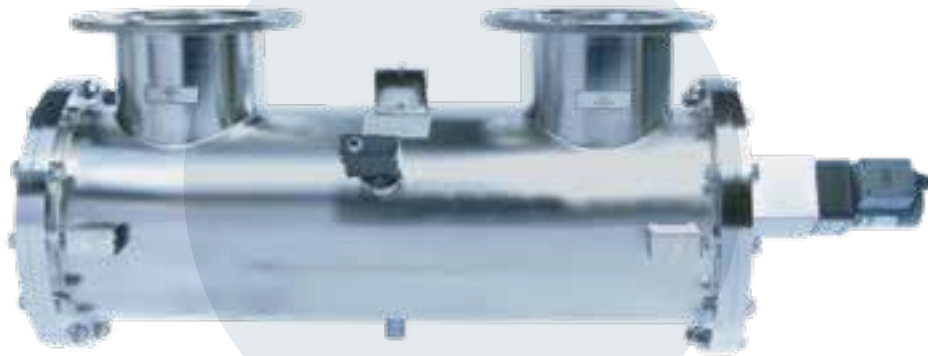


We UVCare...

Application Optimised UV for Aquaculture



RASLINE D PH



UV treatment for aquaculture

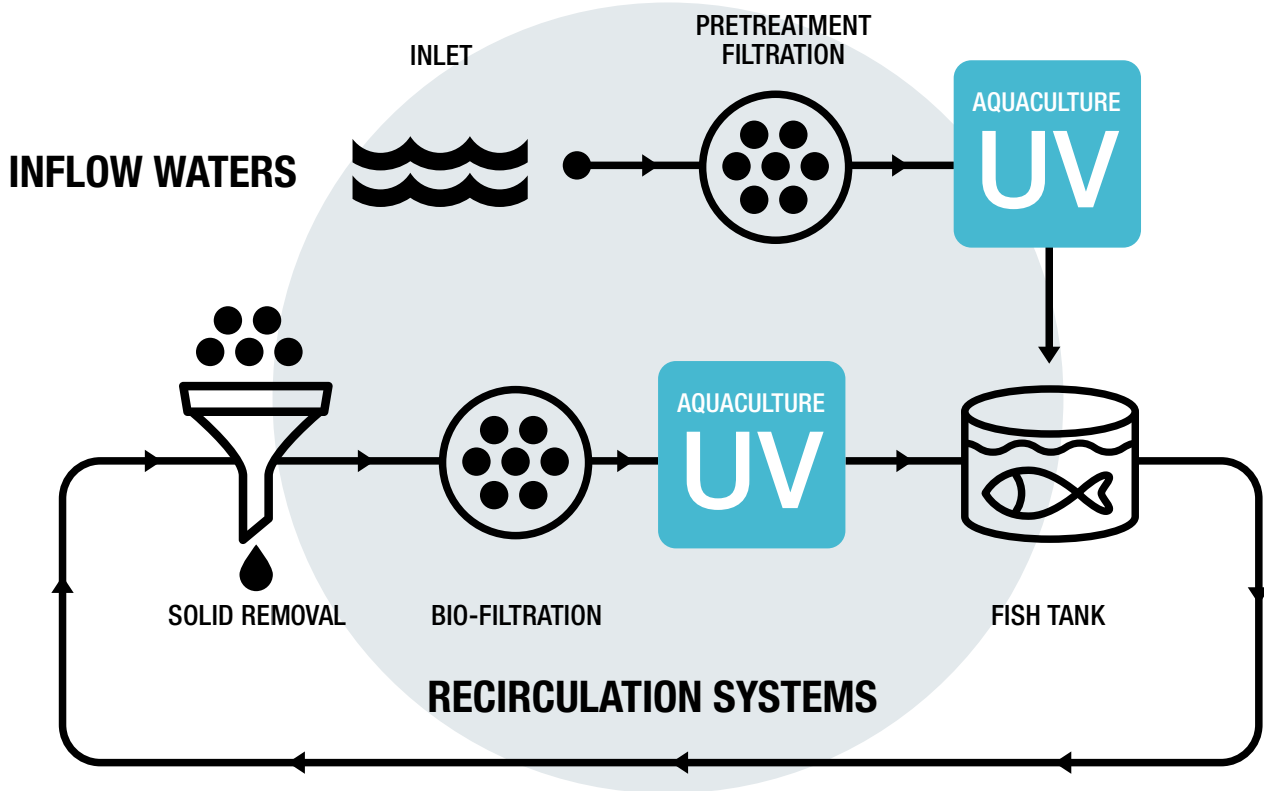
Our RASLine D PH systems are aimed specifically at providing UV disinfection for product and process waters used in the aquaculture industry. By using a UV system you will disinfect the water, eliminate harmful micro-organisms, reduce the bio-burden, protect against bio-fouling and lower operating costs. Each system comes with a UV monitor to measure the germicidal output of the UV system and make it easy to monitor and log performance.

