

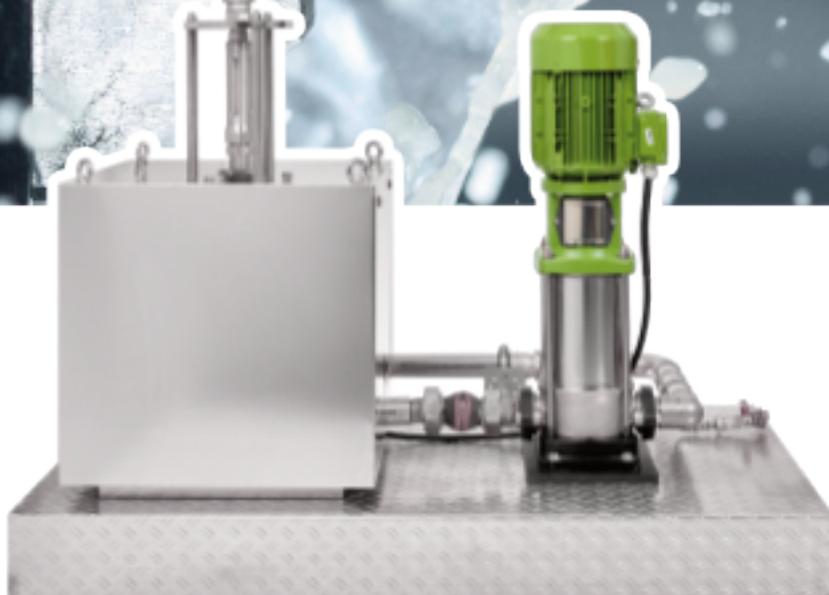
MADE IN GERMANY

VISION AQUA®

Up to **60 %**  
**cost reduction**  
for **cooling lubricants**

Biocide-free disinfection of  
cooling lubricants

**VA-Hydro**



## Safety while handling WSCL

Due to their composition, water-soluble cooling lubricants (WSCL) are inevitably subject to contamination during use from various types of bacteria and/or fungi that grow as "biofilms" on and at surfaces. This leads to the following:

- Premature degradation of cooling lubricant components and considerable shortening of the service life of the coolant
- Unproductive machine downtimes during coolant replacement
- Excessive demand for cooling lubricants
- Potential health impact upon your employees

Usually, biocides are used as preservatives to restrict the growth of microorganisms. However, their often toxic and sensitising properties may impair health, or microorganisms can become resistant and biocides ineffective.

Using VA-Hydro, we offer a **highly effective alternative** to biocides based on a **physical process**. The VA-Hydro reduces the colony count of bacteria in water-mixed cooling lubricants demonstrably, safely and energy-efficiently.

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

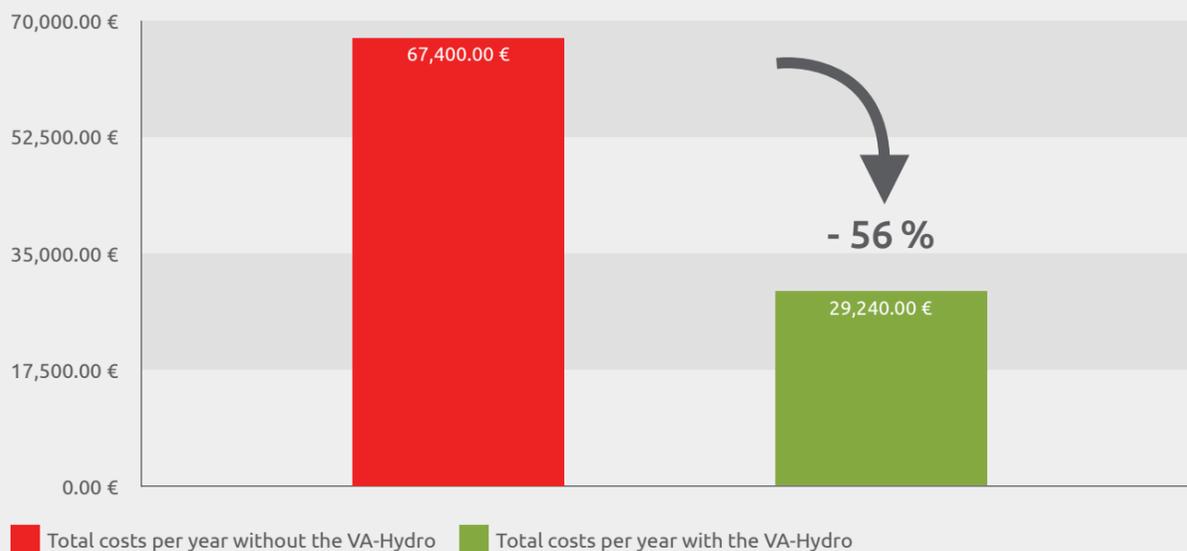
VISION AQUA® offers a sustainable and environmentally friendly technology to treat cooling lubricants without chemicals by using the patented VA-Hydro, which is already in use at a wide range of industrial sites worldwide.

