

**NEW FEATURES.  
EXCLUSIVE CAPABILITIES.**

**NEW!**

**FULL SURFACE HOLE SCANNING**

For the first time, the EV<sup>i</sup> enables previously unattainable bolt-hole inspections of complex layers. By scanning and imaging the full surface area under inspection, the EV<sup>i</sup> display provides both scan data and graphic images of the actual surface in near-real-time as the inspection process proceeds. The EV<sup>i</sup>'s surface image gives inspection of bolt-holes in multi-layer and multi-material stack ups far greater clarity than ever before possible.

**NEW!**

**HIGH SPEED SURFACE INSPECTION**

Real-time condition of differential coils enables the EV<sup>i</sup> to quantify the surface proximity of differential and absolute coils, thus enhancing and verifying the validity of inspections. Display colors depict shape and size of discontinuities, enabling operators to interpret signals at a glance.

**NEW!**

**FLUSH RIVET SURFACE SCANNING**

Because metal skins on aircraft structures are riveted or fastened in place, cracks can occur around and between rivets and fasteners. The EV<sup>i</sup>'s high-speed surface scanner speeds and improves this inspection process. A real-time image of the rivet or fastener is presented with cracks imaged if they are located near or between rivets, fasteners or under paint.

**NEW!**

**WELD SURFACE AND  
INTERFACE SCANNING**

When equipped with the UniWest ECS-3S high-speed scanner, the EV<sup>i</sup>'s built-in, easy-to-read, display screen depicts real-time scanned images of surface cracks and other discontinuities in friction stir-welds and flush surface weldments. The scanned graphic images improve operator judgment in detecting and discerning surface flaws.

**EV<sup>i</sup> FEATURES**

**MULTIPLE DISPLAY MODES**

- Multi/single frequency and channel view modes
- Surface imaging, Impedance Planes, Oscilloscopes, Strip Charts, and many combinations of plots available

**DISPLAY/IMAGE INTEGRATION**

- Conventional Impedance plane, A-scan or Strip Charts displayed alongside Surface Image Graphic

**CONTROL VERSATILITY**

Optionally controllable by either:

- Easy to use menu driven, on-screen controls or internal microprocessor via optional keyboard

**REAL-TIME COUPLING FEEDBACK**

- Real-time feedback of the coil to metal coupling condition

**BROAD COMPATIBILITY**

- Fully compatible with:  
UniWest's eddy current array sensors  
UniWest's ECS-3S surface-scanner  
UniWest's ECS-5 hole-scanner  
Compatible with many other probes and accessories

**OPERATING PARAMETER RECOGNITION**

Scanners and accessories are automatically recognized by the EV<sup>i</sup> when connected. EV<sup>i</sup> automatically configures parameters such as motor voltage and encoder resolution to match the scanner. Simple connect and scan operation.

**FULL CONNECTIVITY**

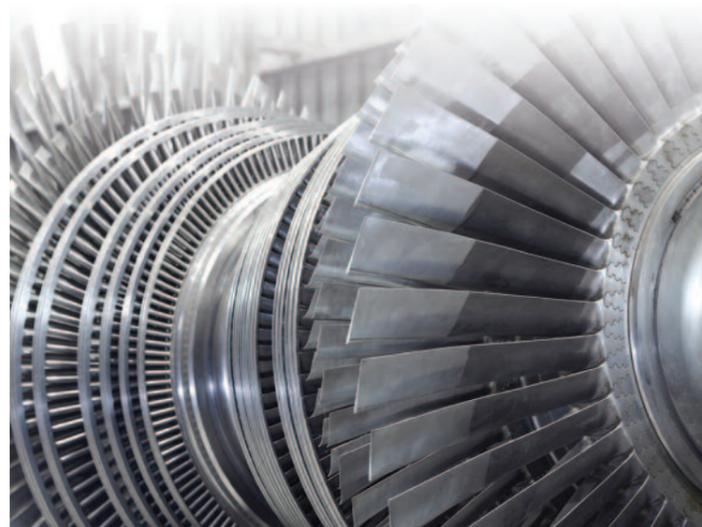
- The EV<sup>i</sup> is connection-ready to virtually any digital resource, protocol, or peripheral via USB, Ethernet, VGA via USB adapter, USB/OTG, MULTI I/O, Analog X/Y or USB Keyboard

