

# Mikrosize®

## iBrin-3000SA

Image Processing Semi-auto Brinell  
Hardness Tester



Video



### Contact us

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## Features and Applications

### Product Features

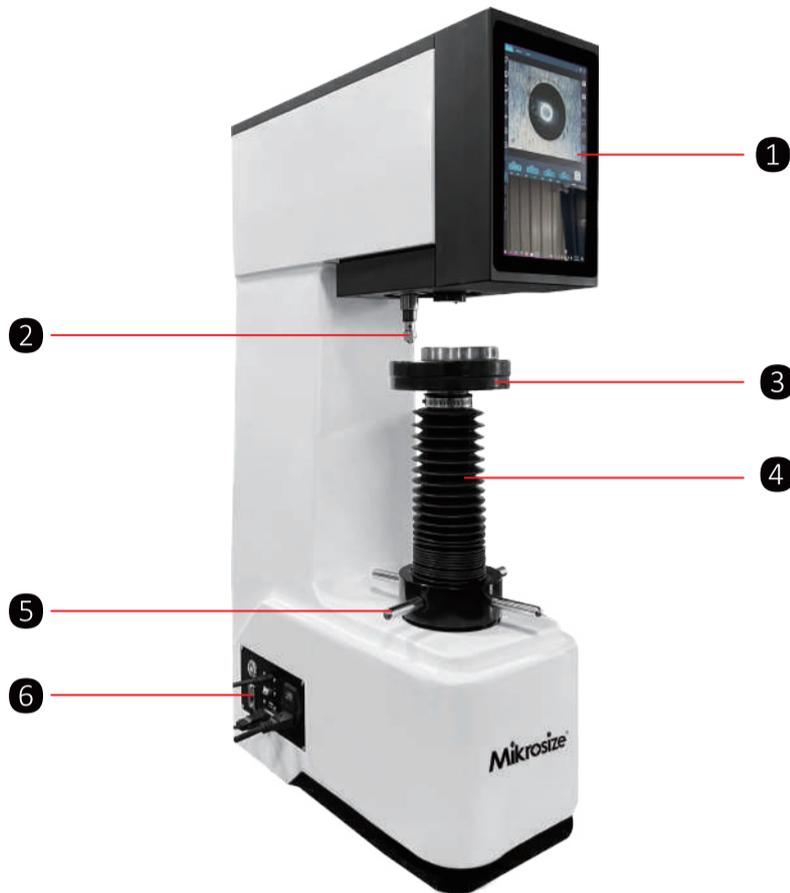
- Closed loop loading, ready to use upon startup
- 10-inch touch screen, easy to use and operate
- CMOS directly captures indentation images
- 10-level test force with 15 brinell hardness test scales for flexible selection
- Automatic turret simultaneously installs indenter and objective lens, both automatically engaged in testing
- Automatically switches objective lens and indenter based on selected scale
- Pre-sets test force holding time and adjusts indentation measurement light intensity
- Real-time display of loading time
- Displays indentation length, hardness value, measurement count, etc
- Test results convertible between common hardness scales
- Hardness test results printable
- Multiple communication interfaces: USB, RS232, wlan, RJ45LAN

