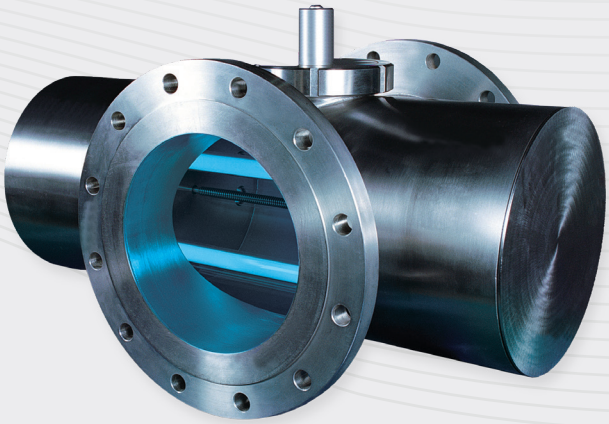
NUVONIC

formerly Aquionics, Berson, Hanovia and Orca GmbH



UV Swim I

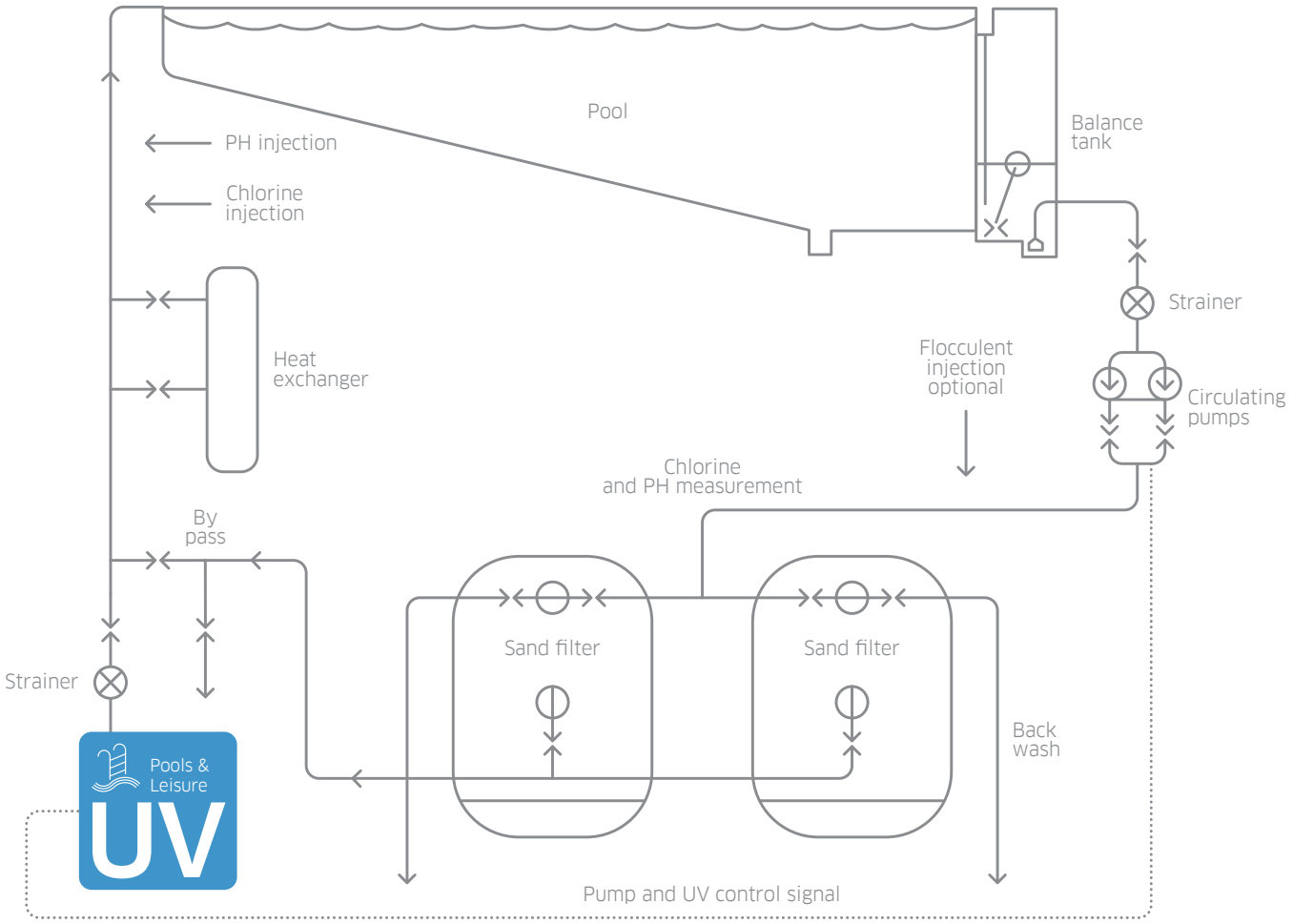
OPTIMIZED UV TREATMENT FOR POOLS AND SPAS

