

TWENTY-NINTH EDITION, 2022

LIST OF LEAK DETECTION EVALUATIONS FOR STORAGE TANK SYSTEMS



WWW.NWGLDE.ORG

DISCLAIMER

GENERAL

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment. Equipment should be installed and operated in accordance with all applicable laws and regulations.

This list of Leak Detection Evaluations was prepared by a work group consisting of State and EPA members and is limited to evaluations of leak detection equipment and procedures or systems, conducted by an "independent third-party evaluator" (see Appendix "Glossary of Terms") and reviewed by the work group. This list includes evaluations conducted in accordance with either EPA Standard Test Procedures for Evaluating Leak Detection Methods (EPA/530/UST-90/004 through 010) or other test procedures accepted by the NWGLDE as equivalent to the EPA standard test procedures (see Part III "Acceptable Test Protocols").

The National Work Group on Leak Detection Evaluations (NWGLDE) does not guarantee the performance of any leak detection method or equipment appearing on this List, nor does it warrant the results obtained through the use of such methods or equipment.

SPECIFIC

- The NWGLDE does not evaluate methods or equipment and appearance on this List does not mean they are automatically acceptable for use in any particular state or local jurisdiction.
- The NWGLDE List is not an EPA List, nor does appearance on this list constitute endorsement or approval by the NWGLDE or EPA. Anyone claiming that a device or method is "EPA approved" because it appears on this list is making a false claim.
- The NWGLDE makes no representations concerning the safe operation of any method or equipment. Users of any method or equipment appearing on this List assume full responsibility for the proper and safe operation of said equipment and assume any and all risks associated with its use.
- On each data sheet, this List reports parameters and data values for methods, equipment, and software that are specific to the most current third-party evaluation submitted to the NWGLDE. Subsequent modifications or changes to the method, equipment, or software may produce parameters and data values that are significantly different than the listed third-party evaluation parameters and data values. It is the responsibility of the local implementing agency to accept or reject those modifications or changes.
- NWGLDE Listings apply to leak detection functionality only and not material compatibility. Since long term material compatibility with the product stored is not addressed in test procedures and evaluations, the NWGLDE makes no representations as to the compatibility of leak detection equipment with the product stored.
- Unless specifically indicated on the individual data sheets, performance with alternative fuels has not been demonstrated **with the following exception:**

Biodiesel B6 through B20 meeting ASTM D7467 and biodiesel B100 meeting ASTM D6751 may be used with all equipment listed for diesel whether or not these alternative fuels are included on individual data sheets. This exception DOES NOT APPLY to leak detection test methods using Out-Of Tank Product Detection (Vapor Phase) for B6-B20, and Out-Of Tank Product Detection (Liquid and Vapor Phase) and any tracer-based test methods for B100. For these methods, individual data sheets will have to be referenced to determine applicability.

- Measurements derived for minimum detectable water level and minimum water level change for automatic tank gauge method, continuous automatic tank gauge method, and certain non-volumetric tank tightness test method listings were calculated in 100% hydrocarbon fuels, unless otherwise noted.
- NWGLDE listed leak detection equipment may be applicable for use with additional liquids after consultation with the manufacturer and/or third party evaluator and subject to approval by the implementing agency.

The National Work Group on Leak Detection Evaluations (NWGLDE) is pleased to publish our 29th Edition, 2022 of the "List of Leak Detection Evaluations for Storage Tank Systems." Please note, the NWGLDE has significantly changed the format of this List. All of our listings are kept current on our webpage: <http://www.nwglde.org>. As this webpage has the current listings and most users access our information through the much easier-to-navigate webpage, the NWGLDE will no longer be maintaining a full, printed List of all of the NWGLDE evaluations. Instead, the new "List" will simply be a list of the changes made to the evaluations and methods within the past year. Attached, please find only those listings that are new or updated since the previous publication (28th Edition, January 2021). Please use our webpage to access current information, listings, and methods.

For help with accessing anything on our web site, please contact our webmaster, David Wilson, at djwilson@utah.gov, or give him a call at (385) 251-0893.

If you need to contact members of the work group, information for contacting them may be found on our webpage (http://www.nwglde.org/group_members.html). The work group team and team leaders are also listed on our webpage to help you determine the appropriate contacts (http://www.nwglde.org/team_members.html).

Vendors should send new third-party evaluations, which were performed by an "independent third-party evaluator" (see Glossary of Terms on webpage), to be reviewed by the work group to the team leader and all of the members of the team. Please follow all requirements and policies for submittals and include all documentation for a more prompt review (available on our webpage).

