

LD 750
LD 250

LD 3000 AX



- Universal hardness testers: Rockwell, Superficial Rockwell, Vickers, Knoop, Brinell
- Constant high repeatability and accuracy in every test condition
- Multifunctional touch screen
- Automatic Vickers and Brinell measurement with camera, autofocus and software
- Clamping system of the piece to reduce the measurement's errors
- Automatic turret for multi objectives and indenter selection
- Self levelling indenter equipped with an automatic stroke of 30 mm to make contact with test surface
- Remote control via Internet for service, quick diagnosis and software update



ACTION

Just one push of the start button activates the continuous direction movement of the head generating:

1 - Automatic contact with test piece. **2** - Automatic clamping, active and sliding. **3** - Automatic loading. **4** - Automatic switching to optic lens. **5** - Autofocus by image scanning brightness. **6** - Automatic measure. **7** - Automatic return stroke at programmed distance. The entire test cycle is complete and the result appears on a large display.

FORCE RANGE - LD750 - LD3000AX from 3 to 3000 Kgf - **LD250** from 1 to 250kgf

Preload:	29.42 - 98.07 N (3 - 10 kgf)
Rockwell:	588.4 - 980.7 - 1471 N (60 - 100 - 150 kgf)
Superficial Rockwell:	147.1 - 294.2 - 441.3 N (15 - 30 - 45 kgf)
Brinell:	9.807 - 24.52 - 49.03 - 61.29 - 98.07 - 153.2 - 245.2 - 294.2 - 306.5 - 612.9 - 1226 - 1839 - 2452 N (1 - 2.5 - 5 - 6.25 - 10 - 15.6 - 25 - 30 - 31.2 - 62.5 - 125 - 187.5 - 250 - 500 - 750 - 1000 - 3000 kgf)
Vickers/Knoop:	9.807 - 19.60 - 29.42 - 49.03 - 98.07 - 196.14 - 294.2 - 490.3 - 980.7 N (1 - 2 - 3 - 5 - 10 - 20 - 30 - 50 - 100 kgf)
Optional tests:	49 - 132 - 358 - 961 N (for plastic and rubber as per EN-ISO 2039)

FEASIBLE TESTS

Rockwell:	HRA - HRB - HRC - HRD - HRE - HRF - HRG - HRH - HRK - HRL - HRM - HRP - HRR - HRS - HRV
Superficial Rockwell:	HR15N - HR30N - HR45N - HR15T - HR30T - HR45T - HR15S - HR30S - HR45S - HR15W - HR30W - HR45W - HR15X - HR30X - HR45X - HR15Y - HR30Y - HR45Y
Brinell HBW:	1/5 - 1/10 - 1/30 - 2.5/6.25 - 2.5/15.625 - 2.5/31.25 - 2.5/62.5 - 2.5/187.5 - 5/25 - 5/31.25 - 5/62.5 - 5/125 - 5/250 - 10/100 - 10/125 - 10/250 - 10/500 - 10/1000 - 10/1500 - 10/3000
Brinell HBWT:	1/30 - 2.5/15.6 - 2.5/31.5 - 5/125(3) (Aluminum and alloys) - 2.5/62.5(2) (Aluminum and alloys) - 2.5/187.5(6) (Aluminum and alloys) - 2.5/187.5(5) (Carbon steel) - 2.5/187.5(1) (Cast iron) - 5/125 - 5/250 - 5/750 - 10/500 - 10/1000 - 10/1500 - 10/3000
Vickers/Knoop:	HV 1 - HV 2 - HV 3 - HV 5 - HV 10 - HV 20 - HV 30 - HV 50 - HV 100
Shore (As Option):	ISO 2039, Shore A and D hardness scales for plastic
CHD (As Option):	Automatic Case Hardness Depth tests with automatic graph

TECHNICAL DATA

Conformity Standards:	EN-ISO 6506-2 / EN-ISO 6507-2 / EN-ISO 6508-2 / EN-ISO 2039 / ISO 868 / ASTM-E10 / ASTM-E18 / ASTM-E103 / ASTM 2240 / ASTM-E384 / JIS
Load accuracy:	Better than 0.05 %
Readout Division:	0.1 HBW / HBWT / HV - 0.01 HR
Lighting and Turret	LED - Motorized automatic turret self-switching 1 indenter + 1 objective
Indenters/objective:	Available indenters: Diamond 120°, Ball W/S 1/16" - 1/8" - 1/4" - 1/2", Ball W/S 1 - 2.5 - 5 - 10 mm, Diamond Vickers, Diamond Knoop Available objectives: 1x - 2x - 5x - 10x - 20x - 40x - 50x - 100x (Total magnification: 10x - 20x - 50x - 100x - 200x - 400x - 500x - 1000x)
Focus and Reading	Automatic and Manual
Dwell Time	From 1 to 99 seconds
Indenter Stroke:	LD750: Motorized 50mm / 2" - LD250: Motorized 30mm / 1.2" - LD3000AX: Motorized 50mm / 2"
Height Capacity:	LD750: Fully motorized 720 mm / 28" - LD250: Fully motorized 390 mm / 15" - LD3000AX: 280mm / 11" (More as optional)
Depth Capacity:	LD750: 265 mm / 10.5" - LD250: 190 mm / 7.5" (As option 290 mm / 11.5") - LD3000AX: 200 mm / 7.8"
X-Y Table	LD750: 480 x 675 mm / 19 x 26" (Larger as optional) - LD250: 330 x 390 mm / 13 x 15.5" (Larger as optional)
Tolerable Weight:	2000kg
Temperature Range:	From 10 °C to 35 °C
Data Output:	USB (RS 232C, LAN, wireless upon request)
Power Supply:	110 or 220 V / 50÷60 Hz
Software:	Affri - OMAG
Principle of Operation:	Load Cell and Closed Loop (Affri patent)
Fields Of Use	For all metals: iron, steel, tempered steel, cast iron, brass, aluminum, copper and metal alloys. Heat treatment, hardening, nitriding, cementation and hardfacing. Hard and soft plastics.
Packing:	LD750: 700 kg , 140 x 110 x 185 cm / 55 x 44 x 73" - LD250: 300 kg, 120 x 120 x 160 cm / 50 x 50 x 63"