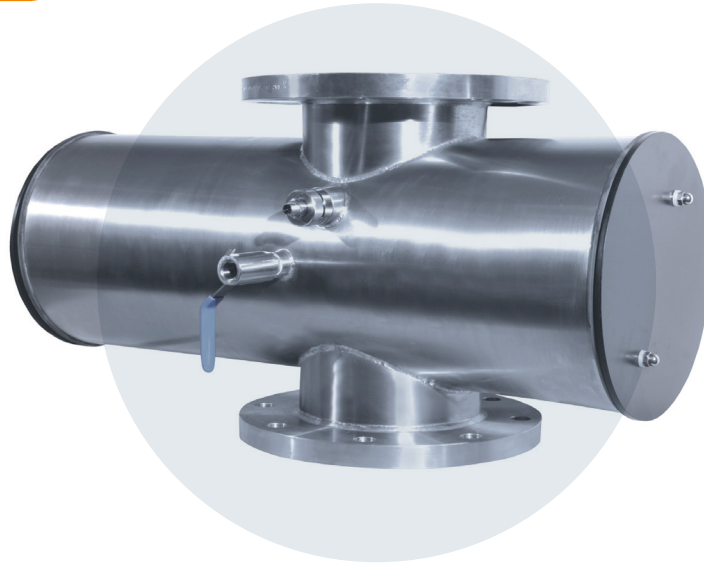


We UVCare...



PURELINE PQ IL

Application Optimized UV for Food & Beverage



Bioassayed UV treatment for Food & Beverage

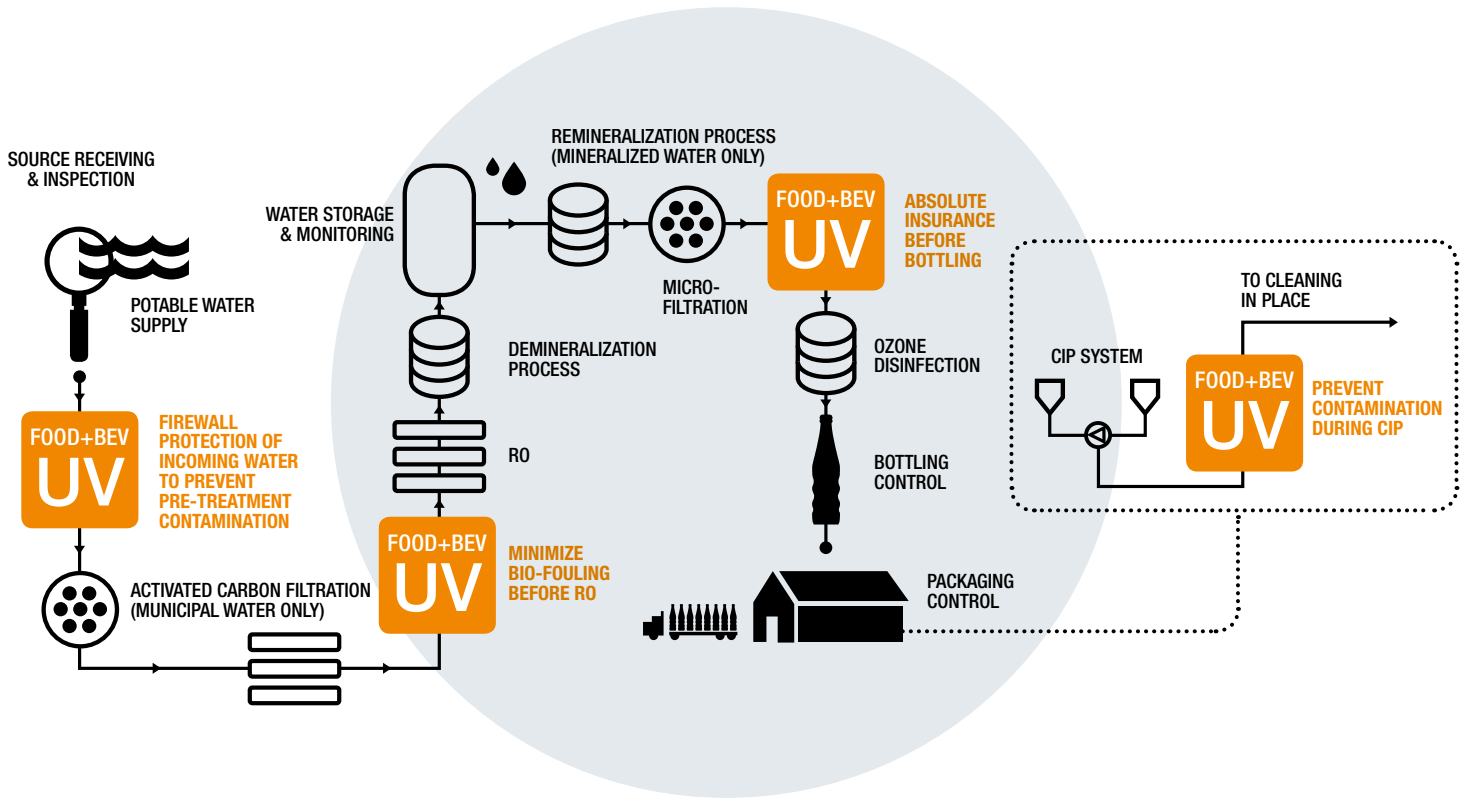
Our PureLine PQ IL systems are aimed specifically at providing third party bioassayed UV disinfection for product and process waters used in the food and beverage industry. By using a third party bioassayed UV system you can be certain that the UV dose being produced will disinfect the water, eliminate 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 allowing checking of UV performance. The UV sensor 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

