



BRIDGE-TYPE BRINELL HARDNESS TESTER

QualiHB-3000MS

Bridge-type Brinell Hardness Tester

QualiHB-3000MS

The QualiHB-3000MS Bridge-type Brinell Hardness Tester is **an advanced, fully automatic system designed for accurate and efficient hardness testing.**

Featuring a closed-loop sensor control with a stepless servo motor and force feedback, it eliminates the inaccuracies common in traditional loading mechanisms. With a wide force range of **62.5 to 3000 kgf**, it supports automatic Brinell indentation and is well-suited for testing large, customizable workpieces thanks to its portal frame design.

The system's all-electronic drive and absence of hydraulic oil reduce maintenance needs and ensure stable performance in varying environments. Ideal for testing cast iron, steel, non-ferrous metals, soft alloys, and selected hard plastics, it delivers reliable results across diverse materials.



FEATURES/ADVANTAGES

High-Precision Load Control

Utilizes fully closed-loop sensor-based technology with real-time force feedback and 100 Hz monitoring for superior load accuracy ($\pm 0.5\%$), eliminating impact-related errors.

Frictionless, Coaxial Loading Mechanism

Direct sensor connection and coaxial design remove levers and reduce mechanical error, ensuring stable, accurate force application without wear over time.

Smooth, Durable Motion System

Features a lead screw mechanism with dual linear frictionless bearings in a closed-loop setup for smooth probe travel and long-term reliability.

Reliable Electrical Component

Built with premium components from trusted global brands and a precision servo control system, ensuring stable performance and minimal downtime.

Fully Enclosed & Safe Design

Equipped with limit switches on all axes and a mostly enclosed body (except essential parts) to protect operators and ensure safe operation.

Intuitive Operation & Smart Measurement

Computer-controlled touchscreen interface allows one-click operation, automatic indentation measurement, and easy manual adjustments—ideal for efficient, user-friendly testing workflows.

OPTIONAL CAMERA & MEASURING SYSTEM INTRODUCTION

Automatic Measurement

Automatically captures the indentation, measures its diameter, and calculates the corresponding Brinell hardness value.

Manual Measurement

Allows manual indentation measurement, with the system computing the Brinell hardness value based on input.

Hardness Conversion

Converts Brinell hardness (HB) values into other hardness scales such as Vickers (HV), Rockwell (HR), and more.

Data Statistics

Automatically calculates statistical values including average, variance, and other relevant metrics.

Out-of-Range Alerts

Flags abnormal results; the system alerts users if the hardness value exceeds the specified threshold.

Test Report Generation

Automatically creates test reports in editable Word format. Users can customize report templates.

Data Storage

Saves all measurement data, including indentation images, for future reference.

