



# Aquaray\* HiCAP UV Systems

Ultraviolet Disinfection

#### **Applications**

- Wastewater
- Reuse

The Aquaray HiCAP has been designed for high capacity municipal wastewater and reuse applications.

#### **Main Features**

- Easy access Vertical Lamp System (VLS)
- · Modular design increases flexibility
- · Bioassay validated disinfection performance
- Opti-Dim row-by-row flow pacing and lamp dimming reduces energy consumption
- · Automatic UV bank lifting system
- High power amalgam lamps reduces system footprint and lamp count

## **Product HighLights**

- · Easy to operate and maintain
- Safe and environmentally friendly
- Effective on a wide rang of microorganisms including Chlorine resistant species
- · Low capital and operating costs
- No submerged electrical connections
- No need to stop disinfection or lift UV modules out of the channel for maintenance



## Aquaray HiCAP UV Technology

Over 20% of the wastewater treatment plants in North America use UV disinfection technology. The use of UV is growing due to its inherent safety as a non-chemical process, its ability to inactivate a wide range of harmful microorganisms, and its cost and maintenance advantages.

UV has been proven for decades as an effective disinfection method in municipal wastewater applications and has many advantages over traditional disinfection technologies.

As the leading vertical UV system manufacturer, Veolia's UV technology has proven its quality and reliability for over 25 years.

Veolia leverages its three R&D centers to develop next generation products for the municipal drinking water, municipal wastewater, industrial process water, and leisure markets.

With local offices in the USA, Switzerland, Scotland, France, Russia, China, Singapore and Korea - Veolia can provide the local knowledge and expert advice to solve any water treatment challenge.

Veolia draws upon its global resources by partnering with distributors and representatives around the world for sales, service and customer care support.

No matter where your business takes you, Ozonia's network of offices and local representatives can provide the support you need to achieve your goals.



### **Aquaray HiCAP ULtravioLet Disinfection Systems**

The Aquaray HiCAP has been designed for *High Capacity* municipal wastewater applications - so even the world's largest treatment facilities can benefit from Aquaray vertical lamp systems performance and reliability.

## Integrated automatic bank lifting system

- The Automatic Bank Lifting System (ABLS) enables plants to reduce capital costs by eliminating the need for a crane
- Modules can be lifted automatically for maintenance or winter storage

#### Power Supply Unit (PSU)

- Air Conditioned Self Contained
- External Power Supply Unit (PSU) allows easy access to ballast and electrical components

#### Advanced PLC Control System

- Intuitive touch screen Human Machine Interface (HMI) allows easy lamp and power tracking
- Ethernet connections allow remote access and remote system operation

#### "Row by Row" Flow Pacing

- Flow pacing technology increases system efficiency by reducing the total number of lamps in operation to match flow conditions
- Lamp and ballast efficiency is further optimized by dimming lamps
- 360° UV intensity sensor readings taken to confirm water quality conditions

#### Low-Pressure High-Output Amalgam Lamps

- High efficiency amalgam lamp and ballast combination has been designed to meet the requirements of the largest plants in the world
- Up to 50% reduction in number of lamps
- 12,000 hour lamp lifetime

## Modular Vertical Lamp System (VLS)

- Modular increments of lamps allow accurate sizing and increased flexibility for design & expansion
- Compact vertical design reduces UV system footprint by 30% - Reducing channel length, width and depth
- Reduced headloss at high flow rates

# Vertically oriented - staggered lamp arrays eliminate short circuiting and low UV intensity "Dead Zones"

 Patented flow deflectors optimize hydraulics by directing water toward the center of the UV lamp array

# Modular design provides the ability to add smaller increments of lamps to match plant and flow conditions

- · Flexibility for plant design and expansion
- · Add multiple banks in series to optimize hydraulics
- · Multi-bank channel design reduces channel count
- Ensure redundancy requirements are met

#### Automatic uv bank lifting system

- · Provides ability to lift modules wthout a crane
- · Easy maintenance and winter storage

#### Bioassay validated performance

- The Aquaray HiCAP has undergone extensive bioassay validation testing to confirm disinfection performance.
- Designed for a wide range of effluents including low UV transmittance applications and combined sewer overflows (CSOs)
- Complies with NWRI and California Department of Public Health wastewater reuse Title 22 requirements

# Resourcing the world

Curio Group Ltd
30 Celtic Court, Ball Moor
Buckingham MK181RQ
WWW.CURIOWATER.CO.UK

