

SENTINEL® 36

Ultraviolet Drinking Water Disinfection System

Description

Designed to treat flows up to 27 million gallons per day (100 MLD), the Sentinel 36 can effectively disinfect drinking water in medium- to large-sized treatment plants. The Sentinel 36 uses medium-pressure lamp technology to achieve greater than 4 log inactivation of *Cryptosporidium* and similar pathogens in drinking water. Medium-pressure lamp technology allows the Sentinel 36 to be compact with a small footprint. This can provide a significant advantage to water treatment plants looking for a system that can be easily retrofitted into existing treatment systems. The Sentinel 36 outperforms other advanced treatment technologies such as membranes and ozone at a fraction of the cost. The Sentinel 36 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 36 was designed using advanced computational fluid dynamics allowing for optimal lamp and baffle placement to ensure maximum reactor performance and operational efficiency. The Sentinel 36 has undergone third-party validation under the U.S. EPA LT2 Enhanced Surface Water Treatment Rule guidelines.

Calgon Carbon's UV Technologies Division has hundreds of 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.

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 time-proven design

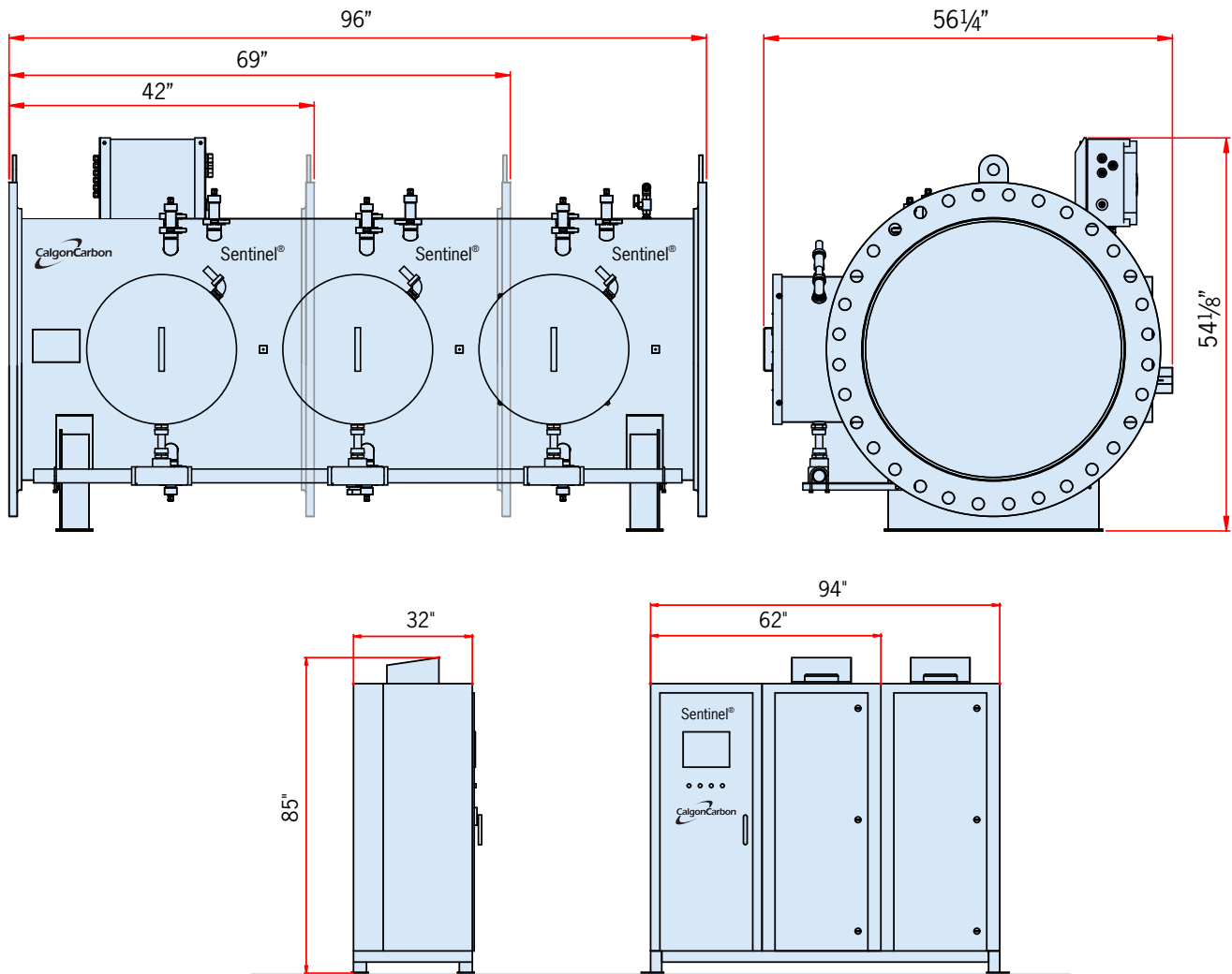
Advantages

- Low Cost: compared to other advanced treatment technologies such as ozone and membranes
- Compact Design: easy installation and retrofits for medium-to large-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
- Reliable: robust long-life electromagnetic ballasts with superb voltage tolerance
- Easily Installed: power cabinets may be located up to 500 feet (150 meters) from reactor



Specifications **SENTINEL 36**

Inlet/Outlet	36" (900 mm) - 150# flange
Flow	up to 27 MGD (100 MLD)
% UVT at 254 nm	as low as 70%
Number of Lamps	up to 9
Total Lamp Power	10 to 90 kW
Power Supply	480/600 VAC
Reactor Body 3	16L stainless steel
Maximum System Pressure	150 psi
Sensors	DVGW-certified germicidal (one per lamp)
Wipers	Quickwipe™ stainless steel wipers



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