



TACTICAL LIQUID STORAGE SOLUTIONS

Varec is the world leader in automated physical inventory measurement of tactical bulk liquids in collapsible storage tanks. We have volume measurement gauges, communication interfaces and mobile devices specifically designed for use in the most extreme or remote environments, as well as the on-site expertise required to support these operations anywhere in the world.

IMPROVED COMMAND OVERSIGHT AND MANAGEMENT OF TACTICAL FUEL POINTS

Technology Advantages

- Reduce errors associated with manual data entry, calculations and 'paper form' based processes and provide operators with complete fuel inventory overviews at a glance.
- Reduce inventory measurement cycle times and manpower allocations by automatically collecting real-time fuel inventories from collapsible storage tanks.
- Improve the precision of inventory measurements by utilizing tactical fuel meter inputs to decrease the amount of variance from manual measurements
- Standardize inventory measurements by automatically correcting volumes to recommended API standards.
- Inventory measurements by accounting for variances in the manufacture or deployment of individual collapsible storage tanks, such as tank expansion, berm construction, tank bulge or squat, and height measurements above manufacturers' specifications.
- Improve inventory control by assigning fuel allocations for all consuming organizations.*
- Complete asset visibility through on-demand daily inventory reconciliation and reporting on the availability and fuel consumption from the organization unit to individual units, at all levels of command.*

Service Benefits

- Simplified installation - The tactical fuel gauge directly replaces an existing collapsible tank vent pipe without the need for specialized tools.
- Ease of setup - All power and communications cables are connected via military style 'quick' connects/disconnects.
- Ease of use - All components of the system are field proven for military personnel use and acceptance.
- All TacFuels components are operationally proven for military applications in the harshest of environments
- Commercial off-the-shelf technology - Varec utilizes the latest commercially available components to ensure product supportability now and in the future.
- Low maintenance - Suitable for remote environments, ruggedized for use in harsh, all-weather conditions.
- Experienced staff - With nearly 20 years of experience in the field, Varec is able to provide impartial advice to support more informed decision making.
- 24x7 support - Help desk support is available 24 hours per day, seven days per week to solve technical and application problems.
- Customized training - On-site or formal classroom instruction is available to complete the technical and functional awareness of your staff.

*Must have FuelsManager Accounting application

FUEL FARMS IN THEATER

Varec's TacFuels® solution improves the existing fuels accountability process of tactical fuel points or remote facilities, such as collapsible storage tank fuel farms. This solution automates the measurement of fuel inventories by using fuel gauges, which greatly reduces the errors associated with manual measurement. It also provides a reliable method to record and track bulk fuel distribution to vehicles, aircraft, life support equipment and other remote facilities.

As a complete solution for asset visibility and operational control, TacFuels provides more accurate data for more informed decision support at all levels of the organization, while also helping to resolve shortfalls encountered at the local level, including fraudulent disbursements.

Solution Components



7660 TACTICAL FUEL GAUGE

The 7660 Tactical Fuel Gauge (TFG) is a rugged sensor for measuring pressure and temperature in military and expeditionary collapsible tanks. It provides continuous pressure and temperature measurements of fuel stored in collapsible tanks for accurate and reliable 24/7 inventory management.



8240 TACTICAL DATA UNIT

The 8240 Tactical Data Unit (TDU) collects pressure, temperature and flow measurements from connected field devices, such as the 7660 TFG or a Tactical Flow Meter (TFM). It calculates observed fuel volumes and performs the collapsible tank mapping process. All data is transferred to the TacFuels Tactical Mobile Computer (TMC) for inventory management.



