



# Gavita HortiStar 1000 DE EU reflector

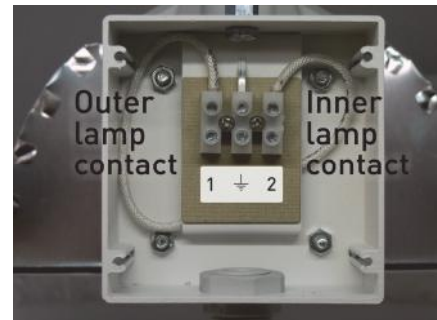
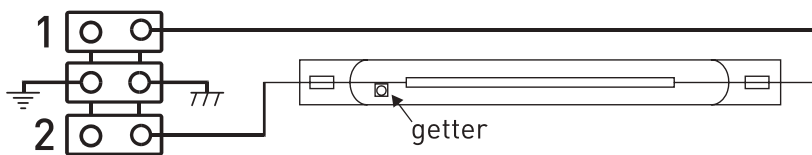
## Gavita HortiStar 1000 DE EU reflector

### Wiring the reflector

#### Be sure to comply to local installation regulations

When wiring HID lamps make sure that the lamp cord you use is tested and approved for high voltage (5 kV) ignition pulses and high temperature. Always use stranded wired and use cable end sleeves to protect the strands in the screw terminals.

Internal wiring diagram:



**Do NOT connect any of the ballast outputs to the middle (ground) terminal.** Connecting the ground wire to the center terminal only provides protection when the ballast is also plugged into a grounded receptacle with a grounded cord and plug. This is the recommended way of installation.

The left terminal wire (1) is connected to the lamp holder closest to the connection box, the right terminal wire (2) is connected to the lamp holder furthest of the connection box.

If you have an electronic ballast (such as our Pro-line remote ballasts) there is normally no phase or neutral wire, so the way you connect the two live wires to the outer terminals makes no difference. For fixed mounted magnetic ballasts it is advised to connect the phase wire to the center connection of the lamp, so to the screw terminal with the white wire (1).

To install the lamp cord:

1. Locate the cover plate of the screw terminal and remove the 4 screws. One of the screws has a tooth lock washer to make sure that the housing and the plate are electrically connected.
2. Feed the lamp cord through the opened cable gland. Do not tighten the cable gland yet.
3. Make sure the screw terminals are open and insert the cable ends completely into the screw terminals, tightening them with a screwdriver. Connect the yellow/green ground wire to the middle terminal which is connected to the metal housing, the other two (live) wires to the outer terminals. Electronic ballasts usually do not have a preferred way of connection the wires, but the left (longer) white wire in the box is connected to the lamp holder closest to the box.
4. **Before you replace the terminal cover you must tighten the cable gland first now.** Failing to do this now may rotate the cable inside the connection box, which can lead to loose contacts, malfunctions and sparks. Hold the inner washer with a spanner or pliers to prevent it from turning when fastening the cable gland. Make sure that the cable gland is as tight as possible, providing strain relief for the cable, while the wires are not twisted.
5. Only then replace the terminal cover and make sure you place the tooth lock washer at the same spot.



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### ■ Installing the reflector and lamp

The coverage of your reflector depends on the light levels you want to achieve and the output of your lamp. With a 1000W 2000 - 2100  $\mu\text{mol s}^{-1}$  lamp you can cover an area of 2 square meters (~22 square feet) with 900-1000  $\mu\text{mol s}^{-1}$  m<sup>-2</sup> average. The reflector has a rectangular (wide) throw.

**Keep your reflector away from combustible materials at all sides.** Use reliable mounting materials and keep your lamp cords away from the direct heat from the lamp and the reflectors. **Make sure that the lamp cord does not touch any hot parts of the reflector.** Make sure the lamp is clean and inserted correctly. Use light hangers or small chains to hang the reflectors at the correct height.

