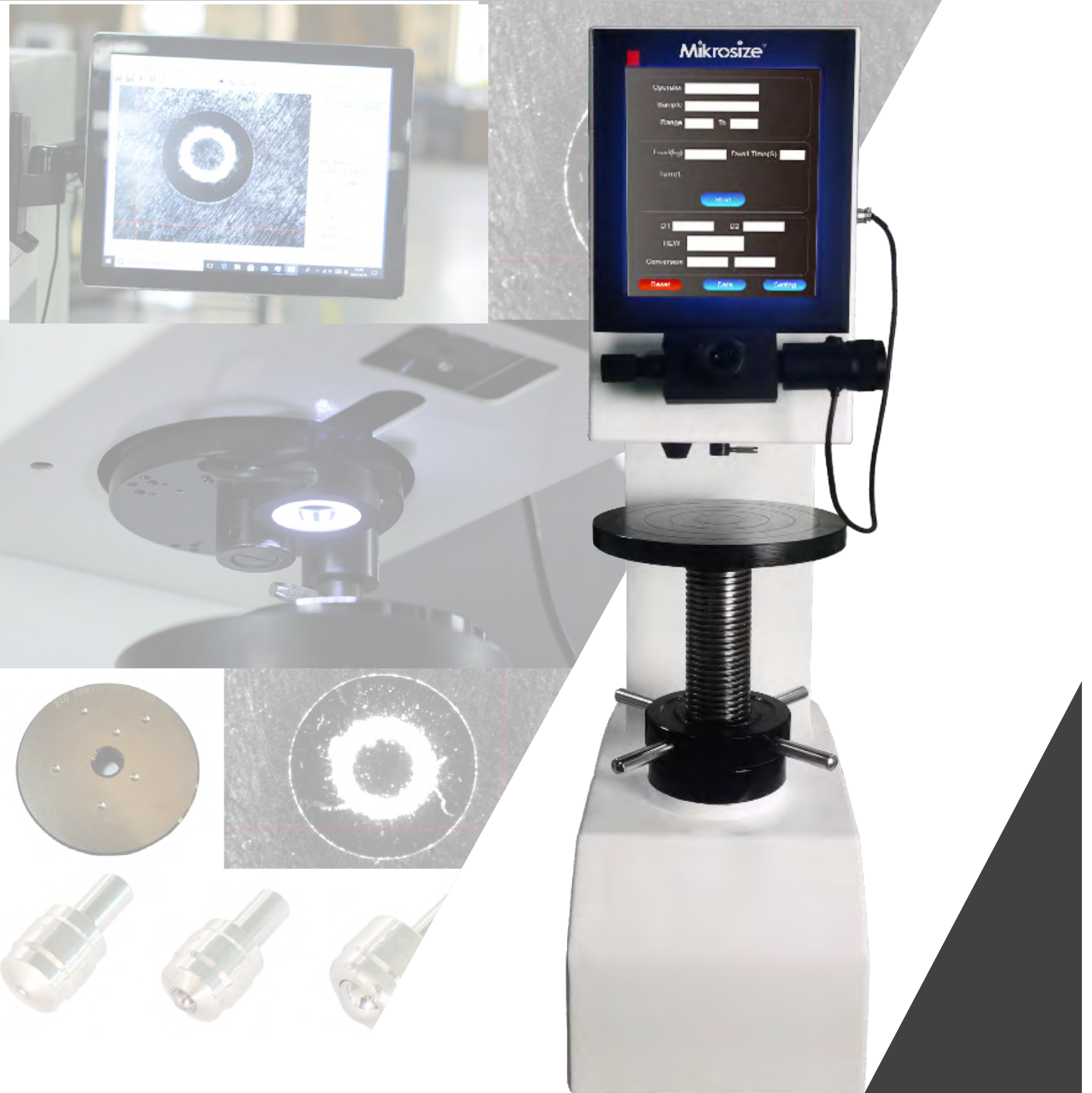


MIDLAND METROLOGY LIMITED

# uBrin-3000M

Manual Digital Brinell Hardness Tester



# Product Feature & Application

## Product Features

### **uBrin-3000M -M/uBrin-3000M-A**

Closed loop control system. High accuracy load cell. No need to install weights. Easy installation and calibration.