### Product Application

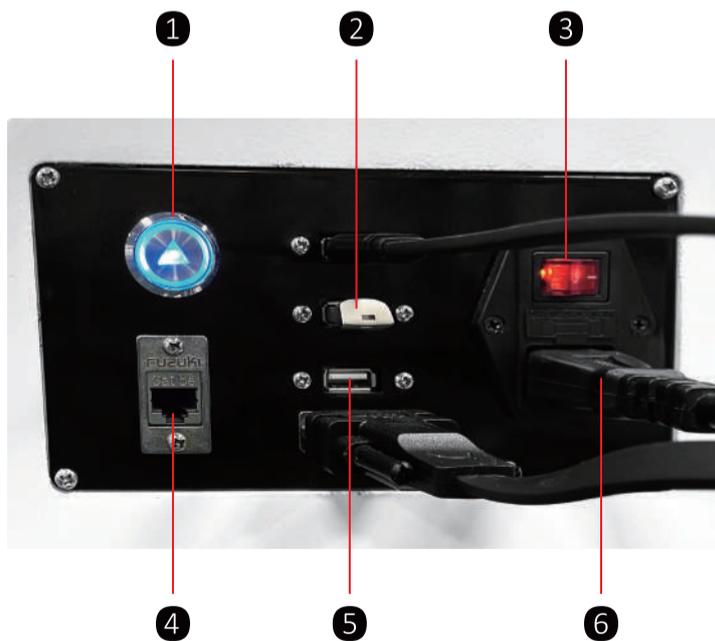
- Detects Raw Material Hardness During Machining To Select Suitable Processes And Tools
- Inspects Hardness Of Mechanical Parts (Gears, Bearings, Bolts, Etc.) To Ensure Compliance With Design And Performance Requirements



## Product Details



- 1. Display Screen
- 2. Indenter
- 3. Test Table
- 4. Lifting Column
- 5. Handwheel
- 6. Interfaces And Switches



- 1. Start Button
- 2. Security Dongle Interface
- 3. Power Switch
- 4. Power Cord Interface
- 5. USB Interface
- 6. RJ45LAN Interface

## Product Details



Automatic Turret Has 2 Stations For Simultaneous Installation Of Indenter And Objective Lens. Turret Automatically Switches To Lens After Testing For Indentation Observation.



Multiple Communication Interfaces: RS232, USB, RJ45LAN.

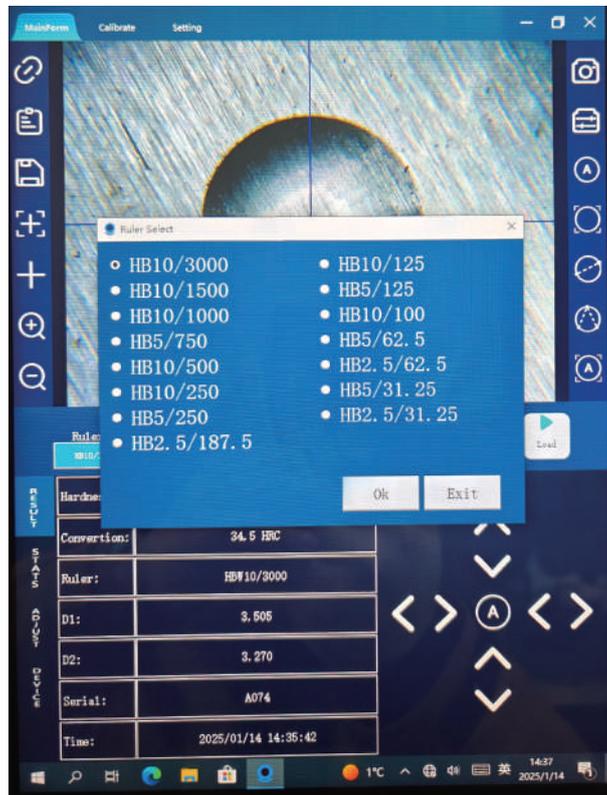
## Product Functions

The screenshot displays the Mikrosize software interface with the following labeled components:

- Calibration**: Points to the 'Calibrate' button in the top left.
- Device Connection**: Points to the connection icon in the top left toolbar.
- Documents**: Points to the document icon in the top left toolbar.
- Save**: Points to the save icon in the top left toolbar.
- Brinell Indentation**: Points to the Brinell icon in the top left toolbar.
- Cross Line**: Points to the crosshair icon in the top left toolbar.
- Image Zoom**: Points to the zoom in and zoom out icons in the top left toolbar.
- Setting**: Points to the 'Setting' button in the top right.
- Camera Connecting**: Points to the camera icon in the top right toolbar.
- Camera Setting**: Points to the camera settings icon in the top right toolbar.
- Measuring Function**: Points to the measuring function icons in the top right toolbar.
- Common Setting**: Points to the 'Ruler', 'Tool', 'Time', and 'Light' settings in the bottom middle.
- Test Result**: Points to the 'Hardness' field in the bottom left table.
- Conversion Scale**: Points to the 'Conversion' field in the bottom left table.
- Hardness Scale**: Points to the 'Ruler' field in the bottom left table.
- Indentation Diameter**: Points to the 'D1' and 'D2' fields in the bottom left table.
- Lifting Control**: Points to the central 'A' button in the bottom right.

