Air filtration for water reservoirs and other liquid tanks

Leadership in Filtration

MANN+HUMMEL

Air filtration systems for water reservoirs and liquid storage tanks

As the water level changes, high efficiency air filters are essential to avoid contamination in water reservoirs and other food processes.

THE CHALLENGE

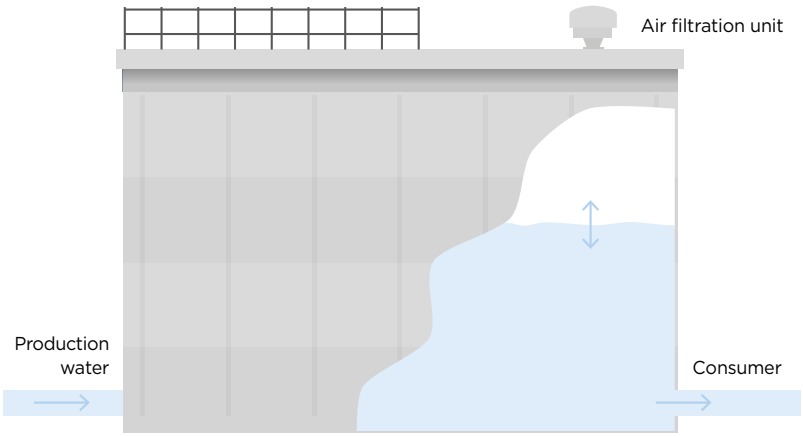
When the water level in a reservoir falls, outside air is sucked into the tank. As this air enters, it brings with it airborne pollutants from the outside environment, which quickly cover the surface of the water and the internal walls of the reservoir. This layer of impurities can then spread through the water pipes to the end user.

The exact nature of pollutants will depend on the location of your reservoir, but common contaminants include:

- Combustion products from car engines and incineration plants
- Heavy metals, lead, pollen, spores, and fungus

The same applies, of course, to other liquids stored in large basins, such as mineral water wells, breweries tanks, and more.

Water reservoir level changes



Our filter systems protect drinking water from airborne contaminants in water reservoirs, breweries, mineral water wells, vacation parks, hospitals, and more.

THE SOLUTION

Made up of a robust housings and integrated HEPA (High Efficiency Particulate Air) filters, our filtration systems are all-in-one solutions to prevent contamination from entering reservoirs.

The cylindrical air filter is rated H13 (according to ISO 29463 and EN 1822) and captures 99.99% of particles with a diameter of 0.3 µm. At this most penetrating particle size (MPPS), this is the minimum separation efficiency that the filter will provide. Against smaller or larger particles, our filtration systems offers even higher performance.

Two types: for internal and external use

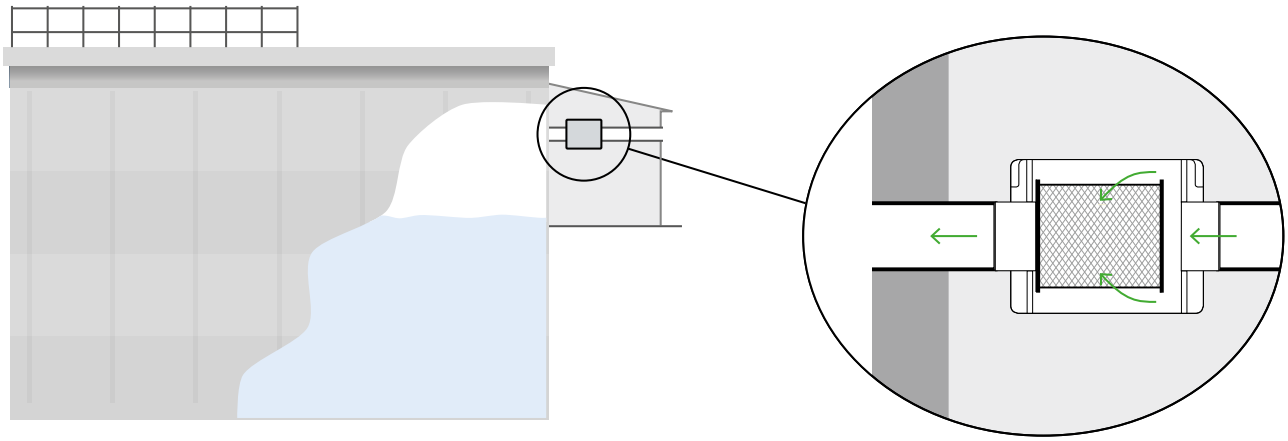
Reservoir Housing JK-W

For internal use

Reservoir Housing JK-W is designed to be installed indoors – fitted horizontally in either the wall or ceiling. Manufactured in welded PVC, Reservoir Housing JK-W is available in three sizes to suit different air flow requirements. It's suitable for reservoirs with a maximum discharge volume of 180 m³/h or capacity up to 600 m³.