Automatically compensates for each test.

Auto loading and unloading. Large test force range: 62.5-3000Kgf.

Eyepiece with digital encoder. D1 and D2 values displayed on LCD directly. Measuring indentation is automatic so no need to focus.

Hardness value displays on screen with hardness conversion function.

Touch screen interface, menu structure interface so more information is displayed.

Can save more samples and test information.

Offers support to set passwords for more protection.

Auto calibration according to the standard block or length scale. Automatic loading corrected ensuring much more accuracy.

Automatic test force calibration by standard dynamometer. Large test space 155 x 200mm (Depth x Height).

Vickers and rockwell hardness values can be converted with 12 kinds of measuring scale.

USB interface so all data can be saved as EXCEL format. Easy to edit and process.

Modular design with easy maintenance.

### **uBrin-3000M-V**

Based on uBrin-3000M-M/A. This machine has a dual optical path system and built in camera.

Eyepiece and camera can be connected.

Indentation measurement can automatically be done by eyepiece or computer.

Industrial touch screen computer monitor.

Computerised control system for loading single sample tests, bath samples and hardness scale conversion. An alarm will sound for an unknown test result.

Image process system, hardness measurement software system and industrial touch screen computer system in one. More concise instrument for easier operation.

Equipped with double touch screen and stable working performance. The front touch screen panel can test and measure independently.

The side touch panel can automatically measure using software.

The machine will still run normally even if the screen has damage.

The side panel touch screen controls the machine turret. The test report can display the indentation image, hardness curve and value, conversion value, test force, dwell time, maximum and minimum data and average data.



