

Instruction for Use Honey Extractor



Main components of the extractor.

1. Main Body
2. Tangential Frame holder
3. Frame holding basket (self-rotating)
4. Honey Valve
5. Drive motor
6. Speed and program controller
7. V-belt pulley
8. Safety Switch

Installation

After removal of the transportation packaging, please check the unit for any fastenings, packaging pieces, and remove them. If possible, place the machine on a smooth and flat surface. Make sure that neither the mechanics nor the electronics have been damaged. We recommend that you clean the extractor before use. You can improve the stability of the machine during operation by fixing it to the floor (bolt holes are provided in each leg) or by placing rubber vibration pads under the bases of each foot. Check that all fixings are tight, as these may have become loose in transport.



Fastening the motor regulating electronics

Place the motor speed controller and program selection unit onto the holder located at the top of one of the feet of the machine, this is held in place by means of two holding lugs on the unit. The operating mode of the motor controller is factory-set for each specific type of extractor; please refer to the separate user manual.

Depending on the voltage of your extractor, please ensure that the unit is plugged into a suitably earthed, RCB protected outlet

Checking the V-belt and the Motor



Check the V-pulley at the bottom of the unit to ensure the secure fastening on the central shaft. Adjust it using the screw on the V-pulley if necessary. Check V-pulleys to ensure that they are in line and the V-belt is not twisted, also check the V-belt for tightness. If the V-belt is not on the pulley then place it.

Connect the machine to proper power supply (12V or 230V). For 230V power supply, make sure the power supply is grounded to protect persons and extractor. When the extractor is plugged in and switched on the control unit is activated after a few seconds

Only use power supply suitable for the design of the machine. Improper use (overvoltage or low voltage) may damage the electronics. We recommend the use a battery charger distributed by us that is able to supply the power necessary for the 12V electronics (12volt models only). If you want to use your own battery charger, we suggest you connect our control unit to a battery, and

to charge that battery with its own charger. Thus you can avoid damages to the electronic unit that may be caused by the fact that your own battery charger does not supply the necessary power.

On manually driven machines the driving arm is mounted in a reversed position to avoid damages during transportation. Return it into its proper direction by loosening the retaining screw and fasten it before putting into use. On manually/mechanically driven machines remove the manual drive from the machine by means of the 4 screws fastened to it before use if the mechanical mode is chosen. Remove the V-belt from the drive pulley if the manual drive is chosen. Thereby one drive will not interfere with the other one.

Operation

With a tangential honey extractor

These machines are suitable for the simultaneous extraction of 3 or 4 brood frames, or 6 or 8 super frames. Place the frames onto the frame holders, with the top bar mounted on the inner side of the grid, and start the extraction process. Please operate the machine at a low speed at the beginning to gradually reduce the amount honey on the first side of the frame. Too fast a speed to start with may cause the frames to burst out, which may result in damage to the extractor.

These extractors are able to remove the honey from one side of the frames in one direction. Then stop the machine (by turning the driving arm in the opposite direction on units provided with manual driving arms, by means of a so-called coaster brake), reverse the frames, and extract the other side of the frame.



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With a radial honey extractor

The frame holding lugs are mounted on both the bottom and at the top of the inner rotating basket of the radial extractor. There is another inner holding ring mounted on the central shaft. Place the frames into the extractor by inserting the top bar of the frames between the lugs on the lower ring and the upper ring. The inner ring of the basket holds the lower part of the frame, which must be inserted also between the lugs. Extraction of different frame sizes may be achieved by using different inner rings of different sizes (these can be supplied by us). After inserting the frames you can start the extraction process. We advise to operate the machine at a low speed at the beginning and gradually increase the speed to reduce the amount of honey left in the frame. Too fast a speed may cause the frames to burst, which in turn may result in additional damage to the extractor.



With a self-rotating tangential honey extractor

Carefully place the frames into the frame holding basket of the self-rotating extractor. Then close the lid and start the program (please refer to the program guide). During the operating time of the chosen program, no action is required by the operator and the unit may be left unattended and other tasks can be performed during this period. The self-rotating extractors change the direction of rotation three times by default. The system rotates at 60% of the rotation speed set on the regulating electronics in the first direction to extract the honey from one side of the frame carefully (to make the frame lighter). After changing the direction, the other side of the frame is fully extracted by the machine with the rotation speed set automatically. After another change of direction, the first side of the frame is extracted again at the set rotation speed. The set rotation speed can be modified during the operation of the machine (please refer to separate user guide).