**USER FRIENDLY DATA STORAGE AND RETRIEVAL**

- Up to 300 data files can be saved for subsequent review, storage, retrieval, post-inspection analysis and report generation
- EV<sup>i</sup> data may be stored in the form of instrument setups, inspection reports, image bitmaps, or scan data files

**EASY DATA EXPORTS**

- All scan and report data is fully exportable via USB or Ethernet



INTRODUCING  
**The New World Standard for  
Eddy Current Testing**

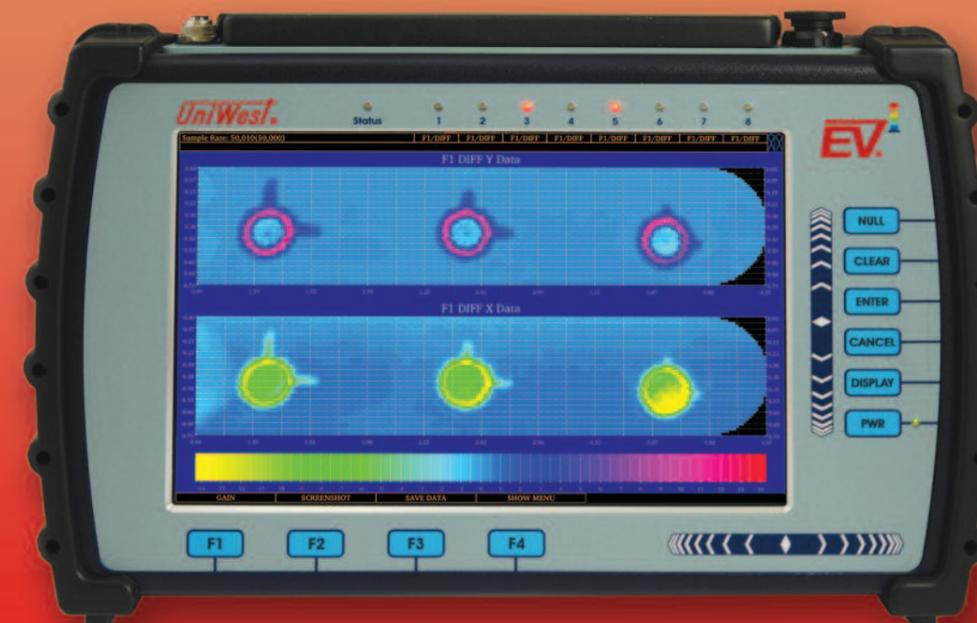


FROM

**UniWest**

*Tough Challenges. Critical Solutions.*

**THE MOST ADVANCED PORTABLE ECT SYSTEM EVER DEVELOPED**



PRECISE. CLEAR. RELIABLE. ADAPTABLE.

**Detection Perfection!**

**NEW FROM UNIWEST.**

**UniWest**  
*Tough Challenges. Critical Solutions.*

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Since 1985  
Employee Owned  
USA Made



# UNIWEST EV<sup>i</sup> - OPTIMIZING THE INCOMPARABLE PRECISION OF UNIWEST FLAW DETECTION WITH THE POWER OF SURFACE IMAGING

For three decades UniWest eddy current testing systems have set the world standard of excellence for non-destructive inspection of safety-critical and high performance metallic components.

