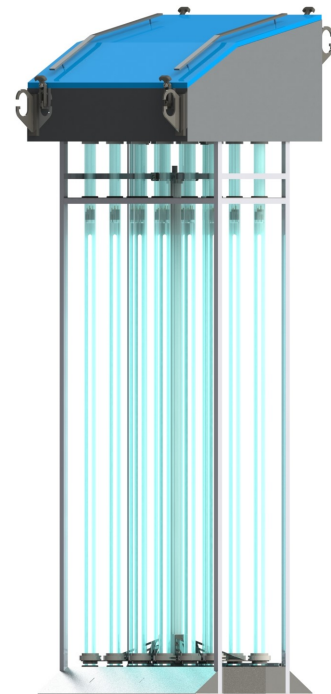


## VC Series

### Product Overview

Horizontal open channel systems had dominated the market since the 1980s. While the change from chlorine to UV was positive, there were issues relating to UV system operation that made some aspects difficult and expensive. Horizontal modules are always on and modules need to be removed from the water for lamp replacement.

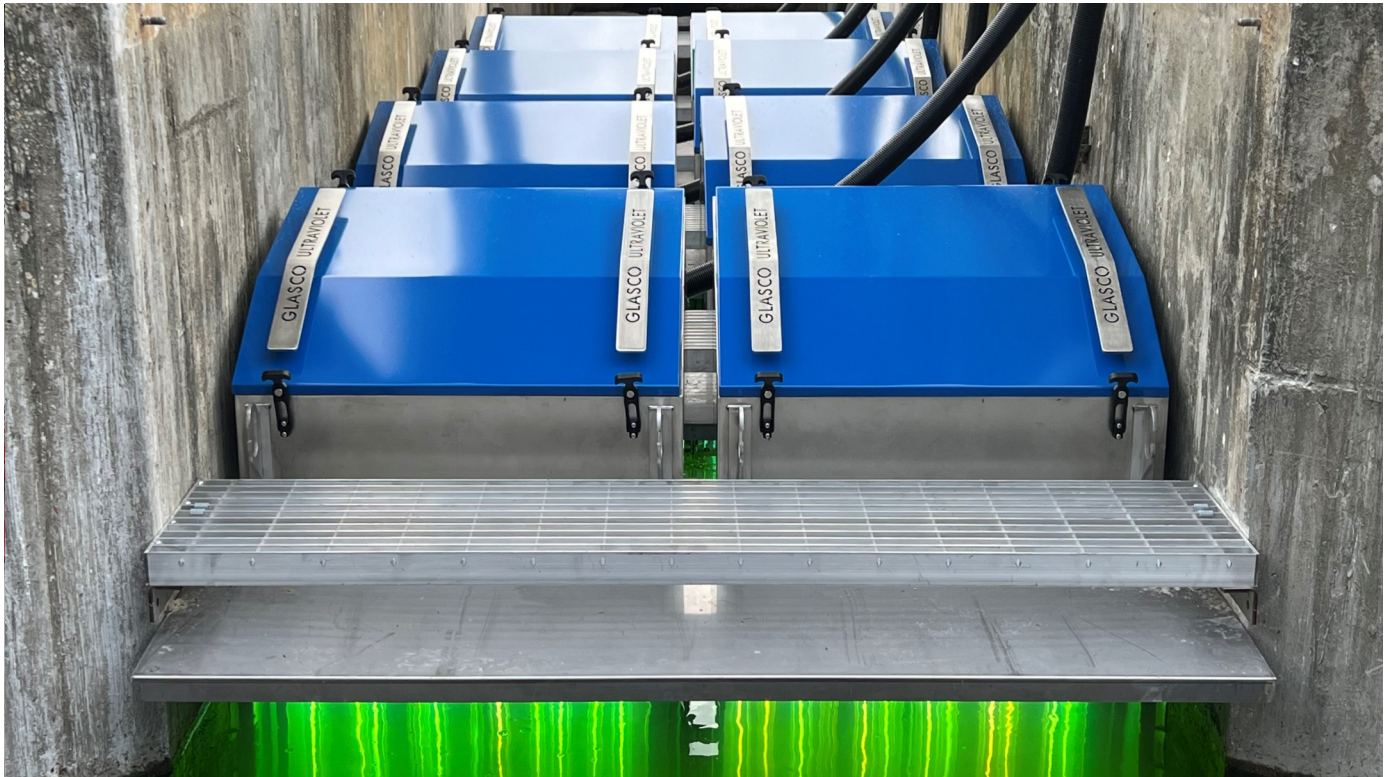
To combat these issues, vertical disinfection systems allow for above water lamp and quartz seals. Rows of lamps can be shutdown completely for energy and lamp life conservation.



### Key Benefits

- Unlimited flows
- Compact installation footprint
- All lamp seals above the water
- Easy lamp change
- Flow paced—turning lamp rows/ segments (on/off) and dimming
- Staggered lamp design prevents short circuiting
- Automatic quartz sleeve cleaning
- Hydraulically tested and profiled
- 2004 NWRI Bioassays conducted
- 2004 60 MGD Installation
- 2023 NWRI Bioassays conducted - Title 22





## Operation

Once in the concrete channel, the module's utilities (power, data and air) are connected to the Ballast Control Center (BCC) and System Control Center (SCC).

As wastewater enters the channel, portions of the modules (segments or rows of lamps) will turn on in relationship to a flow signal. This allows the plant to use only the required lamps which saves energy and costs associated with lamp replacements.

The staggered vertical lamp array provides for mixing and redundancy. The level control weir ensures that the water is properly exposed to lethal doses of UV light.

The quartz sleeves and UV sensor are automatically cleaned on a periodic basis. The protective sleeves are wiped to prevent build up from adhering to the quartz.

Operators inspect the system to ensure that the lamps are functioning and producing actual UV light. Lamp Out and Low UV Output indicators and alarms will direct operators to service the issue.

Most systems are designed for outdoor installation. Ideally, a structure should be constructed above the UV system and the electrical cabinets to prolong system life and make operation and maintenance easier. Our vertical line comes standard with a NEMA 4X stainless steel remote BCC.

Our module configurations come in groups of 8, 10, 12, 14 and 16 lamps providing the flexibility needed to treat highly specified plant flows and retrofit existing UV systems.