

HE-02



CASSETTE AND RADIAL HONEY EXTRACTORS WITH TOP AND BOTTOM AUTOMATIC DRIVE USER'S MANUAL

Read the user manual before use and follow the instructions below. Producer cannot be held responsible for any damages caused by improper use.

- **Rules of use**

1. Honey extractor is designed to extract honey from honey frames.
2. Before using, honey extractor should be washed carefully with hot water and small amount of detergents (allowed for use in food industry) or by use of a pressure washer. Remember to protect electronic parts and bearings from water!!!



- **Electrical safety**

1. Electric installation needs to be equipped with residual current device and is designed to trip on a leakage current of 30 mA. Overcurrent protection needs to be checked periodically.
2. If the power cord is damaged and needs to be exchanged it has to be done through our distribution point or by authorised point of repair in order to avoid danger. The honey extractor cannot be used if the power cord is damaged.
3. Before turning the device on, make sure that the programmer is switched off. Switch should be set to '0'.
4. Make sure that the power supply is in line with the honey extractor power supply
5. Take extra care whilst plugging a power cord. Hands have to be dry. Place on a dry surface
6. The EMERGENCY STOP button should be switched off when starting. (the button needs to pop out when switched off) Pressing the EMERGENCY button results in the immediate stop of centrifugation.
7. Keep the honey extractor lid closed during centrifugation. Opening the lid whilst spinning is strictly forbidden.
8. Honey extractor must not be moved during the spinning process.
9. Protect the motor and steering against moisture (also during storage).
10. Do not pull power cord, keep the power cord away from heat sources, sharp edges and keep it in good condition.



- **HEALTH & SAFETY**

1. This device is not designed to be used by persons (including children) with limited physical, sensual or psychological abilities or by persons who do not have experience or knowledge of the

device unless it is done under supervision and according to the user manual passed by persons responsible for their safety. Keep away from children.

2. In case of device damage the repair needs to be carried out by the authorised point in order to avoid danger.
3. It is not allowed to carry out any maintenance works when the honey extractor is in use.
4. All casings need to be firmly attached to the device during work.
5. In case of any potential danger press the STOP button immediately. The honey extractor can be restarted once the danger has been eliminated.
6. For indoor use only! The device is not designed to be used outdoors.
7. Fan belt should remain loose. It must not be strained.
8. The device should not be switched on and be stored in the temperature below 0° C. Honey extractor should not be switched on when the temperature is below 5° C. Before switching the honey extractor on, in case when it was moved from the place with lower temperature to the place with higher temperature, wait until the temperature has balanced.



Repairing the device whilst in operation is STRICTLY FORBIDDEN



Detaching the covers during use FORBIDDEN!

Work Place

Working area should be kept clean and tidy. The proper lighting should be provided.

- **Storage**

Once honey extracting has finished, wash the honey extractor and dry it thoroughly.

Before every season the technical check-up needs to be performed. If any fault found, contact the appropriate provider.

- **Honey Extractor Maintenance**



IMPORTANT!

Unplug the extractor from the power source prior to commencing any maintenance work.

After the honey extracting has finished, honey extractor should be washed carefully with hot water and small amount of detergents (allowed for use in food industry) or by use of a pressure washer. During the duration of washing pay special care not to wet the motor and the controller (they may be covered with a water-proof cloth during washing). Whilst washing, make sure not to wet the bearings which are located under the drum. To avoid wetting the bearings, cover the slot inside the drum where the axis of the basket is located. Once completed, rinse the honey extractor with clean water and dry it thoroughly.

UTILIZATION:

The device needs to be utilized in the point designed for that purpose. The consumer has the right to return the used equipment to the network of electrical distributors, at least free of charge and directly, if the device returned is of proper type and performs the same function as the newly purchased equipment.

HONEY EXTRACTOR USER'S MANUAL



Fig. 1 Correct frame arrangement in the radial basket

• **General guidelines**

1. Place the honey extractor in the designated place.
2. Fix the honey extractor to the surface in order to avoid unnecessary movement.
3. It is crucial especially for cassette extractor that the ground it is placed on is perfectly level.

