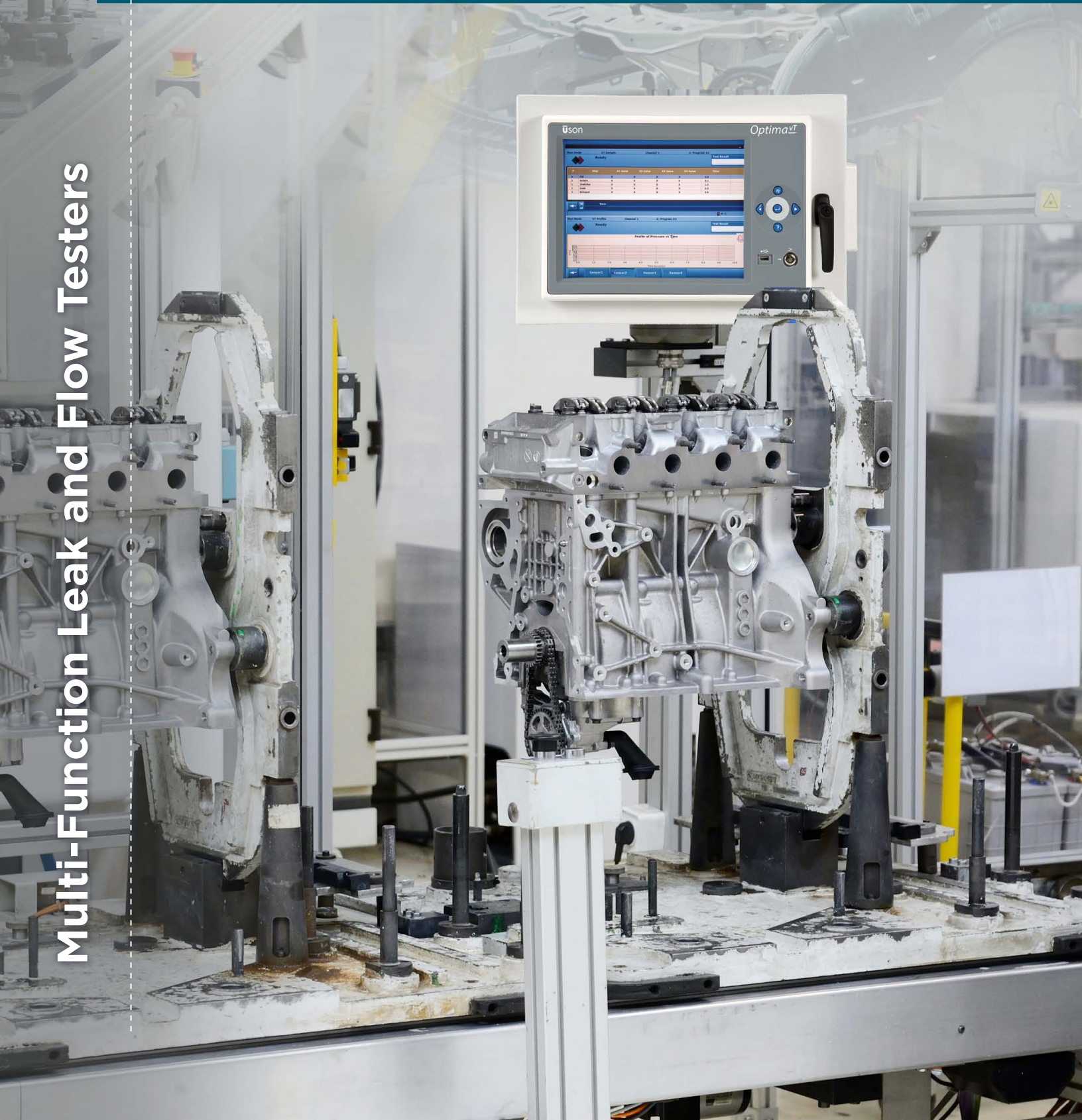


uson
for good measure

Automotive Industry Overview

Multi-Function Leak and Flow Testers





Pioneer of Modern Leak and Flow Testing

When Quality is Critical —

Uson leak testers deliver fast, reliable, and accurate information when and where you need it, so you can stay in control of your process.

