



# INVENTORY CONTROL SOLUTIONS

## Integrate Field Instruments and Software for Complete Asset Management

---

Varec's inventory management solutions improve the visibility and measurement of bulk liquids. With our full line of tank gauges and field instruments, we can support reliable and safe bulk liquid inventory measurement across industries. For oil and gas customers, terminal operators have the ability to monitor and manage product inventories in real time from the local site, remote sites or a centralized enterprise location.

Varec helps with the following:

**Level Measurement** – we offer a wide variety of tank gauges, transmitters and communication devices to automatically monitor and record inventory levels.

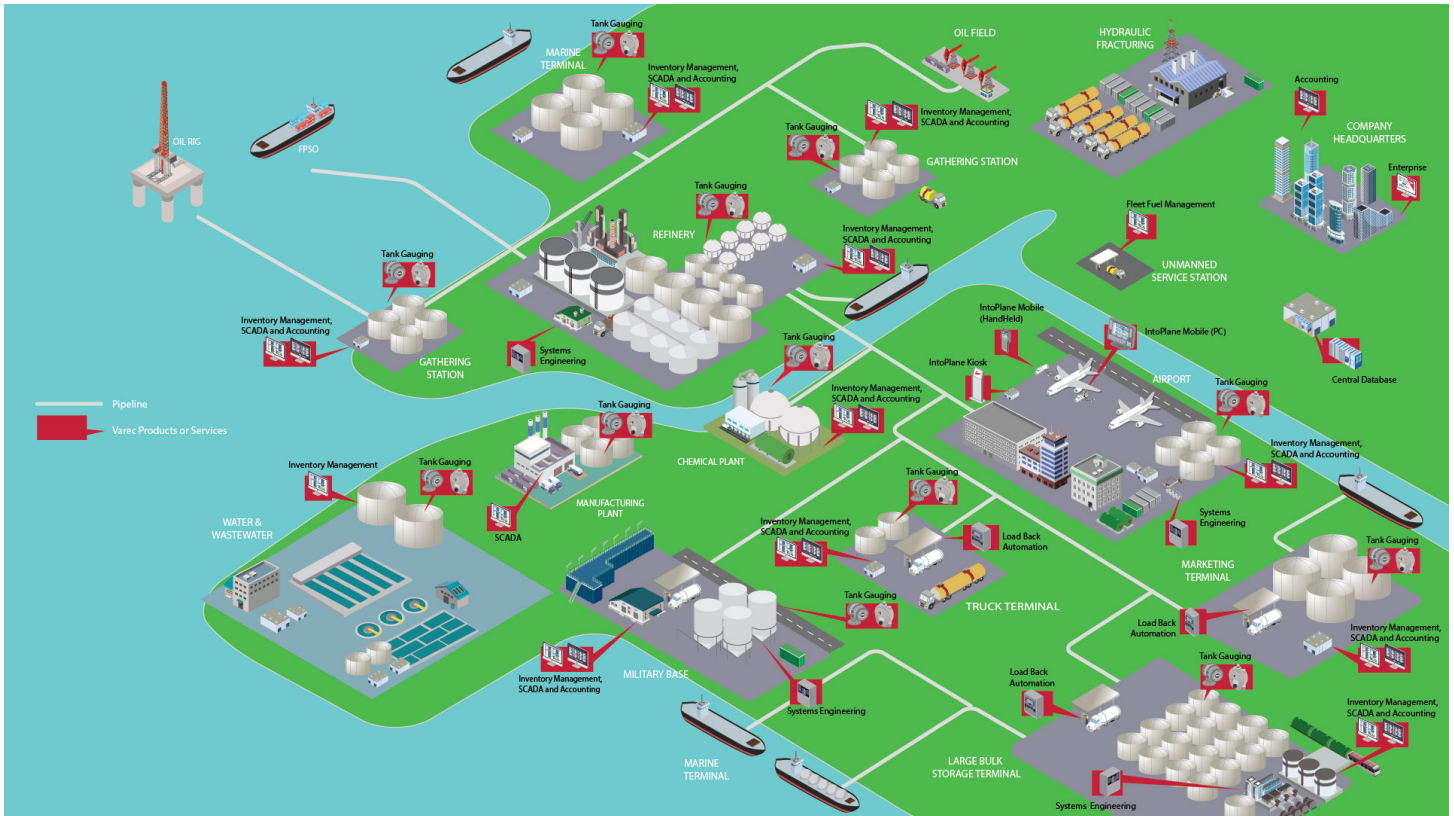
**Inventory Management** – our software enables remote monitoring of inventory levels, in real time, from the safety of the control room.

**Safety Controls** – when inventory levels are outside of the accepted tolerance levels, our software initiates alarms and notifications to allow operators to quickly identify and resolve any potential issues.

**Inventory Accounting** –with our software, fuel accountants are able to quickly reconcile calculated book vs measured physical inventory to identify gains and losses and flag when the value is outside of accepted tolerance.

