

UV Swim I

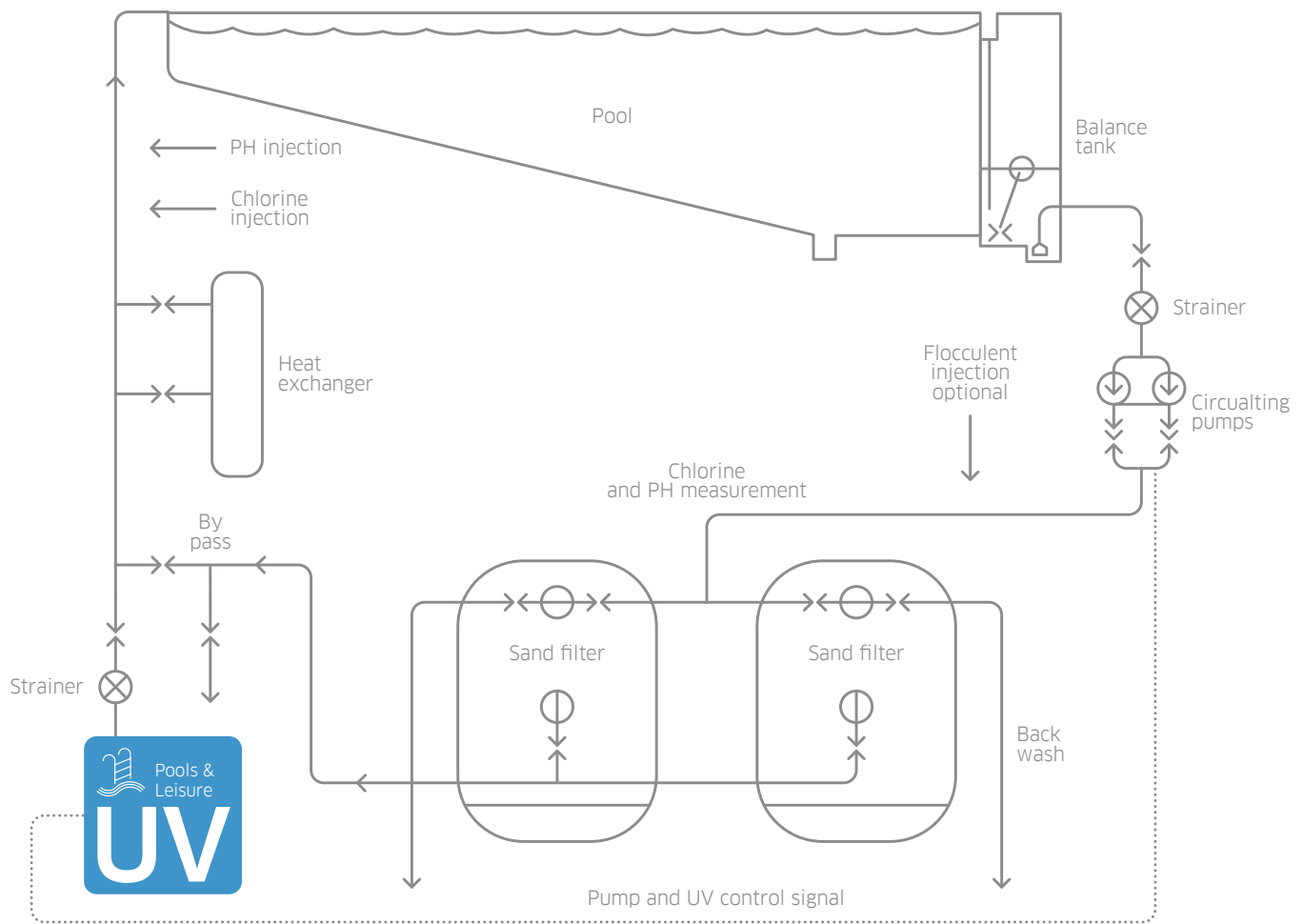
OPTIMIZED UV TREATMENT FOR POOLS AND SPAS

Our UV Swim I systems are NSF50 listed and are third party validated to meet the Model Aquatic Health Code (MAHC), US EPA UVDGM and DVGW requirements. The system are optimized to deliver effective treatment (chlorine removal) for all leisure facilities from spas through to large competition pools. By using medium pressure lamps we break down not only monochloramine but also di- and trichloramine which are responsible for eye and skin irritation, headaches and unpleasant odours. Using UV in the water treatment process provides bathers and staff with a pleasant and safe environment. UV has the added advantage of being effective against chlorine resistant microorganisms such as Cryptosporidium and is up to 5 times cheaper to maintain and occupies only 1/10th of the space of ozonation equipment.