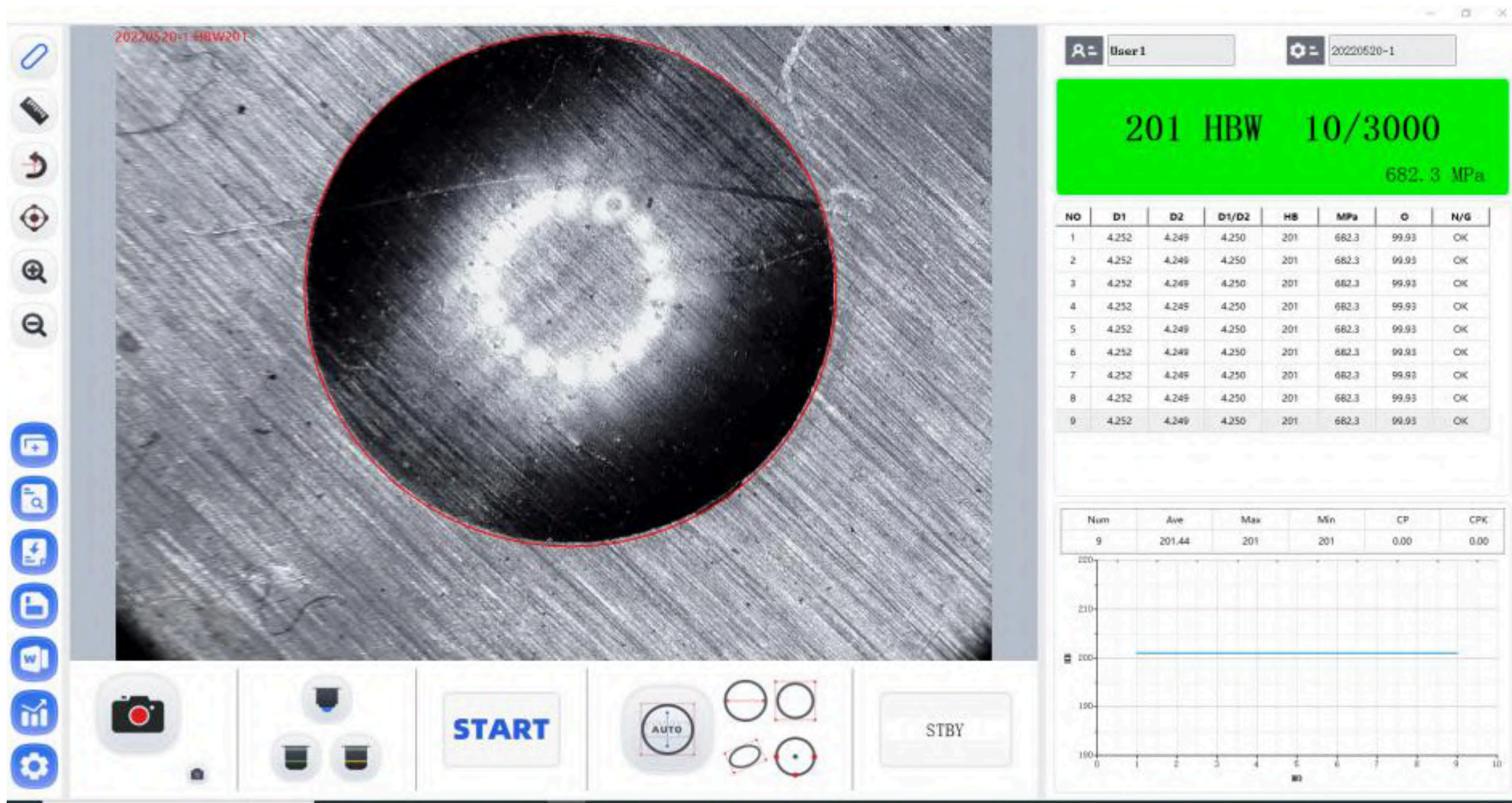
Additional Features

Includes image capture, calibration, measurement, annotation, and scheduled printing tools.

