# Flowtech Case Study: University Fuel System

#### Summary:



Location: Bath

Product Area: Fuel System, Pipework & Leak Detection

Service Area: Design, Supply & Installation We were asked by the University of Bath to help them with the design and installation of a full fuel system, capable of supplying various different fuel types to engine test cells to assist with propulsion system research.

### Challenge

Our team were contacted by the University of Bath to help them with the design of a new fuel system, which would ultimately assist with research into propulsion systems.

Along with the design, they also asked for the supply, installation and commissioning of a full turnkey solution for an engine test cell fuelling system, with a value of £1m.

The challenge was to ensure the successful completion of this prestigious university project within the agreed budget and timeframe.



### Concept

The team proposed a full system design and installation, which included a fuel system complete with 2km of Brugg pipework supplied and installed, which would be a mix of DN12 Flexwell Safety (FSR) and DN40/DN25 Secon-X double-walled flexible pipe. The system would also include an SGB vacuum monitored leak detection system.

The design also included pump sets, test cell panels, a control system and tanks. Pipework supplied would be installed across the entire site, from a central tank farm to multiple engine test locations.



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## Solution

Once the concept was agreed to, our team installed tanks, GRP enclosures, pump sets, containment, pipework, manifold enclosures and test cell panels across the whole site.

This included a single tank farm, two specialist fuel stores, ten test cells and a site-wide control system. There was 2km of Brugg double walled flexible piping pulled through ducting and installed on containment within the building and over 1km of pneumatic air lines installed to various control valves and pumps sets.

More than 800 actuated control valves were installed across the site, to control fuel supply to different site locations.

#### Benefit

- Full electrical installation including control panels, all cabling/instrumentation and interfacing control systems with other site contractors
- Each individual fuel pipe able to be monitored and inspected individually for any leaks
- Prestigious university project, which was scheduled to commission and handover to client on time and within budget



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