

NEW



- CORROSION MODULE
- TROUGH COAT MEASUREMENT
- PRECISION MEASUREMENT
- TIME ENCODED B-SCAN
- FLAW DETECTOR UPGRADE
- BEST IN CLASS PERFORMANCE

ADVANCED ULTRASONIC A-/B-SCAN WALL THICKNESS GAGE

# SONOWALL 70

FOR NONDESTRUCTIVE TESTING

MADE IN GERMANY

SONOTEC 

# SONOWALL 70 - ADVANTAGES AT A GLANCE

## BOOST YOUR PRODUCTIVITY

More built-in features for even greater efficiency: Advanced corrosion module with easy setup for test path grid creation, data logger for rapid measurement savings with 16 GB internal memory, multi layer measurement with up to 4 layers measured simultaneously, extended accuracy mode which increases the resolution up to 0.001 mm, temperature compensation for automatic measurement recalculation of hot or cold test objects, high penetration option improving measurements on highly attenuating materials and more...

## CUSTOMIZEABLE DISPLAY AND KEY ASSIGNMENT

Flexible measurement value selection, flexible key assignment for optimal gage configuration for your application.

## FAST RESULT EVALUATION

The adjustable min/max tolerance generates an alarm signal, when the threshold is exceeded, additionally the color coded bar graph helps evaluating by giving a constant feedback during the measurement.

## MULTIPLE MEASUREMENT MODES

Digital reading of selected values, A-scan and B-scan mode.

## LARGEST A-SCAN PRESENTATION IN ITS CLASS

The automatic „Flip screen“ function features a high-resolution A-scan display of 470 x 256 pixels in portrait mode and stunning 790 x 470 pixels in full screen landscape mode - much bigger than in other devices. The A-scan size assures a perfect amplitude presentation for hours of testing.

## ONE CLICK SETUP LOAD

The setup data base allows to load previously saved setups without complicated data re-entry. A setup can also be loaded from previously made screenshots.

## SONO-ID WIRELESS PROBE IDENTIFICATION

The SONOWALL 70 is the first thickness gage in the market with intelligent wireless probe recognition.

In addition, the extended probe management enables probe-specific information, such as DAC-curves, delay lines and serial numbers, to be saved directly in the probe.



## ONBOARD PDF READER

The operation manual is stored in the device memory; an integrated PDF reader can also display personal files.

