UV O3 AOP
Advanced Treatment Technologies

ESCO International

Ultraviolet Technology

TREATING WATER NATURALLY

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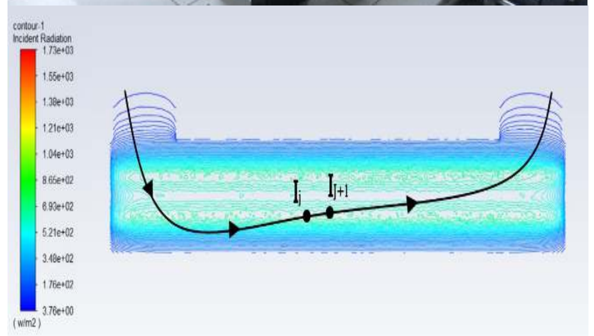
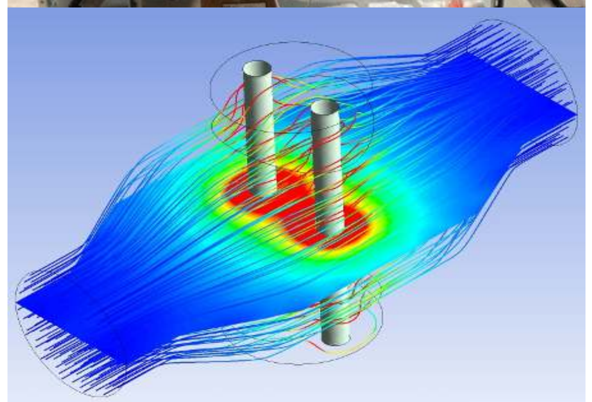
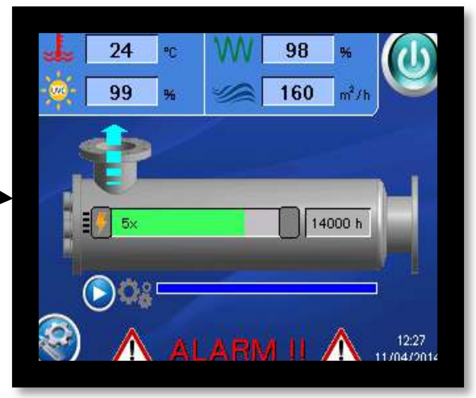






APPLICATIONS

Our UV systems can be used in a variety of industrial and commercial applications

Drinking Water

Waste water Systems

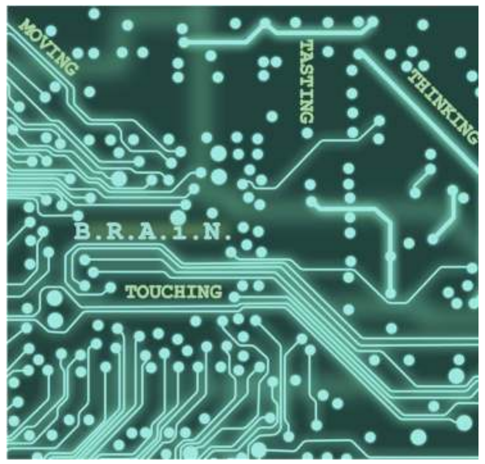
Food & Beverage Industry

Pharmaceutical Industry

Agriculture & Horticulture

Spa' and Swimming pools

Surface and Air Disinfection



Microelectronics

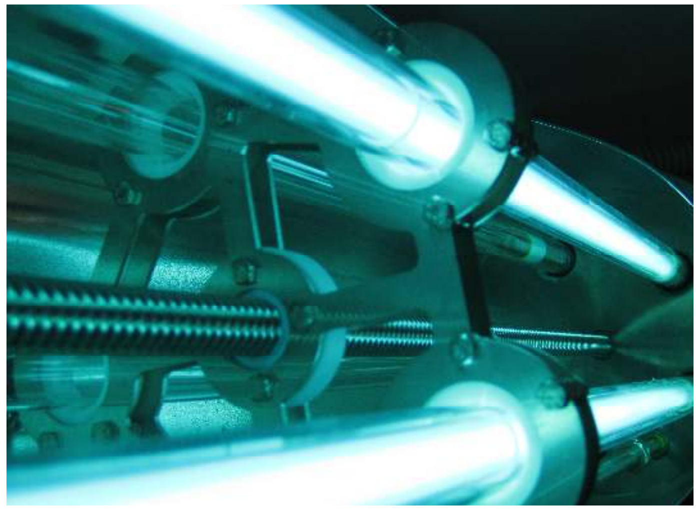
Fish Farms & Aquariums

UV SYSTEMS

UV Technology is a clean, robust way to address the decontamination of water in industrial and domestic processes. Having been proven to be effective against bacteria, viruses, protozoa, TOC and many organic compounds.

Why Ultraviolet (UV) light?

The natural disinfection properties of sunlight are attributable to UV radiation. UV radiation is a section within the energy band known as the electromagnetic spectrum shown in **figure 1 below.**



We at ESCO international, harness the power of the UV spectrum and enhance it to allow for excellent control of microbiological activity, and through targeted wavelength selection, destruction of specific organic compounds and TOC.

How does UV reduce contaminants?

Germicidal UV at a wavelength of 200 - 280 nm is known to effect a change in the molecular DNA of microorganisms preventing the cells from metabolising and reproducing.

UV radiation can also be targeted to remove organic compounds as it can break certain chemical bonds through photolytic reactions. As a result non-polar organics become charged and subsequent removal is made trivial through various methods such as ion exchange.

