OZONIA

AQUARAY® H_2O

UV Systems for Drinking Water

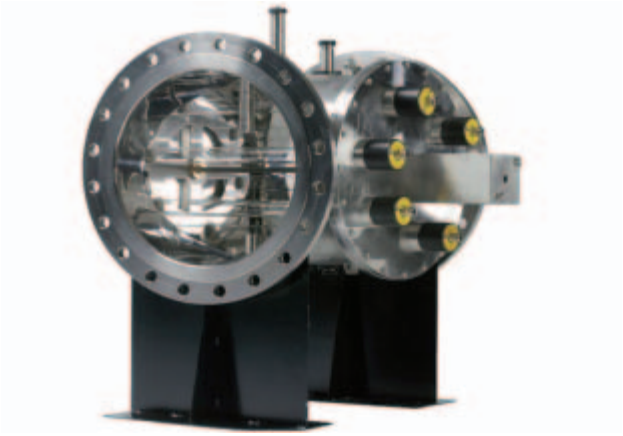
UV DISINFECTION | MEDIUM PRESSURE | US EPA VALIDATED | DRINKING WATER

← Applications

- Drinking water disinfection

← Main characteristics

- Bioassay tested with MS2 and T1 phage
- High capacity with a low number of medium pressure UV lamps
- Dedicated and calibrated UV intensity sensors to ensure optimum reliability
- Automatic wipers for quartz sleeve cleaning
- Meets all US EPA and DVGW guidelines



Aquaray® H_2O UV systems are able to treat from 2 to 55 MGD.

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 variable electronic ballasts, the total power can be adjusted based on the exact flow and water quality characteristics.

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

→ **Validated performance:**
The Aquaray® H_2O has been third party validated and obtained DVGW and/or US EPA certification following strict bioassay testing.

UV TECHNOLOGY: Aquaray® H_2O

The Aquaray® H_2O UV systems 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 the reactor.

DVGW approved UV sensors are 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	Peak Flow Rate	Number of lamp	Electrical Power per lamp	Installed Electrical Power
		MGD		kW	kW
Aquaray® H_2O 20"	1	9	6	4	24
Aquaray® H_2O 'Duplex' 20"	2 (in series)	18	2 x 6		48
Aquaray® H_2O 36"	1	55	10	8	80

- **Lamp Type:** medium pressure
- **Ballast Type:** electronic variable output (20-100%)
- **Sensor Type:** DVGW approved
- **Lamp configuration:** horizontal cross flow
- **Average lamp life:** 10 000 - 12 000 hours

▸ Materials

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

▸ Standards

- **Flanges:** 20", 36"
- **Reactor pressure rating:** 150 psig
- **Main power supply:** 480V-60Hz
- **Panel rating:** NEMA 12 (standard)
- **Operation PLC:** Allen-Bradley (standard)

▸ Remote controls and alarms

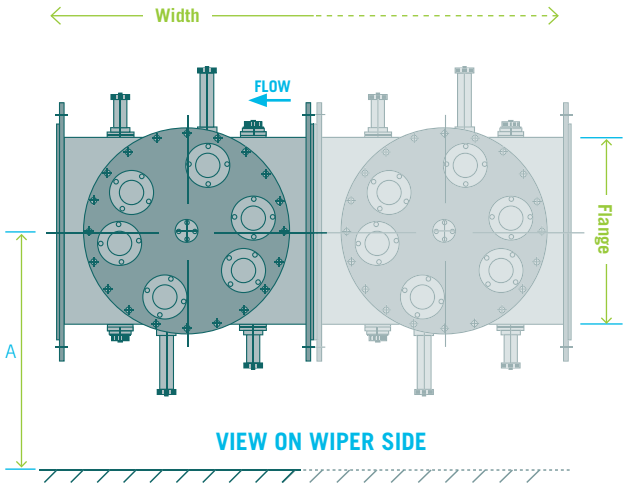
- **SCADA communication capability**
- **Numerous alarms and setpoints**

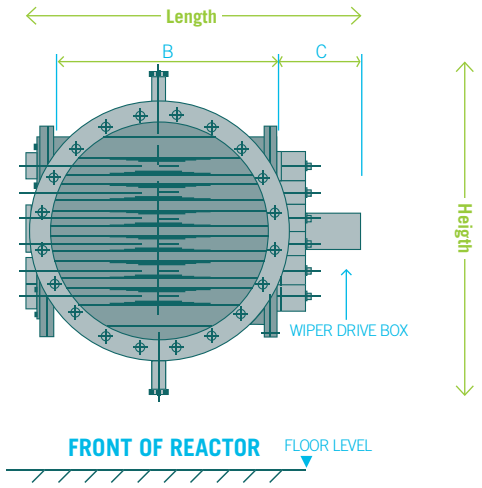
▸ Options

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

DIMENSIONS

Model	Number of reactor	Dimensions (in)			Weight	Flange	l x h x w
		A	B	C	lb	in	in
Aquaray® H_2O 20"	1	26	23.6	16.5	770	20	42.5 x 34.6 x 27.6
Aquaray® H_2O 'Duplex' 20"	2 (in series)	26	23.6	16.5	1540	20	42.5 x 34.6 x 55.2
Aquaray® H_2O 36"	1	45	40	16.5	1210	36	62 x 69 x 45.6





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