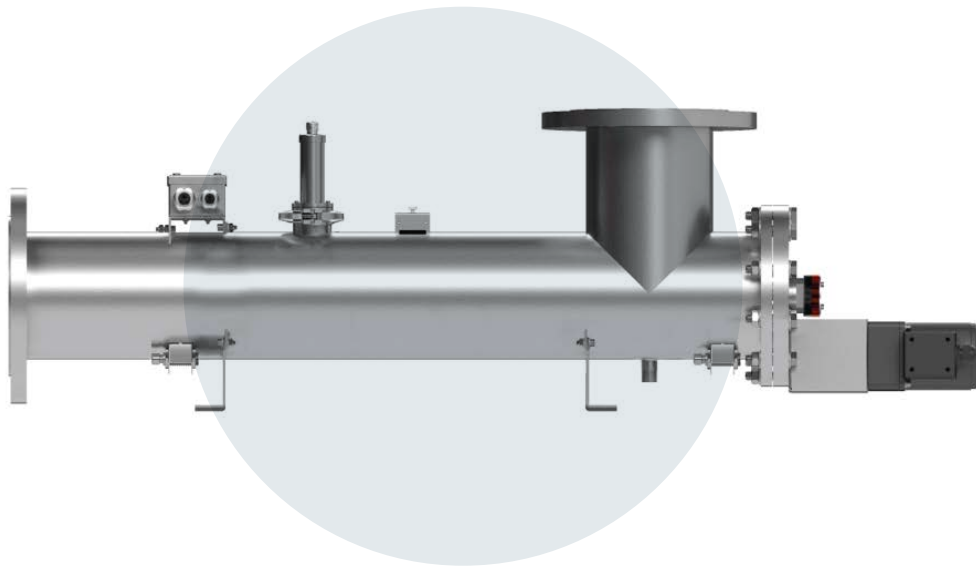


We UVCare...

# Application Optimised UV for Food & Beverage



PURELINE PQ EO



## Bioassayed UV treatment for Food & Beverage

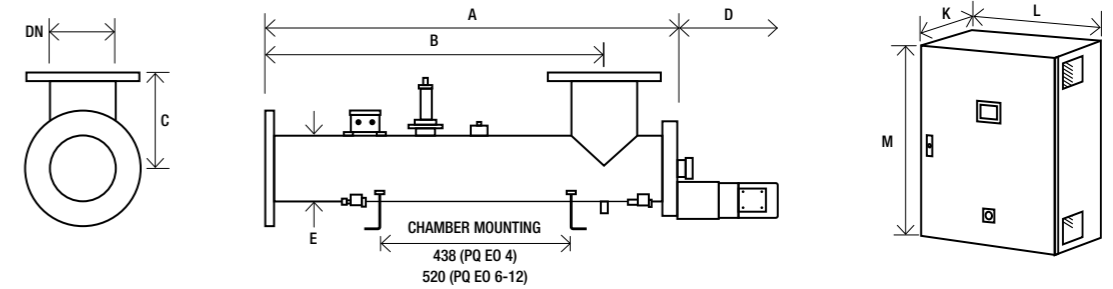
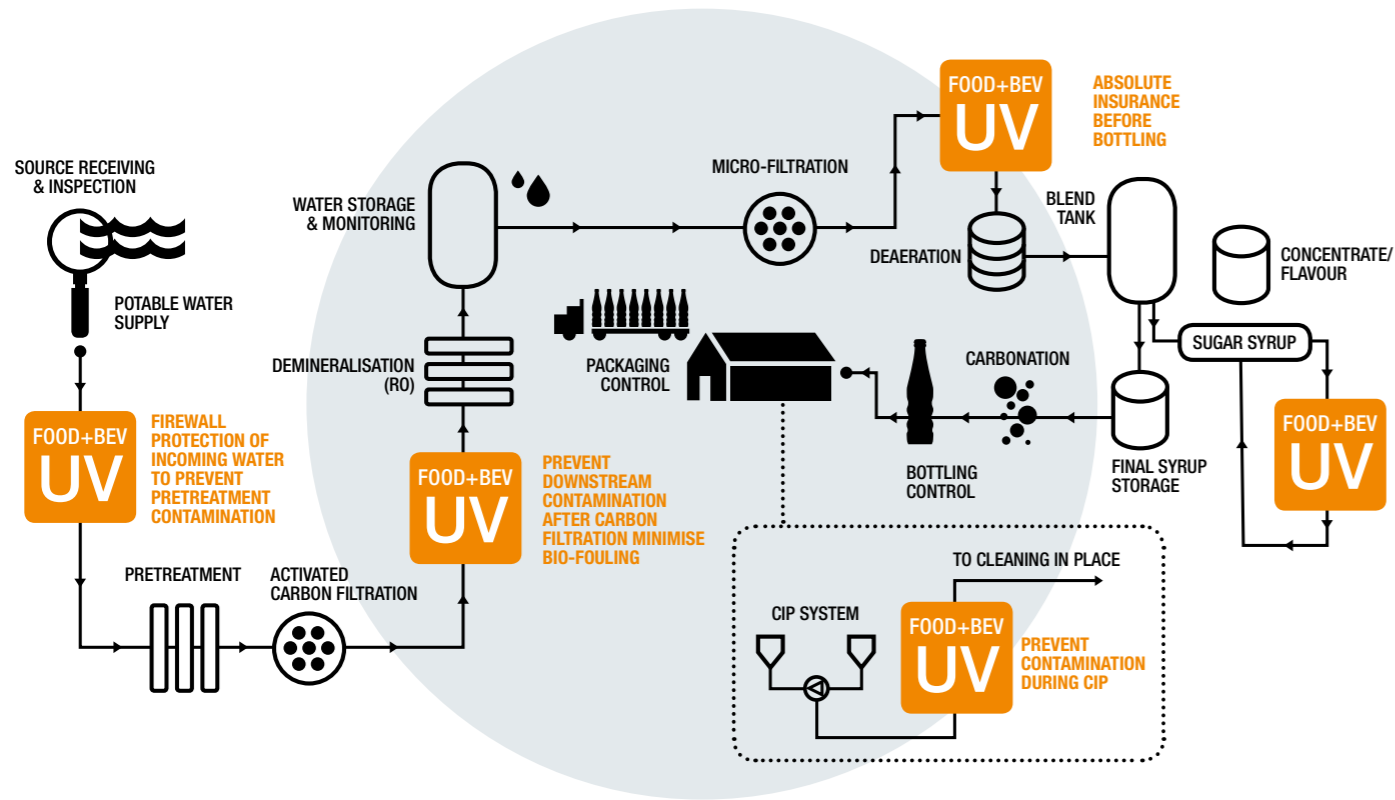
Our PureLine PQ EO UV systems are aimed specifically at providing third party bioassayed UV disinfection for product and process waters used in the food and beverage industry. The PQ EO integrates an innovative single medium pressure lamp chamber design with sensors and intelligent control technology to automatically deliver optimum disinfection performance with high operational efficiency. The PQ EO will eliminate harmful micro-organisms, reduce the bioburden, 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. The control system also has the ability to take flow and transmittance meter inputs and calculate the UV dose based on real time operating conditions.

