

MANUAL

Pollen dryer 30kg. , 60kg. , 100kg.



LYSON

Przedsiębiorstwo Pszczelarskie Łyson

Spółka z o.o.

34-124 Klecza Górna, st.Pszczela 2, Poland

www.lyson.eu, e-mail; lyson@lyson.com.pl

Tel. +48 33/875-99-40, +48 33/870-64-02

The following manual encompasses the device bearing the following code:

W32620 ; W326200 ; W3262000

Manual

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POLLEN DRYING DEVICE 30,60,100kg. POWER SUPPLY 230V(30kg.) and 400V(60kg. and 100kg.)

Prior to device usage initiation, refer to the following manual and act according the guidelines contained therein. The manufacturer shall not be held accountable for any damages caused by improper usage of the device or its improper handling

1. General safety operational principles for the pollen dryer



1.1. ELECTRICAL SAFETY

- The dryer must be connected to the socket with earthing with the voltage specified on the product's name plate.
- Power supply electric installation must be equipped with RCD with nominal tripping current I_n below 30 mA. Functioning of overcurrent circuit breaker must be checked periodically .
- Periodically check the state of the power supply cable. If non-detachable power supply cable gets damaged and must be replaced, it must be performed at a guarantor's or by a specialised repair centre or by a qualified person in order to avoid any threat. Do not use the device when the power supply cable is damaged.
- It is forbidden to pull the supply cable. In case of damage to a device, in order to avoid any danger the repair must be performed by a specialist repairing centre of a qualified person only. The supply cable must be kept away from heat sources, sharp edges and its good technical state must be taken care of.



1.2. OPERATIONAL SAFETY

- a) The following device is not intended to be used by persons with limited physical, sensory mental capabilities (including children) persons inexperienced or unfamiliar with that type of equipment unless the usage occurs under supervision or in line with the equipment operating manual provided by safety supervising persons. One must make sure that children do not play with the device.
- b) Controller must be protected against humidity (also Turing device storage)
- c) Do not operate the device in the vicinity of flammable materials.
- d) Do not perform any maintenance works when the device is in operation.

- Operate the device indoors only. The device is not suitable for outdoors operation .
- f) .

2. Characteristics of a pollen dryer.

Pollen drying should be performed in the temperature between 35°- 40°C

(it is important not to overheat the pollen, because similarly to honey, it loses its properties in the temperatures exceeding 40°C).

Pollen intended for drying shall be placed in the stainless steel trays .

It is recommended to mix the pollen layers several times a day, especially during the first drying phase Pollen drying process lasts between 1 to 3 days , depending on the humidity.

Well-dried hive products form hard, dry solids which cannot be mashed up in fingers. Water content in dried pollen cannot exceed 6%.

After drying, pollen should be stored in a tight container and in a dry, cool place

2.1. Device technical parameters:

Dryer 30kg.-W3262000

External dimensions:

- width - 1045mm
- height - 840mm
- depth - 545mm
- orifice width (for the trolley with the trays to enter) - 555mm
- orifice height (for the trolley with trays to enter) - 815mm
- chamber wall thickness - 20mm

Dimensions of a trolley:

- width - 550mm
- height with the wheels - 810mm
- depth - 490mm

The number of trays – 10pcs

- Drawer width - 460mm
- Drawer length - 460mm
- Drawer depth - 30mm
- Height of the drawer wheels: 115mm

Device parameters:

- Dryer made of stainless and acid-resistant steel plate
- Power of the heaters - 1x 2kW
- Temperature regulator 30-95 °C
- Power supply voltage - 230V
- Fan - 100W

Dryer 60kg.-W326200

External dimensions:

- width - 1150mm
- height - 950mm
- depth - 650mm
- orifice width (for a trolley with trays to enter) - 660mm

orifice height (for the trolley with trays to enter) - 925mm
 chamber wall thickness - 20mm

Dimensions of the trolley:

width - 655mm
 height with the wheels - 910mm
 depth - 595mm

The number of drawers – 12 pcs

Drawer width - 565mm
 Drawer length - 565mm
 Drawer depth - 30mm
 Drawer wheel height: 115mm

Device parameters:

Dryer made of stainless and acid-resistant steel plate
 Power of the heaters - 2x 2kW
 Possibility to operate one or two heaters
 Temperature regulator 30-95 °C
 Power supply voltage - 400V
 Fan - 2x 100W

Dryer 100kg.-W32620

External dimensions:

width - 1150mm
 height - 1390mm
 depth - 655mm
 orifice width (for the trolley with trays to enter) - 660mm
 orifice height (for the trolley with trays to enter) - 1360mm
 chamber all thickness - 20mm

Trolley dimensions:

width - 655mm
 height with wheels - 1350mm
 depth - 595mm
the number of drawers – 20pcs.

