

# MANUAL

CREAMING MACHINE 230V  
C-02  
ON A STAINLESS STEEL SETTLER  
WITH A WATER JACKET 100-200 kg.



# LYSON LYSON

**Przedsiębiorstwo Pszczelarskie Tomasz Łysoń**

Spółka z o.o. Spółka Komandytowa

34-125 Sułkowice, ul. Raclawicka 162, Polska

[www.lyson.com.pl](http://www.lyson.com.pl), email; [lyson@lyson.com.pl](mailto:lyson@lyson.com.pl)

tel. 33/875-99-40, 33/870-64-02

Siedziba Firmy Klecza Dolna 148, 34-124 Klecza Górna

The following manual encompasses the devices with the following codes:

**POWER SUPPLY 230V:**

Manual

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# CREAMING DEVICE 230V C-02 ON A STAINLESS STEEL SETTLER WITH A WATER JACKET 100-200KG.

Prior to device usage initiation, refer to the following manual and act according to 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 operating principles for the creaming machine



### 1.1. ELECTRICAL SAFETY

- a) a) The device shall be connected to a plug with grounding with the voltage specified on the product nominal plate.
- b) 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.
- c) Periodically check 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 operate the device when the power supply cable is damaged.
- d) In case when the device has got damaged, in order to avoid any danger, it may be repaired by a specialist repair centre or a qualified person solely.
- e) It is forbidden to pull the power supply cable. The power supply cable must be kept away from any heat sources, sharp edges and its proper state must be secured



### 1.2. OPERATING SAFETY

- a) The following equipment is not intended to be used by persons with limited physical, sensory or mental capabilities (including children) or 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.
- b) The base on which the device has been placed must be dry!
- c) Prior to starting work with the device, "EMERGENCY STOP" button must not be pressed (it must be switched until it has popped out).
- d) Pressing the "EMERGENCY STOP" button allows to stop the creaming machine immediately.
- e) The cover of the creaming machine must be closed when the stirrer operates!
- f) The creaming machine must not be switched when in operation.
- g) The engine and the controller must be protected against humidity (also during storage)

- h) Do not operate the device in the vicinity of flammable materials.
- i) It is forbidden to perform any maintenance works when the device is in operation.
- j) Any covers must be firmly attached to the device when in operation.
- k) In case of any danger, the emergency stop button must be used immediately. The device may be reactivated once the danger has been eliminated.
- l) The device may be activated inside only. The device is not adjusted to be operated outdoors.



Repairing the device in operation is forbidden



## 2. Characteristics of the creaming machine with a water jacket

Honey creaming machine with heating mantle is intended to cream or melt crystallized honey. The proper design of the mixing propeller, made of stainless acid-resistant steel, allows for precise honey creaming

### ATTENTION !!!

Pressure inside the water jacket during water refilling must not exceed 0.5 Bars .

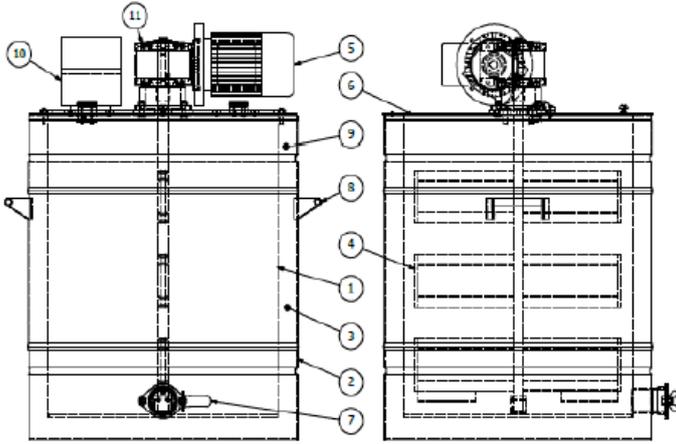
### 2.1. HONEY CREAMING:

Fresh honey remains dense and transparent. With time it is subject to natural crystallization. Proper temperature for crystallization ranges between 16-18°C. With higher temperatures, the crystallization process slows down and the crystals have bigger sizes.

Heating honey until the temperature of 40°C and its maintenance by several days makes the honey switch from crystallized state (set honey) to liquid state (strained honey). **Creaming** remains a quick and simple method to produce creamed honey. It consists in adding crystallized honey (set honey) to freshly centrifuged and clear liquid honey (strained honey) in order to initiate controlled, fine-grained (creamed) crystallization. The creaming process should be run in repetitive cycles:  
Stirrer operation - 15 min; stirrer stoppage 1 h.

The said process is based on periodical honey aeration and intensive mixing for several days until the relevant consistency has been achieved. When stored in constant temperature, the honey maintains its consistency for many months. **"Creaming"** is intended to formulate numerous small crystallization nucleuses and to block the expansion of the already existing honey crystals. It is referred to as "mechanical honey crystal creaming".

