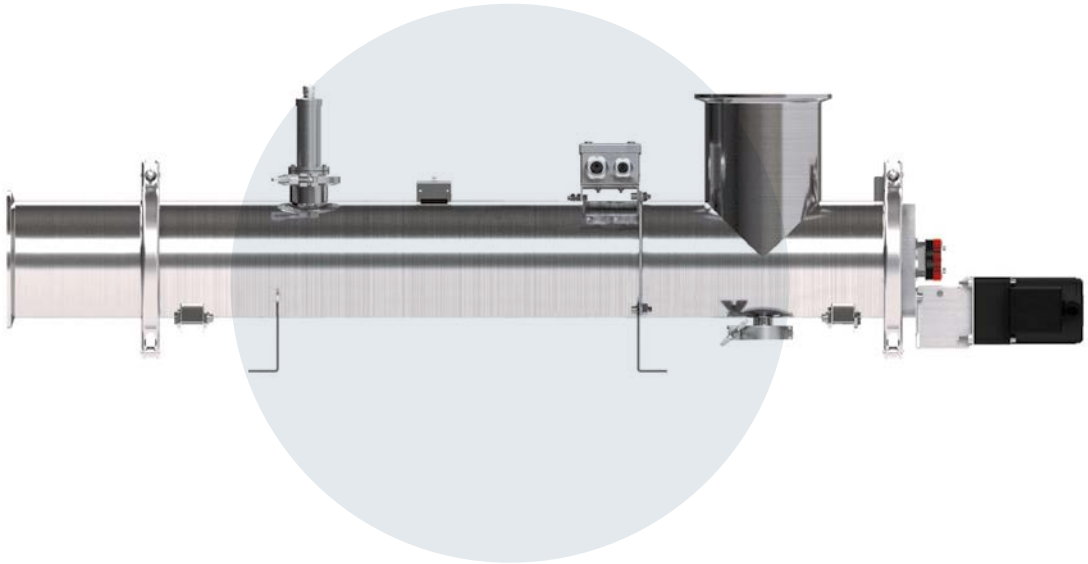
We UVCare...

Application Optimised UV for Food & Beverage

PURELINE D EO H

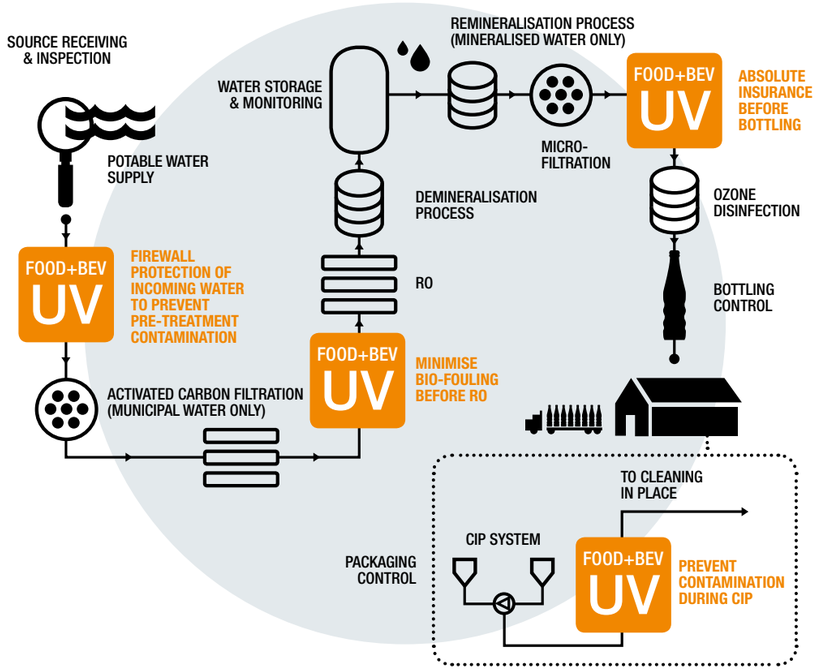


Optimised UV treatment for food and beverage

Our PureLine D EO H UV systems are optimised to deliver effective UV disinfection for product and process waters used in the food and beverage industry where sanitary design is required. The D EO H integrates an innovative single medium pressure lamp chamber design with sensors and intelligent control technology to automatically deliver optimum disinfection performance with high operational efficiency. The D EO H 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 certified dry UV sensor that measures the germicidal output of the UV system and a UV dose read out makes it easy to monitor and log performance. In addition to all these features our PureLine D EO H models are Hygienic units designed for use after the generation package in the storage and distribution system. These units also incorporate Triclamp fitting, a crevice free design and have a 0.38 micron electro polished internal finish.

