

# iBrin-3000CLD

## Digital Display Brinell Hardness Tester



Video



### Contact us

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## Features and Applications

### Product Features

- Equipped with 11 test forces and 15 brinell hardness test scales for flexible selection.
- 3 types of indenters pre-installed simultaneously.
- 2 sets of objectives, both capable of measuring indentation diameter.
- Automatic switching of objectives and indenters based on selected scale.
- Pre-set dwell time and adjustable indentation measurement light intensity.
- Real-time display of loading time.
- Displays indentation size, hardness value, test count, etc.
- Converts between common hardness scales.
- Printable test results.

### Product Applications

- Inspects raw material hardness during machining for optimal tool/process selection.
- Verifies hardness of mechanical components (gears, bearings, bolts) for compliance.
- Ensures safety-critical hardness of power plant equipment (boilers, turbines, generators).
- Evaluates forging quality and process effectiveness.



## Instrument Appearance



**1. Display Screen**

**2. Eyepiece Interface**

**3. Measuring Eyepiece**

**4. Automatic Turret (Holds 3 Indenters + 2 Objectives)**

**5. Test Anvil**

**6. Lifting Screw**

**7. Handwheel**

**8. Emergency Stop**



**1. Power Switch**

**2. Power Cable Port**

**3. Printer**

**4. RS232 Interface**

**5. USB Port**

## Interface Display

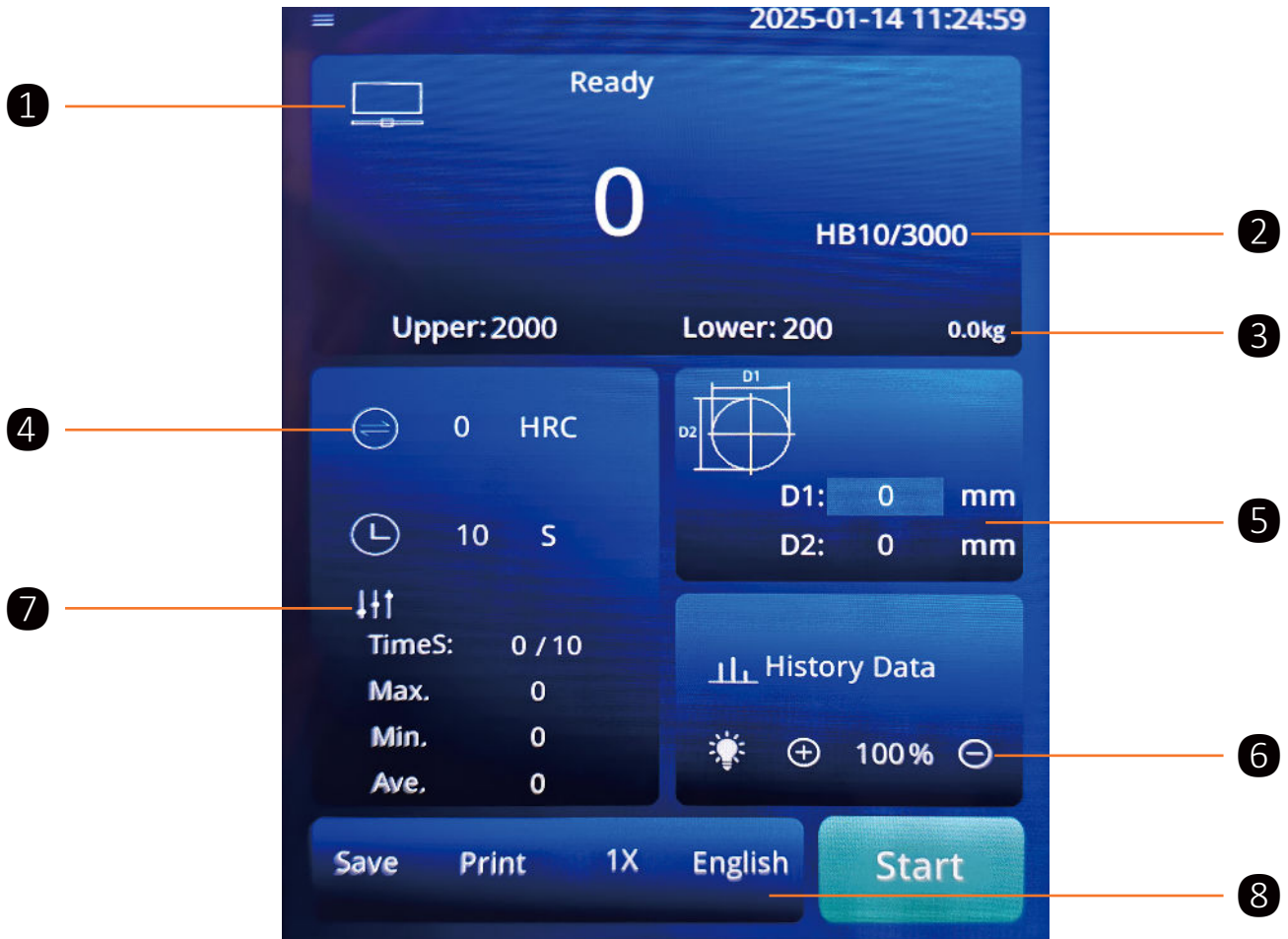