**uBrin-3000M-M  
Manual Turret**



**uBrin-3000M-A  
Auto Turret**



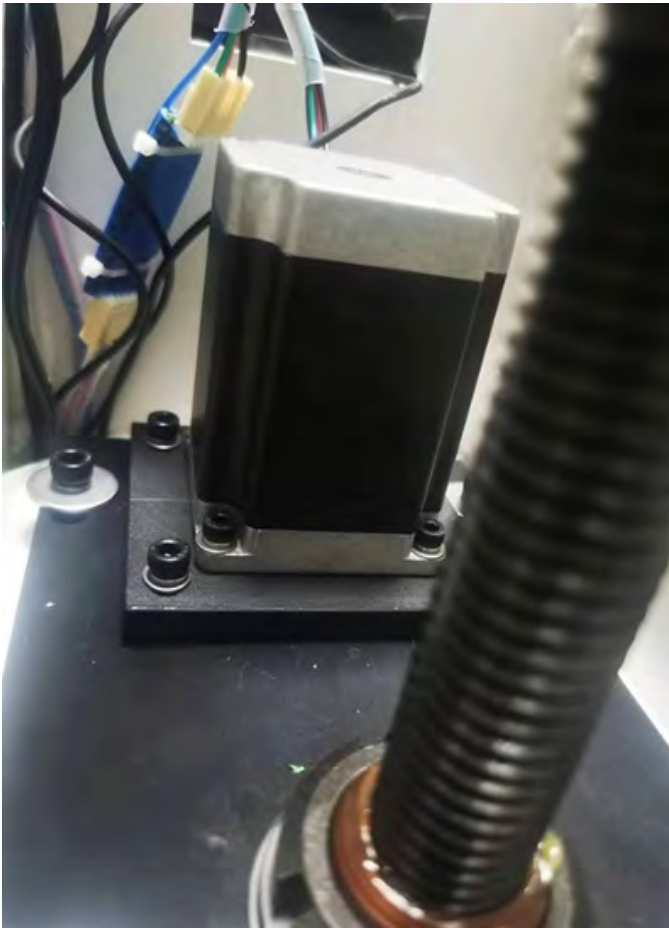
**uBrin-3000M-V  
Auto Turret**

## Product Application

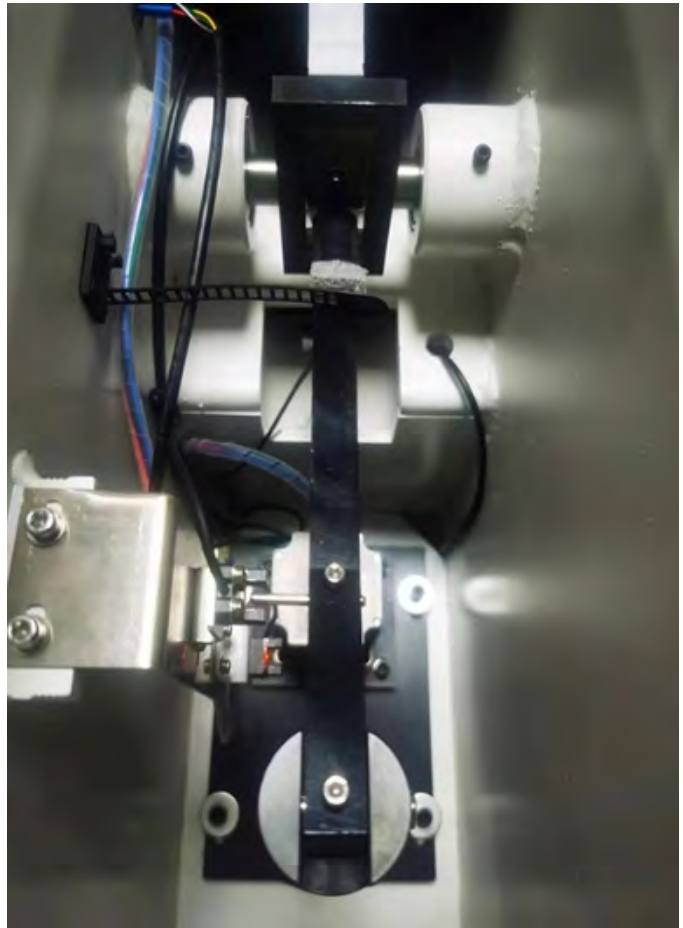
Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. Also suitable for some nonmetal materials such as rigid plastics and Bakelite etc.

# User Friendly

High precision load cell with closed-loop control system, each test force automatically compensated.



Closed-loop Control System



Closed-loop Control System

# Digital Eyepiece with Encoder

Eyepiece with digital encoder, just click the encoder button, indentation length will be input to machine automatically measuring D1 and D2 values, LCD directly displays D1 and D2 values and hardness value.



# Turret System





# Data Output

With USB interface, test data can be saved to U-flash as EXCEL format, easy edit and pro-cess.



# Operation Interface

Operator

Sample

Range  To

Load(kg)  Dwell Time(S)

Turret

D1  D2

HEW

Conversion

Measurement Scale

Conversion Scale

Calibration

Magnification:

Loda(kg) :

Pulses : X  Y

Scale

Hardness

# Ordering Information



**uBrin-3000M-M Manual -turret Digital Brinell Hardness Tester**  
**uBrin-3000M-A Auto-turret Digital Brinell Hardness Tester**