• **Terms of use:**

1. Honey extractor is designed to extract honey from honey frames.
2. Before using, honey extractor should be washed carefully with hot water and small amount of detergents (allowed for use in food industry) or by use of a pressure washer. **(see Maintenance section)**
3. **Frames arrangement:**
Place the honey frames (prepared beforehand) in the basket of the honey extractor paying special attention to their correct arrangement. Honey extractor should be selected accordingly to the frame type:
 - In cassette honey extractor pay special attention to correct frames arrangement which should fit into the cassette.
 - In radial honey extractor - upper beams of frames should rest on the upper and lower basket rods; Failing that (too short or too long beams) may result in extractor or/and frame damage.

Frames in both types of honey extractors have to be arranged with the upper beam facing the drum as shown on the **Fig. 2**



radial honey extractors

cassette honey extractors

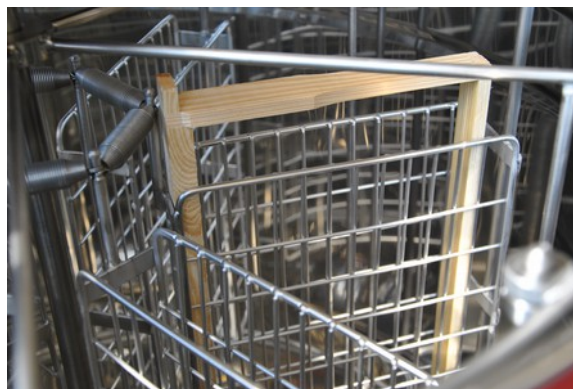


Fig. 2 Correct frames arrangement in the cassette basket

Improper frame arrangement may cause damages not covered by warranty!

4. Before commencing work:

- make sure that frames are correctly arranged in the basket of the honey extractor to avoid damages (see point 5 – honey extractor user manual)
- check if the emergency stop button is not pressed
- insert the plug into the socket, followed by turning the knob on the control panel from position "0" to position "1". Then proceed to honey extractor powering according to the honey extractor controller user manual – **see Automatic Controller section.**

5. First phase of the spinning should be performed slowly, in order to avoid possible breaking of honeycombs. Special attention should be paid to so called "young honey frames".

6. Spinning basket should not be blocked by the honey accumulated in the drum. If that happens, stop the honey extractor in order to avoid its damage. Once honey has dripped down to a container, the spinning can be restarted.

7. Place the honey containers under the drain valves.

8. During the spinning the drain valves should be left open so that the centrifuged honey can flow fluently.



Warning!!! Frames can only be rearranged when the basket has fully stopped!

AUTOMATIC CONTROLLER

• Controller description

Automatic controller offers a choice from 1 to 8 programs.

First two programs can be operated manually (L – left, R – right)

Program 3– automatic with factory settings.

Programs from 4 - 8 allow to customise own cycles of honey extracting. In each cycle 6 steps can be defined.

The process cycles are stored in the controller memory – **they remain in the memory even after power cut.**

Programming of the own cycles can be done at the configuration and programming menu level. To define your own process cycle, enter the above mentioned configuration and programming mode.

Entering the programming menu is only possible during the controller's start up – when the start-up sequence progress bar and "Lyson" is displayed.

• Controller start up

In order to start the controller (having plugged it beforehand) you should:

- make sure that the emergency stop button is not pressed
- switch on the controller with the 0/1 knob.

After switching on the controller, the MENU is displayed – use arrow up and arrow down buttons to navigate through it .

• Entering the MENU

The way to enter into programming mode is shown in **Fig. 3**

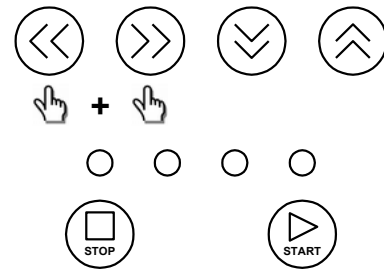
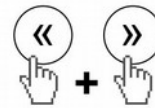


Fig. 3. Entering the configuration and programming mode.