- Features a 5-position automatic turret with 3 indenters ( $\Phi 2.5\text{mm}$ ,  $\Phi 5\text{mm}$ ,  $\Phi 10\text{mm}$ ) and 2 objectives (1X, 2X). No manual change required; all components directly participate in measurement.



- 20X measuring eyepiece + objectives enable 40X magnification for clear, accurate indentation observation and measurement.

## Interface Display



**1.Test Results**

**4.Scale Conversion**

**7.Test Data**

**2.Test Scale**

**5.Indentation Size**

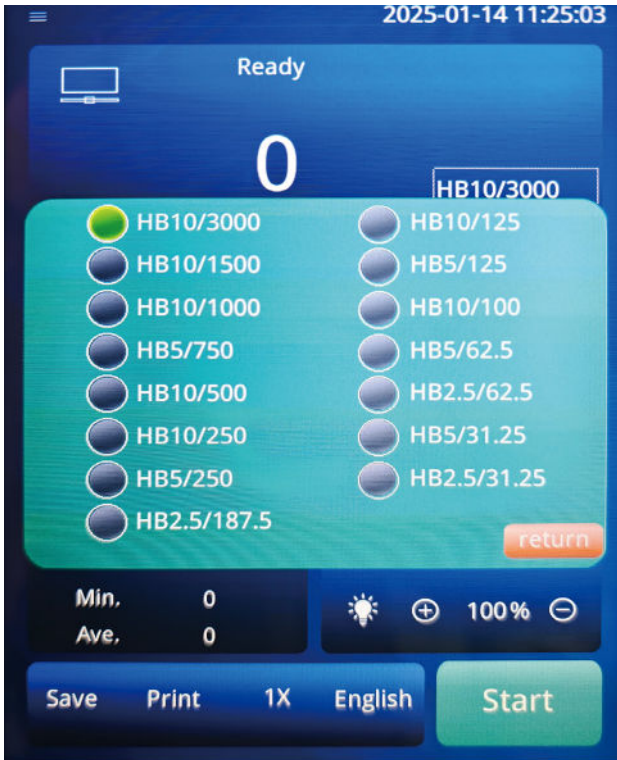
**8.Language Switch: Supports Chinese/English**

**3.Real-Time Test Force Display**

**6.Brightness Adjustment**

## Operation Interface

### Scale Selection



- 15 test scales available across 3 indenter sizes and varying forces.

HBW 2.5 / 31.25、HBW 2.5 / 62.5、HBW 2.5 / 187.5、HBW 5 / 31.25、HBW 5 / 62.5、HBW 5 / 125、HBW 5 / 250、HBW 5 / 750、HBW 10 / 100、HBW 10 / 125、HBW 10 / 250、HBW 10 / 500、HBW 10 / 1000、HBW 10 / 1500、HBW 10 / 3000

### Hardness Conversion

- Converts to 19 common hardness scales.  
HRA、HRB、HRC、HRD、HRE、HRF、HRG、HRH、HRK、HS、HV、HK、HBW、HR15N、HR30N、HR45N、HR15T、HR30T、HR45T