## GRAB AND GO SIMPLICITY

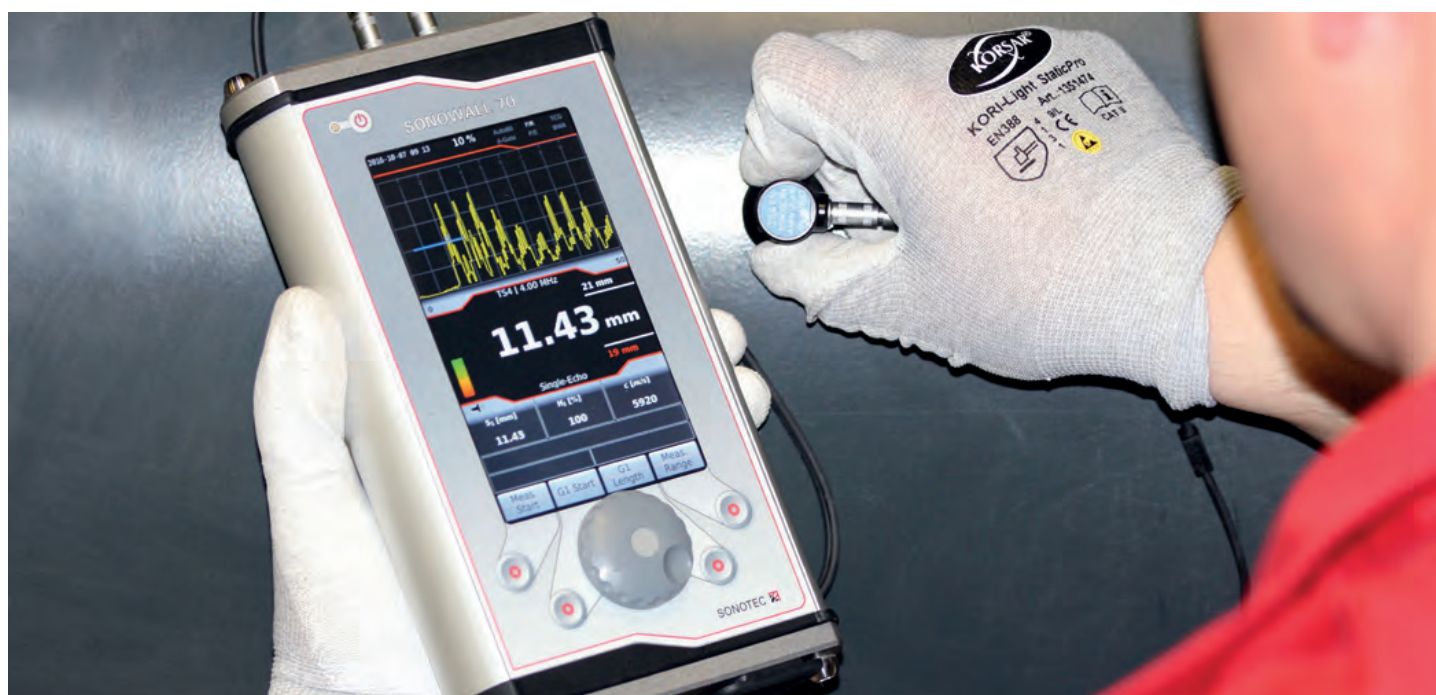
Simple and extremely intuitive menu with clear structure and full text. Intuitive interface, light-weight and eye friendly design, ergonomic one-hand-button navigation and automatic screen rotation for portrait or landscape view makes the SONOWALL 70 amazingly comfortable to operate - even in hard to reach areas.

## ROBUST AND RELIABLE

Aluminum housing, IP 67 protected and the broadest operating temperature range in its class - from -20 to +60 °C.

## DOCUMENTATION +

Quick report generation in CSV format, easy transfer via mini SD card or mini USB for fast documentation of your work.



The SONOWALL 70 is designed for the harshest environments and your toughest inspection jobs.

# MULTIPLE MEASUREMENT FEATURES

The powerful SONOWALL 70 is perfect for a wide range of ultrasonic wall thickness measurement applications including standard testing of metals, glass, ceramics. In high penetration mode high attenuating materials become possible to measure such as composites, plastics, rubber, fiberglass or thick castings. The SONOWALL 70 is capable of measuring rough materials, through coatings and even objects with multiple layers with separate

measurements for each layer of different material. The precision module of the device can measure very thin materials with a high resolution. Via time encoded B-scan you can display a detailed cross section of the tested specimen along one axis. A wide selection of SONOTEC probes and the fact that other manufacturer's probes can be connected easily makes the SONOWALL 70 the most versatile wall thickness device on the market.

## CORROSION MEASUREMENT

### Features:

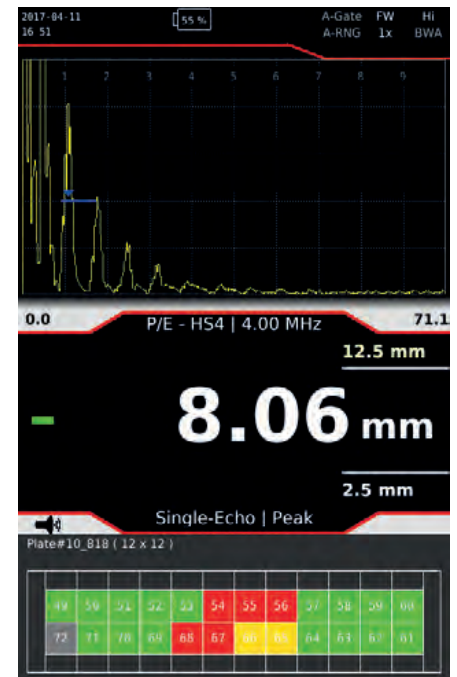
- Intuitive grid of the test path
- Measurement and A-scan saving by single button click
- Automatic grid repetition after last measurement
- Color coded grid visualization according to selected limits
- Differential and percentage value of wall loss
- Fully customizable corrosion survey report in CSV format

