MIDLAND METROLOGY LTD

iBrin-3000EV

Electronic Touch Screen Vision Brinell Hardness Tester

Video

Product Features and Application

Product Features

●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-3000E complies with standards such as GB/T231.2 - 2002 ensuring accuracy.

Product Application

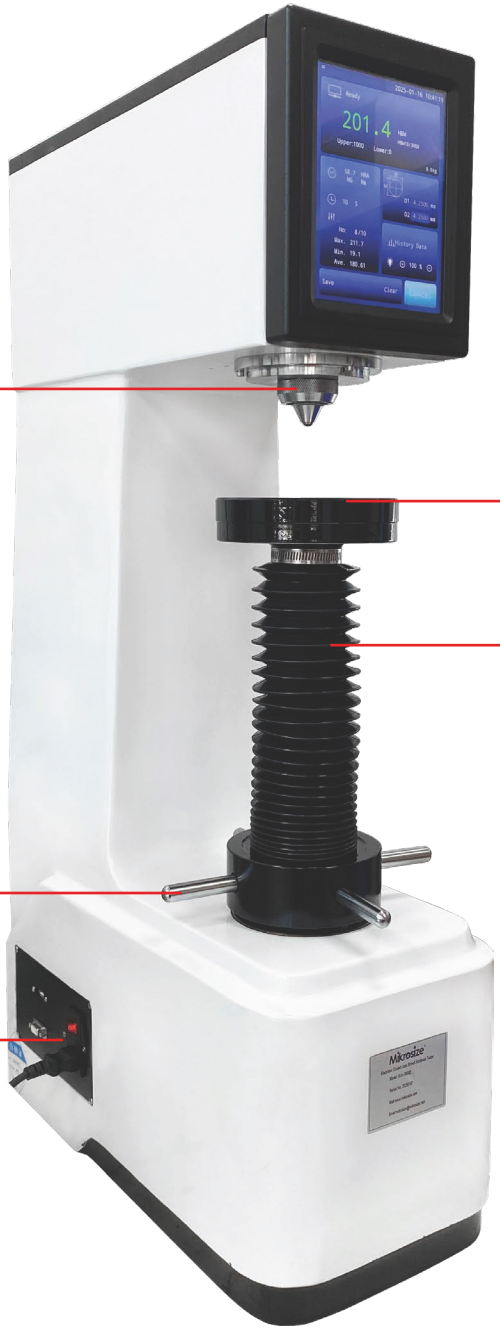
●iBrin-3000E brinell hardness tester is a bench - type machine,which is used to test the brinell hardness of annealed and normalized workpieces, cast parts, non - ferrous metals, various relatively soft components, or unquenched steel parts.
●It is suitable for use in metrology, metal metallurgy, chemical 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.

