

Automatic High-Resolution X-Y Scanner

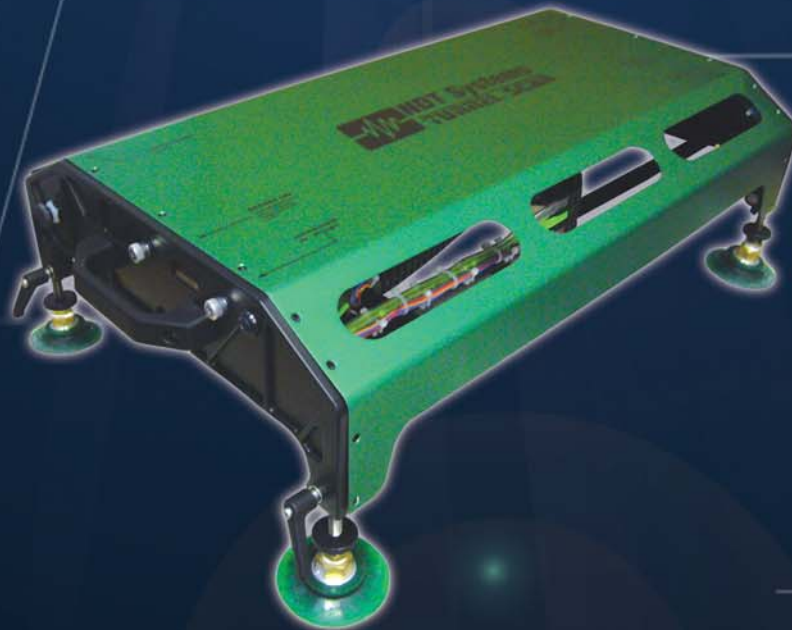


Applications

- High-resolution, high-speed ultrasonic thickness mapping or flaw detection over a surface (C-scan)
- Low cost, portable, imaging solution
- Immersion tank testing
- Inspection of metal or composite aerospace components for defects
- Production inspection of metal, carbon fiber, glass fiber, laminates and much more...

Features

- Automatic x-y scanning
- High-resolution 0.001in (0.025mm)
- Scan area: 18in.x12in. (0.46mx0.30m)
- Automatic vacuum feet
- Liquid feed
- Self-contained battery operated unit



TunnelScan- High-Resolution, High-Speed Scanner for Ultrasonic inspection

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 but an imaging result is proven to be easier to interpret and easily archived.

Full-field C-scan Imaging

The TunnelScan is a self-contained, portable and battery operated scanner. A unique high-resolution and high-speed drive enables full-field coverage with a range of probe types. The scanner is designed for use on metal or composite surfaces and also above an immersion tank. The scanner can be easily placed in hard to access areas and fixed by one-touch operation using suction feet and the built-in vacuum pump.

Raptor Imaging Flaw Detector

Powered by the unique Raptor Imaging Flaw Detector, the TunnelScan scanner can be used to generate full-field color C-scan images of a test object. 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 speed and displays the resulting images as they are generated.

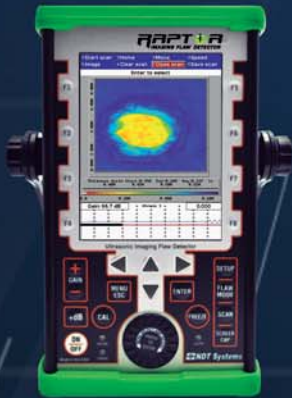
A full suite of software functions is included for further analysis of the results, including B-scan sections, 3D images, statistical tools for defect sizing and much more. The scanner can also be positioned back to any point of interest.

The combined imaging system boasts an unmatched performance for a very low price and is a perfect way to enter the world of imaging and speed up inspection processes in hard to reach areas.

TunnelScan Scanner

The scanner is a peripheral to the Raptor instrument. Built with aluminium construction, it is lightweight and can be fixed to the surface with one-touch operation using vacuum feet and an integrated vacuum pump. A spring loaded and height adjustable gimbal mount and different probe holders allow for the use of contact and immersion probes with efficient signal transfer into the test object. It can be used on flat or slightly curved surfaces or above a custom made immersion tank.

Positional control is done through the software or arrow keypad on the Raptor. The scanner can be run for 8-10 hours using the onboard batteries or for longer using the AC-adapter. The scanner comes complete with a 15ft (4.6m) cable to the Raptor unit, which is also battery operated. The TunnelScan and Raptor provide the widest possible scope in terms of measurement applications, small space requirement and low-cost that it is a perfect educational solution for schools and colleges as well as a high-end industrial testing solution.



Raptor Imaging Flaw Detector



TunnelScan and Immersion Tank



Standard probe holder

TECHNICAL SPECIFICATIONS	
Package Includes	TunnelScan Scanner, 15ft (4.57m) cable, 2x removable Li-ion batteries, AC-charger & battery conditioning unit, standard probe holder, vacuum feet and built-in pump, Pelican shipping case
Physical Dimensions (WxLxD)	27.6in. x 17.7in. x 12in. (701mm x 450mm x 305mm)
Physical Weight	15lb (6.8kg) scanner only
Cable Length	15ft (4.57m) standard
Scan Length	X-axis: 18in. (457mm), Y-axis: 12in (305mm)
Scan Resolution	0.001in. (0.025mm)
Scan Speed	Max. 10in. /s (250mm/s)
Power Source	Battery (8-10hrs) or AC mains
Operating Temperature	15 °F to 105 °F (-10 °C to 40 °C)
OPTIONS	Magnetic feet, Various cable lengths Various Transducers-contact, delay line, Pressurized couplant vessel

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

Version: PI-TunnelScan-14v1

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