## Reduce costs and protect the environment

Chemical WSCL treatment involves high labour costs and safety efforts. In addition to the financial burden, personal injury and environmental damage can occur due to incorrect handling of the biocides.

The VA-Hydro can greatly reduce your costs for chemical coolant treatment. In our sample calculation, using VA-Hydro results in cost savings of around 56% per year.

### Sample cost savings through the use of the VA-Hydro



## 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

## Quality improvement of the WSCL

Bacteria hardly form a biofilm anymore; thus, MWFs remain stable and can be reused more frequently.

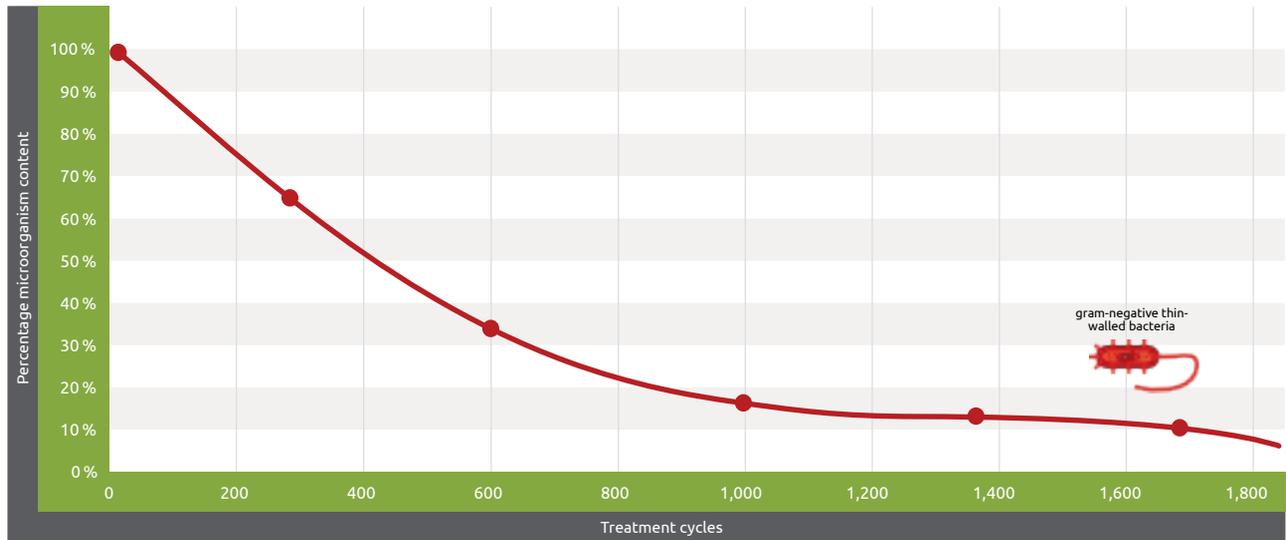
### Conclusion:

**The quality of the coolant is restored and your operating costs are significantly reduced.**

The available capacities are from 0.1 up to 51 m<sup>3</sup>/h. Perfect for any applications.

## Decontamination efficiency of the VA-Hydro

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



Source:



### Cooling lubricant treatment with biocides

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

### Cooling lubricant treatment with 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
- Reduced disposal costs

**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.

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