Drawer width - 565mm
 Drawer length - 565mm
 Drawer depth - 30mm
 Drawer Wheel height: 115mm

Device parameters:

Dryer made of stainless and acid-resistant steel plate
 Power of the heaters - 2x 2kW
 Possibility to be operated with one or two heaters
 Temperature regulator 30-95 °C
 Power supply voltage - 400V
 Fan - 2x 100W

Protection against pollen overheating

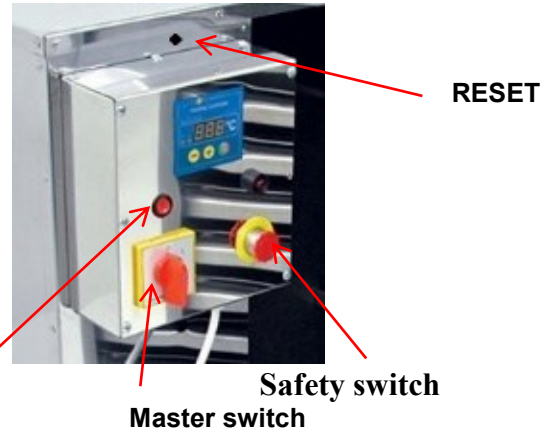
The dryer is not equipped with an automatic pollen overheating protection switch (RESET). This protection disconnects power supply when the temperature exceeds 75°C.

A damaged fan, sensor or controller may trigger the protection. The device ought to be checked by a qualified person or a guarantor.

RESET button serves to reactivate the device in case of an automatic triggering caused by excessive level of preset temperature.

The orifice (reset) is located over the controller (fig.1). In order to switch the RESET button again, use a thin screwdriver (fig.2)

Fig.1



0-1 switch

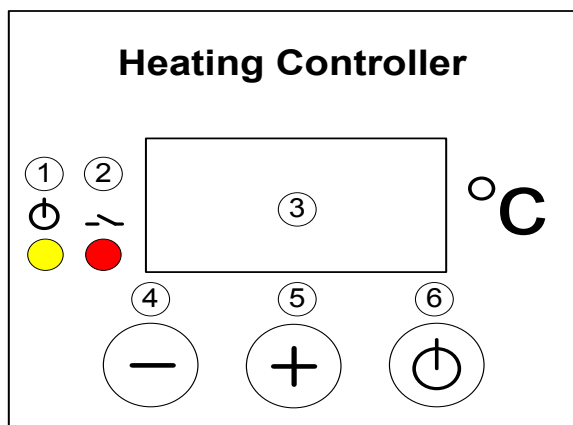
Fig.2



3. Temperature regulator

HC-01 temperature regulator is mounted in the device.





3.1. Setting up the controller

1. Prior to plugging in the device to the mains, one must make sure that the controller is switched off.
2. Switch (0/1) on the control panel shall be in "0" position
3. Once plugged in to the mains, Switch (0/1) shall be moved from "0" position to "1" position
4. Controller should be programmed in line with individual needs
5. In order to enter the programming mode (Prog), buttons "+" and "-" must be pressed at the same time during controller start-up

3.2. Starting work with the controller

1 – signalling the work state

Indicator lights up – temperature regulator switched on, indicator dimmed – temperature regulator switched off (controller operates as an ordinary thermometer), indicator flashes – temperature regulator switched on and initial heating in progress

2 – signalling the activation of heating transmitter

Indicator lights up – transmitter contacts closed (heating on), indicator dimmed – contacts opened (heating off)

3 – display

Working mode – default mode, selected after controller power supply switched on. The display shows the measured temperature, readings specified in °C.

Setting mode – selected when button "+" or "-" has been pressed. The display shows the preset temperature. Readings specified in °C. Reading flashes and returns to measured temperature after a while.

