

For Water Treatment

UV DISINFECTION SYSTEM



UV
SolaRay

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Water Treatment Solution
www.ecoset.co.kr
A Leading High-tech Company
For Environmental Engineering



EOL-H SERIES®

LOW PRESSURE
HORIZONTAL OPEN CHANNEL TYPE



Long life super high intensity amalgam lamps
reduce operation & maintenance cost



Simple and easy maintenance by innovative design from long field experience
saves manpower and time for maintenance



Motor driven automatic wiper mechanism
presents reliable and accurate cleaning of quartz sleeves eliminating the requirement of manual cleaning



APPLICATIONS

- Primary, secondary wastewater
- Industrial effluent
- Irrigation
- Water-reuse, grey water

BENEFITS

- Expandability by modular design
- Real time dose & flow pacing
- Motorized automatic wiper mechanism with proven reliability and performance (pneumatic cylinder wiper mechanism also available on request)
- Energy-efficient low-pressure, super high-output amalgam lamps reduce operation & maintenance cost. Either 240watt lamp or 320watt lamp is available depending on site condition and system design
- CFD modeled design and field tested performance
- Minimum maintenance requirement
- User friendly interfaces and control features
- Meaningful monitoring

STANDARD SPECIFICATION

Module Specification

Material	STS304 / STS316 / STS316L
Lamp Type / Input power per lamp	Low Pressure, Amalgam / 240Watts or 320 Watts
Cleaning System	Electric Motor-driven Automatic Wiper Mechanism with Limit Switches
Water Level Control(Optional)	ALC(Counterbalanced Level Control Gate) or Motorized Weir Gate or Fixed Weir
Operating Water Temperature	+5°C - +45°C

Enclosure Specification

Material	Painted Steel, STS304, STS316
Protection Rating	IP54/NEMA 4

System Control Panel (SCP)

Controller	PLC
Voltage / Frequency	220V- 480V, 50/60Hz
Operating Temperature	+0°C - +50°C

Power Supply Panel (PSP)

Ballast Type	Variable output electronic ballast
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EOL-V SERIES®

LOW PRESSURE
VERTICAL OPEN CHANNEL TYPE



BENEFITS

- Expandability by modular design
- Small footprint
- Real time dose & flow pacing
- Motorized automatic wiper mechanism with proven reliability and performance (pneumatic cylinder wiper mechanism also available on request)
- Energy-efficient low-pressure, super high-output amalgam lamps reduce operation & maintenance cost. Either 240 watt lamp or 320 watt lamp is available depending on site condition and system design
- CFD modeled design and field tested performance
- Minimum maintenance requirement
- User friendly interfaces and control features
- Meaningful monitoring

APPLICATIONS

- Primary, secondary wastewater
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STANDARD SPECIFICATION

Module Specification	
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Lamp Type / Input power per lamp	Low Pressure, Amalgam / 240 Watts or 320 Watts
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Enclosure Specification	
Material	Painted Steel, STS304, STS316
Protection Rating	IP54/NEMA 4
System Control Panel (SCP)	
Controller	PLC
Voltage / Frequency	220V- 480V, 50/60Hz
Operating Temperature	+0°C - +50°C
Power Supply Panel (PSP)	
Ballast Type	Variable output electronic ballast



Intelligent electronic ballast

enables the system to maintain the design dose regardless of changing flow rate or wastewater quality



Motor driven automatic wiper mechanism

presents more reliable and accurate cleaning of quartz sleeves than conventional pneumatic cylinder type wiper mechanism



Innovative part designs promise reliable performance

Every part of the system is designed to perform, which has been proven in over 600 currently operating sites.

ECM SERIES [®]

MEDIUM PRESSURE CHAMBER TYPE



1

High intensity medium pressure lamps
enables less number of lamp in a chamber for large flow with low maintenance cost



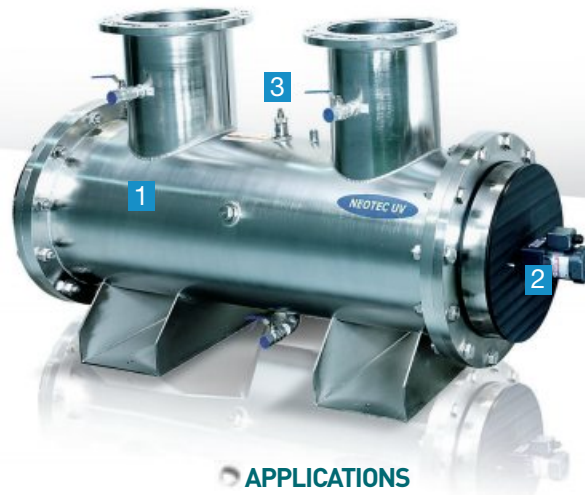
2

Motor driven automatic wiper mechanism
presents reliable and accurate cleaning of quartz sleeves eliminating the requirement of manual cleaning



