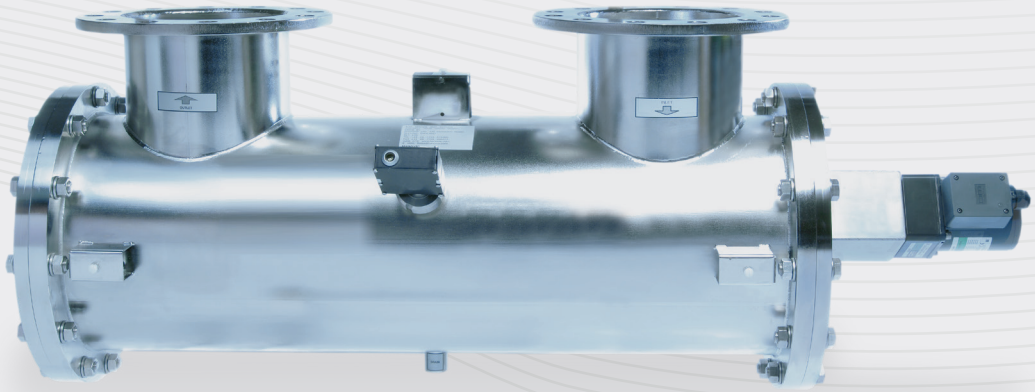
NUVONIC

formerly Aquionics, Berson, Hanovia and Orca GmbH



PureLine D PH

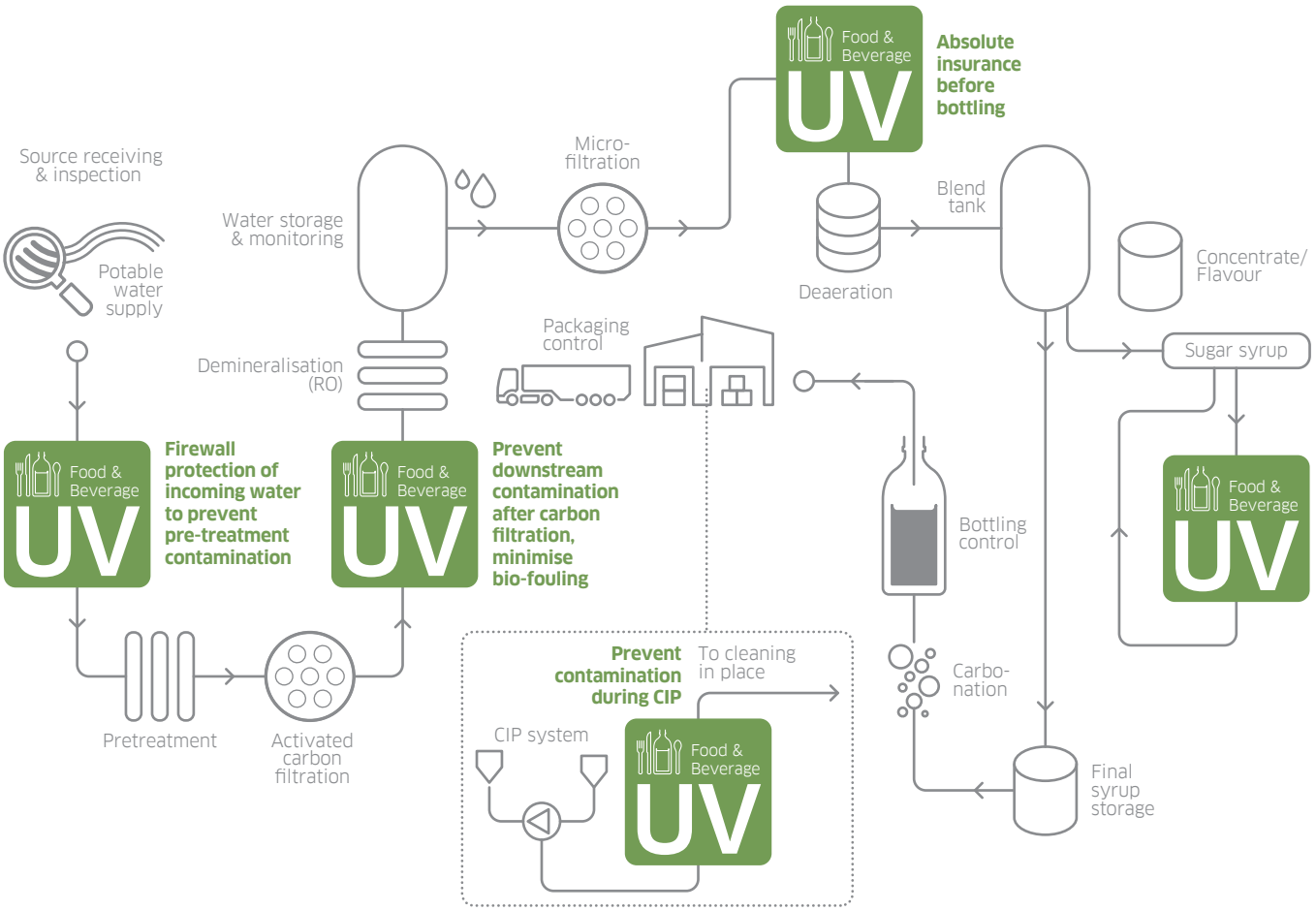
UV TREATMENT FOR FOOD AND BEVERAGE

Our **PureLine D PH** systems are aimed specifically at providing UV treatment for product and process waters used in the food and beverage industry.

By using a UV system you will deactivate harmful micro-organisms, reduce microbial load, and support bio-fouling control within water systems. Each system comes with a UV monitor to measure the active output of the UV system and make it easy to monitor and log performance.