8250 TACTICAL INTERFACE CONVERTER

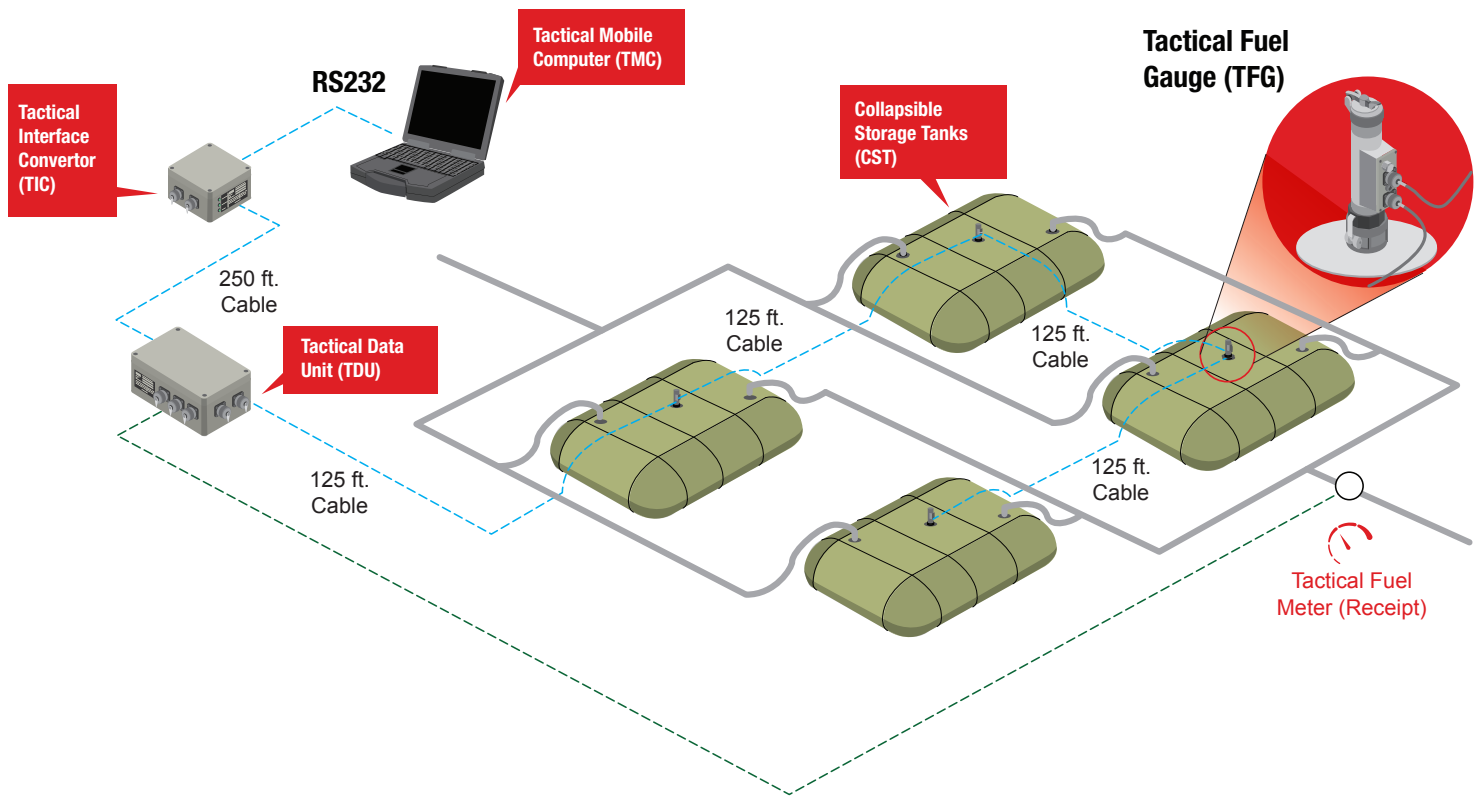
The 8250 Tactical Interface Converter (TIC) provides a communications interface between the TDU and the TMC. The 8250 TIC translates data received from the TDU via the RS485 communication protocol, then translates it to an RS232 communication protocol and sends it to the TMC. The TIC also provides continuous DC power to the attached TDUs.



9760 TACTICAL MOBILE COMPUTER

The rugged 9760 Tactical Mobile Computer (TMC) operating FuelsManager® software provides the local fuel farm operator real-time inventory data to manage, account for, and report on, their current fuel stocks and transactional fuel movements (receipts and issues) on a daily basis. The data is then automatically sent to the enterprise.

The TacFuels solution consists of a mobile laptop, TacFuel's software, data collection units, interface converters, flow meters and fuel gauges. A combination of these ruggedized devices is deployed based on the configuration of the tactical bulk fuel installation or expeditionary fuel storage site.



TacFuels is also compatible with FuelsManager systems already in use by many defense organizations, such as the U.S. Department of Defense, NATO, the United Kingdom's Ministry of Defence and the Australian Ministry of Defence.