Please note, all reviews and listings are conducted and prepared by the NWGLDE, an independent work group consisting of state and EPA members. It is not a work group specifically affiliated with EPA or any specific state. The NWGLDE does not "approve" leak detection equipment or procedures. The "List" includes leak detection equipment/procedures that the work group has reviewed. The review confirms that the leak detection equipment/procedures were third-party evaluated in accordance with an acceptable protocol and in accordance with the EPA performance standards under appropriate test conditions. Implementing agencies must approve leak detection equipment and procedures, ensure appropriate installation, and determine compliance with UST regulations.

Thank you and we look forward to working with you soon.

Don Taylor, Chair
National Work Group on Leak Detection Evaluations (NWGLDE)




 Search NWGLDE.org

News & Events

- Home
- Group Members
- Team Members
- Vendors: A - F
- Vendors: G - M
- Vendors: N - S
- Vendors: T - Z
- Testing Methods
- Downloads
- Links
- Library
- Disclaimer
- News & Events

What's New Since The 28th Edition List, 2021 (01/14/2021)

MOST RECENT WEBSITE ADDITIONS/REVISIONS:

- ◆ **Leak Detection Technologies, Inc.**
 - [MCleak Enhanced Interstice Test for Doubled-Walled Tanks, UDCs, Sumps and Spill Buckets](#)
Updated listing January 27, 2021
- ◆ **TURPAK Electromagnetic Fuel Supply Systems, Inc**
 - [TURPAK SIR Vision EYE v1.0](#)
Added to Statistical Inventory Reconciliation Test Method (Quantitative) January 27, 2021
- ◆ **OPW Fuel Management Systems**
 - [Site Sentinel Nano \(Dover Fueling Solutions DMP probe with 2 inch dia Floats\)](#)
Added to Automatic Tank Gauging Method March 29, 2021
- ◆ **Dover Fueling Solutions**
 - [DFS DX Wetstock SIR V1.0 SIR and V1.2 SIR](#)
Added to Statistical Inventory Reconciliation Test Method (Quantitative) May 5, 2021
- ◆ **OMNTEC Mfg., Inc.**
 - [OEL 8000, K-OEL 8000, OEL 8000 II, K-OEL 8000 II, OEL 8000 III Series Consoles \(Proteus B, K, and X Consoles\), \(MTG - XX Magnetostrictive Probe\)](#)
Revised listing May 12, 2021
- ◆ **Preferred Utilities**
 - [Interstitial Vacuum Leak Monitoring System](#)
Added to Continuous Interstitial Tank System Monitoring Method (Pressure/Vacuum) June 8, 2021
- ◆ **Preferred Utilities**
 - [Interstitial Vacuum Leak Monitoring System](#)
Added to Continuous Interstitial Line Monitoring Method (Pressure/Vacuum) June 8, 2021
- ◆ **Selecta Global, Inc.**
 - [Selecta Leak Monitoring SIR 0.1 gal/hr and 0.2 gal/hr standards](#)
Added to Statistical Inventory Reconciliation Test Method (Quantitative) July 26, 2021
- ◆ **PMP Corporation**
 - [PMP Tank Interstitial Sensors 63510 and 63520 as evaluated with the Incon TS-2001 Tank Sentinel, Part #: T2P/8](#)

— FUTURE EVENTS —
NWGLDE MEETING:
UPDATE! The NWGLDE Fall virtual meeting is scheduled to be held November 17, 2021 online.

Contact [Don Taylor](#) for more information.

Added to Interstitial Detector (Liquid-Phase) August 16, 2021

- ◆ **Dover Fueling Solutions**
 - [MagLink LX \(Dover Fueling Solutions 924B probe with 2 inch dia Floats\)](#)

Added to Automatic Tank Gauging Method October 21, 2021

- ◆ **Dover Fueling Solutions**
 - [MagLink LX \(MagLink LX \(Dover Fueling Solutions DMP probe with 2 inch dia Floats\)](#)

Added to Automatic Tank Gauging Method October 21, 2021

- ◆ **Pneumercator Company, Inc.**
 - [LLP-203 Series Pipeline Line Leak Detector with the TMS2000, TMS3000 and TMS4000 Series Consoles for Hourly Testing on Rigid, Flexible and Hybrid Pipelines](#)

Added to Automatic Electronic Line Leak Detector Method November 10, 2021

- ◆ **OMNTEC Mfg., Inc.**
 - [OMNTEC OEL8000III-CLD PORTABLE CONTAINMENT SUMP TESTER \(CLD SERIES\)](#)

Added to Secondary Containment Sump Test Method January 6, 2022



Issue Date: November 16, 2015
Updated: January 27, 2021

Leak Detection Technologies, Inc.

