

ETHANOL AND BIODIESEL SOLUTIONS



ADI Systems Inc is your go-to specialist for biofuels wastewater treatment and anaerobic digestion (AD) technologies. From condensate treatment to water reuse, and from stillage and manure digestion to energy recovery, ADI Systems has the right technologies for your ethanol or biodiesel facility. Our unique blend of leading technologies and extensive experience makes each of our systems the best solution for your biofuels digestion and wastewater needs.

Unparalleled Experience

With the nearly 3000 installations of ADI and its technology partners, decades of operating history, and extensive follow-up service, ADI's technologies have proven to be extremely reliable, low-maintenance, and tough enough to stand the test of time. ADI also dedicates significant time and money to research and development and is continually improving and expanding the application of its unique proprietary technologies.

The World's Leading Technologies

ADI Systems is proud to offer the world's leading technologies for biofuels applications, including the world's leading low-rate anaerobic technology, the proprietary ADI-BVF[®] reactor; the next generation of high-rate anaerobic technology, the external circulation sludge bed (ECSB) reactor; and the premier aerobic and anaerobic membrane bioreactor (MBR) technologies available, which provide the highest quality effluent, suitable for reuse. You can rest assured you are getting the most efficient technology for your facility.

Unique High-Rate Anaerobic Treatment Technology

ADI Systems has exclusivity to offer the second generation of high-rate expanded granular sludge bed reactor technology developed by HydroThane STP[®]. HydroThane's ECSB reactor technology is ideally suited for treating condensate and other relatively soluble biofuel wastewater streams. The ECSB reactor has superior biomass retention and higher organic loading capacity than first-generation high-rate anaerobic technologies.

Water Reuse and Recycle

ADI's anaerobic membrane bioreactor (ADI-AnMBR) technology can provide an extremely high degree of anaerobic treatment, producing an effluent with low BOD and negligible TSS concentrations while also maximizing biogas production. The effluent quality is suitable for reuse in the biofuel process.

ADI also offers a variety of aerobic technologies that can effectively polish anaerobic effluent to a quality suitable for direct discharge or reuse, or can be used as stand-alone treatment.

The ADI-MBR is based on the world's leading membrane bioreactor technology and can produce reuse-quality water within an easy-to-operate, small-footprint package. The effluent is suitable for a variety of uses, from irrigation to cooling towers, as well as for providing ultrahigh-quality feed water to reverse osmosis systems. The ADI-MBR is especially well suited to biodiesel wastewater treatment applications and can provide a cost-effective solution to the disposal of that waste.



OUR MISSION:

Success through
satisfied customers

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Stillage and Manure Digestion

As ethanol production capacity expands worldwide, more and more biofuels companies are looking at biogas generation and recovery as a way to reduce ethanol production operating costs. Anaerobic digestion (AD) of thin or whole stillage is an efficient way to achieve this, as it generates significant amounts of recoverable energy. It is also an alternate way to dispose of spent distillers grains. Other facilities are utilizing biogas energy from AD of manure as a recoverable form of energy for the plant.

ADI's modified BVF® reactor and AnMBR technologies are both well suited to the digestion of stillage, manure, or a combination of the two, and can be designed to produce reuse-quality effluent, if required. In many cases, the energy recovered is equal to, and in some cases more than, the total production plant requirements.

Biogas Energy Recovery

ADI can also provide complete systems for the utilization of biogas energy, including biogas scrubbing systems, steam and hot water boilers, by-product dryers, and combined heat and power (CHP) systems. With almost 30 years of experience in providing energy recovery systems, ADI has the knowledge to provide a top quality system and the proven track record you can rely on.

Complete Solutions

ADI can provide complete turnkey design-build systems or technology and equipment packages. For smaller applications, we can provide complete preengineered, prefabricated systems that are easily installed and greatly reduce site construction requirements. For larger applications, ADI will provide a custom-engineered system, built to your requirements and standards. ADI Systems stands behind the quality and performance of each of its systems and offers aftercare service agreements to facilitate long-term, worryfree operation.



ADI SYSTEMS INC.

ADI Systems is a technology and design-build company that offers a wide range of wastewater treatment and anaerobic digestion systems to customers around the world. We offer bench- and pilot-scale testing, plus custom-designed solutions to provide the best system package. In addition to generic technologies, ADI Systems offers both proprietary and patented technologies for anaerobic and aerobic biological waste treatment applications. ADI Systems Inc. provides large treatment systems, as well as modular systems for small plant applications.