

iBrin-3000EV

Electronic Touch Screen Vision Brinell Hardness Tester



Video



Contact us

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Feature and Application

Product Feature

- Closed loop loading with high-precision load cell and single - chip microcomputer control ensure precise automatic loading and unloading, guaranteeing reliable test results.
- Variety of test force levels, ranging from 0.613 KN to 29.42 KN, meeting the hardness testing requirements for different materials.
2.5mm,5mm,10mm three carbide brinell ball indenters
- The test force dwelling time can be flexibly adjusted from 1 to 99 seconds, adapting to the characteristics of various materials and testing standards.
- The maximum test height is 280mm, and test throat is 150mm, providing ample operating space.
- Instrument function on touch screen is clearly divided, operating simple: data viewing, processing, and calibration can be easily completed.
- iBrin-3000EV complies with standards such as GB/T231.2 - 2002 ensuring accuracy.

Product Application

- iBrin-3000EV brinell hardness tester is a bench - type machine, which is used to test the brinell hardness of annealed and normalized workpieces, cast parts, non - ferrous metals, various relatively soft components, or unquenched steel parts.
- It is suitable for use in metrology, metal metallurgy, chemical industry, machinery manufacturing, industry, as well as scientific research institutions of universities and colleges.
- Accurately detect the hardness of annealed and normalized parts to control the quality of metal processing.
Effectively measure the hardness of cast parts to ensure stable performance of products.
- Reliably test the hardness of non - ferrous metals to support the R & D and innovation of materials.
Precisely measure the hardness of soft components to ensure a good fit during assembly.
- Quickly identify the hardness of unquenched steel parts to improve production efficiency.

