

## PureLine PQ EO H+

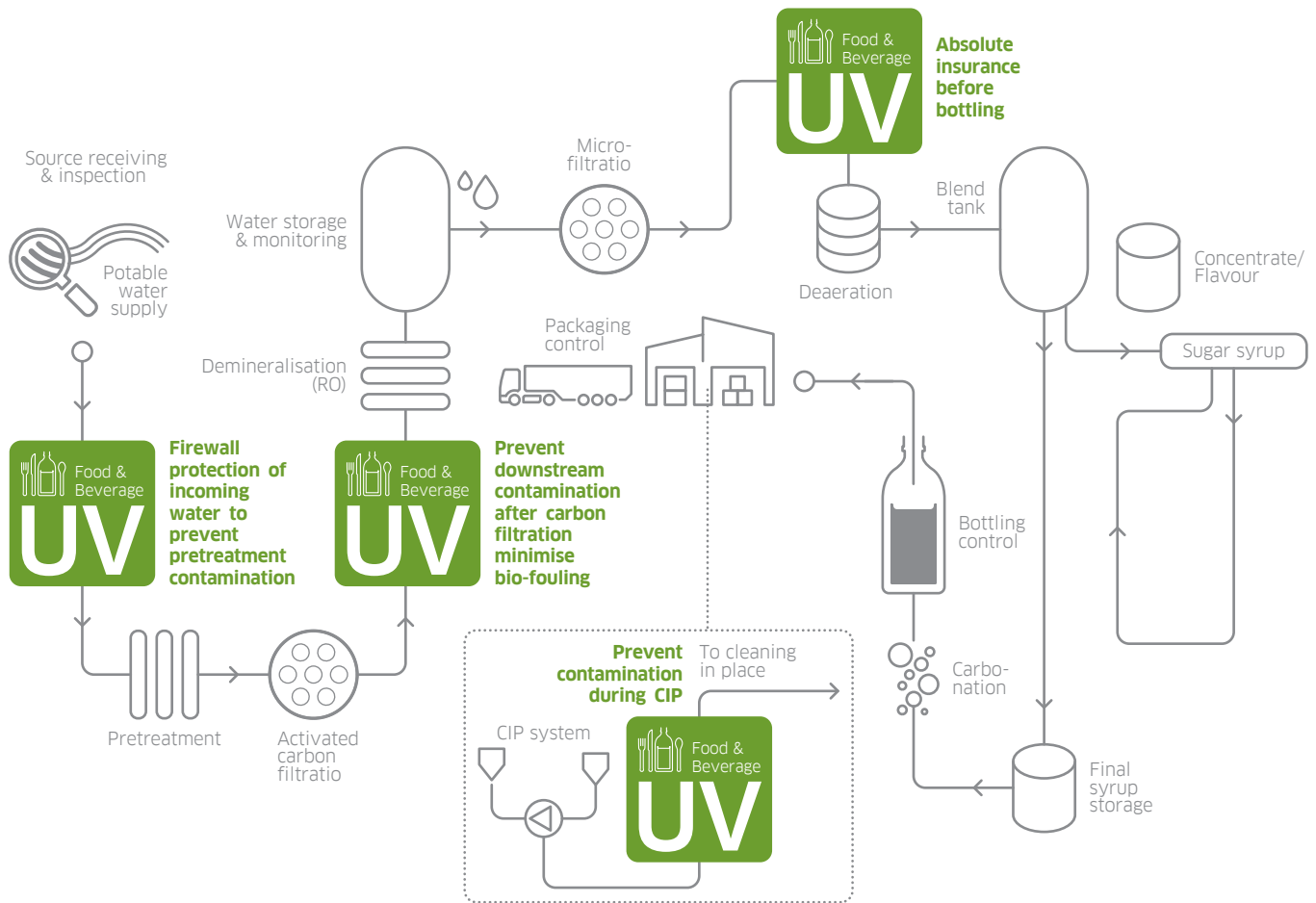
### *BIOASSAYED UV TREATMENT FOR FOOD & BEVERAGE*

Our **PureLine PQ EO H+** UV systems are aimed specifically at providing third party bioassayed UV for product and process waters used in the food and beverage industry. Integrating innovative single medium pressure lamp chamber with sensors and control technology to automatically deliver optimum treatment performance with high operational efficiency. Eliminating harmful microorganisms, reduce the bioburden, protect against bio-fouling, and lead to fewer CIP/SIP cycles. With a certified dry UV sensor measures the germicidal output of the UV system and a UV dose read out makes easy monitoring and log performance. Control system takes flow and transmittance meter inputs and calculate the UV dose based on real time operating conditions. The PQ EO H+ models are Hygienic units designed with Triclamp fittings and have a 0.8 micron electro polished internal finish