The recommended minimum distance to a crop:

750W lamp – 70 cm

1000W lamp – 90 cm

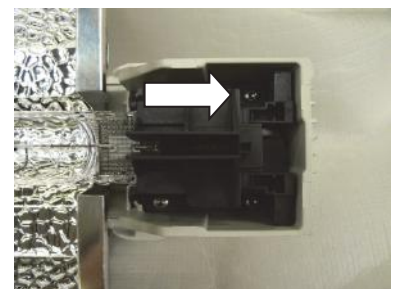
### ■ Lamp replacement

- Always install the lamp before connecting your ballast to mains.
- Always be sure to connect your lamp cord to the ballast before switching it on
- When changing the lamp always disconnect the ballast from mains by removing the mains plug. Let the lamp and reflector cool down for 20 minutes before changing as they can be very hot. When replacing a defect lamp without disconnecting mains from an electronic ballast the new lamp may not start: disconnecting the power will in many cases reset the electronic ballast safety circuitry.
- Only use lamps in this fixture that have been rated safe for open fixture use.

Only relamp with lamps that are suitable for an open reflector. When using MH lamps, use self shielding lamps. **Let the reflector and lamp cool down and disconnect the ballast from mains when replacing a lamp.** Use gloves to keep the lamp clean, as the lamp surface becomes very hot. Screw in the lamp firm, but not too tight to prevent breaking the lamp. Always check the center contact for damage when replacing a lamp.

### To take out a lamp:

- **DISCONNECT THE BALLAST FIRST**
- Open the lamp holders by sliding them outward. The lamp is now held by a metal spring at each side, though it is recommended to hold the lamp while opening the lamp holders to prevent the lamp from falling.
- Take the lamp out

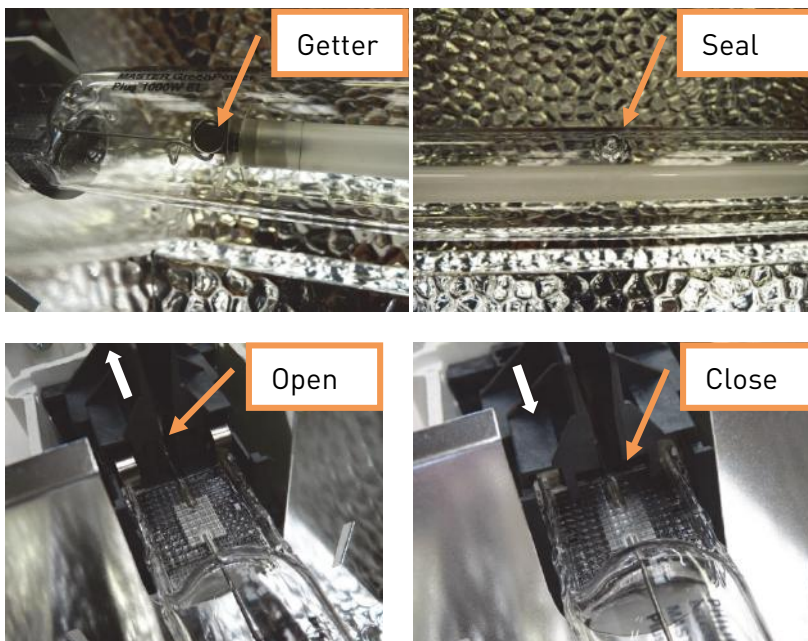


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To install a new lamp:

- **DISCONNECT THE BALLAST FIRST**
- Make sure the lamp is clean, wear cotton gloves and clean the lamp after installation with a dry soft cloth. Never use detergents to clean a lamp, use pure alcohol and/or wipe with a dry clean soft cloth.
- Make sure the **end wires are straight**
- Open the lamp holders by sliding them outward
- Install the lamp with the getter (see illustration) at the side of the ballast, with the glass vacuum seal pointed downward. Press the lamp in the fitting until the metal springs hold the lamp.
- Close the lamp holders by sliding them inward
- Wipe the lamp with a clean soft cloth

Be sure not to touch the reflective material of the reflector with your bare hands.