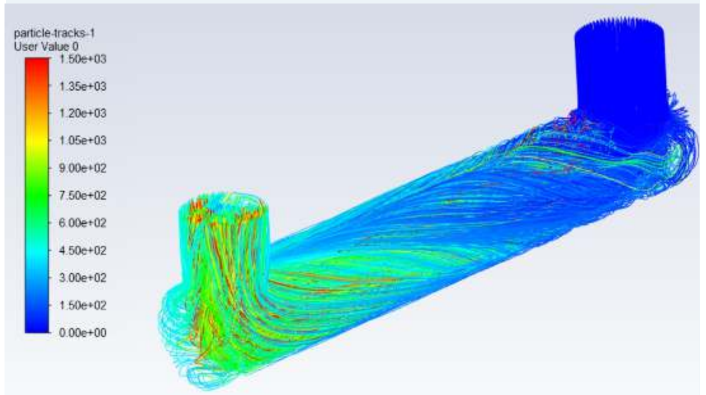
Applications

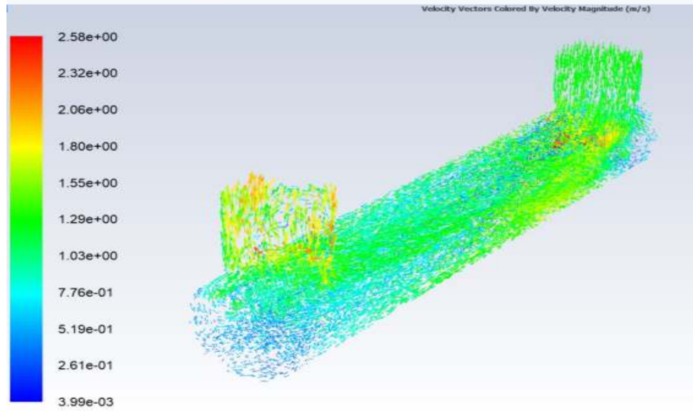
Some of the applications of UV have been mentioned in the previous page. However, this is only a fraction of the potential applications, as this technology may be used in general applications that cover the following functions:

- Germicidal Disinfection
- Ozone, Chlorine and Chloramines Destruction
- Total Organic Carbon (TOC) reduction
- Photochemical/ Photo-oxidation processes
- Advanced oxidation processes

ESCO International provides a complete solution coupling our expertise with our top of the line UV products for your process.

Furthermore, our technical consultancy can provide excellent support with your special applications or process requirements. This involves the provision of custom designed and tested UV systems to meet your needs.





UV SYSTEMS

General Features and Benefits of our UV Systems

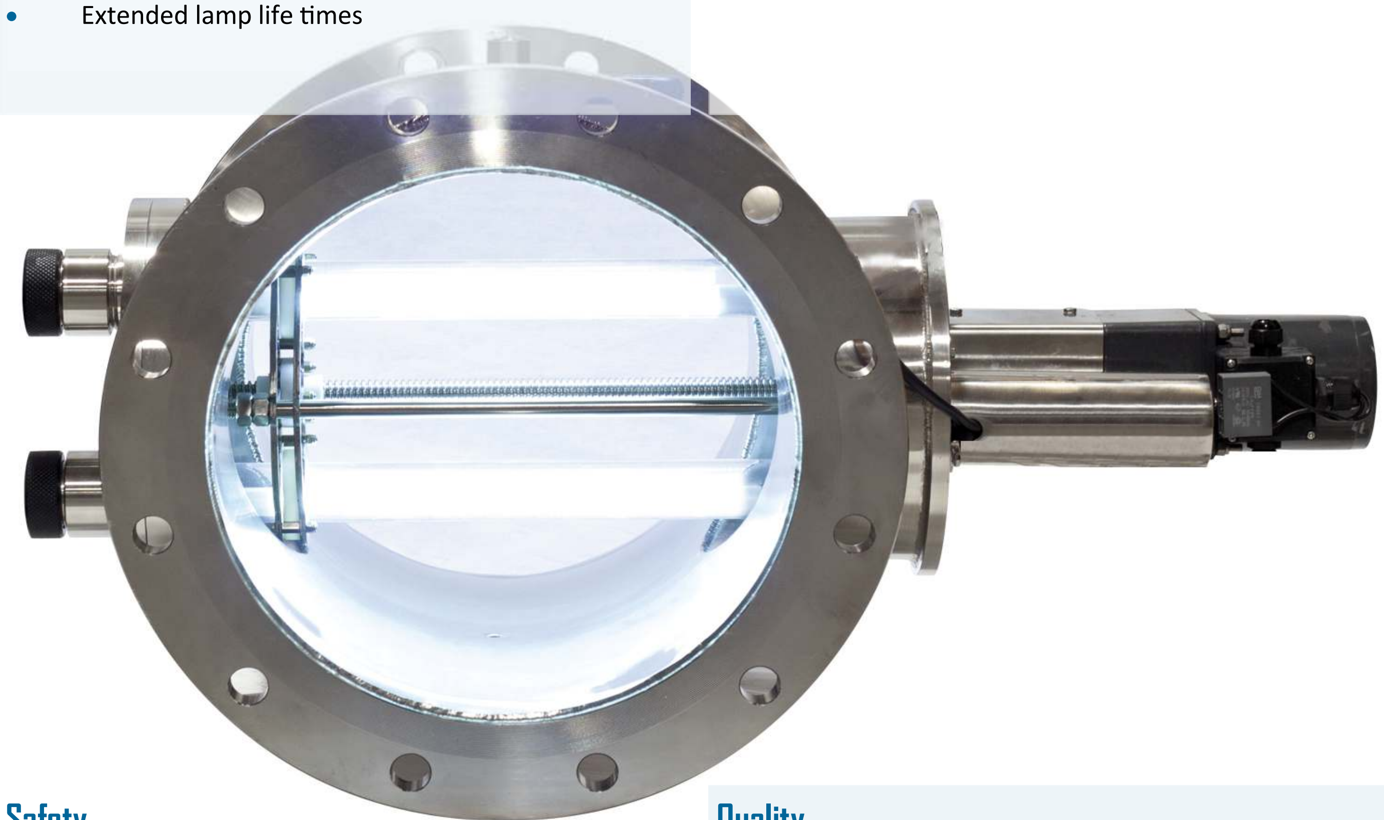
Our standard UV systems can unlock significant benefits for your process. Furthermore, numerous optional features are provided, which are designed to provide greater operational control and flexibility.

