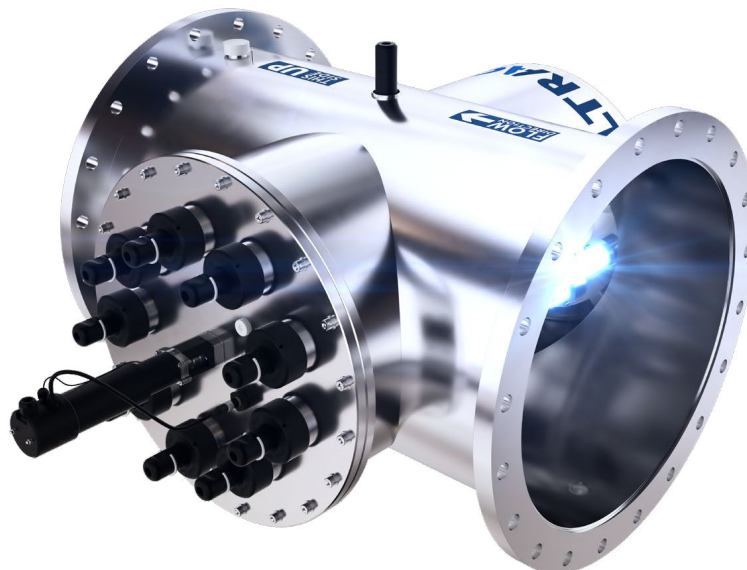


ULTRAAQUA · HIGH-FLOW MEDIUM-PRESSURE UV DISINFECTION

ULTRATRON™ Series

Compact medium-pressure UV systems for high flows where space is tight and high lamp power density is needed.



Overview

The ULTRATRON™ series uses ULTRATHERM medium-pressure high-intensity (MPHI) lamps, which deliver a large UV output from a small reactor. This makes the series a strong choice for high-flow lines and for retrofits where floor space or pump capacity is limited. The compact reactor and CFD-optimised lamp positions give high hydraulic efficiency with minimal head loss.

The flanged reactor installs vertically or horizontally and fits into existing pipework, so it can be retrofitted at almost any scale.

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

Key features

- ULTRATHERM MPHI lamps from 600 W to 12,000 W per lamp, with a rated life of 9,000 hours
- Compact SS316L reactor, electropolished inside and out [Super Duplex on 4,000 W models and above]
- Sizes from 1 to 12 lamps with flanged connections from DN80 to DN800 [DN1200]
- ÖNORM M5873 certified UV intensity sensor and ULTRADOSE dose pacing down to 20% of lamp power
- Automatic ULTRAWIPER™ cleaning of the quartz sleeves and UV sensor
- Approved by the Norwegian Veterinary Institute (NVI); Siemens PLC with 7" ULTRATOUCH touchscreen

Design and operation

Hydraulics and dose

The compact reactor and CFD-optimised lamp positions keep head loss low, which matters where pump capacity is limited. The electropolished surfaces reflect UV light back into the water, improving efficiency by up to 30% in water of high UV transmittance. ULTRADOSE pacing reduces lamp power while holding a stable dose.

Lamps and cleaning

ULTRATHERM MPHI lamps have a rated life of 9,000 hours and a stabilising design that protects them against residual vibration and shock. The automatic ULTRAWIPER™ keeps the quartz sleeves and UV sensor clean.

Controls

Siemens PLC (Allen-Bradley optional) with 7" ULTRATOUCH HMI, alarm, event and data logs, Modbus TCP/IP (PROFINET on 4,000 W models and above) and 4–20 mA signals for flow, dose and intensity, with optional UVT input.

Maintenance

Single-ended lamp and wiper access and interlocking lamp connectors allow servicing without special tools. Two PT100 probes monitor temperature.



Typical applications

- Aquaculture: recirculating systems (RAS), intake water and wellboats
- Drinking water, and municipal and industrial wastewater including stormwater overflow (CSO)
- Cooling tower water, food and beverage, pharmaceutical, oil and gas, and horticulture

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 flow rate, UV transmittance (UVT) of the water and the dose required for the target pathogens. Send us these figures and we will confirm the model and configuration.

600 W and 2,500 W lamp models

Model	UV lamps	Lamp power	Connection	Design pressure	Power	Reactor dry weight	Reactor volume
MP1-600SS	1	600 W	DN80 (ANSI 3)	10 bar	0.8 kW	19 kg	24 L
MP2-600SS	2	600 W	DN100 (ANSI 4)	10 bar	1.4 kW	26 kg	35 L
MP1-2500SS	1	2,500 W	DN150 (ANSI 6)	10 bar	2.7 kW	31 kg	42 L
MP2-2500SS	2	2,500 W	DN200 (ANSI 8)	10 bar	5.2 kW	46 kg	70 L