berson

hanovia

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# PureLine PQ EO™ carbonated beverage processing line



		Dimensions (mm)											Approx weight (Kg)					
		Chamber							Control Cabinet (fan cooled)		Control Cabinet (with A/C)		Chamber	Control Cabinet				
Model	Max Power (kW)	Min T <sub>10</sub> (%)	A	B	C	D	E	DN	K*	L	M**	K*	L	M**	Empty	Fan cooled	With A/C	
			Starting	Unwiped	Wiped													
PureLine PQ EO 4	4.5	80	1009	1232	823	165	900	114	100	400	800	1290	400	1051	1290	30	96	120
PureLine PQ EO 6	4.5	80	1035	1286	850	245	950	168	150	400	800	1290	400	1051	1290	44	96	120
PureLine PQ EO 8	4.5	80	1110	1361	875	320	1000	210	200	400	800	1290	400	1051	1290	65	96	120
PureLine PQ EO 10	4.5	80	1190	1441	903	430	1100	273	250	400	800	1290	400	1051	1290	96	96	120
PureLine PQ EO 12	6.8	80	1430	1685	1093	475	1325	324	300	400	800	1290	400	1051	1290	145	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:	As made pipe and tube, welds as laid, electropolished and passivated
External finish:	BS EN 10088-2 or 10088-3, 1J or 2J and ASTM No. 4
Process (mating) connections:	Flange EN 1092-1 PN16
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:	6 bar
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

OPTIONS (CONTINUED)	
UVShield™:	Power cut-out for lamp access
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 lengths:	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	

KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
<b>INTELLIGENCE</b>		
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
<b>OPTIMISATION</b>		
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	Flanged connections, standard internal finish	Reduced system cost where sanitary design is not critical
	FDA and EC approved seals	Industry compliant materials
	*Automatic wiper	Self cleaning to maintain performance
<b>INTEGRATION</b>		
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



**PURELINE PQ**

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



**PURELINE DC+DCD**

Dechlorination and Chlorine Dioxide removal



**PURELINE DO**

Ozone removal and disinfection



**PURELINE D**

Disinfection as part of a multi barrier approach



**PURELINE S**

Sugar syrup disinfection



**www.weuvcare.com**

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