

MANUAL OF BIAS AND RADIAL HONEY EXTRACTORS WITH ECONOMIC CONTROL

CHAPTER 1 - MANUAL HONEY EXTRACTOR



Before using the machine, carefully read the instruction manual and follow the instructions contained therein. The manufacturer is not liable for damages caused by the use of the device for unintended purposes, or inappropriate handling.

1. Honey extractor is used for centrifugation of honey from the frames.



2. Honey extractor before centrifugation should be thoroughly washed with hot water and a small amount of preparation put into washing machines intended for contact with food or with a pressure washer.

Keeping in mind the security of electronic components and bearings from getting wet!

ELECTRICAL SAFETY

1. Installation of electrical supply must be fitted with a residual current device with a rated tripping current in no more than 30mA. Periodically check the operation of overcurrent circuit breaker.

2. If the detachable power cord or connection cable is damaged and needs to be replaced, the operation should be performed at the guarantor or by a qualified service or by a qualified person in order to avoid a hazard.

Do not use honey extractor if the power cord or connection is broken!

3. Before turning on the machine to a network, make sure that the control is turned off. Switch "0/1" on the control panel should be set to "0".

4. Make sure that the rated voltage of honey extractor and power are compatible.

5. When connecting to the network with caution. Hands must be dry!

The substrate on which stands the centrifuge needs to be dry!

6. At the time of the launch honey extractor "Emergency Stop" should remain off (to be turned so that he jumped).

Pressing the "Emergency Stop" allows you to immediately stop operating.

7. Cover of honey extractor during operation must be closed! Do not open the lid of honey extractor during spinning.

8. Honey extractor should not be switched during centrifugation.



9. Protect your engine and control against moisture (including storage).

10. It is prohibited to pull the cord.

11. Keep the power cord away from heat, sharp edges and ensure its good condition.

SAFETY

1. This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Pay attention to children not to play with the honey extractor.

2. In case of damage honey extractor, in order to avoid a hazard, repairs can be carried out only specialist repair shop or a qualified person.

3. Do not run any maintenance or troubleshooting during operation or when the honey extractor is hooked up to the network!

4. All shields during operation must be permanently attached to the honey extractor.

5. In the event of any emergency, you must immediately use the safety switch. Honey extractor restart only after the elimination of risk.

6. These devices are not intended for outdoor use, can only be operated indoors.

7. V-belt on the pulleys is to remain loose. Do not tighten it.

8. Do not turn on the device and stored at temperatures below 0 ° C.

Do not turn on honey extractor when the ambient temperature is below 5 ° C. Before starting honey extractor, when it was moved out of the room at a lower temperature to a higher temperature, wait until it reaches ambient temperature.



Prohibition repair equipment in motion



Prohibition stripping during operation



Switch "0/1" on the front of the controller to "1"

PLACE OF WORK

It should be lit and kept in proper condition.

MAINTENANCE OF HONEY EXTRACTOR

IMPORTANT!

Before starting maintenance, pull the plug!

Honey extractor before the first spin and after end of honey harvest wash thoroughly with hot water and a small amount of preparation put into washing machines intended for contact with food, or with a pressure washer. When washing take the special care to prevent motor and control of honey extractor against moisture (during washing time cover with waterproof material).

When washing should also be careful to avoid flooding the bearings beneath the drum in order to protect the inside of the drum hole through which the axis of the basket.

After washing, rinse thoroughly with clean water and dry honey extractor.

Before each season should be an additional review of the technical and if you find any default, please contact customer service.

UTILIZATION

When this product is subject to disposal as waste only in selective waste collection organized by the Network of Municipal Points Rebounds Electrical and Electronic Waste. The consumer is entitled to a refund of unused network equipment in electrical equipment distributor at least free of charge and directly, if the device is returned to the proper type and performs the same function as the newly purchased device.

GENERAL RULES FOR THE PREPARATION HONEY EXTRACTOR TO WORK

TERMS OF USE

1. Honey extractor is used for centrifugation of honey from the frames.
2. Honey extractor before first use and after honey harvest wash according to instructions in Section Maintenance of honey extractor.
3. Place pre-made frames in basket of honey extractor, paying particular attention to their correct orientation. Errors in the positioning of frames can cause damages that is not covered by the warranty!
4. Before starting honey extractor, you must:
 - Make sure that the frames are well placed in the basket of honey extractor
 - Check if the security button is not pressed
 - Then plug it into an outlet and switch on the control box on the "0/1" switching control, from "0" to "1".



Then join to switch on honey extractor according to honey extractor's control instructions - see **Chapter 2**.