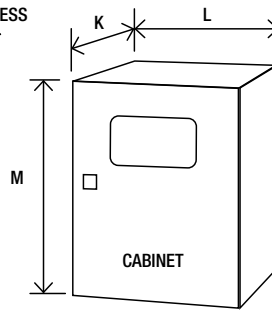
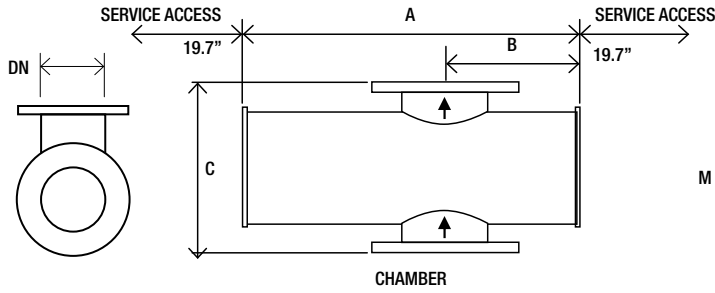
aquionics

PureLine PQ IL™ bottled water processing line



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU
INTELLIGENCE		
Dry DVGW approved UV sensor measuring germicidal wavelengths	Continuous verification of performance with real time RED dose reading and in-built low dose warning	Easy to monitor and log system performance
Flow and UV transmittance (UVT) meter inputs	Dose reading based on actual process conditions when meters are connected	Accurate UV dose reading guaranteed under wide range of operating conditions
OPTIMIZATION		
Third party bioassayed UV systems tested in accordance with the USEPA UV Disinfection Guidance Manual	UV system dose equations and sizing have been independently derived	Confidence the system will perform as stated
UV water disinfection	Protect your product and processes from microbiological contamination including chlorine resistant <i>Cryptosporidium</i> and <i>Giardia</i>	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
Designed for the food and beverage industry	FDA-approved materials used for all wetted parts	Industry compliant materials
	*Chamber with flanged connections and < 0.8 µm internal finish	Sanitary design, designed to international standards
	*Automatic wiper (quartz cleaning)	Self cleaning to maintain performance
INTEGRATION		
Compact design	Can be fitted to skids Can be retrofitted to existing process	Easy integration

* Option



* 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 9.8").
 *** CC: Control cabinet, PC: Power cabinet
 a Attention: the optional cabinet with A/C is bigger. Ask for dimensions.
 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.

