Mikrosize®

uBrin-3000E

Electronic Touch Screen Brinell Hardness Tester

Video

Contact us

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Features and Applications

Product Features

- **uBrin-3000E**
- Touch screen panel, menu structure, easy for operation.
- Closed-loop control, with high accuracy load cell, test force from 62.5kgf to 3000kgf,high repeatability and stability, easy installation and calibration.
- 20x portable brinell indentation measurement microscope.
- Automatic load - dwell - unload main test force.
- Based on depth measurement method to fast determination of hardness, directly display brinell hardness value on touch screen after make an indentation.
- For 500 -- 3000 kg, the accuracy of the force is less than 0.5%.
- The test force is directly selected, and the force value is automatically changed in the test parameters.
- The minimum measurement time less than 15s, high working efficiency.
- Built-in hardness value calculation system, after the end of hardness measurement, input the values of D1 and D2, no need to check hardness calculating table.
- Included: BRM-3 brinell reading microscope with light source is specially used for measuring the indentation size of Brinell hardness. Its own light source ensures that the indentation image and scale line are super clear in the environment with no light, makes indention measurement is easy and accurate.
- High accuracy, much better than ASTM E-10-08 and GB/T231.2 required accuracy.

uBrin-3000E

uBrin-3000EV

- **Ubrin-3000EV**
- Based on uBrin-3000e, uBrin-3000ev is equipped with uVision-PB portable automatic brinell hardness measurement system.
- Automatic process by software to get hardness value display.
- With all brinell hardness software function including hardness conversion etc.
- Easy to save test result in computer.

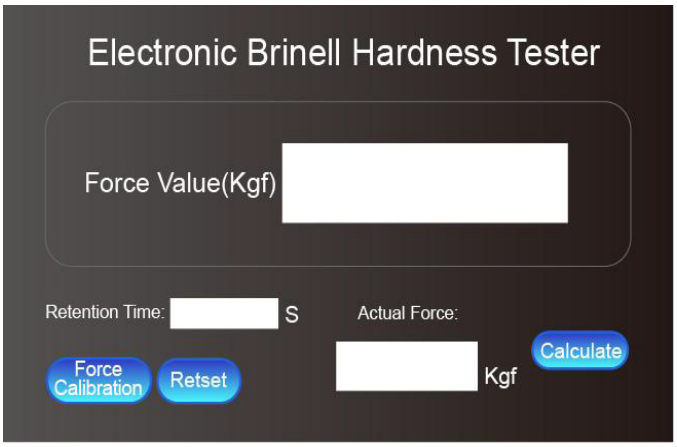
Features and Applications

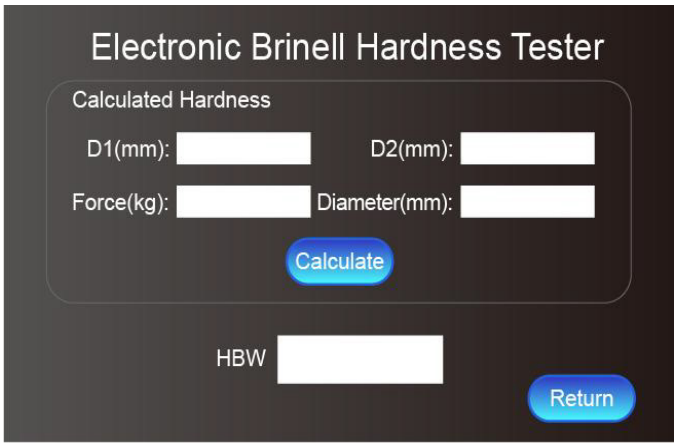
Product Applications

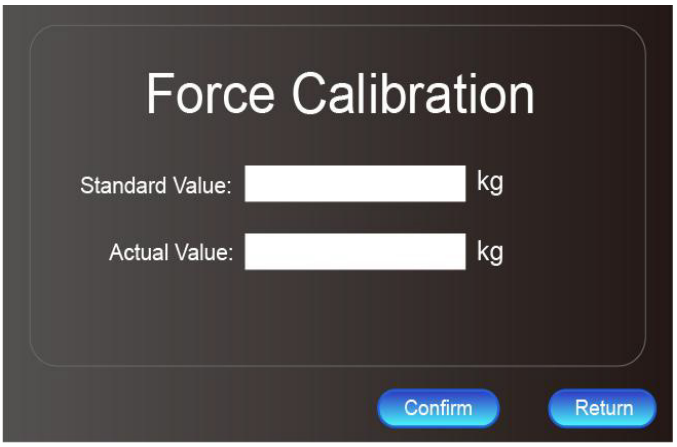
- The typical test uses a 10mm (0.39 in) diameter brinell steel ball indenter, with a 3000 kgf test force. For softer materials, a smaller force is used; for harder materials, a tungsten carbide ball is substituted for steel ball.
- Quality control of Industrial production (machinery manufacturing, metallurgy plants,etc.) Research & Inspection of Inspection Institution and universities laboratories.
- Ferrous and nonferrous metals, Hardened steel, tempered steel, annealed steel, hardened steel, sheet of various thicknesses, carbide materials, powder metallurgy materials, etc.