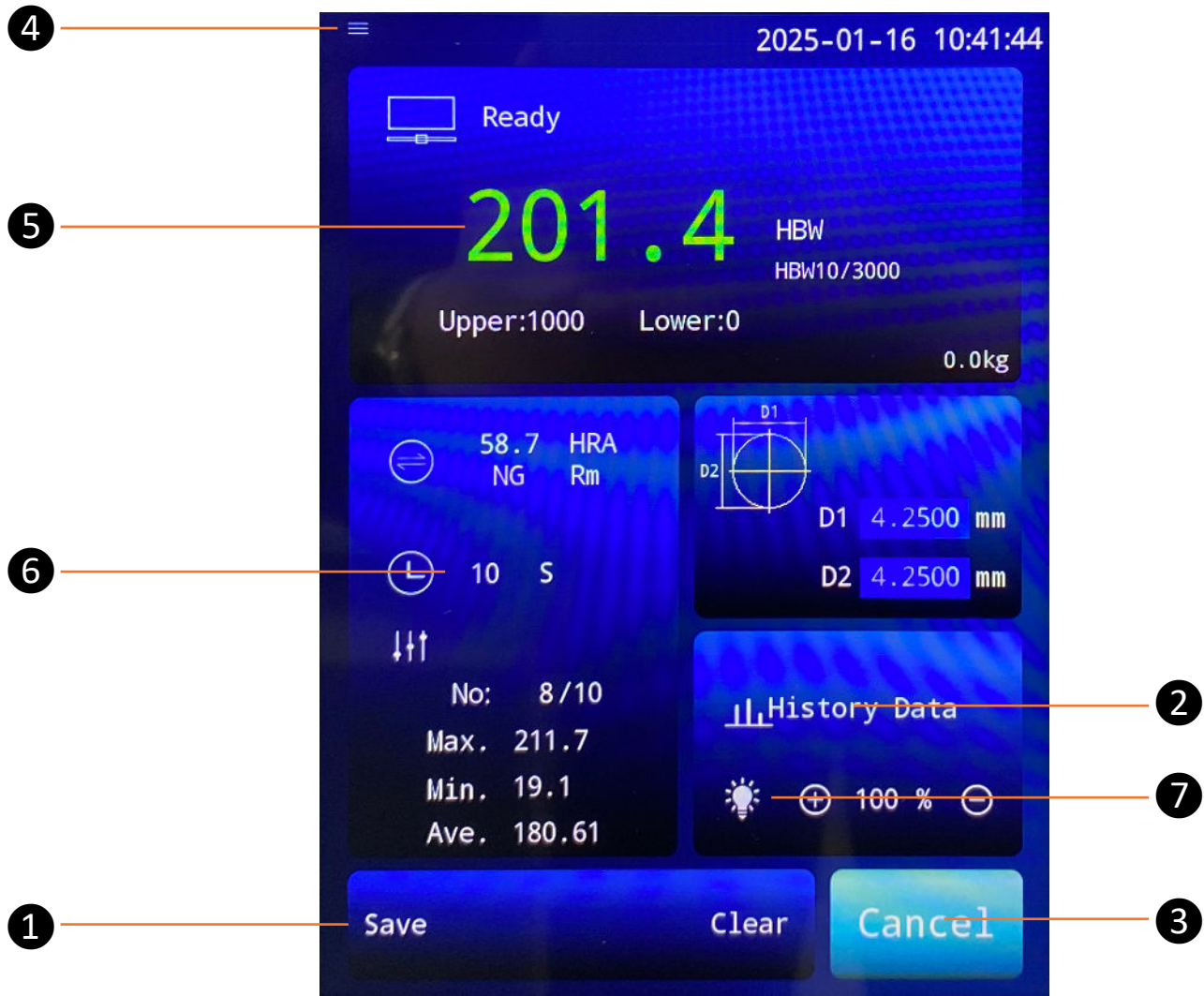


Product Details



Product Details

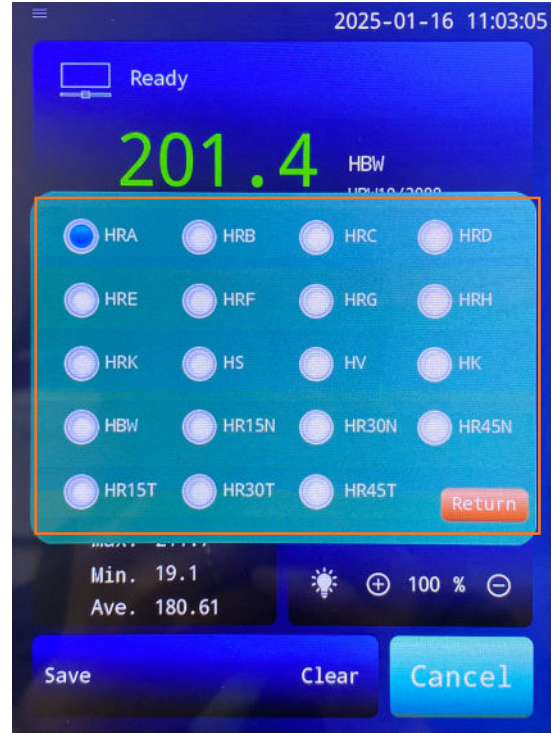
Touch Screen Function



- 1.Save: Save current test data and store it in the historical data.
- 2.History Data: View the previously saved historical data. You can scroll up and down to check, and also delete, print or export the historical data to a USB.
- 3.Cancel: Press "Cancel" during operation to stop the running process, and the indenter will return to initial state.
- 4.Function keys: Used for force value calibration, encoder calibration, and language switching.
- 5. Hardness Test Result
- 6. Dwelling Time Setting
- 7. Illumination Adjusting

Product Details

Brinell Hardness Scale Selection



Conversion Scale Selection

Measured Data Input



Technical Specification

Product Name		Electronic Touch Screen Vision Brinell Hardness Tester
Model		iBrin-3000EV
Data Display&Output		LCD Touch Screen/Computer
Test Force	kg	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 Force Resolution		0.1Kg
Brinell Scale		HBW2.5/31.25、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 Accuracy		62.5 ~ 250Kgf≤1%, 500 ~ 3000Kgf≤0.5%
Reading Microscope		Resolution :0.01 mm (The Minimum Reading Of Microdrum)
Ball Diameter		Φ2.5mm、Φ5mm、Φ10mm
Test Space		Test Height: 280mm Test Throat:150mm
Executive Standard		BSEN 6506, ISO 6506, ASTM E10, GB/T231
Loading Method		Automatic (Loading/Dwell/Unloading)
Test Force Dwelling Time		1-99 S (1 second /step)
Hardness Resolution		0.1 HBW
Hardness Test Range		8-650HBW
Power Supply		220V /2A /50Hz
Dimensions(L*W*H)		Machine: 520*250*950mm Package: 720*530*1150mm
Weight		Net Weight: 164Kg Gross Weight:195kg

