OZONIA

Aquaray® H_2O

UV Systems

HEADWORKS
BIOLOGY
SEPARATION
MEMBRANE
▶ DISINFECTION
BIOSOLIDS
SYSTEMS






UV DISINFECTION | MEDIUM PRESSURE | DVGW VALIDATED | DRINKING WATER

▸ Applications

- Drinking water disinfection

▸ Main characteristics

- High capacity with low number of medium pressure lamps
- Dedicated and calibrated UV intensity sensors for each lamp, to ensure optimum reliability
- Automatic wipers for quartz sleeve cleaning
- Meets all US EPA and DVGW guideline

The Aquaray® H_2O is able to treat from 300 to 3000 m^3/h. This reactor eliminates pathogens with a powerful dose of UV light delivered by strategically placed medium pressure lamps.

MAIN FEATURES

→ **Optimized performance:**
The Aquaray® H_2O has been optimized with CFD modeling software to maximize UV dose and minimize head loss.

→ **Energy conservation:**
Due to the electronic variable output ballast, the total power can be adjusted based on the demand.

→ **Save space:**
To minimize the footprint, the Aquaray® H_2O uses Medium Pressure lamps with high power density.

→ **Validated performance:**
The Aquaray® H_2O has been third party validated and obtained DVGW certification upon completion of strict bioassay testing.

UV TECHNOLOGY: Aquaray® H_2O

The Aquaray®H_2O units have been designed to disinfect drinking water. The germicidal effect of the UV light inactivates most micro-organisms such as bacteria, viruses and parasites. UV is known to be particularly efficient to inactivate *Cryptosporidium Parvum* and *Giardia Lamblia*.

The UV dose (UV intensity x contact time) defines the treatment efficiency which is provided by the unit. The effective dose applied depends on the UV transmittance of water to be treated as well as the proper hydraulic design of the unit.

HOW IT WORKS

The medium pressure lamps are powered by electronic ballasts. The lamps are inserted in pure quartz sleeves isolating them from the water. The lamps can be easily changed without draining of reactor.

A UV sensor is installed to monitor UV intensity.
Easy access to all components allows for rapid and simple maintenance.

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TECHNICAL DATA

Model	Number of reactor	Flow Rate	Number of lamp	Electrical Power per lamp	Installed Electrical Power
		m^3/h		kW	kW
Aquaray® H_2O	1	1420	6	0.8 to 4	5 to 24
Aquaray® H_2O "Duplex"	2 (in series)	3000	12		5 to 48

Based on 40 mj/cm^2 and 95 UVT

▸ Materials

- **Reactor material:** 316L stainless steel/quartz sleeves/ silicon O-ring
- **Panel material:** mild steel epoxy coated

▸ Standards

- **Flanges:** DN 500 (20")
- **Reactor pressure rating:** 10 barg
- **Main power supply:** 480V/3ph/60Hz
- **Neutral network:** TNS
- **Panel rating:** IP54

- **Lamp Type:** medium pressure
- **Ballast Type:** electronic variable output
- **Lamp configuration:** horizontal cross flow
- **Average lamp life:** 10 000 hours

▸ Remote controls and alarms

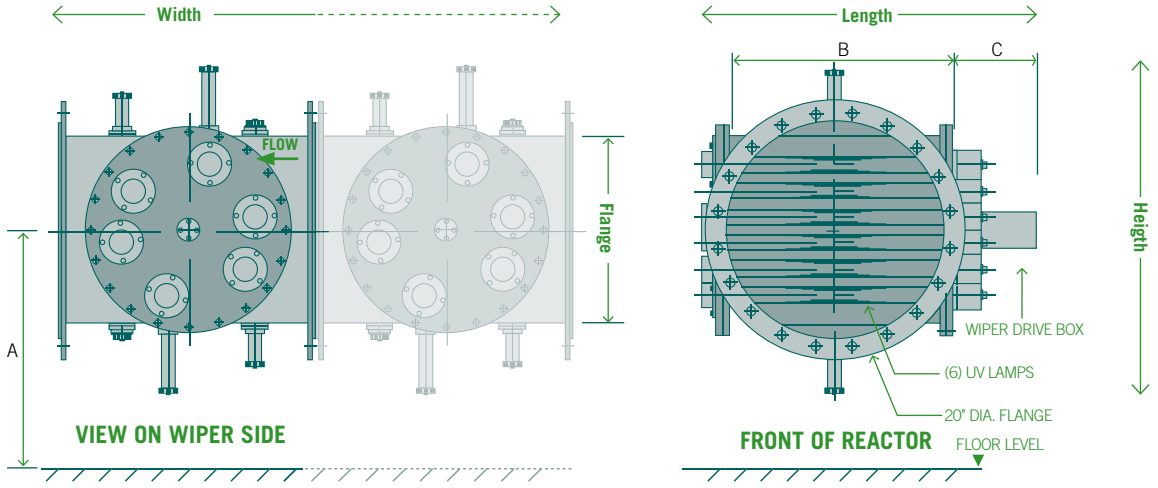
- **Digital Inputs:** lamp start - stop, water flow interlock
- **Digital Outputs:** system status, pre-alarm, alarm
- **Analogue Output:** remote indication of UV intensity

▸ Options

- **NEMA 4X**
- **Stainless steel control panel**
- **Alternate PLC and interface**

DIMENSIONS

Model	Number of reactor	Dimensions (mm)			Weight	Flange	l x h x w
		A	B	C	kg	mm	mm
Aquaray® H_2O	1	650	600	420	350	500	1080 x 880 x 700
Aquaray® H_2O "Duplex"	2 (in series)	1300	1200	840	700	500	1080 x 880 x 1400



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