Operation Interface

Operation Steps& Interface







- Put specimen on testing anvil, then manual pre-loading, the machine automatic loads main force (load - dwell - unload automatically), making an indentation on specimen.
- Put the specimen under portable measuring microscope to measure D1, D2 value.
- Input D1, D2 value into machine, then the hardness value will display on LCD screen directly, no need to check hardness calculating table.

Product Details

Detailed Photos

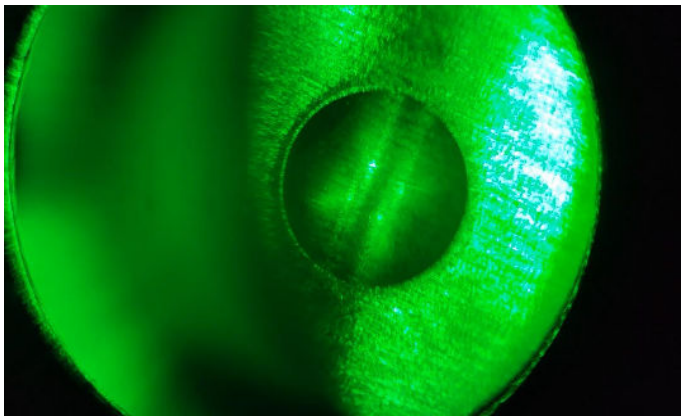


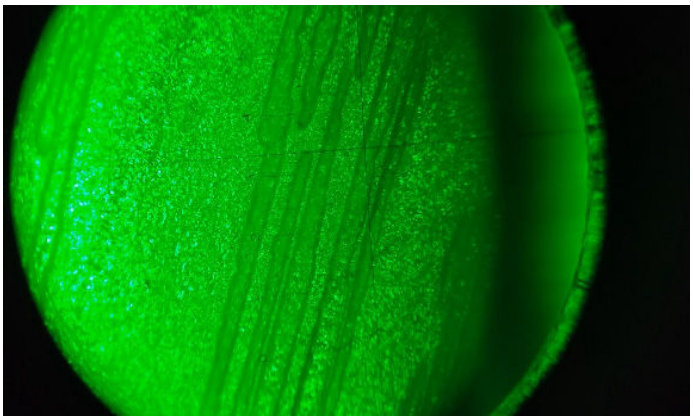

BRM-3 Portable Brinell Reading Microscope

- BRM-3 brinell reading microscope with light source is specially used for measuring the indentation size of Brinell hardness. Its own light source ensures that the indentation image and scale line are super clear in the environment with no light, makes indention measurement is easy and accurate.


Product Details

BRM-3 Product Feature





- It comes with a long life LED green light source, no ambient light, uniform and stable light;
- The light source can be adjusted to the human eye observation sensitive, comfortable, long-term observation is not easy to fatigue;
- Indentation image, scale line are super clear, can accurately measure the indentation size;
- Use 3 GA13 button batteries, long service life and easy to replace;
- The chassis has its own magnet, which can be adsorbed on the workpiece to avoid slight shaking during measurement;
- It has simple structure and convenient operation.

