VEOLIA

# Aquaray* 40HO

UV Disinfection Systems

*WATER TECHNOLOGIES*

The **Aquaray 40HO** (high-output) vertical lamp system offers **powerful UV output** within a reduced footprint while providing the degree of disinfection required for even the most stringent of effluent criteria, such as wastewater reuse applications.

### Applications

- Wastewater disinfection
- Wastewaterreuse

### Main Characteristics

- Low-pressurehigh-outputlamps
- Ratedforoutdoor/indooruse
- Verticalcrossflowdesign
- Future upgrade flexibility

# Main Features

## Energy Conservation

With a combination of efficient ballasts and row- by-row lamp switching increments, the **Aquaray 40HO** ensures energy conservation by dose pacing based onflowratesignalandUVtransmittance.

## Validated Performance

The **Aquaray 40HO** has been third party validated and completed strict bioas-say testing for disinfectionandwaterreuse(Title22certified).

## Easy Maintenance

Due to the vertical design, the **Aquaray 40HO** provides easy access to the UV lamps and quartz sleeves (no need to remove the UV module from channel).

## Save Space

To minimize the footprint, the **Aquaray 40HO** utilizes Low Pressure High Output lamps in a verticaldesign.

# UV Technology: Aquaray 40HO

The **Aquaray 40HO** vertical lamp ultraviolet disinfection system has been designed to provide disinfection for wastewater plants within a small footprint. The germicidal effect of the UV light inactivates most micro-organisms such as bacteria, viruses and parasites, while eliminating the needfordangerouschemicals.

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 hydraulicdesignoftheUVsystem.

## How it Works

The low-pressure high-output lamps are powered by electronic ballasts to generate germicidal wavelengths of the UV spectrum. The lamps are inserted in quartz sleeves and isolated from the wastewater while delivering the required effluent inactivation.

UV sensors are installed to monitor the UV intensity from the lamps and guarantee that the proper intensity is delivered. The periodic maintenance of the system has been made simple and efficient by allowing the replacement of the lamps without removal of the submerged UV modules from the channel.

| Model | Technical Data | | |
|---|---|---|---|
| | flowrate per module (m□/h) | numberof lamps per module | electrical power per lamp (w) |
| Aquaray 40HO | 315to500 | 40 | 165 |

basedon30mJ/cm□and65%UVT

| Model | Reactor Dimensions | | | |
|---|---|---|---|---|
| | A | B | C | D |
| Aquaray 40HO | 30" 762mm | 20.98" 533mm | 67" 1,702mm | 24.52" 623mm |

# Technical Features

- **Lamp type:** low-pressure high-output
- **Ballast type:** electronic(ontopofthemodule)
- **Lamp configuration:** vertical cross flow
- **Average lamp life:** 10000-13000hours
- **Power supply:** 400V/3ph+N/50-60Hz
- **Earthing system:** TNS
- **Module protection class:** IP54
- **Control panel protection class:** IP55

# Materials

- **316 stainless steel frame and enclosure**
- **UV resistant materials**

# Options

- **In-channel air scrub**
- **UVT analyzer**
- **Chemical cleaning system**
- **Lifting apparatus**

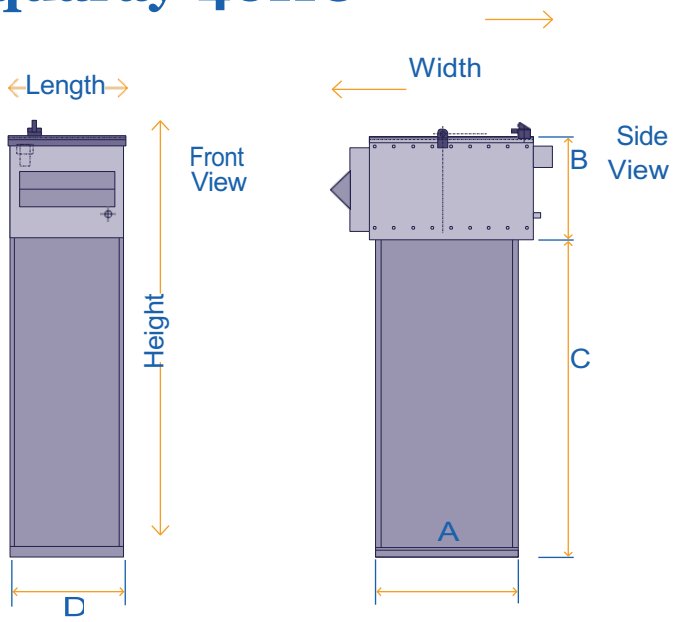
# Remote Control and Alarms

- **SCADA communication capability**
- **Dose pacing via external flow signal and UV transmittance**
- **Various alarms (low UV intensity, failed adjacent lamps, etc…)**

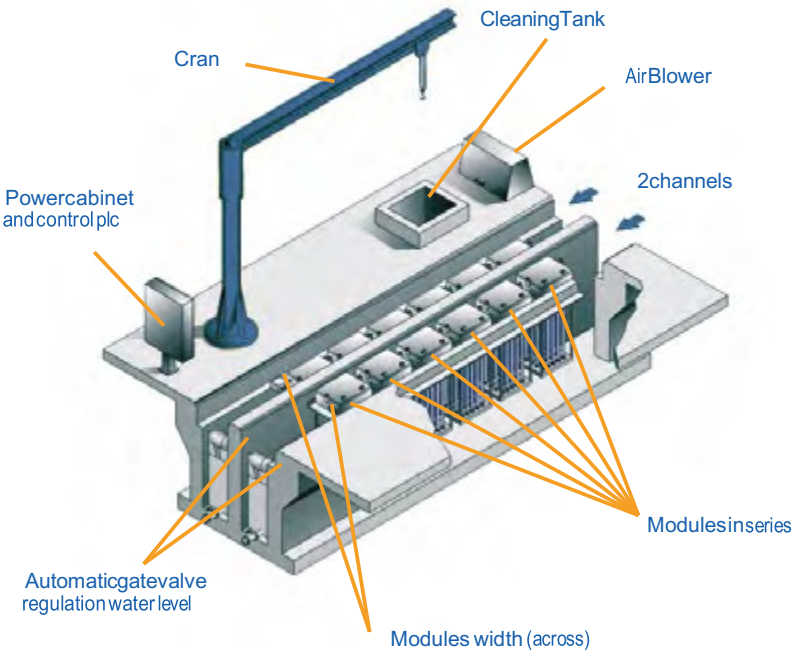
# Product Highlights

- Easymaintenance
- Smallfootprint
- Energyconservation
- Nosubmergedconnections

# Aquaray 40HO




# Typical Installation



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