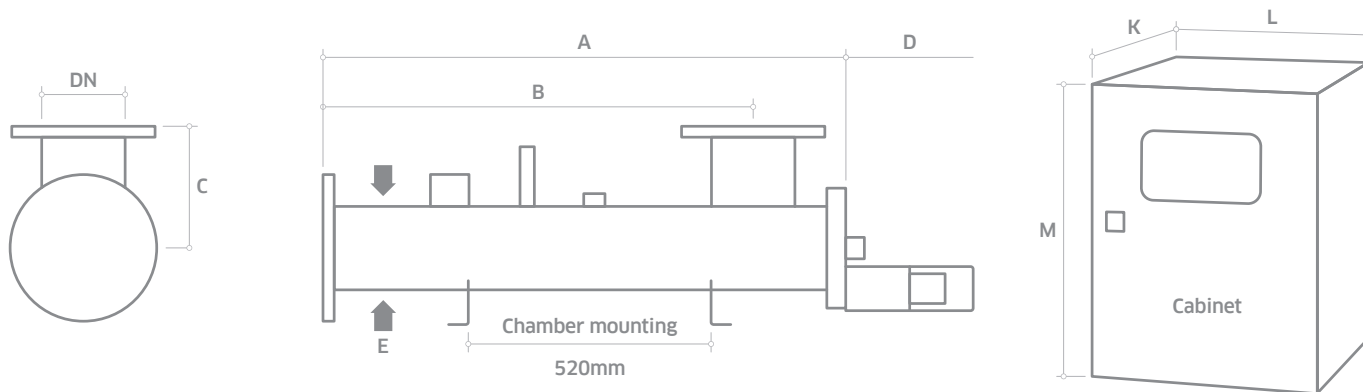
Application  
Optimised UV for  
Food & Beverage

# POTENTIAL LOCATIONS OF THE PURELINE PQ EO H+™



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 treat your product or process water	Does not affect taste and colour of final product No chemicals
	High treatment capacity with a single lamp	Protects pre-treatment equipment and RO filters from bio-fouling reducing CIP frequency and downtime
Innovative chamber design	Maximises the water's exposure to UV light	Compact footprint and reduced operating cost Reduces energy costs
Designed specifically for the food and beverage industry where hygienic design is required	Chamber has Tri-clamp connections <0.8 µm internal finish electropolished and passivated FDA and EC approved seals *Automatic wiper	Industry compliance, reduced risk of microbiological contamination Industry compliant materials Self cleaning to maintain performance
<b>INTEGRATION</b>		
Designed for your process	*Skid mountable *UVShield™ power cut-out for lamp access *Water leak detection RS 485 Industrial Ethernet	Easy to install Enhanced operator safety when changing a lamp Increased product safety Easy integration to SCADA or plant control systems

\*Option



MODEL NUMBER	MAX POWER (KW)	MIN T10(%)	DIMENSIONS (MM)										APPROX WEIGHT (KG)					
	Starting	80	Chamber					Control Cabinet (fan cooled)			Control Cabinet (with A/C)		Chamber (Empty)	Control Cabinet				
			Unwiped	Wiped	A	B	C	D	E	DN	K*	L		M**	Fan cooled	With A/C		
																	1377	1601
PureLine PQ EO H+ 6	9																	

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:	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:	Doped quartz (F240)
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:	1°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 (positive pressure only)
Seals:	EPDM, ADI free, EC 1935/2004, FDA 21 CFR 177.2600 approved

#### OPTIONS

Document Support Pack	
Cabinet: Stainless steel 304	
Cabinet: Stainless steel 304 with air conditioning (5°-50°C), IP66 (NEMA 4X), relative humidity <95% non condensing	
Cabinet: Stainless steel 316 with air conditioning with slooping roof (5°-50°C), IP66 (NEMA 4X), relative humidity <95% non condensing	
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, JIS, Table 'E' and PN16	
Chamber internal finish: <0.6 µm Ra or <0.38 µm Ra, welds polished out, electropolished and passivated	
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 (not ship board or earthquake zone)	
Vent valve: Manual valve hygienic design	

#### OPTIONS (CONTINUED)

UVShield™: Power cut-out for lamp access	
Water leak detection: Detects water leaking from the UV lamp enclosure	
UL 508A	
In field UV reference sensor kit	

#### CABINET (CONTROLLER UVTOUCH™)

Material:	Polyester coated carbon steel
Degree of protection:	IP55 / NEMA 12
Supply voltages:	380 V to 480 V (-5% to +10%), 50/60 Hz
Operating temp range:	5°C to 40°C
Relative humidity:	<85% non-condensing
Cooling fans:	Yes

#### 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
---------	---------------------

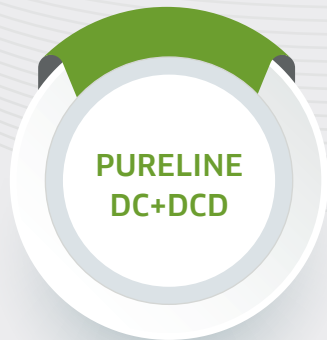
#### APPROVALS

CE marked	
-----------	--



## PureLine PQ

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



**PURELINE  
DC+DCD**

Dechlorination and  
Chlorine Dioxide removal



**PURELINE  
DO**

Ozone removal and  
treatment



**PURELINE  
D**

Treatment as part of a  
multi barrier approach



**PURELINE  
S**

Sugar syrup treatment

### Canada

+1 980.256.5700  
americas@nuvonicuv.com

### China

+86 21 61679599  
apac@nuvonicuv.com

### Germany

+49 611 44575375  
emea@nuvonicuv.com

### Malaysia

+60 16 440 8834  
sea@nuvonicuv.com



### Mexico

+1 980.256.5700  
americas@nuvonicuv.com

### United Kingdom

+44 1753 515300  
emea@nuvonicuv.com

### USA

+1 980 256 5700  
americas@nuvonicuv.com



# NUVONIC

A Halma company

*formerly Aquionics, Berson, Hanovia and Orca GmbH*

