

## UV Sterilization Lamp Questions & Answers

-  **How long will it take to sterilise my tank?**  
This will depend on the clarity (turbidity) of the water. The clearer the water, the faster the sterilisation will occur. We recommend that you leave the system on for 24 hours prior to using the water especially if it has water inside that has been standing for a while. Once the initial sterilisation has occurred, we recommend roughly an hour for sterilisation.
-  **If I have multiple tanks all joined, do all of them need a lamp?**  
If the tanks are connected in series (ie they connected one tank to another), then you only need to put a system in the last tank where you will draw off water. However, if the point where you draw off water is connected to a pipe that draws from all other tanks, then you will need to put a lamp in each tank.
-  **Does the lamp need to be in contact with the water in order to sterilise it?**  
No. The treatment radius is 2m regardless of whether this is air or water. The air however is sterilised immediately while water takes a bit longer as the UV moves through the water as a slower rate than through air.
-  **What can I do to prevent water that gets pumped in from a borehole from damaging the lamp and quartz sleeve?**  
We recommend placing the system off centre near the source of the incoming pipe. You may also put an elbow on the inlet pipe to divert water away from the lamp. Apart from the force of the water, particulates contained within the borehole water when pumped against the quartz sleeve can create a “sand-blasting” effect and may damage the quartz sleeve so it’s best that the water source does not spray against the system even if the flow is gentle.
-  **Can I turn the lamp on only when I need to sterilise the water?**  
We recommend leaving the lamp on 24/7 as turning it on and off shortens its life span.
-  **Is the water safe to drink if I use the lamp?**  
The system will eradicate bacteria, pathogens, moulds and yeasts. Stored rain and pre-filtered borehole water, treated with the system, can safely be used for domestic applications such as flushing toilets and showering. However, depending on the source of water, dissolved solids may still be present and therefore not fit for human or animal consumption. A final reverse osmosis system is recommended to ensure safety for human consumption.
-  **What is the power usage?**  
The lamp uses 80W on start-up however once warmed and running, uses around 50W.

**What is the daily power consumption?**

**Cost per Day (Rands) \*Note electricity tariff rates may differ**

$$\begin{aligned}
 &= \text{Power (W)} && \times \text{Running Time Per Day} && \times \text{Cost/kWh (R/kWh)} && /1000 \\
 &= 50 && \times 24 && \times \text{R2} && /1000 \\
 &= \text{R2,40 Per Day}
 \end{aligned}$$

**How will I know when the lamp needs to be replaced?**

The lamp should emit an even blue/green glow. If the lamp emits a very light blue or orange colour, it's time to replace it. It is important to wear protective eye wear when looking at the lamp.

**Can the lamp burn out when it's not in contact with the water?**

No, the lamp can work effectively in air as well as water. The quartz helps maintain the maximum operating temperature.

**Has the product been tested?**

A water analysis using the system was conducted by an independent SANAS accredited testing laboratory in Stellenbosch. The water was sterilised for the suggested 24 hours and results were as follow:

Heterotrophic Plate Count:	99.9% reduction
Total coliforms:	99.8% reduction
Faecal coliforms:	100% reduction
E-Coli:	100% reduction

**How often does the lamp need to get cleaned?**

The system may require maintenance depending on the source of the water that it is submerged in. Water containing dissolved solids may create a film on the exterior of the submerged tube, causing an obstruction for the UV-Light to pass through, which in turn reduces the germicidal efficiency of the lamp's performance. It is recommended that the first inspection is done 2-3 weeks after it has been put in operation. Make sure lamp power has been disconnected before opening tank. Carefully lift tank lid from tank high enough to see the lamp assembly. Visually inspected tube surface for build-up / debris. If surface appears clean tank lid may be placed back onto tank and power may be switched back on. Inspection intervals now changes to very 6-8weeks (if the source of the water does not change).

**Are there any warranties on the products?**

The lamp carries a 1-year manufacturer's warranty.

**Is the installation easy?**

Yes, the installation process is very easy and the step-by-step instructions can be found in the installation manual supplied when you purchase the product.