

WATER TREATMENT SYSTEM USED BY RAY AGUA

To prevent the leakage of certain pollutants and particles that appear in unknown environments, we have designed a treatment system that guarantees the water quality produced by our equipment complies with the WHO (World Health Organization) and therefore is suitable for human consumption. This process of water treatment ensures that the water produced is safe and suitable for consumption.

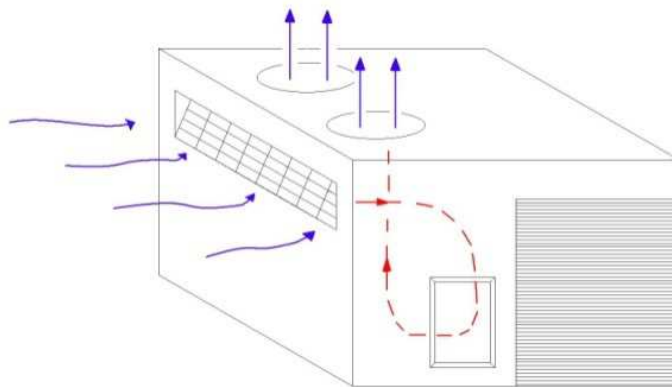


Water treatment system

Stages:

1. Air filtration

As shows the diagram below the airflow passes through air filter category G3 composed by polypropylene fiber with gravimetical capacity of 82%. This filter is reusable. Once a week should be removed and washed.

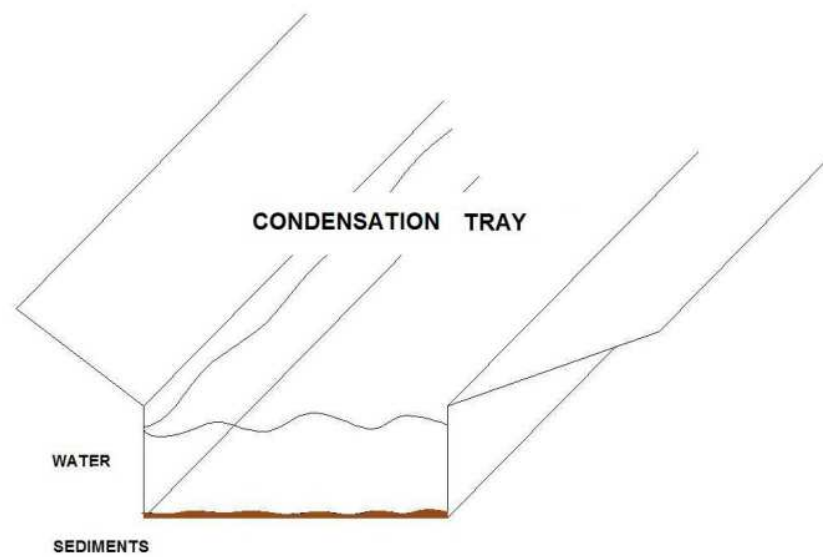


Air filter

2. Water decanting

The next step of treatment is a natural settling of sediment that may have passed through the air filter.

This settling occurs at the condensation tray. Once a week periodic cleaning should be done.



Condensation tray

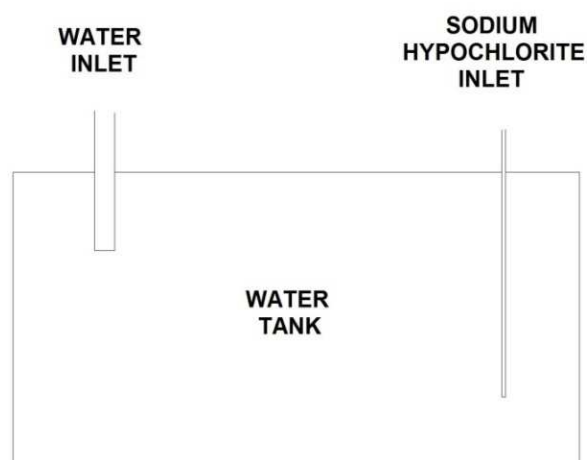
3. Water chemical treatment.

Then the filtered water passes to the storage tank when is treated by sodium hypochlorite injected by metering pump (brand TEKNA EVO, TPG model 603). This metering pump works in conjunction with a pulse counter (ZENNER brand, model ETK-IN, nominal flow rate of 1.5 m³ / h), the dosing quantity is 0.5 ml each 15 liters.