When the start-up sequence progress bar is displayed (pic.1), press and hold simultaneously the right and left arrow buttons.



Then controller will display the following information which should be **confirmed by pressing the START button** (see Fig. 4).

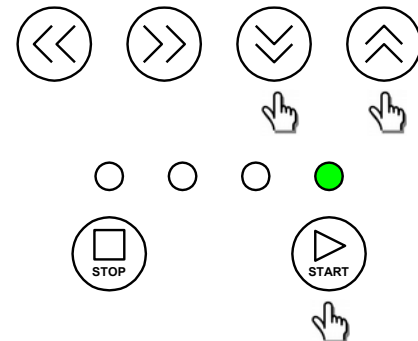


Fig. 4. Selection and confirmation of the programming mode.

There are two ways of force starting the controller to enter the start-up sequence (in order to enter into programming mode):

1. By turning on the controller on the cover (knob 0/1) wait 10 seconds until controller switches off
2. By lifting and closing the honey extractor cover.

• Programming

After programming mode confirmation with START button, there will be a menu of selectable programmes displayed. Using navigation buttons "UP" and "DOWN" arrow select the desired programme from 4 to 8. Confirm your choice by pressing the „STOP” button (see Fig. 5)

LED diodes, which light up above the START or STOP buttons

indicate which of the buttons is active and which confirms the selected setting.

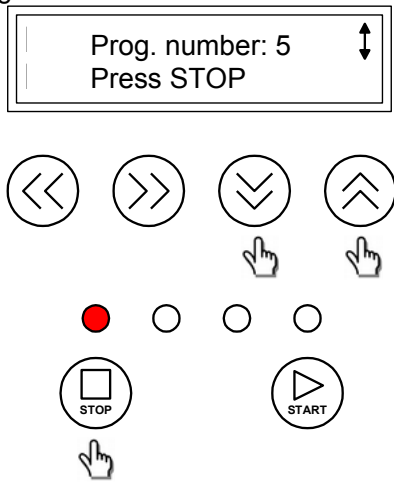


Fig. 5. Selection and confirmation of the chosen program

After confirming the selected programme e.g.: No 5, we move onto **actual programming**. Programming is set to define 6 steps.

(step 7 is not set – it is the time of the cycle stop).

Each step is defined by **3 parameters**:

S = spinning speed of the honey extractor (**10% - 100%**)

D = spinning direction (**0 – right or 1 – left**)

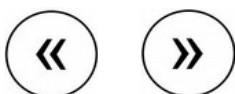
T = time of the cycle (**10s – 1800s**)

The first and last step during programming is shown in the pictures below:



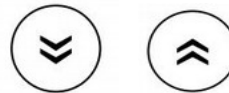
Fig. 6. Programming the technological cycle - step (1) and (7).

Navigation buttons –"LEFT" arrow and "RIGHT" arrow



are used to modify currently selected parameter, e.g. Changing time, speed or spinning direction.

Navigation buttons – "DOWN" arrow and "UP" arrow



are used to move among parameters from spinning speed of the step one to time when the last step starts up. (which is time of the cycle stop.)

Having modified the last step' settings, you can exit the sequence programming procedure by pressing the START button. Upon pressing the button the controller performs the program integrity check, stores the entered settings, and restarts. From that moment the programmed process cycle sequence can be accessed at the assigned program number.

When programming own technological cycles (programs) we take three basic parameters into consideration:

Step start time is the time to which two parameters are assigned – spinning speed and direction.

Spinning speed – it is the speed valid from the time defined by the start time setting step.

Spinning direction – it is the direction valid from the time defined by the start time setting step.

0 = right (spinning direction)

1 = left (spinning direction)

• Programming examples

Defining own technological cycles – examples.