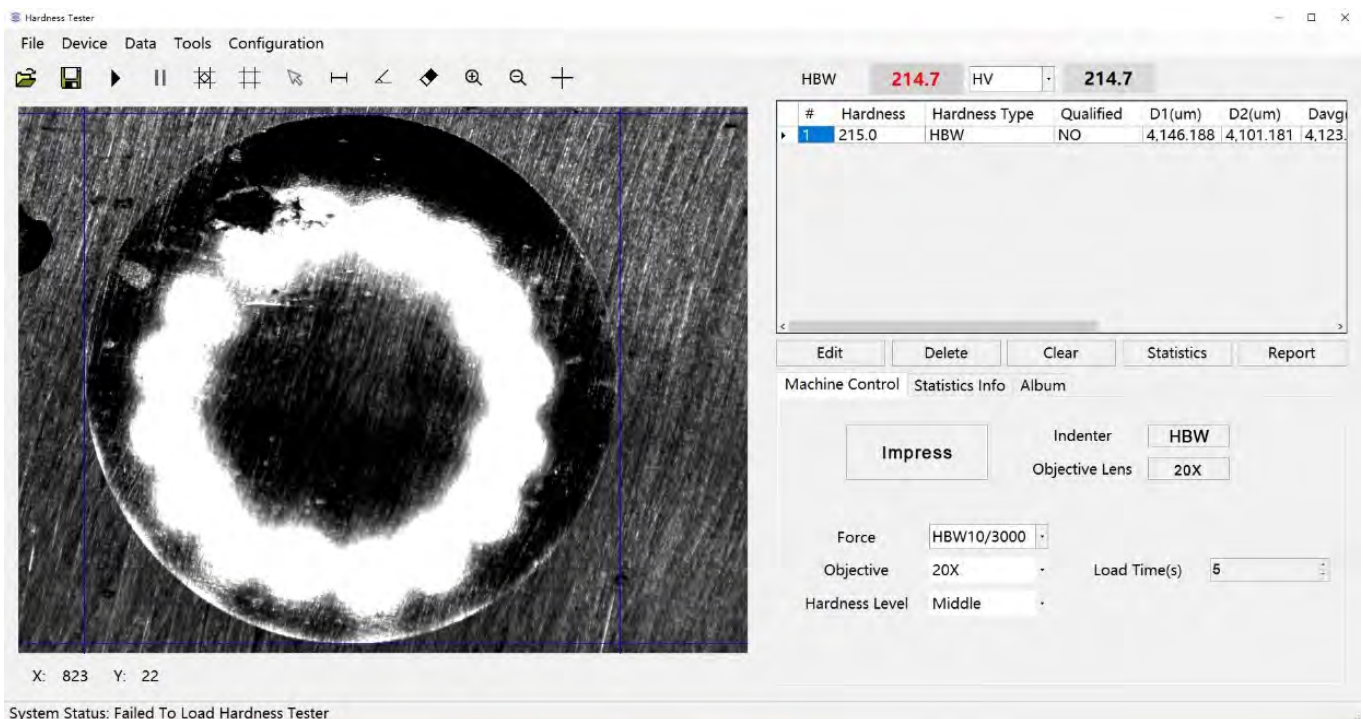
**uBrin-3000M-V Auto-turret Vision Digital Brinell Hardness Tester**

**Web:**[www.midland-metrology.co.uk](http://www.midland-metrology.co.uk)

**Email:**[sales@midland-metrology.co.uk](mailto:sales@midland-metrology.co.uk)

# uBrin-3000M-V Brinell Software

- Wide range of application: laboratory, or industrial workshop; Accurate test results can be obtained under the condition of standard surface roughness, suitable for various loads of Brinell hardness tester.
- 5 million pixel industrial grade digital camera, clear image;
- Direct communication with hardness tester, software control hardness tester turret, load-ing and other whole test process;
- The brightness, contrast and lighting system can be adjusted, and the parameter values can be saved and imported for different sample surfaces.
- Precise image analysis: integrated shape, brightness and edge calculation to improve the accuracy of measurement results.
- Indentation automatic measurement, real-time calculation of accurate hardness value and indentation diameter, good repeatability, high accuracy, wide applicability, while sup
- Powerful software functions: single piece measurement, batch measurement, hardness conversion table, data and image storage, database query, unqualified value alarm.
- According to GB/ASTM standards, automatic Brinell - Rockwell - Vickers and other hardness conversion;
- It can be calibrated according to standard hardness blocks or length scales.
- Automatically record measurement data and output WORD report according to user customization; Automatic recording of measurement data, all data saved in EXCEL format.