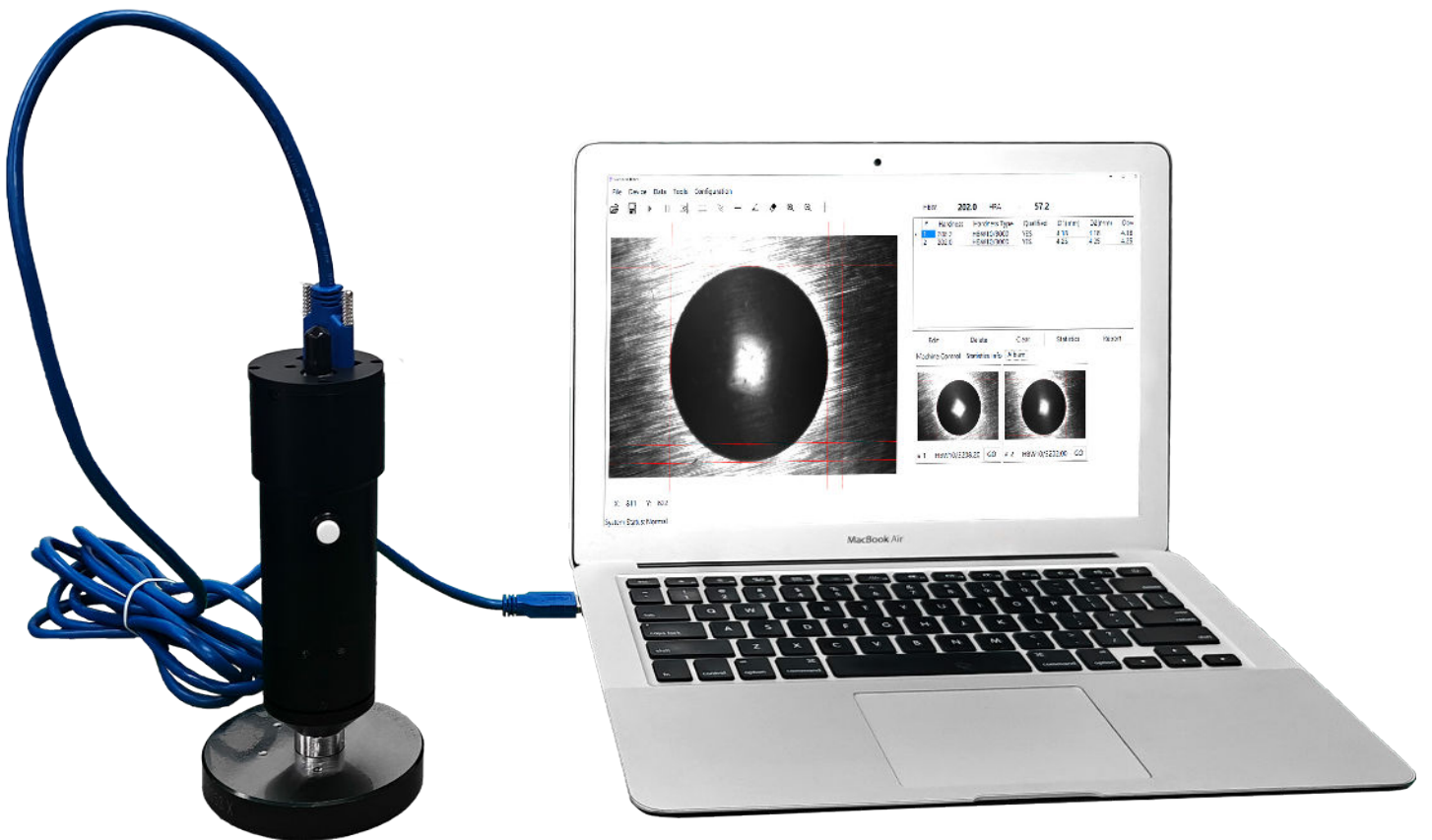
Standard Delivery

Name	Qty	Photo
Machine Mainframe	1set	
Φ150mm Test Anvil	1pc	
Φ80mm Test Anvil	1pc	
Φ80mm V-shape Test Anvil	1pc	
Φ10mm Hard Alloy Ball Indenter	1pc	
Φ5mm Hard Alloy Ball Indenter	1pc	
Φ2.5mm Hard Alloy Ball Indenter	1pc	
200±50HBW Brinell Hardness Block HB10/3000	1pc	

Standard Delivery

Name	Qty	Photo
100±25HBWBrinell Hardness Block HB10/1000	1set	
BRM-2Reading Microscope	1pc	
Power Cord	1pc	
Accessory Case	1pc	
Anti-dust Cover	1pc	
Instruction Manual	1copy	
Warranty Card	1copy	
Product Certificate	1copy	

uVision-PB Portable Brinell Hardness Testing System



Feature and Application

Product Feature

- Portability design: The system features a compact and exquisite structural design. It is easy to install and has an intuitive operation, fully meeting the convenient usage requirements in mobile scenarios.
- Professional optical system: By precise optical imaging technology, it can clearly present the contour of the Brinell indentation image, ensuring the accuracy of the measurement .
- Intelligent Image Analysis: By integrating three algorithms of shape recognition, brightness analysis, and edge computing, the accuracy of measurement results is significantly enhanced.
- Standard sample part testing supports both manual and automatic measurement: It is equipped with a one - click automatic measurement function, which simplifies the operation process and enables non - professionals to get started quickly. Manual measurement and adjustment are also supported.
- The brightness, contrast, and lighting system are adjustable. Parameters can be saved separately and input according to different sample surfaces.
- Multi - scenario applicability: Compatible with both laboratory - level precision inspection and rapid quality inspection in industrial sites.
- Hardness conversion: Automatically conduct conversions among various hardness scales such as Brinell, Rockwell, and Vickers.
- Real - time display of hardness indentation images, with the ability to store and print the images.
- Automatically record measuring data. Reports can be generated according to user - customized requirements and are supported in multiple formats.

Product Application

- Industrial Manufacturing and On - site Quality Control.
- It is applicable to scenarios such as foundries, forging workshops, and machining factories. It can quickly test the hardness of materials like cast iron, steel, non - ferrous metals, and alloys.
- Laboratory Material Research and Standardized Testing.
- It is used in scenarios such as hardness comparison experiments of metal materials and R & D testing of new alloys.
- Inspection of Large - scale Workpieces and Infrastructure Particularly suitable for in - situ inspection of large - scale castings and forgings, pipelines, and pressure vessels in scenarios such as power plants and steel mills.



