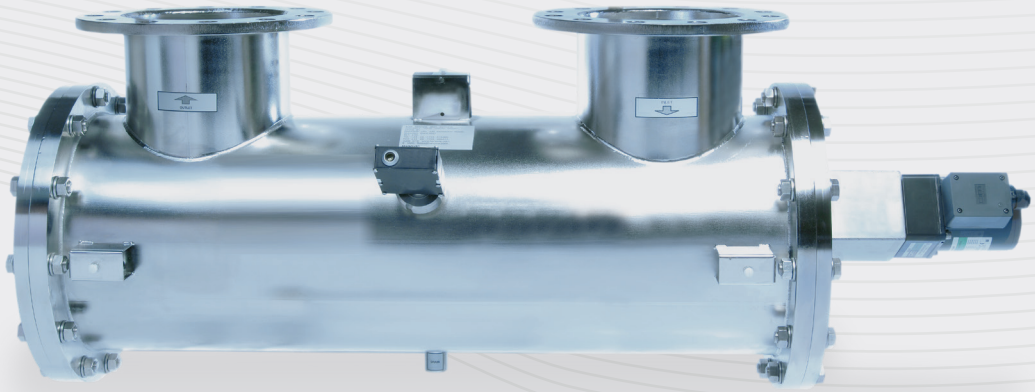
NUVONIC

formerly Aquionics, Berson, Hanovia and Orca GmbH



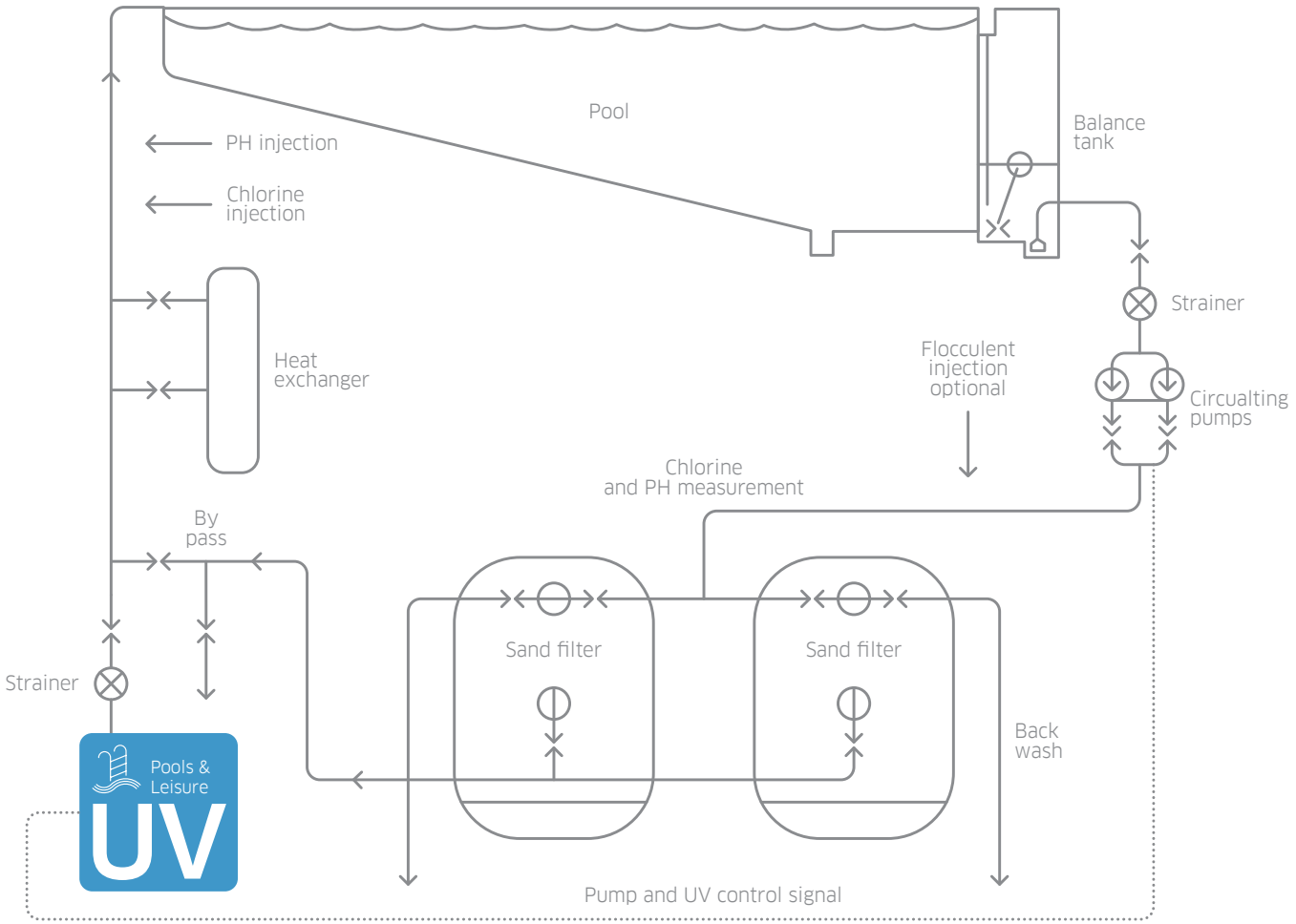
UV Swim U

UV TREATMENT FOR POOLS AND SPAS

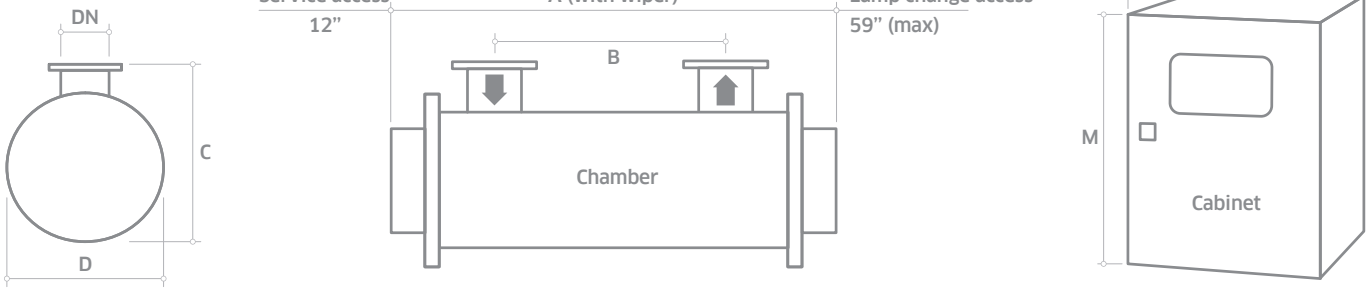
Our **UV Swim U** systems are NSF50 listed and deliver effective treatment (chloramine removal and treatment) for all leisure facilities from spas through to large competition pools. By using medium pressure lamps we break down not only monochloramine but also di- and trichloramine which are responsible 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 Optimised UV for Pools & Leisure

UV SWIM U - SINGLE POOL WITH ULTRAVIOLET TREATMENT



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV intensity monitor	Continuous verification of performance with in-built low dose alarm	Easy to monitor and log system performance
Flow meter input	Real time adjustment of lamp power based on flow	Saves power
OPTIMISATION		
Medium pressure lamp	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 building corrosion risk
		Minimises bathers' eye and skin irritation
	Provides germicidal wavelengths to treat the water	Protect bathers from chlorine resistant microorganisms such as Cryptosporidium or Giardia
	Automatic wiper (quartz cleaning)	Self cleaning
INTEGRATION		
Designed specifically for pools	UVShield™ power cut-out for lamp access (option)	Enhanced operator safety when changing a lamp
	Water leak detection (option)	Increased bather safety when used with a strainer



