

## Touch Screen Computerized Digital Brinell Hardness Tester

Model: HBST-3000



### Brief Introduction:

HBST-3000 adopts precise structure design and the load of test force is controlled by the sensor, which makes the whole structure compact and loading of test force stable and exact.

All the parameters can be showed and set on the 5.6" touch screen with easy operation.

The test process is controlled by CPU, using automatic switching between the objective and the indenter.

The location of switching adopts mechanical and electronic double matching, makes the location more precision.

The instrument has 10 steps test force and 13 kinds of Brinell testing scale for arbitrary selection; automatically recognize and shift between objectives and indenter;

Pre-set the dwell time of test force and regulate the luminosity of light source; Automatically display the testing indentation length, hardness value and testing numbers; Conversion scales of different kinds of hardness;

Test results can be saved for checking or be printed out by the built-in printer, and with RS232 interface for connecting to the computer.

Available to install optional video measuring device and CCD image automatic measuring system.

**Highlighted Features:**

- 1, Equips with digital eyepiece and precise computer system, just touch once can get hardness result;
- 2, With built-in calibration functions, support set error range;
- 3, Lightness adjust range 0-100;
- 4, Available save 100 groups measuring data;
- 5, Main interface can show 4 valid hardness conversion value, support standards switch among GB, ASTM, ISO;
- 6, with built-in printer, and internet connection to transfer data and save;
- 7, Self-designed optical system, image clarity, brightness adjustable, long-term operation should not be fatigue;

**Main Applications:**

- 1, Suitable for hardness tester with large grain metal materials, can reflect the comprehensive performance of the material;
- 2, cast iron, steel, non-ferrous metals, especially for softer metals, such as pure aluminum, lead, tin, etc.
- 3, can be used for hard plastic, bake lite and other non-metallic material hardness tester.

**Technical Specifications:**

Model	HBST-3000
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
Test Force	62.5kgf(612.9N), 100kgf(980.7N), 125kgf(1226N), 187.5kgf(1839N), 250kgf(2452N), 500kgf(4903N), 750kgf(7355N), 1000kgf(8907N), 1500kgf(14710N), 3000kgf(29420N)
Loading Control	Automatic (Loading/Dwell/Unloading)
Vertical Space	220mm
Horizontal Space	135mm
Indenter to Upper Wall	55mm, support customized
Resolution	0.125um
Dwell Time	0~60s
Hardness Range	8~650HBW
Magnification	20X
Execute Standards	EN ISO 6506, ASTM E-384, ASTM E-10-08, ASTM E-384 GB/T231.2, JJG150
Hardness Reading	Automatic Calculation and display
Data Output	Built-in Printer, USB
Power Supply	AC220±5%,50~60Hz
Dimension	520*210*745mm
Net Weight	150Kg

## LCD Screen Digital Brinell Hardness Tester HBS-3000

### Brief Introduction:

Digital display Brinell hardness tester HBS-3000 uses computer software programming, photoelectric sensing technologies. Through button input, select the test method and hardness scales displays on LCD large screen.

Also displays the test method, test force, measuring indentation length, hardness value, dwell time, and hardness conversion, with built-in printer and RS-232 interface.



### Main Functions and Features:

- 1, HBS-3000 is a high precision, high repeatability and stability hardness testing machine, easy operation, convenient and practical, cost-effective.
- 2, Integrated digital microscope and precise data calculation system to display the hardness value directly with just one click;
- 3, Equips with precision sensors and computer control system, the test results are accurate and stable;
- 4, Automatically enter the indentation diameter, directly display the hardness value, support hardness conversion;
- 5, Equips with high-performance stepper motor automatically loading, dwell and unloading, low noise during the testing process;
- 6, Self-designed optical system, image clarity, brightness adjustable, long-term operation should not be fatigue;
- 7, with data transmission RS232 interface, the measurement data can be transmitted to the computer for editing and saving;
- 8, The shell is cast once, the structure is stable without deformation, and it can work in a relatively harsh environment; The surface is treated with automobile paint, which has strong scratching ability and is still bright and new for many years;

**Main Application Range:**

- 1, Suitable for hardness tester with large grain metal materials, can reflect the comprehensive performance of the material;
- 2, cast iron, steel, non-ferrous metals, especially for softer metals, such as pure aluminum, lead, tin, etc.
- 3, can be used for hard plastic, bakelite and other non-metallic material hardness tester