TEST RESULT	Value
Hardness:	195 HBW
Conversion:	12.2 HRC
Ruler:	HBW10/3000
D1:	4.312
D2:	4.312
Serial:	A024
Time:	2025/01/14 10:48:27

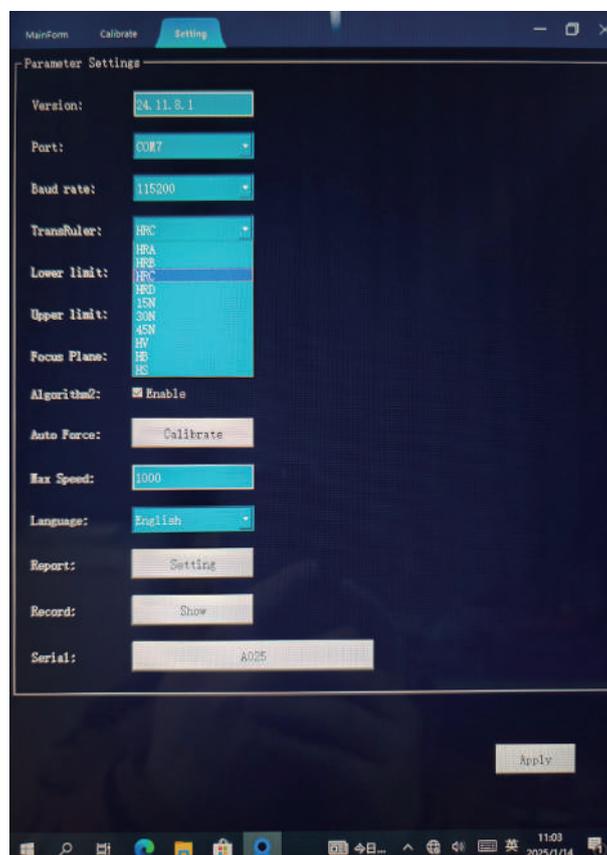
## Operation Interface



### Scale Selection

Three Indenter Sizes With Different Test Forces Offer 15 Test Scales

HBW2.5/31.25、HBW2.5/62.5、HBW2.5/187.5、HBW5/31.25、HBW5/62.5、HBW5/125、HBW5/250、HBW5/750、HBW10/100、HBW10/125、HBW10/250、HBW10/500、HBW10/1000、HBW10/1500、HBW10/3000



