

low-germed water production and ensuring in open cooling and air-conditioning circuits

initial situation

Water in air-conditioning, air humidification or open cooling systems are often germ-contaminated. High germ loads cause biofilm formation on the inner tube walls and deposits on heat exchangers. These are the cause of corrosion of technical installations with the consequence of a too low energy efficiency and high energy and operating costs.

Furthermore these germ loads cause the multiplication of harmful microorganisms, such as legionella, especially in air-conditioning and air humidification systems. These pathogens are ingested by humans by a mist and can cause severe disease.

technology

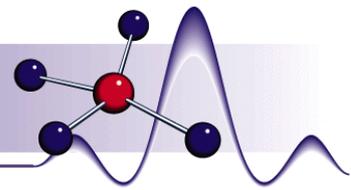
The process of OFS cleans the circulating water microbiologically up to 99% and harmful microorganisms are greatly reduced and biofilms are removed.

The special feature of this cleaning method is that no additional chemicals are necessary.



overview of advantages

- fast and lasting clean water
- no additional chemicals
- removing of biofilms
- low power consumption
- less heavy metals
- no chemical contaminated sewage
- 99 % germ-free
- easy implementing and retrofitting
- constant operational and functional control
- less water hardness
- more oxygen content
- cleaning of the complete system, incl. pipes and heat exchangers



procedure

There occur hygienisation processes through an electrical filter, installed as a bypass in the circulation process pipe. In the disinfection module the circulating water is enriched with oxygen and hydroxyl radicals. Furthermore a chlorine evolution takes place. This leads to oxidation processes.

Simultaneously, the water is cleaned and disinfected for removal through the electrical filter. By polarity reversal of the filter tubes the filter cake is detached, so no further purification of the filter is necessary, which in turn is another advantage of the method compared to other filters.

This process leads to a sustainable purification of the water and the entire system.

So the water remains clean, pure and low-germ.

No addition of chemicals and lower maintenance requirements make the process of electrolytic disinfection to an economically effective alternative to chemical water purification.

technical data

- filter housing: 27.56 inches
- connection both sides: 2", pipe flange screwed
- flow rate bypass: approx. 2 to 4 m³/h
- pressure range: approx. 2 to 5 bar
- application of energy: approx. 250 Watt
- control system: 600 x 400 x 200 mm (length x width x height)
- filling volume: max. 40 m³
- circulation volume : min. factor 5...10
- medium: cooling and air-conditioned water with microbiological contamination
- power consumption: 230 V AC 50/60 Hz
- flow rate depending control system