All these data are always calculated under the rules of the World Health Organization assuming concentration of sodium hypochlorite near 1 ppm (1 part per million).



Dossing pump

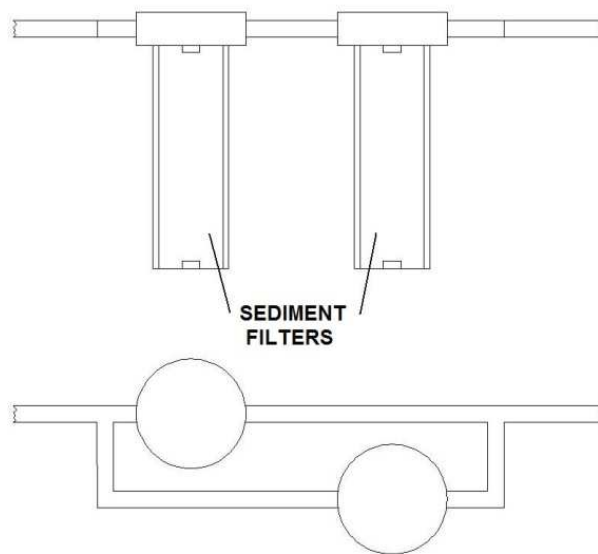


Water storage tank

4. Mechanical filtration.

Next two sediment filters placed in parallel achieve a flow rate of 1.6 m³/h; each has a maximum flow of 0.8 m³/h. The cartridge holder (transparent 3PL model) has connections of 1" and its flow rate ranges from 1.4 m³/h to 2.7 m³/h. These are standard components.

It is recommended to replace every 3 or 6 months, depending on the environment they are placed.

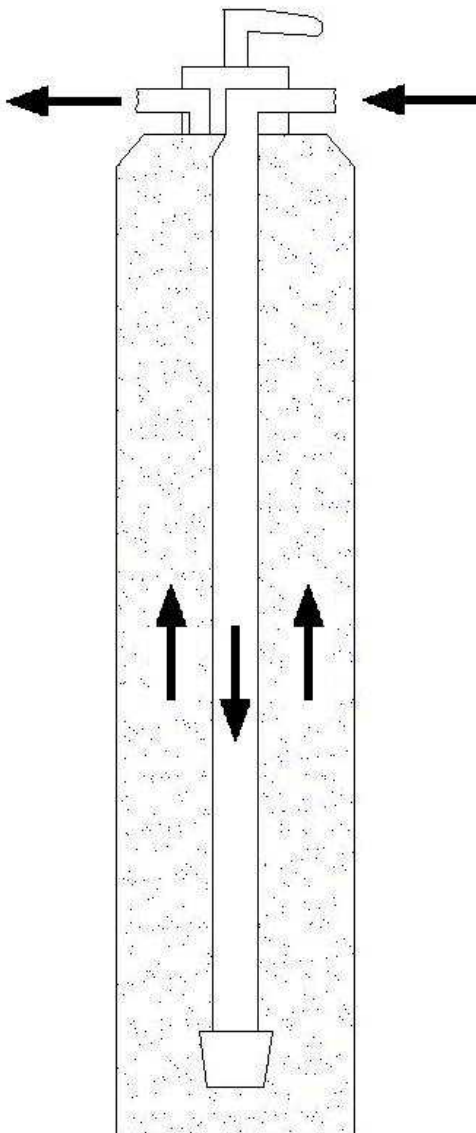


Sediments filters

5. Bacteriological treatment.

Now filtered water in stage 4, we do go through an active carbon filter, which kills 99.9% of bacteria and eliminates existing residual chlorine content in the water. The maximum flow through this filter is $4.5 \text{ m}^3/\text{h}$.

It is recommended to replace every 3 or 6 months.