### Scale Selection

Convertible To Common Rockwell And Vickers Scales

HRA、HRB、HRC、HRD、HS、HV、HK、HBW、HR15N、HR30N、HR45N

## Operation Interface



### Turret Selection

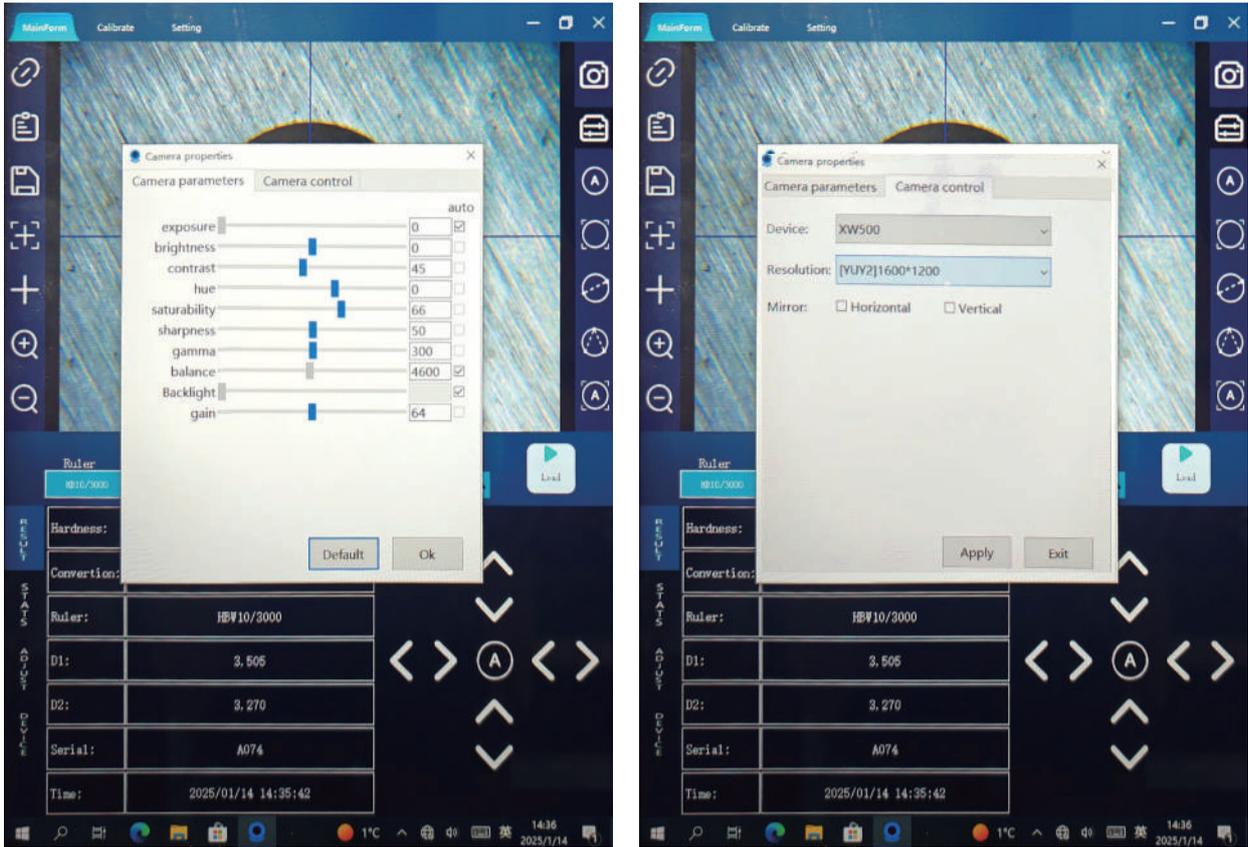
Indenter And Objective Lens Are Pre-Installed. Turret Automatically Rotates To Selected Position When Clicking Corresponding Indenter/Lens Icon.



### Lifting Column Control

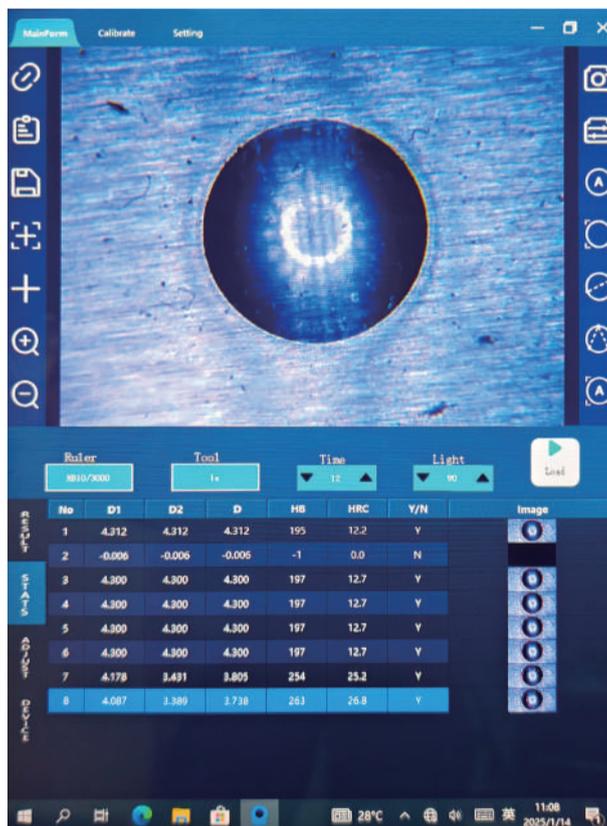
Controls Lifting/Stopping With Adjustable Speed

