Biofuel Cost Savings

The high cost of feedstocks and the low price of biofuels present a challenge for ethanol and biodiesel producers. Reducing costs and taking advantage of the flexibility from using multiple feedstocks are key to success. Furthermore, finding, selecting and operating reliable mixing equipment that deliver long-term performance with minimal maintenance can have a significant impact on profitability.

In situations like this, Chemineer® feels its gear-driven, top-entering rotating agitators and Kenics® static mixers offer a solution as its biodiesel process application equipment offerings include the ability to accelerate the reaction, decrease processing time in the main reaction vessel and keep undesirable chemicals out of the final mix, saving both time and money. Top- and side-entering rotating agitators can also be applied during the washing or neutralization stages, and Kenics static mixers can be used to pre-mix the components for making biodiesel before they are placed in the vessel.

Chemineer stresses the lower energy requirements of its impeller technology as another way to help reduce operating costs, and due to a unique gearbox design, the company is often able to use a smaller shaft diameter in its rotating mixing equipment. In the ethanol plant, where tanks are primarily tall and thin, smaller shaft diameters can equate to significant cost savings. Additionally, the company's agitators grant more than 100,000 hours of bearing life and should require less maintenance.

In addition to Chemineer, Pfaudler and Edlon are both part of the Process Solutions Group at Robbins & Myers. Edlon® provides its fluoropolymer components throughout the process system to handle an extensive range of corrosive chemicals, whereas Pfaudler® glass-lined vessels offer an alternative option to stainless steel vessels because of their resistance to corrosive fluids and the resulting purity levels that can be attained. This dynamic has made the glass-lined or stainless steel columns popular for catalyst recovery.

Getting back to reaping the benefits that multiple feedstocks can offer, Pfaudler's wiped-film evaporators have seen increased use in the refinement of such biodiesel output applications. These offerings are especially sensitive to the revised specification for biodiesel (B100) - ASTM D6751, and allowable levels of water, metals and sediment to minimize particulate emissions, fouling, filter plugging and other engine problems. l?
More information on these companies and their products is available by visiting:

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