

The Aquaray<sup>®</sup> H<sub>2</sub>O range is able to treat from 300 to 8 600 m<sup>3</sup>/h. This reactor eliminates pathogens with a powerful dose of UV light delivered by strategically placed medium pressure lamps.

#### **APPLICATIONS**

• Drinking water disinfection

#### MAIN CHARACTERISTICS

- High capacity with low number of 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<sup>®</sup> H<sub>2</sub>O 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<sup>®</sup> H<sub>2</sub>O uses Medium Pressure lamps with high power density.
- Validated performance: The Aquaray<sup>®</sup> H<sub>2</sub>O has been third party validated and obtained DVGW and USEPA certification upon completion of strict bioassay testing.

# UV TECHNOLOGY : AQUARAY® H,O

The Aquaray<sup>®</sup> H<sub>2</sub>O units have been designed to disinfect drinking water. The germicidal effect of the UV light inactivates most microorganisms 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. DVGW approved UV sensors are installed to monitor UV intensity. Easy access to all components allows for rapid and simple maintenance.





# **PRODUCT HIGHLIGHTS**

- Validated performances by third party (DVGW, USEPA)
- > Automatic energy adjustment from 20 up to 100%
- > Small footprint
- > Exceptional lamp life of 12 000 h





TECHNICAL DATA	Number of reactors	Flow Rate <sup>(1)</sup> (m³/h)	Number of lamp	Electrical Power per lamp (kW)	Installed Electrical Power (kW)
Aquaray® H <sub>2</sub> O 20"	1	1 500	6	4	24
Aquaray <sup>®</sup> H <sub>2</sub> O 'Duplex' 20"	2 (in series)	3 000	2 x 6	4	48
Aquaray® H <sub>2</sub> O 36"	1	8 600	8 or 12	8	64 or 96

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

MODEL	Dim	ensions (r	nm)	Weight	Flange	L x H x W	
HODEE	Α	В	С	(kg)	(mm)	(mm)	
Aquaray <sup>®</sup> H <sub>2</sub> O 20"	900	600	420	350	500	1080 x 880 x 700	
Aquaray® H <sub>2</sub> O 'Duplex' 20"	900	600	420	700	500	1080 x 880 x 1400	
Aquaray® H <sub>2</sub> O 36″	1300	1020	420	550	900	1580 x 1750 x 1160	

#### **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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