**Enterprise Systems** – leveraging a centralized data base, we provide a real time view into fuel inventories and related transactions across all managed sites in one system.

# BULK LIQUID STORAGE SUPPLY CHAIN



## TANK GAUGING

Tank farms and terminals utilize a variety of tank gauges and field devices to measure bulk liquids. Choosing the right hardware will depend on the requirements and budget of each facility.

### Float and Tape Gauges

Float and tape tank gauges are suitable for almost all liquid storage applications and tank types. The mechanical float and tape gauges offer an accuracy range up to  $\pm 0.2$  in or ( $\pm 4$  mm).

6700 Liquid Level Indicator • 2500 Automatic Tank Gauge • 2520 Automatic Tank Gauge

### Transmitters

Tank gauge transmitters vary in capabilities and application, from simple indication of alarms or relays, to level encoding and temperature measurement integration.

2910 and 2920 Float and Tape Transmitter • 8200 Current Output Transmitter

### Radar Gauges

Radar technology is suitable for both high accuracy inventory management and custody transfer applications and offers an accuracy range of  $\pm 0.02$  in (0.5 mm) to  $\pm 0.08$  in (2 mm) depending on model.

FMR5x Series: FMR50 • FMR5 • FMR52 • FMR53 • FMR54  
 FMR53x Series: FMR530 • FMR532 • FMR533  
 FMR6x Series: FMR60 • FMR62 • FMR67  
 NMR8x Series: NMR81 • NMR84

### Servo Gauges

Servo technology provides an intelligent system for measuring level, interface level, density and water bottom with an accuracy rate up to  $\pm 0.016$  in ( $\pm 0.4$  mm).

NMS80 Proservo • NMS81 Proservo

### Tankside Monitors

Tankside monitors are used with radar and servo tank gauges for bulk storage applications to provide convenient monitoring and control of all tank sensors.

4590 Tankside Monitor • NRF81 Tank Side Monitor

## Communication Interfaces

Tank gauge interfaces provide true open communications that allow seamless integration into any tank gauging system, PLC or DCS system.

8130 Remote Terminal Unit • 8300 TankGate Interface

## Temperature Probes

Temperature probes calculate accurate inventory volumes by integrating temperature measurement into the tank gauging system.

4532 Average Temperature Probe • 4539 Average Temperature Probe • 8500 Spot Temperature Sensor



## **INTEGRATION AND SUPPORT**

Through a wide range of services, we are able to provide customized technical support to meet customer needs. These services begin at the inception of a solution deployment, all the way through the complete life cycle of our products. With a team of highly skilled engineers, program managers and project managers, we are able to provide our customers with the hands-on expertise and assistance to ensure the success of each project or program managed by Varec. We also have a 24x7 help desk on site.

## **FUELSMANAGER APPLICATIONS**

As a suite of integrated software applications, FuelsManager® is utilized to track, manage and control the receipt, storage, distribution and delivery of fuel and other bulk liquids.

### **Inventory Management**

Provides users with a view of all measured and calculated inventory variables, alarms, and status for a single tank or multiple tanks on concise graphical or tabular displays.

### **SCADA**

Provides automation and control throughout the tank farm by integrating systems and reducing the amount of time operators have to spend in the field. This is achieved by using industry standard open communication interfaces and proven data point architecture.

### **Accounting**

Enables users to accurately track, manage, reconcile, and monitor book vs. physical inventories by tank farm manager, fuel stockholder, and product on a daily, weekly and monthly basis.

### **Movement System**

Monitors bulk product transfers in real time to and from the facility or from tank to tank within the facility.

### **Leak Detection**

Enhances safety by monitoring for leaks and sending alerts when potential environmental hazards occur by interfacing to 3rd party detection systems or using tank level data from high-accuracy tank gauges.

### **Throughput Calculator**

Performs product throughput analysis and estimates emissions for U.S. compliant EPA Title V permits.

### **Maintenance**

Provides users with views of current status of equipment, i.e. in/out of service, in addition to capturing and reporting on maintenance activities and statistics.

### **Quality Control**

Enables users to configure custom quality control tests and associate tests to create a test set. Schedules are maintained for required quality control test sets and inspections. Users can also record and store results, ensuring failed equipment is not used in operations.

### **Training**

Supports the configuration of custom training requirements, and maintains training records to help ensure personnel operating on site are in compliance and current with all training requirements.



5834 Peachtree Corners East, Peachtree Corners (Atlanta), GA 30092 USA

Tel: +1 (770) 447-9202 | Toll Free: +1 (866) 698-2732 | Fax: +1 (770) 662-8939 | [www.varec.com](http://www.varec.com)

© 2018 Varec, Inc., a Leidos company. All Rights Reserved. This document is for information purposes only. Varec, Inc. makes no warranties, express or implied, in this summary. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

PR0157GVAE4218