



## PureLine D EO H

### *OPTIMISED UV TREATMENT FOR FOOD AND BEVERAGE*

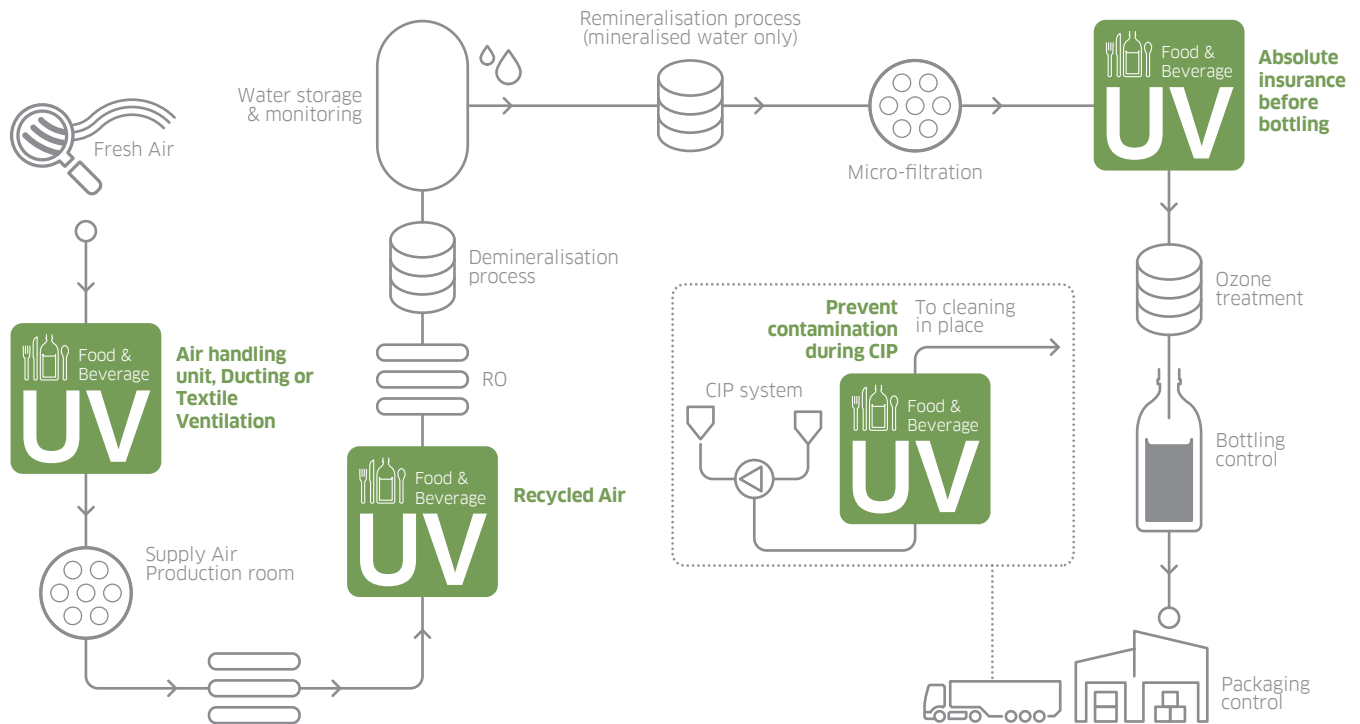
Our **PureLine D EO H** UV systems are designed to deliver effective UV treatment for product and process waters used in the food and beverage industry. They integrate an innovative single medium pressure lamp chamber with sensors and intelligent control technology to automatically deliver optimum treatment performance with high operational efficiency.

They eliminate harmful micro-organisms, reduce bio-burden, protect against bio-fouling, and lead to fewer CIP/SIP cycles. They are hygienic units designed with Tri-clamp fittings and have a 0.8 micron electropolished internal finish.