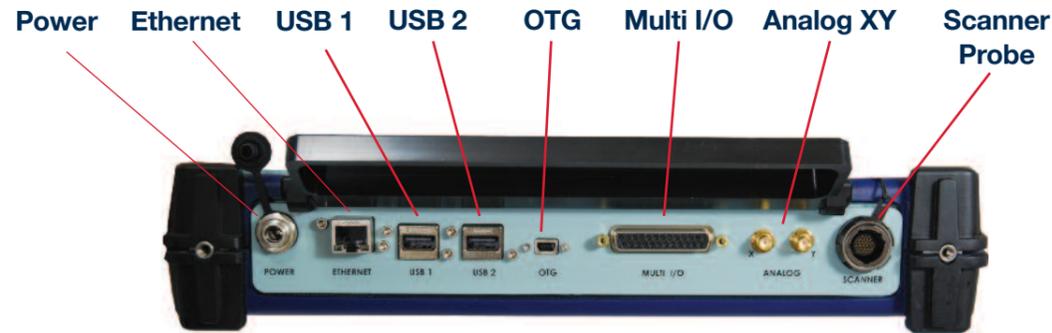
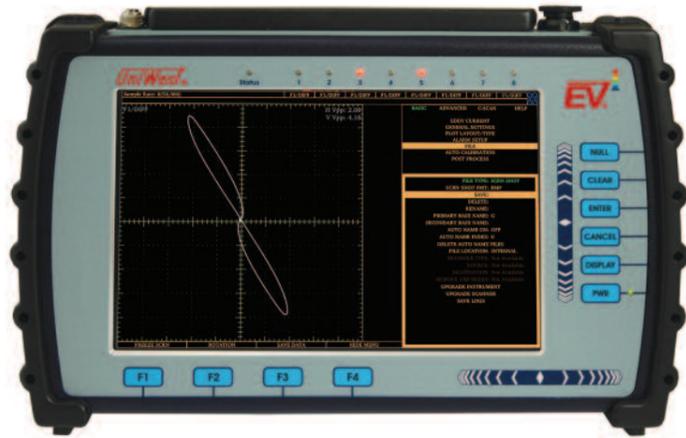
In keeping with our tradition of continuously improving the accuracy and efficiency of the non-destructive inspection process, UniWest's EC Solutions Team has developed the most technically advanced and operator-friendly portable eddy current testing system ever offered — the EV<sup>i</sup>.

Engineered by the UniWest EC solutions team, and manufactured in the United States, the new EV<sup>i</sup> works directly with the EddyView Family of probes and accessories. UniWest's unmatched array of standard and optional signal processing, readout, data storage, alarm and display features set a new standard for flexibility of applications, ease of use, interpretation of data and overall operator accuracy than ever before possible in a portable NDI system.

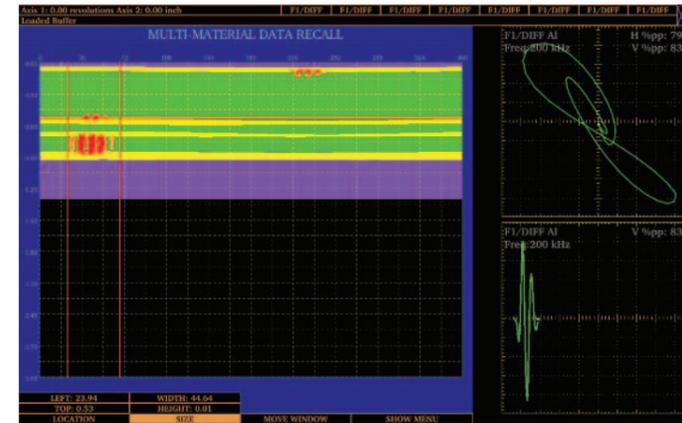
The key to the EV<sup>i</sup>'s ground-breaking performance is the display of a previously unavailable visual image of the surface area under inspection alongside the customary eddy current signal displays in the form of impedance plane, A-scan or strip chart displays.

All in all, the EV<sup>i</sup> provides a high precision, easily readable, visually accessible account of surface conditions which enable greater operator accuracy, improved interpretation of data, and more accurate discernment of cracks, pits, gouges and fretting.

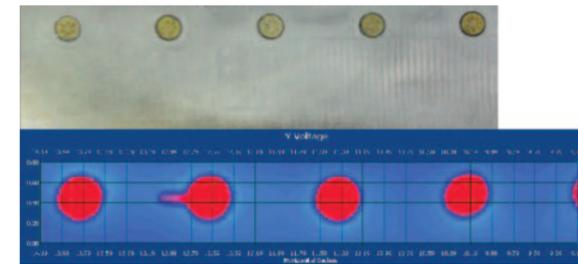
By merging innovative surface imaging with UniWest's renowned, best-in-class signal to noise and surface imaging technology, the EV<sup>i</sup> system sets a new world standard of precision for eddy current testing in a portable and easy to use package.