Instrument Structure

Brinell Indenter

Lifting Rod

Test Anvil



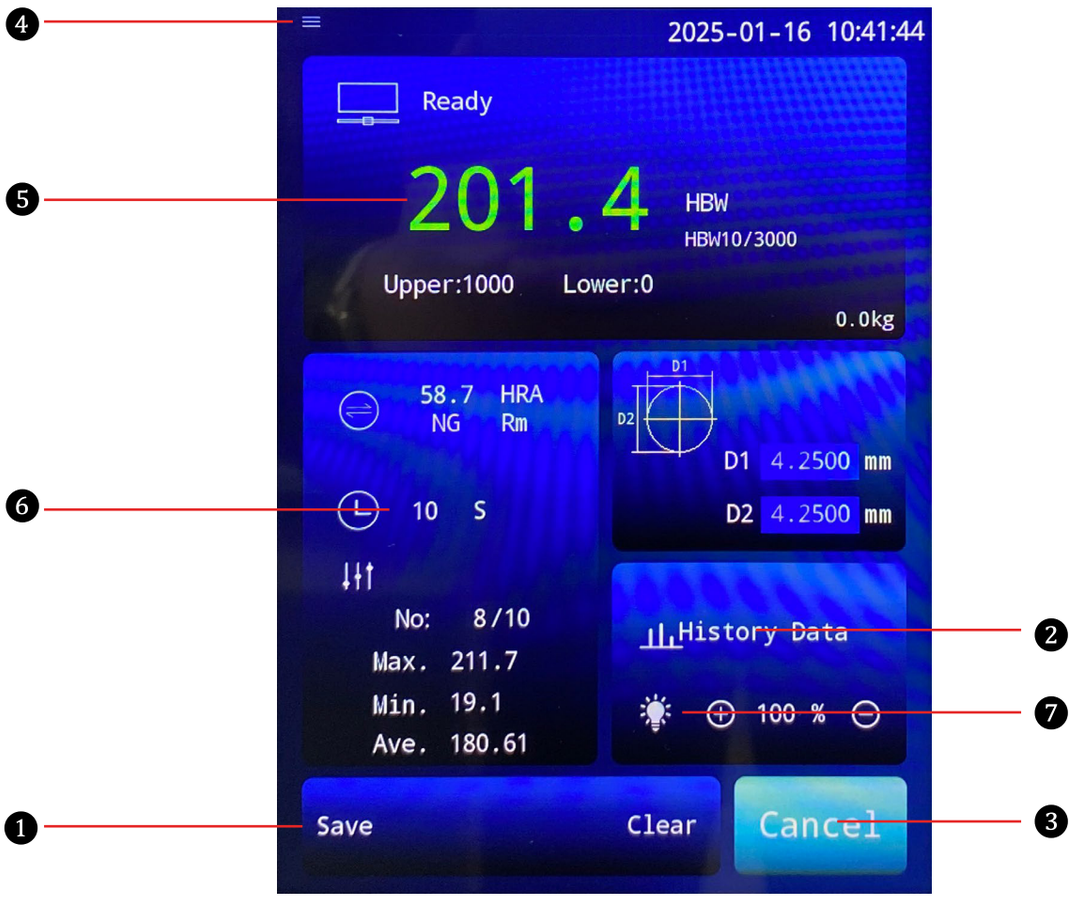
Handwheel

USB

RS232 Power Switch

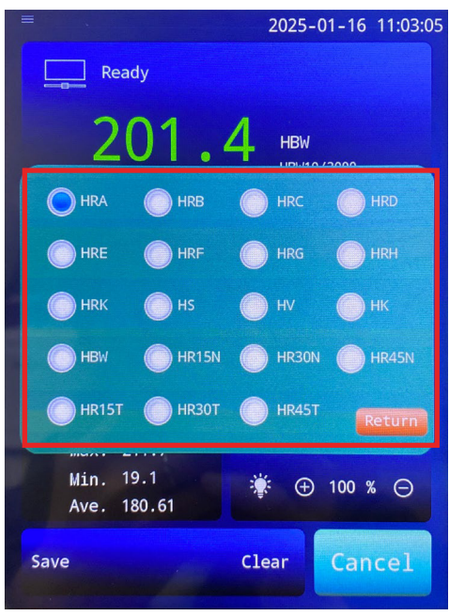
Reading Microscope

Touch Screen Function

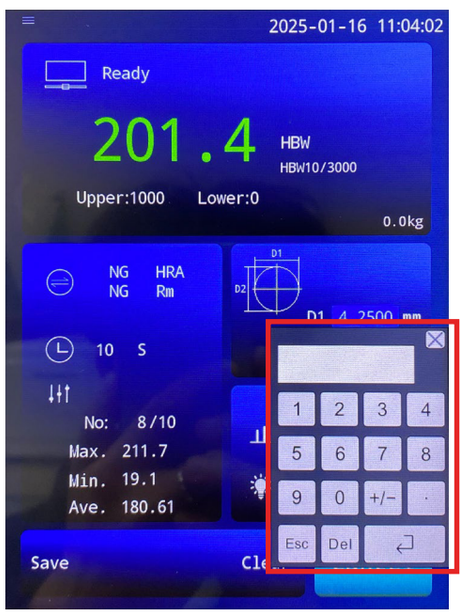


1.Save: Save current test data and store it in the historical data.
2.History Data: View the previously saved historical data. You can scroll up and down to check, and also delete, print or export the historical data to a USB.
3.Cancel: Press "Cancel" during operation to stop the running process, and 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

Brinell Hardness Scale Selection



Conversion Scale Selection

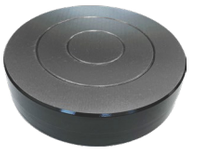
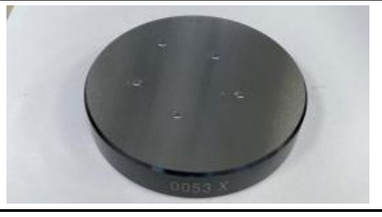


Measured Data Input

Technical Specification

Product Name Model		Electronic Touch Screen Vision Brinell Hardness Tester
Data Display&Output		iBrin-3000EV
		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

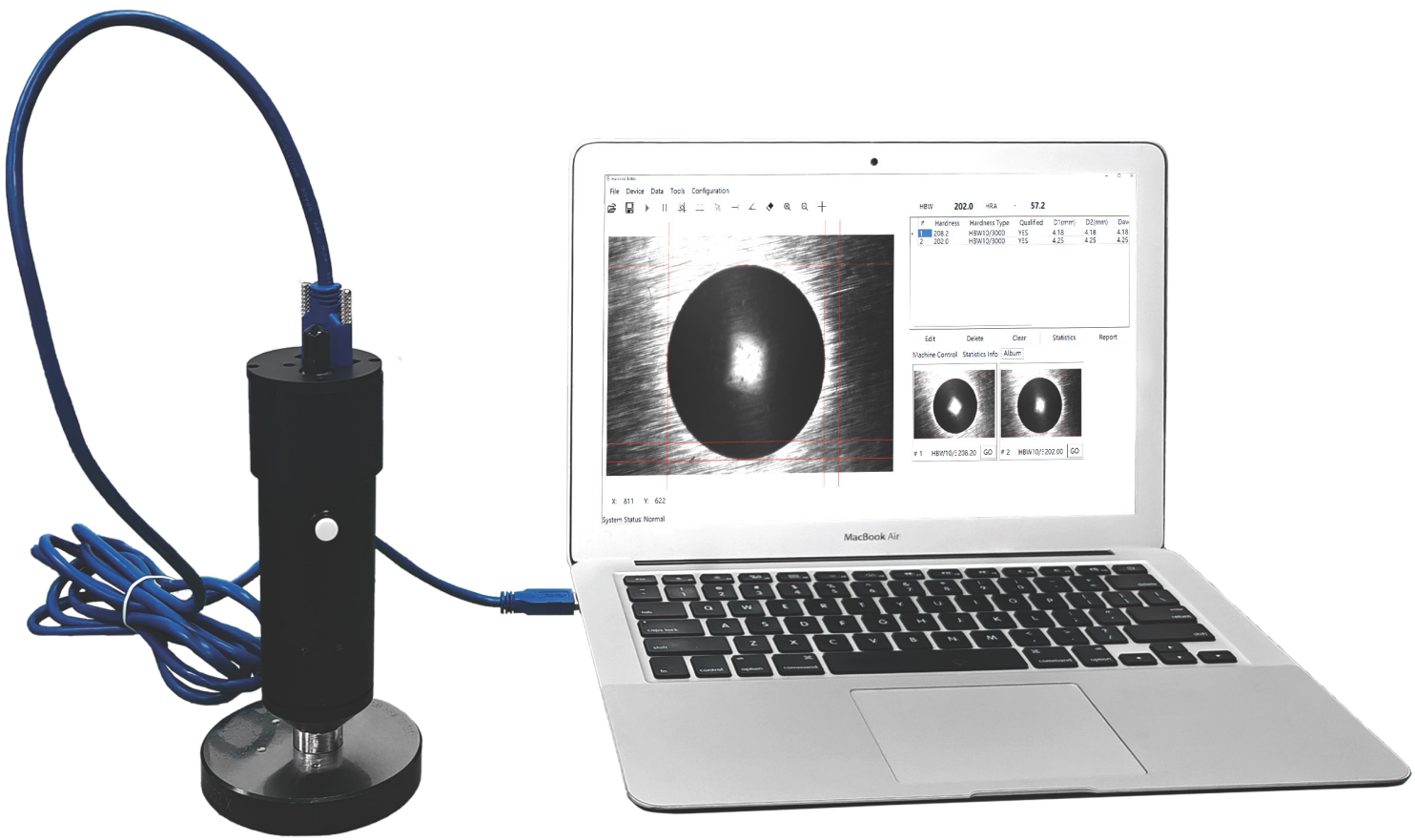
Item	Qty	
Machine Mainframe	1 set	
Φ150mmTest Anvil	1 pc	
Φ80mmTest Anvil	1 pc	
Φ80mmV-shape Test Anvil	1 pc	
Φ10mm Hard Alloy Ball Indenter	1 pc	
Φ5mm Hard Alloy Ball Indenter	1 pc	
Φ2.5mm Hard Alloy Ball Indenter	1 pc	
200±50HBW Brinell Hardness Block HB10/3000	1 pc	
100±25HBWBrinell Hardness Block HB10/1000	1 pc	

