

## Semi-automatic Uncapping Machine User Manual (FG-K-S, FG-K-B, FG-K-S-F, FG-K-B-F)



### Main parts of the machine

1. Frame stand
2. Frame clamps for regulation
3. Swipe
4. Knives
5. Knife adjusting screws
6. Knife distance regulation lever
7. Locking lever
8. Uncapped frame receiver
9. Treadle
10. Balance weight or tension spring
11. Wax collecting tub with filtering screens
12. Beehive holder
13. Frame cleaning edges

### Setting up the machine

Remove all packaging and please check if there are any fastening ropes or bands on the lower parts of the balance weight (10) and the frame stand (1). If yes, please remove them. When possible, place the machinery on a smooth and even ground. The uncapping machine operator shall work on the side of the treadle, which is the front of the machine.

Fasten the beehive holder stand (12) to the side of the uncapping machine properly. (The stand consists of two pieces: the footing and a square shaped frame made from hollows. Joint this frame to the machinery at the right place, and attach the footing to the bottom of the frame. The height of the sole components is adjustable.)

The uncapped frame receiver (8) can be on the back of the uncapping machine and it holds the uncapped frames in two rows. The receiver consists of two pieces: push them into the hollow section parts on the left and right side of the machinery in order to ensure that the uncapped frames hang up steadily but not too closely. The desired distance may be fastened by the screws on the hollow section.

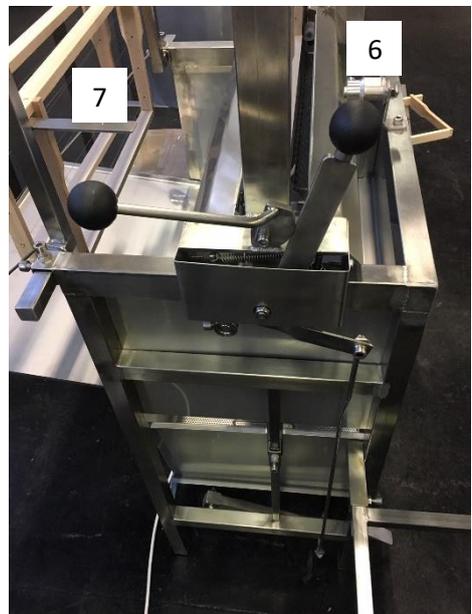
Next step: Install the drip tray. Insert the rectangular adjusted ends of the metal rods into both holes on the upper part of the tray from the top, and then hang the free ends of the rods on the frame stand. The two handles on the bottom of the drip tray leans on the uncapping machine stand.

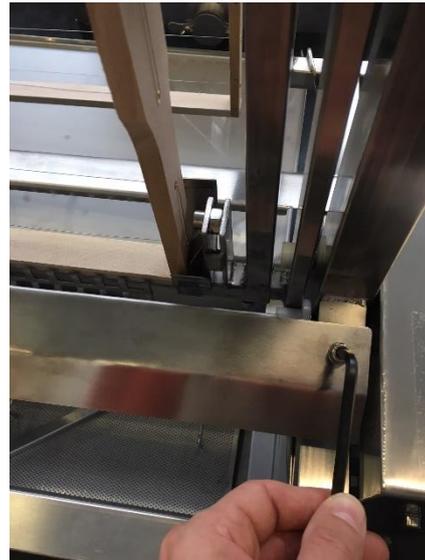
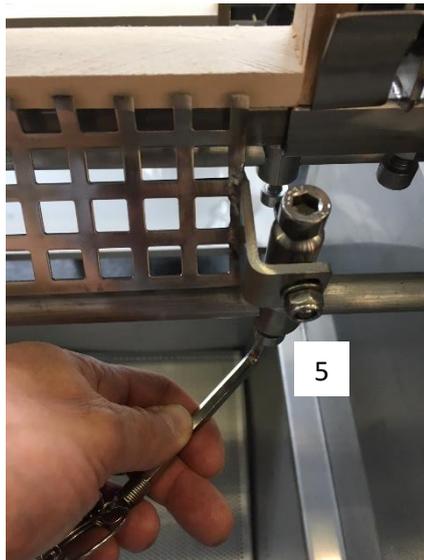
Place the wax collecting tub (11) under the machinery from side of the treadle to ensure comfortable operation whilst the falling wax pieces end up in the collecting tub.

