a fan heater for the generation of hot air for use in pest control in dry, closed rooms and for the disinfection of heat-sensitive pests.

Method of action

Disinfestation of heat-sensitive pests by heating the room air as well as the objects, equipment and adjacent building structures in the room.

User profile

Thermo-bug basic 3.0 can be used by professionals with expertise in thermal pest control and by trained amateurs.

The user of this appliance must be able to understand these operating instructions, especially the safety notes.

Intended use

Thermo-bug 3.0 is only intended for thermal pest control in closed, dry rooms in accordance with the instructions in this manual. Any other usage beyond the scope of this is not in accordance with the intended purpose. The appliance may only be used for its intended purpose.

Preparation

Clear out and secure

Remove all heat-sensitive or valuable items (e.g., food, medicines, cosmetics, electronic devices, musical instruments) from the room. Move all furniture slightly away from the wall and stand the mattress upright in the room.

Electrical devices

Switch off all electrical devices and unplug them (including refrigerator/freezer) to avoid damage to the compressor.

Fire protection

Deactivate or protect smoke detectors and sprinkler systems in the room to be treated so that they are not unintentionally triggered by the heat.

Sealing

Seal all open joints with Thermo-bug Natural Pest Control Spray. Do the same with all sockets and light switches.

Commissioning

Setting up the appliance

Place the appliance freely on the floor in the room. The appliance must stand on firm, level, horizontal and non-flammable ground. There should be no flammable objects and/or no objects / obstacles obstructing the air circulation within a minimum distance of one metre. Connect the appliance to the mains using a suitable mains extension lead.

Use a 5-pole three-phase extension cable with a minimum cable cross-section of 2.5 mm² (CEE 16A, cable cross-section 2.5 mm²). Make sure that the mains voltage corresponds to the rated voltage of the appliance as indicated on the type plate.

Attention: Please observe the safety notes on page 06-07.

Operating the appliance

Starting the appliance

Press the start button until the operating control lamp lights up.

Setting the heat output

With the 4.5 and 9 kW circuit-breakers, you can set a heat output of 4.5 kW, 9.0 kW or only air circulation without heating.

Temperature display

The current actual temperature is shown in the top line of the display. After pressing the set button, the upper line of the display shows "Set" and the lower line shows the set control temperature (target temperature).

Control temperature (target temperature)

The control temperature can be set between 30 °C and 70 °C in increments of 1 °C. In order to set the control temperature (target temperature), press the set key until "SET" appears on the top line of the display.

The target temperature is shown on the bottom line of the display. The target temperature can be adjusted by pressing the temperature adjustment buttons + and -. Press the SET button again to save and accept the selected target temperature. If the SET button is not pressed within 3 seconds, the SET temperature is not adjusted and the appliance continues to operate with the previous temperature setting.

Attention: When setting the control temperature, observe the safety notes on page 06-07.

Further display functions

Pressing the information button displays the programme version of the appliance software (Pro), the operating hours since the unit was started (t-1), the operating hours after the control temperature has been reached (t-2) and the total operating hours of the appliance (t-3) in chronological order.

Description of how the machine works

Temperature control & safety devices

The appliance has a microprocessor-controlled temperature regulator with a digital temperature sensor. The sensor is positioned on the air intake side. The use of a digital precision sensor means that no subsequent adjustment of the controller is necessary during the appliance's service life.

The measuring interval is 1 measurement / second.

The correct functioning of the control programme is continuously monitored by an integrated programme sequence monitoring system.

Failure or a fault associated with the temperature control immediately leads to the heating system cutting out. The temperature of the appliance is continuously monitored by an independent safety circuit. If the temperature of the appliance on the air intake side is higher than 80 °C, this leads to a safety shutdown. In addition, there is an electromechanical temperature safety switch on the output side of the unit, which also switches off the appliance if a certain temperature is exceeded.

The function of the built-in fan is controlled by a monitoring circuit. Failure of the fan, a blockage or sluggishness due to foreign objects that have been sucked in or age-related wear and tear is detected and this leads to a safety shutdown. If the appliance was switched off, it is prevented from being switched on again if there is a blockage or if failure of the fan occurs. The unit is designed in such a way that it cannot be switched on again automatically after a power failure or a safety shutdown.

The correct function of the fan monitoring can be checked by the user at any time by pressing the test button (see page 15).

Maintenance, repair & cleaning

Maintenance & repair

The electrical safety of the device should be checked annually by a qualified electrician as part of the equipment test (DGUV V3). Please pay attention to any regional and national legal regulations that may differ.

The function of the fan monitoring should be checked at least monthly by pressing the test button for fan monitoring. To carry out the test, start the appliance normally by pressing the start button. The heaters must not be switched on (power switch 4.5 kW and power switch 9.0 kW set to OFF).

Correct operation is given if the appliance cuts out from normal operation by pressing the button in the direction of Test 1 as well as by pressing it in the direction of Test 2. If no shutdown occurs, the appliance must not be operated any further.

Further maintenance and repair work may only be carried out by the manufacturer or by authorised service partners (see service).

Cleaning

Before starting cleaning work, the appliance must be disconnected from the power supply. The appliance can be cleaned from the outside with a slightly damp cloth. Contamination caused by dust can be removed with a vacuum cleaner.

Service

For information concerning service contract partners, please visit www.thermo-bug.com or contact the manufacturer directly.

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