Example 1 – technological cycle with following parameters:

Total cycle time: 360s, spinning in one direction (radial honey extractors)

Step # (1)

T = step duration 60 s,

D = spinning direction (0)

S = spinning speed 30%

Step # (2)

T = step duration 120 s, (step duration 60s)

(each following step sums up previous times)

D = spinning direction (0)

S = spinning speed 30%

Step # (3)

T = step duration 180 s, (step duration 60s)

D = spinning direction (0)

S = spinning speed 50%

Step # (4)

T = step duration 240 s, (step duration 60s)

D = spinning direction (0)

S = spinning speed 50%

Step # (5)

T = step duration 300 s, (step duration 60s)

D = spinning direction (0)

S = spinning speed 100%

Step # (6)

T = step duration 360 s, (step duration 60s)
 D = spinning direction (0)
 S = spinning speed 100%

Step # (7)

STOP – stop of honey extractor work – not to be set..

Step # (5)

T = step duration 300 s, (step duration 60s)
 D = spinning direction (0)
 S = spinning speed 80%

Krok # (6)

T = step duration 360 s, (step duration 60s)
 D = spinning direction (1)
 S = spinning speed 80%

Step # (7)

STOP – stop of honey extractor work – not to be set.

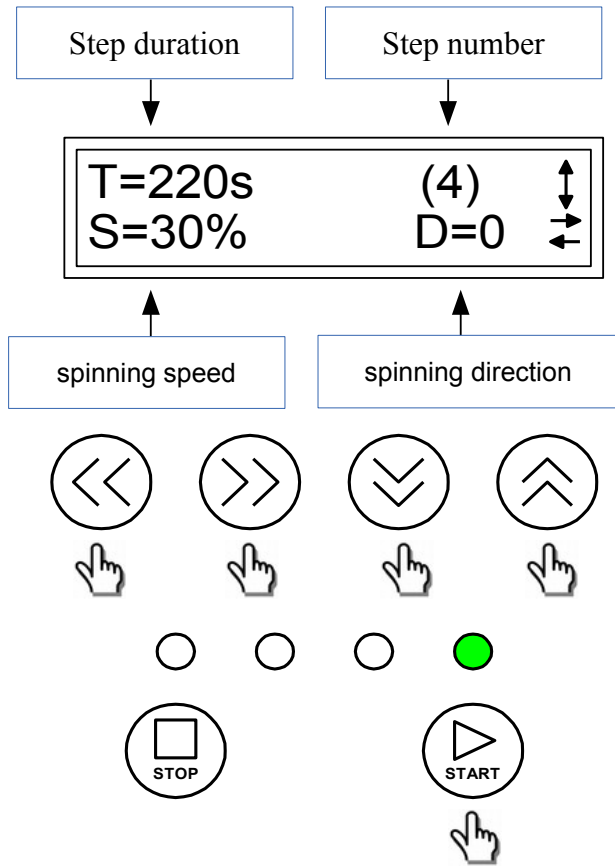


Fig. 7. Programming the sequence of the technological cycle – example step (4).

Example nr 2 – technological cycle with following parameters:

Total cycle time: 360s, spinning in two directions (cassettes honey extractors)

Step # (1)

T = step duration 60 s,
 D = spinning direction (0)
 S = spinning speed 20%

Step # (2)

T = step duration 120 s, (step duration 60s)
 (each following step sums up previous times)
 D = spinning direction (1)
 S = spinning speed 30%

Step # (3)

T = step duration 180 s, (step duration 60s)
 D = spinning direction (1)
 S = spinning speed 40%

Step # (4)

T = step duration 240 s, (step duration 60s)
 D = spinning direction (0)
 S = spinning speed 50%

