NextSPOT 600

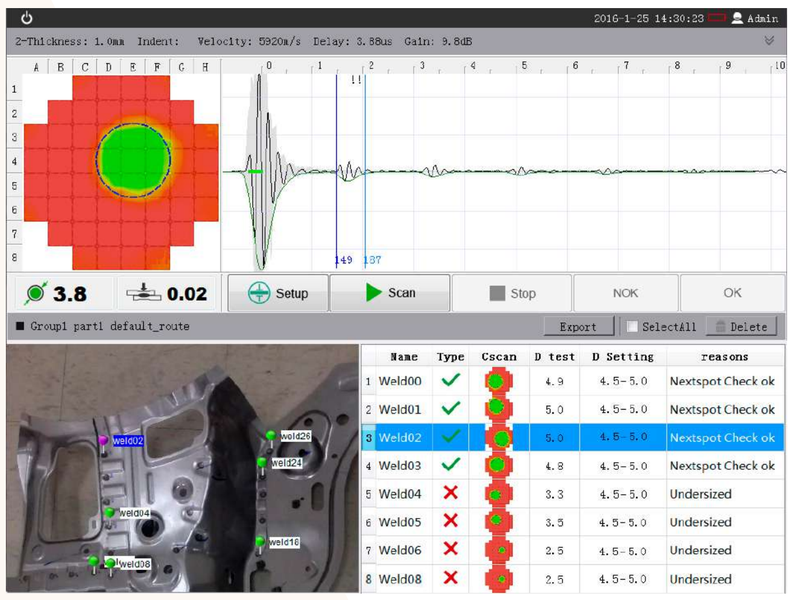
Spot Weld Phased Array Ultrasonic Flaw Detector

Power Generation Manufacturing Automotive Transportation Oil & Gas Areospace

NEXT NDT
Safety of The Future

Ultrasonic Phased Array Spot Weld Detector

NextSPOT **600**
ultrasonic flaw detector will
handle all your spots weld NDT needs, whether
it is in production lines or in fieldenvironments. The unit is constructed
with an one piece all aluminum housing, that is both rugged and lightweight, with a weather
protected rubber coating on the outside. Using patented technologies, backed by years of R&D in the NDT industry, **Next**SPOT 600 can produce real-time imaging with auto-detection on spot weld flaws both quickly and accurately. In today's ever increasing competitiveness in the automotive manufacturing segment, NextSPOT 600 with its easy-to-use and its powerful feature interface can save valuable time and increase productivity.



NextSPOT User Interface

Rugged and Portable - All Aluminum Alloy

NextSPOT 600 is constructed with an all aluminum alloy shell with 360° shielding. It adopts a one-piece aluminum alloy with rubber coating that makes it rugged, lightweight, and compact. The unit is also weather protected and stress tested so that It can operate from -10°C ~ 50°C. Weighing at only **Next**SPOT 600 is both portable and reliable, especially for conducting field testing.

Long Battery Life - ARM Technology

NextSPOT 600 uses the ARM processor, which know for enery efficient, and along with a fanless design, a fully charged unit can perform 10 hours of normal operation (1 battery), and requires only 3 hours for a complete recharge.

Powerful, Flexible, yet Easy-To-Use Software

At the heart of the device is our **Next**Soft Analyser user interface that we build from the ground up. Built on top of the Linux OS platform, it provides a safe, reliable and stable platform for our software system. Boasting a 10 seconds startup time, it can be quickly and easily setup to perform real-time image scanning on spot welds.

Ultrasonic Flaw Spot Weld Dectector

Accurate Measurement - 64 Channels, 1MHz - 25MHz Bandwidth, 400 Mhz/12 bits DSP

By adopting a parallel 64 channel design, 1MHz-25 MHz analog bandwidth, and 12 bits DSP, it gives **Next**SPOT 600 the most accurate measurement of welding nuggets and indentations. Furthermore, the results are all visual and can be immediately determined whether the results are passed or failed.

Real-time Imaging and Other Testing Methods

NextSPOT 600 can provide A & C scan and real-time display on spot weld. It can also support single element probe testing, PA imaging testing as well as various non-ultrasonic methods, data capture, chisel inspection, visual inspection, and many more.

Exceptional Visual Interface - 10.4 inches Full TouchScreen with XGA Wide-angle View

Testing in the field are often conducted in harsh environments where visibility may be poor and requires having to wear gloves. The **Next**SPOT 600's 10.4 inch full touchscreen with XGA wide-angle viewing help address these common issues all while giving you the most accurate visual results and feedbacks.

