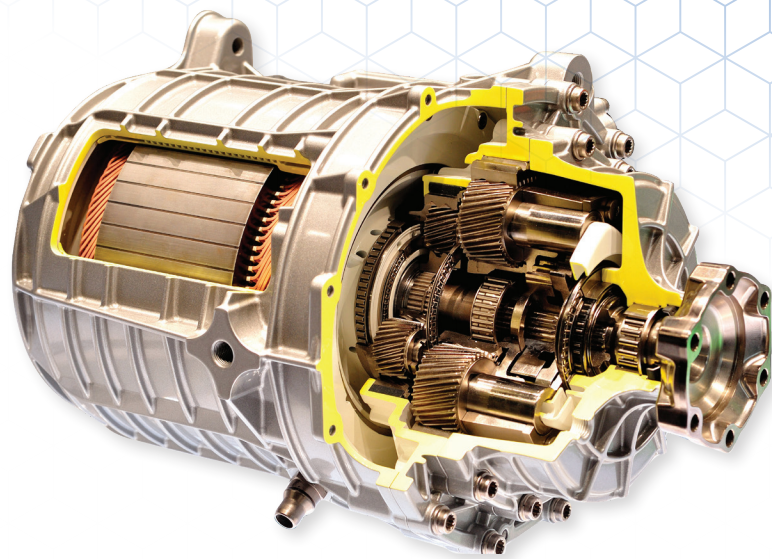


Die Cast Parts

Cost-effectively address the industry's most difficult leak testing challenges with CTS

Leak testing can be performed on pre-assembled die cast components to identify abnormal porosity before additional value is added before and after machining.

CTS provides simple, cost-effective solutions using pressure decay and mass flow testing techniques to provide repeatable, measurable results. We have helped many manufacturers of die cast parts to reduce their costs, scrap rates and improve quality.



Common challenges in leak testing die cast parts

The porosity of die cast parts can add to the difficulty of setting up a robust leak test process. In addition, many of these components go through washing and drying systems, creating moisture and temperature changes. If you are facing challenges in leak testing die cast parts, you are not alone. CTS has worked with many manufacturers to help them address common issues, such as:

- **Long cycle times**, which can create a bottleneck in the machining and assembly process;
- A lack of test **repeatability** reduces confidence that the leak test system is operating correctly and increases the possibility of **false accepts and false rejects**;
- The need to **reduce scrap rates** to improve the cost and efficiency of the process; and,
- The ability to use **test data** to intelligently determine which higher leak rate parts can be sent out for effective porosity impregnation to reduce porosity.

Talk to the experts at CTS to see how you can implement repeatable testing technologies and validate your leak test instrument calibration process to reduce falsely rejected parts.

Reduce the cost impact of defects by performing leak tests on die cast housings early in the process — before value-added operations are conducted.

Cost-effective solutions to address different requirements

With the industry's largest portfolio of leak test instruments, CTS can recommend the right system for your particular circumstances and budget. Leak testing of die cast components typically utilizes one of three test methods:

Pressure Decay using absolute pressure measurement

The most widely used technology to conduct repeatable leak testing on die cast components that is highly accurate with the implementation of a two-point calibration (zero leak and known reject rate).

Differential Pressure Decay

Instituting the same degrees of repeatability and accuracy with the added benefit that this leak testing technique will provide increased resolution for even greater test accuracy and reduced test cycle times.

Mass Flow Testing

Mass Flow Testing enables testing without the need for a calibration sequence, which allows flexibility when testing parts with varying degrees of porosity and multiple part sizes.

A CTS turnkey leak test solution makes it even easier!

We can leverage the capabilities of our leak test instruments while simplifying the integration process by providing a turnkey leak test system.



Have leak test repeatability problems due to part porosity?

Calibration and verification are keys to eventual success!

- **Calibrate** the instrument to a master non-leaking part
- **Verify** the calibration using two master parts
 - Master part 1 utilizes a leak standard that is 10% greater than the reject leak which results in failed leak test.
 - Master part 2 utilizes a leak standard that is 10% less than the reject rate which results in passed test.

Get more insight in how to improve your leak test by working with CTS!

Put our experience to work for you

Leverage our experience in thousands of die cast leak test applications to improve test reliability, quality, and manufacturing efficiency while reducing costs. [Contact us today to discuss a solution for your die cast component.](#)



Your Global Leak and Function Test Solution Experts

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