Working time setting mode (Pro.) – activated when "ON/OFF" button is pressed and held. The display shows working time, counting it from activation, after which the thermostat gets switched off. Readings specified in hours.

Display brightness setting mode (d.br.) – activated when "ON/OFF" button is pressed and held for a longer time. The display shows the currently set brightness on all its segments. When the setting limit values are reached, the segments start to flash.

The modes specified below are accessible once the relevant code have been entered.

Calibration mode (CAL.) code L-1 – activated when the "ON/OFF" button has been pressed and held for a longer time. The display shows the measured temperature including the calibration. Readings specified in °C.

Preliminary heating time setting mode (P.tl.) code L-2 – activated when "ON/OFF" button is pressed and held for a longer time. The display shows the working time, counting it from the activation, for which the controller performs

preliminary heating maintaining the preliminary heating temperature programmed by the manufacturer. Reading "OFF" means deactivation of the preliminary heating function. Readings specified in minutes. When preliminary heating activated, the controller displays marking "HC2" during start-up.

Preliminary heating temperature setting mode (P.tE.) code L-3 – activated when the "ON/OFF" button is pressed and held for a longer time. The display shows the value of preset temperature for preliminary heating. Readings P ... specified in °C.

Preset temperature limit setting mode (L.t.h.) code L-4 – activated when "ON/OFF" button is pressed and held for a longer time. The display shows maximum value of preset temperature that can be set. Readings L ... are specified in °C.

4 – button "-", value decreasing

Working mode – pressing the button will decrease the preset temperature value. During preliminary heating, the option to change the setting for preset temperature is blocked.

Working time setting mode – pressing the button will decrease the time after which the thermostat will get switched off.

Display brightness setting mode – pressing the button will decrease the brightness of the display.

Calibration mode – pressing the button will decrease the value of the temperature to be transferred, calibrating the measurement duct in this way.

Preliminary heating time setting mode – pressing the button will decrease the time after which the thermostat will switch from preliminary heating phase to proper heating phase.

Preliminary heating temperature setting mode – pressing the button will decrease the value of preset temperature that will be maintained during preliminary heating.

Preset temperature limit setting mode – pressing the button will decrease the value of maximum preset temperature that will be to set.

5 – button "+", value increasing

Working mode – pressing the button will increase the value of preset temperature. During preliminary heating, the preset temperature setting changes is blocked.

Working time setting mode – pressing the button will increase the time after which the thermostat gets switched off.

Display brightness setting mode – pressing the button will increase the brightness of the display

Calibration mode – pressing the button will increase the value of the transferred temperature, calibrating the measuring duct in this way.

Preliminary heating time setting mode – pressing the button will increase the time after which thermostat switches from preliminary heating phase to proper heating phase.

Preliminary heating temperature setting mode pressing the button will increase the value of preset temperature which will be maintained during preliminary heating.

Preset temperature limit setting mode – pressing the button will increase the value of maximum preset temperature that can be set

6 – "ON/OFF" button

Short-time pressing of the button will activate (ON) and deactivate (OFF) the regulator interchangeably. At deactivated state (OFF) the regulator act as a thermometer. At activated state (ON), the regulator shall activate and deactivate the outlet to control the heater in order to maintain the temperature set by the user.

Longer pressing and holding of the button and subsequent button releasing will activate the working time setting mode,

signalled with (Pro.) notice. In this mode, by means of “+” and “-“ buttons , the user has a possibility to define the time after which the controller gets deactivated, i.e. switches to the OFF state. Exit from the mode and setting approval occurs once the “ON/OFF” button is shortly pressed.

Longer pressing and holding of the button and its subsequent releasing will activate the display brightness setting mode – signalled with (d.br) notice.

In this mode, by means of “+” and “-“ buttons the user has the possibility to set the brightness of the display segments. Exit from the mode and confirming the setting occurs when the “ON/OFF” button is pressed shortly. Longer pressing and holding of the button and subsequent releasing of the button will activate the calibration mode, signalled by the (CAL) notice. In this mode by means of “+” and “-“ buttons, the user has a possibility to adjust the temperature readings to the real temperature. Exist from the mode and confirming the calibration settings occurs when the “ON/OFF” button is pressed shortly.

