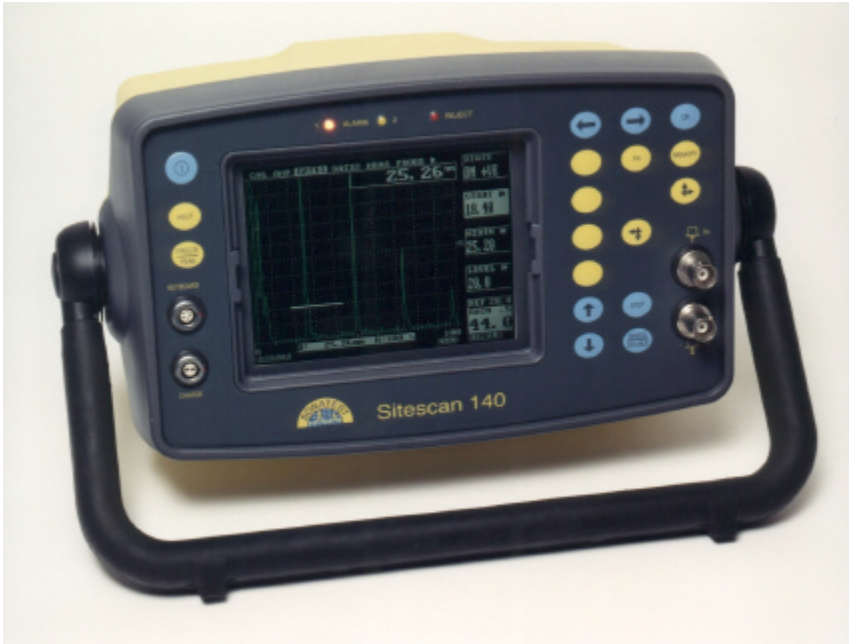


SONATEST SITESCAN 140

LIGHT WEIGHT ULTRASONIC FLAW DETECTOR



- ◆ Square wave pulser
- ◆ Broadband amplifier for high frequency, high damped transducers
- ◆ Choice of Colour Display with Reference waveform for defect identification, or High visibility LCD
- ◆ DAC and AWS curves
- ◆ HELP function
- ◆ Storage of set-ups, A-scans and thickness results.
- ◆ Video and Analogue outputs
- ◆ RS232 Interface
- ◆ Up to 15hrs operation from Li-ion battery pack (LCD Version)
- ◆ Waterproof (IP67 Protection)
- ◆ Low weight: 2.5kg

The SITESCAN 140 digital ultrasonic flaw detector builds on the strengths of the well proven SITESCAN 120 and 130 Instruments, updated to provide new features and enhanced performance in a lightweight, rugged, waterproof package.

The features you need

The fixed width square-wave pulser and wideband amplifier minimise adjustment and give good results for all basic applications. DAC curves and AWS method software assist interpretation of signals in accordance with standard procedures.

Stored calibration set-ups minimize time spent on the job site.

Easy to Learn, Easy to use

The SITESCAN range has been widely praised for its 'user friendly' menu structure, built in Help and instant access gain controls.

Users familiar with the previous generation of Sonatest Digital Flaw detectors will feel 'at home' immediately. Those converting from other instruments should find the task straightforward

Choice of Displays

Two versions are available. A high brightness TFT display provides a choice of colours. Reference software assists the operator in distinguishing defect indications from expected 'artefacts'.

The monochrome LCD exchanges this for superior visibility in bright light, invaluable in many outdoor applications.

The video output allows a head-mounted eyepiece to be used so that the operator can see ultrasonic signals

without taking his eyes off the job.

All menus are clearly seen without obscuring the A-scan display, Gain settings are continuously displayed in all menus, providing instant access.

Measurement options.

A wide choice is available: The SITESCAN 140 provides single echo as well as echo to echo measurements using flank or peak triggering.

Extended gate to gate measurement allows different echoes, of differing amplitude or polarity, to be used as the reference points. Alarms may be used with unrectified signal display.

The 0.001" (0.01mm) resolution includes the option to display trigonometric values for beam path length, surface distance, and depth. .

Analogue proportional outputs allow interfacing to Chart recorders, data loggers or other systems

Computer interfacing

An RS-232C bi-directional interface allows connection to printers, PC's or data loggers. A variety of software is available including the Sonatest data management Software (SDMS) which allows reporting and data storage via Windows.

The SS140 allows collection of up to 2000 thickness readings in a predetermined work pattern. These can be easily transferred into an Excel Spreadsheet.