# uBrin-3000M-V Brinell Software S

## Technical Specification:

Model	uBrinell-3000M-V
Brinell Scale	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
Meet Standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231
Measuring Range	15.9-650HBW (effective hardness value recommended by ASTM E10)
Measurement Resolution	0.0001 mm
Resolution of Hardness Value	0.1 HBW
Digital Imaging	5 million industrial grade digital cameras
Measuring Method	Manual and automatic measurement (for standard samples)
Calibration Method	Standard Hardness block/length scale
Support Language	Chinese/English (More Languages Customized)

## Standard Accessories:

Item	Instructions	Quantity
Camera	5 million pixels	1 set
Interface	Connect the durometer to the camera	1 set
U disk	Includes software and instruction manual	1 set

# Technical Specification

Model	uBrin-3000M-M	uBrin-3000M-A	uBrin-3000M-V
Turret	Manual	Auto	Auto
Brinell Scale	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(9807N), 1500kgf(14710N), 3000kgf(29420N)		
Test Force Accuracy	0.1%		
Test Force Precision	62.5 ~ 250kgf ≤ 1%    500 ~ 3000kgf ≤ 0.5%		
Test Range	8-650HBW		
Camera(uBrin-3000M-V)	Industrial 5 Millions Pixels		
Eyepiece	20X (Optional: 10X, 15X, 30X)		
Indention Measuring	Manual	Manual	Manual/Auto
Data Output	LCD/USB	LCD/USB	LCD/USB/Computer
Calibration Method	Standard Block/Length Scale		
Computer(uBrin-3000M-V)	Industrial 15" - resistance screen Core i5 quad core/4G/64G/wifi win10		
Measuring Device Resolution	0.1um	0.1um	0.1um
Hardness Resolution	0.1HBW	0.1HBW	0.1HBW
Dwell Time	0 ~ 99S		
Data Storage	Results Saved in U disk as Excel Format		
Test Height	200mm(Customized Optional)		
Test Throat	155mm		
Executive Standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231, JIS Z2243		
Machine Dimension	550×210×800mm		
Weight	110kg		
Power Supply	AC220+5%,50 ~ 60Hz		

# Packing List

Item	Quantity
20X Measuring Eyepiece	1 pc
Diameter 2.5mm Hard Alloy Ball Indenter	1 pc
Diameter 5mm Hard Alloy Ball Indenter	1 pc
Diameter 10mm Hard Alloy Ball Indenter	1 pc
U-flash Disk/Touch Pen	1 pc
Power Cord	1 pc
Φ200mm Test Anvil	1 pc
Φ60mm Test Anvil	1 pc
Φ80mm V-shape Test Anvil	1 pc

Item	Quantity
Standard Hardness Block HBW10/3000	Each 1
Standard Hardness Block HBW10/1000	1 pc
Standard Hardness Block HBW2.5/187.5	1 pc
Anti-dust Cover	1 pc
Spare Fuse (2A)	2 pcs
Instruction Manual	1 copy
Product Certificate	1 copy
Warranty Card	1 copy
Accessories Case	1 pc



HBW10/1000 Brinell Block



HBW10/3000 Brinell Block



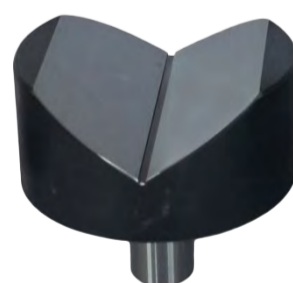
HBW2.5/187.5 Brinell Block



Φ200mm Test Anvil



Φ60mm Test Anvil



Φ80mm V-shape Test Anvil



Φ2.5mm/5mm/10mm Brinell Ball Indentors