berson

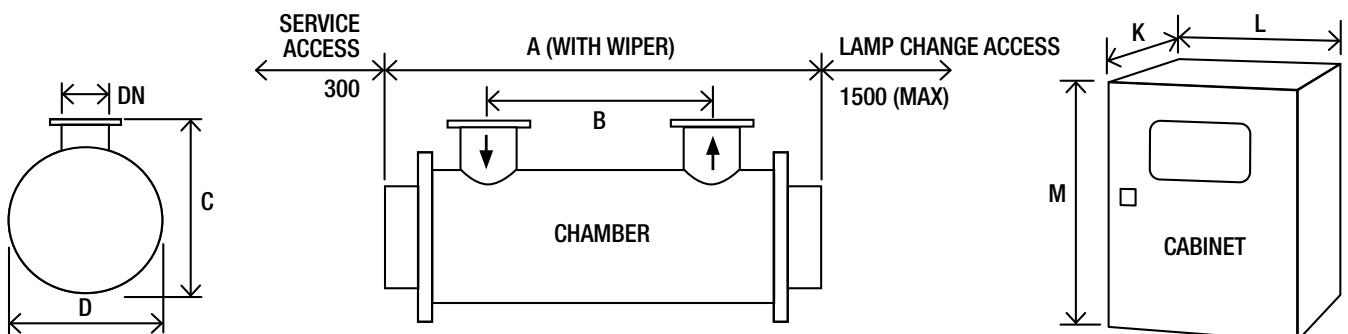
hanovia

aquionics

Potential locations of the RASLine D PH™ in a recirculating aquaculture system (RAS)



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV intensity monitor measuring germicidal wavelengths	Continuous verification of performance with in-built low intensity alarm	Easy to monitor and log system performance
OPTIMISATION		
UV water disinfection	Protect your fish, your processes and the environment from harmful contamination without resorting to chemicals.	Proven performance No chemicals
Designed for the treatment of aquaculture water	Constructed of 316L stainless Steel wetted parts, also available in Super Duplex construction for sea water applications Automatic wiper (quartz cleaning)	Industry compliant materials Self cleaning
INTEGRATION		
Compact design	Can be fitted to skids Can be retrofitted to existing process	Easy integration