4,000 W to 12,000 W lamp models

Model	UV lamps	Lamp power	Connection	Design pressure	Power	Reactor dry weight	Reactor volume
MP2-4000SS	2	4,000 W	DN300 (ANSI 12)	10 bar [16 bar]	8.2 kW	74 kg	51 L
MP3-4000SS	3	4,000 W	DN300 (ANSI 12)	10 bar [16 bar]	12.2 kW	75 kg	51 L
MP4-4000SS	4	4,000 W	DN300 (ANSI 12)	10 bar [16 bar]	16.2 kW	76 kg	51 L
MP4-6000SS	4	6,000 W	DN450 (ANSI 18)	10 bar [16 bar]	24.2 kW	183 kg	157 L
MP6-6000SS	6	6,000 W	DN450 (ANSI 18)	10 bar [16 bar]	36.2 kW	186 kg	157 L
MP8-6000SS	8	6,000 W	DN450 (ANSI 18)	10 bar [16 bar]	48.2 kW	189 kg	157 L
MP6-8000SS	6	8,000 W	DN600 (ANSI 24)	10 bar [16 bar]	48.2 kW	316 kg	362 L
MP8-8000SS	8	8,000 W	DN600 (ANSI 24)	10 bar [16 bar]	64.2 kW	322 kg	362 L
MP9-8000SS	9	8,000 W	DN600 (ANSI 24)	10 bar [16 bar]	72.2 kW	325 kg	362 L
MP6-12000SS	6	12,000 W	DN800 (ANSI 32) [DN1200]	6 bar [10 bar]	72.2 kW	645 kg	694 L
MP8-12000SS	8	12,000 W	DN800 (ANSI 32) [DN1200]	6 bar [10 bar]	96.2 kW	651 kg	694 L
MP10-12000SS	10	12,000 W	DN800 (ANSI 32) [DN1200]	6 bar [10 bar]	120.2 kW	663 kg	694 L
MP12-12000SS	12	12,000 W	DN800 (ANSI 32) [DN1200]	6 bar [10 bar]	144.8 kW	669 kg	694 L

Control cabinet by model

Models	Cabinet size (H×W×D mm)	Mounting	Power supply
MP1-600SS, MP2-600SS	800×600×260	Wall-mounted	1 × 208/230 VAC
MP1-2500SS, MP2-2500SS	800×800×300	Wall-mounted	1 × 208/230 VAC
MP2-4000SS, MP3-4000SS	1000×800×400	Wall-mounted	3 × 400 VAC
MP4-4000SS	1000×800×400	Floor-standing	3 × 400 VAC
MP4-6000SS, MP6-6000SS, MP8-6000SS	1600×600×600	Floor-standing	3 × 400 VAC
MP6-8000SS	2000×600×600	Floor-standing	3 × 400 VAC
MP8-8000SS	1600×1200×600	Floor-standing	3 × 400 VAC
MP9-8000SS and all 12,000 W models	2000×1200×600	Floor-standing	3 × 400 VAC

Options are shown in [square brackets].

Common specifications

UV LAMPS & MONITORING	
Lamp type	ULTRATHERM medium-pressure high-intensity (MPHI)
Rated lamp life	9,000 hours
UV monitoring	UV intensity sensor, ÖNORM M5873 certified, SS316L
Power control	ULTRADOSE dose pacing: 30–100% (600 W and 2,500 W models) · 20–100% (4,000 W models and above)
Approvals	Norwegian Veterinary Institute (NVI), CE [UL / Marine DNV]
UV CHAMBER	
Chamber material	600 W and 2,500 W: SS316L · 4,000 W and above: SS316L / 1.4404 [Super Duplex]; electropolished inside and out
Connection type	600 W and 2,500 W: PN10 (ANSI Class 150) [other flanges on request] · 4,000 W to 8,000 W: EN 1092 Type 01A PN10 (ANSI Class 150) [PN16 (ANSI Class 300)] · 12,000 W: EN 1092 Type 01A PN6 (ANSI Class 125) [PN10 (ANSI Class 150)]
Quartz sleeves	High-purity fused quartz; transmittance > 95% on 4,000 W models and above
Cleaning	ULTRAWIPER™ automatic mechanical wiper: PTFE with 24 V DC electric motor (600 W and 2,500 W) · PTFE/fibre rings, electric drive (4,000 W and above)
Mounting / installation	Free-standing · [horizontal SS316 stand] on 4,000 W to 8,000 W models · [integrated stand] on 12,000 W models · horizontal or vertical installation · single-ended lamp and wiper access
Temperature probes	2 × PT100; 600 W and 2,500 W models with thermal cut-out at 50 °C
Vent & drain ports	½" BSP, plugged (600 W and 2,500 W) · 1" on both sides (4,000 W and above)
Other	IP65 · minor wetted parts PTFE, PVDF, FKM (600 W and 2,500 W) · FDA-approved PTFE, PVDF, Viton (4,000 W and above)
CONTROL CABINET	
Control logic / HMI	Siemens PLC [Allen-Bradley] · 7" ULTRATOUCH touchscreen
Communication	600 W and 2,500 W: Modbus TCP/IP (Ethernet RJ45) · 4,000 W and above: Modbus TCP/IP, PROFINET
Analogue I/O (4–20 mA)	Flow input, UV dose output, UV intensity output [UVT input]
Logging	Alarms, events and data (UV dose, UV intensity, flow)
Cabinet	Powder-painted steel [SS304, SS316L on 600 W and 2,500 W; 316L on larger models] · IP54 [IP65 on MP2-4000SS to MP6-8000SS] · fan cooling [AC; heat exchanger on MP8-8000SS and above] · ambient 0–45 °C (600 W and 2,500 W) or 0–40 °C, non-condensing
Power supply	600 W and 2,500 W: 1 × 208/230 VAC ±10% +N+PE 50/60 Hz · 4,000 W and above: 3 × 400 VAC ±10% +N+PE 50/60 Hz
Cable length	4 m standard [up to 30 m]

Request sizing or a quote

Send us your flow rate, application, UV transmittance if known, and the target pathogens or required dose. We will recommend the model and configuration and quote supply, installation and ongoing service.

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Specifications subject to change without notice.