### Benefits:

- Fast and accurate measurements and data logging
- Clear visualization of all measuring points in the grid
- Avoiding mistakes: measured points are colored
- Points can be edited anytime
- Fast and convenient reporting
- No need for hand written paperwork

Thresholds, measurement result and evaluation at a glance

Grid with color coded visualisation of tested points

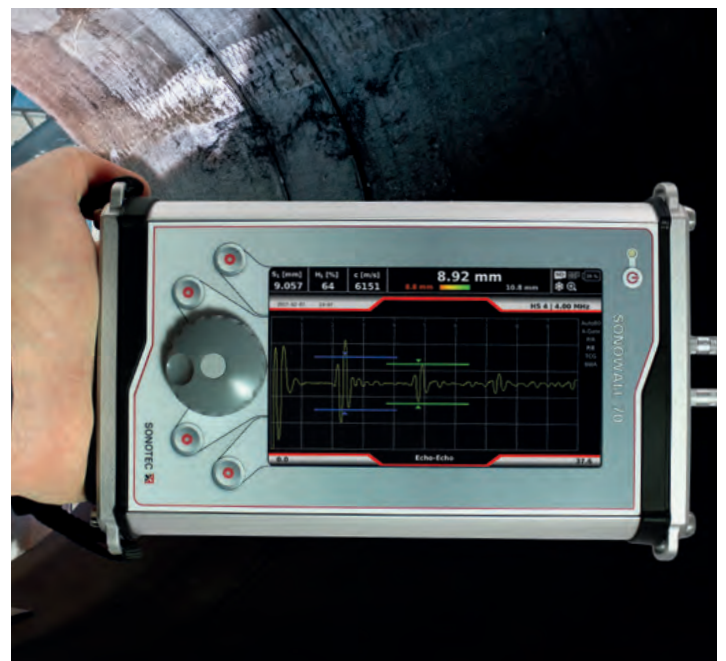


## UPGRADE TO FULL FUNCTION FLAW DETECTOR

The SONOWALL 70 can be used in two operating modes - wall thickness mode and flaw detector mode. Both software modes can easily be updated vice versa.

