

LD 3000

BRINELL-VICKERS



The LD 3000 hardness tester is a very practical and strong instrument designed to perform Brinell hardness tests at 3000 kg and other loads starting from 10 Kg. LD 3000 also perform Vickers tests. The AFFRI system assures high performance using automatic selection and application of loads through a simple touch panel. Digital readout of load force and dwell time help the operator during the test. The test force is closed loop controlled through an electronic load cell connected to the indenter. All errors linked

to weight systems are eliminated, the test is fast and there is an absolute increase in accuracy in every condition. It includes a clamping cap for secure stability of large parts. The indenter moves through 30 mm into auto contact with the sample. The operator is required only to push the twin start buttons to initiate the complete test sequence: auto contact with the test surface, clamping, application of the test loads, release of sample. At the end of the cycle, the operator can easily measure the indentation in different systems:

Two different measurement systems

- **Through the microscope** we supply, in order to obtain Brinell Vickers values (standard).
- **BRIMATIC** which is the electronic microscope for automatic measure (it is an option).

It can be operated in areas subject to vibration.

No need to level.

It can work even if inclined.

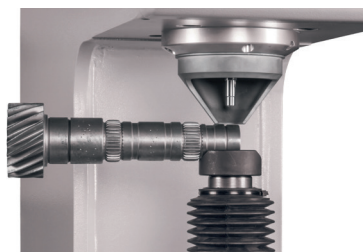
It can be operated at different temperature ranges from 0 to 50°C.

TECHNICAL DATA

Action	Just press one button and the Affri® system cycle starts: <ul style="list-style-type: none"> • The Indentation head approaches to the sample • System auto-clamps the sample • Establishes a surface reference point • Performs the analysis • Releases the sample This cycle is fully automatic. It avoids any risk of human errors and improves accuracy
Accuracy	Better than 0.5 %
Temperature Range	From 10 °C to 35 °C
Data Output	RS 232 C (USB as option)
Power Supply	110 or 220 V / 50-60 Hz
Software	Affri - OMAG
Principle of Operation	Load Cell and Closed Loop (Affri patent)
Force Range	Brinell: 98.07 - 147.1 - 294.2 - 306.5 - 612.9 - 1839 - 2452 - 4903 - 7355 - 9807 - 29421 N (10 - 15 - 30 - 31.2 - 62.5 - 187.5 - 250 - 500 - 750 - 1000 - 3000 kgf) Vickers: 98.07 - 147.1 - 294.2 - 490.3 - 980.7 N (10 - 15 - 30 - 50 - 100 kgf) (on request)
Feasible Tests	Brinell Vickers (optional)
Standards	EN-ISO 6506-2 / EN-ISO 6507-2 / EN-ISO 6508-2 / ASTM E10 / ASTM E18 / ASTM E92
Readout	Through the microscope or as optional with the automatic measuring system Brimatic
Dwell Time	From 5 to 60 seconds programmable
Screw Upward Movement	150 mm
Indenter Stroke / press piece	30 mm
Depth Capacity	190 mm
Fields Of Use	For all type of metals under Brinell tests procedure
Packing Weight	350 kg
Packaging Measurements	140 x 100 x 65 cm

STANDARD EQUIPMENT INCLUDED IN THE PRICE

Instruction manual, calibration certificate, dust cover, conversion table, warranty certificate, Ball indenter \varnothing 10 mm, Flat anvil 60 mm diameter for medium pieces, electrical connection cable 220V50/60Hz. 0.01 mm high resolution microscope with 6 mm drum scale for Brinell and Vickers indentation measurements



Optional accessory: Clamping base for large or unstable pieces

EXTRA ACCESSORIES

- Clamping base for secure lock samples
- Big flat anvil \varnothing 150 mm
- "V" anvil \varnothing 60 mm diameter for round pieces
- Double spot anvil \varnothing 60 mm flat + V \varnothing 25 mm
- Large square table 400 x 300 mm
- Ball indenter \varnothing 2.5 mm
- Ball indenter \varnothing 5 mm
- Test block HBW - 3000 Kg
- Test block HBW - 750 Kg
- Test block HBW - 187.5 Kg
- Indenter HV 136°
- Test block HV
- Brimatic



Optional: **Brimatic**
(Electronic microscope for automatic Brinell indentation measurements)



Standard microscope
(0.01 mm high resolution microscope with 6 mm drum scale)



Optional: Bench for LD3000