Features

- Manual or automatic cleaning systems.
- Chemical cleaning system.
- Magnetic or electronic ballasts and pace control operation, offers flexibility in mode of operation.
- PLC control panels providing automatic system control and convenient at-a-glance feedback of operational information. (with touch screen options) (other options).
- Industry standard UV intensity monitoring and control.
- Reactor temperature control.
- Alarms that signify faults and maintenance requirements.
- Special anti-corrosion coating
- Extended lamp life times

Benefits

- Decades of experience providing technical consultancy and bespoke UV solutions to happy customers.
- Minimal plant space requirements, with designs that facilitate simple installation.
- Optimised chamber designs allow for easy operation of cost-effective multi-lamp arrays in compact spaces.
- Lower in capital investment, with guaranteed efficiency gains, making UV a great investment.
- Lower maintenance and operation costs.
- Avoid unexpected failures and system downtimes.
- UV systems designed for operation for 24 hours, 365 days a year.



Safety

Safety is an intrinsic feature in our designs. Ensuring best practice is followed at all times. Furthermore, alarm systems are provided with all of our UV system designs, which alert the user to any faults, maintenance requirements and out of order reaction conditions.

Quality

We at ESCO guarantee quality, using only industry standard materials of the highest quality and complying to all of the relevant regulations.

Our products are CE approved and designed in accordance with ISO 9001/2000 standards.

UV SYSTEMS

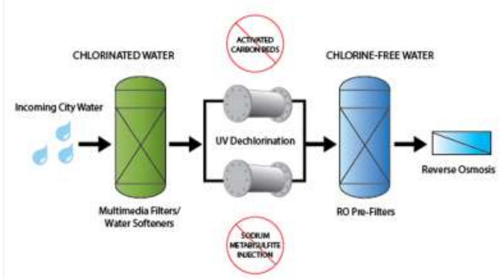
Performance

UV lamps within the UV systems are designed to ensure cost effectiveness, particularly at higher flowrates. Peace of mind is also provided through our industry standard monitors that provide accurate intensity monitoring to ensure that the correct UV dose is provided at all times, whether it is for ultra-pure water, drinking water or waste water purification.

Low pressure high output lamp performance is independent of water temperatures from 5—50^{o}C and lamp output may be integrated to automatically vary energy use, whilst maintaining the required UV dose. As a result, power consumption and costs relating to this are continuously optimised.

Medium pressure UV systems are practically independent of process temperature. Furthermore, note our lamp lifetimes span from 9,000 to 16,000 hours.

The following catalogue presents our full UV system design range to suit your specific applications.
Alternatively, contact us for any queries or custom design requirements at info@escouk.com.



UV PRODUCT RANGE

- The domestic series are the smallest UV systems in our catalogue, both with respect to dimensions and water treatment capacity.
- They are characterized by their compactness, easy installation and operation. The main application for the following systems is the treatment of potable water.
- These systems are ideal for single users, flats or for use in combination with small scale water applications, such as reverse osmosis systems, coolers, water dispensers, pilot plants and so much more.

ECO Series

	ECO-05A	ECO-10A
Max. Flow rate (l/min)	5	10
Number of Lamps	1	1
Lamp Lifetime (hours)	9000	
Power Consumption (W ± 2%)	12	16
UV-C dose (mJ/cm^2) @ UVT 99% - 1cm	>30	
Manifold Material	SS 304 or SS316L	
Max. Pressure (bar)	10	
In - out connection	⅛"F	½"M
Electrical Supply	230 V 50/60 Hz (others available upon request)	

ECO Series	ECO-20A/B	ECO-30A/B	ECO-45A/B	ECO-60A/B	ECO-85A/B
Max. Flow rate (l/min)	20	30	45	60	85
Lamps	1	1	1	1	1
Lamp Lifetime (hours)	9000				
Power Consumption (W ± 2%)	30	33	40	40	80
UV dose (mJ/cm2) @ UVT 99% - 1cm	30				
UV chamber Material	SS304 or SS316L				
Max. Pressure (bar)	10				
In - out connections	3/4"M	3/4"M	1"M	1 1/2" M	1 1/2"M
Electrical Supply	230 V 50/60 Hz (others available upon request)				

Electrical Panel	Type A	Type B
Digital display	No	Yes
Day counter	No	Yes
Resettable day counter	No	Yes
Alarm red LED	Yes	No
Acoustic Buzzer	No	Yes
Electrical Plug	UK/ No plug	

ECO LCD Series

ECO LCD Series	ECO-20	EC0-30	ECO-45	ECO-60	ECO-75	EC0-85	ECO-100	EC0-200
Max. Flow rate (l/min)	20	30	45	60	75	85	100	200
Number of Lamps	1	1	1	1	2	1	2	2
Lamp Lifetime (hours)	9000							
Power Consumption (W ± 2%)	30	35	40	40	80	80	80	160
UV dose (mJ/cm2) @ UVT 99%	30	30	30	30	30	30	40	40
UV Chamber Material	SS304 or SS316L							
Max. Pressure (bar)	10							
In - out connections	3/4"M	3/4"M	1"M	1 1/2" M	1"M	1 1/2"M	1 1/2"M	1 1/2"M
Electrical Supply	230 V 50/60 Hz (others available upon request)							
Manual Cleaning System	No	No	No	Optional	No	Optional	Optional	Optional
Electrical Panel Dimensions (mm)	215 x 215 x 90							

