

UT/x – SpotWeld Phased-Array Inspector

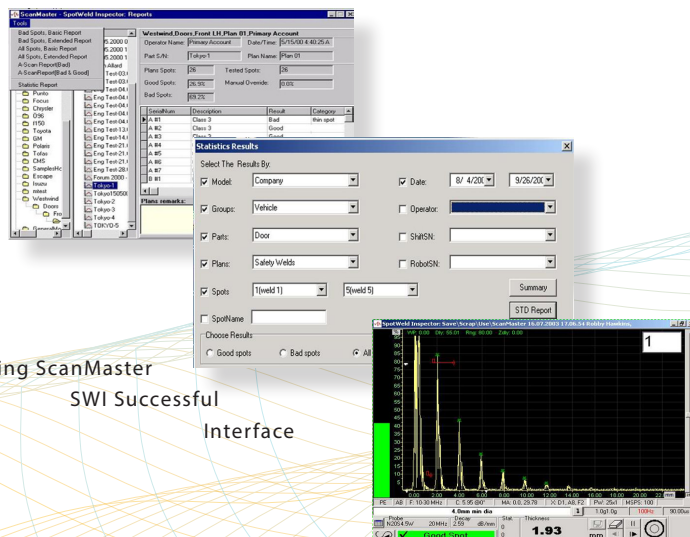
ScanMaster UT/x is the new member in our product offerings for the automotive industry

The Phased Array architecture of **ScanMaster UT/x** offers new capabilities for SpotWeld inspection, including:

- Measure of nugget size
- Measure of nugget area
- Advanced new technology for classification of nugget quality

ScanMaster UT/x provides the following unique combination of advantages:

- Fast and reliable inspection
- Single-element probe and PA probe inspection using the same hardware platform and software
- Dual delay line: flexible membrane for indent welds or hard delay line for quicker inspection of flat surfaces
- Efficient scan plan preparation
- Support for the migration of existing ScanMaster plans
- Utilization of ScanMaster's patent-registered unique technology



Existing ScanMaster
SWI Successful
Interface

*Incorporating many successful features of the existing ScanMaster SWI software (e.g., plan preparation wizards and quick inspection run), **ScanMaster UT/x** has an intuitive, user-friendly interface that allows operators and supervisors to easily access both basic and advanced setups.*

*Backward compatibility ensures that current ScanMaster SpotWeld users can adopt the new solution quickly and cost-effectively by migrating most data to the new **ScanMaster UT/x**.*

ScanMaster UT/x uses 15 MHz PA matrix transducer incorporating 61 separate elements with a 1mm pitch. It includes a built-in water path for ultimate UT performances and flexible membrane to compensate different weld indentations

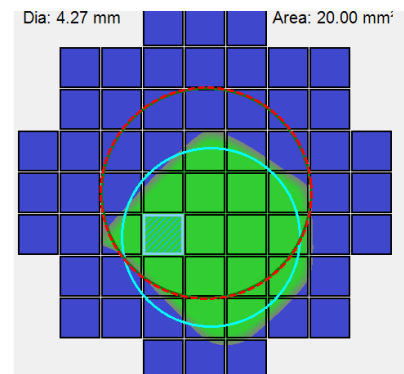


ScanMaster PA Probe

Current SpotWeld users will enjoy these additional benefits:

- Similar scan plan-tree structure for quick navigation
- Quick and easy migration of plans to save setup time
- Similar application navigation to minimize the learning curve
- Ability to use an existing ScanMaster SpotWeld single element probe on the same UT/x instrument
- Similar probe handling

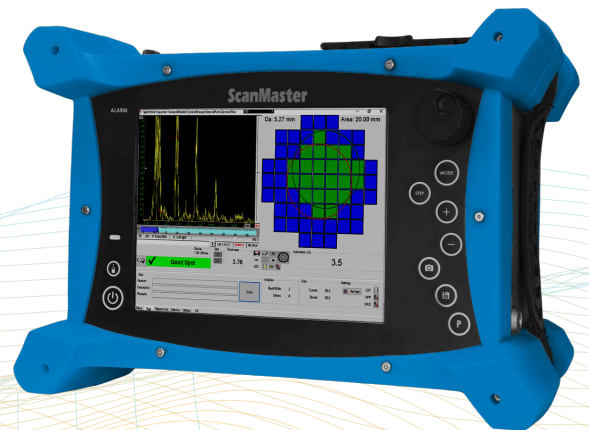
Using ScanMaster's field-proven sophisticated algorithm, each single element returns an autonomous measurement and decision during inspection, the information collected from all elements is gathered, and the combined data is integrated into a single automatic decision, with area and diameter measurements.



