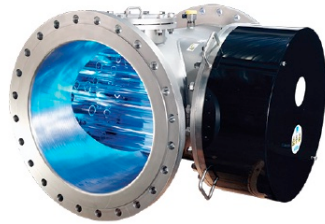


Put it in a Pipe! Closed Vessel for UV for Wastewater

UV disinfection is now a standard in WWTPs. The technology is favored due to its non chemical nature and dechlorination is not required. Throughout the years, the focus in



municipal wastewater is to install UV in open channels. However, there are alternative UV solutions to achieve required disinfection.

The presentation will focus on the following aspects:

- UV fundamentals – what is UV, how it is generated, what/how it works, how organisms respond, and a comparison of available lamp types.
- Equipment selection – what manufacturers will require to provide an adequately sized system including flow-rates (peak, average, and minimum), water quality (transmittance, soluble iron and manganese, hardness, and TSS), required disinfection/dose and existing plant hydraulics.
- Introduction to closed vessel UV technology for treatment of municipal wastewater.
- Benefits of closed vessel UV for disinfection including: installation savings, reduced maintenance, and improved safety.

The purpose is to give engineers and municipalities information regarding other forms of successfully operating ultraviolet disinfection systems instead of designing around the "traditional open channel" types of UV.

This webinar is pending approved for 1.0 TCH

Questions: Please contact Zach Lamoureux at zlamoureux@carlsensystems.com

Lunch & learn webinar offered by the Young Professionals Committee

**Monday
December 4, 2023
Noon – 1:00 PM**

Register online: newea.org/registration/

Cost: NEWEA Members: \$10
Non members: \$25

Sponsored by **EVOQUA/Carlsen Systems**

SPEAKER: Patrick Bollman has been actively involved in the engineering industry since 1999 after graduating from the University of Cincinnati with a Bachelor of Science Degree in Civil and Environmental Engineering. Since 2000 he has been working for UV manufacturers in a variety of capacities. His latest position led him to Xylem serving as a UV Product Specialist. Patrick is a licensed engineer in Ohio and a member of multiple industry organizations. Finally, he has presented at national, state, and local conferences as well as having articles written in various trade journals.



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