HST-HBT3000PCZ (Visual touch screen digital Brinell hardness tester)

1. Industrial tablet computer integration, support USB expansion
2. Visual display of indentation and automatic hardness measurement
3. Automatically generate WORD report to meet the needs of test personnel

HST-HBT3000PCZ touch-screen digital Brinell hardness tester can be easily measured by operating a touch tablet computer! And all the parameters required for the test can be directly selected, modified and analyzed on the computer. The PC terminal is connected with the hardness tester through communication protocol to control the mechanical moving parts of the hardness tester. It can realize: automatic multi-function tower position, automatic identification of objective lens and indenter, automatic loading, automatic load keeping, automatic unloading, and light brightness. By linking the built-in CCD measurement and acquisition system, clear indentation image dynamics can be displayed on the PC in real time, and the indentation can also be directly locked to automatically measure the hardness value, automatically save the test data, and generate a report. The operation is very simple and fast,

eliminating man-made measurement errors.. With tablet computer as the platform, more application functions can be expanded through the Internet, and external displays, printers and other devices can also be connected.

The hardness tester's machine software system adopts computer intelligent programming, uses photoelectric sensor technology, and independently selects test conditions. The test method, upper and lower limit range can be displayed on the 5.6-inch touch multifunctional display screen, and the indentation length, hardness value, and conversion value can be measured , Test force, hold time, number of measurements, and can enter year, month, date, test results and data processing, etc., and can output measurement data through a built-in printer or connect to a computer through a data interface. The optical system adopts high-magnification LED optical measurement, the image clarity is high, the brightness is adjustable, and the long-term operation is not suitable for fatigue. The hardware system uses advanced electronic sensor loading technology. Through the closed-loop control system, the CPU controls the sensor to collect signals. The stepper motor automatically loads and unloads the test force, and can automatically compensate the test force to ensure more accurate force values and better indications. Stablize. At the same time, it is equipped with an emergency stop device, which meets the EU CE safety standards. With humanized operability, more reliable stability and safety.

Automatic measurement system functions and features：

1. Purpose: Used for Brinell hardness indentation measurement
2. Test force range: 62.5, 100, 125, 187.5, 250, 500, 750, 1000, 1500, 3000kgf
3. Indentation measurement accuracy: ±0.5%
4. Meet the ASTM E10 standard to automatically measure the indentation and calculate the Brinell hardness value;
5. The German industrial standard DIN1605 automatically measures the indentation of the test sample and the indentation of the standard block and calculates the hammer Brinell hardness value HB2;
6. Automatic measurement: automatically or manually capture the indentation and measure the indentation diameter and calculate the corresponding Brinell hardness value;
7. Hardness value conversion and effective verification: The system can convert the measured Brinell hardness value HB into other hardness values such as HV, HR, etc.;
8. Data statistics: The system automatically calculates and saves the average and variance of the measured hardness statistics;
9. Exceeding standard alarm: automatically indicate the abnormal value, and automatically alarm when the hardness exceeds the specified value;
10. Test report: WORD or EXCEL format report is automatically generated, and the report template can be customized;
11.Data storage: measurement data including indentation images and other usable documents are stored;
12. Other functions: Contains all the functions of the image processing and measurement system, including image capture, calibration, image processing, geometric size measurement
Volume, document labeling, album management, and fixed-time printing, etc.;
13. Easy to use: Click the interface button or you can automatically complete the indentation measurement work, if you need to manually measure or modify the results, you can directly
Just drag the measuring frame;
14. Strong anti-noise: advanced and reliable image recognition technology can handle indentation recognition on the surface of complex samples. Two automatic measurement modes come from
Rationale for extreme situations;

The main functions and characteristics of the hardness tester：

1. This machine has the characteristics of high precision, high repeatability and stability, simple operation, convenient and practical, and high cost performance;
2. Possesses level 10 test capability, and can test a wider range;
3. Equipped with digital display micrometer eyepiece and accurate data calculation system, the hardness value can be directly displayed with just one tap;
4. The system comes with a calibration function, which can manually adjust the input calibration instrument, and can also calibrate the eyepiece magnification.
5. Adjustable range of optical system brightness: 0-100
6. It can store up to 100 sets of test data
7. The operating system can be converted between Chinese and English
8. The main interface can display 5 conversion rulers at the same time
9. Equipped with a built-in printer to output the measurement data or connect to the computer to transmit the measurement data of the host to the computer for editing and saving;
10. Equipped with high-performance stepper motor to automatically load and unload the test force, the noise generated during the test is smaller
11. Using photoelectric sensor technology and microcomputer control system, it can automatically compensate, and the test results are accurate and stable;
12. Automatically enter the indentation diameter and directly display the hardness value, which can realize dual display of any hardness unit, avoiding the cumbersome check-up table;
13. Self-contained design of high-magnification LED optical measurement, high image clarity, adjustable brightness, long-term operation is not suitable for fatigue;
14. The shell is cast at one time, the structure is stable and does not deform, and it can work in a relatively harsh environment;
15. The surface is treated with the car paint process, which has strong scratching ability and is still bright as new after years of use;

Technical parameter：

Product model	HST-HBT3000PCZ
Brinell Ruler	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/holding/unloading)
Maximum height of specimen	220mm
Indenter-outer wall distance	135mm

Indenter-upper wall distance	55mm（The distance from the indenter to the upper machine wall can be increased by customizing the indenter ）
Smallest unit of measurement	0.125um
Dwell time	0~60s
Hardness test range	8~650HBW
Turret	Automatic turret
Hardness reading	PCAutomatic hardness measurement
Error correction	The system calibrates the hardness at any time
Qualified judgment	The qualified range can be set, and the machine automatically reminds whether it is qualified
Total magnification	20X
Executive standard	EN ISO 6506, , ASTM E-10-08, GB/T231.2，JJG150 -2005
Data output	The computer saves the test data directly
power supply	AC220±5%,50~60Hz
Overall size (mm)	520*210*745mm
Host weight	About 125kg