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Portable Eddy-Current Scanners Save Time in Non-destructive Testing and Training

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Problem: Some eddy current scanners are slower than others. When you work in areas such as manufacturing, the military, commercial aviation or bridge inspection, you need a high-speed EC scanner to scan for surface or subsurface defects, variations in heat damage, and variations in thickness to find any areas of subsurface corrosion.Non-destructive examination (NDE) of such safety critical areas also requires accurate readings; quality testing for cracks, laps or other flaws is crucial in order to prevent breakage and disaster. Because of its accuracy and its ability to scan a large area in a short time, the scanner system already has been attracting interest in industrial, military, and aeronautics markets.

Solution: A new hand-held eddy current scanner rotates at a rate of 3,000 RPM. This means it can scan about one inch of surface area in two seconds. The scanner provides real-time eddy current testing (ET) andimaging for a variety of surface and subsurface material conditions and discontinuities without sacrificing accuracy. When you are performing safety-critical inspections, such as airframe fastener inspections or bridge inspections, this new scanner provides accurate results that are easy to read. The constant-speed circular scanning pattern ensureshighly accurate results.

Problem:You donâ€™t want to spend a lot of man-hours in NDT training so that personnel can use a scanner.

Solution:The new hand-held rotating eddy current scanner system offers the easiest use and interpretation of any EC scanner system available today. Synchronized to provide defect amplitude and circumferential location, this battery-powered scanner is lightweight, easy to operate, and features a 3/4â€• scan width to reach, which is ideal for small areas. Null and erase buttons, conveniently located by the thumb, make the job a breeze. A full C-scan image of the scanned surface and subsurface will be displayed, in eithercolor or gray-scale, mirroring the surface and subsurface, to provide easy interpretation and reduce the chance of any interpretive errors.The data and the screen-shot images are saved. The scanner system, which was designed for ease of use and interpretation, is easy and quick to set up. The entire system is comprised of the ET scanner, a portable dual-frequency instrument, probes, laptop, and C-scan display software.

This equipment is extremely useful in applications requiring highly accurate inspections, such as the military, commercial airlines, bridges, and some manufacturing plants. Application examples include lap joints, various flat flush fasteners, flat bars and flat-plate bar stock.

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