

MADE IN GERMANY

VISION AQUA®



Biocide-free legionella prevention in swimming pools

**VA-Hydro**

## Legionella-free and safe despite energy crisis

The proliferation of Legionella in the processing, showering, and sanitary facilities of swimming pools and spas are more likely to be favoured than reduced by energy-saving measures. This confronts those responsible for the management of pools and spas with a difficult decision: **Save energy and ensure economic survival, but risk Legionella incidents in the process - or use more biocides, which causes increased operating costs and is not appreciated by customers.**

The solution to this dilemma is the VA-Hydro, which works purely hydrophysical. The system destroys Legionella and other gram-negative bacteria in water through its patented design. No chemicals are used in the process, and no thermal energy is required. The VA-Hydro operates energy-savingly and without significant mechanical wear. Maintenance work is largely limited to the required pump, a standard feature in pool technology.

## Established technology with over 1,000 systems in use worldwide

The VA-Hydro is successfully used worldwide in various industries, and its effectiveness has been proven many times over.



### Showers and sanitary facilities

The shower and sanitary facilities are among the most basic facilities in a swimming pool. However, here the risk of infection with Legionella is also the greatest. Using the VA-Hydro, you can be sure that your guests always use legionella-free water in the shower and sanitary area, and at the lowest possible cost.



### Processing plants

Legionella nests can form in the carbon-containing filter materials of the multi-layer filters, which can only be removed with great effort. The VA-Hydro prevents filter germination and reduces expensive and time-consuming filter treatments after contamination.



### Other circulation systems

It frequently happens that water reservoirs of circulation installations such as fountains, water playgrounds and fire-fighting water systems are neglected as part of the hygienic maintenance of swimming pools. In the less considered circulation systems Legionella can settle and spread very fast. Here, too, the VA-Hydro is an uncomplicated solution.

## Operating principle: hydrophysical water treatment

Very high flow and cavitation forces are generated in the VA-Hydro reactor, which mechanically destroys microorganisms such as Legionella without the use of chemicals. The oxygen dissolved in water completely oxidizes the destroyed cell material, resulting in permanently bacteria-free water.



Process exposure time:  
1/8,000 s

## Reduce costs and protect the environment

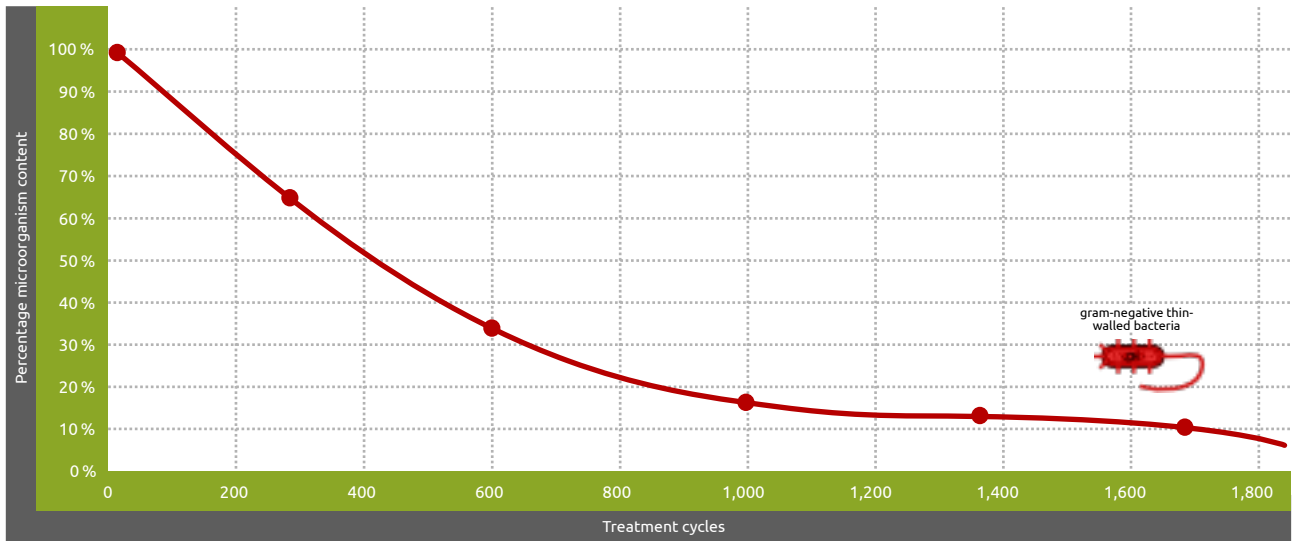
Chemical and thermal water treatment in swimming pools is subject to enormous energy and high safety requirements. In addition to the financial burden, incorrect handling of cleaning agents can also result in environmental damage.

**The VA-Hydro keeps your costs low, and you also protect the environment.**

The available capacities are from 15 up to 33 m<sup>3</sup>/h.  
Perfect for any swimming pool application.

# Decontamination efficiency of the VA-Hydro

Using the example of gram-negative bacteria (e.g. Legionella), you can see that continuous treatment cycles significantly reduce the concentration of microorganisms in water.



Source: Fraunhofer

## Existing cleaning systems

- Many moving parts
- Hazardous material storage & documentation
- Safety instruction
- Risk assessment
- Personal protective equipment
- Emergency plan
- High maintenance effort
- Negative structural effects due to biocides
- Emergency management
- Spare parts expenses
- Expensive maintenance contracts
- High level of control and security
- High disposal costs

## VA-Hydro

- Easy implementation in any system
- Mobile use
- Low energy consumption
- No follow-up costs
- Minimal spare parts inventory
- No special operator training
- Low service effort
- No hazard potential
- Environmentally friendly & sustainable

**Convince yourself about the VA-Hydro today!**

Call us at  
+49 (0) 8441 79 79 738

## Learn more about our products and capabilities

VISION AQUA® is your technology partner for ultra-pure drinking water in every situation.

In addition to ultra-pure water solutions for industrial and medical applications, we produce water treatment systems for private end users.

VISION AQUA Technology GmbH  
Dorfstr. 20  
85298 Scheyern/Vieth  
Germany

Web: [www.vision-aqua.de](http://www.vision-aqua.de)  
eMail: [ticket@visionaqua.de](mailto:ticket@visionaqua.de)

Phone.: +49 (0) 8441 79 79 730



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