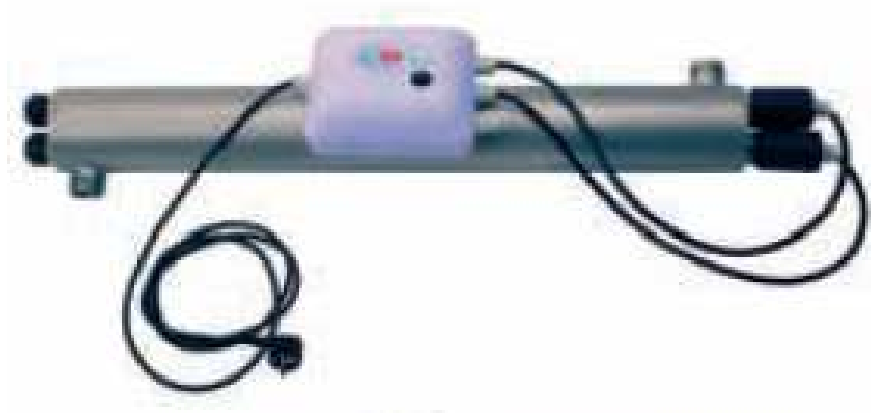
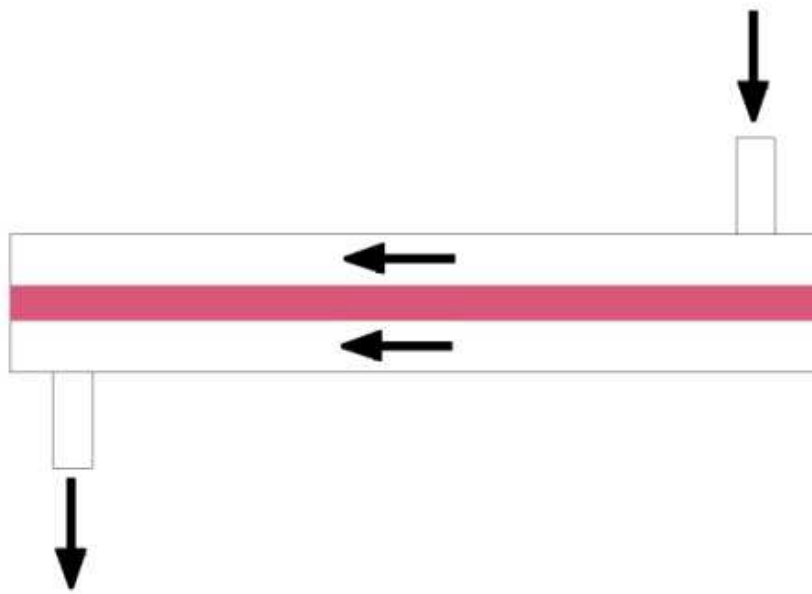


Active coal filter

6. Optional bacteriological treatment.

This stage consists in the passage of water through an ultraviolet light to eliminate any bacteria that were not removed in the previous steps.

The maximum flow rate that can pass through the ultraviolet light is $2.5 \text{ m}^3/\text{h}$.



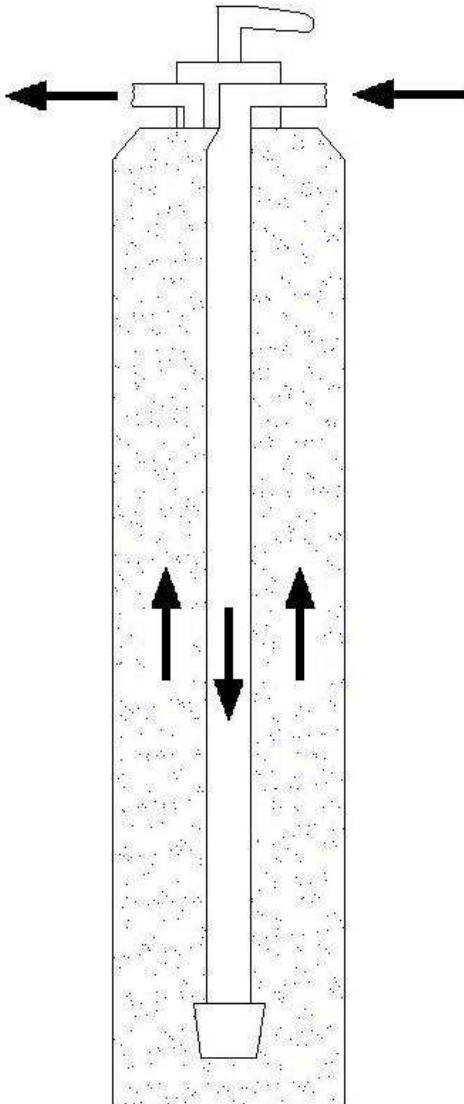
UV lamp

7. Re- mineralization.

Finally, the water passes through a re-mineralizing filter. There is a re-mineralizing compound inside (Kalaphos PH +) adding water minerals such as calcium and magnesium, and to regulate the PH of the water.

The maximum flow through this filter is 4.5 m³/h. It is recommended replace this filters every 3 or 6 months.

The consumer can choose what minerals added to water, to suit the customized re-mineralization.



Re-mineralizing filter