

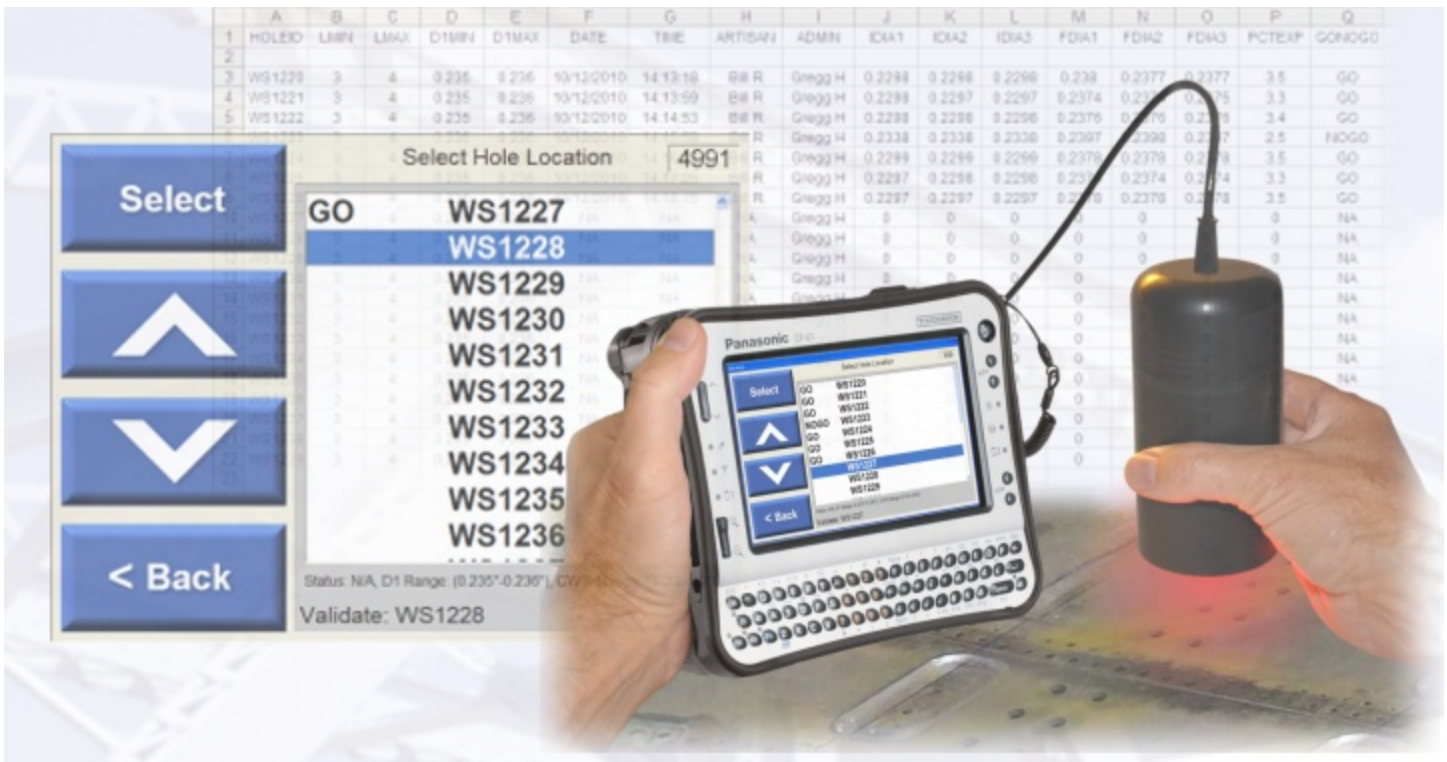


DIRECT MEASUREMENTS, INC.

Ninja

Cold Work Validation System

Fastener/Rivet Hole Cold Work Validation



Ninja Features

- Fastener/rivet hole cold work validation
- Accurate and easy to use
- Rugged, compact, battery powered
- Simple "Go/NoGo" result displayed for artisan/user
- Creates detailed data record in CSV/Excel text files
- Includes rugged DMI handheld reader

Ninja Applications

Civil Infrastructure



Aerospace & Defense



Energy



Laboratory & Testing





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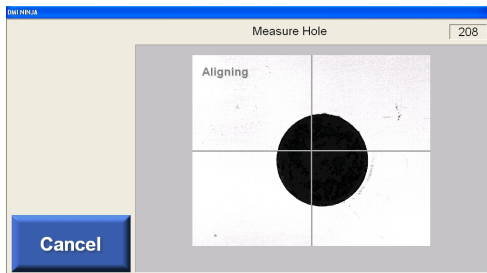
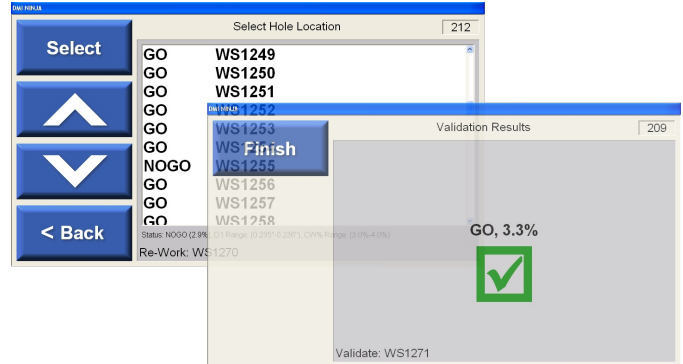
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DMI Ninja

Ninja is device designed specifically to perform rivet/fastener hole cold work validation. Cold working creates a residual compressive stress near the hole boundary, thereby extending fatigue life by retarding crack formation. Ninja quantitatively validates the cold work process by measuring the expansion magnitude. Validation results are automatically recorded by Ninja in a detailed data log (CSV/Excel format).



Quantitative cold-work validation data can be used to assess task-completion and fatigue-life extension. Ninja is a rugged device intended for harsh environments, and its simple 'wizad' style interface is tailored for use by artisans/technicians.

Ninja Cold Work Validation Operation



Take a *Pre Cold-Work* reading using the DMI handheld reader

Cold work hole

Take a *Post Cold-Work* reading using the DMI handheld reader.

View Go/NoGo results

Contact Information

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Technical Specifications

Ninja Handheld Reader^{*1}
Material: ABS Plastic
Handheld Reader: 5.2H x 2.7D in (132H x 69D mm)
Connection: USB 2.0 3.3 ft (1m) cable

Ninja Tablet Computer
Model: Panasonic Toughbook U1
Computer Size: 5.9 x 7.2 x 2.2 in
Operating System: Windows 7 Professional^{*2}
Input/Charging Voltage: 115VAC
Battery-powered Operation: 6 hrs between charges approx.^{*1}

^{*1} DMI results under controlled conditions, actual results may vary

^{*2} Windows is a registered trademark of Microsoft Corporation in the United States and other countries

US & Int'l Patent/Patent Pending

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