

AMH55

Hardness Testing Systems



LECO
EMPOWERING RESULTS

AMH55 – Hardness Testing Systems

Maximise your productivity and easily measure impressions on various surface conditions for a wide number of applications with LECO's AMH55. The AMH55 introduces LECO's innovative CORNERSTONE® brand software to our hardness testing platforms, for increased usability, simplified reporting, and streamlined analysis times.

Supporting accurate and efficient microindentation and Macro/Vickers hardness testing in fully automatic, semi-automatic, and lite configurations, the AMH55 is a valuable resource for users needing precise and productive hardness testing while tailoring the data and results to their needs.

The AMH55 is ideal for:

Case Depth Analysis | Coating Hardness | Surface Analysis | Powdered Metals | Weld Profiles | Fasteners | Decarburisation

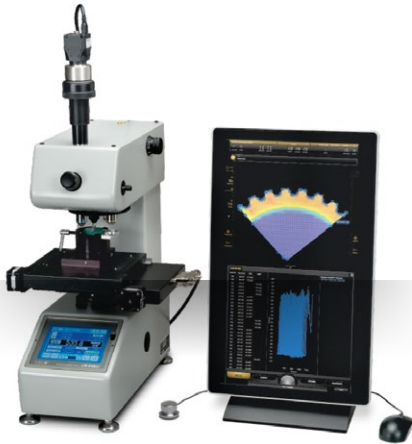
The AMH55 supports all standard loads for microindentation and Macro/Vickers hardness testing. The AMH55 conforms to ASTM E-384 for micro/macro hardness testing.



AMH55 Model Highlights and Features

Choose the model configuration that fits your needs. All models include our exclusive CORNERSTONE® brand software and the following functionality:

- Advanced image-recognition technology allows analysis of information not available with limited threshold-based methods
- Measures impressions with various surface conditions, including scratched or lightly etched



AMH55 Automatic

- Simultaneous automatic alignment and automatic parfocal tools
- Automatic pixel calibration
- Automatic shading correction
- Standard touch-screen interface with multi-touch capabilities
- Streamlined and simplified data reporting; customised spreadsheet generation tools
- Optional Advanced Analysis Module for color contoured mapping



AMH55 Semi-Automatic

- Automatically locates and analyses indents
- Automatic alignment
- Automatic pixel calibration
- Standard touch-screen interface with multi-touch capabilities
- Customisable data reporting
- Manual Focus
- Easily upgrade to AMH55 Automatic



AMH55 Lite

- Automatically locates and analyses indents within field of view
- Automatic pixel calibration
- Standard PC/monitor with keyboard and mouse interaction; optional touch-screen interface also available
- Customisable data reporting
- Easily upgrade to AMH55 Automatic or Semi-Automatic

Hardness Tester Options

The AMH55 supports all standard loads for microindentation and Macro/Vickers hardness testing.



LV-Series performs microindentations from 1 Kgf to 50Kgf or 0.3Kgf to 30Kgf with Vickers, Knoop, or dual indenters.

