

## 601MHB Digital Brinell Hardness Tester

### Main Function:

601MHB Digital Brinell hardness tester is a high-tech and new product combining the optics, mechanic and electrics features, with a novel and pleasing appearance, direct-viewing display, stable performance and good reliability, hence, it is an ideal instrument for the testing of low load Brinell hardness. The instrument has 8 steps test force and 9 kinds of Brinell testing scale for arbitrary selection; With 2 sets of objectives  $5\times$  and  $10\times$  both can be used for measurement; Automatic shifting between the objectives and the 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; The test result can be printed out by the built-in printer and with RS232 interface for connecting to the computer; According to the client's requirement, it can be equipped with video measuring device and CCD image automatic measuring system.

### Application range:

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.

### Technical Specification:

Model		601MHB
Test Force	kgf	1kgf, 5kgf, 6.25kgf, 10kgf, 15.625kgf, 30kgf, 31.25kgf, 62.5kgf
	N	9.807N, 49.03N, 61.29N, 98.07N, 153.2N, 294.2N, 306.5N, 612.9N
Test Range		3.18~653HBW
Data Output		Built-in Printer, RS232 Interface
Loading Method		Automatic (Loading/Dwell/Unloading)
Shifting between Objective and Indenter		Automatic Shifting
Objective		$5\times$ , $10\times$
Eyepiece		$10\times$
Total Magnification		$50\times$ , $100\times$
Resolution		$0.5\mu\text{m}$ , $0.25\mu\text{m}$
Dwell Time		0~60s
Light Source		Cold Light Source
Max. Height of Specimen		170mm

Throat	130mm
Power Supply	AC220V, 50Hz
Execute Standard	ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension	530×280×630mm, Packing Dimension: 620×450×740mm
Weight	Net Weight: 35kg, Gross Weight: 47kg

**Packing List:**

Name	Qty	Name	Qty
Instrument Main Body	1 set	10 <sup>×</sup> Eyepiece	1 pc
5 <sup>×</sup> 、10 <sup>×</sup> Objective	each 1 pc	Φ1mm, Φ2.5mm, Φ5mm Ball Indenter	each 1 pc
Large Plane Test Table	1 pc	V-shaped Test Table	1 pc
Screw Driver	1 pc	Level	1 pc
Horizontal Regulating Screw	4 pcs	Hardness Block 90~120 HBW 2.5/62.5	1 pc
Hardness Block 180~220 HBW 1/30	1 pc	Fuse 1A	2 pcs
Power Cable	1 pc	Inner Hexagon Spanner 2.5mm	1 pc
Anti-dust Cover	1 pc	Usage Instruction Manual	1 copy



## DHB-3000 Electronic Brinell Hardness Tester

### Main Function:

DHB-3000 Electronic Brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. The instrument adopts the motorized test force application without weights, and uses 0.5% accuracy compression sensor to feedback and the CPU control system to automatically compensate the test force lost during the test. The test force and dwell time can be directly set on the touch keyboard with reliable repeatability, precise reading and easy operation. It can be equipped with V1.0 Brinell image automatic measuring system.

### Application range:

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.

### Technical Specification:

Model		DHB-3000
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Hardness Reading		Check Hardness Table
Microscope		20 <sup>×</sup> Reading Microscope
Minimum Division Value of Drum Wheel		5μm
Dwell Time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power Supply		AC220V, 50Hz
Execute Standard		ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension		545×235×755mm, Packing Dimension: 650×435×1025mm
Weight		Net Weight: 130kg, Gross Weight: 160kg

### Packing List:

Name	Qty	Name	Qty
Instrument Main Body	1 set	20 <sup>×</sup> Reading Microscope	1 pc
Φ2.5mm, Φ5mm, Φ10mm	each 1	Large Plane Test Table	1 pc

Ball Indenter	pc		
Small Plane Test Table	1 pc	V-shaped Test Table	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Fuse 2A	2 pcs	Power Cable	1 pc
Anti-dust Cover	1 pc	Brinell Hardness Table	1 copy
Usage Instruction Manual	1 copy		



## MHB-3000 Digital Brinell Hardness Tester

### Main Function:

MHB-3000 Digital Brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. The instrument adopts the motorized test force application without weights, and uses 0.5% accuracy compression sensor to feedback and the CPU control system to automatically compensate the test force lost during the test. With external digital measuring microscope, no need for checking the table or inputting the diagonal of the indentation, it can directly show the hardness value, test force, dwell time and indentation length. As long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen, with precise reading and easy operation.

### Application range:

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.