- Waterproof filter and housing
- Corrosion-free PVC design
- Dual air flow direction
- Hinged lid with quick-release fasteners for easy maintenance and filter change
- Horizontal and vertical mounting brackets with three positions each
- Integrated condensate drain connection

Reservoir Housing JK-W: function and position



THE JK-W RANGE	JK-W 19/20	JK-W 19/30	JK-W 19/40
Maximum air flow	90 m³/h	120 m³/h	180 m³/h

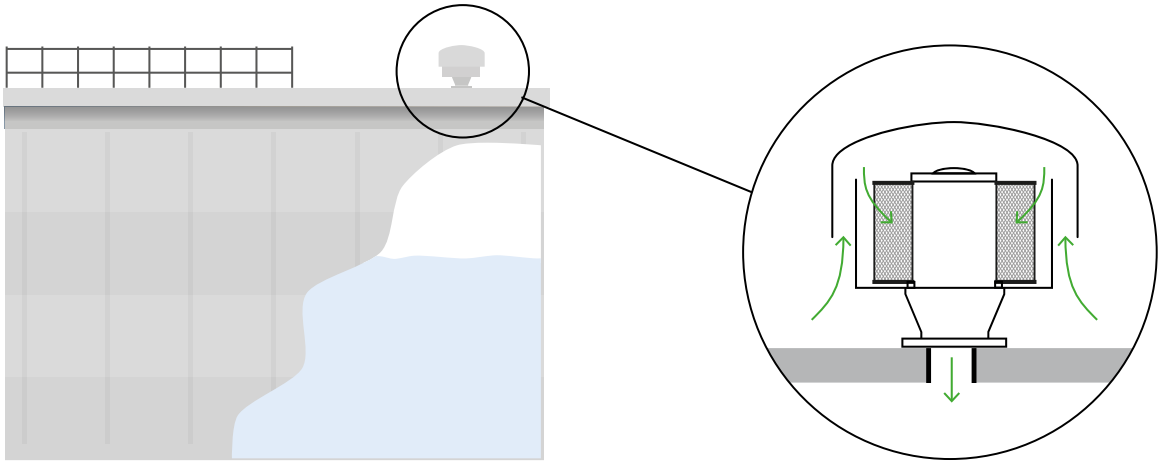
Reservoir Housing RW

For external use

The Reservoir Housing RW series is designed for installations outdoors. Units are positioned on the reservoir roof in place of the standard air intake pipe. Reservoir Housing RW is available in three sizes to suit various air flow and capacity requirements. The two larger options feature a rupture disc to protect against over and under pressures.

- Robust, corrosion-proof design
- Manufactured in acid-proof stainless steel, AISI 316
- Suitable for air flows up to 3000 m³/h
- Top-lifting service hatch for simplified maintenance and filter change
- Rupture disc to prevent vacuum conditions in the reservoir

Reservoir Housing RW: function and position



THE RW RANGE	RW 19/40	RW I	RW II
Maximum air flow	180 – 200 m³/h	1000 m³/h	3000 m³/h

High performance filters

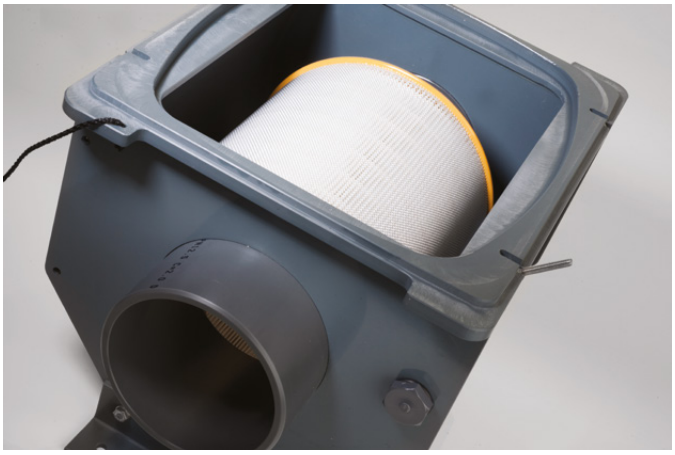
LONG LIFE. HIGH PERFORMANCE

MANN+HUMMEL water reservoir systems utilize our Nanoclass Tube Pro HEPA filters. These filters feature a special moisture-repellent media and stainless steel casing to eliminate the risk of corrosion or microbial growth – making them ideal for use in water reservoir environments.

With a filtration efficiency of H13 (to ISO 29463 and EN 1822), these filters capture 99.99% of contaminants such as particles, germs, viruses, and carbon black. And to ensure the highest quality standards, each filter is individually tested and guaranteed leak free before dispatch.

It's this commitment to the highest standards of safety that allow these filters to also be employed in civil and military establishments as protection against radioactive, chemical and biological substances.

- H13 HEPA filter used to separate contaminants such as germs, viruses, carbon black and radioactive particles
- Large filtration area
- Low pressure drop with noticeable impact on energy cost savings
- Individually tested and leak free
- Improved stainless steel design eliminates corrosion and microbiological growth



The filtration experts

MANN+HUMMEL has been a filtration specialist for more than 80 years. Leadership in Filtration is what drives us.