BRM-3 Technical Specification/Standard Configuration

Model	BRM-3
Total Magnification	20X
Eyepiece Microscale Range	0 mm to 6 mm
Eyepiece Maximum field of View	9 mm
Effective Measuring Range	0 mm to 6 mm
The Minimum Reading of Microdrum	0.01mm
Measurement Accuracy	+/ - 0.01mm
Light Source	LED
Power Supply Voltage	4.5 V
Weight	500g
Dimensions	82X35X155mm

Item	Qty
Microscope with Light 20X	1 pc
0.1 mm Micrometer	Section 3
Instruction Manual	1 copy
Product Certificate	1 copy
AG13 Button Battery	1 pc

Measurement System

Product Introduction

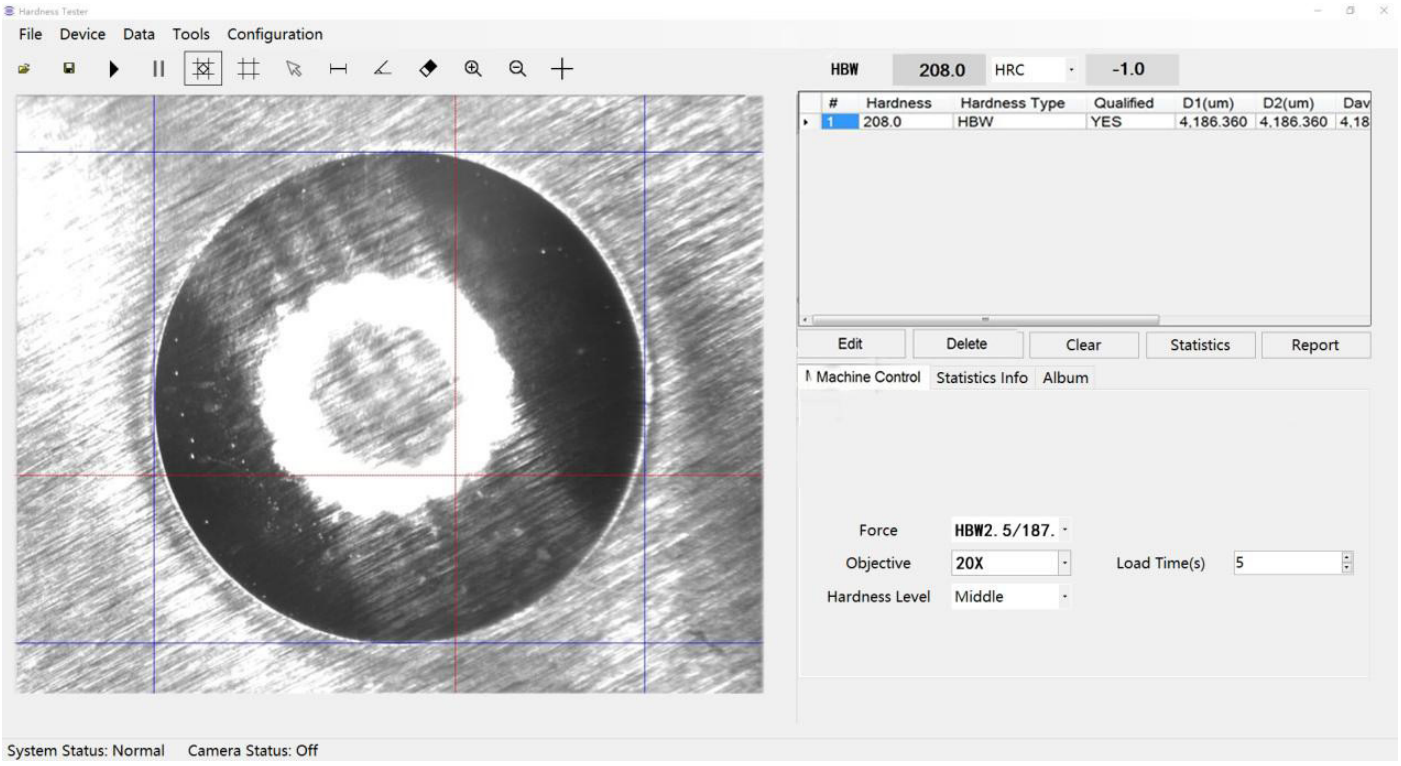
- uVision-PB portable Brinell hardness Automatic Measurement System, using optical,electronic, computer and image analysis technology, dedicated to the automatic measurement of Brinell hardness.
- Convenient portability: the whole system is compact and exquisite in design, convenient in installation and simple in operation.
  Professional optical design: to ensure the brinell indentation image clear, well-defined boundaries.
- Accurate image analysis: combines shape, brightness and edge calculations to improve the accuracy of measurement results.
- Automatic measurement for standard samples, with automatic measurement button,convenient for testing.
- Brightness, contrast and lighting system can be adjusted, and parameter values can be saved and imported for different sample surfaces.
- Wide range of applications: laboratory, or industrial workshop, can obtain accurate test results.
- Powerful software functions: single piece measurement, batch measurement, hardness conversion table, data and image storage, database query, unqualified value alarm.