Electrical Panel	LCD Type
Protection degree	IP 55
LCD Display (microprocessor control)	Yes
Total hour meter	Yes
Resettable count down hour meter	Yes
Alarm red LED	Yes
Alarm relay free contact NO/ NC	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes
On/ Off timer	Yes
Remote On/ Off contact	Yes
Display of Irradiation/ temperature control	LCD P-model only*
Shutdown for high temperature UV Chamber	LCD P-model only*
4/20 mA output	Optional for LCD P-model only*
Audio alarm	Optional

* P-model: UV system with UV monitor

LCD Panel Black PP

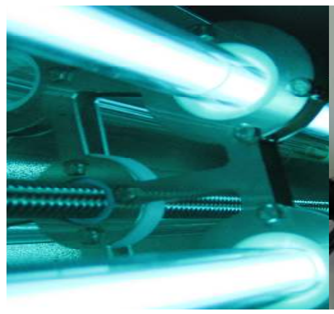
EC1 R-LCD Series

- The UV R-LCD series uses more powerful 80W low pressure lamps, within a UV chamber composed of polished stainless steel and a control panel with a microprocessor included.
- This system initiates our industrial scale series.
- Recommended applications for this UV system include potable water treatment and the food and beverage industry among others.

EC1 R-LCD Series	EC1-20R-LCD	EC1-30R-LCD	EC1-R-LCD
Max. Flow rate (m^3/h)	20	30	40
Number of Lamps	3	4	5
Lamp Lifetime (hours)	9000		
Power Consumption (W ± 2%)	240	320	400
UV dose (mJ/cm2) @ UVT 99% - 1cm	> 40 (for 9000 h)		
UV Chamber Material	SS304 or SS316L		
Max. Pressure (bar)	10		
In - out connections	2"M	DN80	DN80
Electrical Supply	230 V 50/60 Hz (others upon request)		
Manual Cleaning System	Optional	Optional	Optional
Electrical Panel Dimensions (mm)	215 x 215 x 90		

Electrical Panel	R-LCD Type
Enclosure Material	Paint steel*
Protection degree	IP 54
LCD Display (microprocessor control)	Yes
Total hour meter	Yes
Resettable count down hour meter	Yes
Alarm red LED	Yes
Alarm relay free contact NO/ NC	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes
On/ Off timer	Yes
Remote On/ Off contact	Yes
Display of Irradiation/ temperature control	LCD P-model only **
Shutdown for high temperature UV Chamber	LCD P-model only **
4/20 mA output - LCD P-model only**	Optional
Audio alarm	Optional

*Stainless steel 304/316L upon request
**P-model: UV system with UV monitor



AMD Series

- The main feature of the UV AM series is the powerful amalgam lamp, which are provided with IP65 protection, preventing damage from water, dust or humidity. Furthermore, The AM series works exceptionally at high flowrates with minimal lamp requirements and the "L" shaped configuration allows for compact horizontal or vertical installation.
- Recommended applications for these UV systems include potable water treatment, food and beverage industry, pharmaceuticals and the horticulture/agricultural industry, among others.

AMD Series	24L	50L	60L	96L	125L	160L
Max. Flow rate (m^3/h)	20	50	60	96	125	160
Number of Lamps	1	2	2	3	4	4
Lamp Lifetime (hours)	14000					
Power Consumption (W ± 2%)	220	440	440	660	880	880
UV dose (mJ/cm2) @ UVT 98%	> 40 (for 14000 h)					
UV Chamber Material	SS316L					
Max. Pressure (bar)	10					
In - out connections (PN 10)	2"M	DN80	DN80	DN100	DN150	DN150
Openable side	No	No	No	Yes	Yes	Yes
Manual cleaning system	Optional	No	Optional	No	No	No
Automatic wiper	Optional					
Electrical panel	R-LCD Type			Touch screen or ECOLINE		
Electrical Supply	230 V 50/60 Hz (others available upon request)					
Electrical Panel Dimensions (mm)	400 x 300 x 200			400 x 500 x 250	750 x 400 x 250	

TS Panel
AMD 96-125-160

R-LCD/ ECOLINE Panel
AMD24-50-60-96-125-160

Electrical Panel	R-LCD Type	Touch Screen Type
Enclosure Material	Painted Steel*	Painted Steel*
Protection degree	IP 54	IP54
LCD Display (microprocessor control)	Yes	No
Touch Screen (65K)	No	Yes
Multi-Language display	No	Yes
Hour meters (system and lamp life)	Yes	Yes
Digital Outputs	No	Yes
Red fault LED	Yes	No
Alarm relay free contact NO/ NC	Yes	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes	Yes
Remote On/Off	Yes	Yes
On/ Off timer	Yes	Yes
Display of Irradiation/ temperature control	Only LCD P-model or ECOLINE	Yes
CAN, Ethernet, USB, Serial (modbus. TCP/IP, CANopen)	No	Yes
Remote access with App or Webgate	No	Yes
4/20 mA output , Audio alarm	Optional	Yes
Datalog - Events	No	Yes
UV dose calculation	No	Optional
Lamp power regulation	Optional	Optional

*Stainless steel 304/316L upon request




EC400 Series

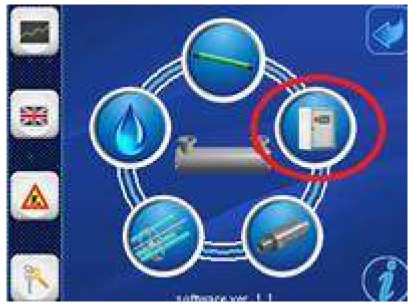
- The main feature of the EC400 series is the powerful amalgam lamp, which is more powerful than the AMD series and can treat flowrates up to 1350 m^3/h, representing a significant upgrade in terms of capacity. These reactors are composed of 316L stainless steel material and are provided in a horizontal configuration.
- Recommended applications for these UV systems are similar to the AMD series, with the capacity for much larger scale industrial operations. For higher flow rates, please contact us.

