

**AMSTERDAM
TECHNOLOGY**



Malzeme Analiz ve Kalite Kontrol Cihazları Dış Tic. Ltd. Şti.

MiniScanner System for spot and projection weld inspection

patent pending

About us:

Amsterdam Technology bv, is a new company located in the Netherlands, raised by Amsterdam SES and TechnoLOTHgy bv. These companies have joined their expertise in development of software and mechanical solutions for dedicated ultrasonic scanning systems.

MiniScanner

Amsterdam Technology bv introduces the "MiniScanner", a handheld high resolution ultrasonic scanning system with full A-scan and C-scan presentations.

The inspection instrument, with software based on Windows XP®, meets the performance of an immersion tank scanning system when a small area is to be inspected. It consists of a small sized handheld scanner with a portable ultrasonic control unit, containing an 8" touch screen panel.

How it works:

The handheld scanner can simply be placed on a test object, i.e. a spot weld and the A-scan is displayed.

Press the scan button and after a few seconds a complete C-scan is presented on screen.

Just by touching a scan point of the C-scan on the screen the corresponding A-scan is displayed directly in a separate window.

All data, including the complete A-scan information, can be stored on the hard disk. This is useful for evaluation purposes and after event setting control.

With exchangeable scan-heads for perpendicular or angled scanning position the "MiniScanner" can be used for a wide range of applications.



Small model MiniScanner



Straight scan head



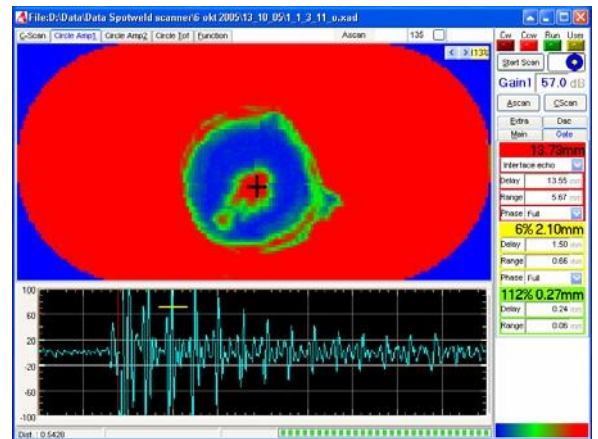
Mirror scan head

Features:

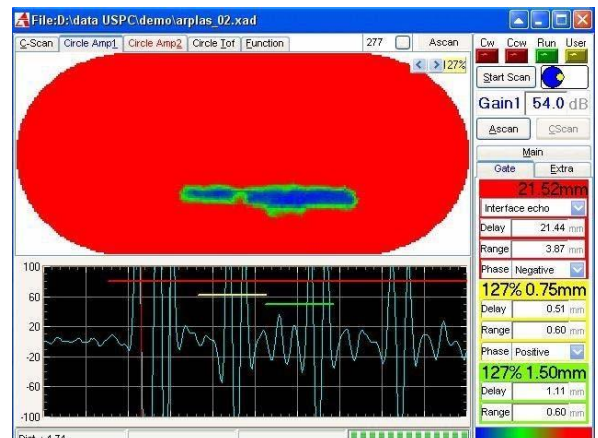
The MiniScanner is a complete advanced ultrasonic scanning system, including all the standard system features.

Typical for the MiniScanner:

- Portable system
- Quick exchangeable scan heads for perpendicular and angled scanner positions
- Standard scan area 10 x 20 mm (0.4 x 0.8 Inch)
- Scan time < 5 seconds, direct C-scan presentation
- Standard scan resolution 0.1 x 0.1 mm (4 x 4 mil)
- Applicable focussed ultrasonic transducers; 20–35 MHz
- Easy to handle by single button operation on scanner
- Just a small amount of gel as couplant needed
- Scanner with integrated gel injector is optional
- Direct C-scan presentation
- A-scan presentation for each scan point
- TOF (Time Of Flight) presentation
- 2 C-scan presentations with independent gate settings, TOF and Amplitude adjustable
- Numerical wall thickness indication
- Cursor controlled dimension measurement in C-scan (i.e. diameter of spot weld)
- After event data evaluation by gate repositioning
- Ultrasonic controller, containing a 8" touch screen panel, scroll wheel, based on a Windows XP® PC
- Ultrasonic settings for typical applications can be stored
- Additional USB devices like keypad or mouse are possible
- Data exchangeable by both USB and WiFi
- Data evaluation software for standard PC available
- Power requirements 120–240 VAC, 50-60 Hz, 150Watt
- Delivered in a rigid carrying case.



Measurement of a spot weld



Measurement of a projection weld (Arplas)

Applications:

The MiniScanner is very useful for detail inspection of large constructions because the MiniScanner can reach the most difficult places in complex structures.

- **Spot weld inspection** (automotive). A typical application for the “Mini Scanner” is spot weld inspection in the automotive industry. This ultrasonic test method for checking spot welds has proved to be suitable for the classification of welds and in optimising the parameters of welding machines for series production. Applicable for inspection of resistance spot welds as well as laser welded patterns.
- **Riveting joint inspection** (automotive, aerospace). For an automatic gearbox the riveting connection of a torque converter can be inspected from the outside after assembly.
- **Laser weld inspection** (automotive, industry). Laser welds could be inspected the best back sided. Hereby the scanner is placed on the surface of the back plate of the weld structure.
- **Layer control of composite materials** (aerospace, rotor blades). Spot-check testing for control adhesive conditions.
- **Soldering joints control** (automotive, industry). Spot-check testing on critical places of soldered parts.
- **Wall thickness inspection of plates and pipes** (power plants, industry). Spot-check inspection for wall thickness and pitting corrosion of pipes by outside inspection. Special adaptors for scanner positioning on pipes are deliverable on custom specification.

The MiniScanner is a new instrument and at this moment a lot of new applications are coming up.

Users start working with the MiniScanner and discover new inspection methods on a very wide range of applications. The MiniScanner makes fast C-scan inspections possible on places never been inspected until now. Please check our web site for actual developments. www.amstech.nl