

DESCRIPTION OF THE METHOD

UT is one of the basic nondestructive testing methods. Ultrasonic testing enables to detect the occurrence of internal material imperfections in a large depth beneath the surface. UT is generally used for testing molded semi-finished products (metal plates, forgings, rods ...), welds, and castings. It is applicable to test various nonmetallic materials such as plastics and composites. Its advantage is an automatic process control. Besides the internal defects such as tears, delamination, cavities, the surface defects are as well detectable. This method benefits by the immediate display of the results.

DESIGN AND PRODUCTION

In our development centre, we are able to tailor testing equipment for ultrasonic testing. The following products and accessories are offered:

- | Automated ultrasonic systems
- | Gauges and accessories
- | Portable ultrasonic instruments and thickness meter
- | UT Phased Array by NDT Solutions
- | UT instruments designed for automated systems
- | UT systems for spot welds inspection (Atlantis NDE)
- | Equipment for air-coupled ultrasonic (QMI)
- | Ultrasonic instruments for control state diagnostics



SELECTED PRODUCTS FOR UT

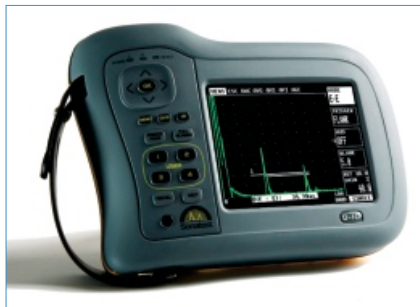
AUTOMATED LINES

Suitable for automated one- or multichannel UT testing of components, e.g. rails, round iron, wheel discs, rings, seamless and welded tubes, rods etc.



MANUAL ULTRASONIC DEVICES SONATEST

Digital devices: Sitescan 123, 150, 250, Sitescan D10, D20 Masterscan 350,380, Software SDMS, Minidisplay M1, Special devices: Railscan 125, Powerscan 450, Dryscan 410.



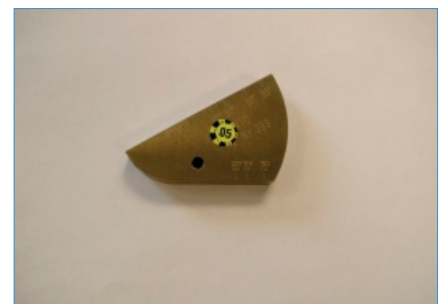
UT PROBES SONATEST

Direct probes of longitudinal waves, angle probes of transversal and longitudinal waves, simple or double probes, immersion flat and focusing probes, TOFD and Phased Array, non-contact air-coupled probes, EMAT probes, rolling-type probes, cables ...



UT GAUGES

- | for calibration
- | step wedge
- | ASME, ASTM, CBV reference
- | gauges for automated testing
- | and others



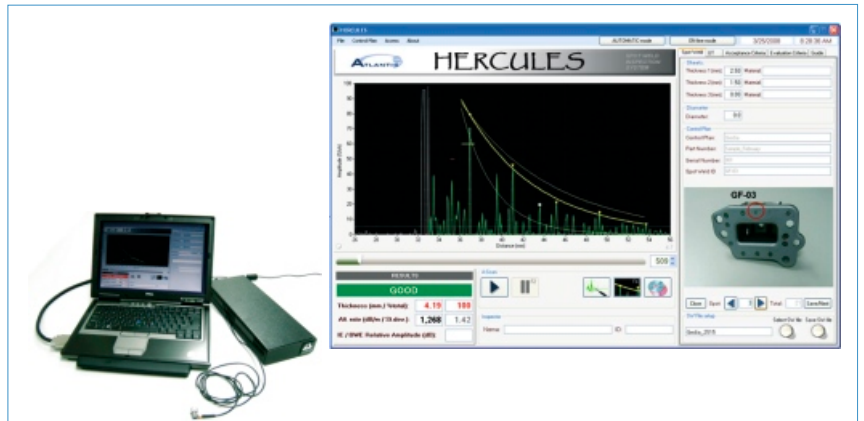
ULTRASONIC THICKNESS METERS

Instruments for coating measurements by **Sonatest** and **Dakota**



UT PORTABLE INSTRUMENTS WITH COMPUTER PROCESSING

Acquired data processed by one-channel device designed for basic applications, by default installed in portable computer for readily usage in different location of hall. The area of application – above all spot welds inspection in automotive industry.



SERVICES AND TESTING

Our specialists recommend you appropriate methods and call attention to possible limitation, specify the testing method in relation to the requirements (test sensitivity), optimize the testing parameters, select devices and accessories, assure the steps for work safety, suggest the workplace etc. Ultrasonic method exploit the detection of ultrasonic wave reflected from inhomogeneities or defects, respectively. It can be applied for **metallic and nonmetallic material inspection**. The advantage is a possibility to test semi-finished products of enormous thicknesses (a few meters of forgings). **We provide testing of weld joints, steel flat products, forgings, steel tubes, testing in foundry industry or thickness measuring, UT thickness measuring of hardened layer with the aid of HÄRTI system, and immersion testing on 7-axes manipulator with option of C-scans, UT of aircraft parts** performed by workers with aircraft qualification. For these activities we are approved by Civil aviation authority.



Our inspectors are equipped with the following features:

- ultrasonic instruments (reflected and one-way method)
- standard sets of UT probes
- ultrasonic calibration and reference gauges
- ultrasonic hardness tester and thickness meter
- devices for thickness measurement of coatings and paints
- ultrasonic manipulators and systems
- ultrasonic equipment for spot welds inspection

TRAINING AND SEMINARS

We provide the training of NDT level 1, 2 and 3 personnel. We belong to the most recognized tutor agency of "special processes" in Europe. Courses prepare NDT specialist for duties in ultrasonic testing in industrial conditions. **Practical experience is a part of training on professional testing equipment for NDT.**



Each candidate for our NDT training courses obtains:

- Attendance certificate**
- Qualification certificate** - in case of the qualification according to SNT-TC-1A

Preparation and qualification of NDT personnel is provided according to the following codes:

- EN 473, EN 4179/NAS 410 for aircraft industry - JAR 145.30
- SNT-TC-1A employer certification, examination according to ASME Code, ASTM, MIL, ...