5. The first phase of the rotation should be done slowly to prevent possible flung the patches. Particular attention should be paid to the so-called "New frames".
 - In honey extractors with manual-electric, going to manual mode operation, turn off the power of honey extractor. You can dump the belt from the pulley, then automatic mechanism would be walk easier (because the engine connected to the V-belt will not resist).



Handwheel crank to rotate clockwise.
To stop the basket pull the crank counter clockwise.

6. After centrifugation one side frame (for diagonal honey extractor), honey extractor must be stopped:

- For honey extractors with manual, turn the crank arm in the opposite direction clockwise and hold in this position until the basket stop;
- For honey extractors with electric, press the STOP button and wait until the basket stop.

Note! Frames can be translated only after complete stop basket of honey extractor!

- After stopping the basket of honey extractor reverse frames in 180 degrees and centrifuge the other side of the patch.
Frames were centrifuged in two steps first on lower speed bin patch both sides. later on higher speeds both sides of the basket patch again (for diagonal honey extractors).
- Spinning basket should not be blocked by lying in the tub honey, if this occurs, stop honey extractor to prevent damages. After drain honey to containers can resume spinning.
- Under drains should be substituted tanks for the honey.
- During the spin drain valves should be open to centrifuged honey can drain freely.

CHAPTER 2 - CONTROLS (SDD) IN BIAS AND RADIAL HONEY EXTRACTORS



The controller has a switch "0/1" is used to enable and disable honey extractor and the button emergency stop red, big, round button ("EMERGENCY STOP") is used to immediately stop the work of honey extractor and fuse (5A) located under the switch "0/1"
The control panel is equipped with the navigation buttons "Plus", "Minus" and "STOP".

2.A. Characteristics of the controller:

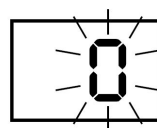
Control of HE-00 is used in bias and radial honey extractors. SDD controller has the ability to adjust the characteristics of individual choice - adjusting to the conditions of the power supplied to the motor parameters. The choice of characteristics is to set three parameters responsible for the lower limit engine speed (parameter L), the upper limit on

engine speed (parameter H) and the ramp-up time (parameter A). Performance characteristics are selected as follows:

- Configuration "L0" - low speed for the speed index 1
- Configuration "L9" - medium speed for the speed index 1
- Configuration "LF or J" - high speed for the speed index 1

- Configuration "H0" - low speed for a speed of 10 index
- Configuration "H9" - medium speed for a speed of 10 index
- Configuration "HJ" - high speed for a speed of 10 index

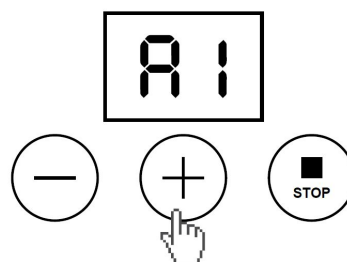
- Configuration "A0" - low motor dynamics (long ramp-up time)
- Configuration "A9" - medium motor dynamics (medium ramp-up time)
- Configuration "AF or J" - high motor dynamics (short ramp-up time)



START STEROWNIKA

In addition, in the last step controller configuration is defined parameter t - specifies the type of control and thus the scope of the definition of basket acceleration.

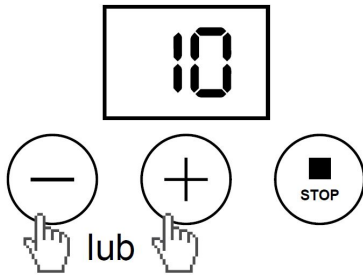
- Configuration "t0" - control of free time acceleration (range 90s - 900s)



- Configuration "t1" - the controller with the rapid ramp-up time (range 10s - 100s)

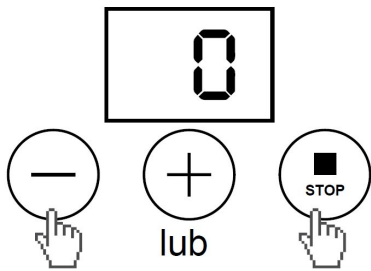
2.B. Start the controller:

When you turn on honey extractor to the network, switch the switch 0/1 to position "1". Then a sequence of self-diagnosis control signaled



by flashing digit "0".
START STEROWNIKA = START THE CONTROLLER

After completion of self-diagnosis controller is in normal operation mode, waiting for the start. The display will show "0".

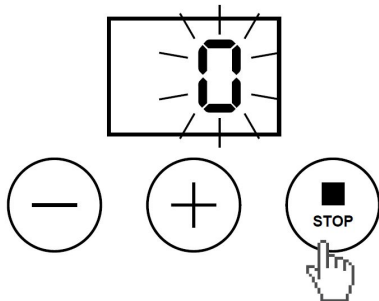


2.C. Start the honey extractor:

To start the honey extractor press the "PLUS".