Model Number	Maximum Power (kW)	Min T ₁₀ (%)	Dimensions (mm)								Approx weight (Kg)	
			A	B	C	D	DN	K*	L	M**	Chamber (Empty)	Control Cabinet
RASLine D PH 0060	1.6	85	850	240	320	240	80	330	750	850	40	85
RASLine D PH 0080	2.7	91	1300	710	319	240	80	330	750	850	50	85
RASLine D PH 0083	2.7	91	1300	710	319	240	100	330	750	850	50	85
RASLine D PH 0095	4.4	81	1300	710	319	240	80	330	750	850	50	85
RASLine D PH 0100	4.4	81	1300	710	319	240	100	330	750	850	50	85
RASLine D PH 0209	4.4	90	1300	660	420	290	150	330	750	850	65	85
RASLine D PH 0240	5.8	84	1300	660	420	290	150	330	900	1100	65	85
RASLine D PH 0300	5.8	93	1300	610	505	410	200	330	900	1100	140	165
RASLine D PH 0400	16.5	62	1300	660	420	290	150	330	1100	1600	65	282
RASLine D PH 0550	16.5	62	1300	610	505	410	200	330	1100	1600	140	282
RASLine D PH 0900***	25.2	62	1300	550	505	410	250	330	900	1100	140	165
								330	1100	1600		
RASLine D PH 0950***	33	62	1300	610	505	410	250	330	1100	1600	140	282
								330	1100	1600		
RASLine D PH 0970***	33	76	1300	500	505	430	300	330	1100	1600	160	282
								330	1100	1600		

* 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 250 mm).

*** System consists of two cabinets; separate dimensions K, L, M and weights are given for each cabinet.

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.

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:	Flange EN 1092-1 PN16
Drain connection:	BSPT or NPT if ANSI flange
End plate:	Removable end plate
Degree of protection:	IP65 equivalent to NEMA 4 but not for outside use
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Pure quartz (F200)
Number of arc tubes (lamps):	1 (D PH 0060-0300), 4 (D PH 0400 - 0550), 6 (D PH 0900), 8 (D PH 0950 - 0970)
Expected lamp life:	8000 hrs, 4000 hrs D PH 0240 and 0300
Temperature sensor:	Yes
UV monitor:	Wet UV monitor (if above minimum T ₁₀)
Working fluid temperature:	1°C to 60°C
Hydrostatically pressure tested:	Yes to PED requirements EN 13445
Chamber mounting:	Horizontal only
Operating pressure:	6 bar (positive pressure only)
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS	
Document Support Pack	
Cabinet material: Stainless steel 316	
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish	
Flange options: ANSI 150, JIS, Table 'E'	
Lead length: 20 m, 30 m or 50 m cabinet to chamber	
Welder Document Pack for chamber construction	
Bleed valve: BSPT or NPT if ANSI flange	
Skid mounting (not ship board or earthquake zone)	
Operating pressure: 10 bar	
Power adjustment: 4 level power switching	
Air vent connection: BSPT blanked off or NPT if ANSI flange	

OPTIONS (CONTINUED)	
Stainless steel cabinet with air to air heat exchangers IP 56, NEMA 4X, relative humidity <95% non condensing. If fitted no UL listing. See sales drawings for sizes.	
Aggressive water package: For 400 ppm to 20000 ppm chloride water	
UVShield™: Power cut-out for lamp access (except D PH 0400 - 0970)	
Water leak detection: Detects water leaks from quartz sleeve (except D PH 0400 - 0970)	
Halogen free cables	
Arc tube enclosure: Doped quartz F240 (reduces performance)	

CABINET (CONTROLLER PHOTON)	
Material:	Polyester coated carbon steel
Degree of protection:	IP54 NEMA 12
Supply voltages:	D PH 0060-0083 95 V to 260 V (+/-10%) D PH 0095-0300 190 V to 480 V (+/-10%) D PH 0400-0970 380 V to 480 V (+/-10%) 50/60 Hz
Operating temperature range:	5°C to 40°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes
Interconnecting cable:	10 m cabinet to chamber

CUSTOMER OUTPUTS	
4-20 mA passive or active output:	UV intensity %, or dose if Power stepping option is added
VFC outputs:	System warning, lamp ready, low UV intensity, common trip, remote reset, ELCB or water leak, system available, local or remote mode

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

CUSTOMER COMMUNICATIONS PORT	
None	

APPROVALS	
CE marked, UL Listed E14 9108	



RASLINE D PH

Also available in our Aquaculture product range...



RASLINE D EO

Energy Optimised general disinfection suitable for clear waters



RASLINE PQ IL

3rd party NVI validated systems for critical disinfection requiring approvals and a wide range of UVT applications.



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