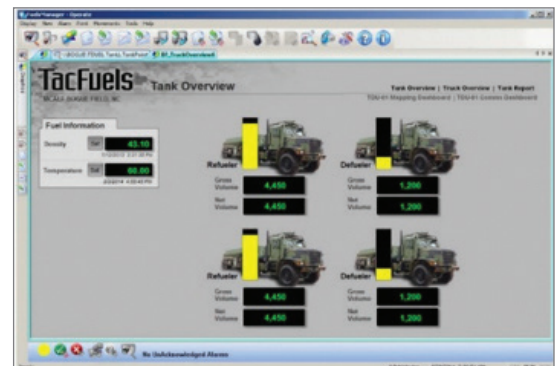
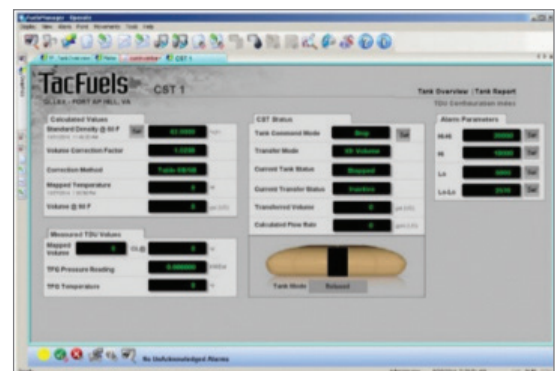
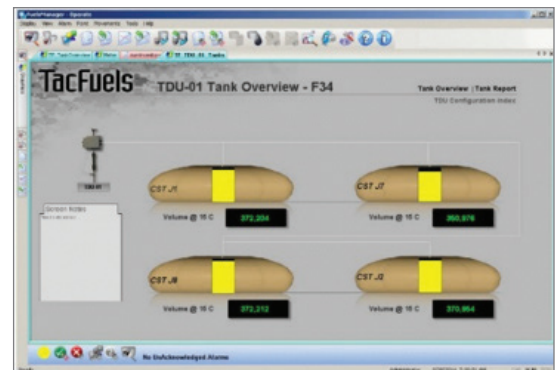
FuelsManager® is suite of integrated software applications that fuel logistics and supply chain management organizations use to track, manage and control the receipt, storage, distribution and delivery of fuel and related products.



FuelsManager's Inventory Management application is at the center of the TacFuels system. It provides overviews of the local storage facility and complete details of inventory in each storage tank. Operators can quickly see and report on the total liquid stocks and any distribution, including fuel stored in collapsible storage tanks (CSTs) and trucks perform the same function without TacFuels, personnel often need to review many paper forms, extract data and manually perform measurements or level calculations. The time it takes to do these actions makes it difficult to make proactive operational decisions.

Key Functionality:

- Overviews at the facility level to provide operators with insight into inventories in all CSTs at a glance.
- Clear indication of the contents and status of every individual tank which enables operators to monitor the transfer of product to and from the CSTs.
- Easy access to view product volumes inside tanks or other vessels.
- Alarm management is supported by automatic monitoring to check for conditions that may require immediate attention, such as overfill or decreasing levels in a CST. Historic archives are also available.
- Reports on activities are available in real-time or on-demand.
- Data is archived to provide historical trends in a graphical view over a period of time. Data points can include temperature, pressure, flow, volume, meters etc.
- Inventory data is fed into the FuelsManager Accounting application to enable reliable and timely daily reconciliation of fuel levels, issues and defuels.
- The enterprise system provides command level views of local fuel operations per site, or across a number sites.



REMOTE AND EXPEDITIONARY BULK LIQUID STORAGE

Our Tactical solutions support collapsible storage tanks (CSTs) capable of storing 3,000 to 210,000 gallons of bulk liquid. Aside from military fuel storage, CSTs are used in remote and expeditionary environments across the world. Through rapid deployment, inventory management is automated, reliable and repeatable to provide the level of insight needed to make timely and informed decisions.

These tactical solutions are ideal for:

- Temporary facilities to support disaster relief
- Remote facilities for humanitarian efforts
- Facilities supporting new oil and gas exploration
- Remote or temporary mining sites



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