FOERSTER

SONATEST WAVE

Portable ultrasonic flaw detector with interactive scan plan and real-time ray tracing for complex geometries

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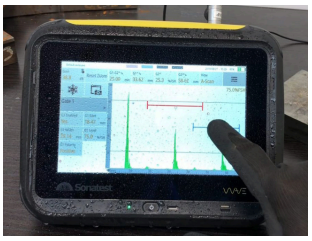

Complex geometries. Clearer interpretation. The SONATEST WAVE is a portable ultrasonic flaw detector for manual inspection of welds, complex component geometries, and other industrial applications. It combines powerful ultrasonic testing capabilities with intuitive operation and advanced functions that support reliable evaluation of inspection indications.

A key feature is the interactive scan plan with real-time ray tracing. It visualizes the sound path within the test object and supports the interpretation of indications, particularly in complex geometries. Curved surfaces, T-joints, nozzles, and flanges can be represented, while custom geometries can be imported using CAD data. This makes it easier to distinguish actual flaws from geometry-related indications and helps avoid unnecessary repairs.

With the WAVE Application Concept, the device can be adapted to different inspection tasks and user requirements. Up to 50 applications can be stored on the device. The WAVE Companion software allows users to manage applications, inspection data, and custom geometries and to customize the user interface. Menus can be hidden, locked, or arranged according to the respective inspection task, creating clear workflows and helping to reduce operating errors.

WAVE UTouch Technology provides intuitive multi-touch operation and distinguishes between finger input and ultrasonic couplant on the display. Combined with its rugged design, a weight of just 1.7 kg, up to 10 hours of battery life, and integrated Wi-Fi, the WAVE is well equipped for flexible use in industrial environments and in the field.

YOUR ADVANTAGES AT A GLANCE

Reliable evaluation of inspection indications: The interactive scan plan and real-time ray tracing visualize the sound path, making it easier to distinguish flaws from geometry-related indications

Flexible inspection of complex geometries: Predefined component geometries and the option to import custom CAD data extend the possibilities for inspecting demanding test objects

Application-specific inspection workflows: Up to 50 applications and customizable user interfaces allow the device to be configured for different inspection tasks

Intuitive operation: Industrial multi-touch technology reliably detects finger input and distinguishes it from ultrasonic couplant

Comprehensive evaluation capabilities: Functions including DAC/Split DAC, TCG, AVG/DGS, AWS, and Curved Surface Correction support a wide range of inspection requirements

Portable and rugged: Up to 10 hours of battery life, a weight of just 1.7 kg, and a design intended for IP67 support flexible use in the field

NORMS

DIN EN ISO 22232-1: Specifies the characterization and verification requirements for ultrasonic test instruments used in non-destructive testing.

TECHNICAL INFORMATION

DISPLAY:	7" multi-touch display, 1024 × 600 px
IP RATING:	Designed for IP67
WEIGHT:	1.7 kg
DIMENSIONS:	222 × 174 × 63 mm
OPERATING TEMPERATURE:	-10 °C to +45 °C
BATTERY LIFE:	Up to 10 hours
WI-FI:	Integrated
PULSER VOLTAGE:	100 – 500 V
PRF:	Up to 1500 Hz
GAIN RANGE:	110 dB
BANDWIDTH:	0.25 – 30 MHz
FILTERS:	26
GATES:	4
EVALUATION METHODS:	DAC/Split DAC, TCG, AVG/DGS, AWS, API, BEA
COMPLEX GEOMETRY FUNCTIONS:	Curved Surface Correction (CSC), TKY and complex shapes

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