## Operation Interface



### Camera Settings

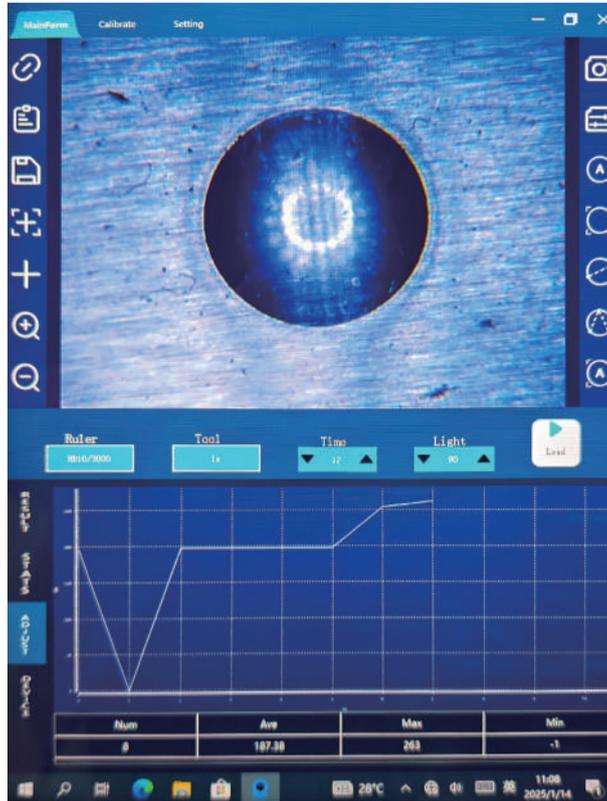
Users Can Adjust Gain, Exposure, Etc. To Optimize Image Quality



### Data Statistics

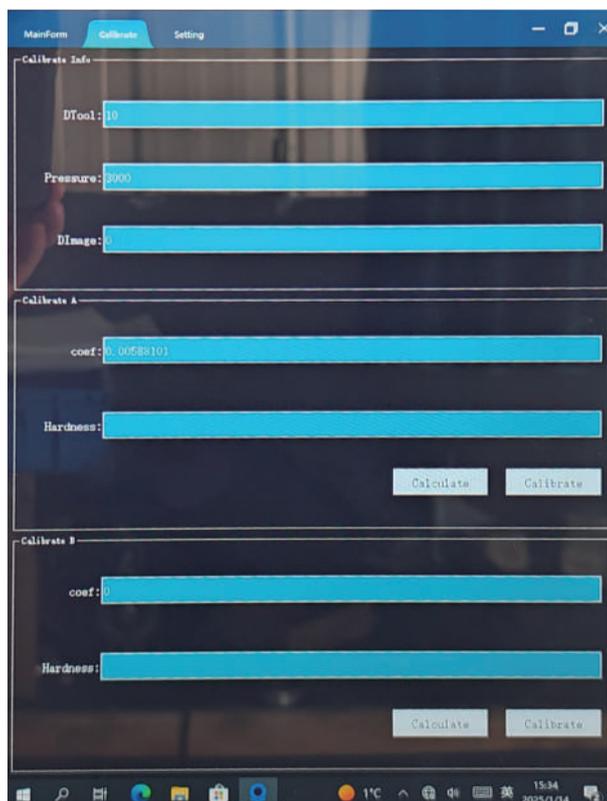
Records Test Data Including Indentation Size, Hardness Value, Converted Hardness Value, And Indentation Images

