

Chemical Processing

High Pressure Superheat Rental Boiler Supplied During Fast Track Oil to Gas Conversion Project

One of the largest oleochemical companies in North America, Twin Rivers Technologies, has a production line of over 80 different types of fatty acids. The company's facility in Quincy, MA is designed and operated as a world-class fatty acid and USP glycerin production site.

Twin Rivers relied on the burning of heavy fuel oil for high pressure process steam required to manufacture fatty acids used in many common consumer products. With the cost of fuel oil rising, green house gas emission regulations changing and opportunity looming, Twin Rivers made the decision to convert their primary fuel source to natural gas. This process involved many hours of planning as well as new equipment selection. Once the decisions were made the project was fast-tracked with work commencing day and night until the new equipment was ready for operation.

Because high pressure steam was so critical to the company's process, a temporary boiler was required to avoid downtime and reduce lost production time resulting in lost profits. Working with Twin Rivers on the retrofit project, BMR Thermal contacted Nationwide Boiler seeking a high pressure, superheat trailer-mounted rental boiler to supplement steam during the conversion project.

Nationwide Boiler had a boiler in stock that met all requirements; a brand new, never used Babcock & Wilcox 75,000 lb/hr, 750 psig design / 750 F superheat package watertube boiler with a fuel efficient EconoStak Economizer. The boiler was available for immediate shipment directly from the boiler OEM located in West Point, MS. The equipment arrived to the facility on time and ready for installation. Nationwide Boiler also supplied a separate fuel oil skid for oil firing which shipped from Fremont, CA.



Customer Profile

- Twin Rivers Technology
- Facility in Quincy, MA
- Manufacturer of fatty-acids and USP glycerin
- Former Procter & Gamble soap plant, purchased in 1994

Equipment Used

- New, in stock 75,000 lb/hr Babcock & Wilcox 750 psig design / 750 F superheat design boiler
- EconoStak economizer

EconoStak 
Energy Saving Solutions

The rental boiler remained on site for over two months during the retrofit process. Once the rental boiler was removed, Twin Rivers' operations continued with their newly converted boilers fired primarily on natural gas. Overall, the project was a success. The new boilers are not only saving Twin Rivers in fuel and maintenance costs, but they are also producing less emissions and easily comply with local air regulations.