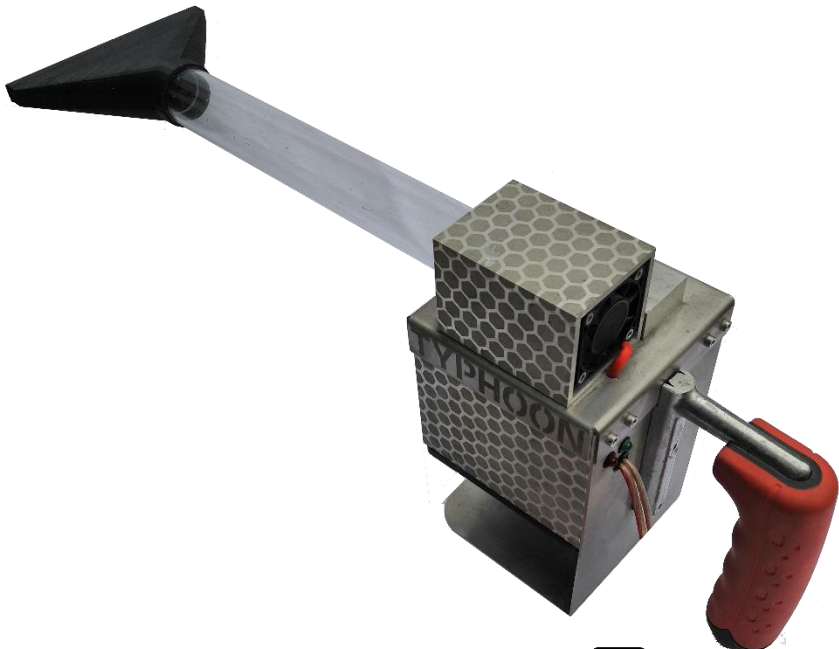




TYPHOON

(Professional oxalic acid vaporizer)

INSTRUCTION MANUAL



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What you need

- Oxalic Acid (OA) crystals and measuring cup for crystals
- Oxalic Acid vaporizer - TYPHOON
- Electronic timer or stopwatch
- Mask approved for Oxalic Acid fumes
(for example this one from 3M OV/N95)
- Eye protection – protection glasses
- Acid resistant gloves
- Cloths to block entrances
- Power source (for example car battery 12 volts)

Safety instructions

- Always wear your mask, eye protection and gloves.
- Avoid skin contact with crystals, as this may cause burns.
- More information on oxalic acid safety data sheet

Operating instructions

1. Put a maximum of 3 grams of oxalic acid in the syringe. N Insert the plunger (syringe) with the acid into the stand and press it lightly with your hand. This compresses the acid, where 1 ml corresponds to 1 gram. Repeat for each syringe.



2. Connect the vaporizer to a power supply (12 V).. All LEDs will be lit (red and green LEDs) and the fan will blow.

3. If you have the required amount of acid in the syringe, insert it into the TYPHOON (see white teflon ring).
4. Wait until the red LED goes out. It indicates heating of the evaporating chamber. The warm-up takes approximately 5 minutes from the moment the power supply is connected (the time depends on the age and charge of the car battery).



5. Insert the evaporator outlet into the bee leaflet (or eyes).
6. Block the other inlets with a cloth (prevent steam escaping).
7. Press the required amount of acid into the TYPHOON chamber by applying light pressure to the syringe plunger. 1 ml on the syringe corresponds to approximately 1 gram of compressed oxalic acid. E.g. a bee colony with two fully occupied extensions 39x24cm needs 1.5 - 2 grams for treatment.
8. Add a maximum of 2-3 grams of compressed acid per evaporation and wait approximately 30-40 seconds for evaporation to occur. The red LED will go out during evaporation and light up again. If the red LED is lit, the chamber is heated to the desired temperature. This temperature is factory set to 200-240 °C.
9. If you need more acid, simply replace the syringe with a full one.

Conditions of use

- Carry out the treatment in still air at ambient temperatures above 5 °C.
- For better contact of bees with the substance, apply it in the evening.
- It can be applied only in the inter-bed period or in the case of compartments and swarms from which no honeycombs will be taken.
- The application does not work under the capped fetus.
- After 7 - 10 days, repeat the whole process at least 3 times.
- Repeat the procedure for three weeks, as acid fumes do not affect the mites in the fetal cells..
- The next day after treatment, count the number of mites on the hive pad. Mites fall down after application for another 2-3 weeks.
- Spring healing can be done only after the first flight of bees.

- Another application is recommended in the period from May to June.
- Autumn retreatment can only be performed during the period without bee brood in the months of November to December.
- The treatment should be combined with the evaporation of formic acid using equipment designed for this purpose.

NOTE: At lower ambient temperatures, for example in autumn, the fumes are more visible.

After finishing work

1. Disconnect power source and allow the TYPHOON to cool down for 10 minutes.
2. Removed all cloths.
3. Rinse the white teflon ring with lukewarm water to remove residual oxalic acid. This will avoid the problem of inserting the syringe with the acid when reusing the TYPHOON evaporator.
4. At the end of the treatment season, it is good to rinse the TYPHOON under a stream of water, including the chamber.
5. To evaporate the rest of the water and dry the chamber, turn on the TYPHOON for two cycles.
6. Ensure that the TYPHOON is cool before reusing or storing.

Technical parameters



- DIMENSIONS (LxHxW) : 200 mm x 100 mm x 200 mm
- DIAMETER of transparent plastic tube: 30 mm
- WEIGHT: 1000 g
- POWER SOURCE : car battery 12V DC
- ELECTRIC POWER : 150 watts (the device contains 4 heating cartridges, each with a power of about 40 watts)
- MATERIAL : stainless steel + plastic

Package contents

- 1x TYPHOON - professional oxalic acid vaporizer
- 1x black adapter
- 1x transparent plastic nozzle
- 1x wooden syringe rack
- 5x modified syringe 5ml
- 1x white teflon ring
- 1x instruction manual

Notes