Application

Joint Structures
2-Layers, 3-Layers, and 4-layers (Non-Glue/Glue Bonded)

Plate Thickness Calibration
0.5 mm ~ 4.0 mm

Material Coverage
Mild steel, Cold Pressed High Strength Steel, Hot Stamped Ultra High Strength Steel, Aluminum Alloys, Stainless Steel, and Titanium

Surface Processing
Bare Metal, Al-Coating, Zinc Coating, Electrophoretic Coating, and Paint Coating.

Ultrasonic Matrix Transducer

52 Channels
Matrix Diameter: 10 mm
Frequency: 16 MHz
Stainless steel housing
Hard delay line

Available Size - Tip Diameter

10, 15, 20 mm

Cabling

Length: Custom
52 coaxial channels
Protective Shell

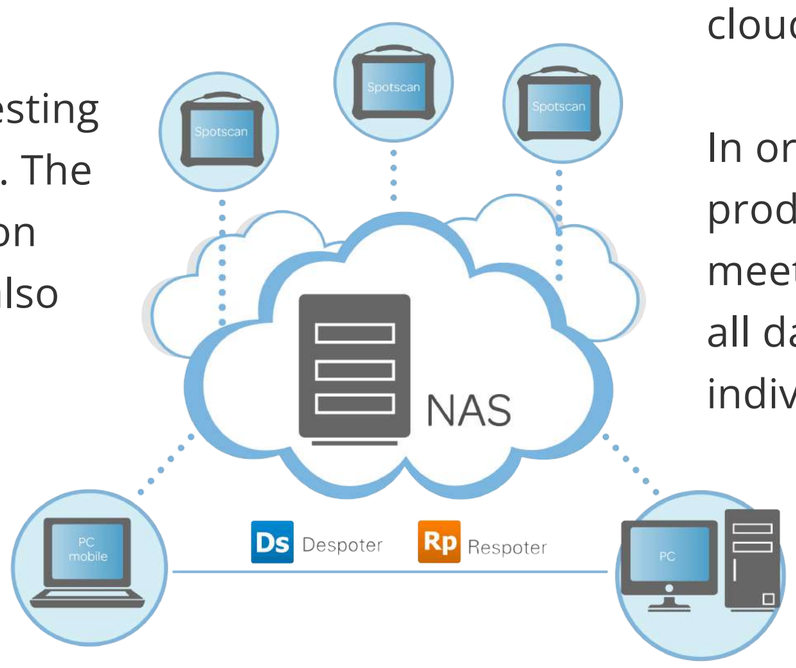
KEY FEATURES

1. Real-Time Detect and Visual Feedback
2. Multi-Channel Phased Array System
3. 10.4" Touchscreen XGA Wide-Angle View
4. **Next**SOFT Studio Cloud Data Management

Complete Spot Weld Management Software Solution

NextSOFT Studio Admin

The admin version can upload any testing required part images into the system. The system can then create visual labels on exactly where and what to test, and also setup the testing sequences. All inspection points' results will then be individually captured and logged into a database for further statistical evaluation.



NextNAS - An online browser-based spot weld management analyzer tool

Introducing **Next**NAS...An online browser-based spot weld management analyzer tool where your data can be hostedonline and share globally. Here you can customize your dashboard, create custom reports, drill down to individual spot weld detail with full graphs and graphics. To learn more, please contact your local representative for a full demonstration.

- Dashboard
- Detector Monitor
- Database Management
- Report Manager
- Spot Weld Manager
- User Manager
- Many More ...

NextSOFT Studio Cloud - (Optional)