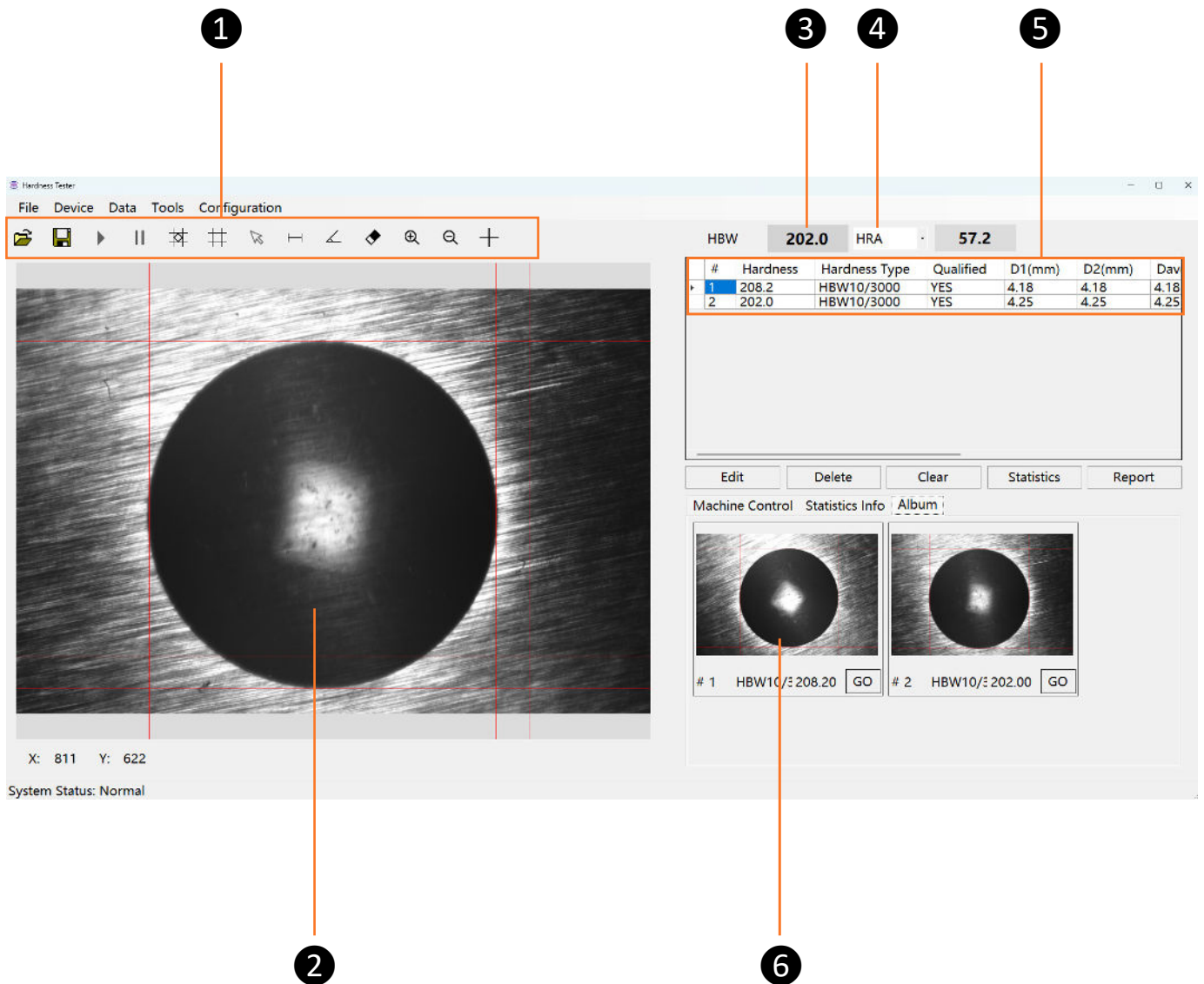
Product Details



1.RS232

2.Measuring Button

Software Main Interface



1.Toolbar

4.Conversion Scale

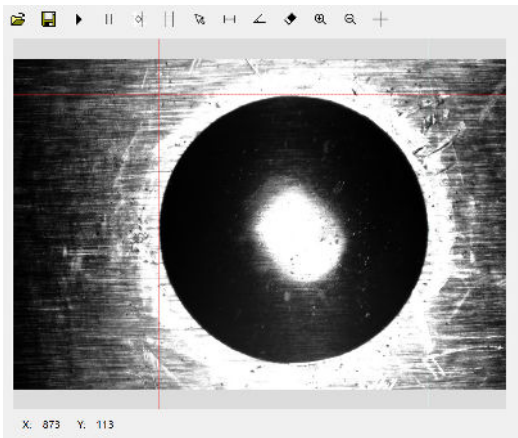
2.Indentation

5.Data List

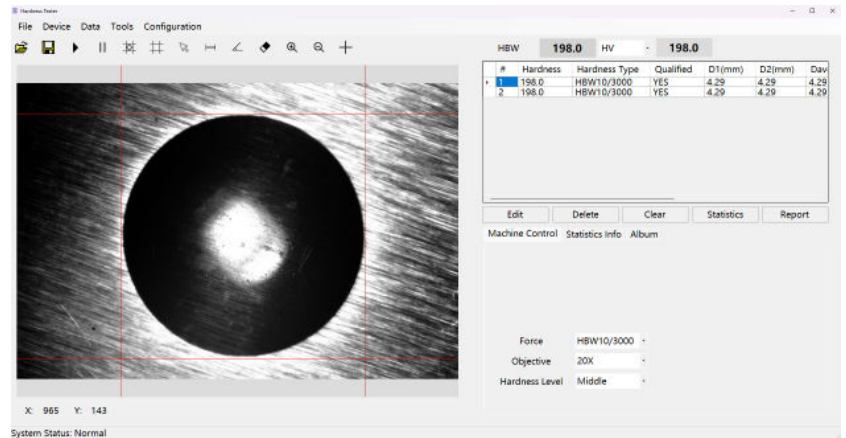
3.Brinell Hardness Value

6.Album Pictures

Indentation Measuring



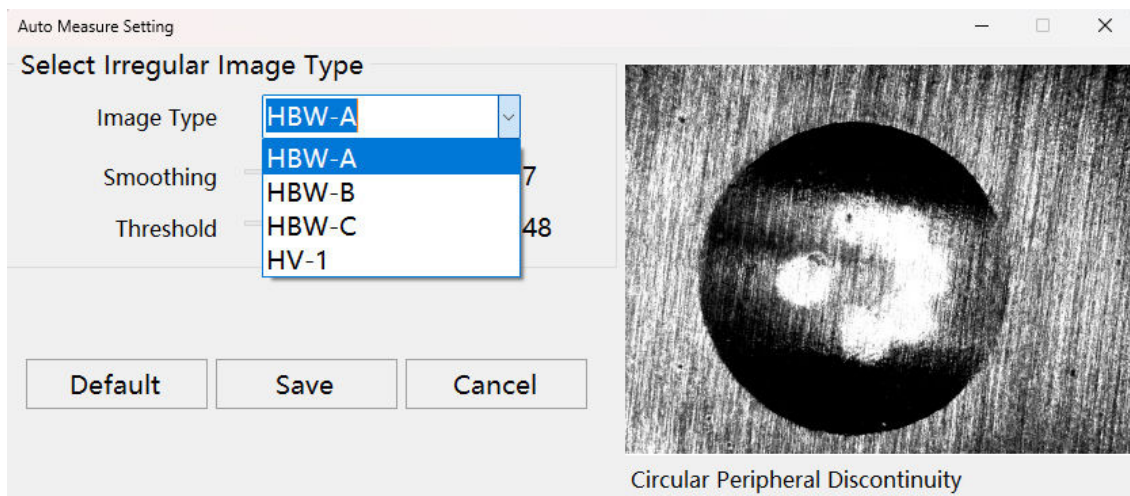
Manual Measuring



Auto Measuring

- Two methods for indentation measurement in this software: automatic measurement and manual measurement.
- Automatic Measurement: Ensure that the indentation image is clear. Click "Automatic Measurement" on the top, and the measurement results will be automatically displayed on the right side of the software.
- Manual Measurement: Click "Manual Measurement" on the top. Then, mark the edges of the indentation in the order of left, right, top, and bottom. After that, the measurement results will be shown on the right side of the software.

Indentation Image Type



- For automatic measurement, you need to select an appropriate image type that is consistent with the type of the indentation image to be measured.

Brinell Scale Selection

HBW1/1
HBW1/2.5
HBW1/5
HBW1/10
HBW1/30
HBW2.5/6.25
HBW2.5/15.625
HBW2.5/31.25
HBW2.5/62.5
HBW2.5/187.5
HBW5/25
HBW5/62.5
HBW5/125
HBW5/250
HBW5/750
HBW10/100
HBW10/250
HBW10/500
HBW10/1000
HBW10/1500
HBW10/3000

- The selection of the brinell scales should be consistent with the scale used in the test.
- This software supports most common Brinell hardness scales, with a total of 21 types.

Conversion Scale

HBW		204.5	HRA	57.5				
#	Hardness	Hard		Qualified	D1(mm)	D2(mm)	Dav	
1	204.5	HBW1		YES	4.22	4.22	4.22	

HV
 HK
 HBW
HRA
 HRB
 HRC
 HRD
 HRF
 HR15N
 HR30N
 HR45N
 HR15T
 HR30T
 HR45T

- This software supports conversion between common Brinell, Rockwell, Vickers, and Knoop scales.