The knife (4) and the setup of the uncapping machine are arranged by the factory to fit the size of the ordered frame. For follow-up adjustments, place a frame into the frame stand. Set the exact fitting with the help of the clamps (2).

If needed, push the treadle (9) or move the distance regulation lever back and forth to widen or narrow the distance between the knives. Use the locking lever to lock and unlock the knife distance regulation lever (7).

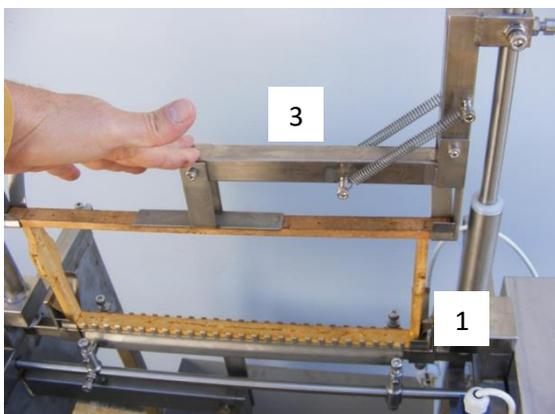
Power on the machinery after finishing the setup. Push down the upper lath of the frame (or swipe if there is one) strongly and evenly with your palm, meanwhile the vibrating blades on both sides start working. The blades or knives shall move only between the side laths of the frames. If not, remove the protective covering from the knives. You can move the knives sideways or set the angle after unscrewing the knife adjusting screws (5) on the right and left sides of the knives.





### Work process

Place the beehive on the beehive holder (12) so that you can easily reach the frames in the machine when standing in front of it. Take out a frame and remove the excess wax from the lower lath with the cleaning edges in front of the knives if needed. Then place the frame in the frame stand (1) for uncapping. Press the treadle during this action, will widen the distance between the knives, and placing the frame will become easier. Please check that the upper handle of the frames and the bottom laths fit into the stand properly. Make surhe that the whole plate on the bottom of the swinging member of the swipe (3) touches and leans on the upper lath of the frame, otherwise the uncapping will be more difficult and the frame lath might become damaged. Pushing the swipe down strongly and evenly will activate the vibrating blades on both sides. If there is no swipe to the machinery, push the frame only with your palm. Pushing with your fingers involves a risk of accidents! This way your hand will get caught on the protective covering of the knives. The knives cut the wax from the honey-cells evenly and slablike on both sides of the frame at the same time. Push the swipe until resistance is encountered to ensure the uncapping reaches the frame lath. Release the swipe at this point; the balance weight or tension spring (10) will put it back into the position of rest and stop the vibrating blades. (Swipe ordering is optional!)



Press the treadle again and remove the uncapped frame from the clamps at the same time, place it on the uncapped frame receiver and restart the process.

You can narrow or widen the distance between the knives while uncapping with the regulation lever in order to reach the optimum uncapping depth. The uncapped wax together with the honey will fall into the wax collecting tub under the machinery. The honey flows through the filtering screens to the bottom of the tub, from where it can be emptied or pumped out after uncapping.

### **Additional tasks for devices with liquid heated knives**

Pour clean water into the metal tank atop before use, then place back the plastic lid of the tank. Make sure that the hole on the cap is not plugged; if yes, clean it. Make sure there is no water leak at the joints of the knife and the water tank. Tighten the connecting clamps if needed. Turn on heating and wait until the knives warm up. Set the desired temperature with the controller. Make sure not to overheat the blades! Water temperature is adjustable between 0-80 °C. The ideal water temperature lies between 40-60 °C.

The heating operates in a closed circuit system; therefore, the water will not touch the honey, only heat the surface of the knives from inside.

Check the water level in the tank once in a while and top it up if needed. Let the water out from the whole system through the water skins before winter and freezing weather conditions to avoid any damages to the machinery.

### **Cleaning and maintenance**

Remove any wax sticking to the blades while working with a metal plate. Please be careful while cleaning the knife, its blades are extremely sharp, which could lead to accidents.

After finishing the work, clean the uncapping machine with hot water and some detergent, using a soft flannel cloth or spung. Lubricate movable parts and screws preferably once a year.