

RSWA

RESISTANCE SPOT WELD ANALYZER

RSWA is a new ultrasonic device designed for quality control and NDE of resistance spot welds. RSWA was designed as a portable and simple-in-operation device capable of producing images of spot weld's internal structures. In addition to live on-screen image, this device performs estimation of the nugget diameter and compares it with predefined minimum nugget requirements.

Using the unique technology of multi-channel ultrasonic matrix transducer, RSWA collects data from the surface and from the internal structures of the nugget. Special algorithms use this data to reconstruct the image of the spot weld and estimate the average diameter of the nugget area in real time.



Features

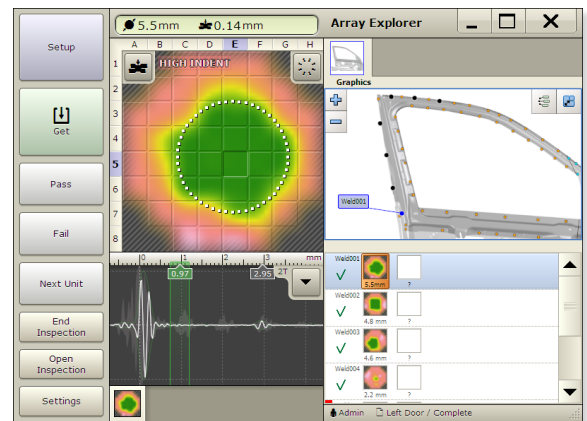
- single-frame and continuous (up to 3 fps) data acquisition modes
- automatic and manual nugget size estimation
- automatic detection of scanning depth inside the metal
- three levels of user interface complexity depending on operator skills
- built-in reporting system and file storage

Application

Metal stacks: 2T and 3T; 0.6 – 2.2 mm plate thicknesses

Types of materials: mild steel, high strength steel, dual phase ultra high strength steel

Coatings: bare, zinc coating (galvanized, galvanneal), e-coating, paint



Specifications

Processor

- Pentium III with Intel Speed Step technology, 600 MHz

RAM

- 256 MB

Hard Disk

- 2.5" 30GB IDE

Display

- 8.4" TFT/VE-TFT Color SVGA
- 800 × 600
- Resistive touch screen
- Replaceable screen protector

External Ports

- PC Card Slot: One Type-I or Type-II, PCMCIA CardBus version 3.0
- Compact Flash Card Slot: Standard 50-pin compact flash card connector

Integrated Interfaces:

- RJ-11 (modem), USB 1.0, DC-In, Mic. In, Stereo Out, IrDA 1.1

Power

- Main internal battery: 6-cell lithium ion pack; 10.8 V @ 3400 mAh
- Additional external battery: 80 Wh
- Average battery run time: 6 – 8 hours
- Recharge time: 4 – 8 hours
- External power adapter: 100 – 240 V, 50 – 60 Hz

Temperature Range

- 5° – 40° C (41° – 104° F)

Storage Temperature

- -20° – 60° C (-4° – 140° F)

Dimensions

- 32 × 20 × 7.5 cm (12.5 × 7.75 × 3 in)

Weight with Batteries

- 3 kg (7 lb)

Transducer

- 52 channels
- Matrix diameter: 10 mm
- Frequency: 15 MHz
- Stainless steel housing
- Polystyrene hard delay line

Cable

- Length: 2 m
- 52 coaxial channels
- Kevlar protective shell
- Additional fiberglass protective shell

Tessonics Corp.
2019 Hazel Str.
Birmingham, Michigan
48009, U.S.A.

Tessonics Inc.
1983 Ambassador Dr.
Windsor, Ontario
N9C 3R5 Canada

phone: 1-519-250-4455
toll free: 1-866-440-3313
fax: 1-519-250-5747

www.tessonics.com