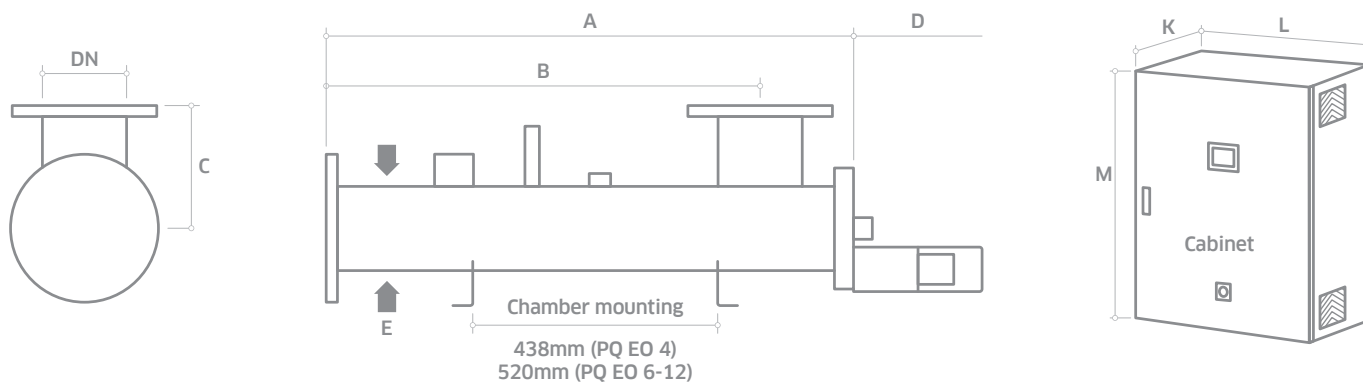
Application  
Optimised UV for  
Food & Beverage

# POTENTIAL LOCATIONS OF THE PURELINE DEO 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 active wavelengths to treat 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
Innovative chamber design	Maximises the water's exposure to UV light	Compact footprint and reduced operating cost
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 pasivated FDA and EC approved seals *Automatic wiper	Reduces energy costs Industry compliance, reduced risk of microbiological contamination Self cleaning to maintain performance
<b>INTEGRATION</b>		
Designed for your process	*Skid mountable *UV Disconnect 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 T <sub>10</sub> (%)	DIMENSIONS (mm)										APPROX WEIGHT (kg)					
Starting			Chamber							Control Cabinet (fan cooled)			Control Cabinet (with A/C)					
			Unwiped		Wiped													
			A	B	C	D	E	DN	K*	L	M**	K*	L	M**	Empty	Fan cooled with A/C		
PureLine D EO H 4	4.5	80	1009	1232	830	335	870	130	100	400	800	1200	400	1250	1200	30	96	120
PureLine D EO H 6	6.8	80	1212	1436	1008	220	1065	153	150	400	800	1200	400	1250	1200	44	96	120
PureLine D EO H 8	6.8	80	1287	1539	1035	300	1150	205	200	400	800	1200	400	1250	1200	65	96	120

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:	Pure quartz (F200)
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 sloping 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, 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
Lead length: 20 and 29 m
Max CIP temp: 130°C lamp turned off and CIP request acknowledged
Vent valve: Manual valve hygienic design

#### OPTIONS (CONTINUED)

UV Disconnect: Power cut-out for lamp access
Water leak detection: Detects water leaking from the UV lamp enclosure
Arc tube enclosure: Doped quartz (F240)
Skid mounting (not shipboard or earthquake zone)
Welder Document Pack for chamber construction
Bleed valve: hygienic valve with tri-clamp connection
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
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#### APPROVALS

CE marked



## PureLine D

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



**PURELINE  
DC+DCD**

Dechlorination and  
Chlorine Dioxide removal



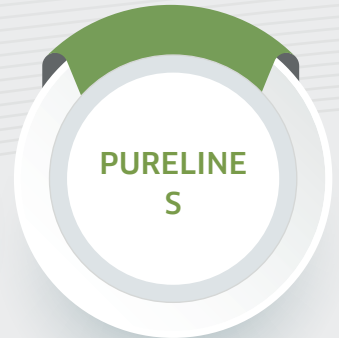
**PURELINE  
DO**

Ozone removal and  
treatment



**PURELINE  
PQ**

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



**PURELINE  
S**

Sugar syrup treatment

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# NUVONIC

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