



# WASTEWATER TREATMENT

Ultraviolet Wastewater Treatment and Water Reclamation





**Engineered Treatment Systems (ETS)** is a market leader in the custom design, manufacture, installation, and maintenance of ultraviolet (UV) treatment systems for a range of applications.

### Small Footprint UV System

UV technology reduces or eliminates the use of chemicals to support the natural & sensitive balance of ecosystems worldwide.



*ETS* is a pioneer in the design and engineering of UV treatment systems. *ETS* has proven success with a range of compact, closed vessel UV disinfection systems for the treatment of wastewater. *ETS* UV systems have successfully treated a wide range of fluids in a variety of industries including installations at traditional and challenging wastewater treatment plants worldwide. Additional applications include: effluent treatment

on cruise ships and offshore installations, as well as control of harmful organisms from laboratory wastewater prior to discharge.

As climate change and growing environmental awareness drive wastewater standards and water reuse initiatives, UV disinfection is rapidly becoming a “must have” treatment for most wastewater applications.



**Built With Pride**  
in Beaver Dam, WI USA



## Experience and Expertise

**ETS** is an expert in the application of UV light. By offering both medium and low pressure amalgam lamp technologies, **ETS** is able to offer cost efficient, tailored solutions for a variety of wastewater applications.

By offering flexible designs, **ETS** is able to provide advanced technology solutions for both new installations and retrofits of existing units in difficult and challenging environments.

Manufacturing experience allows for **ETS** systems to be designed and manufactured for use within Class 1 and 2 hazardous areas.

## Commitment to Consistent Quality

The **ETS** mission to design and manufacture is driven by a 'quality first' approach. Manufacturing in accordance with ISO9001 procedures, you can be assured all **ETS** products are consistently built to the highest of standards. From demanding downhole injection applications on offshore platforms that use copper nickel chambers, to industrial and municipal disinfection of water and wastewater, **ETS** is the best choice for reliability and quality.

## Market Leading Technology

**ETS** wipers use embedded pulse technology; a simple and robust method of controlling wiper actuations. However the wastewater process is configured, **ETS** has a solution that fits. From continuous or batched flows, to secondary or tertiary treatment, our systems can easily be installed to provide reliable disinfection with low headloss.

**Disinfection** | Chlorine is becoming a non-preferred method of wastewater disinfection, as undesirable by-products such as THM's can be produced. In addition residual chlorine can be damaging to the ecosystem in receiving waters. **ETS** can provide safe, non-chemical treatment for any application.

**Small Flow** | Smaller community wastewater systems are typically packaged and our closed chamber systems are easily retrofitted. The vast experience of **ETS** allows for the flexibility of the design and engineering of systems designed to perform over a wide range of wastewater parameters.

**Large Flow** | Historically systems have utilized open channels. Open channels can suffer from poor hydraulics, exposure to sunlight can lead to microorganism photorepair, and they require an extensive footprint. Large flows can easily be disinfected utilizing closed vessel UV technology in a much more compact footprint.

**Recovery and Reuse** | Increasing water scarcity will encourage wastewater reuse. Wastewater dischargers now use UV to reclaim highly treated effluent for a variety of applications. ASR recovery often specifies closed vessel UV systems.

**Advanced Oxidation** | The **ETS** ADVox advanced oxidation process allows for the treatment of wastewater containing toxic and nonbiodegradable contaminants, such as EDCs or PPCPs. Once treated, wastewater can be safely discharged into the environment or reused.

**Industrial Reclaim** | **ETS** has provided systems to bring contaminated factory/process effluent wastewater to within accepted microbiological limits for safe discharge into receiving streams or reuse for applications such as crop irrigation and wash down water.

**Small Footprint** | The leading compact **ETS** closed system design provides the wastewater industry with a range of installed UV disinfection systems that offers a high output within a low footprint for easy installation and low operator maintenance.



