

AQUARAY® H₂O

UV Systems for Drinking Water

UV

The Aquaray® H₂O range is able to treat up to 54 MGD. The Aquaray H₂O eliminates pathogens with a powerful dose of UV light delivered by strategically placed medium pressure lamps.

APPLICATIONS

- Drinking water disinfection

MAIN CHARACTERISTICS

- High capacity reactor with high power medium pressure lamps
- Dedicated and calibrated UV intensity sensors to ensure optimum reliability
- Automatic wipers for quartz sleeve cleaning
- Meets all US EPA and DVGW guidelines
- Low head loss

MAIN FEATURES

- **Optimized performance:** The Aquaray® H₂O 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® H₂O uses Medium Pressure lamps with high power density.
- **Validated performance:** The Aquaray® H₂O has been third party validated and obtained DVGW and USEPA certification upon completion of strict bioassay testing.

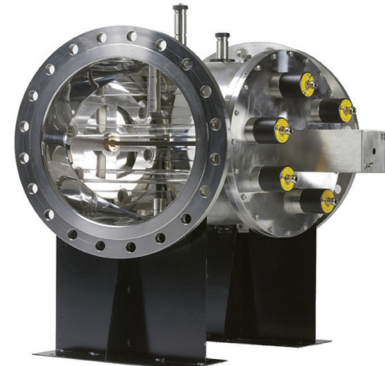
UV TECHNOLOGY : AQUARAY® H₂O

The Aquaray® H₂O 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.

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 and the hydraulic design of the unit.

HOW IT WORKS

The medium pressure lamps are powered by electronic ballasts. The lamps are inserted in quartz sleeves isolating them from the water. The lamps can be easily changed without draining the reactor. DVGW approved UV sensors are installed to monitor UV intensity. Easy access to all components allows for rapid and simple maintenance.



PRODUCT HIGHLIGHTS

- > 3rd party validated performance (DVGW, USEPA)
- > Automatic energy adjustment from 20 - 100%
- > Small footprint
- > Exceptional lamp life of 12 000 hours

OZONIA

TECHNICAL DATA	Number of reactors	Flow Rate ⁽¹⁾ (MGD)	Number of lamp	Electrical Power per lamp (kW)	Installed Electrical Power (kW)
Aquaray® H ₂ O 20"	1	80	6	4	24
Aquaray® H ₂ O 'Duplex' 20"	2 (in series)	20	2 x 6	4	48
Aquaray® H ₂ O 36"	1	54	8 or 12	8	64 or 96

(1) Based on a RED of 40 mJ/cm2 and 95 % UVT

MODEL	Dimensions (in.)			Weight (lbs)	Flange (in.)	L x H x W (in.)
	A	B	C			
Aquaray® H ₂ O 20"	35.4	23.6	16.5	772	19.7	45.5 x 34.6 x 27.6
Aquaray® H ₂ O 'Duplex' 20"	35.4	23.6	16.5	1543	19.7	45.5 x 34.6 x 55.1
Aquaray® H ₂ O 36"	51.1	40.1	16.5	1212	35.4	62.2 x 68.9 x 45.7

TECHNICAL FEATURES

- Lamp Type: medium pressure
- Ballast Type: electronic variable output (20-100%)
- Sensor Type: DVGW approved
- Lamp configuration: horizontal cross flow
- Average lamp life: 12 000 hours
- Flanges: DN 500 (20" and Duplex 20"), DN 900 (36")
- Reactor pressure rating: 10 barg
- Main power supply: 400-480V/3ph/50-60Hz
- Earthing System: TN-IT
- Panel rating: IP54

MATERIALS

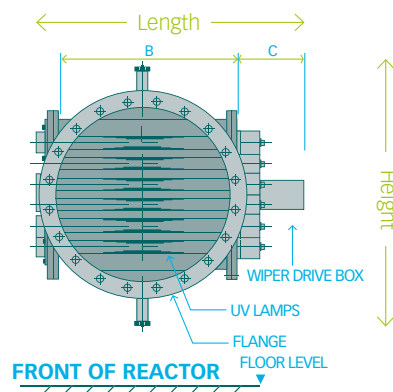
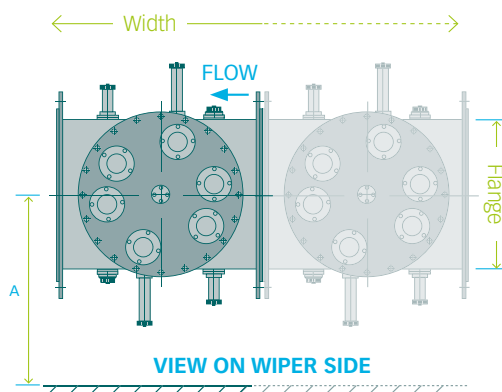
- Reactor material: 316L stainless steel/quartz sleeves / silicon O-ring
- Panel material: mild steel epoxy coated

OPTIONS

- Stainless steel control panel
- Alternate PLC and interface

REMOTE CONTROL AND ALARMS

- SCADA communication capability
- Various alarms (low UV intensity,...)



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