MCleak Enhanced Interstice Test for Doubled-Walled Tanks, UDCs, Sumps and Spill Buckets

Interstitial Tightness Test Method

Certification	Leak rate of 0.1 GPH with PD = 99.99% and PFA = 3.3% Leak rate of 0.005 gph with PD = 99.97% and PFA = 3.3%
Leak Threshold	0.0017 gph
Applicability	Liquid filled interstices. Approved liquids: Water and Brine.
Interstitial Capacity	Maximum of 1,500 gallons.
Waiting Time	Tanks in service must be placed out of service for 72 hours before testing on the interstice can begin. If the tank is a new installation, the tank must be installed for a minimum of 72 hours for the test on the interstice to be valid due to potential thermal changes after installation. No wait time for UDCs, Sumps or Spill Buckets.
Test Duration	The test duration varies based on the surface area of the top of the interstitial liquid where the leak detection method's measurements are being taken.
Temperature	Measurement not required by this method.
Ground Water	Ground water level must be determined. When one or both sides of the interstice is under liquid, the test duration is determined by calculating the flow rate produced by the pressure differential and extending the test duration period to achieve the test sensitivity. See Comments below for additional information.
Calibration	Not required with this test method.
Comments	The MC Leak Enhanced Leak Detection Method has a test duration calculator that automatically calculates the test duration when a tank, UDC, Sump or Spill bucket interstice has liquid on either the exterior or interior walls. Extend the interstitial fluid above the operating fluid level to overcome the head pressure of the liquid inside the primary tank or outside the secondary interstice wall. At no time can the interstice pressure exceed manufacturer specifications. The interstice to be filled to 100% capacity. The minimum waiting period between topping off the fluid level in the interstitial reservoir to fine tune the desired level for testing is 1 hour. If a 4 inch riser is used to create the fluid reservoir in tank related components not affected by groundwater the test time after stabilization is 1 hour. The minimum measured liquid level change that exceeds the leak threshold of 0.0017gph that indicates a leak is variable due to the difference in the cross sectional surface area of the fluid reservoir.

Leak Detection Technologies, Inc.
 2765 East Wieding Road
 Tucson, AZ 85706
 Tel: (855) 255-5325

Evaluator: Ken Wilcox Associates
 Tel: (816) 443-2494
 Date of Evaluation: 04/18/19

Issue Date: January 27, 2021

TURPAK Electromagnetic Fuel Supply Systems, Inc.

TURPAK SIR Vision EYE v1.0

STATISTICAL INVENTORY RECONCILIATION TEST METHOD (QUANTITATIVE)

Certification	Leak rate of 0.2 gph with PD > 99.5% and PFA < 0.5% Leak rate of 0.1 gph with PD > 98.5% and PFA < 1.5%
Leak Threshold	0.1 gph for leak rate of 0.2 gph 0.05 gph for leak rate of 0.1 gph A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds the threshold of the version selected Gains (water ingress) are analyzed and evaluated on an individual basis
Applicability	Gasoline, diesel, aviation fuel, kerosene
Tank Capacity	Maximum of 30,000 gallons for single tank Maximum of 30,000 gallons cumulative capacity for siphoned tank systems with no more than 3 tanks in system
Throughput	Maximum monthly throughput of 54,930 gallons
Data Requirement	Minimum of 30 days of product level and flow through data
Comments	34% of data sets evaluated were from siphoned tank systems 66% of data sets evaluated used from single tank systems Of 44 data sets submitted for evaluation, all were analyzed with conclusive results Median monthly throughput of tanks evaluated was 8,897 gallons Data sets evaluated were supplied by evaluator The SIR system, TURPAK SIR Vision EYE v1.0 belonging to Turpak Corporation was tested on data from one tank system at a time . Upon completion of each tank test, the results were transmitted back to SSG Associates

TURPAK SIR Vision EYE v1.0
Address : Merkez Mahallesi Erseven Sokak No:8/1/4
Kağıthane 34406/ ISTANBUL
Phone: +90 212 3154100
E-mail: Suleyman ERDOGAN
serdogan@turpak.com.tr

Evaluator: S.S.G. Associates
Tel: (662) 234-1179
Dates of Evaluations: November 2020



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment.

Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: March 22, 2021

**OPW Fuel Management Systems
Site Sentinel Nano
(Dover Fueling Solutions DMP probe with 2 inch dia Floats)**

AUTOMATIC TANK GAUGING METHOD

Certification	Leak rate of 0.2 gph with PD = 99.94% and PFA = 0.06%. Leak rate of 0.1 gph with PD = 97.79% and PFA = 2.21%.
Leak Threshold	0.1 gph for leak rate of 0.2 gph. 0.05 gph for leak rate of 0.1 gph. A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds this threshold.
Applicability	Gasoline, diesel, aviation fuel, fuel oil #4, solvents, waste oil, other bio-diesel and ethanol blends compatible with probe floats.
Tank Capacity	Maximum of 20,650 gallons. Tank must be minimum 15% full.
Waiting Time	Minimum of 8 hours between delivery and testing for leak rate of 0.2 gph. Minimum of 12 hours between delivery and testing for leak rate of 0.1 gph. There must be no delivery during waiting time.
Test Period	Minimum collection time of 2 hours for leak rate of 0.2 gph. Minimum collection time of 4 hours for leak rate of 0.1 gph. Test data are acquired and recorded by system's computer. There must be no dispensing or delivery during test.
Temperature	Average for product is determined by a probe containing 5 thermistors.
Water Sensor	Minimum detectable water level that can be detected is 0.899 inch. Minimum detectable change in water level that can be detected is 0.008 inch.
Calibration	Thermistors and probe must be checked and, if necessary, calibrated in accordance with manufacturer's instructions.
Comments	Not evaluated using manifolded tank systems. Therefore, this certification is only applicable when there is a probe used in each tank and the siphon is broken during testing. Tests only portion of tank containing product. As product level is lowered, leak rate in a leaking tank decreases (due to lower head pressure). Consistent testing at low levels could allow a leak to remain undetected. EPA leak detection regulations require testing of the portion of the tank system which routinely contains product.

Dover Fueling Solutions
6900 Santa Fe Dr.
Hodgkins, IL 60525-9909
Tel: (708) 485-4200
E-Mail: info@opwfms.com
URL: www.opwfms.com

Evaluator: Ken Wilcox Associates
Tel: (816) 443-2494
Date of Evaluation: 02/04/2021



[| Home |](#) [| Vendors: A - F |](#) [| Vendors: G - M |](#) [| Vendors: N - S |](#) [| Vendors: T - Z |](#) [| Method Index |](#) [| Glossary |](#)

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment. Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: May 5, 2021

Dover Fueling Solutions

DFS DX Wetstock SIR V1.0 SIR and V1.2 SIR

STATISTICAL INVENTORY RECONCILIATION TEST METHOD (QUANTITATIVE)

Certification	Leak rate of 0.1 gph with PD of 99.57 % and PFA 0.43% (V1.0). Leak rate of 0.2 gph with PD = 99.9998% and PFA = 0.000142% (V1.2).
Leak Threshold	0.05 gph for leak rate of 0.1 gph (V1.0). 0.1 gph for leak rate of 0.2 gph (Version 1.2). A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds this threshold.
Applicability	Gasoline, Diesel & Kerosene.
Tank Capacity	The largest single tank size for non-manifolded tank system 31,876 gallons - No larger than 121,343 gallons for single tank. Maximum tank system size the SIR method may be applied to is 121,343 gallons. Maximum number of tanks in manifolded tank system can be 3.
Throughput Data Requirement	Maximum monthly throughput of 790,575 gallons. Must be exactly 30 days, no more, no less.
Comments	63% of data sets evaluated were from manifolded tank systems. Inventory data can be recorded manually or entered by hand into computer. Conditions where the statistical inventory method is inadequate: Insufficient or excess number of usable records-(must be 30 days of data) Irregular time intervals between dipstick reading Unacceptable daily variability of inventory Missing data in any field on the required data form Missing over or short calculation on the form Data sets evaluated were randomly selected from a database of inventory records maintained by evaluator. Dispensing meter errors are compensated for. Calibration errors are compensated for.

Dover Fueling Solutions
c/o Wayne Fueling Systems LLC
3814 Jarret Way t
Austin, TX 78728

Phone: +44 (0) 1695 51775

Evaluator: Ken Wilcox Associates

Tel: (816) 443-2494

Date of Evaluation: September 30, 2020



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment.

Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: June 8, 2021

Preferred Utilities

Interstitial Vacuum Leak Monitoring System

CONTINUOUS INTERSTITIAL TANK SYSTEM MONITORING METHOD (PRESSURE/VACUUM)

Certification:

Leak rate of 0.1 gph with PD=100.0% and PFA=0% "Test Procedures For Tightness Testing Using A Vacuum Monitor On A Double- Walled Tank Interstice With Or Without The Addition Of A Liquid Sensor" - Standard Test Procedures for Evaluating Release Detection Monitoring Methods: Volumetric and Non-volumetric Tank Tightness Testing - USEPA May 2019 section 4.5.3.