Our **UV Swim I** systems are NSF50 listed and third party validated to meet the Model Aquatic Health Code (MAHC), US EPA UVDGM and DVGW requirements. They are optimized to deliver effective treatment (Chloramine removal) for all leisure facilities from spas to large competition pools. UV breaks down monochloramine, di- and trichloramine, which are responsible for eye and skin irritation, headaches and unpleasant odours.

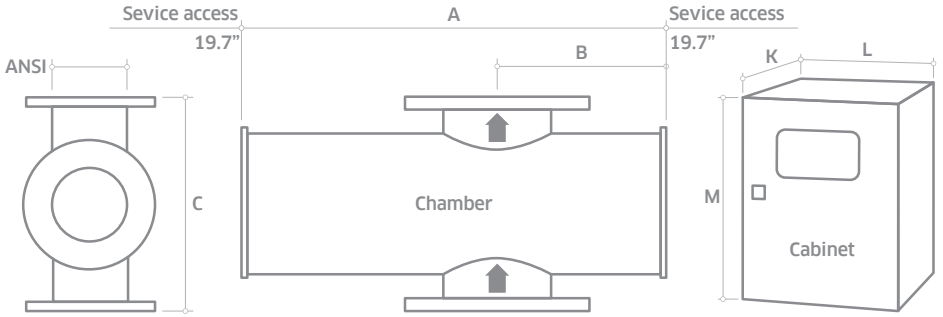
UV also has the added advantage of being effective against chlorine resistant microorganisms such as Cryptosporidium and is up to 5 times cheaper to maintain and occupies only 1/10th of the space of ozonation equipment.

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
OPTIMIZATION		
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
		Minimizes bathers' eye and skin irritation
	Provides active wavelengths to treat the water	Protect bathers from chlorine resistant microorganisms such as Cryptosporidium or Giardia
	Lower maintenance cost and maintenance time	Reduced operating costs
Automatic wiper (quartz cleaning)	Self 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

[a] 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) NSF 50	MAX POWER (KW)	NO OF LAMPS	DIMENSIONS (INCHES)								APPROX WEIGHT (LB)		FLA BASED ON VOTAGE			BREAKER (A) BASED ON VOLTAGE		
				Chamber				Cab.	Cabinet (fan cooled)[a]			Chamber Empty	Cabinet Fan cooled	208, 3ph	230V 1PH +N	480/ 277V 3P+N	208, 3ph	230V 1PH +N	480/ 277V 3P+N
				A	B	C	ANSI	No***	K*	L	M**								
UV Swim I-100+	123	1.7	2	30.7	12.2	15.7	4	1	11.8	31.5	39.4	92.6	110.2	9.19	9.59	7.96	12	12	10
UV Swim I-200+	352	2.5	1	30.7	12.2	15.7	6	1	11.8	31.5	39.4	110.2	121.3	13.72	14.32	11.89	20	20	15
UV Swim I-450+	748	5	2	30.7	12.2	15.7	8	1	11.8	39.4	47.2	172	176.4	27.87	32.36	12.09	35	45	20
UV Swim I-1000+	1585	10	4	30.7	12.2	15.7	8	1	11.8	39.4	47.2	172	220.5	41.38	58.62	22.98	60	80	30
UV Swim I-4000+	5069	16	4	35.3	14.5	21.7	14	1	23.6	39.4	79.13	330.7	396.8	*(480V) 37.05			*(480V) 50		

* UV Swim I-4000+ based on 480V

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, ANSI 150
Drain connection:	NPT
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:	10,000 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: 100 - 1000: 208V 3Ph 240V 1P+N 220V 1PH +N 277/480V 3P+N IL 4000 480V 3Ph
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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