

## **Chemineer, Inc Provides Cost-Effective Solutions for the Biofuels Industry**

Chemineer, Inc. has the process application experience coupled with field-proven product performance advantages to deliver significant benefits to businesses in the biofuels industry. As a leader in mixing technology, Chemineer has experience with corn-based or cellulosic ethanol and multiple feedstocks for biodiesel such as soybean, canola, fish oil, and waste vegetable and animal oils.

Chemineer® gear-driven, top-entering, rotating agitators and Kenics® static mixers provide performance advantages in a wide range of ethanol applications. Typical process mixing applications include fermenters, mash tanks, cooker tanks, liquefaction tanks, enzyme storage tanks, saccharification tanks, yeast prep tanks, beer well tanks, stillage tanks, dilution or pH adjustment tanks.

For biodiesel processes applications, Chemineer gear-driven top- and side-entering, rotating agitators, Prochem® belt-driven, side-entering, rotating agitators and Kenics static mixers have all demonstrated cost-effective performance advantages. In addition, the company's Greerco® high-shear mixers are being used to accelerate the reaction, decrease processing time in the main reaction vessel and keep undesirable chemicals that would otherwise require further processing, out of the final mix, saving time and money.

A major advantage of Chemineer rotating agitators is the advanced, high-efficiency impeller technology that helps to reduce operating costs by lowering energy requirements. Chemineer offers an extensive range of high-efficiency impeller designs with a large variety of materials of construction and coatings to meet specific customers' needs. Due to its advanced gearbox design, Chemineer is also often able to use a smaller shaft diameter in its rotating mixing equipment than the competition. In the ethanol plant, where tanks are primarily tall and thin, smaller shaft diameter equates to significant initial cost savings as well as operational and replacement cost savings. Chemineer also offers a special steady bearing design that has proven to be cost-effective in ethanol industry applications.



**Chemineer® Biofuels Solutions**