Standard Delivery

Item	Qty	
BRM-2Reading Microscope	1 pc	
Power Cord	1 pc	
Accessory Case	1 pc	
Anti-dust Cover	1 pc	
Instruction Manual	1 copy	
Warranty Card	1 copy	
Product Certificate	1 copy	

uVision-PB

Portable Brinell Hardness Testing System



Product Features and Application

Product Features

● 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.

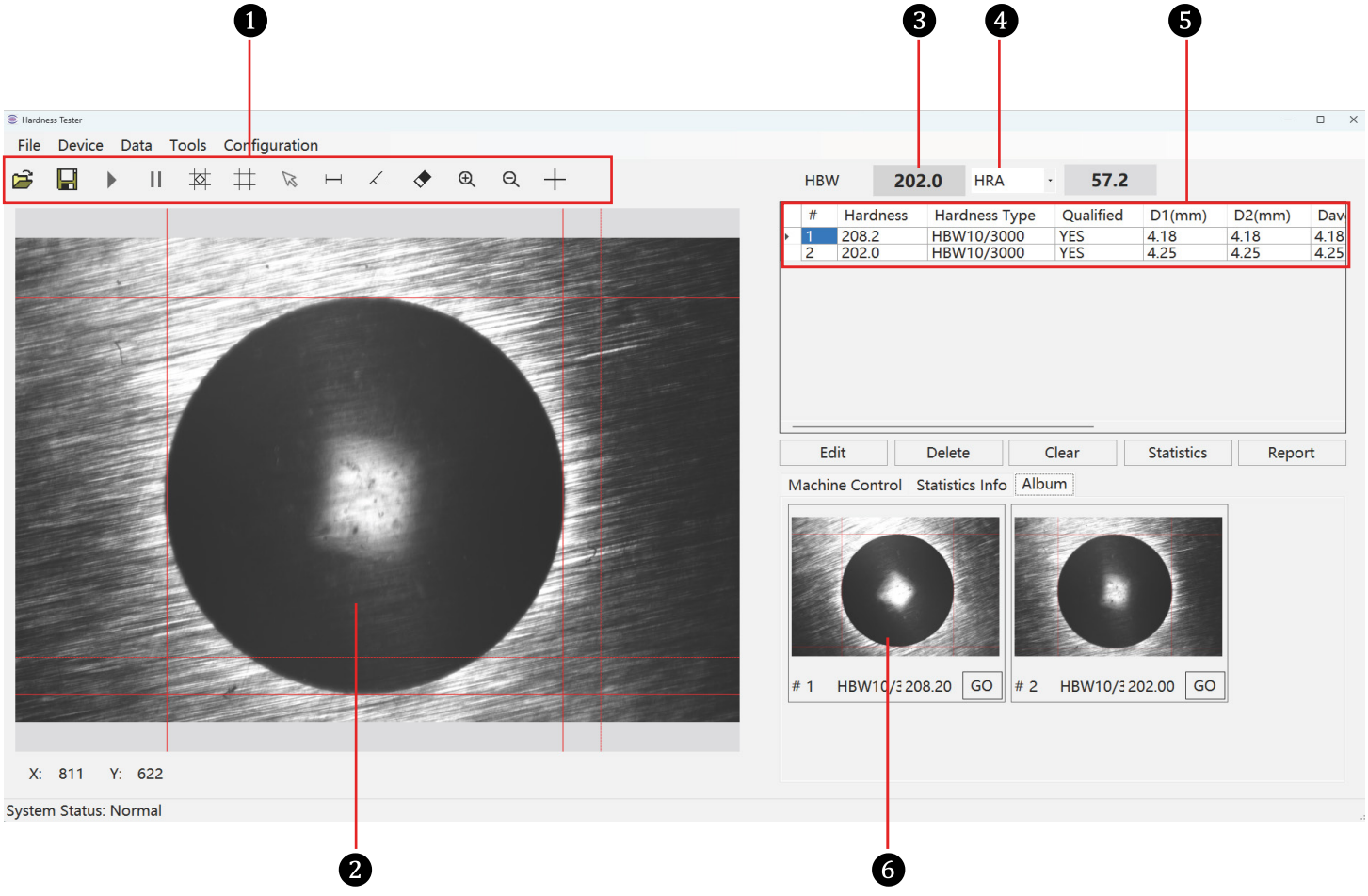
● Inspection of Large - scale Workpieces and Infrastructure
Particularly suitable for in - situ inspection of large - scale castings and forgings, pipelines, and pressure vessels in scenarios such as power plants and steel mills.