Graphic illustration of cycles programming

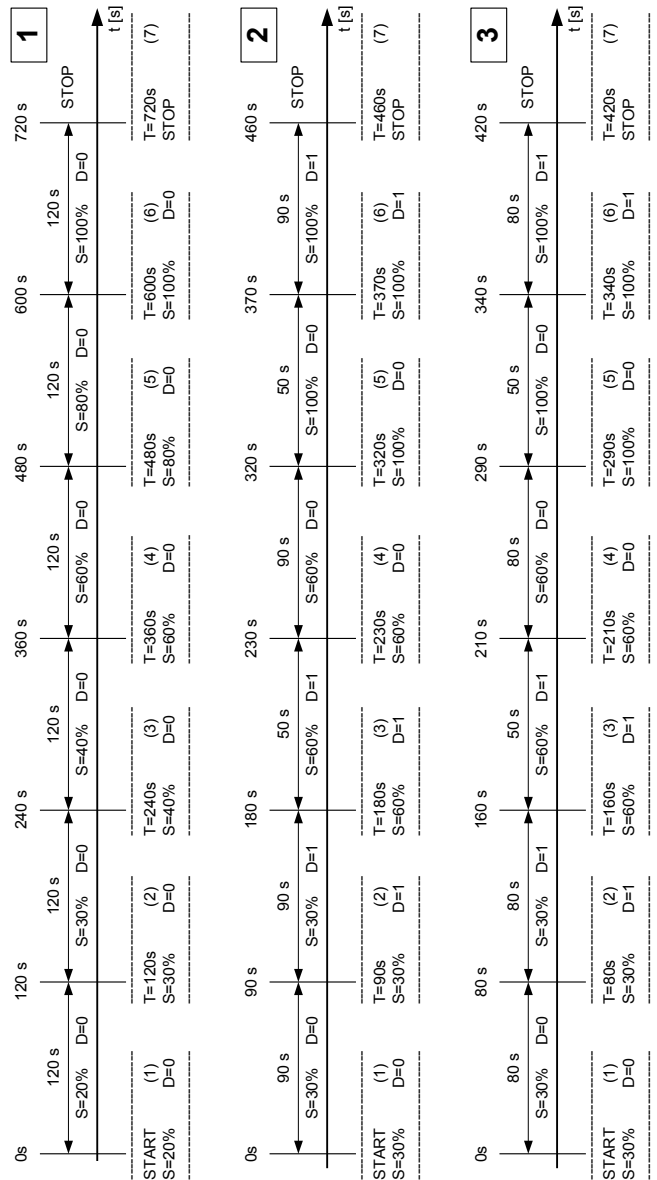
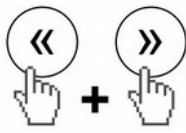


Fig. 7 Graphic cycle schedule

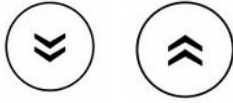
Controller factory settings

Controller HE-02 allows you to restore **factory settings**. To do so, go to: MENU.

When the start-up sequence progress bar is displayed (**Fig. 1**), press and hold simultaneously the right and left arrow buttons.



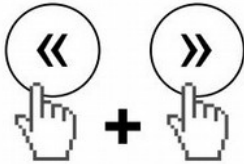
Choose "Factory settings" by using navigation buttons arrow "UP" and arrow "DOWN"



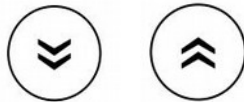
This is the parameter which restores factory settings. This option can be used to fix faulty programmes, e.g. After choosing this option the factory settings will be saved and they will overwrite the others.

• Language selection

Controller HE-02 has also got an option "Language selection". In order to change the language of the menu go to programming mode. During the controller start-up procedure, when the start-up sequence progress bar is displayed (Fig. 1), press and hold simultaneously the right and left arrow buttons.