Sample Information Editing

Sample Info ✕

Sample Name	Sample Name	Sample Sn	Sample Sn
Min Value	0	Max Value	800
Inspection Company	Inspection Con	Inspection Date	2025-02-24 📅
Tester	Tester	Reviewer	Reviewer

- Users can edit the information of the tested samples, including the sample name, hardness range, tester, test date, etc. This facilitates subsequent management and querying.

Data Processing

Edit Record ×

Index	<input type="text" value="1"/>	Hardness Type	<input type="text" value="HBW10/3000"/>
Measure Time	<input type="text" value="14:33:43"/>	Hardness	<input type="text" value="208.2"/>
D1(mm)	<input type="text" value="4.185"/>	Qualified	<input type="text" value="YES"/>
D2(mm)	<input type="text" value="4.185"/>	Convert Type	<input type="text" value="HRA"/>
Davg(mm)	<input type="text" value="4.185"/>	Convert Value	<input type="text" value="58.0"/>
Depth(mm)	<input type="text" value="0"/>		

Data Editing

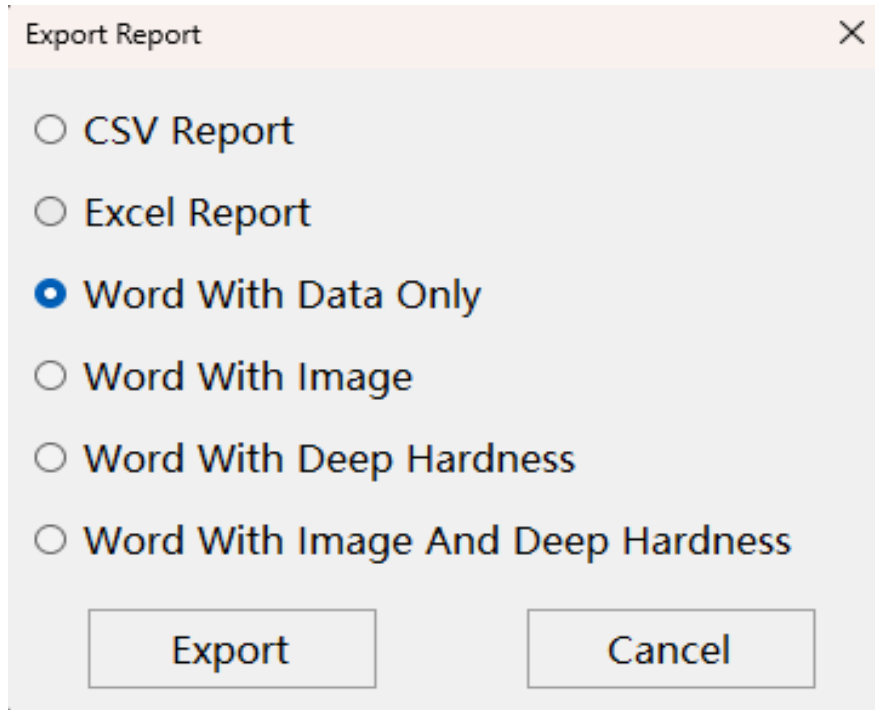
Machine Control **Statistics Info** Album

Number	4	Variance	0.20
Min	203.40	StdDev	0.45
Max	204.50	CP	296.30
Average	204.15	CPK	151.22

