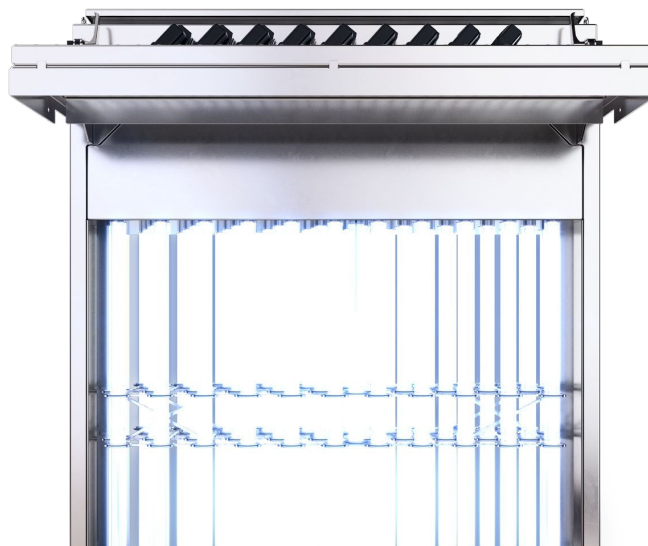


ULTRAAQUA · OPEN CHANNEL UV DISINFECTION FOR WASTEWATER

OPEN CHANNEL VERTICAL Series

Modular open channel UV systems with vertical lamp banks and a sealed top compartment for service while submerged.



Overview

The VERTICAL series disinfects wastewater in open channels without chemicals. Its lamps stand vertically in a CFD-optimised cross-row layout, so every pathogen passing through the lamp bank is exposed to UV light while energy demand stays low.

The robust modular frame can be sized to virtually any channel width and depth, which makes the series well suited to retrofits, for example into former chlorination tanks. Lamps, quartz sleeves, wiper motor and UV sensors sit in a sealed top compartment, so routine maintenance is done while the system stays submerged.

Ozone UV Solutions supplies VERTICAL systems as an authorised ULTRAAQUA reseller and supports them locally: from sizing and installation through commissioning, servicing, lamps and spare parts.

Key features

- Vertical, CFD-optimised cross-row lamp layout for full pathogen exposure at low energy demand
- ULTRATHERM low-pressure high-output amalgam lamps with a rated life of 16,000 hours
- Sealed top compartment: maintenance while the system remains submerged
- Integrated lifting mechanism; wall-mount installation available
- Automatic water level management for level variations of up to 300 mm (12 in)
- Automatic ULTRAWIPER™ cleaning of quartz sleeves and UV sensor, with automatic dose pacing

Design and operation

Lamp layout and dose

The cross-row lamp layout gives complete pathogen exposure with low energy use. Automatic dose pacing reduces lamp power whenever conditions allow while holding a stable dose.

Water level control

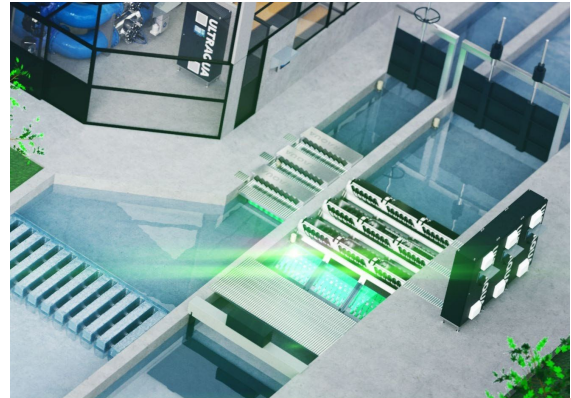
Automatic water level management allows the level to vary by up to 300 mm (12 in) without affecting disinfection performance. Ultrasonic level control and flow control options are available.

Lamps and cleaning

ULTRATHERM amalgam lamps have a rated life of 16,000 hours. The automatic ULTRAWIPER™ keeps the quartz sleeves and UV sensor clean and prevents heavy fouling.

Maintenance

The hoisting mechanism and the sealed top compartment make maintenance quick, easy and hygienic, without draining the channel.



Typical applications

- Municipal and industrial wastewater disinfection
- Stormwater overflow (CSO) treatment
- Recirculating aquaculture systems (RAS)

Supplied and supported by Ozone UV Solutions

System selection and UV dose sizing · Installation and commissioning · PLC/SCADA integration · Planned servicing and lamp changes · Spare parts and consumables · 24/7 technical support line **+61 422 081 913**

System characteristics

Open channel systems are configured for each channel. Send us the channel width and depth, the design flow, the water level range, UV transmittance if known, and the required dose or discharge limit. We will configure the lamp banks and quote supply, installation and ongoing service.

UV LAMPS & MONITORING	
Lamp type	ULTRATHERM low-pressure high-output (LPHO) amalgam
Rated lamp life	16,000 hours
Lamp arrangement	Vertical, CFD-optimised cross-row layout
UV monitoring	UV intensity sensor, ÖNORM M 5873-1 certified, PTFE · [UVT probe for online UVT monitoring]
Dose control	Automatic dose pacing (standard)
LAMP BANKS AND CHANNEL	
Configuration	Modular lamp banks, customised to the channel dimensions
Material	Passivated and pickled 316L, or Super Duplex
Hydraulics	Open channel, gravity flow
Flow range	5–24,000 m³/h
UV transmittance	20–100%
Water level control	Automatic, level variation up to 300 mm (12 in) · [ultrasonic water level control] · [flow control]
Cleaning	ULTRAWIPER™ automatic wiping of quartz sleeves and UV sensor
Lifting / mounting	Integrated lifting mechanism · wall-mount installation available
CONTROL CABINET	
Control logic / HMI	ULTRATOUCH PLC with touchscreen HMI and full data logging; UV dose, UVT, flow and power level shown on the HMI
Communication	Profibus, PROFINET, Modbus TCP/IP
Enclosure	Painted steel, SS304, SS316L or GFRP · IP54 or IP65 (NEMA 3/4X)
Lamp drivers	Electronic, variable output
Power supply	1 × 230 V or 3 × 400 V +N+PE ±10%, 47–63 Hz [other voltages]

Options are shown in [square brackets].

Request sizing or a quote

Send us the channel dimensions, design flow, water level range, UV transmittance if known, and the required dose or discharge limit. We will configure the system and quote supply, installation and ongoing service.

+61 422 081 913 · jonathan.andry@ozoneuv.com.au · ozoneuv.com.au

Specifications subject to change without notice.