xylem

Wastewater solutions for ethanol and biodiesel producers



How can biofuel producers responsibly manage wastewater while harnessing green energy?

Biofuels are experiencing significant growth, and sustainable wastewater treatment is an important industry consideration. Progressive ethanol and biodiesel producers are seizing the opportunity to use the organics present in biofuel production wastewater to create green energy and lower the cost of production.

Wastewater from ethanol and biodiesel production can contain high concentrations of organics, as well as sulfides, chlorides, silica, and other contaminants. Since many plants are located away from cities, access to municipal treatment plants is often not an option for disposing these waste streams.

Helping ethanol and biodiesel producers worldwide for over 35 years

- **Convert wastewater into green energy.** Valuable biogas can be collected and used to create green energy, lowering on-site energy costs and electrical consumption. In many cases, the biogas energy anaerobic systems produce can actually exceed a plant's requirements.
- **Comply with regulatory requirements.** We can help your facility meet effluent discharge regulations and remove nutrients such as nitrogen and phosphorus.
- **Reduce or eliminate wastewater surcharges.** On-site treatment can lower surcharges associated with discharging untreated wastewater.
- **Reduce sludge hauling costs.** Minimize transportation expenses by generating less sludge. Treated wastewater can provide nutrients to irrigate crops and farmlands.
- **Reuse water.** High-quality effluent can be reclaimed for use in plant operations.
- **Become an environmental steward.** Go beyond basic regulations and reduce your carbon footprint by becoming a progressive biofuel producer.





Wastewater treatment and waste-to-energy solutions for biofuel producers

Xylem offers proven biological process technologies for treating condensate and other waste streams containing a mostly soluble organic load from dry milling and wet milling. Xylem also has several anaerobic technologies that are ideal for digestion of stillage.

Our team has installed over 260 wastewater treatment systems in more than 35 countries worldwide, many of which are in the biodiesel and ethanol production industries. Our customized solutions can reduce waste volumes, produce renewable energy, and even improve yields at ethanol plants by reducing the consumption of external energy sources.







Anaerobic

- **BVF® reactor** – A proven, low-rate technology that is simple to operate and generates approximately 90 percent less waste sludge than aerobic systems.
- **AnMBR** – A cutting-edge technology that uses a membrane barrier to perform the gas-liquids-solids separation and reactor biomass retention functions.
- **ECSB** – A high-rate technology that can be built within a small footprint. Developed by HydroThane STP and offered under license by Xylem.

Aerobic

- **MBR** – An activated sludge technology whereby a submerged physical membrane barrier is used, rather than gravity clarification, to separate liquids and solids. This produces a very high-quality effluent often suitable for recycle/reuse.
- **SBR** – An advanced form of activated sludge technology whereby all biological process reactions and settling/clarification take place in the same reactor vessel.

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1) the tissue in plants that brings water and nutrients upward from the roots.
2) a leading global water solutions company.

Xylem is a leading global water solutions company dedicated to advancing sustainable impact and empowering the people who make water work every day. Xylem connects diverse capabilities and innovative technologies to provide tailored solutions across the entire water cycle. From moving, treating and measuring water to optimizing and maintaining water systems, Xylem collaborates with customers to solve their most critical challenges. Together, through partnerships with utilities, industrial manufacturers, building operators, and communities, we are building a more water-secure world.

For more information on how Xylem can help you, visit xylem.com.

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