Measurement System

uVision-PB Product Function

- Image acquisition: Real-time display of hardness indentation image, image can be stored and printed.
- Indentation measurement: good repeatability, high accuracy, wide applicability. Both manual measurement and manual adjustment are supported.
- Calibration method: standard hardness block calibration or length scale calibration
- Hardness conversion: Automatic brinell - Rockwell - Vickers hardness conversion.
- Graphic report: automatically record measurement data and output WORD report according to user's custom.
- Database support: support database, convenient for users to query

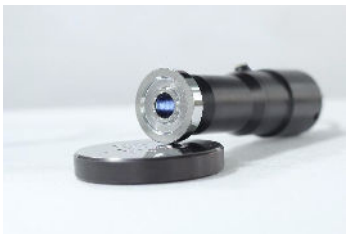
uVision-PB Main Interface of Software



Measurement System

uVision-PB Technical Parameters

Model	uVision-PB
Application Brinell Indentor	2.5mm/4mm/5mm/7.26mm/10mm
Brinell Hardness Scale	HBW2.5/62.5 HBW2.5/187.5 HBW5/62.5 HBW5/250 HBW5/ 750 HBW10/100 HBW10/500 HBW10/1500 HBW10/3000
Executive Standards	BSEN 6506, ISO 6506, ASTM E10, GB/T231
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 million industrial-grade digital camera
Measuring Way	Manual and automatic measurement (for standard samples)
Calibration Method	Standard hardness block/length scale
Support Language	Chinese/English (optional other languages)
Power Supply	USB power supply
Dimension	170x54x54mm
Weight	500g

uVision-PB Standard Accessories

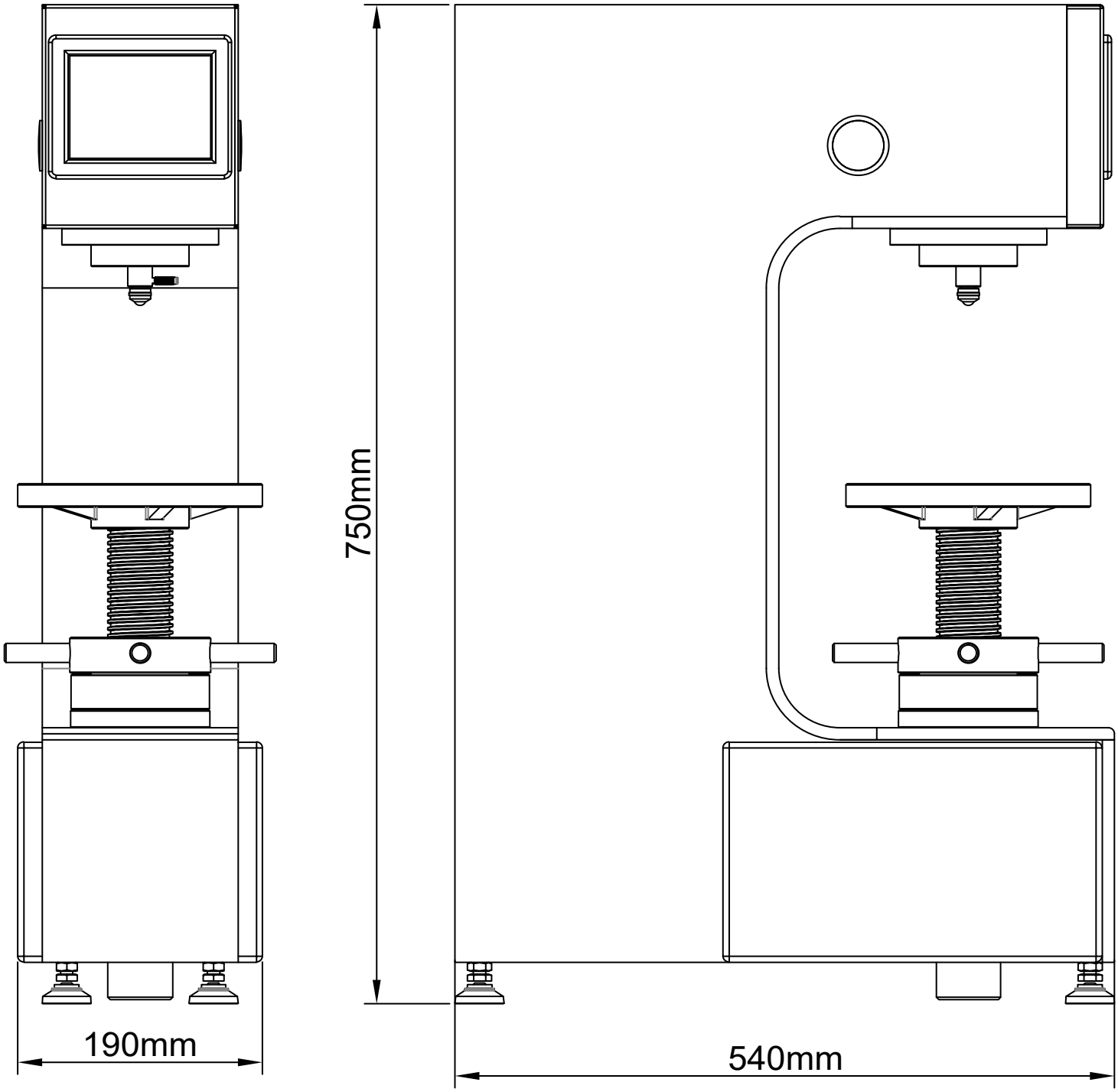
Item	Quantity	Item	Quantity
Portable Measuring Head	1 set	10mm Brinell Block	1 pc
USB Flash Drive (Software Included)	1 pc	Encryption Dog	1 pc
Product Certificate	1 copy	Instruction Manual	1 copy
Brinell Block for 5mm/10mm	1 pc	Warranty Card	1 copy

