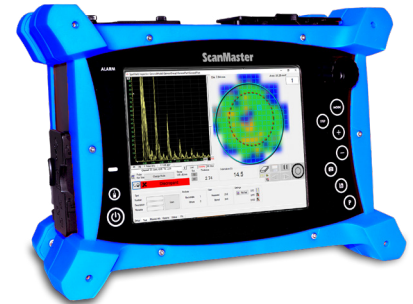


## UT/x – SpotWeld Phased-Array Inspector

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 ultra-fast:

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

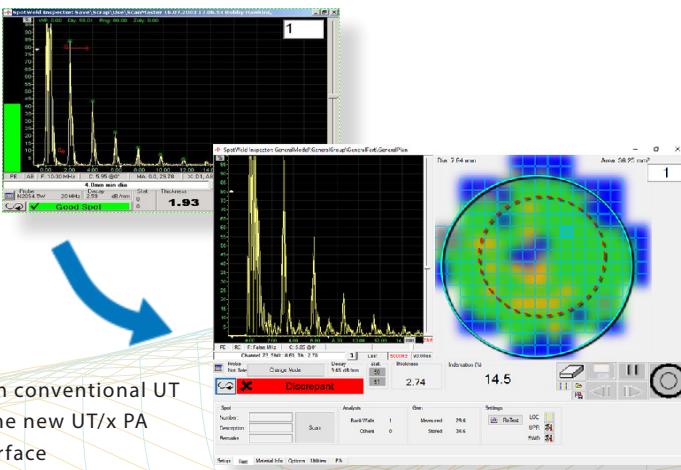


ScanMaster UT/x provides the following unique combination of advantages:

- Fast and reliable inspection (less than 1 sec. per spot)
- 209 virtual elements' PA probe inspection or single element probe 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 and on-the-fly automatic setup
- Support for the migration of existing ScanMaster plans
- Utilization of ScanMaster's patent-registered unique technology

*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.*



From conventional UT to the new UT/x PA interface

**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

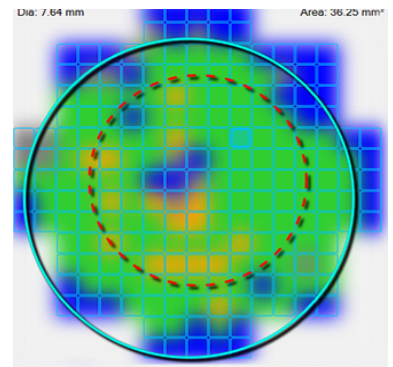


ScanMaster PA Probe

### 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

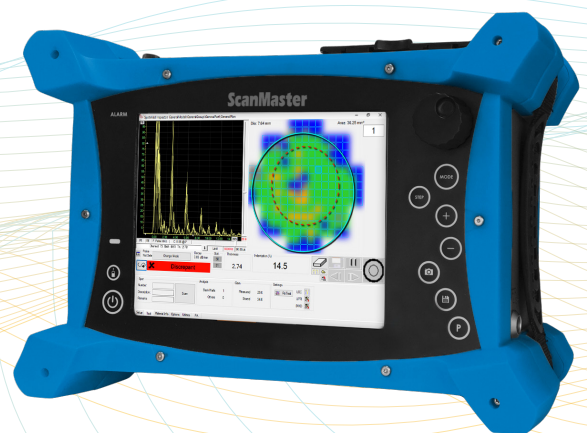
Using ScanMaster's field-proven sophisticated algorithm, each single element returns an autonomous measurement and decision during inspection, the information collected from all elements is gathered, and the combined data is integrated into a single automatic decision, with area and diameter measurements.



Matrix Weld Representation

### 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 @ 209 virtual elements
- 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  $\Omega$
  - 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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