



# Nivola Sulphur Evaporator

## General instructions **ENG**



### Introduction

Thank you for purchasing the Nivola Sulphur Evaporator. Read this manual carefully to learn how to operate and service your Sulphur Evaporator correctly. Failure to do so could result in personal injury or equipment damage.

This manual should be considered a permanent part of your Sulphur Evaporator and should remain with the machine when you sell it.

The primary purpose of the Sulphur Evaporator is to vaporize sulphur, one of the best methods for the prevention and control of mildew. Properly used, in professional greenhouses, the Sulphur Evaporator provides safe and crop disease suppression. Make sure that the Sulphur Evaporator is used according to the instructions. Contact your dealer if you have questions about the use.

Install and use the device with care. Follow all local ordinances and codes. Keep to all local fire safety regulations. Ensure the fire safety of your premises. Failure to comply with the precautions and instructions provided with this device, can result in serious bodily injury and property loss or damage, such as e.g. short circuit, fire, electric shock, etc.

Keep these instructions!!

### Assembly

**Caution:** The alu cup has to rest directly on the element and the inner box must be fit under the collar of the alu cup.

Instructions for assembling the Sulphur Evaporator:

1. Take out the alu cup and the inner box.
2. Screw the element into the fitting.
3. Place the alu cup on the inner box, so that the top of the inner box fits into the collar of the alu cup.
4. Place the inner box in the red outer box, so that the alu cup rests directly on the element.
5. Possibly (slightly) tighten with the setscrew.

### Use

It is not allowed to modify or rebuild any part of the product.

Never use the Sulphur Evaporator in spaces which do or may contain volatile or airborne combustibles or products such as gasoline, solvents, paint thinner, dust particles, unknown chemicals, etcetera. Only persons who can understand and follow the instructions should use or service this device. If you need assistance or information, please contact the dealer. Not for home or recreational use.

When using electrical appliances, basic precautions should always be followed to reduce the risks including the following:

#### Suspension

- The evaporator should be suspended vertically from the bracket, in a free space, where as little as possible human contact will occur.
- Make sure no strong winds or other movements can catch the evaporator. Strong movements can tip hot sulphur over the edge.
- The device should be suspended from a firm and stable construction part.
- Ensure that the power cord is suspended freely.
- Arrange cord away from traffic area and where it will not be tripped over.
- The device should not be suspended above water or under a drainage.
- Do not use outdoors.
- The Sulphur Evaporator's power must be remotely switchable.
- Prevent inadvertent switching on of the evaporator.

#### Use

- Use proper personal protection equipment (safety glasses, gloves and long-sleeved clothes protection).
- Unplug the Sulphur Evaporator and let it cool down before refilling. Detach the alu cup, clean it and refill it with a **maximum of 2 cm (0,7 inch)** height, to prevent from an overflow. Then replace the alu cup.
- The height setting of the alu cup will lower the sulphur evaporation. For an optimal evaporation place the alu cup directly on the element.
- Only adjust the alu cup when cooled down and when the sulphur is congealed.
- Do not enter the greenhouse when the Sulphur Evaporator is switched on. Make sure the greenhouse is completely ventilated (minimal 2 hrs) before entering.
- Only apply the original Nivola-supplied alu cup to place the sulphur into. Its shape assures the safe and proper operation of the evaporator.
- The Sulphur Evaporator can be operated between 0 and 40 degrees Celsius (32 to 104 degrees Fahrenheit).

#### Do not

- Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions, has been dropped or damaged in any manner. Return device to authorized service facility for examination, electrical or mechanical adjustment.
- It is not allowed to modify or rebuild any part of the product.

#### Sulphur vaporization

The Sulphur Evaporator is intended to evaporate sulphur of 99,9% purity only (powder, granulate- or pipe Sulphur). Do not use it for other purposes. The products that are grown with the use of the evaporator may contain traces of sulphur. Inform your customers about this.

- Only apply Sulphur of 99,9% purity in the alu cup, with a **maximum of 2 cm (0,7 inch)** height, to prevent from boiling over.
- Do not apply other products in the Sulphur Evaporator.
- We recommend to evaporate during the night when there are no persons in the greenhouse.
- For the determination of evaporation-times and -concentrations, consult your growth advisor.

#### Safety

Any use, other than the one described, may damage the product. Moreover, this involves hazards such as e.g. short circuit, fire, electric shock, etc. It is not allowed to modify or rebuild any part of the product.

