

formerly Aquionics, Berson, Hanovia and Orca GmbH



TOCLine ECO

OPTIMIZED UV TREATMENT FOR MICROELECTRONICS

TOC: With the use of a special 185 nm lamp and quartz sleeve, TOC reduction is achieved primarily via an oxidation process where generated free hydroxyl radicals disassociate molecular bonds of organic compounds thus resulting in their removal, as well as direct photolysis of organic molecules by photon absorption.

Efficiency: Reduce your carbon footprint significantly while maintaining the highest quality standards in your operations.

Compact Brilliance: ECO fits where others can't, delivering uncompromised results in limited space.

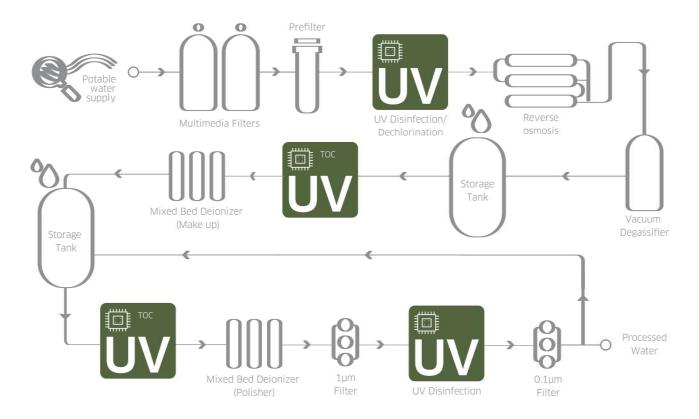
Optimized Performance: ECO is optimized for peak performance, providing consistently reliable water treatment solutions.





Application Optimized UV for Total Organic Carbon

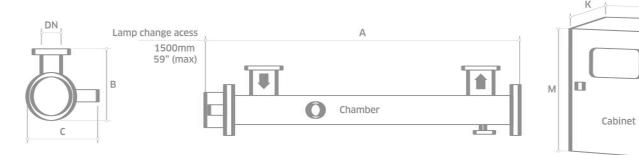
POTENTIAL LOCATIONS OF THE TOCLINE ECO



KEY FEATURES	WHAT IT GIVES YOU	BENEFITS FOR YOU	
INTELLIGENCE			
UV intensity sensor measuring active wavelengths	Continuous verification of performance with in-built low intensity alarm	Easy to monitor and log system performance	
OPTIMIZATION			
Energy efficient UV lamps	Less power requirements on-site	More savings through lower energy bills	
Designed for the semi-conductor manufacture market	FDA-approved materials used for all wetted parts	Industry compliant materials	
	Optional chamber <0.38 µm internal finish	Sanitary design	
INTEGRATION			
Compact design	Can be fitted to skids	Easy integration	
	Can be retrofitted to existing process		







MODEL NUMBER	MAX POWER (W)	LAMP (QTY)	I/O (TYPE)	CHAMBER SIZE (MM)			MM) CABINET				WEIGHT (KG)	
				А	В	С	DN	К	L	М	Chamber	Cabinet
TOCLine ECO T2	380	1	Flange	1785	230	275	80	180	470	535	22.6	20.5
TOCLine ECO T4	750	2	Flange	1785	335	315	80	210	490	600	42	27.6
TOCLine ECO T6	1080	3	Flange	1785	335	315	80	210	490	600	41	29.1
TOCLine ECO T8	1420	4	Flange	1785	335	315	80	210	500	700	41.4	35.5
TOCLine ECO T10	1750	5	Flange	1785	335	315	80	210	500	700	42	36.9
TOCLine ECO T12	2100	6	Flange	1785	335	315	80	210	510	800	43.5	44.5
TOCLine ECO T14	2430	7	Flange	1785	455	355	100	210	510	800	66.4	45.9

^{*} 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. Our distributor or our account manager can advise on correct sizing and specification requirements.

UV CHAMBER	
Material:	StSt 316L / 1.4404
Process (Mating) connection:	PN10 to EN1092-1
End plate:	Removable plate - Tri-Clamp
Drain Port:	Tri-Clamp 1" BS4825
Degree of protection:	IP54 equivalent to NEMA 12
Internal Finish:	< 0.5 µm Ra (Welds ground out)
Lamp Type:	Low Pressure Amalgam
Expected Lamp life:	9000 hours
UV Sensor:	Dry sensor
Temperature Sensor:	Yes
Seals:	Viton
Working fluid temperature:	0-40°C
Maximum CIP temperature:	95°C with cabinet electrically isolated
Operating Pressure	10 Bar

OPTIONS
Interconnecting cable lengths: 5 m
Chamber internal finish: < 0.38 µm
Document Support Pack
ANSI B 16.5 Class 150 process (mating) connection
Carbon Steel Cabinet material

APPROVALS
CF marked UI

Material:	Stainless steel 304		
Controller:	UV Controller		
HMI:	7" Touch screen		
Interconnecting cable lengths:	3 m		
IP rating:	IP54 / NEMA 12		
Power supply:	220 V ± 10%, 50/60 Hz, single phase, L+N+G		
Operating temperature range:	5-40°C		
Humidity:	< 90% no condense cabinet fan		
Control & Display:	Stepless power adjustment 50-100%		
	Fixed dose running		
	UV dose		
	Water temperature		
	Lamp running hours		
	Flow rate (m³/h or GPM)		
	All alarms and warnings		
Alarm & Warning:	Low UV dose		
	Lamp end pre-warning (time adjustable)		
	Lamp fault alarm		
	Chamber over temperature alarm		
	UV sensor fault alarm		
	Temperature sensor fault alarm		
	Warning for lamp and quartz resetting		
Input:	Flow 4-20 mA		
	T ₁₀ 4-20 mA		
	Remote On/Off		
Output:	UV dose 4-20 mA		
	Any system alarm VFC		
	Any system warning VFC		
	Low UV dose alarm VFC		
	Lamp fault alarm VFC		
	Lamp warming VFC		

Attention: No TOC guarantee can be provided with this equipment. Please see our 'TOC Reduction Performance Statement' which applies to all TOC quotes







TOCLine ECO

Also available in our ECO product range...



Reduce the bio-burden, protect against bio-fouling, lead to fewer CIP/SIP



Utility and service water treatment

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