Waste to Energy

ICM Methanator Services can transform organic process waste liquids into renewable energy and profit

ICM Methanator Services specializes in the development and application of biological systems for resource recovery and environmental compliance. Our systems are ideally suited for retrofit into existing food and beverage, ethanol production, and many other industries. It is our mission to provide cost-effective systems for the treatment, conservation, and recycling of water, air, materials, and energy resources.

Conserving natural resources while reducing energy bills

ICM's Bio-Methanator™ methane digestion systems can reduce a plant's carbon footprint, reduce wastewater discharge and disposal, and reduce energy use and water consumption.

ICM, Inc. designs, builds, and installs Bio-Methanators™ (anaerobic wastewater treatment systems) from both pre-engineered and custom designs. Our pre-engineered skid-mounted modules are fabricated in ICM's Colwich, KS, manufacturing facility and delivered to your site, ready for installation and piping. These systems are designed for compact footprint, high waste to energy conversion, short lead times, and competitive price.

Known for superior resource recovery and cost reduction, ICM Bio-Methanators™ remove organic contaminants from process water and turn them into methane gas. The gas that is captured can be routed to boilers as a supplemental fuel source, or it can be utilized for combined heat and power generation, substantially reducing energy costs. This solution will reduce a facility's carbon footprint, resulting in potential tax credits.

Zero process water discharge design recycles water

In many cases, treated water can be recycled back through production processes, saving the facility additional money in the form of reduced water costs. Because ICM incorporates a Bio-Methanator™ in every ethanol plant it engineers (over 100 to date), each of our facilities are designed to discharge zero process water, eliminating many typical discharge requirements while conserving water.

Smart solutions designed by experienced staff

ICM Methanator Services team has more than 50 years of hands-on experience in bio-chemical and bio-process design, development, evaluation, and optimization. As a division of ICM, Inc., the largest ethanol design/build firm in the US, we can also utilize our process engineering and design/build construction experience to completely integrate a solution with your facility's needs, including combined heat and power generation systems that utilize methane.

ICM®

the energy of innovation™

ICM Methanator Services help make industry greener, one plant at a time

Our bio-systems are at work in ethanol plants and industrial facilities across North America. These systems are not only assuring compliance with discharge requirements and protecting and conserving environmental resources, they're providing significant cost savings for plant owners and investors. While our solutions are helping reduce your plant's operating expenses, the ICM team is hard at work evaluating new technology to develop the next generation of bio-systems and process solutions.

Learn more about the advantages of incorporating an ICM Bio-Methanator in your plant by calling our industry experts today:

ICM Methanator Services

316.977.6148

the energy of innovation™

We offer complete in-house laboratory analysis and pilot studies to determine a client's specific concerns and wastewater chemistry. Our Environmental Services division can help coordinate permit compliance issues that may arise. We design, fabricate, and install a site-specific solution, and help our client get up and running by providing operational training. Finally, we can enter a phase of long-term system monitoring and analysis. We constantly evaluate our operational systems to ensure compliance, optimize efficiency, and reduce operating costs.

ICM has developed, tested, and implemented a variety of proven product solutions in the following areas:

Anaerobic Bio-Methanation Wastewater Treatment

- Modular system
- High-rate, low-cost wastewater treatment
- Low-rate, bulk-volume digestors

Aerobic Systems

- High-efficiency, fixed-film, activated sludge systems
- Aerobic membrane bio-reactors

Filtration Units

- Modular systems
- Membrane micro-filtration, sand, and bio-filtration units

Odor/VOC reduction

- Modular or site-constructed
- Bio-systems for the removal of odor and volatile organic compounds (VOC) in off-gas and air streams

Bio-gas Scrubbers

- Modular system
- Efficient hydrogen sulfide removal

Ancillary Systems

- Pre-treatment and post-treatment systems
- Equalization tanks, solids handling systems
- Conventional water treatments (R.O., ion exchange, etc.)
- Bio-gas utilization, electrical generation, CHP, supplemental energy

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