

## QUALIFICATIONS AND EXPERIENCE

Fitzsimmons Systems Inc. (FSI) is a privately held petroleum equipment manufacturer and distributor based in Syracuse, NY. The company has achieved a record of steady growth since 1998.

Since inception, FSI has been awarded and successfully performed numerous commercial, institutional, industrial and military contracts throughout the United States and abroad. On the performance of these contracts, the company has demonstrated its ability to handle simultaneous efforts on individual contract and corporate administration levels. FSI's staff has effectively planned and completed many of these projects ahead of schedule. The Company delivers projects as planned, to specifications, on time, and on budget.

FSI's most current projects include the design and installation of a Jet A fuel farm for a new chilled fuel jet engine testing facility at NASA's Stennis Space Center for Rolls-Royce. FSI was also awarded a second phase contract to provide an integrated pumping/filtration/fuel quality monitoring system.

Other current projects include a fuel polishing system for the Department of State for use at remote facilities requiring mission critical performance. They came to us with a problem stating that their international fuel supply quality was not reliable which was causing numerous problems with power generation equipment. We designed a fully automated fuel polishing system with two 10,000 gallon fire rated tanks. All systems were designed for plug and play operation with minimal field labor required for commissioning. The client was very pleased with our performance and has indicated we will be specified on all future projects.

We continue to supply Kellogg, Brown, and Root our SmartTank fuel distribution systems for use in oversea military operations. In 2004 they contacted us requiring a need for 28 fuel systems designed, built and delivered in 12 weeks. We committed and delivered all on schedule as agreed. Most importantly they all worked and continue to provide trouble free mission critical service in a very harsh environment. To date we have built and delivered over 250 similar systems and remain their exclusively specified supplier.

FSI's corporate experience also includes hundreds of small to medium scale projects for hospitals, airports, fleet fueling facilities, data centers, and others. The SmartPump mission critical fuel supply system has been exclusively specified by dozens of companies such as Intel, Citibank, EMC2, Level III, and others. The SmartTank system is specified on dozens of projects each year with 80% of the business coming from repeat customers like the US Navy, Air National Guard, Exxon, Sun Oil, Waste Solutions, even Willie Nelson. In 2005 FSI donated equipment for America's first biodiesel truckstop located in Carl's Corner Texas for the Willie Nelson biodiesel company which helped launched the very popular alternative fuel.

FSI has the ability to integrate and respond to the schedules, interfaces and demands of complex projects in a coordinated and responsive manner. The experience of the FSI team provides a strong capability to support new customer efforts.

## BIODIESEL INDUSTRY EXPERIENCE

Since 2003 FSI has helped develop commercial biodiesel process systems for several leading technology companies. This work included a NASA funded study on various techniques for improving the solvent recovery and purification steps used in the biodiesel transesterification process. NASA selected FSI's proposal and funded FSI's engineers teamed with the University of New Mexico to analyze and compare the most efficient methods available. This work led to more efficient recovery techniques and associated cost savings for small scale commercial biodiesel processors. Other work in biodiesel process has included designing a pilot plant for a new heterogeneous bed catalyst technology and our own unique oscillating flow motion reactor. We are currently designing and building a containerized continuous flow biodiesel processor for a publicly held company that utilizes these technologies and hope to commercialize a product line serving this emerging alternative fuel industry.

In 2006 the New York Power Authority (NYPA) contracted with us to provide a biodiesel blending system for their Polletti power plant in NYC. We designed and installed a variable rate blending pump tied into their existing fuel system with a series of meters and flow control valves designed to blend from 2-20% biodiesel with #6 bunker oil at flow rates ranging from 400-800 gpm. This was the largest scale biodiesel test ever performed and used over 250,000 gallons of biodiesel over a two day span. Unfortunately, the tank manufacturer selected for this project (despite our warnings) delivered the tanks two weeks late and the day before the test was to be performed. They also had not built the tank per the approved drawings and there was no fitting that would accommodate the large pumps being used. This happened the evening of the test. The FSI team developed a plan and worked non-stop through the night to fabricate a replacement man way cover with required fittings that was shuttled through the night to our technicians enabling them to complete the system before morning when we had also located and dispatched a crane to help install the new assembly. The client was amazed to find the system complete and ready to go and complimented our technicians on their dedication and effort. It worked perfectly.

## PROJECT PROFILE

Client/Project: Rolls Royce/NASA - Jet Fuel Farm

Location: Stennis Space Center

Year: 2007

### Scope:

Rolls Royce needed a fuel tank farm to serve a new engine testing facility at NASA's Stennis Space Center in Mississippi. FSI was specified exclusively by the client to design and build the required systems that would be integrated with large chillers to provide chilled jet fuel testing on turbo jet engines. Chilled fuel has become desirable as military aircraft can carry more fuel in less space thereby extending the range of the aircraft. Jet engine technology is being developed and tested by leading manufacturers for this purpose. FSI is leading the way in this emerging field.

### Project Photos

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## PROJECT PROFILE

Client/Project: US Coast Guard - Helicopter Fueling

Location: Oregon

Year: 2005

### Scope:

When trouble comes people depend on the US Coast Guard to save them from life or death situations. We were honored to be their supplier on this mission critical fuel delivery system. This project included a 30,000 gallon dual wall fire rated tank with integral pump, filtration, and control system housed in an attractive pump house enclosure. A custom fueling and defueling remote dispenser was also integrated with this system.

### Project Photos

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## PROJECT PROFILE

Client/Project: Kellogg Brown and Root

Location: Guess

Year: 2004-Present

### Scope:

KBR contacted us requiring a need for 28 fuel systems designed, built and delivered under 12 weeks. These systems were required to hold up in 143F heat on the other side of the ocean. They needed to not only fuel motor vehicles but to serve as mini bulk plants for truck loading/unloading operations. Stick building these systems would require far too much time. Our unitized SmartTank allowed for plug and play operation with factory supervised quality workmanship. We committed and delivered all on schedule as agreed. Most importantly they all worked and continue to provide trouble free mission critical service in a very harsh environment. To date we have built and delivered over 250 similar systems and remain their exclusively specified supplier.

### Project Photos



Ready for inspection at our factory - Syracuse, NY



## PROJECT PROFILE

Client/Project: U.S. Dept. of State

Location: Undisclosed

Year: 2007

### Scope:

The client came to us with a problem stating that their overseas fuel supply quality was not reliable and was causing numerous problems with power generation equipment. We designed and delivered a fully automated multi-stage filtration and centrifuge based fuel polishing system pre-plumbed to two 10,000 gallon fire rated tanks with duplex automated delivery systems for numerous mission critical prime and backup power generators. All systems were designed for plug and play operation with minimal field labor required for commissioning. The client was very pleased with our performance and has indicated we will be specified on all future projects.

### Project Photos

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