# **User Manual**

# Heated automatic uncapper with a vibratory knife



### **Specifications**

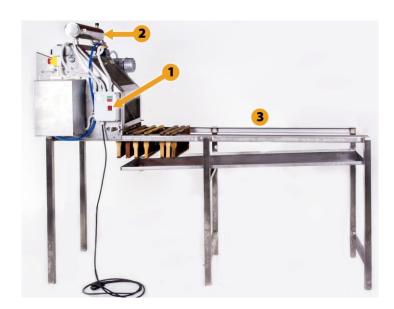
Size: Length: 2.3m - 2.6m, width: 1.1m,

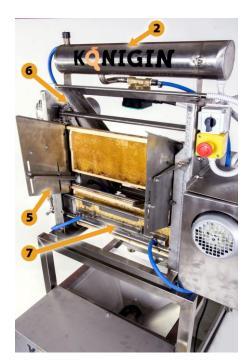
Weight: 110kg Power: 1,4KW

Uncapping capacity: 350 pieces/hour.

Intended use: Cutting off of the external wax sealing surface of the cells closed by the bees with a wax

layer





## Main parts of the machine:

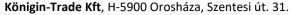
- 1. connection box
- 2. equalizer water tank
- 3. storage stand for uncapped frames
- 4. emergency button
- 5. storage unit
- 6. frame puller, with chain drive
- 7. vibratory knives

#### **Commissioning**

After the removal of the delivery packaging, please check if any fastening, wedging is left in the machine, and remove them. Check the machine for any damages caused by or during delivery, and then perform a trial operation without a frame.

Erect the machine possibly on a solid and smooth ground. The stability of the machine during operation can be increased by fastening the machine to the ground (by bolting it down through the holes on the bases of the feet) or by placing rubber sheets under the bases.





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Check the screws on the machine feet for tightness. If any of them does not provide sufficient fastening, tighten it.

Prior to the commissioning, fill up the equalizer tank on the top of the machine with water, ca. 4 liter. The water contained in it is heated and circulated by the machine between the knives and the tank. Fill the water up to the cap in the tank. The top of the cap is provided with a small hole intended to release any steam generated during the heating from the closed system to prevent overpressure causing damages to the machine.

#### Operation

Put the uncapper into standby mode (under voltage) with the green magnetic switch on the side of the machine. The magnetic switch prevents any unintended restarting of the machine in the case of power

failure.



Heating can be started with the red toggle switch under the main switch. This starts the pump motor which circulates the water as well. The water temperature is adjustable. Based on our experiences, a water temperature of ca. 55°C degrees is ideal, which increases the efficiency of uncapping, but does not cause changes in the honey.

We recommend spraying food grade silicone on the bronze sleeves shown on the image, where the axes of the knives meets (a total of 4 pieces).



Additional switches are provided on the right side of the automatic uncapper viewed from

the front. The lateral movement of the knives can be started with the vibration switch. Their speed is not adjustable.

The feeding of frames can be started with a two-position switch. In one position the chain drive pulls the frames into the machine, and in the other position it moves them in the opposite direction. The desirable pulling-in speed can be adjusted by means of a speed regulator. Be very careful when you move the frames backwards, as any blockage of the frames may cause there breakage and damages.

The distance between the knives can be adjusted by moving left hand arm when viewed from the front. If this moves not in the correct distance range, then loosen the screws of the tilting elements provided with bearings on the left ends of the knife axes, and turn the box with the arm to the O position (pushing it forward). Then manually adjust the tilting angle of the knives, and fix the desirable setting by means of the screws.







The screws helping the lateral fastening of the frames are located under and above the switch activating the pulling of the frame (indicated by an arrow on the image). Loosen the screws to increase the lateral tightening of the frames, and tighten the screws to reduce it. (the frames will move more easily)

#### **Operation**

Commence the work with the uncapper after the water and the knives have warmed up. Place the frames onto the feeding rail. Several frames can be simultaneously placed here. Activate the vibratory knife. Activate the feeding chain, and adjust the necessary speed.

Check the feeding chains for their tension before each use, as its excessive tension hinders the feeding of the frames. If they are

excessively loose, it may result in jumping of the chain links on the chain sprocket. Adjust the tension of the chain by means of the screws indicated on the image.





# Cleaning, Maintenance

Clean it with clean, warm water, a cloth and a high-pressure water jet, without using chemicals.

Make sure that the machine is stored in a frostless place in winter, otherwise the water contained in them may cause the burst of the knives and the tank. If it is not possible to store it in a frostless place, then

fully drain the water from the system. Disconnect the hose ends from the knives to drain them.

## **Troubleshooting**

1. When the heating is switched on, the water in the container is warm, but the knives do not warm up.

The circulating pump may be defective. Deaerate the system in this case. The air bubble may be removed by restarting the water pump 3 to 4 times quickly one after the other, or by loosening the water hose and draining some water.

If you are not able to perform the troubleshooting process of the machine by yourself, contact us. We are glad to hear about your experiences regarding the operation of the machines. Your opinion is important to us, and we try to take it into consideration during our product development. Enjoy your work!

