

INTEGRAL 1



- Brinell Hardness Tester
- Automatic Brinell measures through camera and image analysis
- Auto-focus
- Innovative measurement technology with vertical measure system: original AFFRI System Hardness Tester achieves the highest level of measurement accuracy and resolution available for a Hardness Test
- INTEGRAL 1 is equipped with a unique closed loop electronic force measuring system, an original Affri System
- High and constant accuracy of results in every test condition
- A single start button to make surface contact, test cycle and programmed return stroke
- Automatic clamping system at request
- Automatic and pneumatic turret for multi objectives and multi indenters up to 7 positions
- Wide working area bearing 3000 kg test pieces
- Remote control via Internet for service, quick diagnosis and software update
- As optional, milling surface preparation tool

ACTION

Just one push of the start button activates the continuous 500mm stroke in one 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

Brinell:	153.2 - 306.5 - 612.9 - 1226 - 1839 - 2451 - 4903 - 7355 - 9870 - 29421 N (15.6 - 31.2 - 62.5 - 125 - 187.5 - 250 - 500 - 750 - 1000 - 3000 kgf)
Vickers/Knoop:	98.07 - 588.4 - 980.7 N (10 - 60 - 100 kgf)
Optional loads:	9.807 - 24.52 - 49.03 - 61.29 - 98.07 N (1 - 2.5 - 5 - 6.25 - 10 kgf)

FEASIBLE TESTS

Brinell HBW:	HBW1/30 - HBW2.5/15.625 - HBW2.5/31.25 - HBW2.5/62.5 - HBW2.5/187.5 - HBW5/25 - HRW5/62.5 - HBW5/125 - HBW5/250 - HBW5/750 - HBW10/100 - HBW10/250 - HBW10/500 - HBW10/1000 - HBW10/1500 - HBW10/3000
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OPTIONAL TESTS

Brinell HBW:	HBW1/1 - HBW1/2.5 - HBW1/5 - HBW1/10 - HBW2.5/6.25
Vickers/Knoop:	HV10 - HV60 - HV100

TECHNICAL DATA

Conformity Standards:	EN-ISO 6506-2 / ASTM-E10 / JIS
Load accuracy:	Better than 0.05 %
Readout Division:	0.1 HB
Head Stroke:	Fully motorized 500 mm / 20" (More as option)
Height Capacity:	500 mm / 20" (More as option)
Depth Capacity:	170 mm / 6.7" (More as option)
Working base dimension:	400 x 400 mm / 16 x 16" (More as option)
Tolerable Weight:	3000kg
Turret:	Motorized and pneumatic automatic turret. Self-switching 1 indenter + 1 objective (optional 5-7 steps)
Camera:	Firewire included
Lighting:	LED
Network:	Wire Ethernet connection for technical assistance, auto diagnosis and support
Temperature Range:	From 10 °C to 35 °C
Data Output:	USB / Ethernet
Power Supply:	110 or 220 V / 50÷60 Hz - Air compressed 5 ATM
Software:	Easydur
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.
Packing:	600kg - 160 x 130 x 230 cm / 62 x 51 x 90"