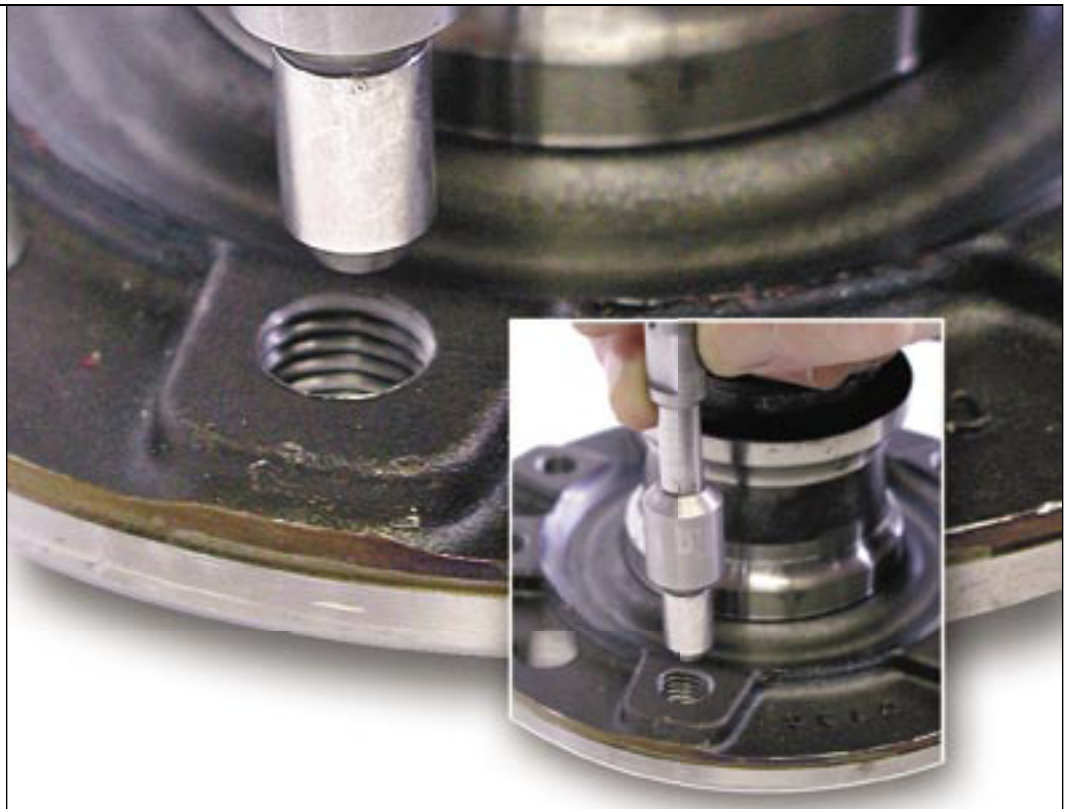




## Eddy Current Testing for Thread & Feature Inspection

Fast — Clean — Cost-effective — 100% reliable

- Fast inspection at production line rates
- Increased reliability of inspection process
- Rugged enough to withstand harsh environments
- Easy to integrate into production lines
- Non-destructive test method



### **A wrong or missing thread can cause costly hold ups in production.**

For both ferrous and nonferrous materials, eddy current testing (ECT) is a proven method that can detect and prevent the potential hazard or added costs associated with shipping defective components.

ECT is an ideal inspection method for verifying thread vs. no thread, as well as partial thread condition because it compares

the signature of each component with that of a known good sample. ECT excels in tests to:

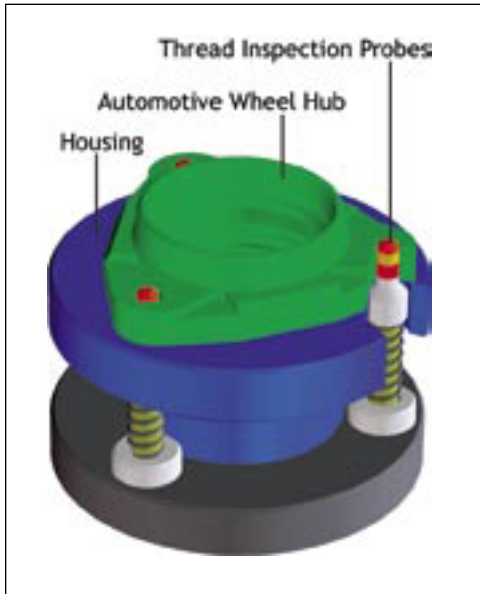
- Check thread pitch and condition
- Alarm for broken tap
- Check quality/integrity of tapped hole

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Zetec is a world leader for eddy current testing technology. A Zetec InSite test instrument solution from Criterion NDT will enable your quality assurance program to see immediate positive results.