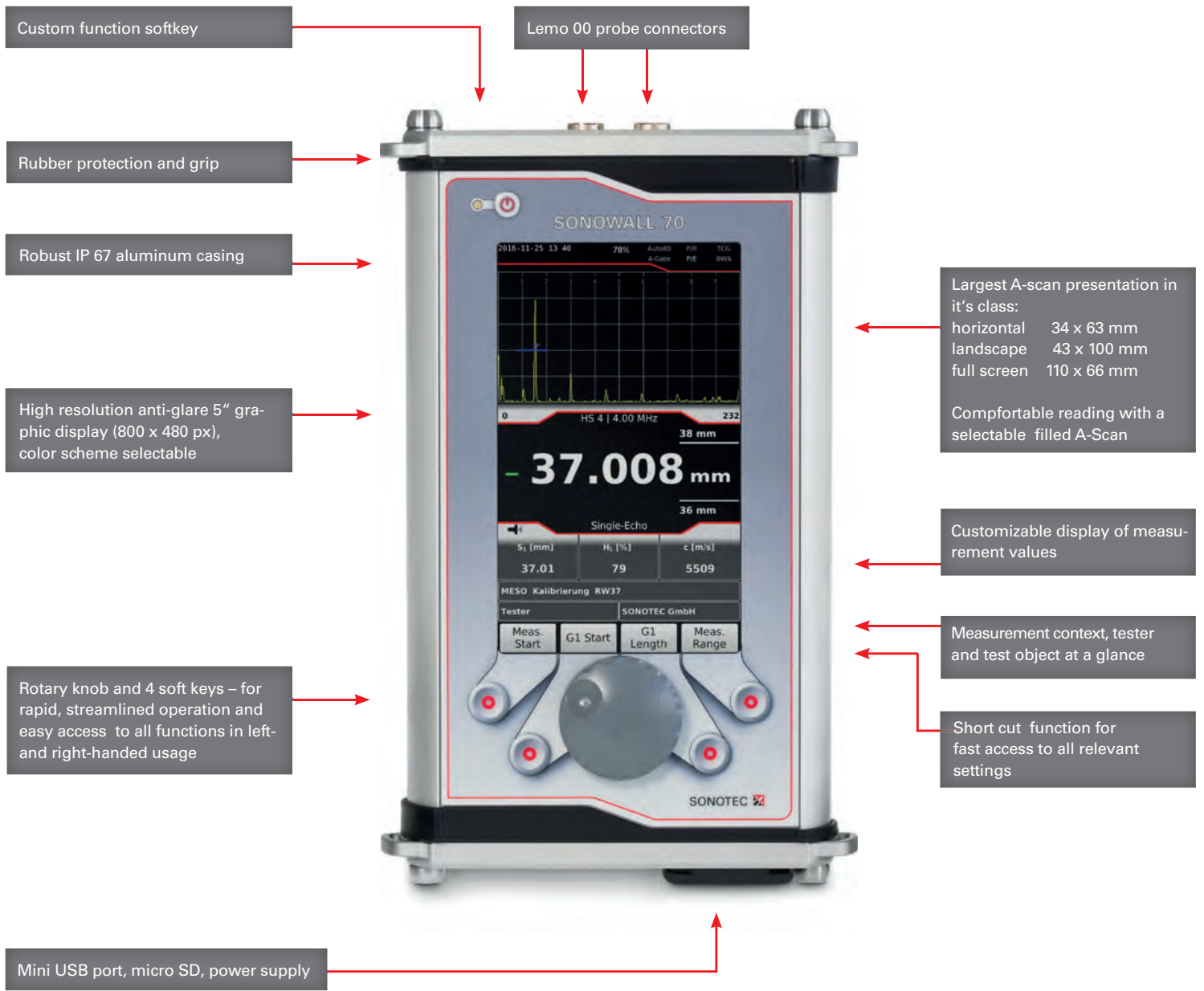
- DGS,
- DAC with TCG
- AWS D1.1,
- Backwall echo attenuation
- Automatic gates
- SONO-ID
- CSV reporting

The focus of all processes is on a quick device set-up, a clear measurement display and a reliable evaluation of results. There are many intuitive functions implemented to significantly reduce the operating time of the device so you can focus on the actual application task. Via SONO-ID you can recall test setups extremely fast and have the equipment ready to work in seconds.



Upgradeable to a full function flaw detector via software update.

# A CLOSER LOOK AT THE SONOWALL 70



## WHAT IS IN THE FULL PACKAGE

- WALL THICKNESS GAGE
- + Echo-echo and single-echo mode ...
  - + Through coat measurement ...
  - + High penetration mode ...
  - + Corrosion module ...
  - + Multi-layer measurement ...
  - + A- and B-scan ...
  - + Precision mode ...
  - + CSV report generation ...
  - + Video output ...
  - + Single and dual element probe operation ...
- + FLAW DETECTOR UPGRADE



Hand-strap for single hand operation



✔ Wall thickness measurement of different materials (metals, rubber, glass, plastic, etc.)