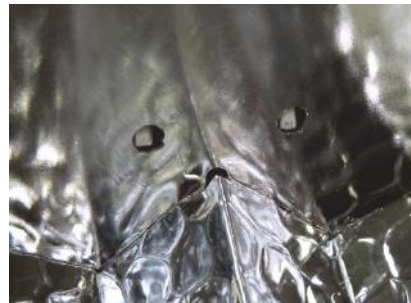
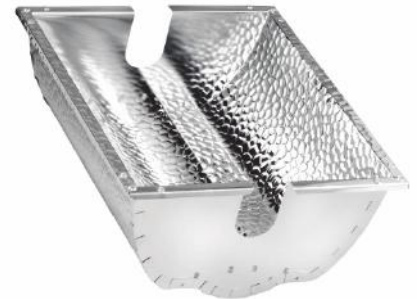


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### ■ Reflector replacement

The HortiStar HR96 reflector is a precision high efficiency reflector that should be handled with care. If it is damaged or deformed you should replace it. We recommend to change the reflector every year for optimal results. Replacement reflectors are available from your Gavita reseller.

To replace the reflector remove the lamp first. Pull up the lever at the end of the reflector bracket while holding the reflector at that end. The reflector will unlatch and can be removed now. When inserting the new reflector make sure the notches are in the appropriate holes. **Always let your lamp and reflector cool down first before changing the reflector to prevent injuries.**



*Using the lever to unlatch the reflector, aligning the notches with the reflector holes*

### ■ Maintenance

Keep the bracket clean from dust and dirt with a dry or damp cloth. When using a damp cloth please disconnect the power first. We recommend you check your electrical connections regularly: check if the plugs are inserted completely and don't show any (contact) damage, check if the wiring is undamaged and that the wire ends connected to the reflector are tightly secured in their terminals. For stranded wire always use cable end sleeves.

The Miro aluminum reflector should not be cleaned with any detergent or water, use a soft dry soft cloth to avoid scratching the material. Do not touch the reflective material. Replace the Miro reflector each year together with your lamp. Do not use sulfur vaporizers when lamps are operating and do not use sulfur vaporizers or water misters close to your reflectors. Sulfur and calcium deposit will damage your reflector and decrease the efficiency of your reflector.

You can not clean the reflector without damaging it. Wiping it carefully with a soft cloth is the best you can do. Never use polishes, detergents, sprays or normal tap water when wiping your reflector. If you need a damp cloth, use a completely clean soft cloth with demi water only, or pure alcohol.

We recommend to change your reflector once a year, together with the lamp.

### ■ Troubleshooting

If your lamp does not fire up first check if the lamp is inserted correctly before restarting. Then check all wires and connector. If all connections are correct and the lamp still does not start check the ballast or replace the lamp.

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## Technical specifications

Dimensions : 20.1" / 511 mm (length) x 9.6" / 244 mm (width) x 7.6" / 193 mm (height)  
 Lamp holder : Vossloh Schwabe k12 x 30s  
 Reflector : Gavita HortiStar HR 96 1000 DE Miro aluminium reflector  
 Lamp cord : Optional  
 Ambient temp. : 0-35° Celsius

Made in the European Union according to EN 60598-2-1

This reflector should be used below 2000 m above sea level.

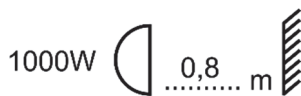
## Warning symbols explained



Warning: Use self shielding lamp only.  
Only use lamps that are suitable for open reflectors and have UV blocking glass.



Warning: Reflector temperature > 85° Celsius  
Do not touch the aluminum reflector when operating to prevent injuries.



Minimal distance to object 80 cm using a 1000W HID lamp  
Keep the lamp 80 cm from lighted objects to prevent fire risk.

## Warranty

GAVITA Holland warrants the mechanical and electronic components of this product to be free of defects in material and workmanship if used under normal operating conditions for a period of three (3) years from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use GAVITA Holland shall, at its discretion, either replace or repair the product using suitable new or reconditioned products or parts. For HPS lamps the warranty period is one (1) year from the original date of purchase. In case GAVITA Holland decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. three (3) years from the date of purchase of the original product. For service return the luminaire to your shop **with the original sales receipt**.

For more information about electronic ballasts please visit our website [www.gavita-holland.com](http://www.gavita-holland.com)