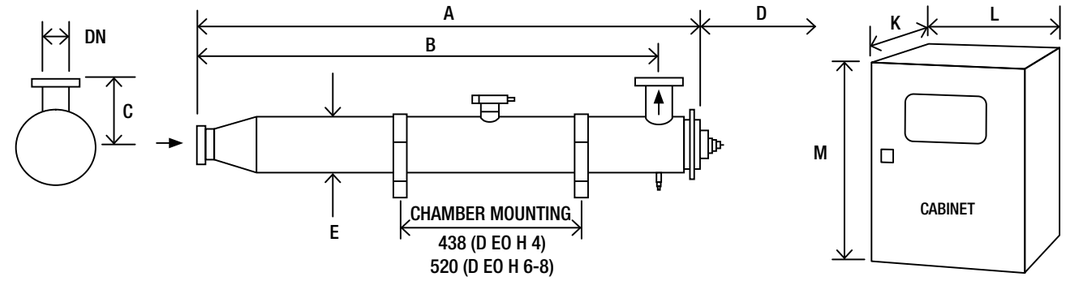
berson hanovia aquionics

PureLine PQ D EO H™ bottled water processing line



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
UV sensor	Continuous verification of performance with in-built low UV dose alarm	Easy to monitor and log system performance
UVGuard™ on UV sensor window	Protects against UV exposure when checking a UV duty sensor with a reference sensor while the system is operating	Ability to safely audit the UV performance without interrupting production
Flow and UV transmittance (UVT) meter inputs	Stepless adjustment of lamp power based on real time operating conditions	Optimised use of energy, saving operating costs
OPTIMISATION		
Single medium pressure lamp	Provides germicidal wavelengths to disinfect your product or process water	Does not affect taste and colour of final product
		No chemicals
		Protects pre-treatment equipment and RO filters from bio-fouling reducing CIP frequency and downtime
	High treatment capacity with a single lamp	Compact footprint and reduced operating cost
Innovative chamber design	Maximises the water's exposure to UV light	Reduces energy costs
Designed specifically for the food and beverage industry where sanitary design is required	Chamber has tri-clamp connections, <0.8 µm internal finish electropolished and pasivated	Industry compliance, reduced risk of microbiological contamination
	FDA and EC approved seals	
	*Automatic wiper	Self cleaning to maintain performance
INTEGRATION		
Designed for your process	*Skid mountable	Easy to install
	*UVShield™ power cut-out for lamp access	Enhanced operator safety when changing a lamp
	*Water leak detection	Increased product safety
	RS 485 Industrial Ethernet	Easy integration to SCADA or plant control systems

* Option



			Dimensions (mm)														Approx weight (Kg)		
			Chamber							Control Cabinet (fan cooled)			Control Cabinet (with A/C)			Chamber	Control Cabinet	
Model	Max Power (kW)	Min T_{10}(%)	A		B	C	D	E	DN	K*	L	M**	K*	L	M**	Empty	Fan cooled	with A/C
	Starting		Unwiped	Wiped														
PureLine D EO H 4	4.5	80	1009	1232	830	335	870	130	100	400	800	1290	400	1051	1290	30	96	120
PureLine D EO H 6	6.8	80	1212	1436	1008	220	1065	153	150	400	800	1290	400	1051	1290	44	96	120
PureLine D EO H 8	6.8	80	1287	1539	1035	300	1150	205	200	400	800	1290	400	1051	1290	65	96	120

* 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).
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:	StSt 316L / 1.4404
Internal finish:	Tube, welds as laid, <0.8 µm Ra electropolished and passivated
External finish:	BS EN 10088-2 or 10088-3, 1J or 2J and ASTM No. 4
Process (mating) connections:	Tri-clamp DIN 32676 SER A
Drain connection:	Tri-clamp blanked off
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
Number of arc tubes (lamps):	1
Expected lamp life:	9000 hours
Temperature sensor:	Yes
UV sensor:	Calibrated DVGW compliant dry sensor with UVGuard™ sensor window
Working fluid temperature:	0°C to 60°C (80°C unwiped)
Maximum CIP temperature:	95°C lamp off and CIP request acknowledged
Hydrostatically pressure tested:	Yes to PED requirements EN 13445
Chamber mounting:	Horizontal only
Operating pressure:	10 bar
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS
Document Support Pack
Cabinet material: Stainless steel 304 or 316 with sloping roof
Operation and Maintenance manual and printed Installation and Commissioning manual in Chinese, English, French, German and Spanish
Wiper: Automatic (electrically driven)
Flange options: ANSI 150, EN 1092-1 PN16, JIS, Table 'E'
Chamber internal finish: <0.6 µm Ra or <0.38 µm Ra, welds polished out, electropolished and passivated
Operating pressure: 16 bar
Lead length: 20 and 29 m
Max CIP temp: 130°C lamp turned off and CIP request acknowledged
Welder Document Pack for chamber construction
Bleed valve: Hygienic valve with tri-clamp connection
Skid mounting
Vent valve: Manual valve hygienic design
UVShield™: Power cut-out for lamp access

OPTIONS (CONTINUED)
Water leak detection: Detects water leaking from the UV lamp enclosure
Arc tube enclosure: Doped quartz
In field UV reference sensor kit

CABINET (FAN COOLED)	
Material:	Polyester coated carbon steel
Degree of protection:	IP55 / NEMA 12
Supply voltages:	400 V to 480 V, 50/60 Hz
Operating temp range:	5°C to 40°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes

CABINET (WITH A/C)	
Material:	Stainless steel 304
Degree of protection:	IP66 / NEMA 4X
Supply voltages:	400 V to 480 V, 50/60 Hz
Operating temp range:	5°C to 50°C (UL 40°C)
Relative humidity:	<95% non-condensing
Cooling fans:	No

CABINET (GENERAL)	
Ballast power adjustment:	Stepless variable power (30 to 100% of maximum ballast rating
Interconnecting cable:	10 m cabinet to chamber

CUSTOMER OUTPUTS	
4-20 mA passive outputs:	UV RED dose, UV intensity and chamber temperature
VFC outputs:	Lamp ready (enable flow), system running, common warning, common trip, low dose warning, water leak detected, system in remote, OK to CIP

CUSTOMER INPUTS	
4-20 mA active or passive inputs:	Flow meter and transmittance meter
VFC inputs:	Remote stop/start, remote reset, remote CIP request, reduce power
24 V dc pulsed inputs:	Start and stop

CUSTOMER COMMUNICATIONS PORT	
RS 485:	Industrial Ethernet

APPROVALS
CE marked

PURELINE D

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

PURELINE DC+DCD

Dechlorination and Chlorine Dioxide removal

PURELINE DO

Ozone removal and disinfection

PURELINE PQ

3rd party bioassayed systems for critical disinfection or as a pathogen barrier

PURELINE S

Sugar syrup disinfection

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