- Do not enter the greenhouse when the Sulphur Evaporator is switched on. Make sure the greenhouse is completely ventilated (minimal 2 hrs) before entering.
- The Sulphur Evaporator can be operated between 0 and 40 deg Celsius (32 to 104 degrees Fahrenheit). Operations at higher than prescribed temperatures and power may cause unwanted gasses or even fire.
- Protect the Sulphur Evaporator from water and other liquids. Nivola can provide a pendant with cover (see 'Accessories').
- Do not enclose the appliance while it is functioning in order to avoid overheating with the attendant risk of fire. Do not touch the openings in the product; do not put objects in the openings.
- In case of human contact with the sulphur, strictly follow your sulphur supplier's instructions.
- This appliance is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.
- The device should be suspended at least 1 meter below the screen cloth.
- Wash your hands after touching parts of the Sulphur Evaporator or the sulphur.
- The greenhouse products will contain traces of sulphur. Inform your customers about this.

#### Electric

The Sulphur Evaporator is designed for powering by 110V/60Hz respectively 230V/50Hz. Ensure the power indication on the device matches your power supply.

Check the power indication on the ceramic heating element before mounting in the evaporator.

The device is designed according to safety class 1. It must only be operated on a mains socket with earthing.

Check that neither the appliance nor the power cable has been damaged in any way during transportation.

Hold the plug by the intended gripping surface when pulling it out of the socket. Do not pull the cable. The power cable must not be pinched or damaged by contact with sharp edges. Do not place any objects on the cable, and do not allow it to become kinked.

If in doubt about how to connect the device correctly, or should any questions arise that are not answered in these operating instructions, contact your dealer. Please consult a specialist if you have any doubts regarding the use or safety of the product.

A Sulphur Evaporator should always be connected to a proper electrical socket in perfect working conditions. A Sulphur Evaporator connected to a damaged electrical socket may cause overheating of the power cord, or the risk of fire. Do not use any extension cables, no loads and no dimmers or such like. It is normal for the evaporator's plug and cord to feel warm to the touch.

To disconnect the appliance, remove the plug from the socket.

Please remember that electrical sockets also deteriorate due to aging and continuous use: check periodically if signs of overheating or deformations are visible on the plug.

#### Electrical guides

The Sulphur Evaporator satisfy the strictest European standards:

- Low voltage equipment directive 2006/95/EC
- ECM 2004/108/EC

#### Maintenance

Have the Sulphur Evaporator checked periodically for safety by qualified personnel, to ensure the safe use of the device.

- Always remove the plug from the power socket and allow the device to cool down before maintenance.
- Periodically check the alu cup for damages and cracks that may cause leakage.
- Periodically check the ceramic heating element for sulphur contamination and damages.
- Periodically check the suspension.
- Periodically clean the air flow openings.
- Periodically check out your entire electrical installation for proper operation.
- In case of malfunction, do not try to repair the device yourself: it may result in fire hazard or electric shock. Contact your dealer.
- Only use original Nivola parts.
- Should the device not be in use over a certain length of time, store it in a dry place.

#### Accessories

##### Alu cup

The design of the cup prevents that the sulphur will be in direct contact with the heating element. Safety first! The cup has a broader overhanging rim that drops easily over the inner box.

##### Cover

The cover protects against encroaching pollution and reduces sulphur deposit on screen fabric or glass.

##### Pendant

The pendant raises the tilting point of the Sulphur Evaporator. This contributes greatly to the stability. A valuable preventive resource!

##### Only use original Nivola parts!

#### Limited warranty

##### What does the warranty cover?

We guarantee that each device is free from defects in materials and is made by craftsmanship. Our commitment to this guarantee is limited to repair of defective parts at our factory.

Warranty is provided by your dealer if the equipment is operated and maintained in accordance with the requirements described in this manual.

##### What is not covered by warranty?

This warranty does not cover defects or damage to the device that emerged from repairs or changes to the appliance outside our factory. The warranty is lost if the damage is caused by not following the user manual. Also this warranty does not cover devices that are used incorrectly, misuse, negligence and/or exhibit an accident.

##### How long is the warranty?

This guarantee is valid for two years (in according to the European law) from date of purchase, which is indicated on your receipt or invoice, and applies only to the original purchaser.

##### How do you get service?

When there is a faulty device, you should contact your dealer.

##### Expulsion Procedures

Destroy the Sulphur Evaporator in accordance with the local regulations.

#### Contact

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