



Vaporless Manufacturing, Inc.

Quality Petroleum Equipment Solutions For Over 20 Years

MODEL 300-P CONTAINMENT SUMP LEAK DETECTION

Available With Battery Powered Field Printer



Volumetric Leak Detection:

System reports gallon per hour leak rate, test media level drop and actual test time.

System Identifies Sump Deformation:

Automatically identifies the need for extended test times to eliminate false alarms caused by sump deformation.

System Identifies Thermal Variations:

Automatically identifies the need for extended test time.

Intrinsically Safe 12 Volt Operation:

Accessible / Replaceable 12V battery.

Available Options:

Battery operated Printer with Cable and Carry Case.



Optional Battery Operated Printer with Cable

Fast Test Results:

Normal test time is 15 minutes for up to 13 square feet of surface area.

Accurately Test Up to 13 Square Feet of Surface Area:

System Component List:

- Control Unit
- Carrying Strap
- Battery, spare (optional) *
- Battery Charger, Control Unit
- Printer, (optional) *
- Printer Cable (optional) *
- Battery Charger, printer* (optional) *
- Probe assembly
- Support rods, 12", 24" (1 each)
- Support Bar, 24"
- Cross clamps
- Manway clamp
- Spring clamps
- Sump filling tube, 10'
- Vessel connection tube, 3'
- Calibrated vessels, 1200 ml & 360 ml (1 each)
- Operation Manual (not shown)

* Optional Item



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Designed and Manufactured in U.S.A.

Volumetric Leak Detection Does Matter:

The surface size of the sump and a volumetric leak rate are related. For example, during the testing of a typical spill bucket with a surface area of one square foot, a level drop of 0.002 inches in fifteen minutes has a calculated leak rate of 0.0075 gallons per hour. Testing a sump with a surface area of eight square feet (the area of a typical turbine sump), a level drop of 0.002 inches in a fifteen minute period has a calculated leak rate of 0.0598 gallons per hour.

The Model 300 Sump Tester is the only sump test system that automatically calculates and reports GPH leak rate and liquid level drop.

The Model 300 sump test equipment can quickly determine the level in the sump where the leak is located. By adjusting the test level in the sump and then conducting a new test, the technician can isolate the leak level. Now, the penetrations determined to be suspect can be inspected and repaired. This procedure reduces downtime and labor costs.

Meets SoCal-CUPA Standards:

Detects and reports liquid level drops exceeding the .002" per 15 minute test.

Stability Factor:

Each 15 minute test is run in two segments. The test segments must fall within the stability factor established within the software. An additional test segment(s) will be initiated if the back to back test segments are not within the acceptable stability parameters. The test will not end until stable results are achieved.

Detecting Sump Deformation and Thermal Contraction:

It is known that sump deformation and thermal variations affect test results. This often leads to reporting of false failures and missed detections by other test equipment. While these effects cannot be eliminated, the Model 300 sump tester has a proven test routine that can identify when these variables are occurring above a predetermined threshold. When these variables are occurring, a leak rate is not reported until the test results demonstrate stability of the sump and the test media. ***Field test comparisons have shown less repair costs and less downtime using this test routine.***

Equipment Specifications:

Fluid test medias: Water, water containing surfactant (surface active agent) and non-toxic antifreeze (either diluted or undiluted). Contact factory for other appropriate fluids.

Test level: As specified by regulatory protocol, minimum of two inches above the highest penetration to be tested.

Test Time: Test time is fifteen minutes. The total test time is divided into two test segments. At the end of each test segment the starting fluid level is re-established, fluid lost is entered into the controller and a second test segment is run.

Repeatable liquid level resolution: .0005 Inches

Double Baffle mechanism to mitigate the transfer of ripples on the water due to vibration, wind, etc.
Software filter to average the effect of ripples on the test media.

Software designed to recognize thermal effects: Thermal expansion or contraction is detected. The software will not end the test if thermal variables are present.

Software designed to recognize sump deformation: Additional test segments will automatically run until stability is achieved and an accurate rate can be determined.

Intrinsically safe: Probe Assembly kit is connected to Control Module by an intrinsically safe connection. The Control Module powered by a 12 volt replaceable battery.



02/08

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