Automobiles consist of major critical systems - including the engine, transmission, fuel, exhaust, cooling, lubrication, electrical, and transmission. Each system consists of individual parts, working together to achieve the final automobile product. Quality assurance is critical, and if any component in any one system fails, it can result in costly warranty issues and potential recalls.

Manufacturers serving the automotive industry must comply with stringent test requirements, while meeting production demands. The manufacturing process must be optimized, achieving fast cycle times and utilizing the correct test technology that meets the specifications of the OEM. Uson leak testing provides the confidence to manufacture products that are reproducible and meet automotive quality assurance demands.

Uson applies its decades of experience in the automotive industry, working with each customer to understand the process and identify the unique leak testing requirements of each application. Our depth of experience allows us to offer our customers a consultative experience, where we evaluate the part to be tested, including test pressures, leak rates, volumes, environmental conditions, part material, and cycle time, to determine how manufacturing variables can impact test results.



Uson has more than 50 years of experience to support manufacturers in the automotive industry.



Our leak testers capture vast amounts of data, for a clear view of how the manufacturing process is performing.



We support our customers throughout the life of the Uson leak tester.



Our leak testers accommodate multi-step processes for greater flexibility to meet quality demands.



Our leak testers deliver the assurance of quality, so bad parts don't leave the factory.

Under the Hood

There are a multitude of components under the hood that ensure your car operates properly, and a leak in one of these components spells trouble for all of it. Housing breaks on radiators can leak fluid. Metal components can corrode. Moisture or debris can get into A/C systems. Leak testing reduces the likelihood of unexpected issues.

- A/C Compressor
- Air Cleaner
- Alternator
- Condenser
- Valve Cover
- Radiator Hoses
- Radiator
- Radiator Overflow Bottle
- Windshield Washer Bottle
- Battery Cover and Tray

Engine

Testing of engine components can require complex test specifications. It's important to use the right type of leak test to ensure oil, fuel, and air distribution are correct. One benefit of using a Uson leak tester is the ability to simultaneously check two different reject points and determine if the casting can be impregnated to prevent scrapping parts.

- Exhaust Manifold
- Intake Manifold
- Air Boot
- Distributor
- Engine Block
- Engine Cylinder Head
- Engine Oil Pan
- Water Pump
- Air Box
- Oil Cooler
- Throttle Body
- Air Pump
- Air Flow Meter
- Starter
- Hybrid Battery
- EV Powertrain Components

Transmission

Transmission fluid, an important part of a powertrain system, feeds fluid and lubricates components through proper channels to prevent unexpected failure. Leak testing helps to ensure the integrity of the transmission components, allowing the transmission fluid to do its job. Uson's leak testers use various methods to increase sensitivity on large cavities, like housing and pans. They ensure reduced cycle times while continuing to meet first-time-acceptance of production parts.

- Trans Pan
- Trans Housing
- Transfer Case
- Trans Pump
- Oil Cooler
- Bell Housing
- Clutch Assembly
- Electric Drive Transmission

Brake System

Nothing but brake fluid should be in the brake lines. A leak can lead to serious issues, including loss of brake fluid or air in the brake lines, which can restrict proper brake fluid flow. Uson's leak testers offer a reliable, accurate method to test for leaks in a brake system. Testers measure high flow, low leak rate, and high pressures in a single instrument.