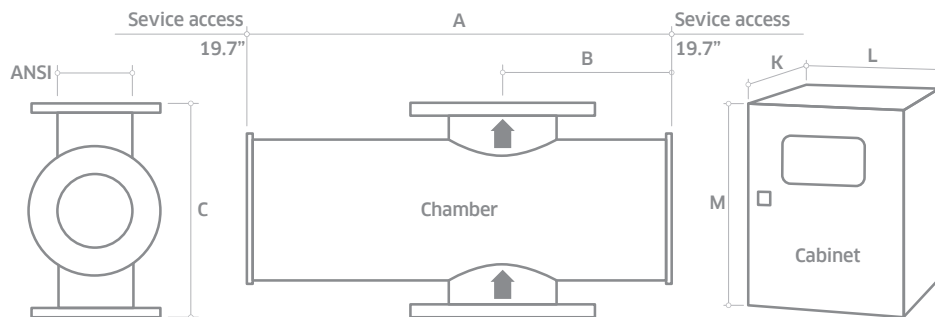


Application
Optimized UV for
Pools & Leisure

UV SWIM I FLOW DIAGRAM FOR SINGLE POOL WITH UV TREATMENT



| KEY FEATURES | WHAT IT GIVES YOU | BENEFITS FOR YOU |
|--|--|---|
| INTELLIGENCE | | |
| Dry DVGW approved UV sensor measuring active wavelengths | Continuous verification of performance with in-built low intensity alarm | Easy to monitor and log system performance |
| Flow meter input | Stepless adjustment of lamp power based on real time operating conditions | Optimized use of energy, saving operating costs |
| OPTIMISATION | | |
| Medium pressure lamps | Provides UV light at 200 to 400 nm wavelengths ideal for the destruction of mono-, di- and trichloramine | Visibly clear water with reduced odours |
| | | Reduced corrosion risk |
| | Provides germicidal wavelengths to treat the water | Minimizes bathers' eye and skin irritation |
| | Lower Maintenance cost and maintenance time | Protect bathers from chlorine resistant microorganisms such as Cryptosporidium or Giardia |
| | Self cleaning | Reduced operating costs |
| Automatic wiper (quartz cleaning) | | |
| INTEGRATION | | |
| Designed specifically for pools | Compact design | Easy integration |



- * Allow dimension L in front of cabinet for door opening and panel access.
- ** M dimension includes the space for the cabinet mounting brackets but you need to allow space below the cabinet for cable entry and access (minimum of 9.8").
- *** CC: Control cabinet, PC: Power cabinet
- * Attention: the optional cabinet with A/C is bigger. Ask for dimensions.

All dimensions are approximate for clearance purposes only. We have a policy of continuous product development, exact drawings are available on request.

All specifications are subject to change without notification. Your distributor or our account manager can advise on correct sizing and specification requirements.

| MODEL NUMBER | MAX FLOW (GPM) MAHC | MAX FLOW (GPM) 60MJ AVG DOSE | MAX POWER (KW) | NO OF LAMPS | DIMENSIONS (INCHES) | | | | | | | | APPROX WEIGHT (LB) | |
|-----------------|---------------------|------------------------------|----------------|-------------|---------------------|------|------|------|------------|-----------------------------------|------|-------|--------------------|--------------------|
| | | | | | A | B | C | ANSI | Cab. No*** | Cabinet (fan cooled) ^a | | | Chamber Empty | Cabinet Fan cooled |
| UV Swim I-100+ | 123 | 136 | 1.7 | 2 | 30.7 | 12.2 | 15.7 | 4 | 1 | 11.8 | 31.5 | 39.4 | 92.6 | 110.2 |
| UV Swim I-200+ | 252 | 431 | 2.5 | 1 | 30.7 | 12.2 | 15.7 | 6 | 1 | 11.8 | 31.5 | 39.4 | 110.2 | 121.3 |
| UV Swim I-450+ | 1453 | 933 | 5 | 2 | 30.7 | 12.2 | 15.7 | 8 | 1 | 11.8 | 39.4 | 47.2 | 172 | 176.4 |
| UV Swim I-1000+ | 1734 | 1849 | 10 | 4 | 30.7 | 12.2 | 15.7 | 8 | 1 | 11.8 | 39.4 | 47.2 | 172 | 220.5 |
| UV Swim I-4000+ | 5063 | 4755 | 16 | 4 | 35.3 | 14.5 | 21.7 | 14 | 1 | 23.6 | 39.4 | 79.13 | 330.7 | 396.8 |