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# Fast and Economical Solutions for 100% Component Inspection and Defect-Free Delivery



The automotive hub thread inspection probe simultaneously inspects each of the three tapped holes. Its spring-loaded housing allows the probe to spring back in the case of a broken tap or no drill hole.



Ball Bearing Detector identifies defective parts.

**Inspection solutions range from offline stand-alone test stations to in-line fully automated systems.** With safety critical parts, the only option is 100% reliable non-destructive inspection. Our systems ensure better quality products that lead to satisfied customers and bigger sales. And, total satisfaction from your customer equals enhanced corporate reputation.

**Automation is a key factor to thread inspection improvements for leading manufacturers of automotive hubs and spindles.** Recently, a leading manufacturer of automotive hubs and spindles, sought a cost-effective test method for thread inspection — which was also 100% reliable. Before using ECT, they used thread gauges and vision systems. These methods were time consuming and labor intensive, as well as expensive. Vision systems had limitations because they could not view 360 degrees of the threaded area at the same time and were not 100% reliable. The thread (go/no go) gauge was labor intensive and also not a 100% reliable test method because of potential operator error.

Our experienced engineers worked very closely with the customer to find what could be done to remove the “hands-on” process and ensure product quality and longevity. After a few design iterations, we found the answer to extending probe life and removing manual testing by adding the thread inspection to their production line. The final design included:

- Probe shape and size to optimize centering of the probe into the threaded holes
- Stainless steel sleeves over the ECT coil — this was one of the key features for adding longer life to the thread inspection probes
- Spring-loaded housing allows the probe to spring back if the threaded hole has a broken tap or no drill hole — this also increases the life of the thread inspection probes

**Eddy current probes are the most flexible element within the inspection system.** Probes are designed and optimized for the inspection task according to the part under test. Probes are usually interchangeable to accommodate varying component sizes and for easy maintenance.

## Zetec InSite Component Tester.

This versatile, high-speed, multi-frequency, digital tester provides the ability to check eight threaded holes at one time. Other testing capabilities include: metal sorting, heat treat and case depth testing, weld inspection, and a broad variety of other eddy current applications. The InSite, with its industrial I/O, is ideal for manufacturing environments.

## MIZ-23 Component Tester.

The MIZ-23 is a high-performance, economical single probe tester with full industrial I/O capability. High sample rates ensure rapid inspection.



For inspecting spindle splines and threads, Criterion NDT probes are optimized for the inspection task.

### Free feasibility study guarantees results.

Experienced Criterion NDT application engineers can assist you in identifying how easily our ECT systems can be integrated into your component manufacturing facility. With a free feasibility study, your real samples are carefully evaluated for detection and test reliability before you make any commitments. A formal feasibility report and cost estimate is forwarded to you for your consideration. Budgetary quotations are also available. Visit [www.criterionndt.com](http://www.criterionndt.com) and send us your ECT application.



The same ultra accurate electronics developed for the nuclear power industry are featured in the MIZ-27CT system platform.

# Component Testing Solutions

**Criterion NDT's Custom Approach to Applications.** Criterion NDT has an application-specific approach to your inspection needs. Starting with your material samples and requirements for flaw detection, Criterion NDT designs and builds innovative test solutions. The entire solution is engineered to meet your specifications, from the first feasibility study through design, prototyping and manufacturing. Thorough quality testing is completed before installation at your facility.

**Free Feasibility Study Guarantees Results.**

With a free feasibility study, your real samples are carefully evaluated for detection and test reliability before you make any commitments.

Our application specialists have extensive knowledge in eddy current testing and can determine if eddy current is the best solution for your test situation. A formal feasibility report and cost estimate is forwarded to you for your consideration. Budgetary quotations are also available.

**Custom Designs Fit Your Process.** Criterion NDT designs are customized to your application. Let us help you achieve 100% quality inspection. For more information about Criterion NDT or our products, visit: [www.criterionndt.com](http://www.criterionndt.com)

Criterion NDT's Zetec eddy current NDE solutions are the result of almost 40 years of market leading experience in safety critical industries.



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