



## Ziegra PE-3 UV filter

### Main Features

- Kills 99.9% of micro-organisms
- Significantly slows down colonisation of the machine by bacteria
- Environmentally friendly technology with no disinfection by-products.
- Works 24/7 to protect the water supply
- Low running costs
- Fast acting, allows full flow without the need for tanks or reaction times
- Stainless steel reactor vessel for high resistance to corrosion and improved hygiene
- Conserves water, the UV process does not waste any water
- Low energy consumption

### Specifications

Model: Ziegra PE-3 UV Filtration Unit

Part number: ZUK9700055

Models applicable: All granular flake and nugget ice machines

Water: Mains water

Construction: Stainless Steel

Max. flow rate 0.7m<sup>3</sup> per hour

Power consumption 22W

Water inlet: 1/2" BSP male

Water outlet: 1/2" BSP male

Pressure range: 2 - 6 bar

Temperature range: 5°C to 40°C

Dimensions (reactor): 350mm x ø65mm

Packed dimensions: 106 x 106 x 600mm

Packed weight: 3.0kg

Kit includes: Stainless steel reactor vessel, 1 Pair reactor mounting brackets, QS370 quartz sleeve (pre-fitted), E330LS UV lamp (17W), Power supply.



**Never operate the UV lamp out of the chamber. Never look at the operating UV lamp without eye protection.**

## Installation



### INSTALLATION CAUTIONS

1. UV disinfection devices are designed to be installed on the cold water line only.
2. Install the UV disinfection system indoors in a protected area where the temperature does not fall below 4°C and the humidity level is low (to prevent condensation on the reactor chamber). This unit functions optimally between 9°C and 29°C.
3. Use PTFE tape on all plumbing connections. Do not use other sealants.



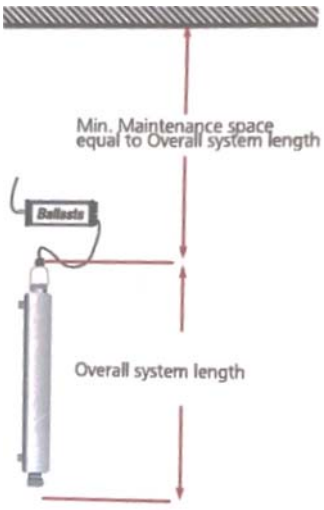
### Gloves before installation



The kit comes securely packaged in a cardboard box, open carefully to make sure you don't damage the contents.



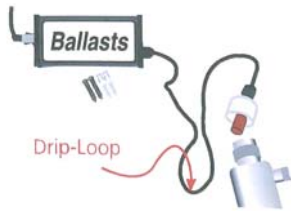
The kit contains: Stainless steel reactor tube, 1 pair reactor mounting brackets, Quartz sleeve, ballast controller box, mounting screws.



Select a suitable location in a dry well lit area, which provides enough room to perform routine maintenance for the disinfection system and its related components. UV system should always be located closest to the point of use. The system can be installed either horizontally or vertically although vertical is preferred. When selecting a mounting location, you must also leave enough space to allow for the removal of the UV lamp and quartz sleeve. Typically leave a space equal to the overall system length as shown in the diagram on the left.

Mount the system to the wall using the supplied clamps.

Various connection methods can be used to connect the water source to the system.



Mount the ballast controller horizontally on the wall using the supplied fittings either above or to the side of the reactor chamber. Ideally place the controller above the reactor and away from any water connection point to prevent water leaking on to the controller. Never mount the controller vertically with AC connector at the top of the controller to prevent moisture from running down the cord and causing a potential fire risk. Make sure you form a 'drip loop' in the power cord to prevent water from entering the ballast controller.

In order to optimise the UV radiation, please make sure the UV bulb is clean before installation. Clean with alcohol to remove any marks that are visible.



The spring and quartz sleeve are already installed in the reactor. Remove the 'window' from the end nut carefully making sure to retain the spring in the quartz sleeve.



Caution: Quartz sleeve and bulb are easily damaged. Please handle with care.



Carefully insert the UV lamp into the Quartz sleeve through the nut.



Remove the cable gland nut from the cover cap.



This will free the electrical socket from the cover cap.



Back the cover cap down the cable a little to give yourself some space to work.



Connect the electrical connector to the socket on the end of the bulb. This may require some force so please be careful with the bulb at this stage.



Slide the cover back into position making sure it slides fully into position.



Tighten the thumbscrew to lock the cover back on to the reactor end nut.



Re-fit the cable gland nut to the cover cap.

When all the plumbing connections are made, slowly turn on the water and check for leaks.

Allow the water to run for a few minutes to clear any air or dust that may be in the reactor.

Connect the power for start-up.

Do not remove the UV lamp from the chamber when applying electrical power.

*This system is designed for continuous operation and frequent switching will reduce the UV radiation and service life. Do not electrically cycle the UV unit more than three on/off cycles in any 24 hour period.*



## Plumbing Disinfection Procedure



The following disinfection procedure is generally accepted as being suitable for the disinfection of plumbing systems known to be contaminated. If you are uncertain about the effectiveness of this procedure you are advised to contact your local health authority responsible for water safety.

During the UV disinfection process, the only place disinfection takes place is within the reactor chamber. There is no residual disinfectant capacity. Therefore it is necessary to chemically disinfect the plumbing system prior to the initialisation of the UV system.

1. Turn the UV system shut off valves to the closed position.
2. The disinfection of the plumbing system is most readily accomplished by removing the 5 micron pre-filter cartridge and adding 250 - 500ml of a standard 5% concentration of unscented household bleach into the empty filter housing and re-attaching.
3. Verify that the UV system is connected to the AC power voltage and operating properly.
4. Turn the valves to the open position and let the water flow.
5. Run water through the system until you can easily smell the chlorine, catching the run off water in a tub. Close the valves and let the system sit for 30 - 60 mins.
6. Close the valves on the UV system. Open the valves and flush the system through thoroughly.
7. Once this is complete, shut the valves, connect the plumbing system to the ice machine and fill the pre-filter housing with the recommended amount of Ziegra sanitiser for your machine.
8. Open the valves and cycle the ice machine as recommended until the process is complete. Once finished discard all the ice and clean the ice delivery hose and any ice storage, cart, utensils etc that comes into contact with the ice. Once clean use Ziegra sanitiser to complete the cleaning of these items.
9. If the system is being installed on an ice machine that has already been contaminated by the water supply, then a full clean and sanitising of the machine should be carried out. Contact Ziegra for advice.



Hygiene +