## 2.2. Diagram for honey creaming machine with a water mantle



### Legend:

1. Tank internal jacket
2. Tank external jacket
3. water
4. stirrer
5. motor
6. covers
7. valve
8. handles (grips)
9. water
10. creaming machine controller
11. bevel gear

### 2.3. Device technical parameters:

- tank made of stainless acid-resistant steel plate
- power supply of the heater – 230V
- power of the heater – 2000W
- temperature regulation from 0 to 80°C
- power supply of the gear engine – 230 V
- motor 0.25kW-100kg , 0.75kW-200kg
- stirrer rotational speed – max 36 rpm
- discharge valve 5/4" (4)
- built-in thermometer (5)

## 3. CREAMING MACHINE HANDLING

Prior to plugging the device in to the mains, one must be sure that the controller is switched off.

Switch (0/1) on the control panel must be placed in '0' position  
Once connected to the mains, the switch (0/1) on the control panel must be placed in position "1"

### ATTENTION !!!

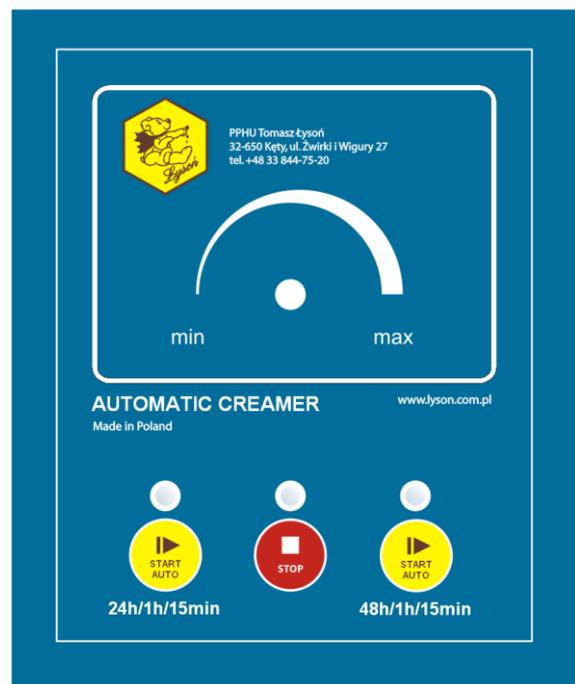
Regularly check the water level inside the water jacket (vent 3)



### Description:

- 1-heater with temperature regulator
- 2-service valve for a water jacket
- 3-vent, maximum water level inside the water jacket, water refilling
- 4-honey discharge valve
- 5- thermometer

## 4. CONTROLLER FOR CREAMING MACHINE C-02 230V



Operation of the controller boils down to a cyclical activation and deactivation of the device motor as it operates according to a programme selected by a user. Cyclical activation of the stirrer means that every 15 minutes of the stirrer operation corresponds to 1 hour of stoppage (these are optimum parameters for the creaming process) The controller allows to activate the stirrer in 24 h or 48 h mode.

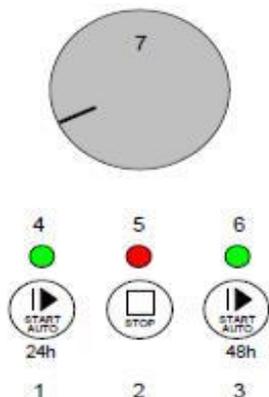


Fig 1. Controller handling panel for the creaming machine

#### 4.1. Description of buttons – functions of the controller

Element	Function
1	Button <b>START CREAMING CYCLE</b> . Pressing the button will start the creaming cycle. The stirrer starts to operate in a cycle: 15 minutes of rotations / 60 minutes of stoppage. The total cycle duration is approximately 24 hours. After the time, the device moves in the stop mode.
2	STOP button for operations stoppage. Pressing the button moves the controller into the stop mode.
3	Button <b>START CREAMING CYCLE</b> . Pressing the button will start the creaming cycle. The stirrer starts operation in a cycle: 15 minutes of rotations / 60 minutes of stoppage. The total duration of the cycle is approximately 48 hours. Once the time terminated, the device switches into the stop mode.
4	Diode to signal the <b>activation of the creaming cycle 24h</b> .
5	Diode to signal the stop status of the device. When the diode flashes it means that the safety loop has been triggered.
6	Diode to signal <b>activation of the creaming cycle 48h</b> .
7	<b>Knob to regulate the rotational speed</b> of the stirrer (speed setting within the range 0 – max). Setting the speed at 0 level does not deactivate the device nor stops the time countdown during the creaming cycle.

#### 4.2. Controller handling

Once the power supply has been connected, the controller goes through a start-up sequence – running several basic diagnostic tests to confirm whether the device works properly. Detection of errors is signalled by diode 4 flashing and lighting the proper combination of diodes 5 and 6. If no errors have been detected, the controller switches into stop status – waiting for the commands from the user.

