

HOSPITAL-WATER

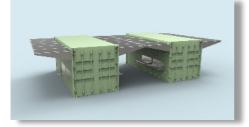
STATION

low available with









#### HOSPITAL-WATER Function

The HOSPITAL-WATER works with solar energy, fills the internal water tank and stores the electrical energy during the day when the sun is shining.

The water is cleaned before filling and during removal with our special-filters and radiation system.

(Microbes, bacteria, suspended matter, etc.)

The water can be taken from a deep well or optionally from a river in the near.

For the disinfection of medical tools etc.

there is an opening in which the material is sterilized fully automatically using UV.



# HOSPITAL-WATER Specification

- 24 hours water available
- Very simple operation
- Robust and durable technology
- Very easy installation and maintenance
- Works exclusively with solar energy
- Can be used for single hospitals or small villages
- Special compartment for 1 liter of boiling water.
- Special compartment for sterilization with UV.
- Multifunctional application options in a robust design
- For a long-term operation.
  - Optional

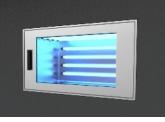
CASH-CODE (for rental)







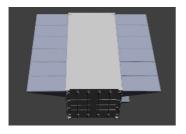
Multifunctional application options in a robust design for long-term operation.

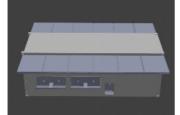


Fully automatic disinfection with ultraviolet light irradiation of all surfaces in a separate handling compartment.



Fully automatic filling of boiling water in 1 liter portions in bottles to be provided.







### HOSPITAL-WATER Technicals

High-Power Solar-Generator with 2kWp-Panels, that also serve as a canopy and shade provider. Fully automatic Object-Lightning in the night.

Tapping points with several taps and wash basins (stainless steel) with pipe-connection for direct filling into canisters.

Storage of 6,000 liters of water and irradiated and filtered with UV light at the inlet and outlet.



### HOSPITAL-WATER Electricals

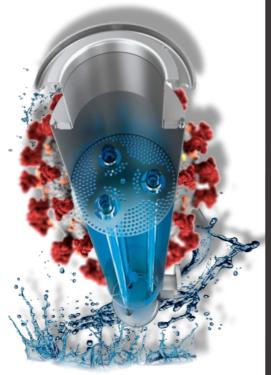
The solar energy is stored in our special lithium batteries during the day and can then deliver up to 6kWh at night.

The electrical energy is used for UV irradiation (inlet + outlet), water heater, disinfection-compartment and for outdoor lighting.

The capacity of a LifePo4-Battery is bigger than a Acid-Lead-Cell, with the same volume.

The weight is just 1/3 of acid-lead-battery with the same capacity. No memory-effect. It can be discharged whenever you like.

- Integrated BMS (Battery-Management-System)
- High quality aluminium alloy, anti corrosion
- Maintenance free
- Location-independent assembly / installation
- Longer Lifespan as Acid-Lead-Battery



### HOSPITAL-WATER "Anti-Microbes"

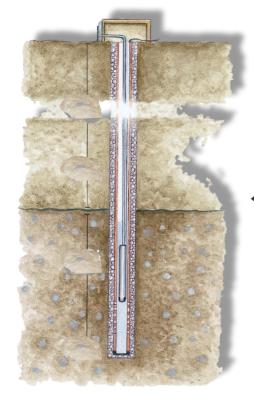
Countless germs and microbes are part of nature and are everywhere. However, these organisms have no place in drinking water. The integrated filter system with ultraviolet light and a wavelength of 254 (nm) automatically kills the majority of microbes or any viruses.

The germicidal effect of artificially generated

UV radiation was discovered at the beginning of the

20th century. The disinfection of water with the help of

UV light is now a very widespread and reliable method.



# Requirements for the Borehole

1. The bottom of the borehole must be filled with gravel.

The space between the borehole and the well pipe must be filled with gravel.

3. The minimum depth **D(bh)** of the borehole is:

$$D(bh) = D(gw) + L(f) + L(s) + L(p)$$

D(bh): Total depth of the borehole

D(gw): Groundwater level height

L(f): Length of the filter (3m)

L(s): Length of the sump (1m)

L(p): Length of the pumpe-area (4m)



## Requirements for the River-Water

- The river water must not contain any chemical pollutants.
- The suction pipe must always be kept below the surface of the water (dry running).
- The suction height must not be above the location of the hospital-water.
- No mud, sand, rubble or organic material (plants, animals, etc.) may get into the suction pipe.
- The suction tube head must be barred as protection for people and animals.
- The water to be transported must be ice and snow free.



## Requirements for the water to be pumped

- 1. The water may have a max sand content <120 g / m3
- 2. The water must not have any toxic content
- 3. The water must not have any chemicals content
- 4. The water must not have any foreign body
- 5. The water must have no discolouration
- 6. The water must have no taste
- 7. The water must have no smell



### Requirements for the location

The hospital water station must be set up in a horizontal position with a maximum incline of 3 degrees.

The water outlets must not be connected directly to a possibly existing public water network in order to prevent the introduction of germs.

The system can only work on frost-free days and must be completely emptied before the start of winter. (The electrical systems can still be used (up to max -40  $^{\circ}$  C)

Access inside the system must be secured with locks to prevent danger to people and damage to the systems.



CASH-CODE-STATION to generate an Activation-Code for your clients.





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### HOSPITAL-WATER

#### Option "Cash-Code"

This universal App is used for simple and easily understandable operation and configuration of each system equipped with a CASH-CODE.

With the App "CASH-CODE-SYSTEM" (Android) the owner can send the generated activation-code to the customer's smartphone, after he has paid the bill.

This activation-code can be sent to the customer:

- via post (paper)
- via SMS
- via Email
- via any messenger (Whatsapp etc.)



### KRENTZEL GMBH Development, Design, Manufacture

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