Product Structure

Measuring Button

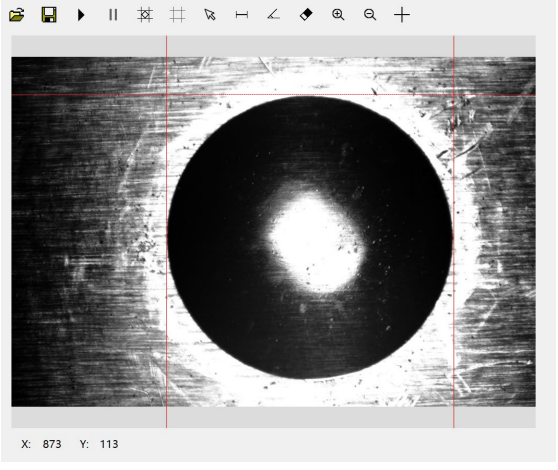
1.RS232
2.Measuring Button

Software Main Interface

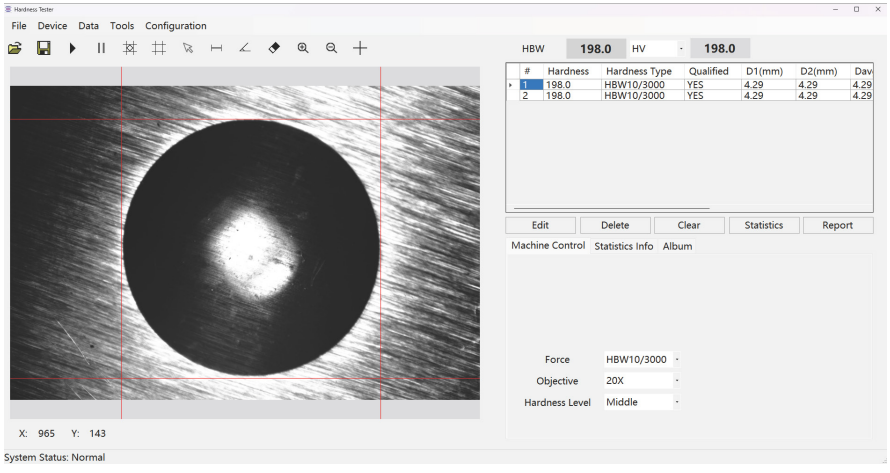


1.Toolbar 2.Indentation 3.Brinell hardness value 4.Conversion scale
5.Data list 6.Album pictures

Indentation Measuring



Manual Measuring



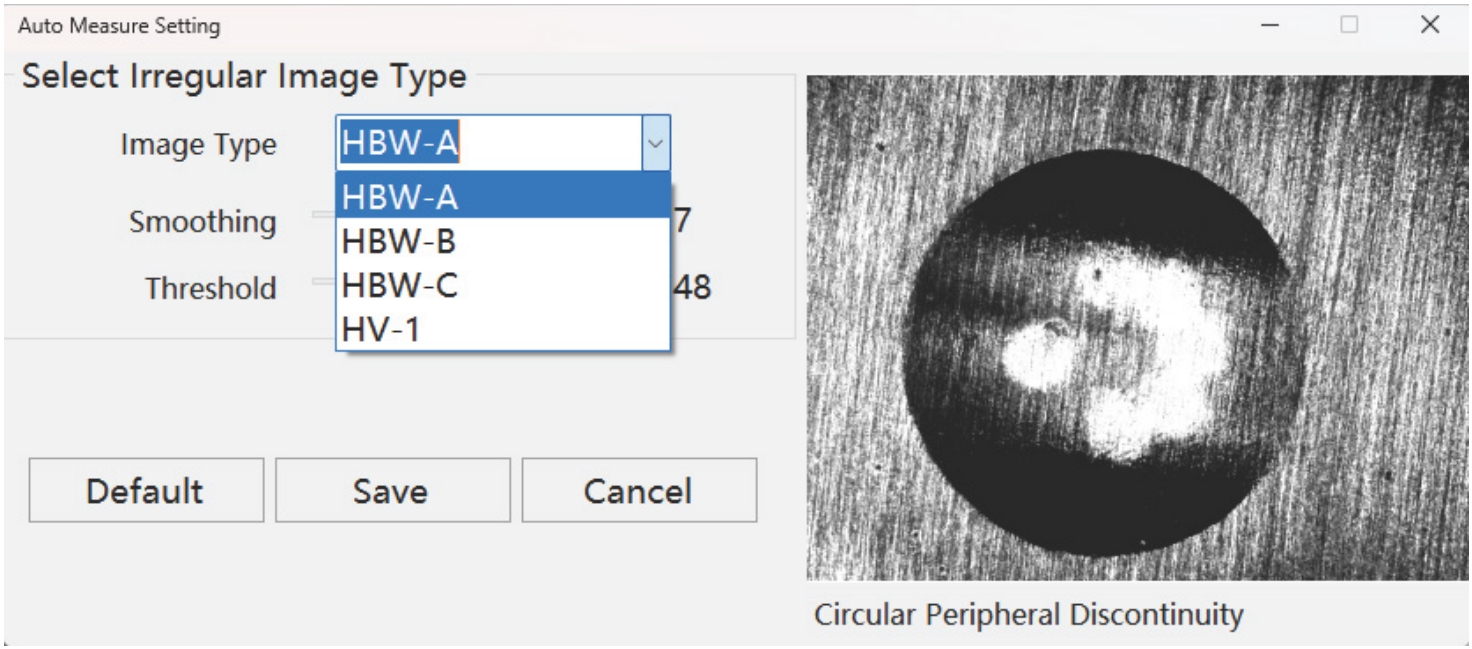
Auto Measuring

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.