- Brake Lines
- Power Brake Booster
- Master Cylinder
- Brake Caliper
- Control Module

Suspension & Steering

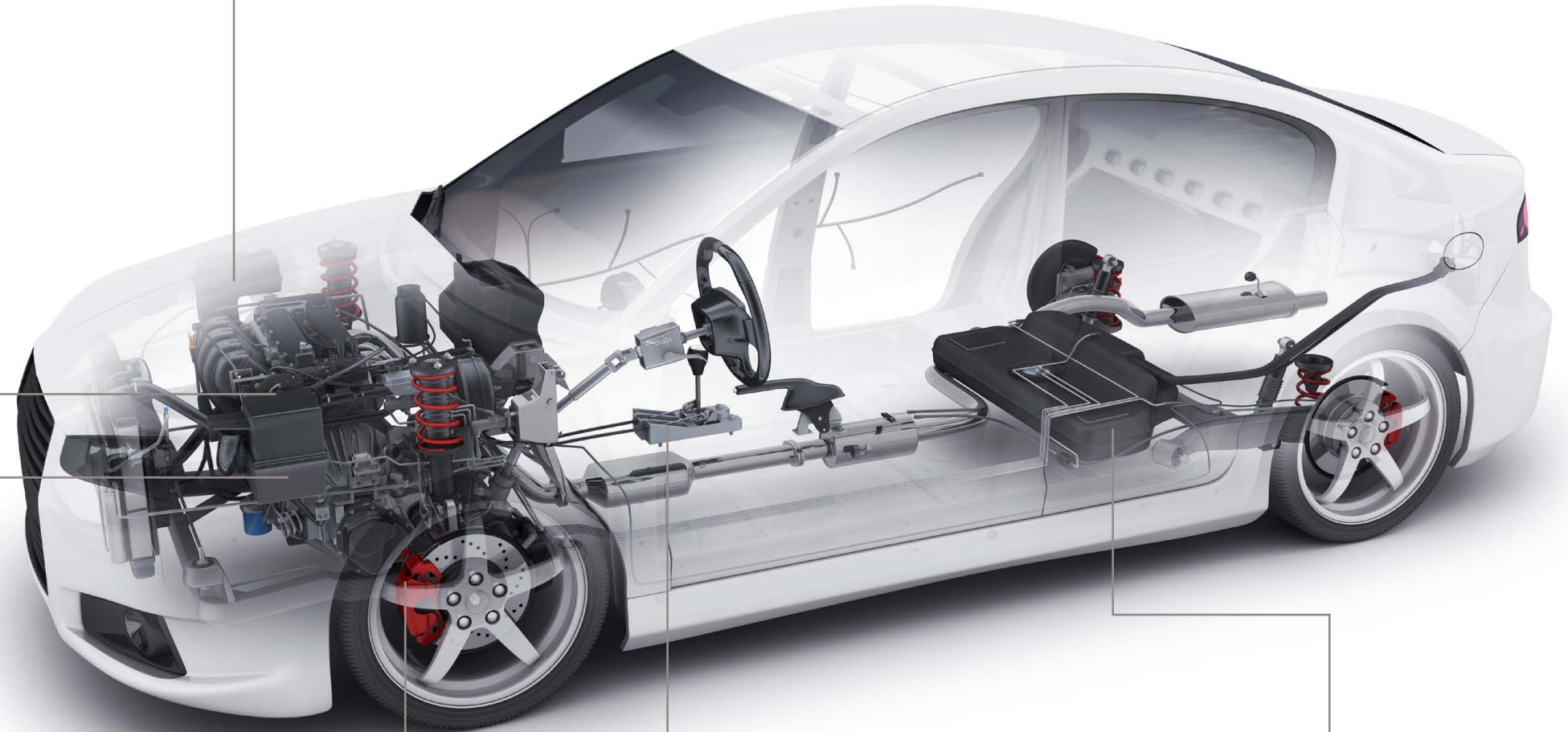
For steering applications, leak testing needs to be highly sensitive to ensure proper fluid fill level in various assemblies. Leak testing helps eliminate underfill, which leads to gear fatigue, and overfill, which causes leaks into other components.

- Power Steering Reservoir
- Steering Rack/Box
- Axle Assembly
- Power Steering Pump

Fuel System

Leaks in the fuel system can lead to rising temperatures, low fuel pressure, increased fuel consumption, and loss of engine performance. Uson's leak testers perform a variety of tests via a single instrument from very low test pressures to tight leak tolerances.

