



LECO[®]
Hardness Testing Systems

LECO Hardness Testing Systems

One is Right for You.

LECO offers a wide selection of hardness testing systems to match any application or budget. Choose from manual and automatic model configurations for Microindentation, Macro-Vickers, or Rockwell-type testing. Whatever your need, our sales engineers can help find the hardness testing system that is right for you.

Advanced features provide you with greater convenience and efficiency.

- LM247AT model features a unique **dual indenter** turret that provides Knoop and Vickers on a single tester—all from the touch of a button
- Accurate and repeatable **load cell** Rockwell-type tester (LCR-500)
- Select loads and **create your own** Rockwell-type test (LCR-500)
- Our Optical Service Department is **A2LA accredited** and available to calibrate your Microindentation, Macro-Vickers, or Rockwell-type testers
- **Light-load Brinell** tests available on LV700/LCR-500 models*
- Precision dual-leafspring indenter supports provide ruggedness while ensuring a consistent indentation placement (LM and LV-Series)

*LCR-500 requires measuring device for Brinell

Microindentation and Macro-Vickers Testing

LM-SERIES

LECO's advanced Microindentation Testing Systems help you meet today's quality standards, as well as the challenges tomorrow's new materials present.

LM100-Series

- Economical solution for low volume labs
- Straightforward operation
- Expand microindentation capabilities by adding LECO's ConfiDent™2 Video Measuring System



LM300-Series

- Durable membrane control panel with digital display
- Equipped with simple printing and data transfer capabilities





LM247AT

Automatic turret accommodates up to 4 objectives (2.5X to 100X available) and comes standard with both Knoop and Vickers indenters.

Interchangeable Color Filters (LM/LV Models)
Optimize for your material and method of observation.
Green filter is standard.



Advanced Touch Panel Display (LM700/LV700)

All operating parameters are easily accessible with the touch of a finger. The display is easy to read, easy-to-use, and reliable.

Hardness Conversion

Hardness conversion scales are conveniently displayed on the operation panel for you, in compliance with SAE (J-417b) and ASTM (E-140).

Quick and Easy Auto-Turret Test Sequence (All AT Models)

After focusing, simply press the START button and the turret automatically positions the indenter, runs the test, and returns to the objective. You get more precise centering since the auto-turret returns to the same spot every time without ever being touched by the operator.

Fracture Toughness Value (K_c) (LM700/LM700AT)

The authorized valuation method JIS R167/IF comes standard and allows you to find the fracture toughness of fine ceramics or other new materials.



LM700-Series

Refer to the LM100/300 Series Specification Sheet for complete product information and available configurations (form no. 209-094-001).
Refer to the LM700 Series Specification Sheet for complete product information and available configurations (form no. 209-094-009).

LV-SERIES

The LV-Series Testing Systems offer you the advantage of testing materials that range from extremely soft to ultra hard. Models feature varying degrees of automation to suit the needs of any materials testing lab.

Video Capabilities (All Models)

Built in video port/video port adapter included.

Automatic Lamp Control (LM700/LV700)

During sample loading, the light automatically shuts off, extending the life of the bulb.

Load Ranges

LM test load ranges from 1 to 2000 gf available in four different configurations. LV test load ranges from 1 to 50 Kgf or 0.3 Kgf to 30 Kgf.

Image Quality (All LM/LV Models)

Field and aperture diaphragms, a centerable light source, and available interchangeable filters provide metallograph quality illumination.

All LM/LV models can be upgraded for various levels of automation with optional accessories such as printing, video measuring, automatic stages, and automatic test and measuring.

Light-Load Brinell Testing (LV700)

The Brinell Hardness Test Parameter comes standard on the CPU with the results (HB) displayed on the easy-to-use touch panel.



LM/LV-Series

All LM/LV models accommodate up to 3 objectives (2.5X to 100X available).

LV700-Series

Rockwell-Type Testing

LR-SERIES

LR-Series Rockwell-Type Testing Systems are built to handle your high-volume workloads without sacrificing accuracy or repeatability. Choose from a variety of models, including analog, digital, and twin testers. Light-load Brinell and free loads available on LCR-500.

User-Friendly Operation Panel (LCR-500)

Test conditions such as loading speed and conversion scale can be easily set using the durable touch panel. Operator simply raises the test piece to within 8 mm of the indenter and presses START to begin test.

OK/NG Indicators (All Models)

Set your upper and lower limits quickly and easily with the help of convenient OK/NG indicators.

Hardness Conversion

Hardness conversion scales are conveniently displayed on the operation panel for you, in compliance with SAE (J-417b) and ASTM (E-140).

Standard RS-232 Output

Both CENTRONICS and RS-232 output (for computer or printer) come standard.



LCR-500



LR300TD



Automatic Start Loading (LR100/300 Digital Models)

In the AUTO measuring mode, the major load is automatically applied once the minor load has been set. The automatic load application will not start if the minor load range is exceeded. Manual start is also available.

Small Footprint

The compact design of these Rockwell-type testers fits easily into any lab.

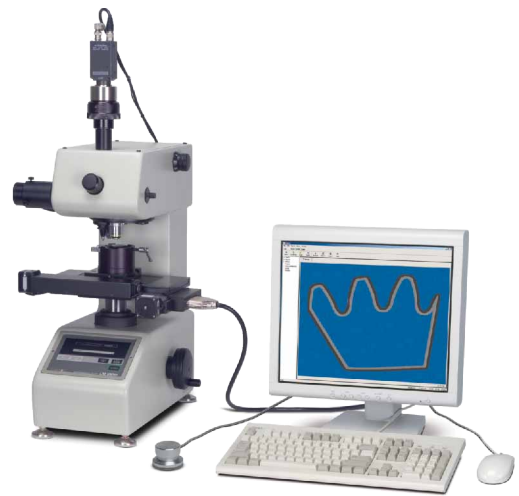
Refer to the LCR-500 flyer for complete product information and available configurations (form no. 209-142).

Refer to the LR-Series Specification Sheet for complete product information and available configurations (form no. 209-094-003).

Accessories and Options

AMH-Series Automatic Microindentation Hardness Testing System

For even greater precision, accuracy, and efficiency expand the capabilities of your LM-Series Microindentation Tester, or get a complete AMH system with microindentation tester included.



ConfIDent™2 Video Measuring System

Designed exclusively for measuring indentations, the ConfIDent2 Video Measuring System can be easily retrofitted to your current microindentation tester. Comfortably view the indentation on screen and use the computer-generated filar lines to precisely measure.

Digital camera option available.

Vibration Isolation Tables

To eliminate errors caused by unwanted vibrations, check out one of our new Isolation Tables for your hardness testing system. Consult your LECO sales engineer for the most up-to-date product information and pricing.



LECO Optical Service Program



Routine maintenance extends the life of your instruments.

Service

Available in your plant or lab, or at our shop in St. Joseph, Michigan.

Repair

Complete repair and overhaul of your instrument by factory-trained service specialists.

Calibrations

Calibrations are A2LA accredited in the U.S.A. and Canada (certificate #1845.01); copies available at leco.com or call 269-982-2385.

Technical Support

Call LECO Optical Service for technical assistance (269-982-2385).