

AMH43-Series

Automatic Micro/Macroindentation Hardness Testing System



AMH43 Micro



AMH43 Macro

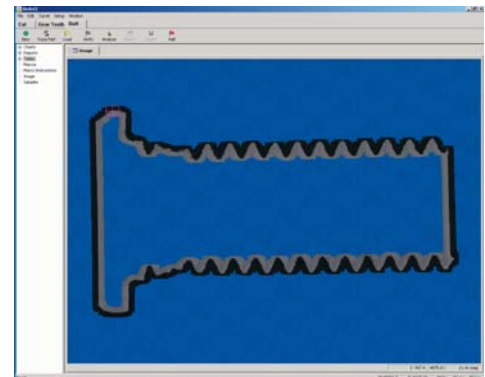
The future of automatic hardness testing today.

Working closely with customers, LECO has developed one of the most innovative breakthroughs in automated hardness testing—the new AMH43 Automatic Hardness Testing System. Perfect for a number of applications including case-depth analysis, surface analysis, weld profiles, and coating hardness, the AMH43 easily measures impressions of various surface conditions, including scratched/etched or unevenly illuminated surfaces. A unique patented visual method for sample reconstruction, along with advanced image-recognition technology, allows you to analyze information unavailable with limited threshold-based methods.

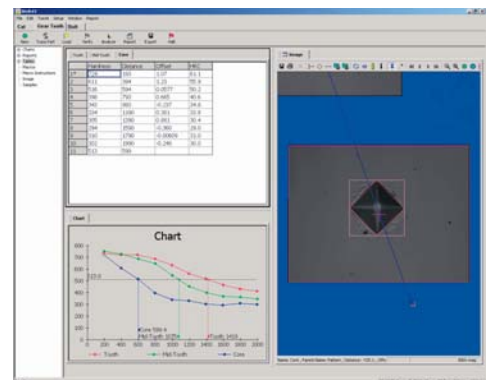
The AMH43 comes in several configurations for greater precision, accuracy, and efficiency. For microindentation hardness testing, the LM-Series performs indentations from 10 gf to 1000 gf with Vickers, Knoop, or dual indenters. The LV-700AT System can perform macro/Vickers indentations from 1 kgf to 50 kgf, while the LV-700ATL System can perform macro/Vickers indentations from 0.3 kgf to 30 kgf.

This groundbreaking new system also features valuable tools that add convenience to your work, such as a configurable user interface, professional report designer, and optional macro language. A smartly designed vice-lock sample holder quickly levels mounted parts, free of protrusions above the sample surface.

The AMH43 supports all standard loads for microindentation and macro/Vickers hardness testing.



Panoptic View



User-Friendly Report Designer

LECO®
Delivering the Right Results

Software Specifications

- Windows®-based clipboard support allows data to be easily shared
- View all results using built-in spreadsheets
- Automatically export data to other applications
- Customizable application layout
- Automatic recalculation of hardness results
- Manual measurement capability
- Unique correction algorithm provides exceptional precision and repeatability
- Customizable reporting units and numeric formats

Hardware Specifications

- Intel® Pentium® IV Processor (min.)
- 512 MB RAM (min.)
- 32 MB Video RAM (min.)
- CD-RW Drive
- USB Port
- Integrated Network Adapter
- 256K External Cache
- 64 Bit Accelerated PCI Video
- 40 GB Hard Drive (min.)
- 2 Serial Ports & 1 Parallel Port
- Microsoft® Windows® XP (min.)
- 19-inch LCD Flat Panel Display

Microindentation Tester

- LM-Series dial load 10 gf to 1000 gf, 10X and 50X objectives
- Vickers, Knoop, or dual-indenter
- Integrated focus knob
- Sample leveler and stage adapter
- 1.0 µm resolution stepper-controlled stage, two axis 100 x 75 mm stage
- Built-in stepper-controlled high-speed 0.1 µm autofocus

Macroindentation Tester

- LV-Series dial load 0.3 to 50 kgf in two models; 10X, or 10X and 20X objectives
- Vickers, Knoop, or dual-indenter
- 1.0 µm resolution stepper-controlled stage, two axis 100 x 75 mm stage
- Built-in stepper-controlled high-speed 0.1 µm autofocus

CCD Video Camera

- High resolution CCD camera
- 640 x 480 pixels
- 100% linear with 1% geometric distortion
- C-Mount camera adapter

Sample Analysis

- Automatic unattended analysis
- Multiple indent patterns can be run automatically
- Improved automatic reading code
- Improved focus routine

Reporting

- Visual report designer
- Histogram, bar charts, X-Y plots, control charts, data grid
- Case depth plots and statistics, along with hardness data and conversions
- Export data to Microsoft® Word or Excel

Software Available Languages

- English
- Spanish
- Russian
- German
- Japanese
- Chinese

Specifications and part numbers may change. Consult LECO for latest information.
U.S. Patent No. 6,996,264

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