

Technology Driven  
Not Operator  
Dependent



**SILVERWING**  
Specialist Inspection Equipment

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Not Operator  
Dependent

**Technical Specification - Scanner**

Dimensions:	L - 122 mm W - 65 mm H - 54 mm
Weight:	550 g
Wheel Probe:	TWP25 5MHz Dry Coupled wheel probe
Encoder:	Optical encoder
Umbilical:	2 metre

**Technical Specification - UT Module (UT400)**

Dimensions:	L - 260 mm W - 160 mm H - 60 mm
Weight:	2.0 Kg
Battery:	Removable 10.8 Volts 4.6 Amp - Upto 12 hours operation from full charge
Charger:	Upto 4 hours charge from flat
Umbilical Cable:	2 metre
Pulse Voltage:	-400V
Pulse Shape: Spike	Spike
Receiver Gain:	0 - 80dB in 1dB steps
Filters:	Wideband (0.5 - 18MHz) 0.5 - 4.0 MHz 2.0 - 8.0 MHz 4.0 - 16.0 MHz 6.0 - 24.0 MHz
Sample rate:	50MHz
Waveform Length:	32768 samples (excl Delay)
Transducer Range:	1.0MHz - 15MHz
Transducer Mode:	Single or dual via software
Computer Interface:	USB 2.0
Connectors:	Encoder - 25 way D type socket UT - 2x BNC (Tx & Rx) Data - IP68 USB 'B' Charger - 1.5 Amp / Tamiya Connector

**R-Scan Lite**



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## A manual B-scan imaging system for plate and pipework from 50mm diameter to flat



R-scan Lite is a portable, battery operated PC based digital ultrasonic B-scan imaging system designed for ease of operation within the Petro-Chemical environment.

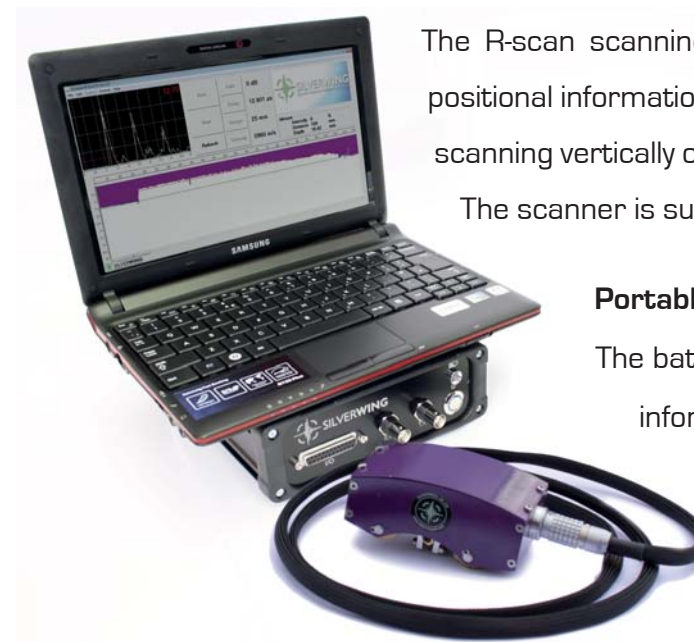
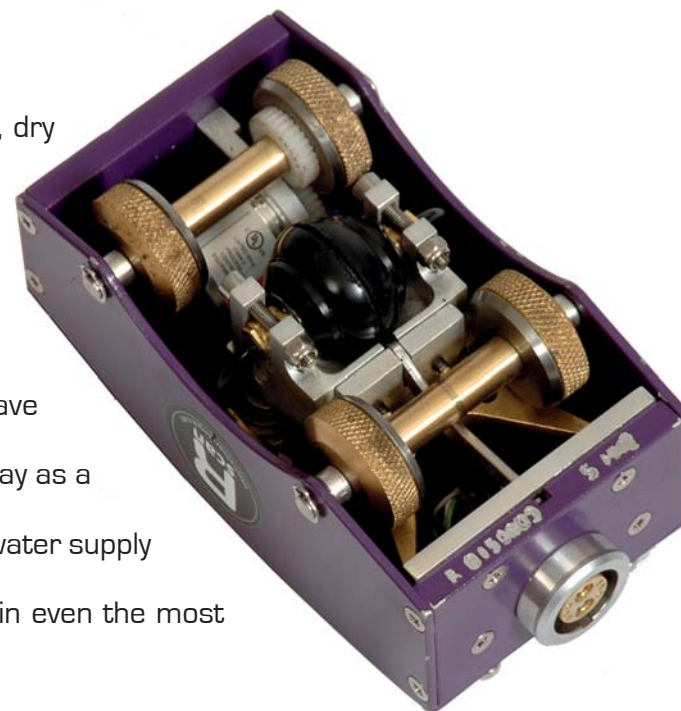
The R-scan Lite can be used on a wide variety of components ranging from 50mm diameter pipe up to a flat surface. The R-scan Lite is simple to set up and is highly portable while providing detailed and accurate ultrasonic thickness information. Inspection results can be viewed in real time in the field or recalled for post inspection analysis at a later date.