Operating Principle:

System uses vacuum generated by a vacuum pump to continuously maintain and monitor up to 4 zones. The console also has a "learn" function that is used during setup to determine the time to establish the vacuum on the interstice to a specific level. The time to establish the vacuum during the learn process is stored by the console and is used to determine if there is a liquid or air leak whenever the vacuum needs to be re-established at any time. System also has a float valve that is designed to detect the presence of liquid between the interstice and the vacuum pump.

Alarm Condition:

System alarms when there is a loss of vacuum in the interstice within a specific amount of time below a specific vacuum. The system will also alarm if the system cannot replenish the vacuum within 150% of the initial "learn" time. The time to alarm is determined based on the size of the interstice. The float valve located between the interstice and the vacuum pump shuts the flow of air from the vacuum pump to the interstice in the presence of liquid, therefore causing an alarm due to the system not being able to replenish the vacuum within 150% of "learn" time.

Applicability:

Double-walled piping or double-walled tank with an interstice up to 2,400 gallons (max volume to declare a tight test within 30 days), storing gasoline, gasohol, diesel, heating oil #2, kerosene, aviation fuel, motor oil, water. Storage of biodiesel blends B6-B20 meeting ASTM D7467 and biodiesel B100 meeting ASTM D6751 would also produce a system alarm if the system threshold is exceeded. Responses to these fuels were not determined but would be expected to be very similar to the system's response when storing diesel. .

<u>Interstitial Volume</u>	<u>Time To Alarm with a 0.1 gal/hr leak</u>	<u>Time to Declare a Tight Test</u>
(Gallons)	(hours)	(hours/minutes)
5	1 hour	1h 30m
10	2 hours	3h
20	4 hours	6h
50	10 hours	15h
100	20 hours	30h
200	40 hours	60h
500	100 hours	150h
1000	200 hours	300h
2000	400 hours	600h
2400*	480 hours	720h (30 days)

*maximum volume allowed in order to allow for a passing test within 30 days

Manufacturer's Specifications:

Alarm will activate when interstitial vacuum decreases by a specific amount during a specific amount of time, as well as the system being unable to replenish the vacuum within 150% of the "learn" time.

Volume of monitored interstitial space must not exceed 2,400 gallons to satisfy 30-day release detection requirement.

Calibration:

The system must be programmed by a factory trained technician or under the direction of the manufacturer. Maintenance

schedule – Biannually - check solenoid, transmitter, and pump operation, test the alarm horn and strobe, inspect tubing, fittings, and any connections, check tubing for condensate, drain any liquid that is in the liquid stop valve.

Change the filter on the suction side of the vacuum pump that is in the control panel annually.

Comments:

The system described herein was tested with a 5-gallon vessel to simulate an interstice. Float valve was tested with water, gasoline, and diesel. System tested with a 100% probability of leak detection of .1gph ullage leak and 0% probability of false alarm. This system may not be compatible with all secondarily contained tanks and/or piping. Always consult with the tank and/or piping manufacturer and the manufacturer's applicable recommended installation practices before installing this system, or damage may be caused to the tank or piping by its use.

Preferred Utilities
31-35 South Street
Danbury, CT 06810

Evaluator: Ken Wilcox Associates, Inc.
1125 Valley Ridge Drive
Grain Valley, MO 64029
Tel: (816)443-2494
cwilcox@kwaleak.com
Date of Evaluation: March 29, 2021



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment.

Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: June 8, 2021

Preferred Utilities

Interstitial Vacuum Leak Monitoring System

CONTINUOUS INTERSTITIAL LINE MONITORING METHOD (PRESSURE/VACUUM)

Certification:

Leak rate of 0.1 gph with PD=100.0% and PFA=0% "Test Procedures For Tightness Testing Using A Vacuum Monitor On A Double- Walled Tank Interstice With Or Without The Addition Of A Liquid Sensor" - Standard Test Procedures for Evaluating Release Detection Monitoring Methods: Volumetric and Non-volumetric Tank Tightness Testing - USEPA May 2019 section 4.5.3.

Operating Principle:

System uses vacuum generated by a vacuum pump to continuously maintain and monitor up to 4 zones. The console also has a "learn" function that is used during setup to determine the time to establish the vacuum on the interstice to a specific level. The time to establish the vacuum during the learn process is stored by the console and is used to determine if there is a liquid or air leak whenever the vacuum needs to be re-established at any time. System also has a float valve that is designed to detect the presence of liquid between the interstice and the vacuum pump.

Alarm Condition:

System alarms when there is a loss of vacuum in the interstice within a specific amount of time below a specific vacuum. The system will also alarm if the system cannot replenish the vacuum within 150% of the initial "learn" time. The time to alarm is determined based on the size of the interstice. The float valve located between the interstice and the vacuum pump shuts the flow of air from the vacuum pump to the interstice in the presence of liquid, therefore causing an alarm due to the system not being able to replenish the vacuum within 150% of "learn" time.

