

ULTRAAQUA · SWIMMING POOL UV DISINFECTION

ULTRABLUE Series

NSF-50 certified medium-pressure UV systems for disinfection and combined chlorine removal in swimming pools.



Overview

Most of the combined chlorine measured in pool water consists of organic chloramines, which affect water and air quality for swimmers. The ULTRABLUE series breaks these compounds down continuously by photolysis, using pool-optimised medium-pressure lamps, and at the same time disinfects the water and provides a barrier against Cryptosporidium and Giardia.

Large flanged connections and a CFD-optimised reactor keep head loss very low even at high flow rates. The PLC can dim the lamps according to the measured combined chlorine level, timers, flow or the UV sensor, and can hold a minimum UV dose during opening hours.

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

Key features

- NSF-50 certified UV system for pool disinfection and chloramine control
- Designed for 99.9% (3-log) Cryptosporidium reduction in a single pass
- ULTRATHERM medium-pressure high-intensity lamps, 600 W to 4,000 W, with a rated life of 9,000 hours
- Compact in-line reactor in electropolished SS316L with excellent resistance to chlorides
- Lamp power controlled by combined chlorine input, ULTRADOSE pacing down to 30%
- ÖNORM M 5873-1 certified pool sensor, serviceable during operation; automatic ULTRAWIPER™

Design and operation

Hydraulics and dose

The compact reactor with CFD-optimised lamp positions gives high hydraulic efficiency with minimal head loss. ULTRADOSE pacing and a user-selectable combined chlorine mode adjust lamp power in real time to save energy.

Lamps and cleaning

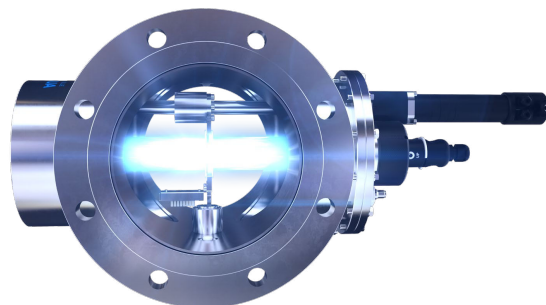
ULTRATHERM medium-pressure lamps have a rated life of 9,000 hours and run on electronic ballasts, which optimise power use and allow a lamp function alarm. The automatic ULTRAWIPER™ keeps the quartz sleeves clean.

Controls

PLC with 7" ULTRATOUCH touchscreen, Modbus TCP/IP (PROFINET and Profibus optional), 4–20 mA flow and combined chlorine inputs and a dose, UV intensity or power output. Event and data logs include combined chlorine.

Maintenance

Single-sided access and interlocking electrical and mechanical lamp connectors make servicing safe and quick, with no special tools. The sensor can be cleaned, serviced or replaced while the system runs.



Typical applications

- Swimming pools: disinfection and combined chlorine (chloramine) reduction
- Protection of pool water against Cryptosporidium and Giardia

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**

Model selection

The right model depends on the circulation flow, UV transmittance (UVT) of the pool water and the required dose. Send us these figures and we will confirm the model and configuration.

ULTRABLUЕ models

Model	UV lamps	Lamp power	Connection	Dry weight	Wet weight	Current draw	Power supply
ULTRABLUЕ 1-600SS	1	600 W	DN80 (ANSI 3)	19 kg	24 kg	3 A	1 × 208/230 VAC
ULTRABLUЕ 2-600SS	2	600 W	DN100 (ANSI 4)	26 kg	35 kg	6 A	1 × 208/230 VAC
ULTRABLUЕ 1-2500SS	1	2,500 W	DN150 (ANSI 6)	31 kg	42 kg	14 A	1 × 208/230 VAC
ULTRABLUЕ 2-2500SS	2	2,500 W	DN200 (ANSI 8)	46 kg	70 kg	28 A	1 × 208/230 VAC
ULTRABLUЕ 2-4000SS	2	4,000 W	DN250 (ANSI 10)	53 kg	87 kg	12 A	3 × 400 VAC
ULTRABLUЕ 3-4000SS	3	4,000 W	DN300 (ANSI 12)	81 kg	134 kg	24 A	3 × 400 VAC

Control cabinet by model

Models	Cabinet size (H×W×D mm)	Cabinet weight	Cable length
ULTRABLUЕ 1-600SS, 2-600SS	800×600×260	50 kg	8 m
ULTRABLUЕ 1-2500SS, 2-2500SS	800×800×300	60 kg	10 m [up to 30 m]
ULTRABLUЕ 2-4000SS, 3-4000SS	1000×800×400	75 kg	10 m [up to 30 m]

Options are shown in [square brackets].

Common specifications

UV LAMPS & MONITORING	
Lamp type	ULTRATHERM medium-pressure high-intensity (MPHI), electronic ballast with lamp function alarm
Rated lamp life	9,000 hours
UV monitoring	UV intensity sensor, ÖNORM M5873 certified, SS316L
Power control	ULTRADOSE automatic pacing 50–100% (600 W models) · 30–100% (2,500 W and 4,000 W models) · power mode based on combined chlorine input, user-selectable
Single lamp control	ULTRASWITCH setting on models with two or more lamps
Approvals	NSF-50, CE [UL]
UV CHAMBER	
Chamber material	SS316L, electropolished inside and out
Connection type	PN10 (ANSI Class 150) flanges [other flanges on request]
Design pressure	10 bar
Quartz sleeves	High-purity fused quartz
Cleaning	ULTRAWIPER™ automatic mechanical wiper, PTFE, 24 V DC electric motor
Installation	Free-standing · horizontal or vertical (lamps must be horizontal) · single-ended lamp and wiper access · lamp change safety
Other	2 × PT100 temperature probes with thermal cut-out at 50 °C · ½" BSP plugged vent, drain and air ports · IP65 · minor wetted parts PTFE, PVDF, FKM
CONTROL CABINET	
Control logic / HMI	PLC · 7" ULTRATOUCH touchscreen
Communication	Modbus TCP/IP [PROFINET, Profibus]
Analogue I/O (4–20 mA)	UV dose, UV intensity or power output · flow input · combined chlorine input
Logging	Event log (power ON/OFF, lamps ON/OFF, alarms) · data log (UV dose, UV intensity, flow, combined chlorine)
External wiring	Remote ON/OFF, safety ON/OFF, system status, alarm
Cabinet	Powder-painted steel [SS304, SS316L] · wall-mounted, ambient 0–45 °C, non-condensing · IP54 (NEMA 13) · fan cooled · 90° two-position rotary interlock switch

Request sizing or a quote

Send us your pool volume and circulation flow, UV transmittance if known, and your combined chlorine targets. We will recommend the model and configuration and quote supply, installation and ongoing service.

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Specifications subject to change without notice.