The R-scan Lite system continuously records thickness measurements as the scanning head is moved over the

inspection surface. The recorded thickness information is presented as an A-scan trace, a digital thickness measurement and a B-scan thickness profile. The system comprises a manually operated R-scan scanning head fitted with a dry coupled wheel probe, a portable ultrasonic module, a netbook or tablet computer.

### R-Scan Lite Scanner:

The R-scan lite scanning head incorporates Silverwings unique, dry coupled wheel probe. The dry-coupled wheel probe is constructed from a twin element 5Mhz transducer, mounted inside solid tyres. The wheel probe tyres are made from a unique material that is able to transmit the ultrasonic sound wave from the transducer into the material under test in the same way as a liquid or gel couplant. This completely eliminates the need for a water supply when using the R-Scan Lite and allows the system to be used in even the most remote locations.



The R-scan scanning head is fitted with an optical encoder to provide accurate positional information for recorded scan data. Magnetic scanner wheels assist while scanning vertically or while inverted and minimise the possibility of encoder slippage.

The scanner is suitable for both plate and pipe from 50mm diameter to flat.

### Portable Ultrasonic Module - UT400:

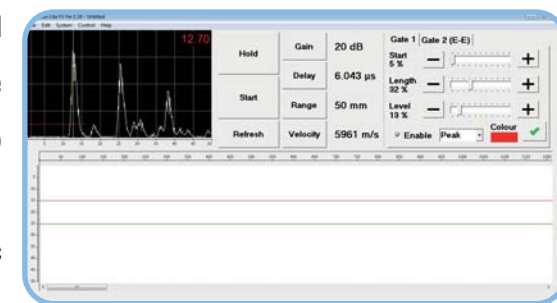
The battery powered ultrasonic module processes the UT and encoder information from the scanner and base unit. The ultrasonic module is powered by an internal 12 volt battery which will operate continuously for upto 12 hours from a fully charged battery. Supplied with the unit is a shoulder bag making it easier for the operator whilst on site.

### R-Scan Lite Software

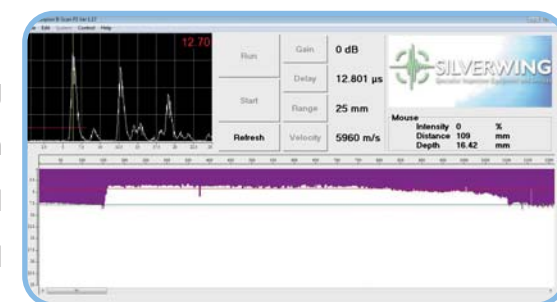
The R-scan Lite software is designed with similar controls to a standard ultrasonic flaw detector so a trained operator can quickly become familiar with all controls and functions. The software includes a set-up wizard that takes the operator through each stage of the set-up in a logical sequence. The setup wizard automatically adjusts all ultrasonic parameters from 2 known material thicknesses, and prompts the operator to enter gate settings and inspection details.

The software features several powerful data review and report printing tools. Saved data can be replayed at any time, for post inspection analysis. An adjustable reporting threshold indicator can be displayed over the B-scan profile, to identify reportable defects at a glance and allow rapid analysis of the complete scan.

In addition to the automated report printing tools, B-scan profiles, thickness measurements and A-scans can be exported allowing a custom report to be generated using a preferred format. R-scan Lite data can also be exported as CSV files for use with spread-sheet software such as Microsoft excel.



A-scan Setup



Adjustable Reporting Threshold Indicator