



Ethanol Plants

Overview

With the biomass and bioproducts markets growing and changing at rapid rates, the need for cost efficient, flexible and proven anaerobic digestion technology solutions is apparent now more than ever. As the exclusive purveyor of Schmack Biogas technologies in North America, Schmack BioEnergy is your total resource for Anaerobic Digestion System (ADS) products and services. Schmack Biogas AG is our European technology partner based in Germany where approximately 190 ADS plants are commissioned or in various stages of design and operation. Here in Cleveland, Ohio (USA), we are your total resource for sales, design, engineering, installation, monitoring, management and financing for your ADS plant. We pride ourselves on providing you with proven and reliable products and services. Schmack BioEnergy utilizes the most comprehensive and flexible digestion technology available today.

Benefits and Features

Schmack BioEnergy presents the future of energy with a wide-range of advantages over traditional practices of waste disposal. Those benefits include:

- Flexible, modular and expandable solutions for simultaneously accepting multiple waste streams
- Both high solids (up to 20%-30%) and low solids (1%-2%) digestion solutions
- Integrated biology laboratory for initial feasibility and on-going testing and monitoring
- De-Watering system on both front and back end to manage solid matter content and maximize digestion efficiency and gas production
- Integrated gas cleaning and separation options to maximize gas quality and value
- Odor reduction and control through a closed loop system
- Stabilization of materials with volatile solid reduction of up to 50 percent
- Turn key installation comes with both process and mechanical warranties
- Best of both worlds with renowned German engineering yet locally built, serviced and Made in America
- Continuous flow, all year round, versus "stop and go"

- Captures more energy more efficiently, all at a lower total cost of ownership
- Fix your long term waste management costs with fixed operating costs
- Less dependence on fossil fuel energy, which reduces greenhouse gas emissions
- Provides carbon credits
- Financing options to fit your capital structure

Innovation

Schmack BioEnergy is a sister company of Schmack Biogas AG, a German company founded in 1995. The future of energy has been evolving since that time with Schmack's proven and innovative technologies, such as the EUCO®-type flow digester.

Schmack BioEnergy's alternative to standard solids digesters, which are typically limited to processing only 2-3 percent solids, reduces both the capital and operating costs through the use of significantly less water and higher solids. The result is a 50-60 percent smaller, more efficient plant facility, offering greater net energy generation, all on a smaller footprint at a lesser cost.

Another innovative capability is Schmack BioEnergy's remote monitoring process. No longer will you be required to be an expert in the field. Schmack BioEnergy monitors the internal feeding and digestion process, gas quality output, runs predictive analyses based on current data and can remotely manage and control the plant processes from anywhere in the world.

Take Action

The future of energy is available NOW. Realize the advantage of this proven, cost effective German-engineered technology by calling 216-986-9999 or visiting www.schmackbioenergy.com.