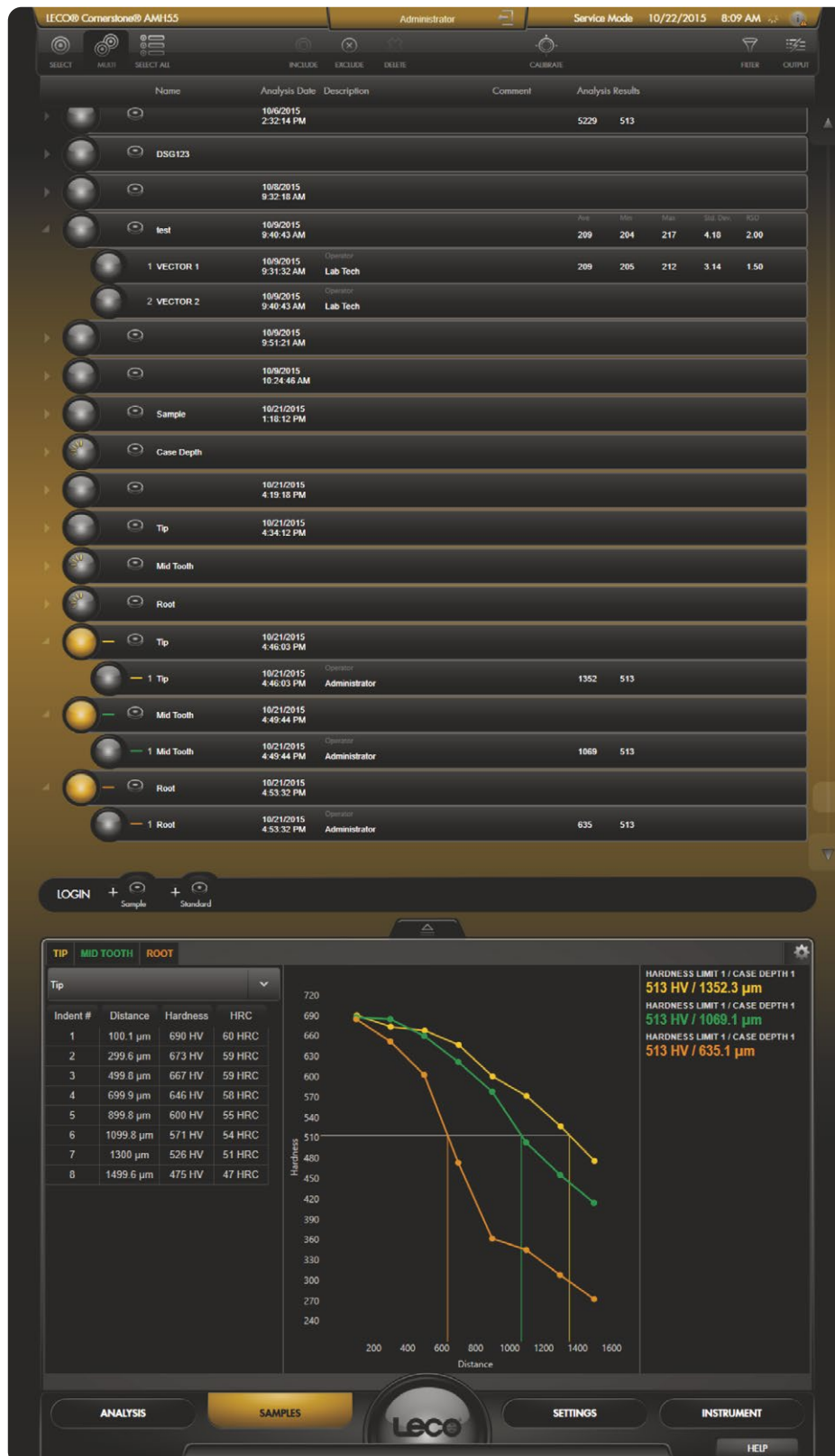


LMV-50V Load Cell performs Macro/Vickers indentations from 10gf to 50Kgf.

User-friendly CORNERSTONE® Brand Software

LECO's unique Cornerstone brand software sets the AMH55 apart from other automatic hardness testers. Designed through a collaboration of customer feedback and innovative engineering, Cornerstone gives the user complete control over their analysis parameters, method settings, calibrations, reporting, and more so that testing can be tailored to a specific application. A touch-screen interface and automatic software capabilities, such

as simultaneous auto alignment and auto parfocal adjustment, deliver increased speed, ease-of-use, and repeatability to the analysis. Data output and reporting are simplified through Cornerstone's highly organised, immersive environment, which gives the user the ability to select the data conversions, method of testing, export options, report generation, and other settings that are best-suited for their samples.



Performing a Case Depth Analysis using the AMH55 Automatic

The AMH55 Automatic Micro/Macro Indentation Hardness Testing System combines the tasks of sample testing, measuring, converting, and documenting into one automated instrument operation. Just load the sample, select the indentation pattern(s), and initiate the test. This fully automated system makes the indentations, measures them, calculates their hardness, and then displays the results.

The AMH55 Semi-Automatic and Lite configurations offer the same great testing capabilities, but with less automatic functionality and features to meet your needs. Both can be easily upgraded to the fully Automatic version when the time is right.

1. Place the sample on the stage

2. Select Auto Focus, or use the slider function to bring the image into focus

3. Clicking on any of the shaded quadrants will bring up a quad menu with tracing options

4. After the sample has been traced, patterns and indents can be placed using intuitive fly-out screens

5. Display data on-screen, or quickly and easily export into other platforms, such as Microsoft® Excel®

Indent #	Distance	Hardness	Load	Width	Height
1	100.0	713	500	40.9	39.5
2	300.0	716	500	40.9	39.3
3	499.9	692	500	40.9	41.2
4	700.0	692	500	40.9	42.1
5	900.0	615	500	41.3	43.3
6	1100.0	552	500	41.7	42.7
7	1300.0	498	500	48	48
8	1400.0	477	500	50.4	48.3
9	1699.9	463	500	48.8	50.9
10	1999.9	450	500	47.7	51.8

Package Configurations

Select one of the following hardness tester options with your AMH55 package.

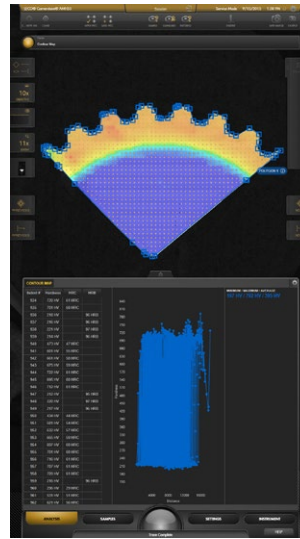
LM110/310 Series Microindentation
(refer to spec sheet 209-094-001)

LM248/810 Series Microindentation
(refer to spec sheet 209-094-009)

LV110/810 Series Vickers
(refer to spec sheet 209-094-002)

LMV-50V Load Cell Micro/Macro
(refer to spec sheet 209-094-011)

Optional Advanced Analysis modules



- Color Hardness/Contour Map (shown below)
- Auto Indent Placement
- Auto case depth

Optional Color Hardness Contour Map displays sample hardness and location with a color representation of hardness variances.

Options and Accessories



Stage Sample Holders



Anti-Vibration Table

Global Instrument Service & Support



We know that keeping your instrument running at optimal performance matters to you, which is why LECO instruments are assembled using the highest quality components and materials.

Sometimes downtime is unavoidable, however, and when that happens, our dedicated network of Global Service and Support technicians will help get you up and running as quickly as possible. Support is available at your facility or ours, by phone, and online.

Service and A2LA-accredited calibrations are also available for our LECO-supported optical equipment.

Visit our website for more information on how to access LECO Service:

eu.leco.com/contact/leco-contact-information

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