Applicability:

Double-walled piping or double-walled tank with an interstice up to 2,400 gallons (max volume to declare a tight test within 30 days), storing gasoline, gasohol, diesel, heating oil #2, kerosene, aviation fuel, motor oil, water. Storage of biodiesel blends B6-B20 meeting ASTM D7467 and biodiesel B100 meeting ASTM D6751 would also produce a system alarm if the system threshold is exceeded. Responses to these fuels were not determined but would be expected to be very similar to the system's response when storing diesel.

<u>Interstitial Volume</u>	<u>Time To Alarm with a 0.1 gal/hr leak</u>	<u>Time to Declare a Tight Test</u>
(Gallons)	(hours)	(hours/minutes)
5	1 hour	1h 30m
10	2 hours	3h
20	4 hours	6h
50	10 hours	15h
100	20 hours	30h
200	40 hours	60h
500	100 hours	150h
1000	200 hours	300h
2000	400 hours	600h
2400*	480 hours	720h (30 days)

*maximum volume allowed in order to allow for a passing test within 30 days

Manufacturer's Specifications:

Alarm will activate when interstitial vacuum decreases by a specific amount during a specific amount of time, as well as the system being unable to replenish the vacuum within 150% of the "learn" time.

Volume of monitored interstitial space must not exceed 2,400 gallons to satisfy 30-day release detection requirement.

Calibration:

The system must be programmed by a factory trained technician or under the direction of the manufacturer. Maintenance

schedule – Biannually - check solenoid, transmitter, and pump operation, test the alarm horn and strobe, inspect tubing, fittings, and any connections, check tubing for condensate, drain any liquid that is in the liquid stop valve.

Change the filter on the suction side of the vacuum pump that is in the control panel annually.

Comments:

The system described herein was tested with a 5-gallon vessel to simulate an interstice. Float valve was tested with water, gasoline, and diesel. System tested with a 100% probability of leak detection of .1gph ullage leak and 0% probability of false alarm. This system may not be compatible with all secondarily contained tanks and/or piping. Always consult with the tank and/or piping manufacturer and the manufacturer's applicable recommended installation practices before installing this system, or damage may be caused to the tank or piping by its use.

Preferred Utilities
31-35 South Street
Danbury, CT 06810

Evaluator: Ken Wilcox Associates, Inc.
1125 Valley Ridge Drive
Grain Valley, MO 64029
Tel: (816)443-2494
cwilcox@kwaleak.com
Date of Evaluation: March 29, 2021

Issue Date: July 26, 2021

Selecta Global, Inc.

Selecta Leak Monitoring SIR 0.1 gal/hr and 0.2 gal/hr standards

STATISTICAL INVENTORY RECONCILIATION TEST METHOD (QUANTITATIVE)

Certification	Leak rate of 0.2 gph with PD = 99.999847 % and PFA < 0.1% (0.2 gal/hr standard). Leak rate of 0.1 gph with PD = 99.92% and PFA = 0.0814% (0.1 gal/hr standard).
Leak Threshold	0.1 gph for leak rate of 0.2 gph (0.2 gal/hr standard). 0.05 gph for leak rate of 0.1 gph (0.1 gal/hr standard). A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds the threshold level of the version selected.
Applicability	Gasoline, diesel.
Tank Capacity	Maximum of 25,000 gallons for single tank. Maximum cumulative capacity of 82,096 gallons for manifolded tank systems with no more than 3 tanks in system.
Throughput	Maximum monthly throughput of 341,340 gallons.
Data Requirement	Minimum of 28 days of product level and flow through data. This method does not require meter calibration.
Comments	45.8% of data sets evaluated were from manifolded tank systems. Of 24 data sets submitted for evaluation, there were 0 inconclusive results. Median capacity of tanks evaluated was 17,781 gallons. Median monthly throughput of tanks evaluated was 48,524 gallons. Leak rates of 0.05, 0.1, and 0.2 gph were used in the evaluation. Data sets evaluated were randomly selected from a database of inventory records maintained by evaluator.

Selecta Global, Inc.
Atasehir Bulvari Gulibrisim Ca. Evinpark
Rezidance B 1 Blok/1-2 Atasehir
Istanbul, Turkey 34758
Phone: +90 216 573 0506

Evaluator: Ken Wilcox Associates
Tel: (816) 443-2494

Dates of Evaluations: October-December, 2020



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment.

Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: August 16, 2021

PMP Corporation
PMP Tank Interstitial Sensors 63510 and 63520 as evaluated
with the Incon TS-2001 Tank Sentinel, Part #: T2P/8
INTERSTITIAL DETECTOR (LIQUID-PHASE)

Detector:

Output Type: qualitative
 Sampling Frequency: continuous
 Operating principle: float switch

Test Results:**ULS Steel Tank Sensor 63510**

	<u>diesel*</u>	<u>water</u>	<u>E10</u>
Lower detection limit (in)	0.94	0.85	1.05
Precision (in)	0.00	0.01	0.01
Detection time (sec)	<1	<1	<1

HFS Fiberglass Tank Sensor 63520

Lower detection limit (in)	0.48	0.43	0.51
Precision (in)	0.00	0.01	0.00
Detection time (sec)	<1	<1	<1

*Evaluations determined these sensors' responses to the liquids shown above. Biodiesel blends B6-B20 meeting ASTM D7467 and biodiesel B100 meeting ASTM D6751 would also produce an alarm if the lower detection limit is exceeded. Responses to these fuels were not determined but would be expected to be very similar to the diesel responses.

Comments:

These sensors were third party evaluated with a Incon TS-2001 Tank Sentinel console, Part #: T2P/8. PMP Corporation claims that these sensors will work with these other consoles: the EVO Fuel Management Systems, Tank Sentinel TS-1000/TS-2000 Systems, Tank Sentinel TS-1001/TS-2001, and TS-5xxx Series.

PMP Corporation
 25 Security Drive
 Avon, CT 06001-0422
 Tel: (860) 677-9656
 Toll Free: (800) 243-6628
 E-mail: sales@pmp-corp.com
 URL: www.pmp-corp.com

Evaluator: Solutions Engineering Group
 420 N. Main Street
 Montgomery, IL 60538-1367
 Tel: (630) 701-7703
 Date of Evaluation: 3/29/2021



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment. Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: October 21, 2022

**Dover Fueling Solutions
MagLink LX
(Dover Fueling Solutions 924B probe with 2 inch dia Floats)**

AUTOMATIC TANK GAUGING METHOD

Certification	Leak rate of 0.2 gph with PD = 99.70% and PFA = 0.30% Leak rate of 0.1 gph with PD = 95.56% and PFA = 4.41%.
Leak Threshold	0.1 gph for leak rate of 0.2 gph. 0.05 gph for leak rate of 0.1 gph. A tank system should not be declared tight if the test result indicates a loss or gain that equals or exceeds this threshold.
Applicability	Gasoline, diesel, aviation fuel, fuel oil #4, solvents, waste oil, other bio-diesel and ethanol blends compatible with probe floats.
Tank Capacity	Maximum of 20,650 gallons. Tank must be minimum 14% full for leak rate of 0.2 gph. Tank must be minimum 15% full for leak rate of 0.1 gph.
Waiting Time	Minimum of 8 hours between delivery and testing for leak rate of 0.2 gph. Minimum of 12 hours between delivery and testing for leak rate of 0.1 gph. There must be no delivery during waiting time.
Test Period	Minimum collection time of 2 hours for leak rate of 0.2 gph. Minimum collection time of 4 hours for leak rate of 0.1 gph. Test data are acquired and recorded by system's computer. There must be no dispensing or delivery during test.
Temperature	Average for product is determined by a probe containing 5 thermistors.
Water Sensor	Minimum detectable water level that can be detected is 1.016 inch. Minimum detectable change in water level that can be detected is 0.0098 inch.
Calibration	Thermistors and probe must be checked and, if necessary, calibrated in accordance with manufacturer's instructions.
Comments	Not evaluated using manifolded tank systems. Therefore, this certification is only applicable when there is a probe used in each tank and the siphon is broken during testing. Evaluated with 2" diameter OPW fuel floats and 2" diameter DMP water floats. Tests only portion of tank containing product. As product level is lowered, leak rate in a leaking tank decreases (due to lower head pressure). Consistent testing at low levels could allow a leak to remain undetected. EPA leak detection regulations require testing of the portion of the tank system which routinely contains product.

Dover Fueling Solutions
6900 Santa Fe Dr.
Hodgkins, IL 60525-9909
Tel: (708) 485-4200
E-Mail: atg@doverfs.com
URL: www.doverfuelingsolutions.com

Evaluator: Ken Wilcox Associates
Tel: (816) 443-2494
Date of Evaluation: 09/15/2021; 9/21/2021



[| Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment. Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.

Issue Date: November 10, 2021

Pneumercator Company, Inc.