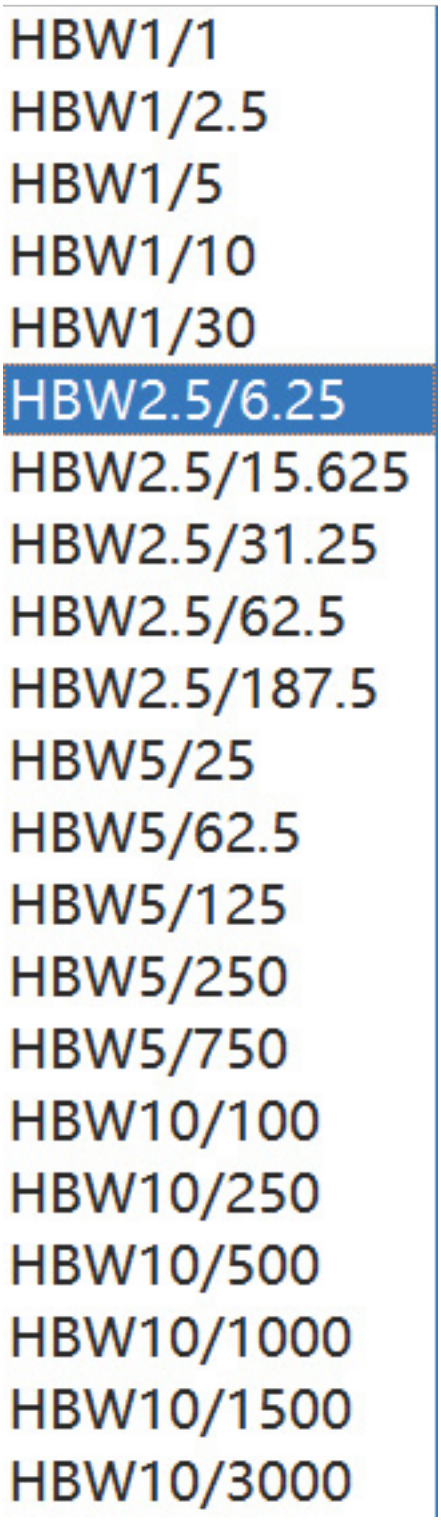
Select Image Type



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.