Ordering Information

uBrin-3000E Electronic Brinell Hardness Tester
(With BRM-3 Portable Brinell Reading Microscope)

uBrin-3000EV Electronic Vision Brinell Hardness Tester
(With uVision-PB Brinell Testing Software, Without Computer)

Instrument Dimension



Technical Specification

Model	uBrin-3000E	uBrin-3000EV
Product Name	Electronic Brinell Hardness Tester	Electronic Vision Brinell Hardness Tester
Data Display&Output	LCD touch screen	LCD touch screen /Computer
Test Force Kg	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf	
Test Force N	612.9N, 980.7N, 1226N, 1839N,2452N, 4903N, 7355N, 9807N,14710N, 29420N	
Brinell Scale	HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5,HBW5/125,HB-W5/250,HBW5/750,HBW10/100, HBW10/1500, HBW10/3000, HBW10/250,HBW10/500, HBW10/1000	
Test Force Accuracy	62.5 ~ 250Kgf≤1%, 500 ~ 3000Kgf≤0.5%	
Reading Microscope	Resolution :0.01 mm (The minimum reading of microdrum) Magnification: 20x	
Ball Diameter (mm)	Φ2.5mm/Φ5mm/Φ10mm	

Technical Specification

Test Space	Test Height: 230mm Test Height:155mm
Executive Standards	BSEN 6506, ISO 6506, ASTM E10, GB/T231
Loading Method	Automatic (Loading/Dwell/Unloading)
Dwell Time	1-99S (1 second / step)
Hardness Resolution	0.1 HBW
Hardness Test range	3.18-653HBW
Power Supply	AC220V+5%, 50-60Hz
Dimension	Machine: 540*190*750mm, Package: 730*450*980mm
Weight	Net weight: 100kg, Gross weight: 130kg

Standard Delivery

Name	Qty	Photo
BRM-3 Reading Microscope with Light Source	1 pc	
Brinell Ball Indentor Φ2.5mm	1 pc	
Brinell Ball Indentor Φ5mm	1 pc	
Brinell Ball Indentor Φ10mm	1 pc	
Brinell Hardness Block HBW10/3000	1 pc	
Brinell Hardness Block HBW10/1000	1 pc	
Brinell Hardness Block HBW2.5/187.5	1 pc	
uVision-PB Portable Automatic Brinell Hardness Measurement System (Without Computer) (uBrin-3000EV)	1 pc	

Standard Delivery

Name	Qty	Photo
Φ200mm Test Anvil	1 pc	
Φ60mm Test Anvil	1 pc	
Φ80mm V-shaped Test Anvil	1 pc	
Qualification Certificate	1 Copy	
Warranty Card	1 Copy	
Instruction Manual	1 Copy	
Power Cord/ Dust Proof Cover	each 1 pc	/
Touch Screen Pen / Fuses 2A	1 pc	/