SITESCAN 140

SPECIFICATION

Test Range:	5mm to 10000mm (0.2-400in) at steel velocity. Variable in 1,2,5 sequence, or continuously in 1mm (0.05in) increments. Also from 1 to 5000 (μ s).	Thickness Logging:	Storage for 2000 thickness readings configured into Block/Location/Number. Calibration settings stored with each Block. Maximum number of Blocks is 14. Unlimited Location/Number values, maximum combination of 2000 readings. Readings may be reviewed, edited and printed as required.
Velocity:	1000 to 9999m/s continuously variable.	DAC:	DAC curves may be entered and digitally drawn on the display. Reference, -6dB, -12 dB, -14dB curves may be selected. DAC curve selected acts as gate for alarm outputs and height measurement in DAC +dB. DAC parameters stored with Panel Memory. Curves available for ASME and JIS Codes.
Probe Zero:	0 to 999.999 μ s, continuously variable.	AWS	Built in Software for evaluation of defect indications in accordance with AWS standards
Delay:	Calibrated delay from 0-5000mm in 0.1mm steps at steel velocity (0-200in. in 0.05in steps).	Auto-Cal:	Provides Automatic calibration from two echoes.
Gain:	0 to 110dB. Adjustable in 0.5, 2, 6, 14 and 20dB steps. Direct access to gain control at all times.	Video:	Composite video selectable between NTSC and PAL.
Test Modes:	Pulse echo and transmit/receive.	Clock:	Sets time and date.
Pulsar:	Fixed square wave pulser 100ns duration, 185V peak amplitude	Reference	This menu displays a waveform from one of the A-Log stores as a reference or fingerprint display in a colour different from the active display highlighting differences from the reference.
P.R.F.:	Selectable 150,250,500 and 1000 Hz	Waveform:	Alphanumeric labelling for panel and A-Log allows the user to enter Notes for storage with A-scans.
Video Update	60Hz (NTSC Mode); 50Hz (PAL Mode).	Notes:	Allows the surface distance to be calculated from the front of the probe with X-offset being the distance from the index point to the front of the probe.
Rectification:	Full wave, positive or negative halfwave and unrectified rf.	X-Offset:	For capturing current A-scan image.
Frequency Range:	Broadband amplifier 1 to 10 MHz (-6dB)	Display Freeze:	
System Linearity:	Vertical \pm 1% Full Screen Height (FSH) Amplifier Accuracy \pm 0.1dB. Horizontal \pm 0.4% Full Screen Width (FSW).	Peak Memory:	For echodynamic pattern determination.
Reject:	50% suppressive reject. LED warning light when selected.	Keylock	Prevents accidental alteration of parameters
Units:	Metric (mm), inch (in), or Time (μ s).	Help Key:	For instant operator guidance on using the SITESCAN 140
Display:	A colour display, active area being 320 x 234 pixels, 102.72 mm wide by 74.76 mm high. The graticule areas is 250 + 5 pixels by 200 pixels, 80.25 + 1.6 by 63.8 mm. The LCD , the active area is 360 x 240 pixels, 96.0 mm wide by 72.00 mm. The graticule area is 250+5 pixels by 200 pixels, 75.0 + 1.5 by 60 mm.	Waveform Smoothing:	Gives a smooth signal envelope similar to the video filtering in analogue equipment.
Gate Monitor:	Two fully independent gates for echo monitoring and thickness measurement. Start and width adjustable over full range of unit, amplitude variable from 0 to 100% FSH. Bar presentation. Positive or negative triggering for each gate with visual and audible alarms.	Outputs:	Full bi-directional serial interface to transfer parameters, thickness readings and waveform memories. Composite video, full PAL or NTSC compatibility. Analogue proportional outputs programmable to distance or amplitude of signal in the gate.
Measurement Modes:		Power	Lithium Ion battery pack 14.4V, 5.0 Ampere-hours, gives 8 hours duration from a fully charged pack. (up to 15 hours with LCD) Indication of low battery status. Recharge time is two hours.
Mode 1	Signal monitor	Charger:	Mains input of 110 or 230 volts ac.
Mode 2	Depth and amplitude of first signal in gate.	Transducer Sockets:	BNC or LEMO (factory option)
Mode 3	Echo-to echo distance measurement. (single gate)	Environmental	To IP67
Mode 4	Trigonometric display of beam path, surface distance and depth of indication.	Temperature:	Operating -10 to +55°C. 14 to 131° F -20 to +70° C. -4 to 158° F (survivable)
Mode 5	T-Min mode for holding minimum thickness reading. Resolution to 0.01mm (0.001in) for distance measurement, or 1% FSH for amplitude measurement. Large display of measurement at top of A-Scan display. Measurement mode selectable between peak and flank.	Size:	Storage -40 to +75° C. -40 to = 167° F 255 x 145 x 145mm (10.0 x 5.7 x 5.7in)
Gate	Expands range to width of Gate 1.	Weight:	2.5 kg (5.5 lbs.) with Li-ION Cells.
A-Scan Memory:	Maximum of 100 waveforms stored with complete panel settings. Waveforms may be recalled on display, printed or transferred via RS232 serial interface.	SDMS	Software package which allows the transfer of memory storage to Windows based software packages for report writing. Windows 95, 98 and NT operating systems.
Panel Memory	20 stores for retaining calibrations		

Sonatest is the leading European manufacturer of Ultrasonic Flaw Detectors, Thickness Gauges and Transducers. The Sitescan 140 is covered by a comprehensive 2 year warranty and is manufactured under a quality system approved by British Standards Institute to ISO 9002.

SONATEST PLC
Dickens Road, Milton Keynes
MK12 5QQ, England
Tel: +44 (0) 1908 316345
Fax: +44 (0) 1908 321323
e-mail: sales@sonatest-plc.com



SONATEST INC.
4734 Research Drive, San Antonio
TX 78240, USA
Tel: 210 697 0335
Fax: 210 697 0767
e-mail: sonatest@sbcglobal.net