EC400 Series	1-TS	2-TS	3-TS	4-TS	5-TS	6-TS	8-TS	10-TS	12-TS	15-TS
Max. Flow rate (m^3/h)	50	100	150	250	300	420	600	830	980	1350
Lamps	1	2	3	4	5	6	8	10	12	15
Lamp Lifetime (hours)	16000									
Lamp power regulation	(50-100%) only on TS panels				(50-100%) only on TS panels					
Power Consumption (W ± 2%)	440	880	1300	1750	2180	2600	3500	4400	5300	6600
UV dose (mJ/cm2) UVT 97%	> 40 (for 16000 h)									
UV Chamber material	SS 316 L									
Max. Pressure (bar)	10									
In - out connections (PN 10)	**DN80**	**DN100**	**DN150**	**DN200**	**DN200**	**DN250**	**DN250**	**DN300**	**DN350**	**DN400**
Openable side	Yes									
Automatic wiper	Optional									
Electrical panel	Touch screen or ECOLINE				Touch screen (TS)					
Electrical Supply	230 V 50/60 Hz (380/400V 50/60 Hz)									
Electrical Panel Dimensions (mm)	400x500x250		400x750x250		600x800x300			800x1000 x300	800x1200x300	

EC400 Series	20-TS	25-TS	30-TS	35-TS	40-TS	50-TS	60-TS	70-TS	80-TS	100-TS
Max. Flow rate (m^3/h)	Please contact us for details									
Lamps	20	25	30	35	40	50	60	70	80	100
Lamp Lifetime (hours)	16000									
Lamp power regulation	(50-100%) only on TS panels				(50-100%) only on TS panels					
Power Consumption (KW)	8.8	11.0	13.2	15.4	17.6	22.0	26.4	30.8	35.2	44.0
UV dose (mJ/cm2) UVT 97%	> 40 (for 16000 h)									
UV Chamber material	SS 316 L									
Max. Pressure (bar)	10									
In - out connections (PN 10)	**Please contact us for details**									
Openable side	Yes									
Automatic wiper	Optional									
Electrical panel	Touch screen (TS)									
Electrical Supply	230 V 50/60 Hz (380/400V 50/60 Hz)									
Electrical Panel Dimensions (mm)	Please contact us for details									

TS Panel
EC400-1TS - EC400-

R-LCD ECOLINE Panel
EC400-1ECO - EC400-4ECO



Electrical Panel	ECOLINE	TC
Enclosure Material	Painted Steel*	Painted Steel*
Protection degree	IP 54	IP54
LCD Display (microprocessor control)	Yes	No
Touch Screen (65K)	No	Yes
Multi-Language display	No	Yes
Hour meters (system and lamp life)	Yes	Yes
Digital Outputs	No	Yes
Red fault LED	Yes	No
Alarm relay free contact NO/ NC	Yes	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes	Yes
Remote On/Off	Yes	Yes
On/ Off timer	Yes	Yes
Display of Irradiation/ temperature control	Yes	Yes
CAN, Ethernet, USB, Seriale (modbus. TCP/IP, CANopen)	No	Yes
Remote access with App or Webgate	No	Yes
4/20 mA output, audio alarm	Optional	Yes
Datalog - Events	No	Yes
UV dose calculation	No	Optional
Lamp power regulation	Optional	Yes

*Stainless steel 304/316L upon request

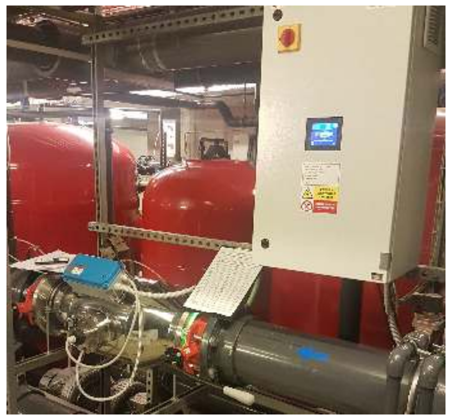
SMP ECOLINE Series

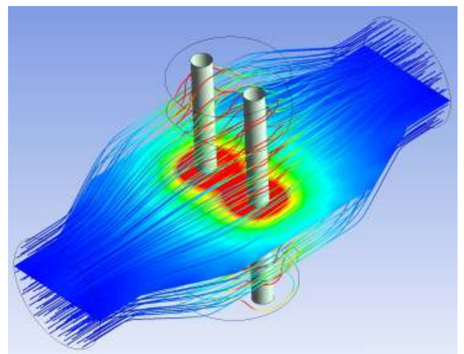
- The SMP ECOLINE series was designed to accommodate the requirements for a high quality product in the public pool market. Using our expertise in providing the correct system for your requirements. This medium pressure UV system has dual effect in terms of both disinfection of water and reduction of Chlorine as UV-C rays are also effective in chlorine and chloramines removal.
- This system will significantly increase ambient water quality, minimise requirements for chemical cleaning and decreasing pool maintenance costs, which is a key factor in publicly owned pools.