## Operation Interface



### Graphs

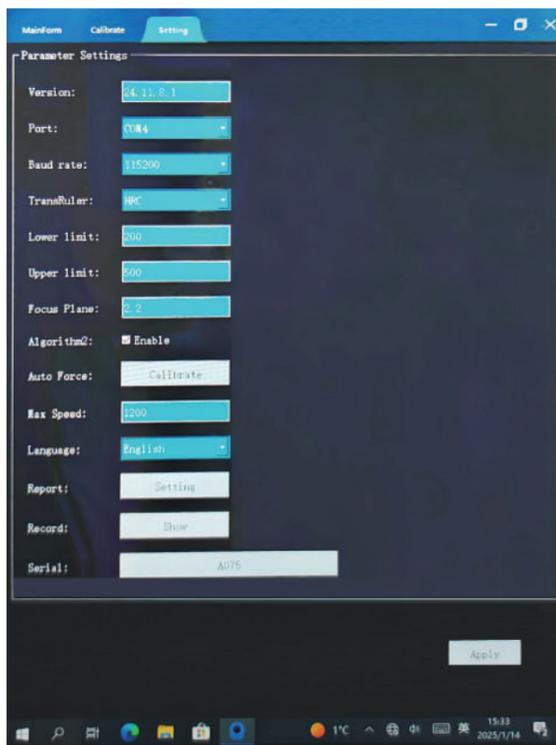
Generates Data Graphs For Intuitive Result Visualization



### Calibration

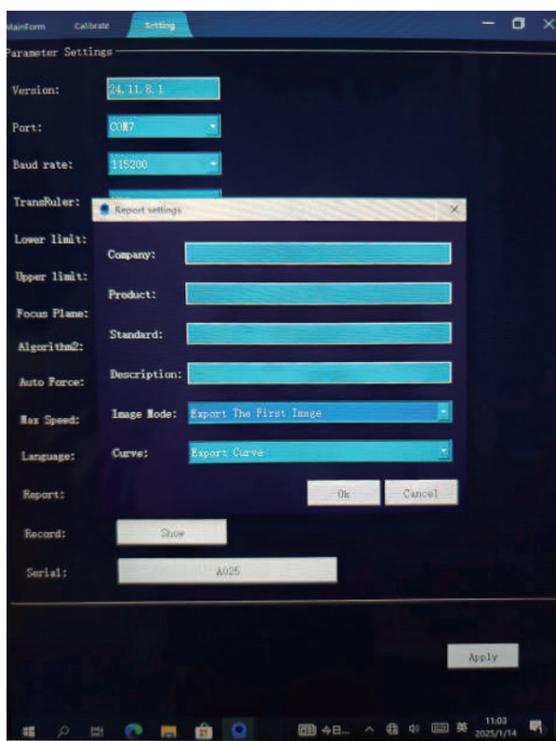
Calibrate Using Standard Hardness Blocks. Must Calibrate The Currently Used Objective Lens; Otherwise Invalid

