



CALGON CARBON CORPORATION

UV Technologies Division

Making Water and Air Safer and Cleaner

## SENTINEL® 12

### Ultraviolet Drinking Water Disinfection System

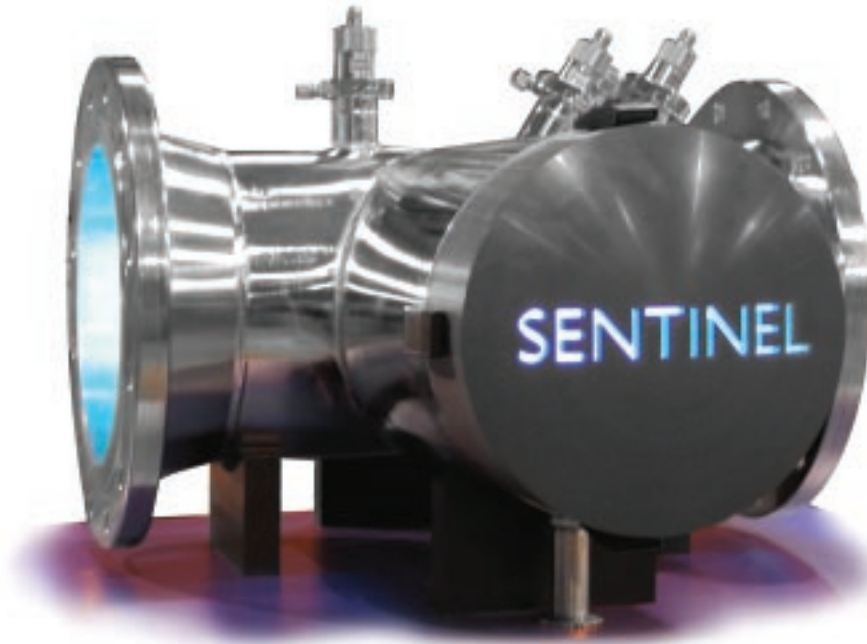
#### Overview

From the innovators of UV disinfection for drinking water, the SENTINEL® 12 is the latest addition to Calgon Carbon's SENTINEL® ultraviolet drinking water disinfection product line. Designed to treat flows up to 4 million gallons per day (15 MLD), the SENTINEL® 12 can effectively disinfect drinking water in small- to medium-sized treatment plants. The SENTINEL® 12 uses medium-pressure lamp technology to achieve greater than 3 log inactivation of *Cryptosporidium* and other similar pathogens in drinking water. The medium-pressure lamp technology allows the UV reactor to be compact with a small footprint. This can provide a significant advantage to small- to medium-sized water treatment plants looking for a system that can be easily retrofitted into existing treatment systems. Based on a comparison of operational costs, the SENTINEL® 12 outperforms other advanced treatment technologies such as membranes and ozone at a fraction

of the cost. Typical system features include independent, third-party-certified UV intensity sensors to assure accurate delivery of UV dose, an automatic quartz sleeve cleaning system, and a fully automated control system.

The SENTINEL® 12 was designed using advanced computational fluid dynamics allowing for optimal lamp and baffle placement to ensure maximum reactor performance and operational efficiency. The SENTINEL® 12 has undergone third-party validation under the new U.S. EPA LT2 Enhanced Surface Water Treatment Rule guidelines.

Calgon Carbon's UV Technologies Division has over 350 UV systems installed for treating a broad spectrum of contaminated groundwater, process water, wastewater, and drinking water. The SENTINEL® product line has one of the industry's largest installed bases treating hundreds of millions of gallons of drinking water per day.



#### Equipment and Systems

Visit our website at [www.calgoncarbon.com/uv](http://www.calgoncarbon.com/uv), or call 800-422-7266 to learn more about our complete range of products and services, and obtain local contact information.

ES-0026-1104



**Responsible Care®**  
Good Chemistry at Work

# SENTINEL® I2

## Ultraviolet Drinking Water Disinfection System

### Design Features

#### Lamps

High intensity medium-pressure lamps

#### Lamp Intensity Sensors

DVGW-certified germicidal sensors (one per lamp)

#### Cleaning System

Automatic Quickwipe™ system

#### Automated Operation and Control System

PLC-based operation and control

#### Electromagnetic Ballast

Reliable industry proven design

### Advantages

**Low Cost** when compared to other advanced treatment technologies such as ozone and membranes

**Compact Design** for easy installation and retrofits for small- to medium-sized treatment plants

**Third Party Validated** in compliance with U.S. EPA's LT2 Enhanced Surface Water Treatment Rule

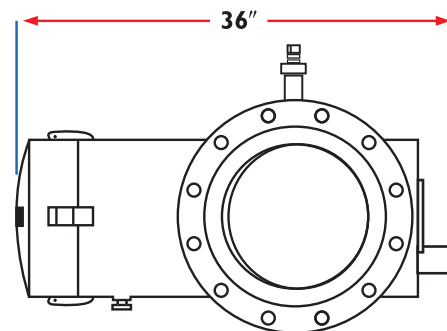
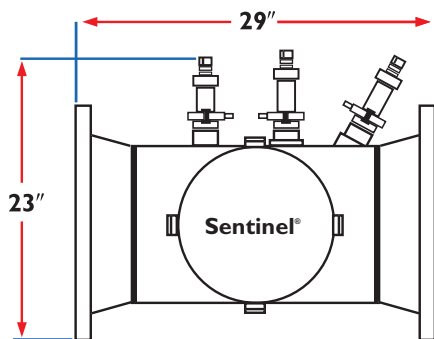
**Clean:** no chemicals used for cleaning; produces no disinfection by-products

**Safe:** automatic emergency shut down

SENTINEL® I2, a new SENTINEL® system from Calgon Carbon Corporation, the innovator of UV disinfection for drinking water and a leader in UV equipment manufacturing.

### SENTINEL® I2 Specifications

Inlet/Outlet	12" (300 mm) - 150# flange
Flow	4 MGD (15 MLD)
% UVT at 254 nm	as low as 70%
Number of Lamps	up to 3
Total Lamp Power	4 to 12 kW
Power Supply	480/600 VAC
Reactor Body	316L stainless steel
Maximum System Pressure	150 psi
Sensors	DVGW-certified germicidal (one per lamp)
Wipers	Quickwipe™ stainless steel wipers



Visit our website at [www.calgoncarbon.com/uv](http://www.calgoncarbon.com/uv)



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Your Local Representative



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