SMP ECO series	6 XL	10 XL	20 XL	25 XL	35 XL
Max. Flow rate (m^3/h)	33	55	120	170	333
Lamps	1	1	1	1	1
Lamp Lifetime (hours)	6000				
Power Consumption (kW ± 2%)	0.66	1.1	2.2	2.7	3.9
UV-C dose (mJ/cm2) @ UVT 97%	60				
UV chamber materila	SS 316L				
Max. Pressure (bar)	10				
In - out connections (PN 10)	2 $^1/_2$"M	DN100	DN150	DN200	DN200
Manual wiper	Optional				
Electrical panel	ECOLINE Type				
Electrical Supply	230 V 50/60 Hz		400 V 3PH + N + GND 50/60 Hz		
Electrical Panel Dimensions (mm)	400x500x250		400x750x300		

SMP ECOLINE Panel

Electrical Panel	ECOLINE Type
Enclosure Material	Painted Steel
LCD Display (microprocessor control)	Yes
Total hour meter	Yes
Resettable Count down hour meter	Yes
Alarm red LED	Yes
Alarm relay free contact NO/ NC	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes
Remote On/Off Contact	Yes
On/ Off timer	Yes
Display of Irradiation/ temperature control	Yes
Shutdown for high temperature UV Chamber	Yes
4/20 mA output	Optional
Audio alarm	Optional





SMP Series with Power Regulation

- There is a wide range of products in the SMP PR series, covering various functions. One of the key factors involving this series is the fact that it represents one of the biggest units provided by us, with flow rates ranging up to 4000 m^3/h and a power rating up to 100 kW.

- All the PR units are designed with minimal medium pressure lamps and optimised performance for your needs. This includes electronic ballasts capable of automatically controlling lamp power (50-100%) as per requirements, an excellent human machine interface with a impact graphic display available in two formats and finally, a compact design allowing for easy installation in tight spaces such as vessels.

- This series also covers a wide range of applications including in the naval industry, aquaculture, agriculture/ horticulture, swimming pools, potable water treatment and snowmaking to name a few.

SMP XL-PR Series	6XL-PR	10XL-PR	20XL-PR	25XL-PR	35XL-PR
Max. Flow rate (m^3/h)	33	55	120	170	333
Lamps	1	1	1	1	1
Lamp Lifetime (hours)	10000				
Lamp power regulation	Yes (50-100%)				
Power Consumption (kW ± 2%)	0.66	1.1	2.2	2.7	3.9
UV-C dose (mJ/cm2) @ UVT 99%	>600—800				
UV chamber material	SS 316L				
Max. Pressure (bar)	10				
In - out connections (PN 10)	2 $^1/_2$"M	DN100	DN150	DN200	DN200
Manual wiper	Standard				
Electrical panel	Touch Screen (TS)				
Electrical Supply	230 V 50/60 Hz				
Electrical Panel Dimensions (mm)	400x500x250		400x750x300		

SMP PR Series	50-PR	70-PR	105-PR	140-PR	175-PR	210-PR
Max. Flow rate (m^3/h)	350	500	750	1200	1500	1800
Lamps	2	2	3	4	5	6
Lamp Lifetime (hours)	10000					
Lamp power regulation	Yes (50-100%)					
Power Consumption (kW ± 2%)	5.5	7.7	11.6	15.5	19	23
UV-C dose (J/m2) con UVT 99% - 1cm	>600—800					
UV chamber material	SS 316L					
Max. Pressure (bar)	10					
In - out connections (PN 10)	DN200	DN300	DN300	DN400	DN500	DN500
Manual wiper	Standard					
Automatic wiper	Optional					
Electrical panel	Touch Screen (TS)					
Electrical Supply	400 V 3PH + N - 50/60 Hz					
Electrical Panel Dimensions (mm)	600x800x300		850x1000x400			900x1200x400

SMP PR series	180-PR	225-PR	300-PR	375-PR	600-PR	675-PR
Max. Flow rate (m^3/h)	Please contact us					
Lamps	6	3	4	5	8	9
Lamp Lifetime (hours)	10000					
Power Consumption (kW ± 2%)	20	26	35	44	71	80
In - out connections (PN 10)	Please contact us					
Automatic wiper	Optional					
Electrical Supply	400 V 3PH + N + GND - 50/60 Hz					

Electrical Panel	Touch Screen Panel
Protection degree	IP54
Touch Screen (65K)	Yes
Digital Outputs	Yes
Hour meters (system and lamp life)	Yes
Audio alarm	Yes
Alarm relay free contact NO/ NC	Yes
Alarm relay 230 V NO/ NC outlet - 2A max	Yes
Remote On/Off	Yes
On/ Off timer	Yes
Display of Irradiation/ temperature control	Yes
CAN, Ethernet, USB, Serial (modbus. TCP/IP, CANopen)	Yes
Remote access with App or Webgate	Yes
4/20 mA output	Yes
Datalog - Events	Yes
UV dose calculation	Optional
Lamp power regulation	Yes
Flow meter input	Yes
UVT meter input	Yes
Flow and UVT duplication	Optional

UVSBT Series

- The UVSBT series is designed specifically for wastewaters with low UVT transmittance values. This series is composed of high performance low and medium pressure UV lamps, optimised to minimize lamp number requirements within the reactor and power use. All models come with automatic cleaning systems to suit applications as well as optional chemical cleaning. Finally, all series come with a UV sensors guaranteeing disinfection efficiency and optional touch screen control panels which allow for complete integration with the main PLC of your treatment plant.

- Recommended applications for these UV systems are wastewater treatment, liquid sweetener, sugar solutions and other fluids with low UVT transmittance.