Thin Weld Indication

Main specifications:

- Driven by M2M's Mantis Portable PA instrument
- Size (L x W x H): 320mm (12.6 in) x 220mm (8.66 in) x 100mm (3.94 in)
- Screen size: 8.4"
- Weight: 4.4 kg (9.7 lb.)
- Battery time: 4 hours (hot swappable battery)
- Number of elements in probe: 61
- Frequency: 15MHz
- Phased array pulsers:
 - Negative square pulse, width: 35ns to 1250ns
 - HT voltage: 12V to 90V (with 1V step)
- Phased array receivers:
 - Input impedance: 50 Ω
 - Frequency range: 0.4 to 20MHz
 - Max. input signal: 2Vpp
 - Gain: Up to 120dB (0.1dB step)
 - Cross-talk between two channels < 50 dB



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UT/Pro – Integrated Device for SpotWeld Inspection

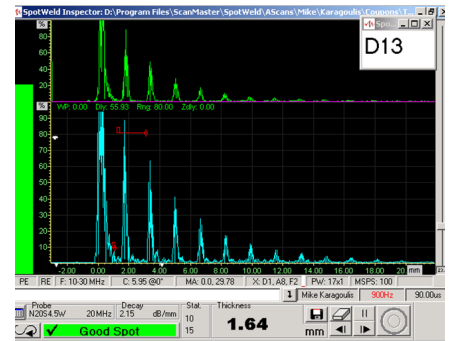
The UT/Pro is a new integrated rugged inspection solution suited for SpotWeld inspection in industrial environments. Designed to last and built to survive in harsh conditions, the UT/Pro is engineered for continuous operation for over 8 hours. Its touch screen responds even when operators' hands are wet or protected with gloves.

The compact housing of the UT/Pro with an integrated ergonomic handle weight 2.3 kg, making it ideal for mobile operation. The UT/Pro is fully compatible with the widely-used UT/Mate and its SpotWeld application.

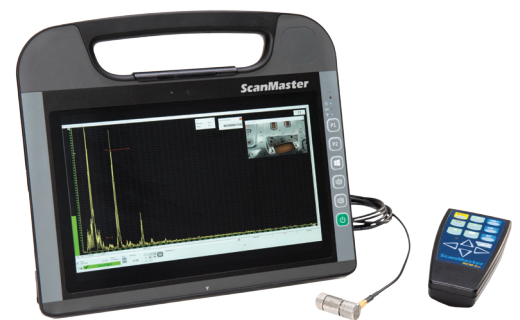


Main Features:

- 8 hours of continuous operation on Windows® 10 Professional
- weight 2.3 kg
- Hot swap battery solution for extended non-stop operation
- Automatic GO/NO-GO decision making
- Automatic classification of SpotWeld quality
- Real time probe normality and positioning feedback
- Tight control of ultrasonic probe beam size
- Multi-gate capture
- Identification of intermediate peaks
- Support of 2, 3 and 4 plate combinations
- Automatic velocity calculator
- Strong backup-restore function, including automatic scheduler
- Merge feature for adding local changes in the inspection plan
- Network connectivity for data sharing and optional 3rd party data management tools
- Ability to accommodate a virtually unlimited number of inspection set-ups
- Vast A-scan storage capacity using advanced SSD technology for faster and safer data storage
- Wide selection of ScanMaster probe diameters
- Automatic generation of inspection reports, with options for customization



A-Scan automatic classification in test mode



The UT/Pro

UT/Pro Specifications

UT Main Spec.

Analog bandwidth	1 to 45MHz (-6dB)	Memory (RAM)	4GB LPDDR3
Calibrated gain	85dB	Storage	SSD 128GB
Gain step size	0.2dB	Operating system	Windows 10 Pro
Excitation waveform	Negative Square wave	Standards	MIL-STD 810G and IP65 certified
Amplitude	350 V, 8 levels	I/O Interfaces	DC in x 1 USB 3.0 (9-pin) x 1 USB 2.0 (4-pin) x 1 Micro HDMI x 1 Optional Wi-Fi connection
Single pulse width	10-100 nsec, 10 ns resolution		
Screen	Touch, 10.1" IPS FHD LumiBond® 2.0 sunlight display	Power	AC Adapter (65W, 100-240VAC, 50/60Hz) Li-Ion battery (15.2V, 2160mAh) LifeSupport™ hot-swappable battery technology
Optional communication	Wi-Fi, GPS, Bluetooth, 4G LTE		

Remote Control for Main Functions

Power consumption	2.5 W Max.	Humidity	<95% non-condensing
Operating temperature range	5 to 50°C	Dimensions	180mm x 82mm x 25mm (7" x 3.2" x 1") – W X H X D
		Weight	480g (1.06 lb)

* Please contact your nearest ScanMaster representative for an updated list of certified models.

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