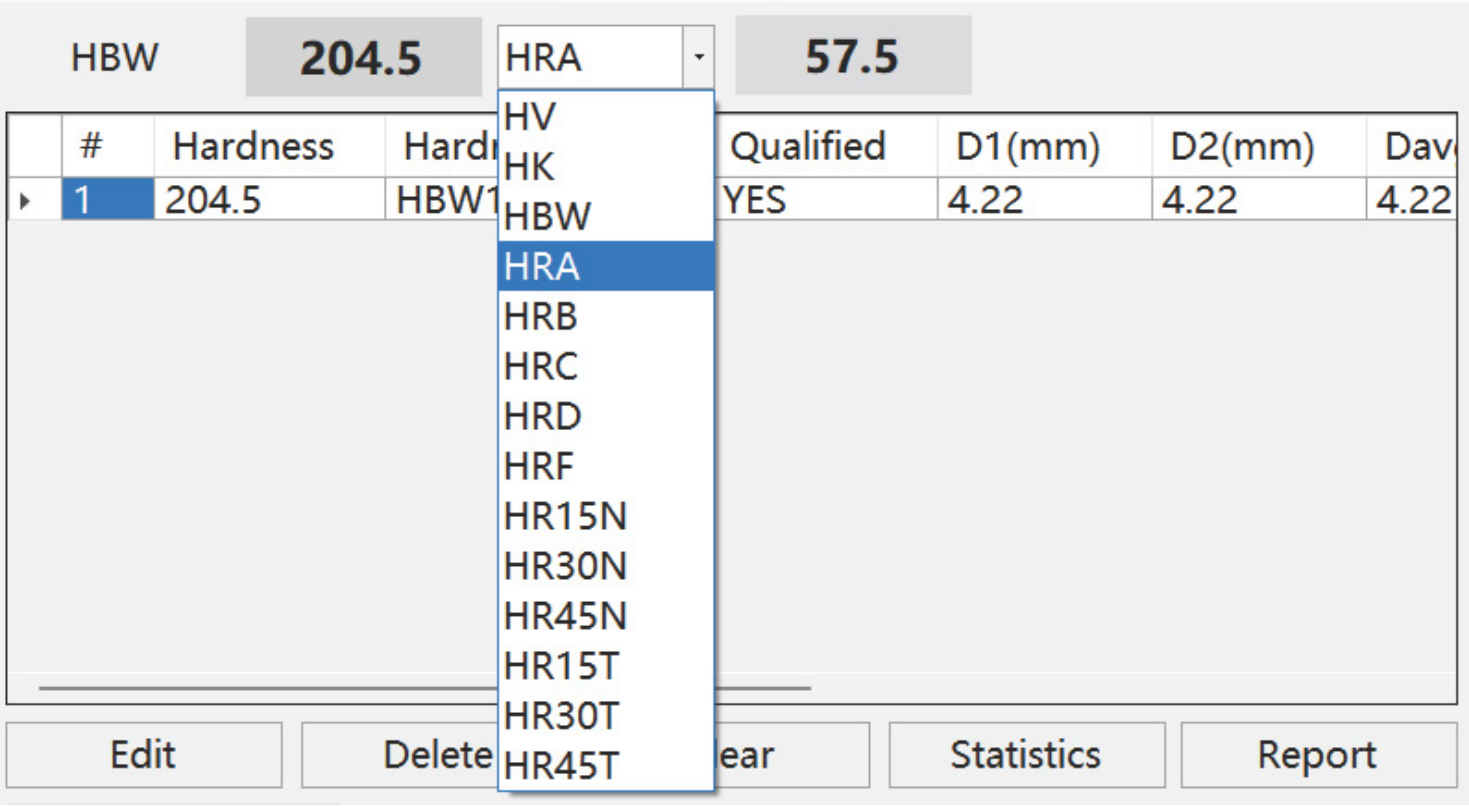
Brinell Scale Selection



Brinell Scales

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.