## Operation Interface



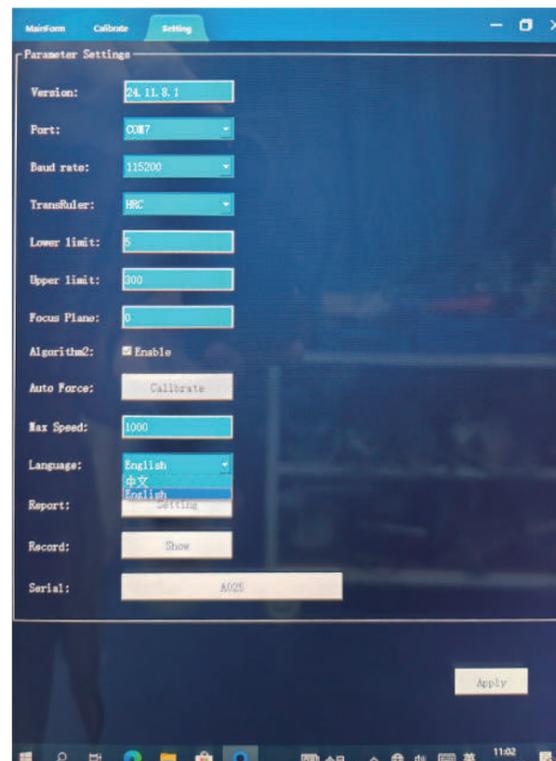
### Settings

- Device Serial Port Selection
- Conversion Scale Selection
- Upper/Lower Limit Setting
- Lifting Column Speed Setting
- Display Language Selection



### Report Settings

Customize Report Content (May Include Indentation Images And Data Graphs)



### Language Selection

Supports Chinese/English. Other Languages Customizable.

## Technical Specification

<b>Name</b>	Image Processing Semi-auto Brinell Hardness Tester	
<b>Model</b>	iBrin-3000SA2	iBrin-3000SA3
<b>Turret Position</b>	1 Indenter + 1 Lens	1 Indenter + 2 Lenses
<b>Measurement Range</b>	8~650HBW	
<b>Test Force</b>	62.5kgf、100kgf、125kgf、187.5kgf、250kgf、500kgf、750kgf、1000kgf、1500kgf、3000kgf	
	612.9N、980.7N、1226N、1839N、2452N、4903N、7355N、8907N、14710N、29420N	
<b>Test Scales</b>	HBW2.5/31.25、HBW2.5/62.5、HBW2.5/187.5、HBW5/31.25、HBW5/62.5、HBW5/125、HBW5/250、HBW5/750、HBW10/100、HBW10/125、HBW10/250、HBW10/500、HBW10/1000、HBW10/1500、HBW10/3000	
<b>Conversion Scales</b>	HRA、HRB、HRC、HRD、HRF、HV、HK、HBW、HR15N、HR30N、HR45N、HR15T、HR30T、HR45T	
<b>Indenter Specifications</b>	Φ2.5mm、Φ5mm、Φ10mm	
<b>Camera Lens</b>	20X	
<b>Objective Lens</b>	1X	1X、2X
<b>Test Height</b>	280mm	
<b>Test Throat</b>	150mm	
<b>Dwell Time Range</b>	0~99s	
<b>Hardness Readout</b>	Digital touchscreen LCD	
<b>Indenter/Lens Switching</b>	Automatic	
<b>Communication Interfaces</b>	USB、RJ45LAN、WLAN、RS232	
<b>Power Supply</b>	AC220V, 50Hz	
<b>Dimensions (mm)</b>	230*600*920mm	
<b>Net Weight</b>	130kg	

## Standard Delivery

Name	Qty	Photo
Machine Mainframe	1	
230mm Test Anvil	1	
78mm Test Anvil	1	
60×90mm V-block Test Anvil	1	
Φ2.5mm Brinell Indenter	1	
Φ5mm Brinell Indenter	1	
Φ10mm Brinell Indenter	1	
Φ2.5/5/10mm Tungsten Carbide Balls	each 1	
(150~250) HBW10/3000 Hardness Block (150~250) HBW10/3000	1	
(80~110) HBW10/1000 Hardness Block (80~110) HBW10/1000	1	
Objective Lens	1	
2X Objective Lens	1	
Software USB	2	
Security Dongle	1	
Dust Cover	1	
Hex Key	1	
Power Cord	1	
Fuse	1	
Product Certificate	1	
User Manual	1	

## Optional Delivery

### Optional Accessories

Tungsten carbide balls

Various work tables

Hardness test blocks

Internal machine parts

Various indenters