

Warwick and Leamington Beekeepers: Extraction Unit Manual

Important:

1. IT IS RECOMMENDED TO HAVE ONE OTHER PERSON WITH YOU AT ALL TIMES
2. Please sign in before you begin.
3. Wear appropriate Personal Protective Equipment (PP): consider:
 - a) Eye/face protection – visor
 - b) Rubber gauntlets/thick washing up gloves
 - c) Apron
 - d) Wellington boots.
4. Washing up liquid, blue towels, black bin liners, salt and plastic wool pads are provided at the unit. If anything is close to running out, please contact Clive Joyce (07792 222251/01926 858 528). After use, put the kit back in its designated place, secure the Extraction Unit and leave everything for use by the next member.
5. Please take your waste home with you in the black bin liners provided.
6. Sign out after you have finished.
7. Cleaning times are different for each piece of kit -see details for each item. Please allow enough time for cleaning.

In case of difficulty please contact: Clive Joyce (07792 222251/01926 858 528). If Clive is not available, you will have been notified.

In case of emergency please dial 999.

Location of the Extraction Unit is:

Hurst Farm

Crackley Lane

Kenilworth

CV8 2JW

Grid Reference: 52 22' 33.53" N 1 39'55.89"

Using the What 3 words App, the location is: grape.front.fans.

A. Super warming cupboard

The cupboard is provided with a maximum temperature ceiling of 40 degrees and is not a honey melting cupboard. Warm honey can be extracted far more efficiently than cold honey.

The cupboard has capacity for 10 supers.

Wooden spacing laths are provided to allow air circulation between supers.

Remember to switch off the warming cupboard after use.

Please clean the spill tray after use, by running it under a cold water tap.

TIME TO CLEAN: 10 minutes.

B Api Melter

This apparatus has the capacity to extract honey (without heat damage to the honey) by melting any honey and wax cut out or left in the frames.

Method

1. Place the wooden rack inside the Api Melter on top of the inner tray.
2. Charge the rack with full super frames on both levels in the rack.
3. Close the lid. **ENSURE THE LID STAY (at the rear right of the lid) IS DISENGAGED**
4. Set temperature controls: top at 70c, bottom at 40c.
5. Switch on both heaters at the wall (Ensure that the circuit breaker -RCD- is on)
6. Leave for 3 to 4 hours and then check inside to ensure all is liquid. Turn off heat. Lift lid (about 3"/5cm)
7. Leave for 1 hour to cool (the wax should now be solid).
8. Place your honey Bucket under the tap – run honey into buckets (more buckets may be required) , it may aid the speed of processing if blocks are placed under the wheels on the opposite to the tap so the Apimelter is sloping towards the tap.
9. When empty of honey, remove the blocks , set temperature top and bottom to 90c and switch on both heaters. Leave until and the wax is liquid and run into receiving bucket.
10. Shut tap.

Api Melter Cleaning Instructions

1. Wear thick rubber gloves eg *Marigold*.
2. Remove inner tray and while still hot use scraper to remove residue waste. Take outside
3. Using the jet wash thoroughly wash off all traces of wax.
4. Main body: with the tap closed and when cool, fill with cold water having 4 cups of salt added. Agitate then leave for as long as possible. The longer the mixture is left the more the brine will penetrate the wax and propolis.
5. If there is stubborn residue use plastic pad.
6. Flush thoroughly with clean water and dry with blue paper towels (in the unit).
7. Leave with tap open.

TIME TO CLEAN: 20 minutes plus waiting time (may be overnight): bear in mind you may need to return the next day.

C Uncapping tray

What is it: to remove wax cappings in order for the honey to be removed.

Before use: This unit operates at very high temperatures and can cause serious injury if care is not taken. The unit is heated with an electric immersion heater in a water jacket.

How to operate

1. Ensure there is enough water to cover the immersion heater. The filler point is located at the right hand side under the circular lid. Do not overfill.
2. Plug in to power. The unit will take about 20 minutes to warm up.
3. Place separating bucket below the outflow from the uncapping tray. Place the wooden stretcher across the tray to support your frame at one end.
4. Lean the frame at an angle to allow the capping to drop onto the hot surface when cut with the uncapping knife. The best results are obtained using a short quick sawing cut.
5. After removing the cappings , transfer the frame to the extractor.
6. Cappings will melt on to the tray and run into the drainage slots running down the tray.
7. Molten wax and honey should drain through the hole in the bench down into the separating bucket.
8. There are 2 exits from the bucket, one for the honey and one for the wax.