3

UV intensity monitor
provides highly accurate measurement of UV intensity within the chamber and transmit the signal to control for dose pacing and customer use



APPLICATIONS

- Drinking water disinfection
- Industrial water mains supply disinfection
- Process water disinfection
- Aquaculture/Aquaria
- Swimming pool/Spa
- Photolysis applications-TOC removal for UPW process
- AOP process

BENEFITS

- Small footprint and easy installation
- Real time dose & flow pacing
- Motorized automatic wiper mechanism with proven reliability and performance
- Medium-pressure, high-output lamps enable large treatment capacity with compact size
- CFD modeled design
- Minimum maintenance requirement
- User friendly interfaces and control features
- Meaningful monitoring
- Fully automated operation
- State-of-the-art workmanship
- Wide spectral output for photolysis applications
- Irrelevant to water temperature



UV AOP SYSTEM

STANDARD SPECIFICATION

Chamber Specification

Material	STS304 / STS316 / STS316L
Lamp Type / Input power per lamp	Medium Pressure / 1.2kW to 24kW per lamp
Cleaning System (where applicable)	Electric Motor-driven Automatic Wiper Mechanism with Limit Switches
Operating Water Temperature	+5°C - +65°C
Connections	PN16, DN, ANSI 150, JIS, KS
Working/Test Pressure	10bar/15bar

Enclosure Specification

Material	Painted Steel, STS304, STS316
Protection Rating	IP54/NEMA 4

System Control Panel (SCP)

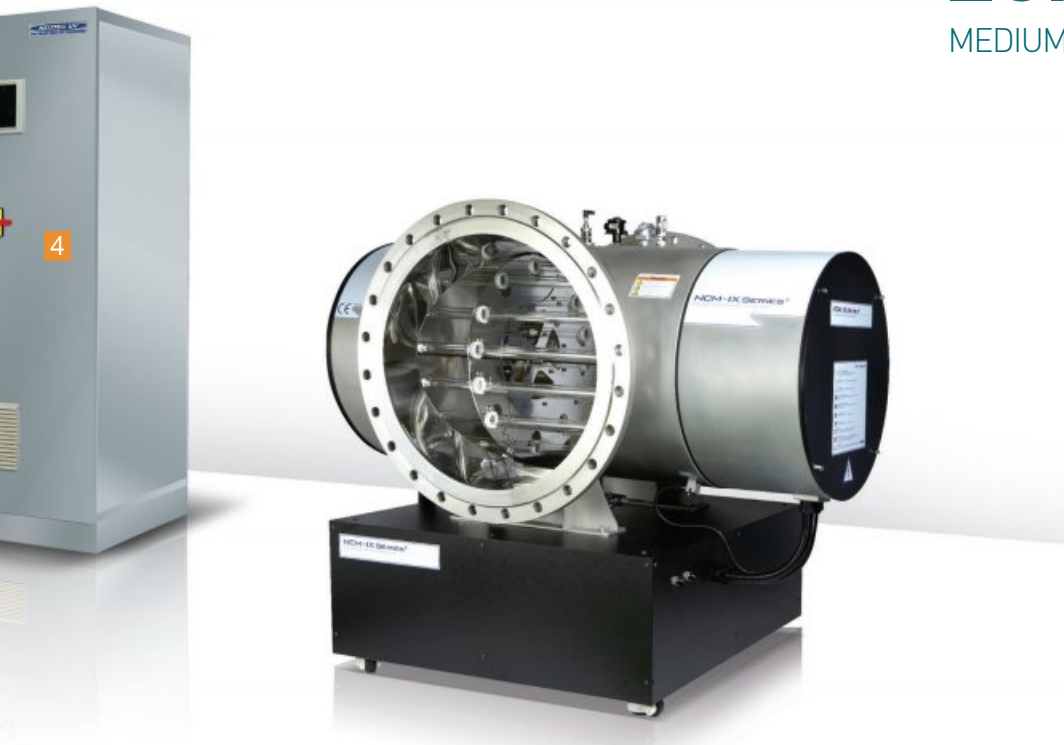
Controller	PLC
Voltage / Frequency	220V- 480V, 50/60Hz
Operating Temperature	+0°C - +50°C

Power Supply Panel (PSP)

Ballast Type	Variable output electronic ballast
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ECM-I SERIES®

