

User manual / Recommended action

velutina Steam EX®

User manual / Recommended action

velutina Steam EX®

1. Transport

Please follow the applicable legal regulations for transport and load securing. Make sure to always secure all your equipment during the trip. This protects the devices and accessories from damage and prevents the load from moving uncontrollably while driving.

2. Steam Generator

• Carefully read the manufacturer's operating instructions and follow all guidelines to avoid damage to the device.
• Follow the manufacturer's care, maintenance, and service instructions.
• Have repairs carried out only by qualified personnel.
• Place the steam generator on as flat and stable a surface as possible and operate it only in this position.
• The steam generator should only be operated by trained personnel.
• For operation, the steam generator must be connected to a power source. If you use a generator that is independent of the grid, be sure to follow the device's user manual!!
• Make sure the diesel tank is not overfilled and that no fuel can escape into the environment.
• Secure the steam generator against slipping during transport. The attached eyelets can also be used for this.
• Use only tap water. Distilled water is not suitable. Very hard water will lead to more frequent descaling.

3. Carbon Tubes

• Do not work during thunderstorms.
• Keep a safe distance from electrical lines, as carbon conducts electricity. WARNING: Danger to life!!
• Do not throw the carbon tubes or stomp on them.
• Avoid bending the carbon tubes too much.
• Do not work in very strong wind. The lance is then hard to control. After stabbing into the nest, there is a risk that it may break prematurely from the movement of the lance and not all animals in the nest may be present or may not have been killed yet.

• If possible, secure the lance in the stand early.
• Wear heat-protection gloves while operating (caution: risk of scalding from hot water or steam!!).
• If possible, direct any condensate through a hose to the ground.
• Clean the carbon tubes with water after suction operation if they are dirty, especially if the closures no longer seal properly.
• The pipe closures can shift slightly due to dirt or mechanical stress. If a closure doesn't snap securely into place right away, the position of the closure clip can be gently adjusted until it closes properly again.

4. Preparation for the Operation

• Wear personal protective clothing against possible hornet stings (e.g., beekeeper suit with hat) (see point 8)
• Inspect the nest and choose the safest approach side.
• Secure your operation area extensively and clearly against bystanders. (see point 9)
• Check the local conditions. For example, with trees, look at which branches can serve as support or guidance for the lance; with buildings, look for support options on balconies, parapets, or directly on the facade.
• Use the flexibility of the carbon lance to safely reach even hard-to-access nests.
• Choose a suitable and stable spot for the stand and the steam generator.
• Check the water and diesel levels before turning on the steam generator.
• Then turn on the steam generator according to the manufacturer's instructions.
• While the steam generator is heating up, you can already start assembling the carbon lance and make efficient use of the operating time.

5. Assembling the Steam Lance and Preparing for Steam Operation

1. For assembling and aligning the lance at larger lengths, use the supplied bike repair stand (read the assembly instructions included). Do not clamp the tubes too tightly in the holder.
2. Connect the desired number of carbon tubes (e.g., four to five pieces) and attach the steam tip.
3. Align the lance.
4. If necessary, secure the lance in the stand holder. Keep in mind that during work, the lance will need to be pushed further up and inserted deeper into the nest.
5. Push the lance further up and gradually add more carbon tubes from below.

6. Move the lance right up to the nest.
7. Connect the steam gun to the adapter (condensate adapter) on the lance.
8. Let the steam generator heat up completely and use the steam gun until only dry steam comes out.
9. Connect the adapter (condensate adapter) to the lance only afterward. This prevents larger amounts of condensate from getting into the carbon lance. **Warning: Do not transport the steam generator with the condensate adapter attached; always detach the adapter from the steam gun for transport!**
10. Turn the steam on again until steam comes out of the steam tip. At first, a small amount of condensate may still come out of the lance, which will be discharged directly through the condensate drain on the lance.