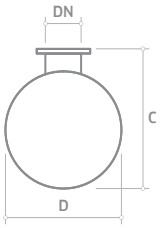
Application Optimised UV for Food & Beverage

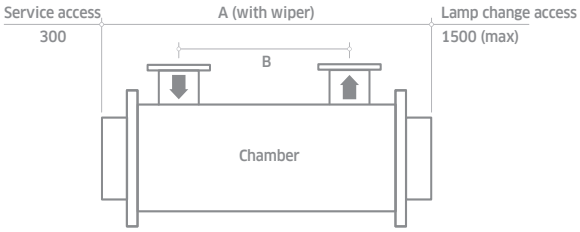
POTENTIAL LOCATIONS OF THE PURELINE D PH™

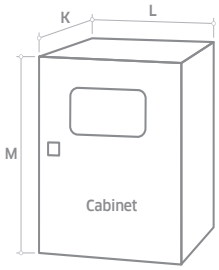


KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV intensity monitor measuring active wavelengths	Continuous verification of performance with in-built low intensity alarm	Easy to monitor and log system performance
OPTIMISATION		
UV water treatment	Protect your process waters from microbiological contamination including chlorine resistant Cryptosporidium and Giardia	Does not affect taste and colour of final product No chemicals used
Designed for the food and beverage industry	FDA-approved materials used for all wetted parts	Industry compliant materials
	*Chamber with tri-clamp connections and < 0.38 µm internal finish	Sanitary design
	*Automatic wiper (quartz cleaning)	Self cleaning
INTEGRATION		
Compact design	Can be fitted to skids	Easy integration
	Can be retrofitted to existing process	

*Option







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.

* 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).

MODEL NUMBER	MAX POWER (KW)	LAMP (QTY)	MIN T10(%)	APPROX DIMENSIONS (MM)								APPROX WEIGHT (KG)	
				A	B	C	D	DN	K*	L	M**	Chamber (Empty)	Control Cabinet
PureLine D PH 0070	1.6	1	64	850	300	267	184	50	330	750	850	45	85
PureLine D PH 0080	2.7	1	91	1300	710	319	240	80	330	750	850	50	85
PureLine D PH 0083	2.7	1	91	1300	710	319	240	100	330	750	850	50	85
PureLine D PH 0100	4.4	1	81	1300	710	319	240	100	330	750	850	50	85
PureLine D PH 0209	4.4	1	90	1300	660	420	290	150	330	750	850	65	85
PureLine D PH 0240	5.8	1	84	1300	660	420	290	150	330	900	1100	65	85
PureLine D PH 0300	5.8	1	93	1300	610	505	410	200	330	900	1100	140	165
PureLine D PH 0350	10	4	70	1300	660	420	290	150	330	1100	1600	65	282
PureLine D PH 0400	16.5	4	62	1300	660	420	290	150	330	1100	1600	65	282
PureLine D PH 0530	7.4	1	90	1300	550	505	410	250	330	1100	1100	140	165
PureLine D PH 0550	16.5	4	62	1300	610	505	410	200	330	1100	1600	140	165
PureLine D PH 0900***	25.2	6	62	1300	550	505	410	250	330	900	1100	140	165
									330	1100	1600		282
PureLine D PH 0950***	33	8	62	1300	550	505	410	250	330	1100	1600	140	282
									330	1100	1600		282

UV CHAMBER

Material:	Stainless steel 316L / 1.4404
Internal finish:	As bought pipe and tube, welds as laid, electropolished and passivated
External finish:	Satin polish (120 grit) electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN16
Drain connection:	Tri-clamp
End plate:	Removable end plate
Degree of protection:	IP65 equivalent to NEMA 4 but not for outside use
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Pure quartz (F200)
Expected lamp life:	8,000 hrs
Temperature sensor:	Yes
UV monitor:	Wet UV monitor (if above minimum T10)
Working fluid temperature:	1˚C to 60˚C (80˚C unwiped)
Maximum CIP temperature:	95˚C with cabinet electrically isolated
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
Wiper: Automatic (electrically driven) except D PH 0070
Flange options: ANSI 150, JIS, Table 'E' and tri-clamp
Chamber internal finish: <0.38 µm welds polished out, electropolished and passivated
Lead length: 20 m, 30 m or 50 m cabinet to chamber
Maximum CIP temperature: 130˚C (panel electrically isolated)
Welder Document Pack for chamber construction
Bleed valve: Hygienic valve with tri-clamp connection
S-shaped chamber
Skid mounting (not shipboard or earthquake zone)

OPTIONS (CONTINUED)

Operating pressure: 10 bar
Power adjustment: 4 level power switching
Air vent connection: Tri-clamp
Stainless steel cabinet IP upgrade: air to air heat exchangers stainless steel version 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
UV disconnect: Power cut-out for lamp access for D PH 0070 - 0300 and 0530
Water leak detection: Detects water leaks from quartz sleeve for D PH 0070 - 0300 and 0530
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 0070-0083 95 V to 260 V (+/- 10%) D PH 0100-0300 and 0530 190 V to 480 V (+/- 10%) D PH 0350-0950 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 UV dose (if power stepping option)
VFC outputs:	System warning, lamp ready, low UV, 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 E149108

PureLine D

Also available in our Food & Beverage product range...

PURELINE DC+DCD

Dechlorination and Chlorine Dioxide removal

PURELINE DO

Ozone removal and treatment

PURELINE PQ

3rd party bioassayed systems for critical treatment

PURELINE S

Sugar syrup treatment

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