The first pressing the "plus" , to reduce speed press the "MINUS".

By pressing the "plus" (increase) or "MINUS" (reduce) the speed of rotation of the basket in the range of 1 to



10.
 As in the following figure.

lub = or

lub = or

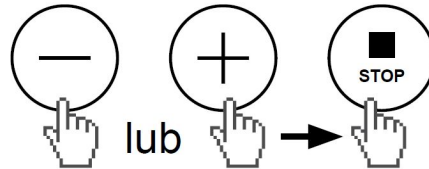
To stop the honey extractor press the button "STOP" or repeatedly the button "NEG".
 The off speed is indicated by the number "0"
 As in the following figure

If during switch on honey extractor, basket does not start to spin or spins too quickly, it means that you should change the configuration of the controller. To do this, press the "STOP". Turn off the honey extractor by pressing "0/1" so that it is in the "0" position, wait a minute and then turn on the "0/1" to the item. "1".

The display will blink the number "0". During the flashing digits "0" to hold the "STOP" until you see the message "Pr" - programming.

Changing the current configuration of the controller is by changing the parameter settings.

1. Press the STOP button when starting the machine (the display flashes "0") and then release the button

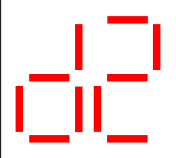
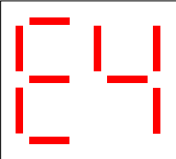


when you see the "Pr".

- 2.Plus and minus buttons to set lower speed limit ("L0" ... "LJ" - depending on the type of honey extractor parameter L set to F or J)
3. Confirm the setting by briefly pressing STOP button.
4. Plus and minus buttons to set the upper limit speed ("H0" ... "HJ" - depending on the type of honey extractor parameter L set to F or J).
5. Confirm the setting by briefly pressing STOP button.
6. Plus and minus buttons to set the start-up dynamics engine ("A0" ... "AJ" - depending on the type of honey extractor parameter L set to F or J).
7. Confirm the setting by briefly pressing STOP button.
8. Plus and minus buttons to set the type of control ("T0" or "t1")
9. Confirm the setting by pressing STOP button. The set configuration is stored in the memory nonvolatile controller.
10. Test set and, if necessary, do configuration sequence again.

lub = or

Number of speed steps:	10
Type of control:	PWM
Display:	LED, 7-segment, 2-position
Number of configuration steps lower speed range (L):	20
Number of configuration steps upper speed range (H):	20
The number of steps the motor acceleration time configuration (A):	20
The number of types of regulation (t):	2
Minimal ramp-up time for the device: L0 / HJ / AJ / t0	90 seconds
Maximum ramp-up time for the device: L0 / HJ / A0 / t0	900 seconds
Minimal ramp-up time for the device: L0 / HJ / AJ / t1	10 seconds
Maximum ramp-up time for the device: L0 / HJ / A0 / t1	100 seconds
Executive power supply module-SDD-1	
Power supply module:	18V – 21V AC
Recommended power transformer:	80VA
Max. output load control:	3.5 A - electronically limited
Executive power supply module-SDD-2	
Power supply module:	18V – 21V AC
Recommended power transformer:	120VA
Max. output load control:	5.5 A - electronically limited
Environmental conditions	
Working temperature controller:	0°C...40°C
Ambient temperature storage controller:	0°C...50°C
Humidity control for	Max 65% for 25 ° C

	WYKRYTO 2 BŁĘDY
	OSTATNI BŁĄD O KODZIE E4
working:	
Humidity for the storage controller:	inadmissible

After completion of self-diagnosis sequence controller is in normal operation mode - waiting for the launch. The display shows the number "0" indicator turns off. The inclusion of rotation by pressing the plus button. The first pressing the plus (transition from index 0 to index 1) will start the procedure. The controller will start with a correspondingly larger effect on the time to gradually reduce the power to a level corresponding to a fixed set of the first step. The controller goes to normal operation indicating the currently selected speed index as follows.

2.D ERROR CODES

E1 - (Error) - internal fault driver microprocessor

E2 - (Error) - damage to circuit protection driver overcurrent

E3 - (Error) - short circuit on the line / pressing the (-)

E4 - (Error) - short circuit on the line / pressing the (+)

E5 - (Error) - short circuit on the line / pressing (STOP)

E6 - (Warning) - delete the configuration settings driver

wykryto 2 błędy = 2 errors detected

ostatni błąd o kodzie E4 = last error code E4