MODEL NUMBER	MAX TREATMENT CAPACITY * (USGPM)	MIN T10 (%)	DIMENSIONS (INCHES)								APPROX WEIGHT (LB)		
			A	B	C	D	DN	K*	L	M**	Chamber (Empty)	Power Supply	Power (kW)
UV Swim U-152-B3	180	85	34	9.5	12.6	9.5	3	15	30	34	100	190	1.2
UV Swim U-152-B4	213	85	34	9.5	12.6	9.5	4	15	30	34	100	190	1.2
UV Swim U-150-C4	347	78	52	28	12.6	9.5	4	15	30	34	110	190	2.5
UV Swim U-150-D4	352	81	52	28	12.6	9.5	4	15	30	34	110	190	3.5
UV Swim U-150-D6	708	81	52	26	12.6	9.5	6	15	30	34	110	190	3.5
UV Swim U-200-D6	757	90	52	26	16.5	11.5	6	15	30	34	145	190	3.5
UV Swim U-200-D8	761	90	52	24	16.5	11.5	8	15	30	34	145	190	3.5
UV Swim U-200-E8	1193	84	52	24	16.5	11.5	8	15	36	44	145	365	5.5
UV Swim U-320-E8	1386	93	52	24	19.9	16.2	8	15	36	44	310	365	5.5
UV Swim U-320-E10	1567	93	52	21.7	19.9	16.2	10	15	36	44	310	365	5.5
UV Swim U-320-G10	2201	76	52	21.7	19.9	16.2	10	15	44	63	310	600	10.5
UV Swim U-321-G12	3082	76	67	27.6	19.9	16.2	12	15	44	63	375	600	10.5
UV Swim U-361-G14	3456	76	68	36.6	21.3	17	14	15	44	63	500	640	14

* The maximum treatment capacity is based on a 60mJ/cm2 average dose measured between 200 and 400nm for chloramine reduction at a transmittance T10 95% inlet velocity 10 ft / s on schedule 80 plastic pipe and except models U-321-G12 and U-361-G14 NSF / ANSI 50 annex H.1

** Cabinet dimensions allow for door isolator, cable entry and bracket space.

UV CHAMBER

Material:	Stainless steel 316L / 1.4404
Internal finish:	As made pipe and tube, welds as laid, electropolished and passivated
External finish:	Sateen polish (120 grit) electropolished and passivated
Process (mating) connections:	ANSI 150#
Drain connection:	NPT
End plate:	Removable end plate
Degree of protection:	IP65 equivalent to NEMA 4 but not for outside use
Wiper:	Automatic (electrically driven)
UV Lamp:	Medium pressure
Quartz Sleeve:	Pure quartz (F200)
Number of UV Lamps:	1 to 4 dependent on model
Expected lamp life:	4000-8000 hours
Temperature sensor:	Yes
UV monitor:	Wet UV monitor (to minimum UVT)
Working fluid temperature:	41˚F to 140˚F (176˚F unwiped)
Strainer:	Yes
Hydrostatically pressure tested:	Yes
Chamber mounting:	Horizontal only
Operating pressure:	6 bar (positive pressure only)
Pressure loss:	Typically < 70 mbar
Seals:	EPDM

OPTIONS

Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish
Lead length: 65.6 ft, 98.4 ft or 164 ft cabinet to chamber
Aggressive water package: For 400 ppm to 20000 ppm chloride water
Skid mounting (not ship board or earthquake zone)
Vent valve: Manual valve

OPTIONS (CONTINUED)

UVShield™: Power cut-out for lamp access
Water leak detection: Detects water leaks from quartz sleeve

CABINET (CONTROLLER PHOTON)

Material:	Polyester coated carbon steel
Degree of protection:	IP54 NEMA 12
Supply voltages (nominal):	U-152-B3 to U-150-C4: 95 V to 260 V (+/-10%) U-150-D6 to U-320-E10: 190 V to 480 V (+/-10%) U-320-G10 to U-361-G14:380 V to 480 V (+/-10%) 50/60 Hz
Operating temperature range:	41˚F to 104˚F
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	33 ft cabinet to chamber
Power adjustment:	4 level power stepping

CUSTOMER OUTPUTS

4-20 mA passive or active outputs:	UV dose
VFC outputs:	System warning, lamp ready, low UV dose, common trip, remote reset, ELCB or water leak, system available, local or remote mode

CUSTOMER INPUTS

4-20 mA passive or active input:	Flow meter
VFC inputs:	Remote stop/start and remote reset

CUSTOMER COMMUNICATIONS PORT

None

APPROVALS

UL listed E 149108, CE marked, NSF50

UV Swim U

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

UV SWIM I

3rd party validated systems for critical treatment and dechloramination

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