### Technical Specification:

Model		MHB-3000
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Hardness Reading		LCD Display
Microscope		20× Digital Measuring Microscope
Minimum Division Value of Drum Wheel		1.25μm
Dwell Time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power Supply		AC220V, 50Hz
Execute Standard		ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension		545×235×755mm, Packing Dimension: 650×435×1025mm
Weight		Net Weight: 130kg, Gross Weight: 160kg

### Packing List:

Name	Qty	Name	Qty
Instrument Main Body	1 set	20 <sup>x</sup> Digital Measuring Microscope	1 pc
Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	each 1 pc	Large Plane Test Table	1 pc
Small Plane Test Table	1 pc	V-shaped Test Table	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Fuse 2A	2 pcs	Power Cable	1 pc
Anti-dust Cover	1 pc	Usage Instruction Manual	1 copy



## XHB-3000 Digital Brinell Hardness Tester

### Main Function:

XHB-3000 Digital Brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. The instrument adopts the motorized test force application without weights, and uses 0.5% accuracy compression sensor to feedback and the CPU control system to automatically compensate the test force lost during the test. The indentation can be directly measured through the digital measuring eyepiece, and it can intuitively show the test force, indentation length, dwell time, test number, date and time on the large screen. As long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. 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. According to the client's requirement, it can be equipped with video measuring device and CCD image automatic measuring system.

### Application range:

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.

### Technical Specification:

Model		XHB-3000
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Hardness Reading		LCD Display
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS
Data Output		Built-in Printer, RS232 Interface
Microscope		20× Digital Measuring Eyepiece
Minimum Division Value of Drum Wheel		1.25μm
Dwell Time		0~60s
Max. Height of Specimen		225mm
Throat		135mm
Power Supply		AC220V, 50Hz
Execute Standard		ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2



Dimension	545×235×790mm, Packing Dimension: 650×435×1060mm
Weight	Net Weight: 130kg, Gross Weight: 160kg

**Packing List:**

Name	Qty	Name	Qty
Instrument Main Body	1 set	20× Digital Measuring Eyepiece	1 pc
Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	each 1 pc	Large Plane Test Table	1 pc
Small Plane Test Table	1 pc	V-shaped Test Table	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Fuse 2A	2 pcs	Power Cable	1 pc
Anti-dust Cover	1 pc	Usage Instruction Manual	1 copy



## **XHB-3000Z II Three Indenters Digital Brinell Hardness Tester**

### **Main Function:**

XHB-3000Z II Three indenters digital Brinell hardness tester 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 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 precision more high. The instrument has 10 steps test force and 13 kinds of Brinell testing scale for arbitrary selection; With three indenters and two objectives, all can be used for measurement, automatic recognition and shifting between the objectives and the 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. According to the client's requirement, it can be equipped with video measuring device and CCD image automatic measuring system.

### **Application range:**

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.

### **Technical Specification:**

Model		XHB-3000Z II
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Loading Method		Automatic (Loading/Dwell/Unloading)
Hardness Reading		Touch Screen Display
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS
Data Output		Built-in Printer, RS232 Interface
Shifting between Objective and Indenter		Automatic Recognition and Shifting (Three Indenters, Two Objectives)
Objective		1 <sup>×</sup> , 2 <sup>×</sup>

Eyepiece	20 <sup>×</sup>
Total Magnification	20 <sup>×</sup> , 40 <sup>×</sup>
Resolution	1.25μm , 0.625μm
Dwell Time	0~60s
Max. Height of Specimen	260mm
Throat	150mm
Power Supply	AC220V, 50Hz
Execute Standard	ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension	535×260×890mm, Packing Dimension: 820×460×1170mm
Weight	Net Weight: 150kg, Gross Weight: 180kg

**Packing List:**

Name	Qty	Name	Qty
Instrument Main Body	1 set	20 <sup>×</sup> Digital Measuring Eyepiece	1 pc
1 <sup>×</sup> , 2 <sup>×</sup> Objective	each 1 pc	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	each 1 pc
Small Plane Test Table	1 pc	Large Plane Test Table	1 pc
V-shaped Test Table	1 pc	Power Cable	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Fuse 2A	2 pcs	Anti-dust Cover	1 pc
Usage Instruction Manual	1 copy		



## **XHB-3000Z Three Indenters Digital Brinell Hardness Tester**

### **Main Function:**

XHB-3000Z Three indenters digital Brinell hardness tester 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. 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 precision more high. The instrument has 10 steps test force and 13 kinds of Brinell testing scale for arbitrary selection; With three indenters and two objectives, all can be used for measurement, automatic recognition and shifting between the objectives and the 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. According to the client's requirement, it can be equipped with video measuring device and CCD image automatic measuring system.

### **Application range:**

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.