How to clean:

1. Wear thick rubber gloves eg *Marigold*.
2. Remove all woodwork and wash in cold water. Leave to dry.
3. The coarse filter situated at the bottom of the tray can be cleaned with boiling water from the water heater.
4. Using the plastic wool pads and water, wipe the tray, pushing the waste down out to the outlet hole in the table and into a slop bucket. Using a small stick and a wad of paper, clean out the tray slots. Do not tip the slop bucket down the sink but into the gully outside the yard.
5. When all is clean, rub down the tray with the blue paper towel.

TIME TO CLEAN: 15 minutes

D. Frame cleaning/sterilising

The Branch organises a frame cleaning weekend at the end of the beekeeping season where members indicate their preferred day and time, plus the number of frames that need cleaning. The branch will then schedule the session and arrange for the frame cleaning tank to be set up and frames cleaned.

The branch will be in touch with dates for these sessions.

To prepare your frames for cleaning, please do the following before the session:

Clean as much wax out of your frames as you possibly can.

E Frame radial extractor

The activating control lever is identified by its lollypop shape lever situated at the rear of the motor. Ensure this lever is in the upright position . IF THIS LEVER IS MOVED TO THE RIGHT FROM THE UPRIGHT THE CAGE WILL REVOLVE CLOCKWISE. IF MOVED TO THE LEFT IT WILL REVOLVE ANTICLOCKWISE. **IT WILL CAUSE IRREPARABLE/PERMANENT DAMAGE TO THE GEARBOX IF THE CAGE DIRECTION IS CHANGED WHEN THE CAGE IS SPINNING.**

ENSURE THE TAP IS CLOSED BEFORE YOU START.

How to operate

1. Load the uncapped frame into the extractor with the top bar of the frame facing outwards. Ensure the bottom and top lugs are sighted into the slot in both the bottom and top ring of the revolving cage.
2. Repeat until cage is full . You may need to balance out the frames around the cage.
3. Before switching on move the cage round by hand to insure clear movement.
4. Plug in and turn on the power at the wall.
5. Switch on the power switch on the extractor (square switch on the rear of the motor)
6. Close the lid (When closed the hinge side rail closes against the micro switch attached to the central spar).
7. Move the control lever about a quarter inch/ 5mm to the right and let the speed build up. Run for a couple of minutes then increase the speed using the control lever in 5mm moves , until your desired speed is reached. (Care must be taken not to use excessive speed as the frames may collapse.)
8. Run until the frames are empty (judge this by removing a frame & checking the weight.)
9. Care must be taken not to allow honey in the bottom of the tank to rise above the small bund wall around the lower bearing of the extractor axle.
10. Run off your honey by opening the drum tap at the base on the extractor. You may like to use the conical strainer as a first strain straight into your bucket.
11. To drain , tilt the extractor forward and place wooden blocks under the rear leg.

How to clean:

1. Turn off the power and unplug from the mains.
2. It may be easier to move the extractor to the doorway and face the tap outside.
3. Cleaning may be easier if the cage is removed from the extractor. See below.
4. Only use cold water. Ensure the tap is closed. Tip in two buckets of water and one cup of salt. Wash around using a clean cloth, taking care to thoroughly clean the bottom seam. Let out the salt water, rinse with cold water, allow to drain. Wipe down with blue paper towel.

Cage removal

1. Pull out the red pin connecting the top of the axel to the motor.
2. Undo and remove the two red bolts holding the centre spar to the drum.
3. Remove the back Perspex cover.
4. Holding the cage in place, lift off the centre spar with the motor still attached and lift away from the top of the axle. (*Care must be taken: this is very unstable-the lid will swing about.*)
5. Lift out the cage (*mind the sharp edges*)
6. You can now clean the drum unhindered and wipe down the cage.

Reassembly

1. Dry the inside of the bottom axle bearing with an absorbent cloth. (**Ensure the ball bearing is present, and in place - situated in the bottom of the receiver for the axle.**)
2. Lower the cage into place. Relocate the axle into the top housing and replace the pin , two bolts and tighten the thumbnuts hand tight.
3. Wipe down the outside of the drum and leg.
4. TEST RUN to ensure all is well.
5. Leave with tap open.