

Ultrasonic Inspection - NADCAP Accredited

Fundamentally, ultrasonic testing (UT) involves moving an ultrasound transducer over the material being inspected, emitting pulsed waves of high-frequency sound that travel through the subject matter and return to the transducer or a separate receiving device. Changes in the amount of sound received reveal imperfections in the material under inspection. Ultrasonic testing may be used for flaw detection and evaluation, dimensional measurements, material characterisation and more.



THE Applus+ SOLUTION

Applus+ has an extensive range of tools and techniques to match every inspection challenge, from simple thickness measurement to fully automated inspections. We perform ultrasonic testing both in the laboratory and in the field. Striving to provide the best ultrasonic nondestructive testing (NDT) and inspection services in the aerospace industry, we offer contact scanning at each of our facilities. Immersion inspection is offered at some of our full-service NDT laboratories. Our Troy (MI) laboratory has Nadcap-accredited immersion-inspection capabilities for cylindrical parts or rings up to 145cm (57") in diameter and weighing as much as 226kg (500 lb).

Advantages of our UT services include:

- Usually only one surface needs to be open for inspection
- Highly portable technology
- Possibility to inspect both ferrous and non-ferrous materials

Applus+ performs ultrasonic [NDT](#) services using a variety of UT methods for GE, FAA, military, nuclear, ASME specifications and prime-contractor code requirements.

Target customers

Ensuring the quality and integrity of new components is vital in the aerospace sector. Turnkey solutions for access, temperature, coating and material-type problems are hugely important in ensuring the ongoing success of operations worldwide.

Ultrasonic testing may be used at any point in the life-cycle of an item and its applications include the following:

- Forgings
- Weldments
- Castings
- Thickness gauging
- Velocity/nodularity
- Plate inspection
- Pipes/tubes

Nadcap accreditation is required to perform ultrasonic testing on aerospace components.

Key customer benefits

Partnering with Applus+, a Nadcap-approved provider, assures our clients that they are complying with industry requirements.

Other benefits of UT include:

- An electronic record of the inspection, which helps with code compliance
- A marked increase in 'probability of detection' (POD)
- Facilitates a detailed audit
- A cost-effective and rapid inspection solution
- Parts can be inspected in a production atmosphere, thereby limiting downtime