

## UV WaterBox

### Sweet water: dirty and dangerous to drink

In tropical countries sweet water from lakes, rivers and wells is often dirty and contaminated with bacteria and viruses. Drinking dirty water can seriously impact the health of especially children, elderly and pregnant woman. They can easily be infected with waterborne diseases such as diarrhea or cholera, which are considered to be potential deadly when proper treatment is not available.

### The solution

Contaminated water can be purified with the UV WaterBox. 99,9% of the harmful and deadly organisms will be killed. The energy needed to power the UV lamp is obtained from a solar panel. The system can easily be operated and maintained. Even in the remotest places.

### Water Production

On a daily basis up to 5.000 liters water can be purified depending on the size of the UV WaterBox. The UV WaterBox I serves approximately 1.600 people with clean drinking water, considering 1 person consumes 3 liters of fresh water per day. UV WaterBox II delivers 10.000 liters to serve about 3.200 people on a daily basis.

### Benefits UV WaterBox

- Cleans and purifies contaminated water easily.
- Is mobile and transportable; suitcase size.
- Is easy installed and operated. There are no moving parts.
- Is powered using a solar cell and is independent of the electrical grid.
- Has low operational costs.



## UV WaterBox

### How it works technically

The core of the UV WaterBox is a UV lamp in a RVS tube. When the UV lamp is on, the contaminated water is routed through this RVS tube in which UV rays are abundantly present. The rays effectively kill 99,9 % of all the bacteria and viruses present. After the UV treatment the water is safe for consumption.

The energy needed to power the UV lamp is obtained from a solar panel. A small battery is added to make sure that the Box operates even when no sunlight is available.

### Additional filtering

The effect of the UV treatment is maximized through the usage of 3 simple filters to remove dirt, silt and sand from the water. The filters also reduce bad tastes and odours, improving the quality of the output water considerably.

### Supplementary toolkit

In remote regions simple parts and tools are often difficult to find. To solve this problem we composed a supplementary toolkit containing the necessary tools, critical PVC accessories, plugs and nails. This kit allows direct installment of the UV WaterBox system on site.

### More information?

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