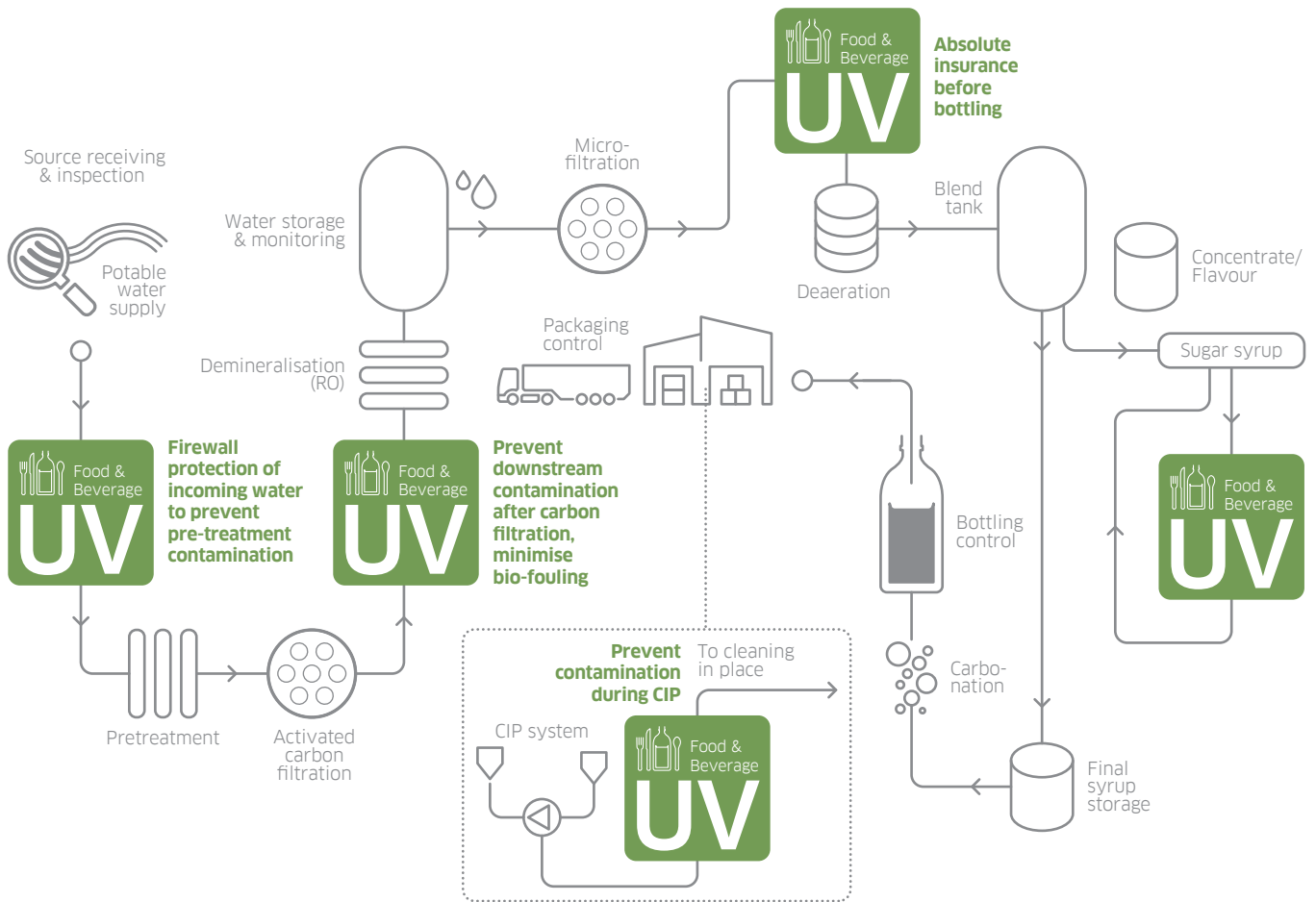# PureLine D PH

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 eliminate harmful micro-organisms, reduce the bio-burden, protect against bio-fouling, lead to fewer CIP/SIP cycles and lower operating costs. 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.
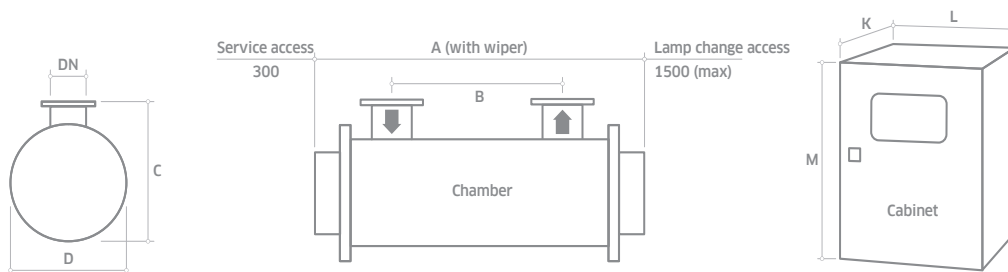
Application Optimised UV for Food & Beverage

POTENTIAL LOCATIONS OF THE PURELINE D PH™

Source receiving & inspection

Potable water supply

Water storage & monitoring

Demineralisation (RO)

Micro-filtration

UV Food & Beverage — **Absolute insurance before bottling**

Deaeration

Blend tank

Concentrate/Flavour

Sugar syrup

UV Food & Beverage — **Firewall protection of incoming water to prevent pre-treatment contamination**

UV Food & Beverage — **Prevent downstream contamination after carbon filtration, minimise bio-fouling**

Packaging control

Pretreatment

Activated carbon filtration

Prevent contamination during CIP

To cleaning in place

CIP system

UV Food & Beverage

Bottling control

Carbonation

UV Food & Beverage

Final syrup storage

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
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

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

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).

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:	Tri-clamp
End plate:	Remova ble 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)
Number of arc tubes (lamps):	1 (D PH 0070-0300 and 0530), 4 (D PH 0350-0550), 6 (D PH 0900), 8 (D PH 0950)
Expected lamp life:	8000 hrs, 4000 hrs D PH 0240, 0300 and 0530
Temperature sensor:	Yes
UV monitor:	Wet UV monitor (if above minimum T10)
Working fluid temperature:	1℃ to 60℃ (80℃ unwiped)
Maximum CIP temperature:	95℃ 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℃ (panel electrically isolated)

Welder Document Pack for chamber construction

Bleed valve: Hygienic valve with tri-clamp connection

S-shaped chamber

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

UVShield™: 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℃ to 40℃
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 or as a pathogen barrier

PURELINE S
Sugar syrup treatment

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