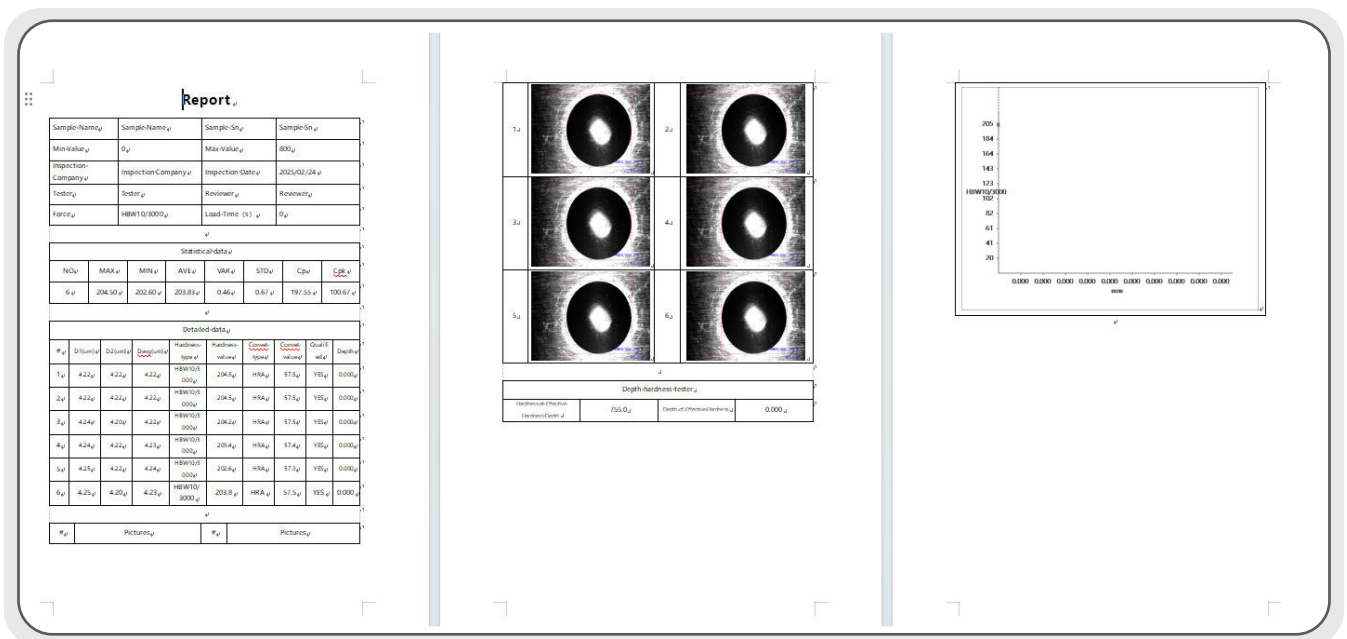
Data Statistics

- Select a specific measurement record to edit and modify the measurement result.
- For the results of multiple tests, click the "Statistics Info" button, and the software will calculate the maximum value, minimum value, average value, and standard variance of the data.

Report Output





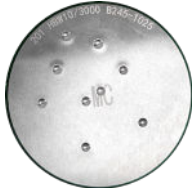



Report Format



Technical Specification

Model	uVision-PB
Application Brinell Indentor	1mm/2.5mm/5mm/10mm
Brinell Hardness Scale	HBW1/1、HBW1/2.5、HBW1/5、HBW1/10、HBW1/30、 HBW2.5/6.25、HBW2.5/15.625、HBW2.5/31.25、HBW2.5/62.5、 HBW2.5/187.5、HBW5/25、HBW5/62.5、HBW5/125、HBW5/250、 HBW5/750、HBW10/100、HBW10/250、HBW10/500、 HBW10/1000、HBW10/1500、HBW10/3000
Executive Standards	BSEN 6506、ISO 6506、ASTM E10、GB/T 231
Measuring Range	15.9-650HBW(ASTM E10 Recommended Effective Hardness Value)
Indentation Diameter Range	0.6-6mm
Measurement Resolution	0.0001 mm
Hardness Resolution	0.1 HBW
Digital Imaging	6.3 Mega Pixel Industrial-grade Digital Camera
Measuring Way	Manual And Automatic Measurement (For Standard Samples)
Calibration Method	Standard Hardness Block/length Scale
Support Language	English (Optional Other Languages)
Power Supply	USB Power Supply
Dimension	170x54x54mm
Weight	500g

Standard Delivery

Name	Qty	Photo
Portable Measuring Head	1set	
USB Flash Drive (Software Included)	1pc	
Brinell Hardness Block HB10/3000	1pc	
Dongle	1pc	
Instruction Manual	1copy	
Warranty Card	1copy	
Product Certificate	1copy	