

Fields of application of WATERpps

Since all living creatures need water mankind is challenged by the short running of world wide freshwater resources. The solution to providing all people with sufficient drinking water has been included in the United Nations "Millenium development goals".

One step into the suggested direction has been the development of the WATERpps. Even at places where freshwater is available it is very often not suitable for human consumption. Germinative pollution (bacteria, parasites, ...) are one of the major reasons in rural areas for gastric and intestinal diseases in the adult population and the main reason for infant mortality. WATERpps is one way to face the challenge.

By use of a ceramic microfilter which is able to reduce the germinative pollution by more than 99 % the water quality is considerably enhanced. This method which has been proved for trekking equipment and for tourists in developing countries for years is now available as autonomous system to provide drinking water for up to 40 people.

Since the pollutants are removed by mechanical filtration the germs are no longer available as nutrients for later introduced germs. Chemicals (e.g. Chlorine, ...) are avoided. Therefore the taste of the water is left unchanged and is better accepted by the users.

The field of application of this technic is freshwater disinfection. If freshwater is not suitable for human consumption due to germinative pollution WATERpps provides a solution. Frequent gastric and intestinal diseases as well as increased infant mortality are hints that people are forced to drink the polluted water for survival in such regions.

Wherever possible suspended solids should be removed before using WATERpps. Despite WATERpps is not restricted to suspended solid free water it is not recommended to allow too much of these. Due to the working principle the solids will be removed and block the filter. This can result in frequent cleaning intervals which constrain the availability unreasonably.

A silt density index (SDI) below 3 is suitable for normal operation. Raw water with a SDI above 4 needs more effort. If the SDI exceeds 5 some pretreatment might be necessary.



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