LLP-203 Series Pipeline Line Leak Detector with the TMS2000, TMS3000 and TMS4000 Series Consoles for Hourly Testing on Rigid, Flexible and Hybrid Pipelines

AUTOMATIC ELECTRONIC LINE LEAK DETECTOR

- Certification** Leak rate of 3.0 gph @ 10 psi equivalent with PD = 100% and PFA = 0%
- Leak Threshold** 1.8 gph at 10 psi equivalent.
A pipeline system should not be declared tight if the test result indicates a loss that equals or exceeds this threshold.
- Applicability** Gasoline, diesel, aviation fuel, ethanol blends up through E100, biodiesel blends B6-B20 meeting ASTM D7467, biodiesel B100 meeting ASTM D6751, #4 and #6 fuel oil, used oil.
- Specification** Mystem tests pressurized Fiberglass, flexible, semi-rigid and rigid pipelines.
Tests are conducted at system operating pressure.
- Pipeline Capacity** If the desired Bulk Modulus value does not appear in the table, select the next LOWER value. If the desired Charge (system operating) Pressure value does not appear in the table, select the next HIGHER value.

LLP203 Piping Volume Limits Table									
Charge Pressure[psi]	Bulk Modulus[psi]								
	2000	5000	10000	20000	30000	40000	50000	60000	70000
30	117	292	584	1167	1179	1179	1179	1179	1179
40	78	195	389	778	1167	1179	1179	1179	1179
50	58	146	292	584	875	1167	1179	1179	1179
60	47	117	233	467	700	934	1167	1179	1179
70	39	97	195	389	584	778	973	1167	1179
80	33	83	167	333	500	667	834	1000	1167
90	29	73	146	292	438	584	729	875	1021
100	26	65	130	259	389	519	648	778	908
110	23	58	117	233	350	467	584	700	817
120	21	53	106	212	318	424	530	637	743

- Waiting Time** Waiting times after the delivery of product, after product is circulated through the line or after pumping has stopped are not necessary before valid tests can be conducted.
- Test Period** Response time is dependent on line volume, service pressure, and bulk modulus, and can range from 30 seconds to 13 minutes.
- System Features** Permanent installation on pipeline.
Automatic testing of pipeline.
Preset threshold.
Single test to determine if pipeline is leaking.
If leak is declared: Programmable for alarm only, or alarm with system shutdown. Programmable for test following pump shutdown only, or hourly.
- Calibration** Leak Detection system operation must be verified annually in accordance with manufacturer's instructions.
- Comments**

Pneumercator Company, Inc.
1785 Expressway Drive North
Hauppauge, NY 11788
Tel: (800) 209-7858, (631) 293-8450 x112
E-mail: jlevy@pneumercator.com
URL: www.pneumercator.com

Evaluator: Ken Wilcox Associates
Tel: (816) 443-2494
Date of Evaluation: 04/29/2021, 10/28/2021

Issue Date: January 6, 2022

OMNTEC MFG., INC.**OMNTEC OEL8000III-CLD PORTABLE CONTAINMENT SUMP TESTER (CLD SERIES)****SECONDARY CONTAINMENT SUMP TEST METHOD****Certification** .1 GPH with PD = 100% and PFA = 0%

Please be aware that the authority having jurisdiction in your particular state, territory, tribe or municipality may have set a minimum detectable leak rate for Secondary and Spill Containment Test Methods.

Leak Threshold 0.0020 inch/15 minutes (0.008 inch/hour)**Applicability** Water**Specification** System tests wetted portion of turbine, transition and dispenser containment sumps**Waiting Time** Water level readings must stabilize (due to distortion of sumps and wave action) and temperature in sump must stabilize prior to beginning test.**Test Period** 15 minutes**System Features** Up to 8 sumps can be tested at the same time**Calibration** No calibration is required**Comments** Adaptable to the requirements of PEI/RP-1200-17. Has programmable leak threshold and duration that can be adjusted appropriately for any size containment sump. Default test leak threshold/duration setting is 0.002 inches/15 minutes. Equipment only tests portions of the sump that contains test fluid.

OMNTEC Mfg., Inc.
2420 Pond Rd.
Ronkonkoma, NY 11779
Tel:(631) 981-2001
Website: www.omntec.com
Email: omntec@omntec.com

Evaluator: Ken Wilcox Associates
Tel: (816) 443-2494
Date of Evaluation: 07/20/21



| [Home](#) | [Vendors: A - F](#) | [Vendors: G - M](#) | [Vendors: N - S](#) | [Vendors: T - Z](#) | [Method Index](#) | [Glossary](#) |

Appearance on this list is not to be construed as an endorsement by any regulatory agency nor is it any guarantee of the performance of the method or equipment.

Equipment should be installed and operated in accordance with all applicable laws and regulations. For full details, please refer to our expanded "[DISCLAIMER](#)" page.