



ROBOCON

The Only UT scanner you need!

Equipment Introduction



The SONAFLEX product range is completed with the newly available field service applications. Our SONAFLEX-WELD (aka “ROBOCON”) tool is an invaluable addition to the SONAFLEX series and accurately follows weld line via onboard sensors to provide totally wireless and tether-free weld inspection without frames or guides. The fastest scanner to deploy in the NDT field inspection industry, the “ROBOCON” is fully self-contained with onboard ultrasonic electronics, microprocessor, couplant supply tank and drive system to inspect longitudinal or circumferential welds on pipelines or other vessel types.

Using Bluetooth and Wi-Fi, inspection is performed with minimal operator involvement. Our “Gyro-Encoding system” accurately maintains position data and works with weld tracking sensors to assure maintained position on weld seam while scanning. Being battery operated, it boasts a 4-hour battery life in typical applications and has a fast change battery system to allow the inspection to proceed with minimal delays.

The “ROBOCON” is the answer to the NDT field service industry’s needs of minimal setup for an inspection and rapid weld inspection at competitive rates to differentiate the inspection service lab from their competition. Our “ROBOCON” is also designed to accept further modular accessories to permit use with EC, MFL, Vision and other techniques as your needs mature. “ROBOCON” should be the only scanner you need!

Short Specification

“ROBOCON” consists of a motorized trolley and an operation station in the form of a Laptop/Tablet (PC1).

The trolley is equipped with UT-electronics, UT-probes, battery, two couplant tanks, weld seam tracking system, and includes an industrial controller with micro PC on board (PC2).

PC2 controls electronics, collects and processes raw test data from electronics, and provides reliable Wi-Fi communication with PC1 via our intelligent communication platform.

The sophisticated test-electronics are connected to two pairs of phase array UT-probes (PAP):

- Two PAP's are intended for a classical examination of weld seams,
- Two more phase array probes are implemented to create TOFD-configuration.

TOFD phase array probes and their test electronics allow one to transmit and receive extremely short acoustical pulses. The direction of transmission/receiving is controlled by our intelligent electronics. Scanning parameters are easily configured and set by operator, via the operator friendly communication interface of PC's 1&2.

Accurate Weld tracking system and advanced test electronics provides a high level of noise immunity, reliability, and reproducibility of both test results and ultrasonic examination.

A-scans, B-scans, C-scans and S-scans are available.

Main technical parameters.

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| ▪ Test velocity, mm/s: | 30-100 |
| ▪ Number of phase array UT-probes: | 4 |
| ▪ UT-frequency range available, MHz: | 5 – 10 |
| ▪ Typical precision of the weld tracking system, mm: | +/-1; |
| ▪ Minimal range of wall thicknesses, mm: | 5 – 50 |
| ▪ Trolley Weight : | 26 kg |

ROBOCON is a durable and reliable instrument for many field applications, including severely hot desert or cold polar environments. ROBOCON is the only solution needed for pipeline inspections.