Model Number	Max.power (kW)	No of lamps	Dimensions (Inches)					Approx weight (lb)				
			Chamber	Cab.	Cabinet (fan cooled) ^a		Chamber	Cabinet				
			A	B	C	DN	No***	K*	L	M**	Empty	Fan cooled
PureLine PQ IL 450	5.6	2	30.7	12.2	15.7	8	1	11.8	39.4	47.3	172	176.4
PureLine PQ IL 1000	11	4	30.7	12.2	15.7	8	1	11.8	39.4	47.3	172	220.5
PureLine PQ IL 4000	17.5	4	35.3	14.5	21.7	13.8	1	23.6	39.4	82.7	330.7	396.8
PureLine PQ IL 4500	26	6	35.3	14.5	21.7	13.8	1	23.6	39.4	82.7	330.7	441
PureLine PQ IL 12000	39	6	41.4	17.6	26.8	19.7	1 CC	15.7	23.6	78.7	529.1	286.6
							1 PC	23.6	47.3	82.7	573.2	
PureLine PQ IL 14000	52	8	41.4	17.6	26.8	19.7	1 CC	15.7	23.6	78.7	529.1	286.6
							1 PC	23.6	47.3	82.7	639.3	

UV CHAMBER

Material:	StSt 316L / 1.4404
Internal finish:	< 0.8 µm Ra, welds as laid, electropolished and passivated
External finish:	Brushed to K280, electropolished and passivated
Process (mating) connections:	Flange EN 1092-1 PN10
Drain connection:	Tri-clamp to ISO 2037
End plate:	Removable end plate
Degree of protection:	IP54 equivalent to NEMA 12
Wiper:	Automatic (electrically driven)
Arc tube (lamp):	Medium pressure
Arc tube enclosure:	Doped quartz
Number of arc tubes (lamps):	See table above
Expected lamp life:	9000 hours
Temperature sensor:	Yes
UV sensor:	Dry DVGW compliant UV sensor (one per lamp)
Working fluid temperature:	33.8°F to 140°F
Maximum CIP temp:	203°F with cabinet electrically isolated
Hydrostatically pressure tested:	Yes
Chamber mounting:	Flow horizontal or vertical (lamps horizontal only)
Operating pressure:	6 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 & Spanish
Wiper: Remove automatic wiper
Flange options: PN16, ANSI 150, JIS, Table 'E' and tri-clamp
Lead length: 65.6 ft and 95.1 ft
In-field UV reference sensor kit
Bleed: Hygienic valve with tri-clamp connection
Control cabinet: Air conditioning in stainless steel raises control ambient limit to 122°F (in shade) IP rating 65 (NEMA 4X)
Operating pressure: 10 Bar

OPTIONS (CONTINUED)

Aggressive water package: For 400 ppm to 20000 ppm chloride water
Water leak detection: Detects water leaks from quartz sleeve
Water level sensor: UV chamber full water detection

CABINET (FAN COOLED)

Material:	Polyester coated carbon steel, RAL 7035
Degree of protection:	IP54 (NEMA 12)
Supply voltages:	PQ IL 450-1000: 200-277 V (2ph L1,L2 or 1ph L1+N) PQ IL 4000-14000: 400-480 V (3ph L1, L2, L3) 50/60 Hz (voltage tolerance ±10% of nominal)
Operating temperature range:	41°F to 95°F
Relative humidity:	<95% non-condensing
Cooling fans:	Yes
Interconnecting cable:	32.8 ft
Variable power:	Stepless variable power (70% reduction from maximum ballast power)

HMI / CONTROL

Display:	4 line LCD, indicating system status including alarms
Operating menu:	3 levels (2 with password protection)
Fault finding:	Event log

CUSTOMER OUTPUTS

4-20 mA passive output:	UV dose, UV intensity, ballast power
VFC outputs:	Standby in remote, system standby, system cooling down, any trip, any warning, UV dose failure, system ready, wiper failure, lamp failure, water leak, water temperature warning, water or cabinet temperature alarm

CUSTOMER INPUTS

4-20 mA active or passive inputs:	Flow meter and UVT transmittance meter inputs:
VFC inputs:	Remote stop/start, remote reset, remote wipe, remote set power high

CUSTOMER COMMUNICATIONS PORT

Modbus RS 485 serial RTU for SCADA connection

APPROVALS

CE marked, UL 508A shop, USEPA tested to UVDGM



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



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