MEDIUM PRESSURE IN-LINE TYPE



APPLICATIONS

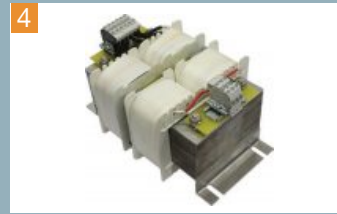
- Ballast Water Treatment for vessels
- Drinking water disinfection
- Industrial water mains supply disinfection
- Process water disinfection
- Aquaculture/Aquaria

BENEFITS

- Small footprint and easy installation
- Minimum head loss by in-line design
- Real time dose & flow pacing
- Motorized automatic wiper mechanism with proven reliability and performance
- Medium-pressure, high-output lamps enable large treatment capacity with compact size
- CFD modeled design
- Minimum maintenance requirement
- User friendly interfaces and control features
- Meaningful monitoring
- Fully automated operation
- State-of-the-art workmanship
- Irrelevant to water temperature
- IMO(International Maritime Organization) approved performance and reliability

STANDARD SPECIFICATION

Chamber Specification	
Material	STS304 / STS316 / STS316L
Lamp Type / Input power per lamp	Medium Pressure / 1.2kw to 24kW per lamp
Cleaning System (where applicable)	Electric Motor-driven Automatic Wiper Mechanism with Limit Switches
Operating Water Temperature	+5°C - +65°C
Connections	PN16, DN, ANSI 150, JIS, KS
Working/Test Pressure	10bar/15bar
Enclosure Specification	
Material	Painted Steel, STS304, STS316
Protection Rating	IP54/NEMA 4
System Control Panel (SCP)	
Controller	PLC
Voltage / Frequency	220V - 480V, 50/60Hz
Operating Temperature	+0°C - +50°C
Power Supply Panel (PSP)	
Ballast Type	Variable output electronic ballast



Electromagnetic Ballast

Enables the system to maintain the design dose regardless flow rate or wat quality changes by STEP control



High intensity medium pressure lamps



Motor driven automatic wiper mechanism



Temperature sensor

prevents system damage and ensures user's safety

ECL/ECL-P SERIES[®]

LOW PRESSURE CHAMBER TYPE / LOW PRESSURE AXIAL FLOW TYPE



Motor driven automatic wiper mechanism presents reliable and accurate cleaning of quartz sleeves eliminating the requirement of manual cleaning



Simple and reliable control by Microprocessor board

Optimized processing and user interfaces provide simple operation and easy maintenance



State of the art workmanship and innovative design to perform while low capital cost

NCL SERIES



NCL-P SERIES



APPLICATIONS

- Drinking water
- Process water
- Primary, secondary wastewater
- Industrial effluent
- Water-reuse, grey water
- Photolysis applications-TOC removal for UPW process
- AOP process

BENEFITS

- Small footprint and easy installation
- Motorized automatic wiper mechanism with proven reliability and performance
- Energy-efficient low-pressure, high-output lamps reduce operation & maintenance cost
- CFD modeled design
- Minimum maintenance requirement
- User friendly interfaces and control features
- Simple operation
- State-of-the-art workmanship
- Long lamp life expectancy
- Meaningful monitoring
- Models for photolysis application available

STANDARD SPECIFICATION

Chamber Specification	NCL SERIES	NCL-P SERIES(Axial Flow Type)
Material	STS304 / STS316 / STS316L	STS304 / STS316 / STS316L
Lamp Type	Low Pressure, high output or Amalgam	Low Pressure, high output or Amalgam
Cleaning System (where applicable)	Electric Motor-driven Automatic Wiper Mechanism with Limit Switches	Pneumatic Automatic Wiper Mechanism
Operating Water Temperature	+5°C - +45°C	+5°C - +45°C
Connections	PN16, DN, ANSI 150, JIS, KS, TRICLAMP	PN16, DN, ANSI 150, JIS, KS, TRICLAMP
Working/Test Pressure	10bar/15bar	5bar/7bar
Surface Finish	Electro-polished and passivated	Electro-polished and passivated
Enclosure Specification		
Material	Painted Steel, STS304, STS316	Painted Steel, STS304, STS316
Protection Rating	IP54/NEMA 4	IP54/NEMA 4
System Control Panel (SCP)		
Controller	MICROPROCESSOR	ON/OFF
Voltage / Frequency	120V- 230V, 50/60Hz	120V- 230V, 50/60Hz
Operating Temperature	+0°C - +50°C	+0°C - +50°C
Ballast Type	Electronic ballast	Electronic ballast

ECOSSET



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제 1공장 및 연구소

- 경기도 안산시 단원구 엠티브이1로163번길 15

제 2공장

- 충청남도 당진시 석문면 산단3로4길 22

제 3공장

- 대구광역시 달성군 구지면 응암리 1282-9(대구국가산업단지 물산업클러스터)