

Tank Farm Measurement, Control & Automation for Aviation Fuels Management from Tank Farm to Takeoff



FuelsManager Oil & Gas for Aviation Fuel Facilities

The airport fuel facility is the hub of all fueling activities. A facility manager is required to balance fuel receipt, storage and distribution. Before fuel accounts can be reconciled and invoices generated for a day's transactions, an accurate measurement of physical fuel stocks from the airport tank farm must be calculated and reported. In many locations, inventory reports are manually generated and distributed, which, in turn, adds to any delay when balancing co-mingled fuel accounts.

A Critical Component for Managing Fuel Facilities Effectively

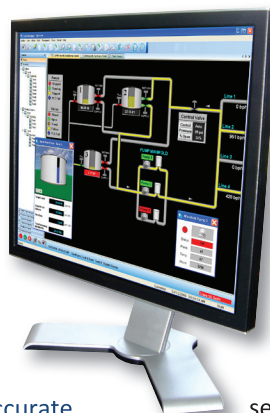
FuelsManager® Oil & Gas allows timely reporting of bulk fuel stocks and complete management of a bulk fuel facility. It is an integral part of an automated aviation fuels management system and performs the following critical tasks:

- Creates inventory reports in real-time to allow accurate, daily inventory reconciliation (accuracy tolerances to 0.10% or better) and track trends to help identify discrepancies
- Manages your facility from a single workstation by integrating all on-tank sensors and automation and control devices in the tank farm and load rack
- Improves safety and prevents tank overfills with comprehensive, real-time alarm and event management

Local Integration and Control

A FuelsManager Oil & Gas server is installed on site, in line with industry best practices and standards for managing a bulk fuel storage facility. The server is able to communicate with field devices to provide functionality, such as inventory measurements, product movement tracking, pump and valve control, facility access control and load rack automation. All measured and calculated data, as well as control and

monitoring functions, are then displayed on operator workstations via a single, intuitive graphical user interface. This system is currently used by many major oil companies and independent operators to manage and control bulk liquid inventories at tank farms, terminals and refineries worldwide.



Real-time Reporting for Fuel Accounting

When used as part of an automated aviation fuels management system, the FuelsManager Oil & Gas server is able to share all inventory data and facility status information with FuelsManager Aviation. Current inventory levels, fuel density and disbursement data can then be used as needed by your fuel accountants to perform accurate daily reconciliation using FuelsManager Aviation Accounting.



► *The 6005 Servo Tank Gauge is ideally suited for jet fuel applications. It provides a high accuracy level measurement (+/- 0.7 mm), interface level measurements of up to three liquids, spot and profile density measurements and tank bottom measurement.*

Measurement, Control & Automation

for Aviation Fuels Management from Tank Farm to Takeoff

Accurate Inventory Measurement

FuelsManager integrates with all major technologies, such as float & tape, servo or radar tank gauges, pressure transmitters, flow meters and leak detection systems via Varec's Remote Terminal Unit (8130 RTU) or TankGate Interface (8300 TGI) devices to provide accurate inventory measurements in real-time.

Facility Control and Automation

Custom graphics provide a true representation of your facility's processes and features. Field devices can easily be integrated, and data can be input, acquired, validated, displayed or provided to other systems to bring complete automation capabilities directly to your facility operator. Graphics can also be displayed at the enterprise level so that remote users are able to view the facility's current status. FuelsManager, coupled with PLC systems, enables users to deploy control technologies that can improve power management and balance equipment usage to reduce equipment wear and tear and, in turn, reduce ongoing maintenance costs.

Facility Access & Security

Ensure a secure facility by collecting and verifying data at control points around your facility and automate equipment that restricts facility access. FuelsManager security and database features are developed in line with current TWIC developments.

Improve the Efficiency of Loading Operations

If you operate a single manually-operated rack or multiple facilities with advanced electronic control equipment, FuelsManager Oil & Gas will improve the efficiency of your loading operations. By utilizing the Varec Driver Entry Terminal, we are able to interface to control equipment at load racks and BOL stations to collect and verify data and control operations.

Track and Validate Product Receipts

FuelsManager's Movement Tracking System uses accurate inventory data collected from tank instrumentation to track all pipeline receipts, tank to tank transfers and outgoing fuel disbursements to the ramp in real-time. Operators can easily create reports or print a ticket when the fuel movement is complete. The accurate fuel tracking data can then be used to analyze fuel usage and validate receipts from oil pipeline companies.

Monitor for Potential Environmental Hazards

FuelsManager is able to interface to leak detection systems from all major manufacturers so that your operators can monitor storage tanks and pipelines for a potential environmental hazard. In the event of an alarm, they are provided the relevant information needed to quickly react to and resolve the condition.