✔ Wall thickness measurement through coatings of different materials

✔ Thickness measurement of multilayer materials (Composites)

✔ Tough coating measurements

✔ Corrosion monitoring

✔ Maintenance checks

✔ Oxide scale measurements

✔ Sound velocity measurements to estimate elastic modulus

✔ Measurement of even thick castings and forgings



# TECHNICAL DATA SONOWALL 70

<b>Standards</b>	DIN EN 15317, DIN EN 61326, ASTM E 1324, ASTM E 317
<b>Operating temperature</b>	-20 to +60 °C
<b>Screen</b>	5" TFT Screen, 800 x 480 pixels, 60 Hz
<b>Measurement methods</b>	Single-Echo, Echo-Echo
<b>Size (W x H x D)</b>	195 x 115 x 40 mm
<b>Weight</b>	990 g
<b>Case</b>	Aluminum
<b>Protection class</b>	IP 67
<b>Battery</b>	Li-Ion, up to 12 h operation
<b>Wireless probe recognition</b>	Available for selected SONOSCAN probes via SONO-ID
<b>Internal memory</b>	16 GB
<b>Memory card</b>	microSD up to 128 GB
<b>Video output</b>	Optional (LDVS, DVI or HDMI connector)
<b>Reporting</b>	JPEG, PNG, CSV report files
<b>Transmitter</b>	
<b>Frequency</b>	0.5 to 15 MHz (up to 30 MHz optional)
<b>Pulse</b>	Negative rectangle (single pulse)
<b>Pulse width</b>	20 to 500 ns, in steps of 5 ns
<b>Amplitude</b>	0 to 400 V, in steps of 10 V
<b>Output impedance</b>	50 Ohm, 400 Ohm

<b>Pulser</b>	Adjustable up to 400 V
<b>Damping</b>	50 Ohm; 400 Ohm
<b>Receiver</b>	
<b>Dynamic range</b>	Up to 130 dB
<b>Amplifier bandwidth</b>	0.2 to 20 MHz
<b>Digital filters</b>	0.5, 1, 2, 2.25, 4, 5, 7.5, 10, 15, 0.5 - 20 MHz
<b>PRF</b>	45 Hz
<b>Input impedance</b>	500 Ohm (in T/R-mode)
<b>Probes compatibility</b>	Single and dual element (manufacturer independent)
<b>Resolution</b>	Up to 0.001 mm
<b>Scan</b>	100 MSps @ 12 Bit
<b>Gates</b>	Up to 4 independent gates, automatic
<b>Measurement range</b>	Up to 10 000 mm
<b>Probe connectors</b>	2x LEMO (IP 67 compliant)
<b>Functionalities</b>	<ul style="list-style-type: none"> <li>- V/W error correction</li> <li>- Automatic gates</li> <li>- Subsequent measurement of frozen A-scan</li> <li>- High penetration option</li> <li>- Differential and % wall loss</li> <li>- Time encoded B-scan option</li> <li>- Temperature compensation</li> <li>- Through coating measurement</li> <li>- Multi-layer measurement</li> <li>- Sound velocity measurement</li> </ul>

## SONOSCAN ULTRASONIC PROBES

We offer an extensive range of different SONOSCAN probes - standard probes and probes with SONO-ID. Simply choose the probe that matches your application from our product range.



**ANGLE BEAM PROBES** – in a range of sizes, angles and frequencies



**STRAIGHT BEAM PROBES** – pulse-echo and dual element probes for precise wall thickness measurement

## ULTRASONIC TESTING TECHNOLOGY MADE IN GERMANY

SONOTEC was founded in 1991 by the two physicists Dr. Santer zur Horst-Meyer and Hans-Joachim Münch and is still owner operated. With currently more than 140 employees SONOTEC is a growing technology company highly renowned as solution

provider for ultrasonic measurement technologies especially in the field of nondestructive testing (NDT). The integration of a strong R&D department and flexible manufacturing makes SONOTEC the ideal partner for your NDT tasks.

SONOTEC preserves the right to change technical specifications without further notice. (Rev. 1 / 2017-04-27)

### FAST SERVICE & PROFESSIONAL SUPPORT

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