WIRELESS TANKER TRUCK MONITORING SYSTEM (TTMS)

Hi-G-Tek
Rockville, Maryland
Hi-G-Tek
Electronic Tanker Truck Monitoring Solutions

- Expertise in wireless systems to ensure asset integrity
- Patented cargo tracking, sensing, and security technologies
- Broad portfolio of seals and wireless security devices
- Over a decade of technical and field experience

Hi-G-Tek delivers all hardware, software and services needed to complete system solution
- Ongoing System Support

Proven Solutions

Innovative Technology

Global Deployments

- Industry Leading Wireless Tanker Truck Monitoring Solution (TTMS)
- TTMS solution is currently used by tanker truck fleets worldwide
Hi-G-Tek Tanker Truck Monitoring System (TTMS) to Secure Tanker Trucks

Ensuring the Integrity of your Tanker Truck and the Assets it is Transporting
The Hi-G-Tek Tanker Truck Monitoring System (TTMS) is an industry-leading intelligent wireless monitoring system designed to ensure the integrity of fuel tanker trucks and prevent pilferage, tampering and contamination of the fuel being transported.

The TTMS system operates seamlessly and does not require any user intervention from the driver or tanker truck operators.

The TTMS solution is based around a family of intelligent wireless seals and a proven enterprise grade software platform that helps fuel tanker truck owners:

- Monitor and report any unauthorized opening of valves or hatches
- Ensure fuel trucks comply with company workflow and operational guidelines
- Ensure tankers stay within approved routes and user defined geo-fences
- Provide full electronic chain of custody and electronic audit trail for each trip
- Real-time reporting of all violations to control center and approved personnel
Tanker Truck Monitoring System

Highly Intelligent Logistics Solutions

Hi-G-Tek

GPS
Cell or Sat Network
Internet
ESP Software Platform

Hi-G-Tek Hatch Seals

Hi-G-Tek Valve Seals

Establishes continuous wireless Communication with Valve/Hatch Seals

HGT Cab Kit
(installed in truck cab)
RF Reader/GPS Receiver/Modem
Can operate on GPRS, CDMA or Satellite Networks
**Hi-G-Tek Intelligent Wireless Seals** are rugged wireless devices with sealed internal batteries which allow for maintenance-free operation with no recharging for 3-5 years. These seals seamlessly record all the open/close/tamper events, store these events internally and send these events in real-time to the Hi-G-Tek ESP software platform via the Hi-G-Tek Cab Kit.

**The Hi-G-Tek Cab Kit** includes a wireless reader which communicates with and controls the seals. The reader captures open/close/tamper events, writes to the seals and continuously monitors their state of health. The reader is integrated to a mobile or satellite modem for long-range communication to the ESP Software Platform.

**The Hi-G-Tek Enterprise Software Platform (ESP)** is a hosted enterprise-grade software service (SaaS) which allows users to monitor all aspects of their workflow. Users can easily create geo-fences, approved routes and different levels of real-time alarms including text message and email notification. All trip records are stored, archived and made available for analysis and playback. The ESP system uses multiple levels of security and can support different user levels and privileges.
Hi-G-Tek electronic seals directly secure all valves and hatches ensuring the integrity of the tanker truck

- Enables continuous real-time monitoring of vehicle and fuel at all points along the route
- Seals record open/close/tampering events and issues alerts to Hi-G-Tek software platform via the Hi-G-Tek cab kit
- International certifications to operate in fuel and industrial truck environment
- **Hi-G-Tek electronic seals can secure any valve or hatch regardless of make / model / design**
## Hi-G-Tek Global Approvals / Certifications

<table>
<thead>
<tr>
<th>Certification</th>
<th>Agency</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMC, EMI, RF</td>
<td>FCC Part 15&lt;br&gt;CE/EN 300, 301</td>
<td>US and Canada&lt;br&gt;EU</td>
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<tr>
<td>Safety</td>
<td>CE/EN 60950, CAN/CSA UL 61010 (TUV)&lt;br&gt;ATEX Grp 2, Cat 1, Zone 0&lt;br&gt;UL IS, Div 1, Class 1</td>
<td>EU&lt;br&gt;US and Canada&lt;br&gt;EU&lt;br&gt;US and Canada</td>
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<tr>
<td>Environmental</td>
<td>Temperature: SAE J1455 and Mil Std 810&lt;br&gt;Shock: Mil Std 810&lt;br&gt;Vibration: SAE J1455&lt;br&gt;Salt/Fog: Mil Std 810&lt;br&gt;Pressure Cleaning: SAE J1455</td>
<td>EU, US and Canada</td>
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Hi-G-Tek TTMS Installations

Hatch Installation
Hi-G-Tek Electronic Seals Monitor Each Individual Hatch
In addition to securing valves Hi-G-Tek seals can detect and report door *open* and *close* and ensure proper operation of pneumatic and other controls.

Valve Installation
Hi-G-Tek Electronic Seals Monitor Access to Hydraulic Controls
Enterprise Software Platform (ESP)

Fully Configurable Alarms / Configuration

Updated Geo-Mapping

Enterprise Grade SaaS Platform

- Enterprise grade .NET platform
- Web-based thin client
- Microsoft SQL Database
- ERP / 3rd Party System Interfaces
- Comprehensive reporting / monitoring suite
- Will adapt to customer workflow and reporting

- **Real-Time Alarms and Monitoring**
- **Real-Time Work Flow Compliance**
- **Full Trip Logs / Electronic Audit Trails**
Mobile Refueling Applications

- Experience with Mobile Refueling Trucks
- Real-time Valve / Hatch / PTO Monitoring and Visibility
- Ensures compliance with operational guidelines and work rules
- Logs every trip with full recording of route and events
- Email and SMS alerts to authorized users for any violations
The Hi-G-Tek Tanker Truck Monitoring System will allow fleet owners to:

• Ensure the integrity of their tanker truck fleets
• Detect and respond to pilferage and tampering of fuel
• Improve driver and user safety by detecting unauthorized tanker truck operation
• Ensure compliance with company work rules and operational guidelines
• Generate real-time alarms and alert authorized personnel to respond
• Maintain full electronic records on all tanker truck trips
Validating Asset Integrity
Thank You

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