

MANUAL FOR HONEY CREAMING MACHINE ON PREMIUM SETTLER



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MANUAL
CREAMING MACHINE ON
PREMIUM
SETTLER

The following manual refers to the devices coded as:

POWER SUPPLY 230V:

W20088_ZP, W20088A_ZP, W20080NT_ZP,
W20080B_ZP, W20080C_ZP

Manual

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Important!

2. Characteristics for the creaming machine of a settler



Proper design of the mixing propeller made of acid-resistant stainless steel allows to cream honey in a precise manner.

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

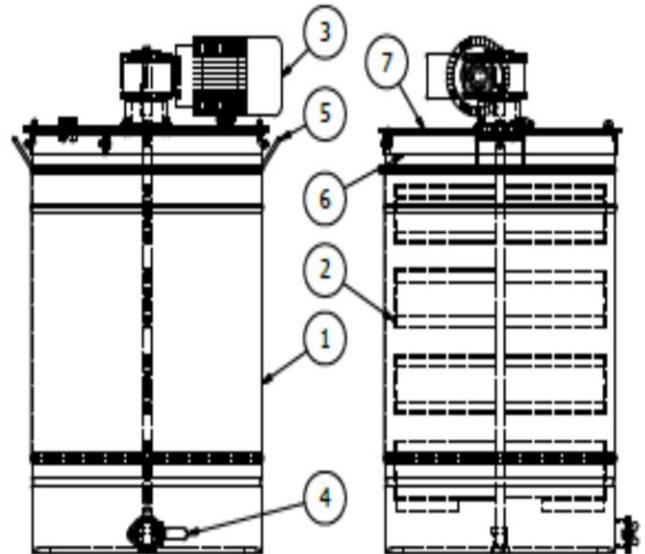
Mixing is to be performed several time in a day for approximately 10-15 minutes.

At the beginning, one may add crystallized honey to liquid honey (strained honey).

"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".

The process shall be run gradually, i.e. small quantities of honey must be added gradually instead of filling the entire device with it.

2.2. Diagram for the creaming machine on a settler



Legend

1. Tank
2. Stirrer
3. Motor with transmission
4. Valve
5. Grip
6. Band
7. Covers

2.3. Device technical parameters:

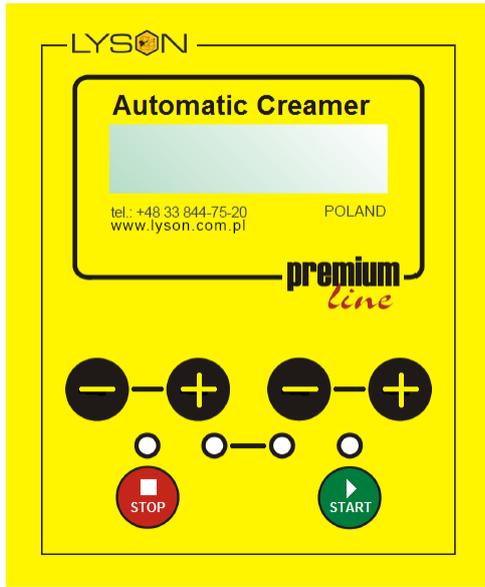
- Tank is made of stainless acid-resistant steel plate
- Transmission power supply – 230 V
- Stirrer's rotation speed – 36 rpm
- Stainless steel valve 5/4", 6/4", 2"

3. HANDLIGN THE CREAMING MACHINE

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 from position "0" to position "1"

4. CREAMING MACHINE CONTROLLER C-03– POWER SUPPLY 230V



C-03 controller is a device to control the creaming machine operation – performing creaming cycles. Controller operation boils down to activating the creaming machine stirrer engine in cycles. The number of engine activation cycles depends on selected total operating time and controller configuration, however it is always calculated in the manner where the shorter operating time for the stirrer corresponds to the longer stoppage time.

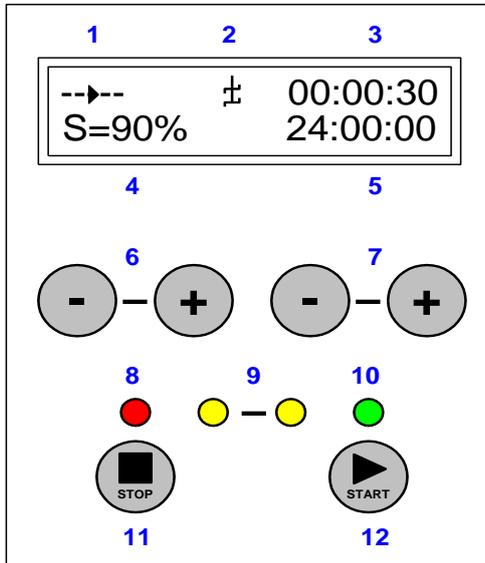


Fig. 1. Elements on the handling panel for the creaming machine controller.

2	Display field, graphics signalling the operation of the stirrer.
3	Display field, specifying the time that has passed since the creaming cycle was activated.
4	Display field, showing the current setups for the stirrer rotation speed
5	Display field, showing the preset creaming cycle time.
6	Buttons to set up the stirrer rotation speed.
7	Buttons to set up the preset creaming time.
8	Signalling diode – error detected or E-STOP state.
9	Signalling diodes – stirrer rotations on.
10	Signalling diode – START state (cycle on).
11	Cycle stopping button STOP.
12	Cycle activation button START.

4.1. Handling the controller, error codes

Once power supply has been switched on, the controller performs the start-up sequence – by running several basic diagnostic tests to acknowledge its correct operation. Detection of errors is signalled by displaying the relevant code on the LCD screen .