### **Technical Specification:**

Model		XHB-3000Z
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Loading Method		Automatic (Loading/Dwell/Unloading)
Hardness Reading		LCD Display
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS
Data Output		Built-in Printer, RS232 Interface
Shifting between Objective and Indenter		Automatic Recognition and Shifting (Three Indenters, Two Objectives)
Objective		1 <sup>×</sup> , 2 <sup>×</sup>
Eyepiece		20 <sup>×</sup>
Total Magnification		20 <sup>×</sup> , 40 <sup>×</sup>

Resolution	1.25μm , 0.625μm
Dwell Time	0~60s
Max. Height of Specimen	260mm
Throat	150mm
Power Supply	AC220V, 50Hz
Execute Standard	ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension	535×260×890mm, Packing Dimension: 820×460×1170mm
Weight	Net Weight: 150kg, Gross Weight: 180kg

**Packing List:**

Name	Qty	Name	Qty
Instrument Main Body	1 set	20× Digital Measuring Eyepiece	1 pc
1×, 2× Objective	each 1 pc	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	each 1 pc
Small Plane Test Table	1 pc	Large Plane Test Table	1 pc
V-shaped Test Table	1 pc	Power Cable	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Fuse 2A	2 pcs	Anti-dust Cover	1 pc
Usage Instruction Manual	1 copy		





## **XHBT-3000Z III Fully Automatic Three Indenters Digital Brinell Hardness Tester**

### **Main Function:**

XHBT-3000Z III fully automatic three indenters digital Brinell hardness tester adopts casting shell with strong rigidity and precise structure design, the load of test force is controlled by the sensor, which makes the whole structure compact and loading of test force stable and exact. 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 precision more high. With built-in panel computer, it makes the parameter setting and results show directly with easy operation, it also avoids the stimulation and visual fatigue of the light source of the eyepiece, and reduces the measuring error. After select the scale, the instrument will automatically select the indenter and objective, the test table rises automatically and then back to the focusing position after loading the test force, it shows the clear image of the indentation and automatically measures, which realizes the fully automation of the Brinell test.

- This instrument has 10 level of test force, 13 Brinell hardness test scales, suitable for different kinds of metal materials;
- With three indenters and two objectives, no need to change the indenters when testing different samples; with rigorous optical structure and high magnification, it makes the indentation observed clearly;
- According to the selected scale, with automatic shifting the instrument will automatically select the corresponding indenter and objective for measurement;
- The automatic lifting test table adopts precise structure with high stability, it automatically rises when start measuring, and then back to the focusing position for measuring after loading the test force, which realizes the one key automation;
- It adopts the integrated design of hardness tester and panel computer; With Windows 7 operating system, it has all functions of computer;
- With CCD image measuring system, touch screen operating and displaying, it can preset the test force dwell time, adjust intensity of light source, show the indentation length, hardness value, test range and test number etc.;
- The software has the function of calibration, manual fine tuning and set up and down limit etc., which ensures the accuracy of measurement;
- Conversion scales of different kinds of hardness;
- Test result can be saved as WORD or EXCEL report and can be printed out;
- With USB port, VGA interface and network interface, it can connect to the internet and other devices for more optional functions.

**Application range:**

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.

**Technical Specification:**

Model		XHBT-3000Z III
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18~653HBW
Loading Method		Automatic (Loading/Dwell/Unloading)
Hardness Reading		Indentation Displaying and Automatic Measuring on Touch Screen
Computer		CPU: Intel I3, Memory: 2G, SSD: 32G
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW
Data Output		USB Port, VGA Interface, Network Interface
Shifting between Objective and Indenter		Automatic Recognition and Shifting (Three Indenters, Two Objectives)
Objective		1 <sup>×</sup> , 2 <sup>×</sup>
Total Magnification		20 <sup>×</sup> , 40 <sup>×</sup>
Resolution		1.25μm , 0.625μm
Dwell Time		0~95s
Max. Height of Specimen		260mm
Throat		150mm
Power Supply		AC220V, 50Hz
Execute Standard		ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2
Dimension		600×330×890mm, Packing Dimension: 820×460×1170mm
Weight		Net Weight: 150kg, Gross Weight: 180kg

**Packing List:**

Name	Qty	Name	Qty
Instrument Main Body	1 set	1 <sup>×</sup> , 2 <sup>×</sup> Objective	each 1 pc
Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	each 1 pc	Small Plane Test Table	1 pc

Large Plane Test Table	1 pc	V-shaped Test Table	1 pc
Fuse 2A	2 pcs	Power Cable	1 pc
Hardness Block 150~250 HBW 10/3000	1 pc	Hardness Block 150~250 HBW 5/750	1 pc
Inner Hexagon Spanner	1 pc	Anti-dust Cover	1 pc
Usage Instruction Manual	1 copy		