Controller handling boils down to activation a creaming machine in line with a cycle and setting the required rotational speed for the stirrer. The STOP button allows to stop the stirrer and deactivation of the cycle in progress. Restarted cycle will start to operate counting the time from the beginning, i.e. working for another full 24 or 48 hours.

Detection of the emergency loop activation (opening of the creaming machine cover) will cause the immediate deactivation of the motor rotations and stopping the creaming cycle (together with the time countdown).

Releasing the protection (closing the cover) means returning the controller to the status in which it had been before the emergency loop was triggered, i.e. continuing the creaming cycle.

If the STOP button has been pushed while the emergency loop is triggered (signalled by diode 5 flashing), after protection release the controller will not continue the stopped cycle but will switch into the stop status.

Pressing the STOP button while the emergency loop is activated is signalled by a short lighting up of all diodes.

#### 4.3. Signalling the errors

##### Error codes

C-02 controller has been equipped with diagnostic procedures to enhance work comfort and safety.

##### Signalling the errors

- errors are signalled by the relevant combination of diodes no 4, 5, 6
- error detection will immediately stop the stirrer
- controller gets restarted after: power supply deactivation, fault removal and restarting the power supply to the entire system
- disconnecting the controller power supply will delete the error memory

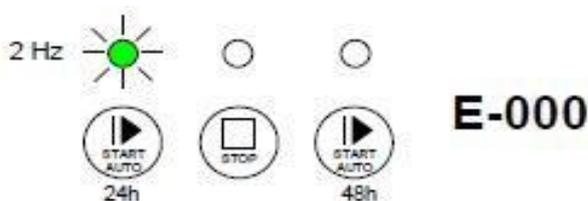
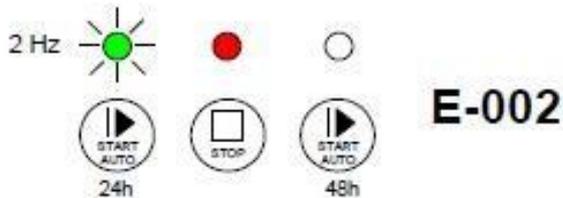


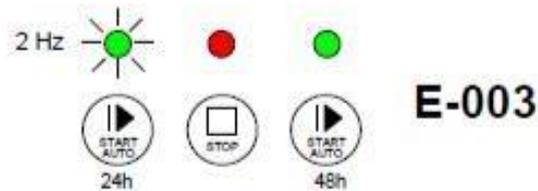
Fig 2. Error – internal fault of the controller.



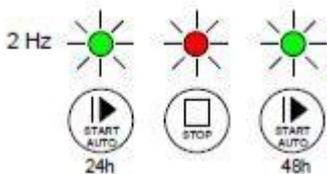
**Fig 3. Error - The button to start the creaming cycle 24 h is pressed or blocked**



**Fig 4. Error – The Stop button is pressed or blocked.**



**Fig 5. Error – the button to start the creaming cycle 48 h is pressed or blocked.**



**Fig 6. Diagnostic message – stopping the controller start-up sequence due to cover opening.**

## 5. TEMPERATURE REGULATOR

The device has been equipped with a heater with a temperature regulator - range 0 to 80°C and power of 2000W.



## 5.1. Setting the temperature

1. Prior to connecting the device to the mains, make sure that the heater is off.
2. The knob on the heater panel shall be in the minimum position on the scale (switched off).
3. After connecting the device to the mains, turn the knob on the heater panel to the half of the range and observe the temperature on the thermometer (5)
4. If needed, correct the knob position depending on the temperature required.

## 7. Storing the honey creaming machine with a heating mantle

Once the activities related to the device operation have terminated, the device must be cleaned and dried thoroughly. 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 inspection must be performed for technical issues and in case any fault has been detected, a service point must be contacted.**

## 8. Cleaning and maintenance



**IMPORTANT!**

**Prior to the maintenance, the plug must be taken out from the mains.**

Prior to the first use, the creaming machine must be washed and dried thoroughly.

In order to wash thoroughly, it is recommended to dismantle the beam with the controller, engine, gear and stirrer. The bolts fixing the beam to the tank must be unscrewed and the mechanism removed.

The device shall be washed with hot water with added agents permissible to be used in food industry. The device shall be washed with soft flannel fabrics, remember to protect any electrical elements. Once cleaned, rinse with pure water and dry.

Creaming machine shall be stored in a dry room.

None of the device elements shall be maintained with chemicals.

## 9. 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

## **10. Guarantee**

Product purchased from "Lyson" company are encompassed by the manufacturer's guarantee.

The guarantee duration equals 24 months.

A receipt or an invoice is issued for each product purchased.

Detailed guarantee terms and conditions, see [www.lyson.com.pl](http://www.lyson.com.pl)