

GBT-SF

Sand Filter for Water Purification Systems

The Sand Filter

A sand filter consists of sand encapsulated in a closed container. Here, the natural and unique filtration properties of the sand are used, making it one of the most maintenance-free and most effective methods for water purification. The sand used is a very fine sand (# 20 silica) with good water purification properties. It is the structure of the grains that make it suitable for water purification. The grain of sand is dense and consists of many sharp edges where dirt particles easily get caught. Because the sand is packed tightly, even larger particles are caught, such as leaves, gravel and the like, which may be found in the water.

Function

The water is pumped into the sand filter and led from above, pressed through the fine sand and emerges from the bottom of the sand filter. Dirt and particles present in the raw water stick to the sand and the water is clear and clean, free from dirt particles. The sand is capable of catching particles of the size 20 - 100 microns. Note that the sand filter only cleans the water from dirt, not from bacteria and such. So, it is not enough with a sand filter to get a good healthy drinking water.



Different Types of Sand Filters

Selection of filter type is based on water consumption and raw water quality. A physicochemical water analysis, as well as information on the operational conditions, provide the basis for selecting the right filter options.

Back Flushing

Back flushing means that the sand in the sand filter is flushed clean and the dirt is removed from the filter to a drain. This is when a lot of dirt is collected and the back pressure increases in the filter read off on the manometer, it's time to backflush. The frequency of backflush depends on the load and how much particles, gravel and parts of plants you have in the raw water, but approximately once a week is appropriate. The filter sand usually should be replaced after just over 5-7 years. The sand can also be cleaned instead of replaced.