

Aquaray* S

FACT SHEET

Horizontal Open Channel UV Disinfection System

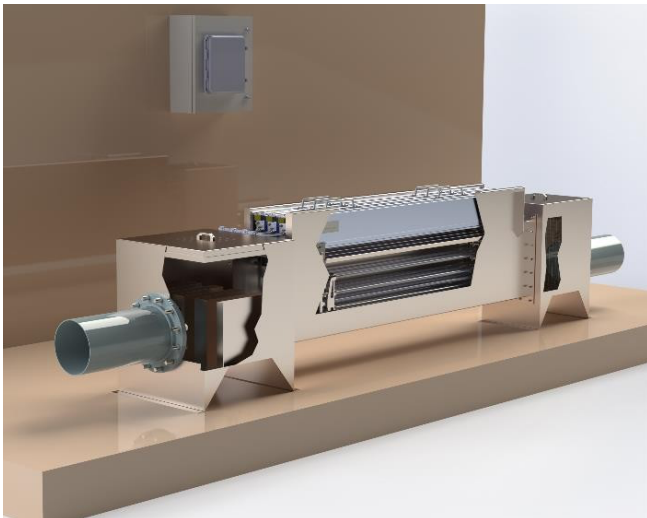


Figure 1: Three module four-lamp Aquaray S system in a stainless-steel channel

The Veolia Aquaray S is the new generation of Aquaray horizontal UV disinfection equipment incorporating the latest electronic ballast and communication technology with powerful long-lasting low pressure high output lamps.

The power supplies for the lamps are located inside a sealed aluminum extrusion directly on top of the module. This Power Bar also handles the lamp controls plus data exchange with the Power Distribution and Data Center (or communicates with an optional PLC based control system).

The self-supporting modular units are placed into the wastewater channel (concrete or stainless steel) in multiple configurations to provide the required level of disinfection.

Each module contains 2, 4, or 6 UV lamps and the disinfection efficiency has been enhanced using flow optimization through the module based on extensive CFD modeling.

Quartz sleeves protect the lamps which may gradually foul with scale or debris depending on water quality. As an option, the Aquaray S offers a fully automatic, in-channel cleaning system to minimize the effect of fouling over time.

Aquaray S Features & Benefits

- Modular system for increased flexibility
- Bioassay validated in accordance with IUVA Uniform protocol for Wastewater Disinfection
- Proven 165 watt lamp for optimum performance & minimal footprint
- Instant lamp ignition, no preheat delay
- Low replacement lamp cost
- Tuned influent flow guides for disinfection efficiency
- IP68 rated for submergence resilience
- 360° intensity UV sensor within a quartz sleeve
- Optional Wiping System Available
- Optional PLC Controls Available
- Available in stainless steel prefab design or concrete channel layout





Figure 2: Four lamp module with power bar

Table 1: Aquaray S Specifications

Targeted plant flow rate	Up to 3 MGD
Lamp power	165 W
Lamp life	12,000 hours
Lamp Type	Low-pressure High Output (LP HO)
Ballast Type	Electronic; Fixed power Instantaneous start
Power requirement	120V/230V/400V/480V 50/60 Hz
Design Conformity	UL/CE/cUL

Table 2: Aquaray S Operational information

Lamp Configuration	Horizontal, parallel flow
Ambient Operating Temperature (min/max)	14°F / 104°F (-10°C / 40°C)
Installation	Indoor or outdoor
Module Features	TYPE 6P (IP68) Convection Cooling - no AC or forced air required
Channel Material Options	Stainless Steel 304L Stainless Steel 316L Concrete



Figure 4: Close-up of UV sensor including optional wiping system

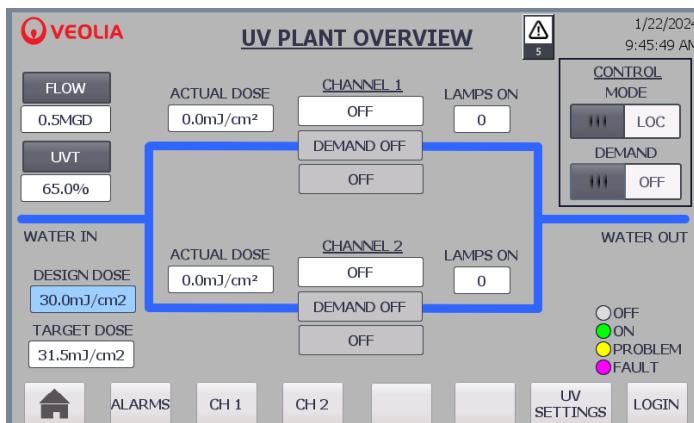


Figure 3: HMI Screen in PLC Controls

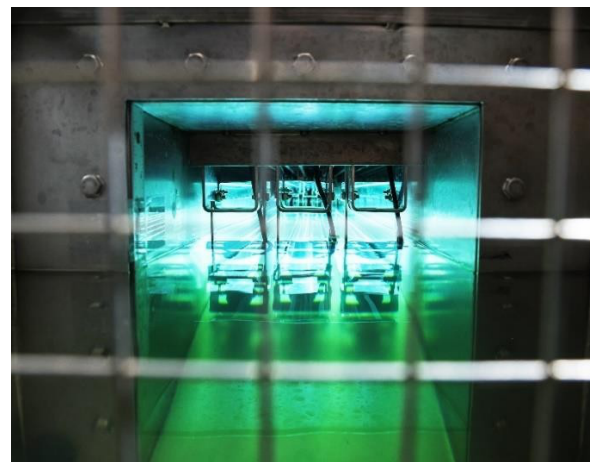


Figure 5: Inlet featuring three module system submerged in stainless steel channel.