6. Steaming the Nest

1. If you have followed the previous instructions, you can start the treatment.
2. As soon as the steam is coming out of the steam tip evenly and fully, and the tip is right in front of the nest, carefully insert the metallic tip from underneath into the nest.
3. Usually, the nest can be pierced easily. The steam tip is designed to easily penetrate the brood combs.
4. Make sure not to let the tip come out on the opposite side of the nest. If possible, take the size of the nest into account.
5. Steam the nest without shaking the lance. The lance can be guided freely (short lance length) or fixed in the holder of the stand.
6. After sufficient steaming time, the nest ideally collapses on its own. It is recommended to maintain the steam flow until the nest breaks on its own or you help loosen it with a gentle tap using the lance. (The hornets and their brood are already dead by then)
7. Usually, the brood combs break away from the nest, while parts of the outer nest casing remain at the original site.
8. Once the nest has collapsed, you can stop the steam flow.

7. Switching to suction mode/Sucking

Note: Vacuuming still-living flying hornets (guard hornets and returning hunters) is desirable in the immediate residential area, but not necessary in open fields or in/near forests, as the insects cannot rebuild a reproductive colony without a queen and will die within a few days to a few weeks.

1. Take apart the carbon lance in reverse order.

2. In the meantime, store any materials and equipment that are no longer needed for further use. During this time, the free-flying hornets usually gather back around the destroyed nest.
3. Collect the nest remains on the ground as completely as possible to minimize the spread of the comb's scents.
4. The nest remains can be disposed of in organic waste or compost.
5. Any larvae or hornets lying on the ground are usually picked up by birds in a short time.
6. Wrap the steam or high-pressure hose (10–20 m) around the handle of the steam generator to save space.
7. Prepare the vacuum and the vacuum hose for operation.

Note:
Vacuums that were previously used to suck up live hornets may carry the hornets' warning pheromones. Therefore, attach the vacuum to the site as close as possible to the start of the suction operation to avoid unnecessary reactions from flying hornets.

8. Reassemble the carbon lance without the steam spike and make sure you have enough room to move it up and down.
9. Connect the suction hose to the vacuum and to the transition to the carbon lance.
10. Often, it's enough to just hold the lance directly over the former nest location. The flying hornets will usually be sucked up on their own.
11. Help the suction process by moving the lance slowly up and down or by slightly swinging it. This way, nearly all hornets can be vacuumed up.
12. Take plenty of time to suck up as many free-flying animals as possible.
13. After finishing the suction process, disconnect the suction hose between the vacuum and the carbon lance. Keep the vacuum running while doing this.
14. Then reassemble the carbon lance.
15. Stun the hornets in the vacuum with a short burst of CO_2.
16. After that, empty the vacuum and burn the hornets. (CAUTION when handling open fire and flammable gases!!!)

8. Personal Protective Equipment

The velutina Steam EX system is so powerful that during steaming, only a few hornets may leave the nest and all the others, along with their brood, are killed quickly. Based on previous practical experience, attacks during nest removal were rarely observed. However, a residual risk can never be completely ruled out.

For this reason, we generally recommend wearing appropriate personal protective equipment, especially a beekeeper suit with suitable protective gloves and sturdy footwear.
Keep suitable first-aid supplies for insect stings on hand.
If you get stung during the activity and start feeling unwell or show signs of an allergic reaction (e.g., difficulty breathing, dizziness, swelling, or circulatory problems), call emergency services at 112 immediately and make sure to point out that it's due to insect stings.

9. Restricted Area

• Cord off the operation and danger area generously.
• Even though usually only a few hornets fall to the ground during control efforts, this can vary depending on the size and strength of the colony. Therefore, set the size of the restricted area according to the specific situation.
• Close the windows of nearby buildings within the danger zone. Hornets can perceive people behind windows as a threat and may repeatedly fly at or attack them.
• Make sure there are no vehicles or other sensitive items under the nest that could be damaged by falling nest debris or branches.
• For operations in public traffic areas or on roads, coordinate the necessary measures early with the responsible traffic authority or the public order office, and secure or block off the area if needed.

Note:

Included in this user manual are the provided instructions and the safety warnings contained within them for the IDROMATIC steam generator and, if applicable, the HONDA generator, the KÄRCHER vacuum, the bicycle repair stand, and the flame device.

If you have any questions of any kind, the team at velutina Steam EX GmbH is here to help you with advice and assistance.

Thank you very much for your trust in the velutina Steam EX® system.