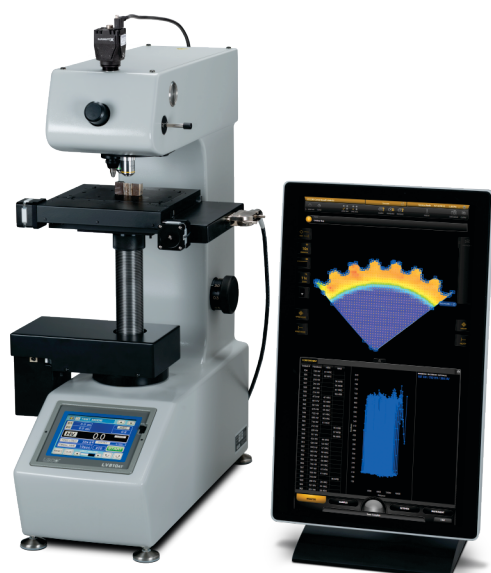


AMH55

Automated Macro Hardness Tester

Specifications

Supported Testers	LV110AT/810AT Standard Models LV110AT/810AT "L" Models																																						
Indenters	Vickers (Knoop optional)																																						
Digital Camera	2/3 in, 2.9 MP (1944 px x 1472 px), USB 3.0																																						
Auto Stage	108 mm x 108 mm, 0.7 μm resolution																																						
Max Height of Specimen	6 in (152 mm)																																						
Max Depth of Specimen	6.5 in (165 mm)																																						
Objectives	LV110AT/LV810AT Standard Models – 10X LV110AT/LV810AT "L" Models – 10X and 20X Optional Objectives – 1.25X, 2.5X, 5X, 20X, and 100X <i>Supports up to three objectives and one indenter</i>																																						
Test Loads	<table><tr><td rowspan="2">Std. Model:</td><td>Newtons</td><td>9.807</td><td>19.61</td><td>29.42</td><td>49.03</td><td>98.07</td><td>196.1</td><td>294.2</td><td>490.3</td></tr><tr><td>Kgf</td><td>1</td><td>2</td><td>3</td><td>5</td><td>10</td><td>20</td><td>30</td><td>50</td></tr><tr><td rowspan="2">"L" Model:</td><td>Newtons</td><td>2.942</td><td>4.903</td><td>9.807</td><td>29.42</td><td>49.03</td><td>98.07</td><td>196.1</td><td>294.2</td></tr><tr><td>Kgf</td><td>0.3</td><td>0.5</td><td>1</td><td>3</td><td>5</td><td>10</td><td>20</td><td>30</td></tr></table>	Std. Model:	Newtons	9.807	19.61	29.42	49.03	98.07	196.1	294.2	490.3	Kgf	1	2	3	5	10	20	30	50	"L" Model:	Newtons	2.942	4.903	9.807	29.42	49.03	98.07	196.1	294.2	Kgf	0.3	0.5	1	3	5	10	20	30
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Reporting	Histogram, X-Y plots, control charts, data grid Case depth plots and statistics, along with hardness data conversion LibreOffice report generator (compatible with Microsoft® Excel®)																																						
Fracture Toughness Value (Kc)	Conforms to JIS R1607/IF method																																						
Hardness Conversion	Conforms to ASTM E140 & ISO 18265																																						
Dimensions (Tester Only)	27.19 in H x 7.68 in W x 20.37 in D (690 mm H x 195 mm W x 517 mm D)																																						
Weight (Tester Only) (approx.)	121.25 lb (55 kg)																																						
Electrical Requirements	100 V~ to 220 V~, 50/60 Hz switchable																																						



Theory of Operation

Vickers and Knoop hardness tests are widely recognized methods for determining the hardness of a broad range of metallic and non-metallic materials.

LECO's AMH55 Automated Hardness Testing System combines an LV Series macro hardness tester with powerful Cornerstone software to automate the indentation and measurement process. Using a user-defined test method and indent patterns, the system applies a specified test load for a predetermined dwell time before measuring the resulting indentations. Test parameters, including indenter type, load, dwell time, indentation spacing, and measurement criteria, are configured to meet application requirements including ASTM and ISO testing standards.

By automating indent placement, focus adjustment, and indentation measurement, the AMH55 reduces operator influence throughout the testing process, enabling consistent test execution and repeatable hardness measurements while improving accuracy, precision, and sample throughput.

System Configurations

Tester Type	Test Loads	Model
LV110AT	"Standard" Models 1 kgf to 50 kgf	AMH551LVGDCM
	"L" Models 0.3 kgf to 30 kgf	AMH551LVFDCM
LV810AT	"Standard" Models 1 kgf to 50 kgf	AMH558LVGDCM
	"L" Models 0.3 kgf to 30 kgf	AMH558LVFDCM

Options

Sample Holders

50 mm Vise	863-388
100 mm Vise	863-389
Self-Leveling Sample Holder for 1 in to 2 in mounted samples (microindentations only)	866-103-322

Software Options

Advanced Analysis Module	863-784-218-B/O
Automatic Indent Placement Module	863-784-310-B/O
Automatic Case Depth Module	863-784-385-B/O

Specifications and part numbers may change. Consult LECO for latest information.
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