

# Case Study - PIG Inspection Services

## Project

PIG Gauging and tracking of Aviation fuel lines.

## Main Contractor

Babcock Industrial Services.

## Location

1. Hallen to Redcliffe Bay - 16km of 8" aviation fuel line.
2. Padworth to Aldermaston to Puthill Farm - 41.6km of 8" fuel line.
3. Puthill Farm to Calne - 27km of 10" aviation fuel line.

## Pipeline Owner

MoD.

## Bi-Directional Gauge PIG Equipment utilised

Roxby Bi-Directional Gauge PIG Equipment utilised Roxby used suitable 4 cup Bi-Di Polypropylene PIGS to suit the range of diameters as described above complete with a gauging plate, cut to 95% of the nominal bore of the pipe to be inspected.

## Purpose of Inspection

To distinguish the internal profile of the pipe to allow the owner to decide whether a full PIG inspection was possible with the use of a Ultrasonic inspection PIG.

## Result

The three lines tested with the Bi-Di gauge PIGS and tracked with the Roxby PIG tracking system were all clear of damage and blockages. This then allowed for a full Ultrasonic PIG inspection to be carried out determining the current pipeline integrity with regards to possible corrosion and its effect on the wall thickness of the pipes.



4 cup Bi-Di Polypropylene PIG



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Innovative Engineering Solutions



## PIG Tracking Equipment utilised

Roxby Services used Low Frequency transmitter PIG Tracking Equipment to confirm that the gauge PIG had been launched and received successfully.

The PIGS were also tracked at intermediate points along the length of the pipeline route to monitor progress and velocity. The receivers used by Roxby are very sensitive to weak signals. Analog and digital displays provide viewing signal strengths in all light conditions. The external antenna provides extended pickup range for use in locating lost or damaged tools and tracking at locations where pipelines are buried at greater depths (up to 5 metres).

The transmitters have a LED to indicate transmitters are operating correctly and can operate for over 100 hours on continuous use.

“Roxby have always responded to my service requests promptly and professionally. They have proved to be efficient and resourceful in dealing with the difficulties that have arisen during the execution of my projects. It is always a pleasure to work with people who have a “can do” approach.”

Stephen Machin-Smith  
Technical Operations Manager  
Babcock Infrastructure Services



Receiver



Antenna



Transmitter



Air pressure being applied at the launcher

# ROXBY

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