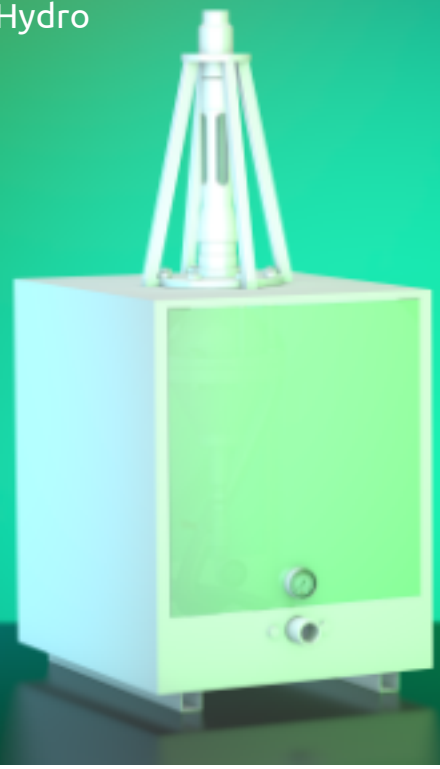
Technical Datasheet
VA-Hydro



VISION AQUA® Technology

- Process water treatment
- Cooling processes
- Beverage Industry
- Swimming pools
- Fountains
- Industrial applications
- Centrifugal water treatment
- Hygienic operational safety

A hydrophysical water treatment technology that does not require chemicals and largely eliminates microbiological contamination of water. VA-Hydro sustainably protects water supply networks carrying cooling and process water from harmful microorganisms such as legionella. The water treatment minimizes the risk of recontamination and keeps the water permanently hygienically stable.

Compared to other methods, e.g. for legionella prevention, the VA-Hydro uses a simple but effective principle. An elaborate control system is not required. There is hardly any wear and tear on the VA-Hydro, as rotating parts have been deliberately avoided. The installation is uncomplicated, for example, in a circulation line.

The VA-Hydro complies with the new VDI Guideline 2047 Sheet 2 for the treatment of cooling water, which has been in force since the beginning of 2016. It also complies with regulations regarding the operational safety of recooling systems, and with the requirements of the current German Federal Immission Control Act (BImSCHG).

All valves and seals used in the VA-Hydro are approved for drinking water and comply with the DVGW (German Gas and Water Association) requirements according to DVGW W 270. Since there are no moving parts in the VA-Hydro, and it only works with the shear forces known from nature (cavitation principle), no lubricants or preservatives are used. The VA-Hydro system does not endanger or impair drinking water, according to DIN EN 1717. Thus the application of the VA-Hydro corresponds to category 1 according to DIN EN 1717.

The water-bearing components installed in the VA-Hydro are made of materials tested according to DIN 1.4571. The materials comply with DVGW requirements and are suitable for installation in drinking water and cooling water systems.

Technical Data VA-Hydro (without accessories)	
Dimensions	Width: 550 mm, Height: from 935 mm to 1,255 mm, Depth: from 550 mm to 773 mm
Weight	from approx. 78.0 kg to approx. 82.0 kg
Output (various plant sizes)	0.1 - 2.5 m³/h | 4 - 6 m³/h | 6 - 8 m³/h | 8 - 11 m³/h | 9 - 15 m³/h | 15 - 24 m³/h | 24 - 33 m³/h | 32 - 43 m³/h | 41 - 51 m³/h
Operating pressure	Up to 16 bar (test pressure up to 30 bar)
Operating negative pressure	Up to -0.99 bar
Max. continuous pressure	16 bar
Max. neg. pressure nozzle (rel.)	-0.99 bar
Water connections	Inlet 1¼“ – Outlet 1¼“ | Inlet 1½“ – Outlet 1½“
Material	Stainless steel according to DIN 1.430-1.4408

Scope of delivery

1 x VA-Hydro (without accessories)

Technical changes reserved

Technical Datasheet
VA-Hydro

VISION AQUA® Technology

Cooling tower | Collection tank | Pressure boosting | VA-Hydro

Symbolic illustration in a cooling water system

The heart of the VA-Hydro is a reaction tank similar in design to a cyclone. Water is forced into the reaction tank by a high-pressure pump and accelerated within the chamber, causing very high flow and rotation speeds. The surface tension of the water is reduced, and bacteria are mechanically destroyed. Oxygen drawn in from the air and oxygen dissolved in the water subsequently oxidize the mechanically destroyed cell material.

You can quickly and easily retrofit the VA-Hydro into existing infrastructures and circulation lines. Depending on specific water volumes and applications, there is a suitable VA-Hydro system.

The VA-Hydro ensures operational sanitary safety without biocide (chemical) use, only through hydrophysical functionality when used in process water installations and circulation pipes.

Benefits at a glance

- Permanent protection against legionella, algae, yeasts, etc.
- Operational safety during inspections by the health department
- Significant reduction/elimination of detergents
- Substantial reduction/elimination of biocides (chemicals)
- Preventive use in new installations
- Use in existing (even non-contaminated) water systems
- Fast amortization
- Elimination of foul odours in the tap water system
- Extremely high energy cost savings due to lower operating temperatures
- No moving parts, no additional monitoring
- Low service costs
- Low maintenance required
- Easy installation
- Available capacity range from 0.1 m^3/h to 51 m^3/h