Thirty two

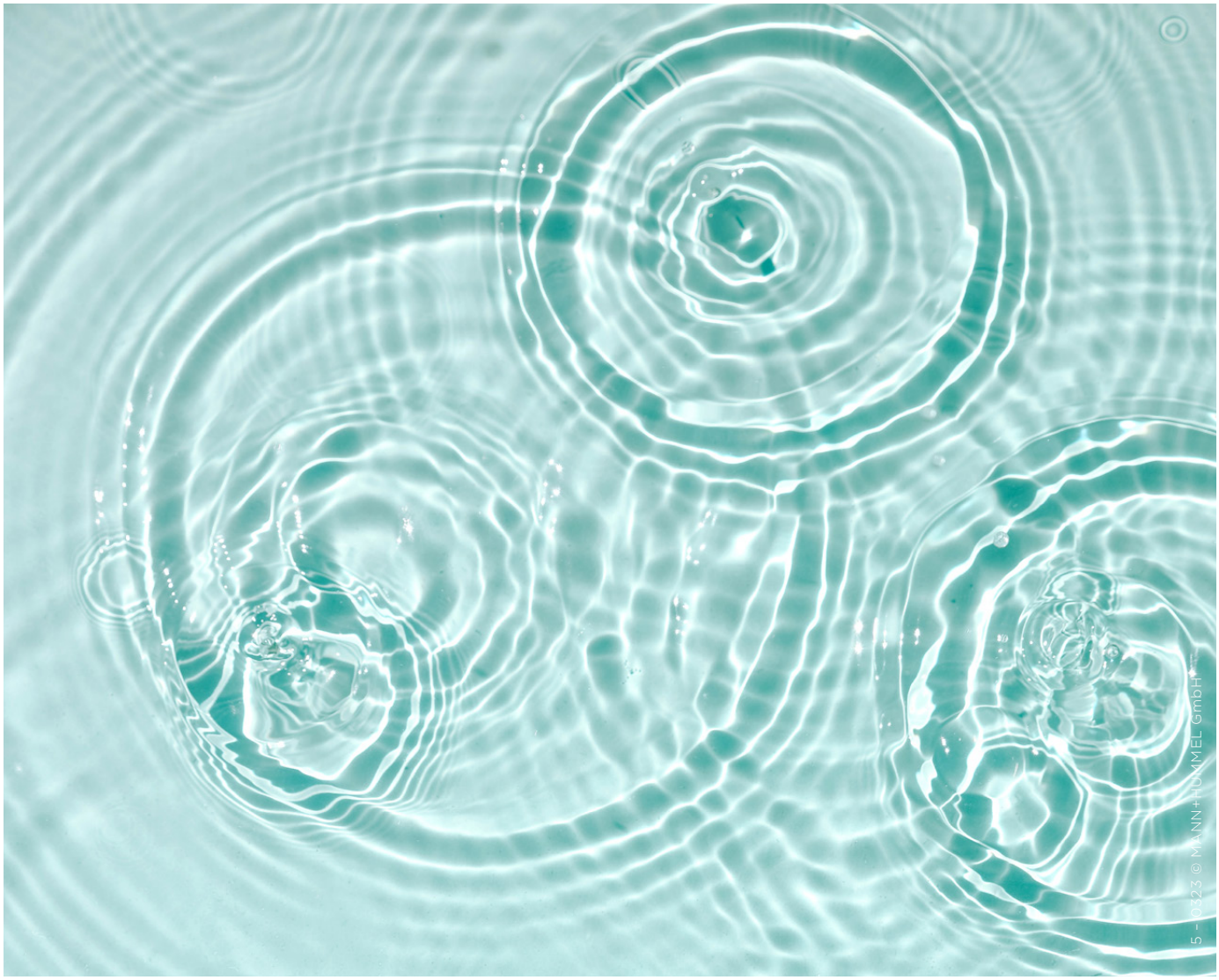
With every second that ticks by, another 32 filters roll off the MANN+HUMMEL production lines. And that is part of what makes us a world leader in filtration.

But it is our commitment to quality and innovation too. Of the 20,000 people we employ worldwide, over 1,000 work in our R&D department. That means we are at the front when it comes to finding new ways to improve air quality or deliver it more efficiently – which can be seen in the more than 3,000 patents that we have registered.

And when it comes to delivering excellent service, we are always close at hand, with more than 80 locations across the world.

Filtration for life

MANN+HUMMEL Air Filtration is part of the company's Life Sciences and Environment (LS&E) division. LS&E focuses on protecting the most precious things in our lives with filtration solutions that ensure the cleanliness and quality of our natural resources. Air filters ensure that air is safe to breathe and use in various processes. Water filtration membranes provide clean water for drinking and food production. And wastewater products minimize our impact on the wider environment.



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