

Leak Test Optimization Services



Make the most of your Sciometric 3520 Leak Tester

Optimizing a leak test for the part you are testing can be complicated, regardless of the tester you use. Make the most of your Sciometric 3520 Leak Tester with our Leak Test Optimization Services.

A Sciometric leak test expert will come to your facility to provide three days of on-site Applications Engineering support. They will assist with the setup and configuration of Sciometric 3520 Leak Testers and will provide the education and information your engineers need to understand the system and conduct basic maintenance and future optimization. During this time, our leak expert will apply years of our collective knowledge to your process.

Five benefits of using Sciometric's Leak Test Optimization Services

- Understand the importance of proper test station setup
- Gain in-depth knowledge on how to leak test your product
- Find out how to establish the right balance between cycle time and repeatability
- Learn how to use digital process signature analysis to optimize your leak test
- Learn how to analyze leak test data to spot anomalies going forward



The following sections explain what you can expect from our Leak Test Optimization Services.

Leak Test Theory

We'll provide approximately four hours of class time to explain the basics of leak test theory. Your engineers will learn about leak test methods (pressure decay and mass air flow testing); leak calibration, including use of the pressure sensor and flow sensor; temperature compensation, when it's needed, and how to understand the effects of repeated test cycles; and a review of common leak test formulae such as ideal gas law.

Data Analysis

Achieving a higher standard of leak testing often starts with simplifying the mechanical complexity of your test stations, but it takes data and manufacturing analytics to help understand the effects of these changes and improvements. Together, we'll view waveform data collected from your test using Sciometric Studio software. You'll see how to identify process outliers and anomalies, and we'll point out efficiencies and areas for improvement.

Test Setup Review

We'll make sure your 3520 Leak Tester has been set up correctly so the optimization goes smoothly. We'll examine hoses, fixtures and seals; test for system leaks that could compromise pass/fail decisions; and verify the repeatability of your system so you'll have confidence in your test results.

System Optimization

Optimizing your system will include such tasks as establishing the right fill and exhaust times, configuring the IP address, fine-tuning PID settings, adjusting macros and setting up temperature compensation.

Recommendations

Finally, we'll look at the overall system and let you know where you can potentially reduce your leak test cycle time, set more optimal test limits and improve repeatability.

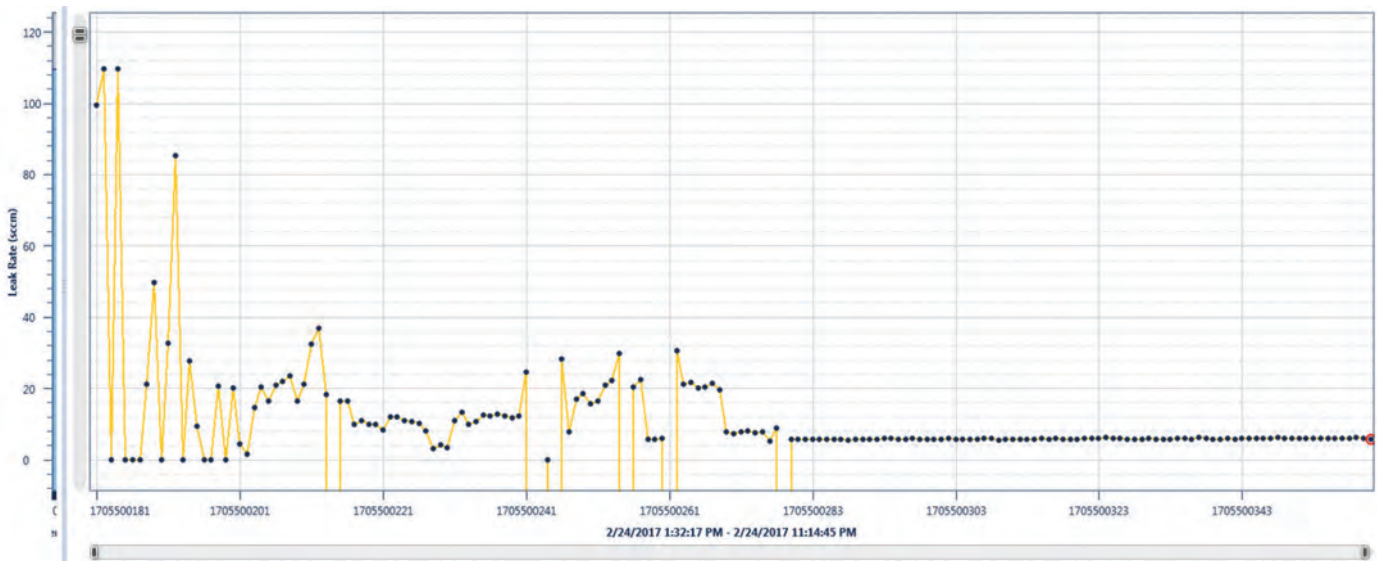


Figure 1: The variable leak rate data on the left side of the plot shows the measured leak rate of the station prior to optimizing the station setup and leak tester tuning. After tuning, the part was re-run and is represented in the data on the right side of the plot. Minor changes allowed for 25X improvement in repeatability.

About the 3520 Series Leak Tester

The 3520 Series Leak Tester from Sciometric delivers industry-leading accuracy and fast cycle times for all common leak test types. Patented for 12 engineering innovations, the 3520 Series combines a highly optimized design, high quality sensors and precision measurement electronics to shorten cycle times and eliminate bottlenecks common to leak testing. Dual high speed electronic regulators enable ultra-fast fill and stabilization.



The 3520 Series uses Sciometric's PSV software, either on a Sciometric sigPOD or on an industrial computer, to control the module. The controller and pneumatics can be placed separately so the system can be close to the device under test, reducing hose length and minimizing other factors that affect accuracy. Web-based setup and diagnostics, a self-test mode for automatic verification, a simple calibration process, and a Tuning Assistant for optimized test results provide greater ease of use.


Many leading manufacturers are replacing their existing competitive or DIY leak testers with the 3520 Series. Learn more at www.sciometric.com/leaktest.

Ordering Information

Part number	Description
30120-0010-LTOS	Leak Test Optimization Services: 3 days of on-site engineering and support to assist with the configuration of Sciometric 3520 Series Leak Testers. Travel not included.

Notes:

- Initial Installation and setup of the 3520 Series Leak Tester is not included in Leak Test Optimization Services, but can be quoted separately
- Additional support days may be required for optimization of complex applications or multiple test stations.
- Leak Test Optimization Services will be provided during regular working hours (7AM-7PM, Mon-Fri). Additional costs may be incurred for service occurring on weekends, holidays, or off-shift periods.
- Travel costs are extra.



Contact Sciometric to learn more
about how we can reinvent your leak test.

sciometric.com/leaktest

About Sciometric

Since 1981, Sciometric's process monitoring and quality management systems and software have enabled some of the world's leading automotive, medical and industrial manufacturers to gain visibility into and control over their manufacturing processes. On the production floor, Process Signature Verification (PSV) technology provides the most accurate determination of process health and part quality while collecting all data. Manufacturing managers use Sciometric's analytic tools to transform the data into actionable information to reduce costs, manage quality, and maximize yield while providing proof of process compliance and complete line-wide traceability. Visit sciometric.com for more information.

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