



Potable water microfilter

Lufthansa Technik is introducing a new, highly efficient potable water filter to ensure contaminant-free drinking water on board of aircraft. A filter cartridge with sterile filtration capabilities guarantees permanent bacteria retention from drinking water.

Hygienic water supply on board

Water, by its very nature, can host and support an array of microorganisms. Passengers consume drinking water stored on aircraft in multiple ways: as a component of hot beverages or soups, simply by indirect contact from rinsing food equipment or for body hygiene, to name but a few. To avoid illnesses, it is crucial that the water on board an aircraft is of excellent quality. Water tanks are rarely emptied completely. Especially in VIP aircraft with only a few passengers on board, water consumption is low and the water remains in the tank longer. Most aircraft use standard carbon filters to neutralize the chlorine in drinking water from the tap to improve its taste. But after the filters have reached their maximal adsorption capacity towards the end of their service life, bacteria may proliferate in the cartridges and ultimately spread in the drinking water.

Outstanding filtration capabilities

In addition to the standard active carbon component, Lufthansa Technik is introducing a filter with a superior microfiltration membrane that retains 99.9999 percent of all bacteria and germs typically found in drinking water. The new water filter consists of two elements: the standard carbon filter and a microfilter. The microfilter physically separates all bacteria that have passed the carbon filter after its saturation. Particles larger than the pore size of the microfilter do not pass through it. Compared to common carbon filters with 100 to 1,000 CFU (colony-forming units) per cm², the hollow fibre membrane permanently retains 10,000,000 CFU, providing sterile-grade filtration. Moreover, the microfilter has no saturation limit. The bacterial retention rates remain stable, ensuring maximum drinking water quality throughout the service life of the filter cartridge.

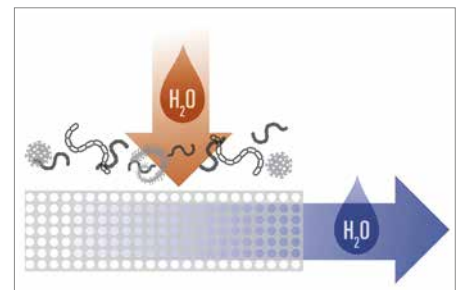
Compliance with aeronautical standards

The previously used filter cartridge can easily be replaced with the new microfilter. No modifications or adaptations whatsoever are necessary. Key parameters such as flow rate, weight, service life and shelf life do not change. The filter is fully compliant with international aerospace as well as European hospital sterility standards and is provided by Lufthansa Technik with all necessary aerospace certification.



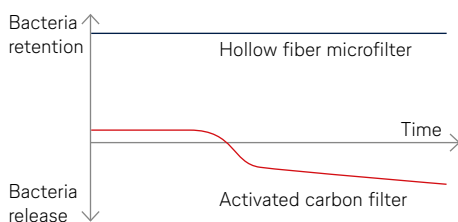
Customer advantages

- Simple 1:1 replacement retrofit solution
- Retains 99.9999 percent of all microorganisms present in drinking water
- Provides instantaneous protection
- Bacterial retention remains stable during complete installation time
- Filters have no saturation limit



Ensuring maximum water quality

A bacterial retention comparison of hollow fiber microfilters and activated carbon filters



The bacterial retention capabilities of hollow fiber microfilters remain extremely high and stable during the entire installation time. Activated carbon filters have no bacteria retention after reaching maximum adsorption capacity and active bacteria spreading occurs after longer usage.

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