The option of changing direction twice instead of three times is also available; this method is included in the instructions for use of the control unit. The extractor indicates the end of the program by giving a beeping sound.

Honey drain

During the operation of the machine the extracted honey is collected at the bottom of the extractor. This can be drained by opening the honey drain valve(s) on the front side of the extractor. Place a suitably sized container under the valve, or if you are using a baffle tank make sure it capable of processing the amount of honey you intend to extract.

Important!!! If the level of honey collecting in the container reaches the lower bearing, it will interfere with the movement of the bearings when it penetrates it. This will in turn prevent the running of the inner part of the extractor and may even result in the damage of the control units electronics. Please start to drain the honey extracted during extraction process to prevent this happening.

Machines with safety magnetic, interlocking switches

The extractor is provided with a magnetic switch, this switch stops the extractor when the lid is opened during use, and before you start the extractor you will need to reset the switch by opening and then closing the lid. When the lid is close the LED's on the control unit flash when they have finish flashing you can select the desired program. The switch will automatically stop the motor (the brake program is activated). The time it takes the extractor to stop depends on the amount of weight in the frames.



Cleaning and maintenance

No special preparation is required for general cleaning. After removal of the honey, clean the unit with warm water or use a jet washer after opening the lid of the unit. Always remove the lid before performing the annual cleaning of the honey extractor. It is fixed by three screws on opposite sides. After removing the screws, remove the V-pulley retained by a screw on the central shaft from the bottom of the machine. Then the honey extractor basket can be pulled from the barrel together with the central shaft. Before cleaning, remove the angular bearing (no. 7303 2RS or 6003 2RS) from the bearing house located at the bottom of the machine. Check its condition and lubricate it at least once a year. If possible this should be done every time when cleaning is performed. Since this bearing is exposed to an extreme load, it is recommended to replace it every second year. After washing use a soft cloth to wipe the interior of the machine.

Always try and ensure that before extraction that the frames are balanced, frames that have the same weights when they are inserted into the machine are opposite to each other. This will increase the stability of the machine!

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Troubleshooting

1. *There is no change of direction:*

Based on the instructions for use of the control unit, check whether the electronics is set to self-rotating mode 1 or not. If not, modify it.

2. *The direction of rotation is changed, but the baskets do not reverse direction.*

Switch off the machine and check if the frame holding baskets are centrally positioned towards the central shaft. If you look into the baskets from above, the rod under the baskets must be parallel with the position of the frame holding basket. If it is not the case, you must reach below the basket or baskets where the problem is identified. Carefully rotate the retaining screw, to which the pull-back spring is attached, clockwise or anticlockwise – while pushing the frame holding basket into the opposite direction with the palm of your hand until the basket is correctly positioned. This problem can also be caused by extracting different frame sizes with the frame 'lugs' protruding and stopping the mechanism working. If a frame has been damaged during the extraction process the debris can also stop the mechanism working.



3. *The motor regulating the electronics fails to enter into stand-by mode even after opening and closing of the lid. (In case of machines with safety magnetic switch)*

Disconnect the two wires that connect magnetic switch that control the regulator, connect these two wires together thus taking out the magnetic switch, if the unit operate then the magnetic switch is at fault and needs replacing. We recommend that this is done by a qualified electrician. If it does not work, then the regulating electronics must be replaced. Please contact our company allowing us to send a spare part.

4. *The machine resonates, vibrates, the V-belt tissue starts fraying*

This problem occurs if the V-pulley on the motor is not aligned with the V-pulley located on the central shaft. Please check and adjust the V-pulley on the central shaft so that they are level with each other. If the V-belt has been worn out as a result of the problem, it should be replaced.

If you cannot solve the problem, contact us using our contact details. We are delighted to have your remarks on your experiences with the use of the machines. Your opinion is important for us, therefore we do our best to take it into consideration during production and product development. We hope that you will find the extraction process enjoyable. We wish you good luck.