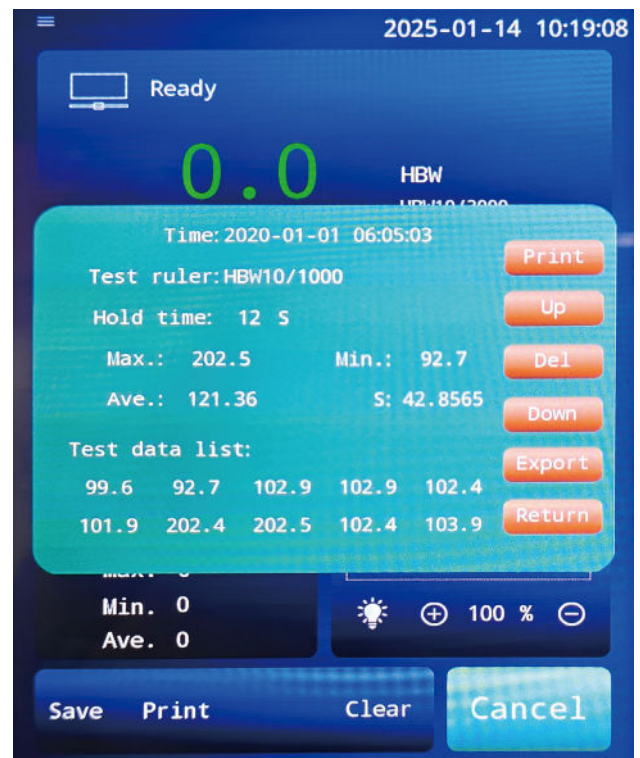
## Operation Interface

### Automatic Turret

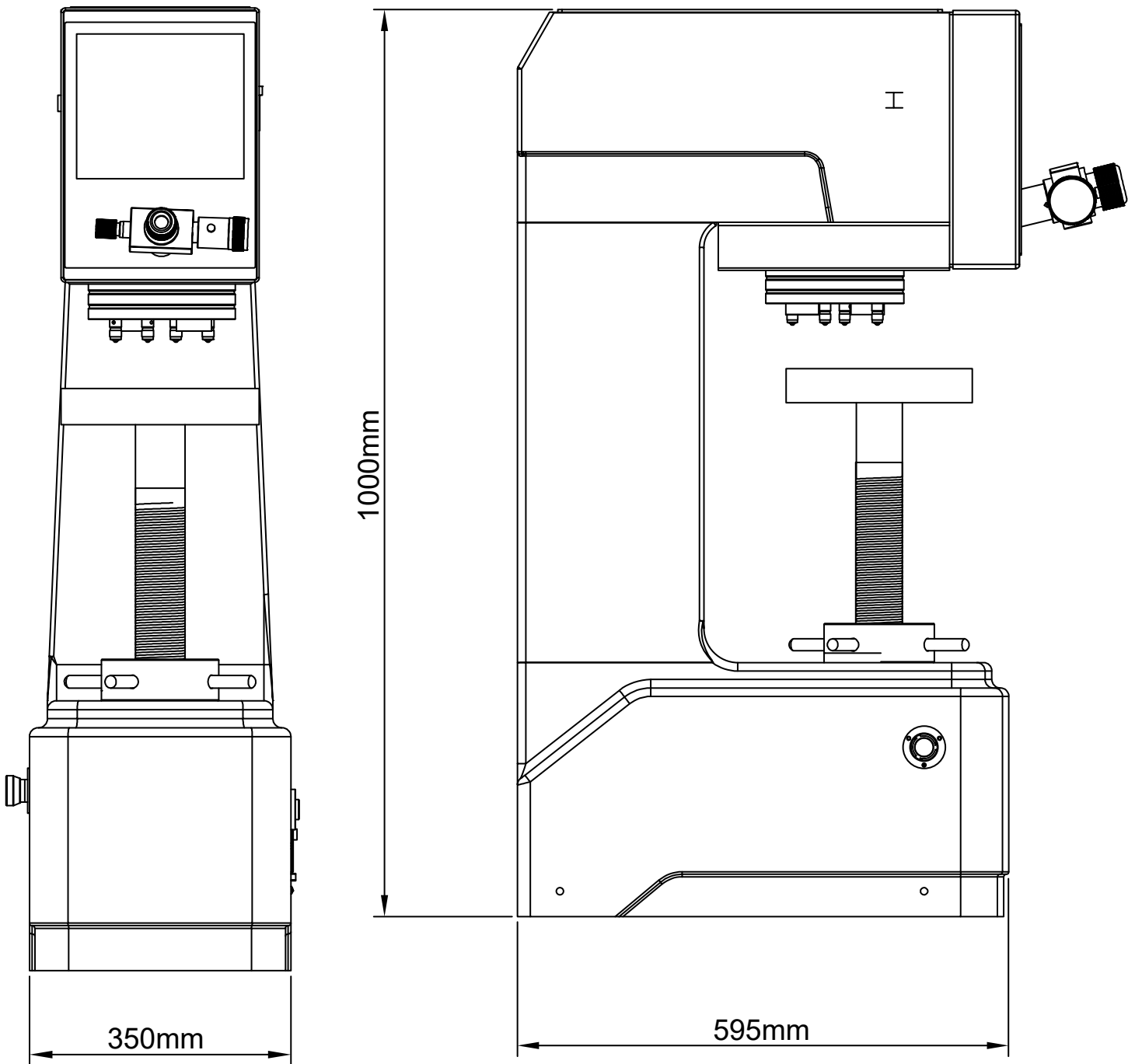


- Turret rotates to selected indenter/objective position. All 3 indenters and 2 objectives remain mounted.

- Save tests to history for search/delete/print functions. Print via built-in printer or external PC/printer via RS232.



## Instrument Dimension



# Technical Specification

<b>Name</b>	Digital Automatic Turret Brinell Hardness Tester
<b>Model</b>	iBrin-3000CLD
<b>Test Force</b>	8~650HBW 31.25kgf、62.5kgf、100kgf、125kgf、187.5kgf、250kgf、500kgf、750kgf、1000kgf、1500kgf、3000kgf
<b>Test Scales</b>	306.45N、612.9N、980.7N、1226N、1839N、2452N、4903N、7355N、9807N、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>Scale Conversion</b>	HRA、HRB、HRC、HRD、HRE、HRF、HRG、HRH、HRK、HS、HV、HK、HBW、HR15N、HR30N、HR45N、HR15T、HR30T、HR45T
<b>Loading Method</b>	Automatic loading, dwell, unloading
<b>Main Test Force Loading Time(s)</b>	2~8
<b>Dwell Time (s)</b>	0~99 stepless setting
<b>Test Height (mm)</b>	270
<b>Test Throat (mm)</b>	190



# Technical Specification

<b>Indenter/Objective Change</b>	Automatic turret
<b>Indentation Measurement</b>	Digital reading microscope