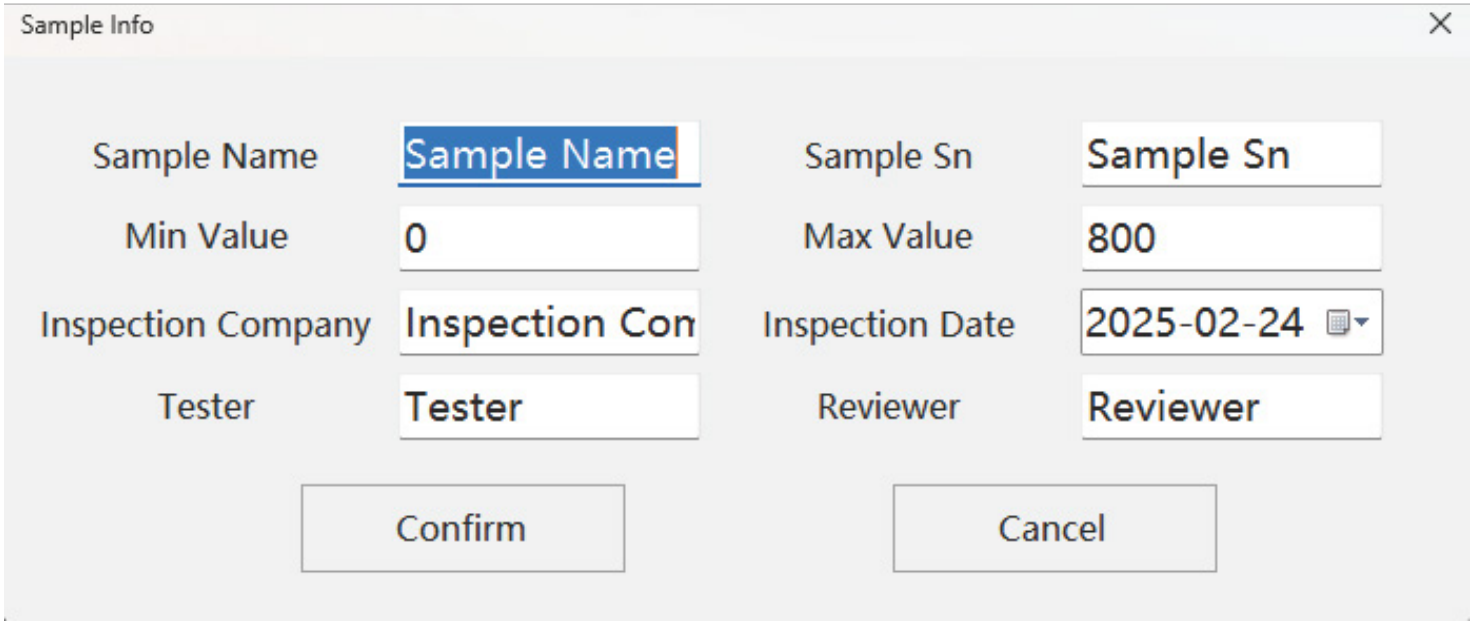
Conversion Scale



Conversion Scales

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

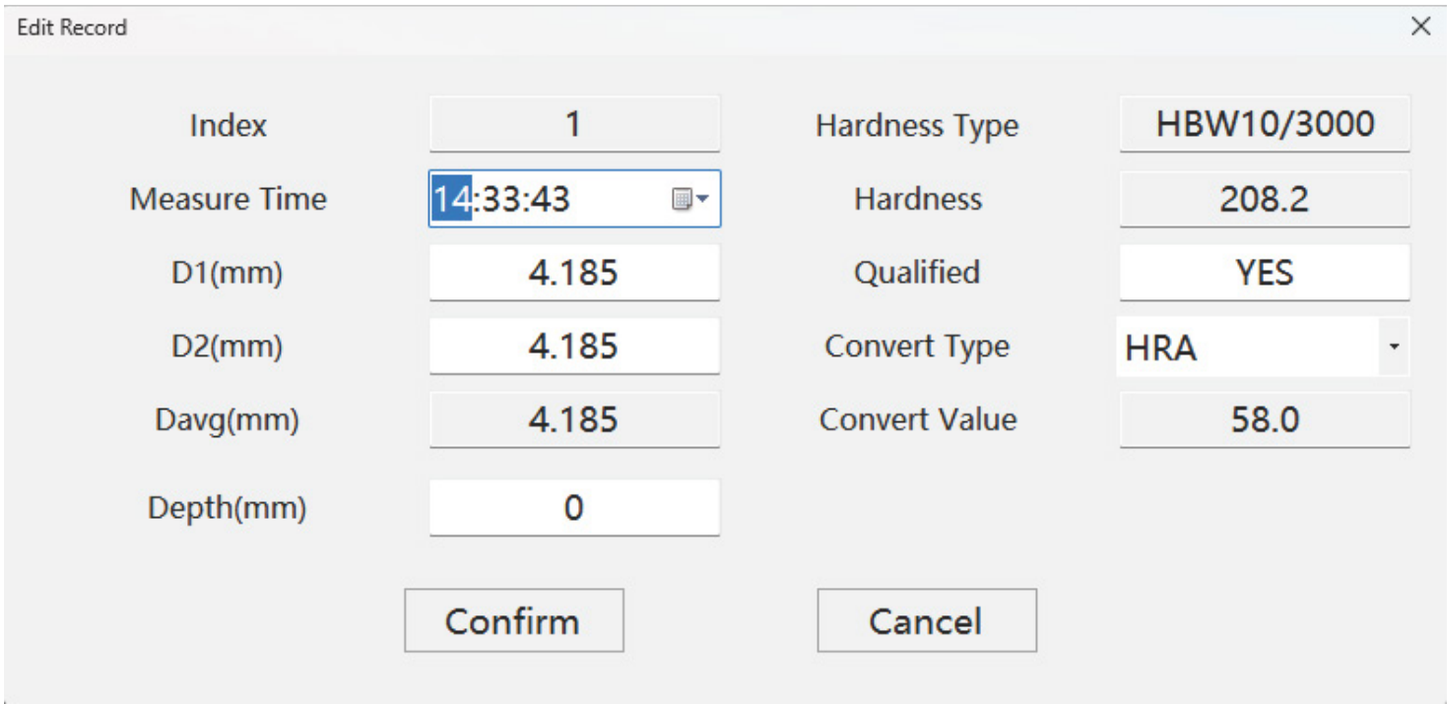
Sample Information Editing



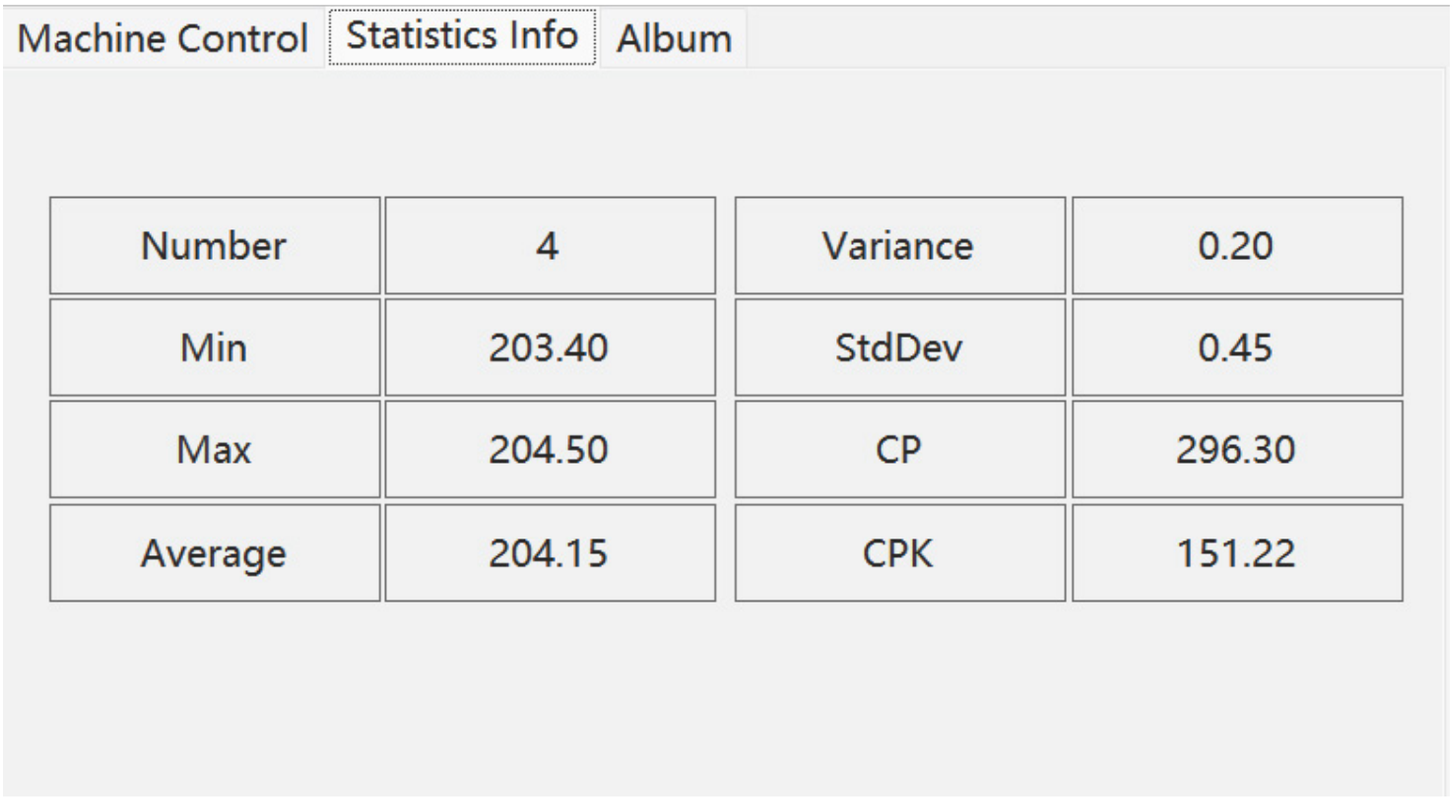
Sample Information

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



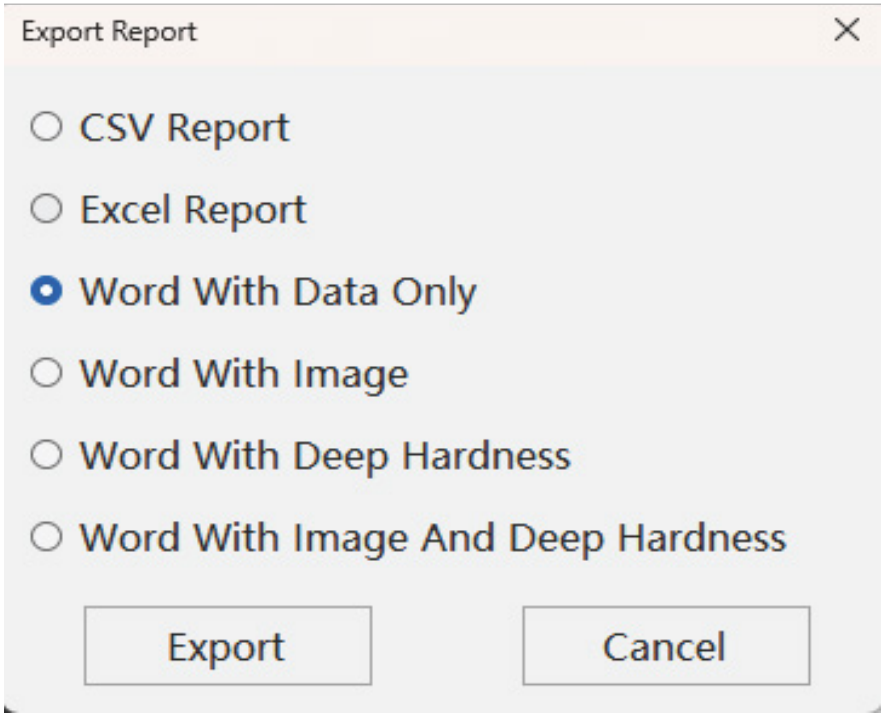
Data Editing



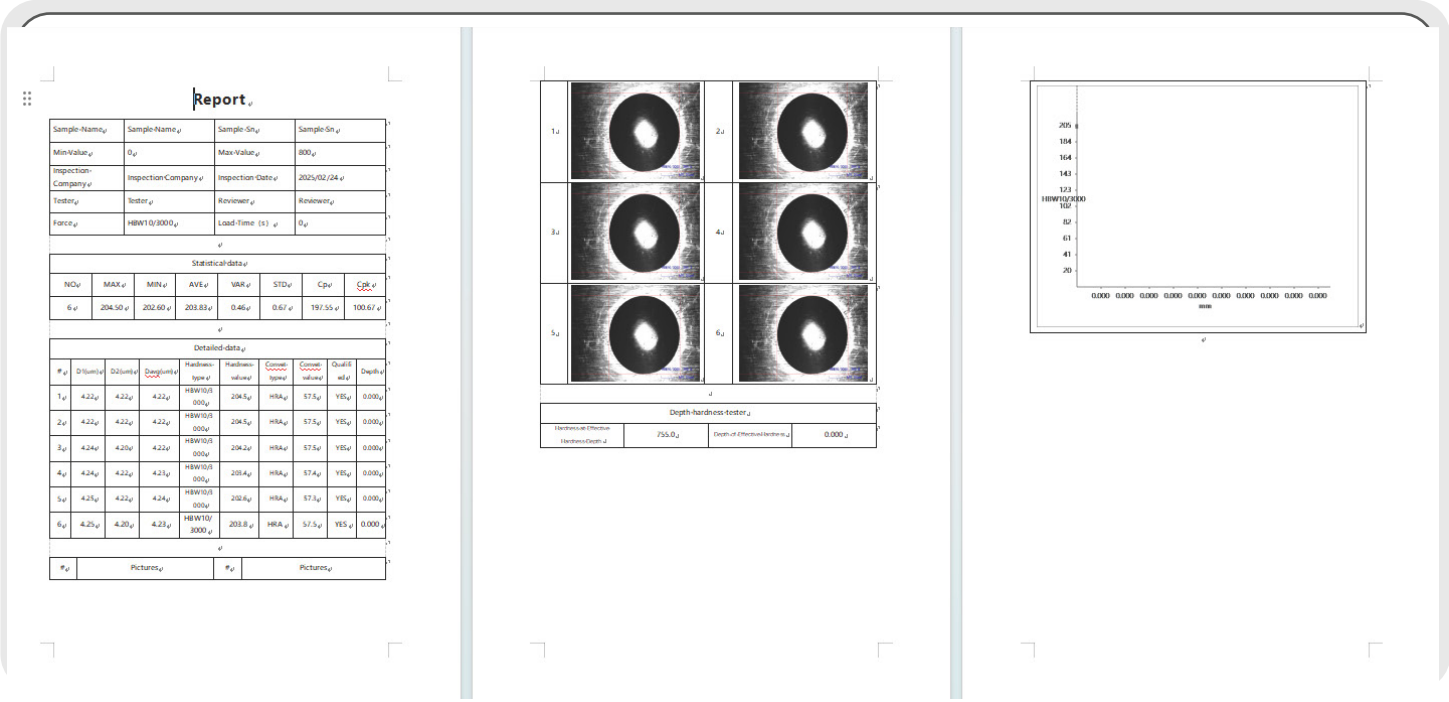
Data Statistics

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



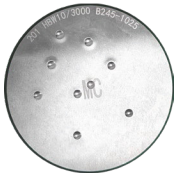
Report

This software supports multiple report export formats, including Word, Excel, and CSV.

Report Output

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、IS0 6506、ASTM E10、GB/T 231
Measuring Range	15.9-650HBW(ASTM E10 Recommended Effective Hardness Value)
Indention 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

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