| UV CHAMBER | |
|----------------------------------|--|
| Material: | StSt 316L / 1.4404 |
| Internal finish: | < 0.8 µm Ra, welds as laid, electropolished and passivated |
| External finish: | Brushed to K280, electropolished and passivated |
| Process (mating) connections: | Flange EN 1092-1 PN10 |
| Drain connection: | BSPT Socket |
| End plate: | Removable end plate |
| Degree of protection: | IP54 equivalent to NEMA 12, but not for outside use |
| Wiper: | Automatic (electrically driven) |
| UV Lamp: | Medium pressure |
| Quartz Sleeve: | Doped quartz |
| Number of UV Lamps: | see table above |
| Expected lamp life: | 9000 hours |
| Temperature sensor: | Yes |
| UV sensor: | Dry DVGW compliant UV sensor |
| Working fluid temperature: | 33.8°F to 140°F |
| Hydrostatically pressure tested: | Yes |
| Chamber mounting: | Flow horizontal or vertical (lamps horizontal only) |
| Operating pressure: | 6 bar |
| Pressure loss: | Typically <80mbar |
| Seals: | EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved |

| OPTIONS | |
|--|--|
| Document Support Pack | |
| Cabinet material: Stainless steel 304 IP56 (NEMA 4x) | |
| Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German & Spanish | |
| Flange options: PN16, ANSI 150, JIS, Table 'E' and tri-clamp | |
| Lead length: 65.5 ft and 95.1 ft | |
| In-field UV reference sensor kit | |
| Aggressive water package: For 400 ppm to 20000 ppm chloride water | |
| Control cabinet: Air conditioning in stainless steel raises control ambient limit to 122°F (in shade) IP rating 65 (NEMA 4X) | |
| Water leak detection: Detects water leaks from quartz sleeve | |
| Water level sensor: UV chamber full water detection | |

| CABINET (FAN COOLED) | |
|------------------------------|--|
| Material: | Polyester coated carbon steel, RAL 7035 |
| Degree of protection: | IP54 (NEMA 12) |
| Supply voltages: | UV Swim I 100-1000: 208-277V (+/-10%) 1L+N, 2L, 3L 50/60 Hz 360-480V (-5/+10%) 3L+N, 50/60 Hz UV Swim I 4000: 380-480V (-5/+10%) 3L, 3L+N 50/60 Hz |
| Operating temperature range: | 41°F to 95°F |
| Relative humidity: | <95% non-condensing |
| Cooling fans: | Yes |
| Interconnecting cable: | 32.8 ft to chamber |
| Variable power: | Stepless variable power (70% reduction from maximum ballast power) |

| HMI/CONTROL | |
|-----------------|---|
| Display: | 4 line LCD, indicating system status including alarms |
| Operating menu: | 3 levels (2 with password protection) |
| Fault finding: | Event log |

| CUSTOMER OUTPUTS | |
|-------------------------|--|
| 4-20 mA passive output: | UV intensity, ballast power |
| VFC outputs: | Standby in remote, system standby, system cooling down, any trip, any warning, UV intensity failure, system ready, wiper failure, lamp failure, water leak, water temperature warning, water & cabinet temperature alarm |

| CUSTOMER INPUTS | |
|-----------------------------------|---|
| 4-20 mA active or passive inputs: | Flow meter UVT meter |
| VFC inputs: | Remote stop/start, remote clear message, remote wipe, remote set power high |

| CUSTOMER COMMUNICATIONS PORT | |
|---|--|
| Modbus RS 485 serial RTU for SCADA connection | |

| APPROVALS | |
|--|--|
| UL 508A shop, CE Marked, US EPA UVDGM, MAHC, DVGW, NSF50 | |



UV Swim I

Also available in our Pools & Leisure product range...



Standard treatment and
dechloramination



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