The device can continue its operation once the reason for the error has been eliminated and power supply has been reconnected. If no errors have been detected, the LCD screen shall look like in Fig. 1

Controller handling boils down to presetting the creaming cycle time and setting up the stirrer rotation speed. . Activation of such configured creaming cycle occurs once the **START** button is pressed. **STOP** button allows to deactivate the cycle in progress.

Reactivated creaming cycle shall start to operate counting the time from the beginning, i.e. working through the entire preset time. Correct termination of the cycle is signalled by **OK** note displayed on the LCD screen.

Detection of the state when safety loop has been triggered (optional engine protection triggered, excessive temperature detected or creaming machine covers opened) shall cause the creaming cycle to stop (if such one has been activated). “**E-STOP**” message shall appear on the LCD screen and time counting shall cease. Just below the ‘E-STOP’ message, the time that has passed since the cycle started shall be displayed. If the controller was in STOP mode when the safety loop was triggered, the time field shall show “00:00:00”. Protection release (e.g. closing the covers) means that the controller returns to the state in which it was when the safety loop was triggered, e.g. the continuation of the cycle

ELEMENT	FUNCTION
1	Display field, START state signalling (moving arrow) or STOP state (STOP note).

performance.



Fig 2. The state when the safety loop has been triggered

FAULT CODE	FAULT DESCRIPTION
E-100	INTERNAL FAULT OF MICROPROCESSOR CONTROLLER
E-201	PRESSED/BLOCKED „STOP” BUTTON
E-202	PRESSED/BLOCKED „START” BUTTON
E-203	PRESSED / BLOCKED „- OPERATING TIME” BUTTON
E-204	PRESSED /BLOCKED „+ OPERATING TIME” BUTTON
E-205	PRESSED /BLOCKED „- ROTATION SPEED” BUTTON
E-206	PRESSED /BLOCKED „+ ROTATION SPEED” BUTTON

4.2. Service menu

Service menu allows to configure the controller, i.e. set up the activation time (rotation movement) and deactivation time (stoppage) of the stirrer. In order to enter the controller service menu, during the controller start-up (device start-up progress display) **both buttons for stirrer rotation speed change must be pressed and held at the same time.**

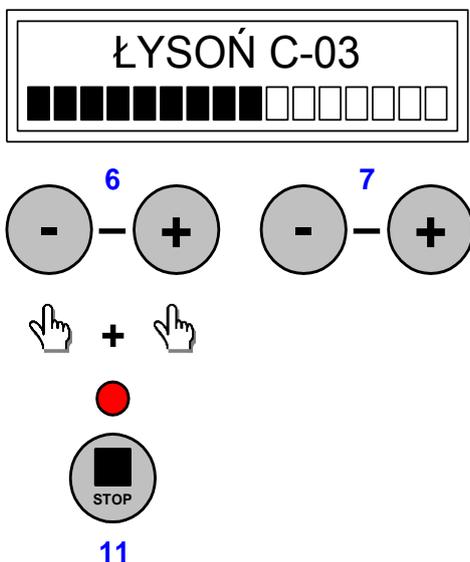


Fig 3. Entering the controller service menu

Having entered the service menu, current set-ups for stirrer operation are displayed. Changing the parameters possible according to the descriptions in the table.

ELEMENT	FUNCTION
6	Changing the time of stirrer rotation movement.
7	Changing the time of stirrer stoppage.
11	Confirmation of set-ups, controller restarting.

4.3. Controller technical parameters

FUNCTIONAL FEATURES	
Range of setting for stirrer operating time:	5 -15 minutes
Setting raster for stirrer operating time:	1 minute
Setting range for stirrer stoppage time:	45 -90 minutes
Setting raster for stirrer stoppage time:	5 minutes
Minimal time for creaming cycle duration:	24h00m
Maximum time for creaming cycle:	99h00m
Setting raster for cycle duration:	1h
TECHNICAL PARAMETRES	
Power supply:	5VDC, max 50mA
Communication:	RS485
Display:	LCD-2x16, 4 x LED
Keyboard:	6 x microswitch
Input for cover control connector:	Potential-free, NC

ENVIRONMENTAL CONDITIONS	
Ambient temperature for regulator in operation:	0°C...45°C
Ambient temperature for regulator in storage:	0°C...55°C
Air humidity for regulator in operation:	Max 75% at 25°C
Air humidity for regulator in storage:	unacceptable

8. Guarantee

Products purchased in the "Łysoń" company are covered by manufacturer's warranty.

The warranty period is 24 months.

On purchased products shall be issued a receipt or VAT invoice.

5. Honey creaming machine storage

After completion of the honey harvest, the device must be thoroughly cleaned and dried. Before starting the honey creaming machine, in the case when it has been moved from the room with the lower temperature to spaces of higher temperature, you should wait until it reaches the ambient temperature. Store in dry rooms at a temperature above 0° C. Before each new season, one should make an additional technical review, and in the event of fault detection, please contact the service center.

6. Cleaning and maintenance



IMPORTANT!

Before commencing the maintenance, pull out the mains plug!!!

Before the first use, the creamer must be thoroughly washed and dried. The creamer must be washed with hot water by means of a soft flannel cloth with the addition of agents approved for the contact with equipment used in the food industry, and then carefully flushed with clean water, remembering about securing electronic elements and bearings against wetting!!!

The machine must be stored in a dry room.

No elements of the machine can be maintained with chemical agents.

7. Recycling

The Worn out product shall be subject to disposal as waste only in the selective collection of waste organized by Network of Municipal Collection Points for Waste Electrical and Electronic Equipment. The consumer shall have the right to return used equipment in the electrical equipment distributor network, at least, free of charge and directly if a device that is returned is the proper kind and provides the same functionality as the newly purchased equipment.