**Technical Specifications:**

Model	HBS-3000
Brinell ruler	HBW2.5/62.5, HBW2.5/187.5, HBW5/125, HBW5/750, HBW10/100, HBW10/1500, HBW10/3000, HBW10/250, HBW10/500, HBW10/1000
Test force	62.5kgf(612.9N), 100kgf(980.7N), 125kgf(1226N), 187.5kgf(1839N), 250kgf(2452N), 500kgf(4903N), 750kgf(7355N), 1000kgf(8907N), 1500kgf(14710N), 3000kgf(29420N)
Maximum height of test piece	280mm
Indenter to wall distance	150mm
Indenter - Upper wall distance	55mm
Minimum measurement unit	0.125um
Dwell time	0~60s
Hardness test range	8~650HBW
Total magnification	20X
Executive standard	EN ISO 6507, EN ISO 6506, ASTM E-384, ASTM E-10-08, ASTM E-384 GB/T231.2, JJG150
Hardness reading	Automatic calculation
power supply	AC220±5%,50~60Hz
Dimensions(mm)	565*230*7980mm
Weight of host	About 200kg

**Accessories:**

Name	Quantity	Name	Quantity
Digital Eyepiece	1	Diameter 2.5,5,10mm Carbide Ball Indenter	1
Standard hardness block	3	Large, V-type test bench	1
Power cable	1	Product certification, product instruction manual	1
Fuse	2	printer paper	1
RS232 Cable	1	Dust cover	1

### Electronic Brinell Hardness Tester HBE-3000A

HBE-3000A Electronic Cast Iron Brinell Hardness Tester is the closed loop sensor loading, the electronic control system, has 10 levels test force. The machine has high precision, high repeatability and stability, simple operation, etc



#### Features:

- 1, High accuracy compression sensor to feedback and the CPU control system to automatically compensate the test force lost during the testing.
- 2, 10 Steps Testing force for wider application;
- 3, Equips with stepping motor to realize automatic loading, dwell and unloading, with much lower noise during testing;
- 4, Die casting metal shell, stable structure, able to work under rugged environment;
- 5, Surface with car baking process, strong resistance of scratches, still brightness after years using;
- 6, Available to install optional Brinell measuring software, largely improve working efficiency.

**Applications:**

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. Also suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Because of the wide test force range the Brinell test can be used on almost any metallic material. The part size is only limited by the testing instrument's capacity.

**Strengths**

- 1, One scale covers the entire hardness range, although comparable results can only be obtained if the ball size and test force relationship is the same
- 2, A wide range of test forces and ball sizes to suit every application
- 3, Nondestructive, sample can normally be reused

**Weaknesses**

- 1, The main drawback of the Brinell test is the need to optically measure the indent size. This requires that the test point be finished well enough to make an accurate measurement
- 2, Slow. Testing can take 30 seconds not counting the sample preparation time

**Technical Specifications:**

Model	HBE-3000A
Brinell Scales	HBW2.5/62.5, HBW2.5/187.5, HBW5/125, HBW5/750, HBW10/1000, HBW10/1500, HBW10/3000, HBW10/250, HBW10/500, HBW10/100
Test Force	62.5kgf(612.9N), 100kgf(980.7N), 125kgf(1226N), 187.5kgf(1839N), 250kgf(2452N), 500kgf(4903N), 750kgf(7355N), 1000kgf(8907N), 1500kgf(14710N), 3000kgf(29420N)
Vertical Space	220mm
Resolution	0.005mm
Dwell Time	0~60s
Hardness Range	8~650HBW
Magnification	20X
Standards	GB/T231.2, JJG150
Horizontal Space	135mm
Hardness Reading	By Check Brinell Table
Power Supply	AC220 $\pm$ 5%, 50~60Hz
Dimension (mm)	520*210*745mm
Weight	90kg

**Standard Delivery:**

Microscope	1pc	Indenter 2.5, 5, 10mm	Each 1pc
Test Block	3pcs	Flat and "V" Shape Test Anvil	Each 1pc
Power Cable	1pc	Operation Manual	Each 1copy
Fuse	2pcs	Brinell Table	1copy