- Fuel Pump
- Fuel Tank
- Fuel Distributor
- Fuel Lines



Count On Uson's Expertise & Quality —

For customer-driven designs built with proven technology for ease of use

Our in-house manufacturing and calibration capabilities give us unsurpassed experience in designing customized test solutions for automated or semi-automated leak testing systems.

- Pressure decay leak testers
- Differential pressure leak testers
- Mass flow testers
- Burst, occlusion, and sealed-component techniques
- Combination instruments—pressure decay mass flow + burst or other combinations
- Multi-channel concurrent or sequential test instruments
- Leak testers for flexible packaging
- Data collection—USB network (Ethernet I/P, TCP I/P, QDas, etc.)
- Service and support—calibration, instrument selection, and repairs



Uson's Sprint^{mD}—A flexible solution for leak testing a wide range of components using the pressure decay and mass flow methods.



Uson's Optima vT is designed to be highly configurable. With a choice of one or two test channels, optional enclosures, a wide range of test types and custom pneumatics, the Optima is highly versatile.



Uson's QmR leak tester is an affordable, high-quality leak tester designed to set a new benchmark of accuracy and dependability for light- to medium-duty applications.



Uson's Raptor is a single-channel pressure decay leak tester that is cost efficient and helps to increase efficiencies for a wide range of applications.



Uson's 628 differential pressure decay leak tester—A cost-effective solution for leak testing a wide range of components that require testing to stringent leak rate requirements.



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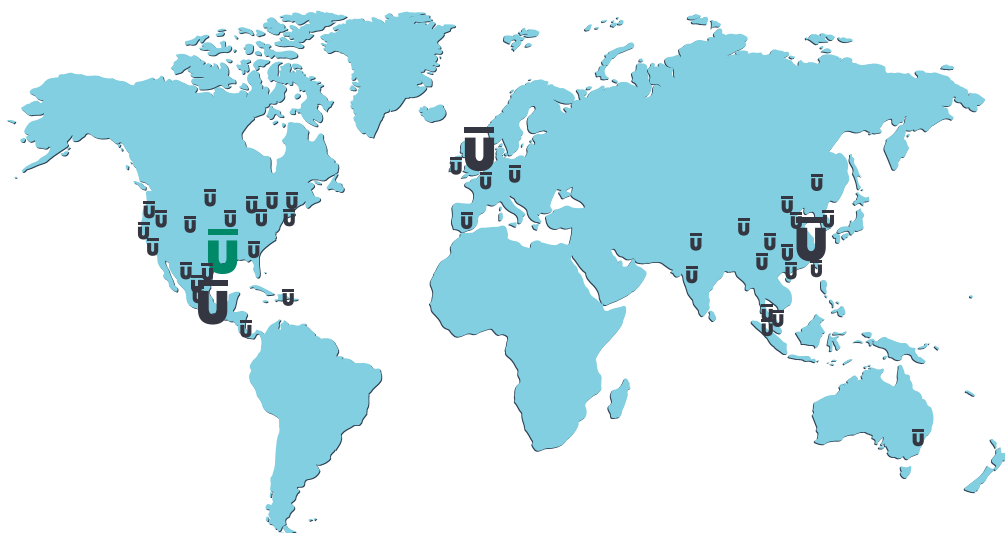
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Support and Commitment — At all stages of your process

Uson maintains a global service and support team, with field sales and service experts located all over the world. This network of highly trained, local support experts in leak testing are available, no matter where your factory is located. As part of its aftermarket program, Uson provides calibration, preventative maintenance, and onsite modification services to keep the tester running in optimal condition.

Uson is fully committed to its products and does not obsolete legacy products until technology has progressed to the point that getting replacement parts is absolutely impossible. Even after spare parts aren't available, Uson's service team will continue to support the product.

Our Sales & Support Offices



With our strong, global team of sales representatives and support offices, Uson provides our customers with exceptional services in all world areas.