<b>Eyepiece</b>	20X
<b>Objective</b>	1X, 2x
<b>Display</b>	8-inch industrial touchscreen
<b>Indenter Specifications</b>	Φ2.5mm、Φ5mm、Φ10mm mounted on same turret
<b>Data Output</b>	Built-in printer, RS232 interface
<b>Light Source</b>	LED
<b>Light Adjustment</b>	Stepless brightness control
<b>Optical Path Switching</b>	Automatic
<b>Dimensions mm (L*W*H)</b>	1000X595X350
<b>Net Weight (kg)</b>	150
<b>Power Supply</b>	AC220, 50Hz

## Standard Delivery

Name	Qty	Photo
Machine Mainframe	1 pc	
1X、 2X Objectives	each1	
Measuring Eyepiece	1 pc	
Φ230mm Φ230mm Test Stage	1 pc	
Φ78mm Flat Test Stage	1 pc	
60*90mm V-shape Test Anvil	1 pc	
Φ10mm Brinell Indenter	1 pc	
Φ5mm Brinell Indenter	1 pc	

## Standard Delivery

Name	Qty	Photo
<b>Φ2.5mm Brinell Indenter</b>	1 pc	
<b>Test Block (150~250) HBW10/3000</b>	1 pc	
<b>Hex Key</b>	1 pc	/
<b>Power Cable</b>	1 pc	/
<b>Fuse</b>	2 pcs	/
<b>Accessory Case</b>	1 pc	/
<b>Anti-dust Cover</b>	1 pc	/
<b>User Manual</b>	1 pc	/
<b>Certificate of Conformity</b>	1 pc	/

## Optional Delivery

### Optional Accessories

Carbide balls

Various test anvils

Hardness test blocks

Internal spare parts

Additional indenters

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