



NOVOTEST

## Digital Brinell Hardness Tester NOVOTEST TB-B-CM



### ◀Description▶

Digital Brinell Hardness Tester NOVOTEST TB-B-C implements direct resistance to indentation under Brinell method of hardness testing in accordance with **ISO 6506-2** and **ASTM E10**.

Digital Brinell hardness tester provides automatic electronically controlled values of loading, which allows user to simplify operations with the device, and significantly increases the accuracy and productivity of testing. Bench Digital Brinell Hardness Tester NOVOTEST TB-B-CM has high measuring accuracy, wide range of applicability in measurements.

Digital Brinell Hardness Tester NOVOTEST TB-B-CM has fully automatically test cycle: loading, dwell and unloading. As a result, the operator errors don't influence on measuring.

Motorized indenter and electronic control system allow making measurements of high accuracy. Absence of mechanical weights reduce problems of friction and vibration sensitivity of the tester.

Also, Digital Brinell Hardness Tester NOVOTEST TB-B-CM is equipped with high-precision optical microscope for imprint-size estimation.

Imprint diameter is measured manually by the built-in microscope, then operator inputs data and see ready hardness value on LCD screen. Operating is very easy, fast and convenient, no manual tables are used.

### ◀Application▶

Brinell hardness tester is used for:

- hardness testing of metal products by the Brinell scales;
- hardness testing of metals with different properties without additional calibrations;
- coarse-grain metal materials (cast iron, casted parts, non-ferrous metals and alloys);
- non-hardened steel;
- various tempered steels, hardening and tempering steels;
- products from soft metals (pure aluminum, lead, tin) and soft alloys;
- quality testing of heat-treated metal parts;
- verification of calibration hardness test blocks;
- production of hardness test blocks, which can be used for calibration of portable hardness testers

### ◀Advantages▶

- 10 test loads
- Has a function of loading the time of exposure, and it also has a setting of more accurate load
- Easy to change the hardness scale
- Automatic controlling the force of load
- Easy in operation

**◀Specification▶**

Indenter	Hard alloy ball indenters (2,5; 5 and 10mm)
Scales	HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5, HBW5/125, HBW5/250, HBW5/750, HBW10/100, HBW10/250, HBW10/500, HBW10/1000, HBW10/1500, HBW10/3000.
Testing load	62.5kgf (612.9N), 100kgf (980.7N), 125kgf (1226N), 187.5kgf (1839N), 250kgf (2452N), 500kgf (4903N), 750kgf (7355N), 1000kgf (9807N), 1500kgf (14710N), 3000kgf (29420N)
Testing materials	<ul style="list-style-type: none"><li>• Cemented carbides, thin steel and shallow case-hardened steel;</li><li>• Steel, hard cast irons, pearlitic malleable iron, titanium, deep case-hardened steel &amp; other material harder than HRB 100;</li><li>• Thin steel and medium case-hardened steel and pearlitic malleable iron;</li><li>• Hardened and surface hardened steel, hardened and tempered steel; cold and hard casted parts, forged parts; hard alloy steel; aluminum alloys; bearing steel; carbonized steel sheets and others</li></ul>
Hardness range	8-650 HB
Measuring time	5-60 sec
Microscope zoom	20X
Microscope accuracy	0.000625 mm
Min. size of test sample	0.005 mm
Max height of test sample	185 mm
Max depth of test sample	135 mm
Power supply	220V±5%, 50~60Hz
Data output	<ul style="list-style-type: none"><li>• Microscope</li><li>• Built-in printer</li><li>• RS-232 interface</li></ul>
Recommended operating conditions	<ul style="list-style-type: none"><li>• Air temperature: 0...+40 °C</li><li>• Air pressure: 94 – 106.7 kPa</li><li>• Humidity: up to 65%</li></ul>
Net weight	130 kg
Gross weight	140 kg
Package dimensions	670*470*866 mm (L*W*H)



## ◀Standard set▶

- Brinell Hardness Tester NOVOTEST TB-B-CM
- Hard alloy steel ball indenters (d=2.5; 5 and 10 mm – 3 pcs. In total)
- Built-in measuring microscope
- 20X lens
- Large testing table
- Medium testing table
- V-shaped testing table
- Brinell hardness test blocks (3 pcs. in total):
  - HBW/3000/10(150~250) – 1pc.
  - HBW/1000/10(75~125) – 1pc.
  - HBW/187.5/2.5(150~250) – 1pc.
- Bolt adjustor (4 pcs.)
- Power cable
- Fuse (2pcs.)
- Operating manual
- Calibration certificate
- Transportation box

## ◀Available options▶

- Standard hardness test blocks
- measuring microscope
- 20X lens
- Large testing table
- Medium testing table
- V-shaped testing table
- Other kinds of power supply
- Bolt adjustor
- Power cable
- Fuse
- Hardness testers can be equipped with a system of scanning of imprints, which allows operator to get imprint on PC monitor and, as a result, to measure it easily