

Manual High-Resolution X-Y Scanner



Applications

- Ultrasonic thickness mapping or flaw detection over a surface (C-scan)
- Low cost imaging solution
- Inspection of composite or metal aerospace fuselages for flaws
- Corrosion inspection of plates or storage tanks
- Production or in-field inspection of metal, carbon fiber, glass fiber, laminates and much more...

Features

- Lightweight Manual x-y scanner
- Scan area: 18in.x 18in. (0.46mx0.46m) and larger
- Magnetic or suction feet
- Phased-Array (PAUT) Ready
- Customized probe holders and encoder cables



SlideScan- Manual X-Y Scanner for Ultrasonic inspection of flat or slightly curved surfaces

Introduction

Ultrasonic thickness measurements and flaw detection are used across many industries including aerospace, oil and gas and power generation for quality control and in-service monitoring. Conventional systems are based on point to point measurements to inspect for sub-surface defects or measure thickness.

Full-field C-scan Imaging

By manually scanning the object surface with a conventional or phased-array ultrasonic probe, a full-field image of the results can be generated in a plan view format. An image of the result is significantly easier to interpret than point to point data and can be stored as an archive for each inspection. The SlideScan allows for simple area scanning of most materials for a very low price. The aluminium scanner is robust, lightweight and exceptionally portable for field use.

Compatible with Multiple Instruments

The SlideScan is a 2-axis encoding scanner designed to be easily integrated with most flaw detectors or phased-array instruments. The high resolution scanner can be mounted to the surface with suction feet or magnetic bases and features a lightweight design with high quality bearings and encoders for smooth operation and for field-use.

For instant imaging, the SlideScan can be connected to the Raptor Imaging Flaw Detector to generate full-field color C-scan images. The Raptor is a fully functional thickness gauge and flaw detector and, in addition, controls the scanner. It can define the scan area, spatial resolution and displays the resulting images as they are generated. The 5000Hz pulse repetition rate enables fast manual scanning.

Three Sizes Available

The SlideScan comes in three sizes defined by the scan area required. The scanner is a peripheral to the Raptor instrument but can also be used with most conventional ultrasonic or phased-array instruments by means of the appropriate encoder cable. A pivoting axis design and a spring loaded arm for the probe holder both help the probe to follow the surface. A standard probe holder is used for conventional probes and is compatible with our range of contact and delay line transducers. For rougher surfaces, the hardened steel mushroom is recommended. All probe holders feature a liquid feed system. For phased-array probes, a custom probe holder is available, specific to the manufacturer. The scanner requires no separate power supply and is supplied with an encoder cable depending on the instrument used.

The SlideScan is simple, robust and cheap allowing universal access to the benefits associated with imaging solutions.



Raptor Imaging Flaw Detector



Magnetic Bases



Hardened steel mushroom probe holder



Standard probe holder

TECHNICAL SPECIFICATIONS	
Model Options	SlideScan 18x18 -Scan Area 18in. x 18in. (0.46m x 0.46m) SlideScan 24x24 -Scan Area 24in. x 24in. (0.61m x 0.61m) SlideScan 36x36 -Scan Area 36in. x 36in. (0.91m x 0.91m)
Package Includes	SlideScan Scanner with 2 axes, gimbal mount, suction cup feet, Pelican shipping case Optional: Probe holders for conventional or PAUT transducers Encoder cable 12ft (3.7m) manufacturer specific
Physical Dimensions (WxLxD)	21in. x 21in. x 5in. (0.53m x 0.53m x 0.13m)- 18x18 model 27in. x 27in. x 5in. (0.69m x 0.69m x 0.13m)- 24x24 model 39in. x 39in. x 5in. (0.99m x 0.99m x 0.13m)- 36x36 model
Physical Weight	10-15lb (4.5-6.8kg)
Cable Length	12ft (3.7m) standard
Scan Resolution	0.006in. (0.15mm)
Scan Speed	> 10in./s (>0.25m/s) manual scanning with Raptor
Minimum Radius	Flat or slightly curved surfaces
Operating Temperature	15 °F to 105 °F (-10 °C to 40 °C)
OPTIONS	Magnetic bases Various Transducers, probe holders, encoder cables

The specifications in this document are subject to change without notice.

Version: PI-SlideScan-14v1

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