Using navigation buttons up and down

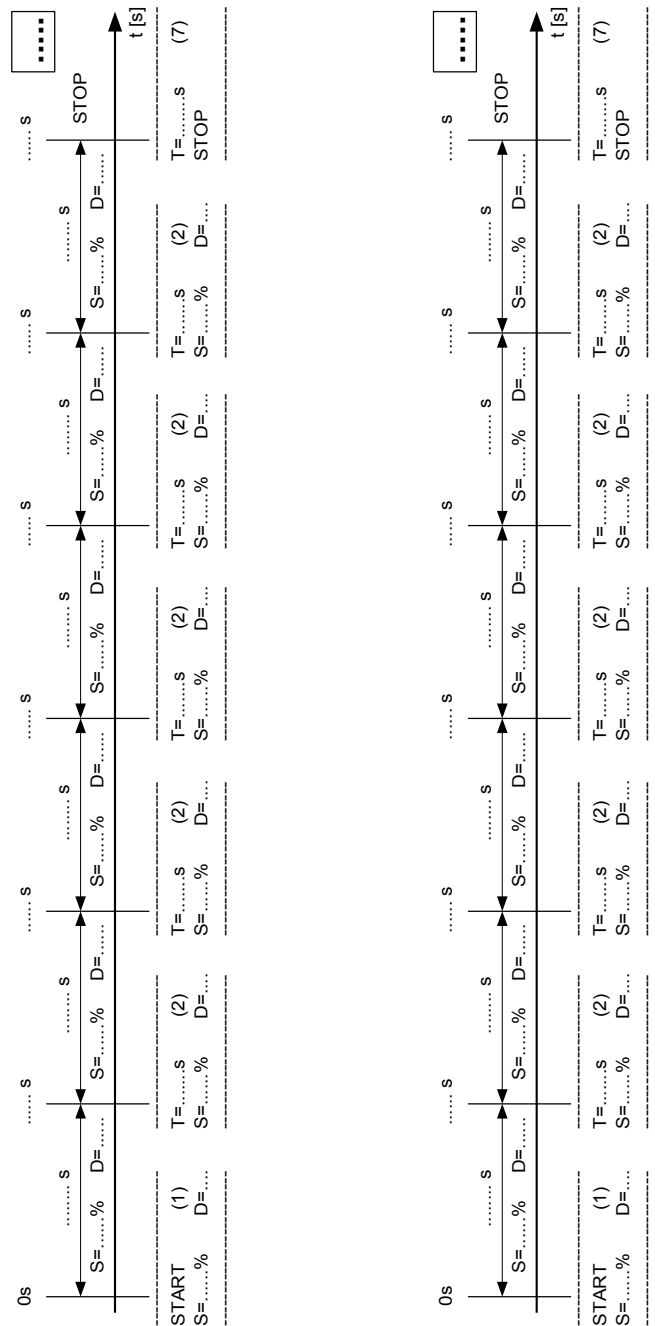


choose "Language selection". Press START to confirm.. The desired language is chosen by using "UP" and „DOWN" arrow buttons. Confirm your selection by pressing "STOP" button.

Honey extractors technical parameters

- Drum:
- made of acid-resistant stainless steel 0H18N9,
- Basket:
- made of acid-resistant stainless steel rods with mesh size 20x40 mm, it is also journalled in the two housings: upper and lower,
 - drain valves:
 - 1x6/4 (from Ø 720 to Ø 900)
 - 2x 2" (from Ø 1000 to Ø 1200)
 - transparent lids, made of meta-plexi,
 - time lock,
 - conical and reinforced,
 - stable and easy to dismantle stand, coated with paint embossed using electrostatic painting which increases coating's resistance,
 - transmission type: worm gear

• Auxiliary table (for operator's use)



Number of cassettes in cassette honey extractors :
Cassette honey extractors - the amount of cassette on the diameter of the drum

Diameter of the drum Ø	Drain	Wielkopolska, Ostrowskiej, Langstroth		Dadant, Warszawska Extended	
		Number of cassettes	Height of the drum	Number of cassettes	Height of the drum
800	1x6/4"	6	600/700	-	700
1000	2x2"	8/12*	600/700	6	700
1200	2x2"	12*/16*/20*	700	8/12*/16*	750

*concerns honey extractors with partitions of metal

Number of frames in radial honey extractors :

Radial honey extractors - number of different types of frames – beam 25 mm

Diameter of the drum	Height of the drum	Drain	Number of frames					Notes
			OS/LN	WL/½	D/½	WZ	WP	
Ø 720	600	1x6/4"	18	-	-/18	-	-	6 sectors
Ø 800	600	1x6/4"	30	18/30	-/30	18*	-	6 sectors
Ø 900	600	1x6/4"	42	30/42	24/42	30*	18*	6 sectors
Ø 1000	600	1x6/4"	42	42/42	36/42	36*	24*	6 sectors
Ø 1200	600	1x6/4"	56	56/56	56/56	48*	48*	8 sectors

* rotate the upper part of the frame down

Frames : WL-wielkopolska, WP-warszawska extended, D-Dadant, OS-Ostrowskiej, WZ-warszawska ordinary