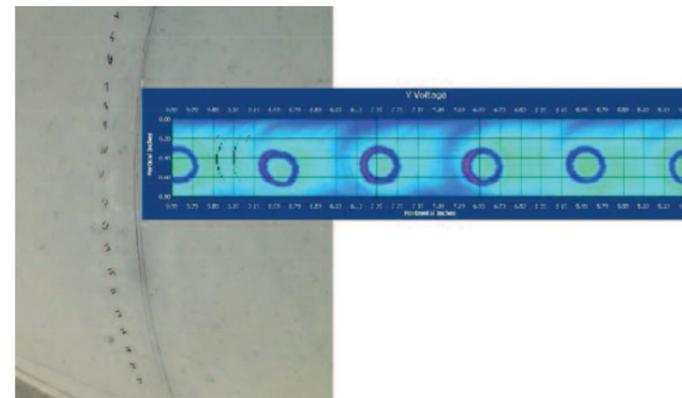
## The Proof is in the Imaging!



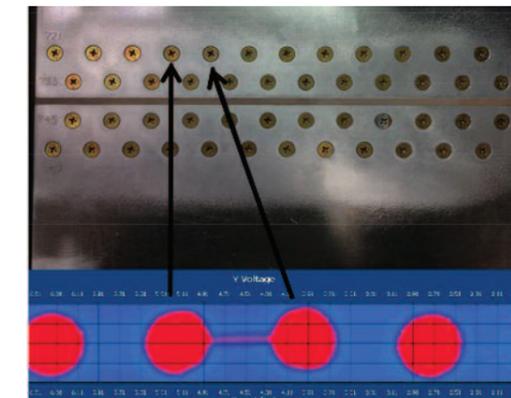
Advanced bolt hole scan



Subsurface flaw from steel fastener



Aluminum fasteners under paint



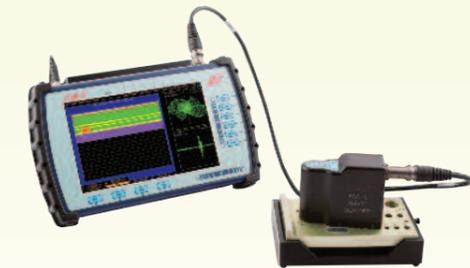
Flaw between steel fasteners

### ACCESSORIES

In addition to being compatible with all UniWest accessories and many off-brand components, the EV<sup>i</sup> offers a family of scanners designed to optimize system performance and leverage the system's imaging feature for maximum flaw detection and discernment.

#### ECS-5

The ECS-5 is UniWest's EV<sup>i</sup>-compatible, hand-held bolt hole scanner. Ideal for rotary and linear scan-motion indexing, the ECS-5 supports both absolute and differential coil types in both reflection and bridge configurations. This scanner provides 3 mil to 30 mil scan resolution in 1 mil increments. Variable rotation from 500 to 3000 RPM is adjustable in 10 RPM steps at constant torque throughout the speed range.



#### ECS-3S

Ergonomically designed for comfortable handling and rapid inspection of small and hard to reach areas, the handheld, portable ECS-3S scanner provides a constant, high-speed scan of the surface. Capable of covering areas as small as 3/4 inch, the ECS-3S's contour-following sensor assembly allows inspection of variable surface gradients. The ECS-3S improves flaw discernment for previously inaccessible remote and obscure surface areas.



### EV<sup>i</sup> ADVANTAGES

- Only Portable System of its Kind
- Coupling Condition of Absolute and Differential Coils
- Visual Confirmation of Surface Anomalies
- Superior Probability of Detection
- High Resolution Real-Time Surface Imaging
- High Speed Scanning
- Real-Time Coil Coupling Condition
- Multi-Layer Stack ups Imaging
- Multi-Material Stack ups Imaging
- Full Surface Imaging Hole Inspection

### INDUSTRY APPLICATIONS

- Aerospace
- Power Generation
- Industrial (High-End)
- Tube/Nuclear (Specialized Inspection)
- Research and Development