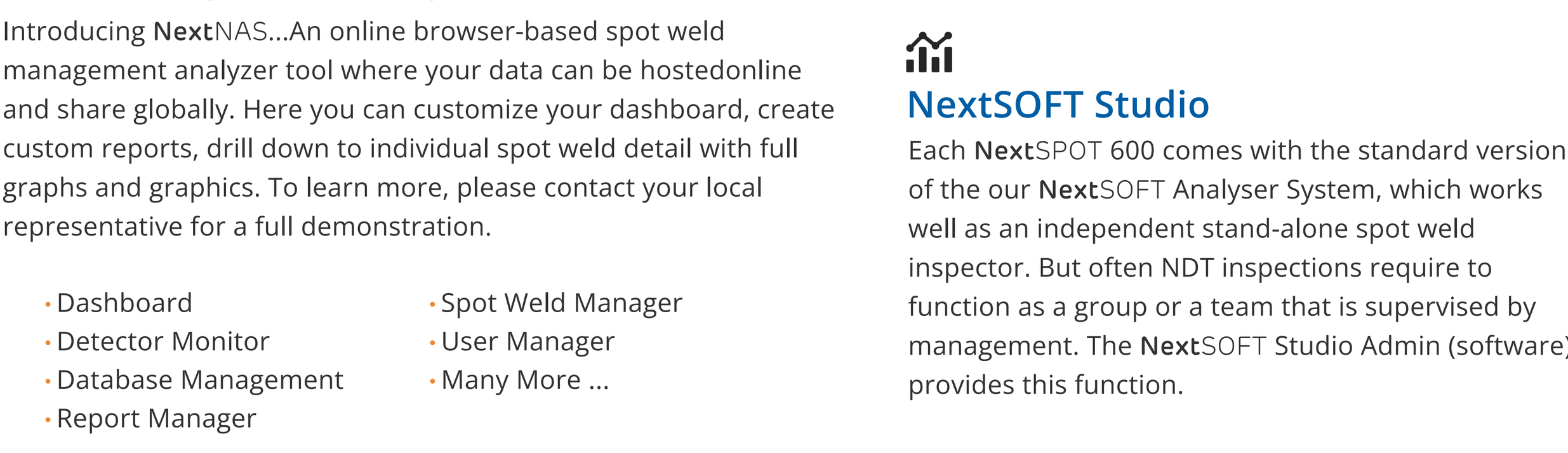
Our **Next**SOFT Studio Cloud is a cloud data managment tool that can synchronize data among multiple units of **Next**SPOT 600 devices via the cloud to a single repository location.

In order to manage a full team of inspectors in a production line and/or in a field environment that meet strict quality NDT management requirements, all data captured by each **Next**SPOT 600 unit can be individually upload data to a cloud based data repository along with information such as inspection plans, test location, test settings, and etc.

Once the data are in the cloud repository, they can be downloaded into a remote management system off-site for futher analysis.

NextSOFT Studio

Each **Next**SPOT 600 comes with the standard version of the our **Next**SOFT Analyser System, which works well as an independent stand-alone spot weld inspector. But often NDT inspections require to function as a group or a team that is supervised by management. The **Next**SOFT Studio Admin (software) provides this function.



NextSPOT 600
Specification

Housing

Overall Dimensions	315 mm × 247 mm × 68.7 mm (12.3 in. × 9.7 in. × 2.7 in.)
Weight	4 kg (8.8 lb) with battery
IP	IP 54
Control Device	Remote control,Touch screen
Probe	D-sub 68 - Matrix
Power Socket	5.5-2.5 mm DC Socket

Display

Display size	11.6 in
Resolution	1920 x 1080
Brightness	600 cd/m
Viewing angles	Horizontal: –85° to 85° Vertical: –85° to 85°
Type	TFT LCD

Ultrasound Specifications

Number of Channels/Elements	64 Channels / 52 Elements
Voltage	50 V
Pulse shape	Negative square wave
Initial pulse rise time	< 2.5 ns
Damping	50 ohm
Thickness Measuring Range	0.5 - 9mm
Velocity range	2000 - 8000 m/s
Probe delay	2 - 8 us
Frequency (Center Frequency)	1Mhz - 25 Mhz (16MHz)
Gain	40 dB
Sampling	12 bit 100 MSPS

Environmental Specifications

Operating Temperature	-10°C to 50°C (14°F to 122°F)
Storage Temperature	-20°C to 60°C (-4°F to 140°F) with battery -20°C to 70°C (-4°F to 158°F) without battery
Relative humidity	Max. 70% RH at 45°C noncondensing

Power Supply

Battery type	Smart Li-ion battery
Number of batteries	1 Included. Can hold up to 2 batteries.
Battery life	Approximately 12 hours under normal operating conditions
Power supply unit	100 - 240 V AC, 47 - 63 Hz, 1.45 A
PRF	8K Hz(No continuous pulse series)

Data & Views

Display mode	A-scan, C-scan
Welding Nugget	Real-time welding nugget diameter measurement
Indentation	Real-time detect, Smart Average
Stack of Welding Joint	Real-time detect, Smart Average
Data Synchronism	USB; NAS (Optional)

Note: We reserve the rights to technical modifications without prior notice.Always refer to our website for the latest info.

NextNDT Technology, Inc.
1580 Oakland Rd, Suite C209
San Jose. CA 95131 USA
sales@nextndt.com - NextNDT.com