NOTE – the controllers supplied have been calibrated already.

Longer pressing and holding of the button and subsequent its releasing shall activate the preliminary heating time setting mode, signalled by (P.tl) notice. In this mode by means of “+” and “-“ buttons the user has a possibility to define the time after which the controller gets switched from preliminary heating phase to proper heating phase. Deactivation of preliminary heating is signalled by the “OFF” notice. Exist from the mode and setting confirmation occurs when the “ON/OFF” button is pressed shortly.

Longer pressing and holding of the button and its subsequent releasing will activate the preliminary heating temperature setting mode, signalled by (P.tE.) notice. In this mode by means of “+” and “-“ buttons the user has a possibility to define the preset temperature that shall be maintained during preliminary heating. Exit from the mode and setting conformation occurs when the “ON/OFF” button is pressed shortly. Longer pressing and holding of the button and its subsequent releasing will activate the preset temperature limit setting mode, signalled by (L.t.h.) notice. In this mode by means of “+” and “-“ buttons the user has the possibility to set the upper limit of the preset temperature settings. Exit from the mode and setting confirmation occurs after the “ON/OFF” button is pressed shortly

NOTE – all controller settings and working state (activated or deactivated) are stored in the non-volatile memory.

3.3. Error report for the controller

HC1 controller has been equipped with advanced mechanisms for error detection. Detection of any error activates emergency work stoppage and triggers error report screen. Error report screen is displayed in a continuous manner. It is therefore necessary to disconnect.

ERROR	ERROR DESCRIPTION
(E-0) CPU STATUS	Damaging the main processing unit.
(E-3) T < Tmin	Too low temperature measured by T1 sensor.
(E-4) T > Tmax	Too high temperature measured by T1 sensor.
(E-5) button -	“-“ button damage/pressing
(E-6) button +	“+” button damage /pressing

(E-7) Button ON/OFF	ON/OFF button damaging/pressing
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3.4. Controller’s technical parameters

CONTROLLER’S PARAMETERS	
Temperature measurement range*:	-50°C ... +250°C
Temperature readout resolution:	0,1°C
Temperature measurement accuracy:	± 1,5 °C
Minimal value of preset temperature:	30°C
Maximum value of preset temperature:	To be set within: 45°C ... 95°C
Setting range for automatic deactivation:	1 ... 96 hours
Setting range for preliminary heating temperature:	30°C ... 40°C
Setting range for preliminary heating time	0 ... 60 minutes
Controller’s electric parameters	
Power supply for controller’s board:	12VDC ±10%, Min. 200mA
Power supply for a dedicated feeder:	100...240VAC 50/60Hz
Temperature measurement inlet:	PT1000
Environmental conditions	
Temperature of the regulator under operation:	0°C...55°C
Ambient temperature of the regulator under storage:	0°C...60°C
Air humidity for the regulator under operation:	Max 65% at 25 °C

4. Device storage

After the termination of operations, the device must be washed thoroughly and dried.

Prior to the device start-up, in case when it has been transferred from the room with lower temperature to the room with higher temperature, one must wait until it has reached the ambient temperature. To be stored in dry rooms with temperatures over 0° C.

Prior to every season, an additional technical inspection must be performed. In case any defects have been detected, a service centre must be contacted.

5. Cleaning and maintenance



IMPORTANT!

Prior to the maintenance, unplug the device.

Prior to the first usage, device must be cleaned and dried thoroughly.

The device is to be washed with hot water with the agents admissible to come into contact with the equipment used in food processing added.

The device is to be washed with soft fabrics, make sure to protect electric components.

After washing, rinse with clean water and dry. The device is to be stored in a dry room.

The device components must not be protected with chemical agents.

6. Recycling

Worn-out product must be removed as waste only within selective waste collection organised by the Network of Communal Electric and Electronic Waste Collecting Points. A customer is entitled to return the used equipment to the electrical equipment distributor network, at least free of charge and directly, if the device to be returned is of proper type and serves the same purpose as the newly purchased device

7. Guarantee

Products purchased from "Łyson" company are encompassed by the manufacturer's guarantee.

The guarantee duration equals 24 months

A receipt or a VAT invoice is issued for each product purchased

Guarantee terms, see www.lyson.com.pl