UVSBT Series	1101	2101	3106	4101	3115	3125	3135
Max. Flow rate (m^3/h)*	1.9	6.8	9.3	17.7	24.6	40.7	56
UVT Range	35 - 65% - 1cm						
Lamps	1	1	1	1	1	1	1
Lamp Lifetime (hours)	9000	14000	10000	16000	10000		
Lamp power regulation	No	No	Yes (50-100%)				
Power Consumption (W ± 2%)	88	220	660	440	1660	2770	3880
UV chamber material	SS 316 L						
Max. Pressure (bar)	10						
In - out connections	1"	DN50	2 $^1/_2$"	DN65	DN80	DN80	DN100
Chemical Cleaning System	Optional						
Automatic wiper	No	No	Yes	Yes	Yes	Yes	Yes
Electrical panel	LCD	R-LCD	Touch screen (TS)				
Electrical Supply	230 Vac 1PH + N + E: 277 Vac 1PH + N + E						

UVSBT Series	4104	4106	4110	4116	4124	4132	4140
Max. Flow rate (m^3/h)*	79.6	122	207	332	515	690	874
UVT Range	35 - 65% - 1cm						
Lamps	4	6	10	16	24	32	40
Lamp Lifetime (hours)	16000						
Lamp power regulation	Yes (50-100%)						
Power Consumption (W ± 2%)	1770	2660	4440	7110	10660	14220	17770
UV chamber material	SS 316 L						
Max. Pressure (bar)	10						
In - out connections	DN150	DN150	DN200	DN250	DN300	DN400	DN400
Chemical Cleaning System	Optional						
Automatic wiper	Yes						
Electrical panel	Touch Screen (TS)						
Electrical Supply	230 V 50/60 Hz			380/400 V 50/60 Hz			

* Flow rate based on average wastewater quality.

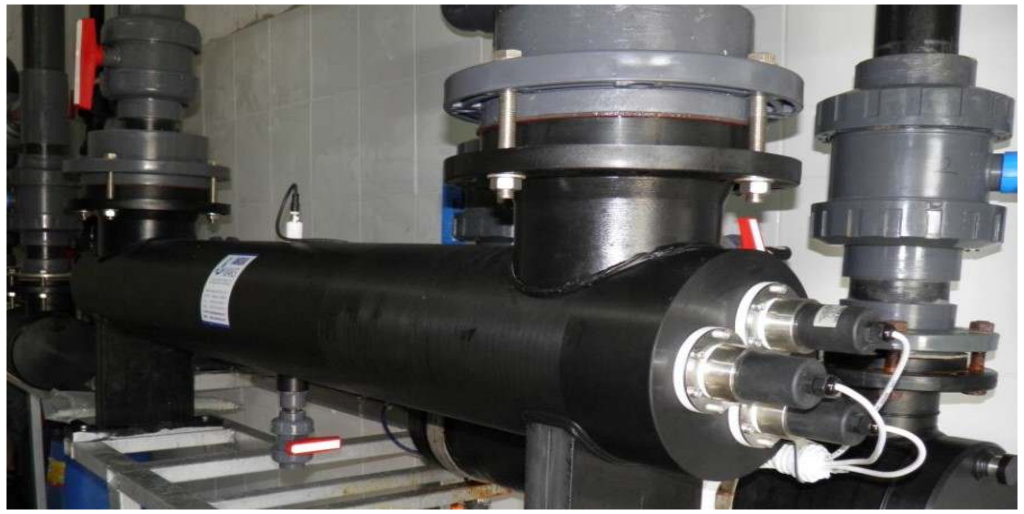
Electrical Panel	LCD or Rack LCD Type	Touch Screen Type
Enclosure Material	Painted Steel	Painted Steel
Protection degree	IP 54	IP54
LCD Display (microprocessor control)	Yes	No
Touch Screen (65K)	No	Yes
Multi-Language display	No	Yes
Hour meters (system and lamp life)	Yes	Yes
Digital Outputs	No	Yes
Red fault LED	Yes	No
Alarm relay free contact NO/ NC	Yes	No
Alarm relay 230 V NO/ NC outlet - 2A max	Yes	Yes
Remote On/Off	Yes	Yes
On/ Off timer	Yes	Yes
Display of Irradiation/ temperature control	Yes	Yes
CAN, Ethernet, USB, Serial (modbus. TCP/IP, CANopen)	No	Yes
Remote access with App or Webgate	No	Yes
4/20 mA output	Optional	Yes
Datalog - Events	No	Yes
UV dose calculation	No	Optional
Lamp power regulation	No	Yes
Flow meter input	No	Yes
UVT meter input	No	Yes
Flow and UVT duplication	No	Optional
Audio alarm	Optional	Optional

UVPE Series

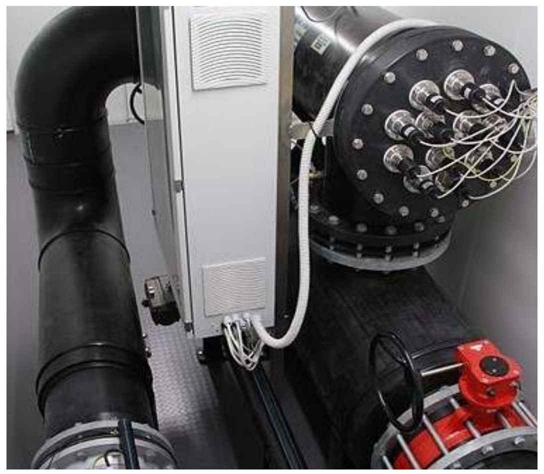
- The UVPE series is specifically designed to deal with corrosive liquids and sea water. The UV reactor in this case is composed of noncorrosive material, namely high density polyethylene. As a result, the main features of this series is the excellent long term disinfection capabilities in corrosive environments.
- Recommended applications for these UV systems span across numerous sectors including the naval industry, aquariums, aquaculture, agriculture/ horticulture, seawater, brackish water, swimming pools/spas, among others.

