

# MicroDynamics® OPEN CHANNEL SERIES OCS660 MICROWAVE UV SYSTEM

The MicroDynamics® microwave powered Series OCS660 open channel UV system offers long lamp life and lower whole life costs for municipal and industrial wastewater disinfection applications.

MicroDynamics® microwave powered Series OCS660 open channel ultraviolet (UV) disinfection wastewater systems from Severn Trent Services meet dose, log reduction and water quality requirements for a variety of municipal and industrial applications.

The MicroDynamics systems use microwaves to energize low pressure high-output electrodeless lamps to generate UVC output at 254 nm. The lack of an electrode means that MicroDynamics lamps have no inherent failure mechanism, assuring long life. Additionally, no electrodes means the lamps do not exhibit fade over time, providing consistent and uniform UV disinfection over the life of the lamp.

#### MicroDynamics® Advantages:

- Long lamp life
- Increased safety
- Reduced operational costs
- Consistent disinfection
- Accurate flow pacing
- Chemical free cleaning
- Lower whole life costs



# WE UNDERSTAND UV DISINFECTION

MicroDynamics® UV systems are a proven, cost-effective, reliable and safe disinfection treatment method.

Microwave UV technology provides operational and technical advantages over traditional UV disinfection systems:

- Three year lamp warranty
- No electrodes used in the lamps
- No electrical connections in the water
- No electrical connections required between microwave generator and lamp assembly
- low fouling, cool running quartz sleeves
- Unlimited on/off capability

The microwaves are contained by a waveguide that surrounds the lamps. Lamps light quickly providing full disinfection and offer unlimited on and off switching.

The MicroDynamics automatic wiper system is chemical-free and uses a motor driven stainless steel assembly. The sleeves stay cool, ensuring low fouling.

The local control panel monitors all operational functions, including MicroPace™ technology.



Electrodeless MicroDynamics® UV lamp



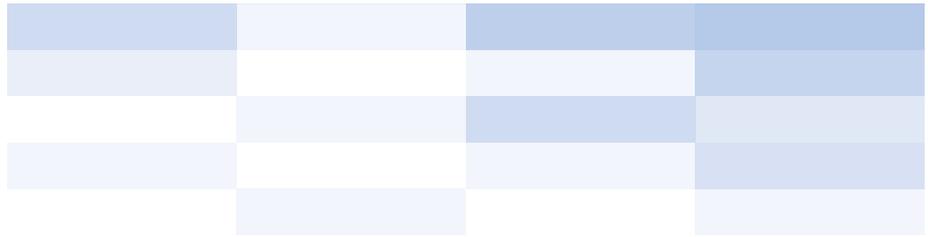
Integrated heads contain the power supply and magnetron.



The local control panel monitors and controls all operational functions, including MicroPace™ technology.



The MicroDynamics® automatic wiper system is chemical-free and uses a motor driven stainless steel assembly.



## MicroDynamics® OCS660 System Specifications

<b>SYSTEM CHARACTERISTICS</b>	MicroDynamics® OCS660
Typical Applications	Wastewater - secondary and tertiary effluent
Lamp Type	Low-pressure, high-output electrodeless lamp
Lamp Configuration	Vertical
Module Configuration	4 Lamp assemblies per module
Level Control Device Options	Automatic level control, fixed weir or motorized weir gate
<b>MODULE CHARACTERISTICS</b>	
Material of Construction	316L Stainless steel
Cleaning Method	Electronic motor driven chemical-free wiper system
Cooling Method	Forced air cooling system
Dimension	Height: 100 in (2523 mm) Width: 25.2 in (640 mm) excluding cover 36 in (912 mm) without control panel Depth: 15 in (380 mm) excluding cover 21.7 in (550 mm) with cover Typical water height: 47.2 in (1200mm)
<b>SYSTEM CONTROLS</b>	
Controller	PLC Based
Analog Inputs (typical)	Flow (4-20mA) and UVT (4-20mA)
UVC Intensity Motor	One per module

# WE UNDERSTAND UV DISINFECTION

MicroPace™ flow pace technology is included with MicroDynamics® systems to match the UV dose to the operating conditions in real time, resulting in energy savings and efficient system use.

## MicroPace™

MicroPace turns the lamp power down or off depending on the flow and UVT, maintaining a constant UV dose. Taking advantage of microwave lamps unlimited on/off and rapid restart features, Micropace more tightly matches the delivered dose to the flow when compared to traditional UV systems. Ideal for Sequencing Batch Reactors (SBR) and systems with a large difference between normal and peak flow, MicroPace conserves electricity thereby reducing operating cost.

In the event of a power outage the systems will self-recover without detrimental effect or operator input. MicroDynamics electrodeless lamps re-strike immediately in the event of a power outage since they do not require a cool down period and they are powered by a magnetron.

MicroDynamics systems can operate in a dry or partially-filled channel. The systems employ an automatic, chemical free cleaning system. Further, their vertical configuration and increased reliability of the systems reduces stand-by requirements.

For more information on MicroDynamics® UV Disinfection Systems visit [www.severntrentservices.com](http://www.severntrentservices.com)

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