713-11-3000

Electronic Loading Digital Brinell Hardness Tester

Important notices and safety information

713-11-3000 The data of various operation processes and test results of the electronic digital Brinell hardness tester can be displayed on the LTD touch screen, and the data of the test results can be output through the printer. This machine is suitable for all kinds of production and processing enterprises, colleges and universities, laboratories of scientific research machinery.

The test process of the machine is displayed on the LCD touch screen, the indentation can be directly measured on the instrument through the micrometer eyepiece, and the diameter of the indentation can be displayed on the LCD touch screen display screen, and the electronic force is applied.

Determination of the Brinell hardness of ferrous metals, non-ferrous metals and bearing alloy materials, with a wide range of applications, suitable for precise measurement of parallel planes, and stable and reliable measurement of curved surfaces.

Main Specifications

Name	Specification
Test force	62.5kgf，100kgf，125kgf，187.5kgf，250kgf，500kgf，750kgf，1000kgf，1500kgf，3000kgf 612.9N，980.7N，1266N，1839N，2452N，4903N，7355N，9807N，14710N，29420N
Convertible ruler	HRA、HRB、HRC、HRD、HRF、HV、HK、HBW、HR15N、HR30N、HR45N、HR15T、HR30T、HR45T
Measuring range	8~650HBW
Data output	Buildin printer
Maximum allowable height of the test piece	280mm
The distance from the center of the indenter to the machine wall	150mm
Power supply	AC220V，50Hz
Hardness reading	Digital display touch screen LCD to read hardness value
Implementation standard	ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2
Dimensions	230*600*920mm
Weight	130Kg

The metal Brinell hardness test system uses a certain diameter of cemented carbide ball, presses it into the surface of the material to be tested with a specified test force (Figure 1a). After holding for a specified time, the test force is removed, and the indentation on the surface of the sample is measured (Figure 1b). diameter, to calculate the Brinell hardness, and calculate it as follows:：

$$HBW=0.102 \times 2F/\pi D(D-\sqrt{D^2-d^2})$$

In formula：F--------test force N；

D-------ball diameter mm；

d--------Indentation average diameter mm;

HBW---Brinell hardness measured with a carbide ball indenter.

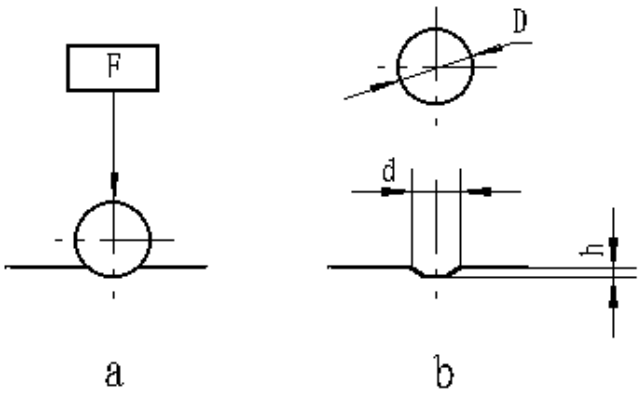
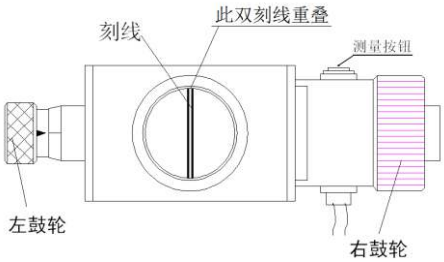


图1

For example: 216HBW10/3000/10, when the hardness of 216 is measured with a cemented carbide ball with a diameter of 10mm and a test force of 29.42KN (3000kgf) for 10 seconds, its Brinell hardness is represented by the symbol HBW, and so on.

Product advantages

01 The data of each operation process and test results can be displayed on the large LCD screen. During operation, just measure the indentation and press the eyepiece button, the hardness value can be automatically calculated and displayed on the screen.



02 The data of the experimental results can be output through the printer.

03 There are 14 hardness conversion scales that can be converted.

Operation keyboard and display

The buttons displayed on the screen are: start, reset, save, print, dwell time, historical data, light adjustment, hardness conversion, measurement data, measurement scale, hardness display, time and date display and setting.

Dwell time： Click the icon on the screen to enter the dwell time setting.

Historical data: Click on the historical data to pop up the historical data menu to display the saved historical data. View, print and delete by turning the page up and down. Press the back key to return to the main menu.

Hardness conversion: You can click the key  on the screen to enter the hardness conversion, and select the hardness value to be converted.

Lighting adjustment: You can click the plus and minus symbols in the lighting adjustment to adjust the light up and down, or you can click the number to pop up the digital input button for input.

Measurement data: The measurement values of D1 and D2 are displayed in the measurement data.

Hardness display: Displays the measured hardness value.

Measuring scale: Select the required test scale, and select the load weight of the instrument according to the test scale.

Packing List

Name	Specification	Unit	Quantity	Note
Brinell hardness tester		Set	1	
Big flat workbench		Pc	1	
Small flat workbench		Pc	1	
V-shaped workbench		Pc	1	
Carbide indenter	Φ2.5、Φ5、Φ10	Pc	3	
Standard Brinell hardness block	200±50HBW 10/3000	Pc	1	
Standard Brinell hardness block	100±25HBW 10/1000	Pc	1	
Accessory box		Pc	1	
Dust cover		Pc	1	
Manual		Sheet	1	
Power cable		Pc	1	
Certificate of Qualification		Sheet	1	