UVPE Series	UVPE3	UVPE5	UVPE8	UVPE15	UVPE22	UVPE35	UVPE45	UVPE61	UVPE90
Max. Flow rate (m^3/h)	3	5	8	15	22	35	45	61	90
Number of Lamps	1	1	2	2	3	4	5	2	3
Lamp Lifetime (hours)	9000							14000	
Power Consumption (W ± 2%)	40	80	80	160	260	335	400	440	660
UV dose (mJ/cm2) @ UVT 99%	> 40								
UV chamber material	Black High Density Polyethylene								
Max. Pressure (bar)	6								
In - out connections (PN 6)	$1\,^{1}/_{2}$" F	$1\,^{1}/_{2}$" F	$2\,^{1}/_{2}$" F	$2\,^{1}/_{2}$" F	DN65	DN80	DN100	DN100	DN150
Manual wiper	No	No	No	No	Optional				
Electrical panel	LCD Type				R-LCD Type				
Electrical Supply	230 V 50/60 Hz								
Electrical Panel Dimensions (mm)	215x215x90				400x300x200				500x400x250

UVPE Series	UVPE110	UVPE150	UVPE250	UVPE340	UVPE470	UVPE600	UVPE830	UVPE980
Max. Flow rate (m^3/h)	110	150	250	340	470	600	830	980
Lamps	2	3	4	5	7	8	10	12
Lamp Lifetime (hours)	16000							
Lamp power regulation	(50 - 100%) TS Panels only			Yes (50 - 100%)				
Power Consumption (W ± 2%)	880	1300	1760	2180	3100	3500	4400	5300
UV dose (mJ/cm2) @ UVT 99%	> 40							
UV chamber material	Balck High Density Polyethylene							
Max. Pressure (bar)	6							4
In - out connections (PN 6)	DN150	DN200	DN250	DN250	DN300	DN350	DN400	DN450
Manual/Automatic wiper	Optional							
Electrical panel	Touch Screen or ECOLINE			Touch Screen (TS)				
Electrical Supply	230 V 50/60 Hz (380/400 V 50/60 Hz)							
Electrical Panel Dimensions (mm)	400x500x300	400x750x250		600x800x250			800x1000x300	



Electrical Panel	LCD or R-LCD or ECOLINE	Touch Screen
Enclosure Material	Painted Steel	Painted Steel
Protection degree	IP 54	IP54
LCD Display (microprocessor control)	Yes	No
Touch Screen (65000 colours)	No	Yes
Multi-Language display	No	Yes
Hour meters (system and lamp life)	Yes	Yes
Digital Outputs	No	Yes
Red fault LED	Yes	No
Alarm relay free contact NO/ NC	Yes	No
Alarm relay 230 V NO/ NC outlet - 2A max	Yes	Yes
Remote On/Off	Yes	Yes
On/ Off timer	Yes	Yes
Display of Irradiation/ temperature control	Optional	Yes
CAN, Ethernet, USB, Seriale (modbus. TCP/IP, CANopen)	No	Yes
Remote access with App or Webgate	No	Yes
4/20 mA output	Optional	Yes
Datalog - Events	No	Yes
UV dose calculation	No	Optional
Lamp power regulation	No	Yes
Flow meter input	No	Yes
UVT meter input	No	Yes
Flow and UVT duplication	No	Optional
Audio alarm	Optional	Optional



UV DW Series

ÖNORM M 5873-1

BIODOSIMETER TEST

- The DW UV series has been validated bio-dosimetrically, as it has been tested and certified by ÖNORM 5873-1 standards. This series also fulfill the EPA requirements contained in the Ultraviolet Guidance Manual, so you can have the utmost confidence in the quality of our equipment. This series also contains special mixing plates within the stainless steel 316L UV reactor chamber, that guarantees excellent distribution of water as shown by Computational Fluid Dynamics modeling (CFD).

UVDW Series	DW4	DW10	DW40	DW80	DW120	DW200	DW400
Max. Flow rate (m^3/h)	3.72	13.98	42.40	72.4	127.15	200.85	322.70
Lamps	1	1	6	2	3	4	6
Lamp Lifetime (hours)	9000	12000	9000	16000			
Lamp power regulation	No	No	No	Yes (50 - 100%)			
Power Consumption (KW ± 2%)	88	222	533	888	1333	1800	2700
UV dose (mJ/cm2)	> 40						
UV chamber material	SS 316L						
Max. Pressure (bar)	6						
In - out connections (PN10)	1"M	2"M	DN100	DN100	DN150	DN200	DN250
Automatic wiper	No	No	No	Optional	Yes	Yes	Yes
Electrical panel	LCD	Rack LCD	Touch Screen (TS)				
Electrical Supply	230 V 50/60 Hz						
Electrical Panel Dimensions (mm)	215x215x90	300x400x200	400x500x250		400x750x250		600x800x300

Electrical Panel	LCD or R-LCD Type	Touch Screen
Enclosure Material	Painted Steel* IP54	Painted Steel* IP54
LCD Display (microprocessor control)	Yes	No
Touch Screen (65K)	No	Yes
Hour meters (system and lamp life)	Yes	Yes
Digital Outputs	No	Yes
Red fault LED	Yes	No
Alarm relay free contact NO/ NC, 230 V NO/ NC outlet -2A max	Yes	Yes
Remote On/Off, On/off time	Yes	Yes
Display of Irradiation/ temperature control	Yes	Yes
CAN, Ethernet, USB, Serial (modbus. TCP/IP, CANopen)	No	Yes
Remote access with App or Webgate	No	Yes
4/20 mA output	Yes	Yes
Datalog - Events	No	Yes
UV dose calculation	No	Optional
Lamp power regulation	No	Optional
Flow meter input	No	Yes
UVT meter input	No	Yes
Flow and UVT duplication	No	Optional
Audio alarm	Optional	Optional

*Stainless steel 304/316L upon request

ESCO International

About ESCO International

ESCO International provides cutting edge water, waste water and gas effluent treatment solutions to industries around the world.

We have successfully developed the most environmentally friendly technologies available, helping organisations meet and exceed high purification standards and local and national regulations by providing simple, safe, clean and cost effective solutions.

ESCO International is a specialist supplier of engineered Ozone systems and skid packaged ozone solutions, UV systems, and Advanced oxidation processes (AOPs) for a wide range of applications .

We work with renowned engineering and water treatment companies , striving to provide the most effective solution that meets your needs.

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