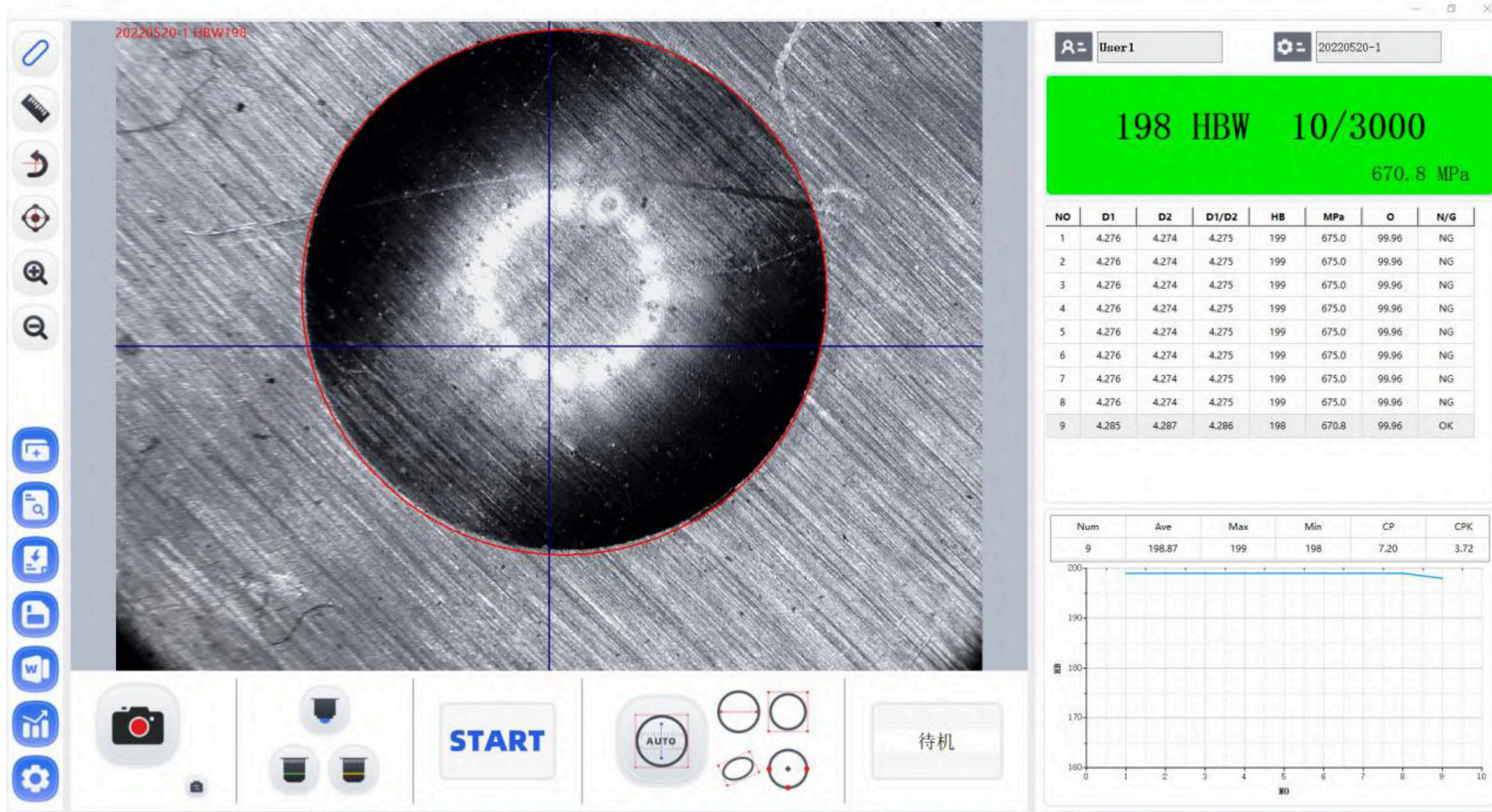


SOFTWARE

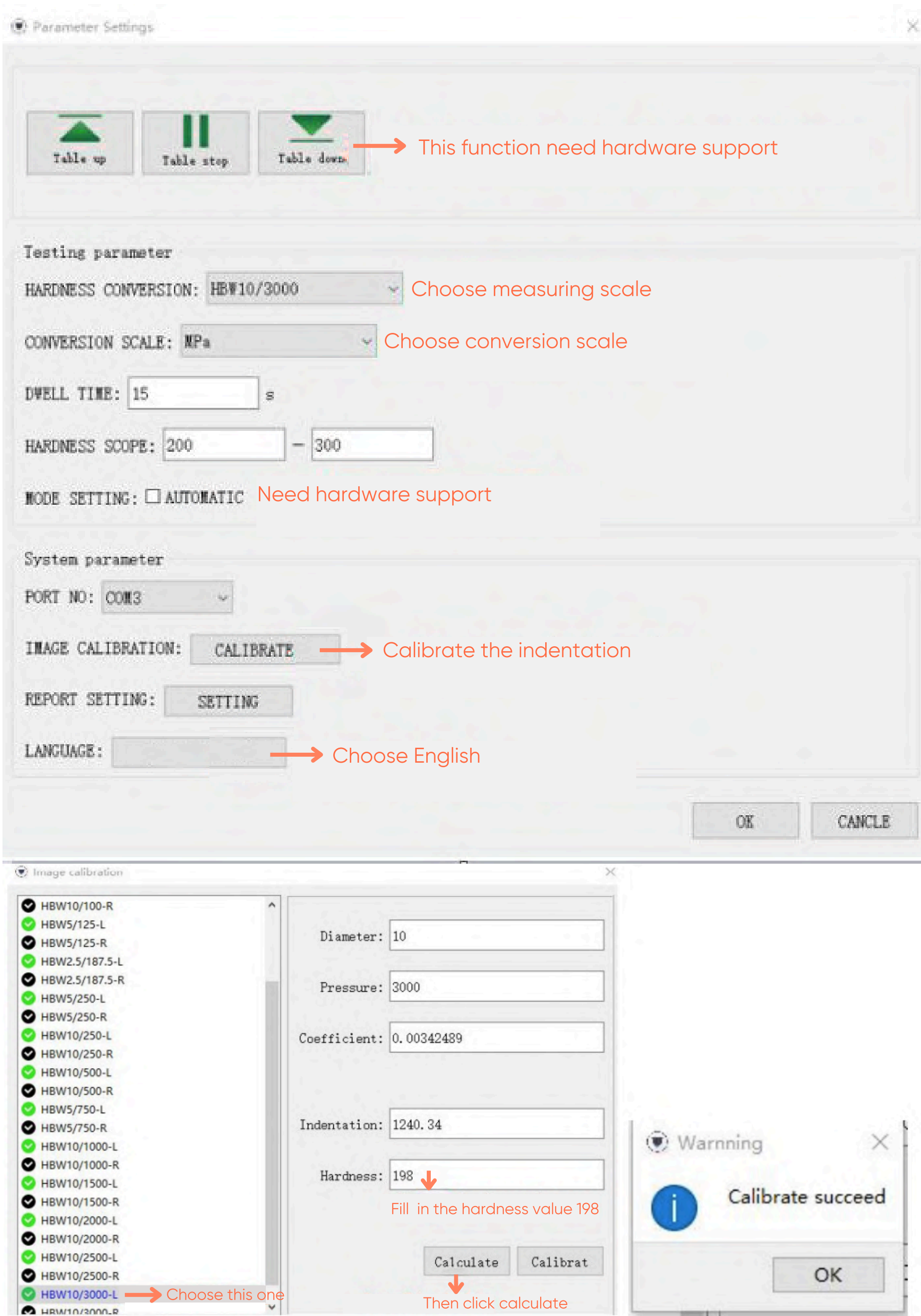
Software Interface



Results



Setting Interface



TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DETAILS
Control System	Touch Screen Control
Measuring Range	4–650 HBW
Test Force	62.5, 187.5, 250, 500, 750, 1000, 1500, 3000 Kgf
Indentation Measurement Method	Computer Automatic Measurement (or Manual Measurement)
Conversion Scales	HV, HK, HRA, HRBW, HRC, HRD, HREW, HRFW, HRGW, HRKW, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HS, HBS, HBW
Motor Type	Servo Motor
Transmission Mode	Ball Screw
Loading Time	1–99 Seconds Adjustable
Distance Between Columns	570 mm (Can be Customized)
Maximum Workpiece Height	230 mm (Can be Customized)
Working Table Size	400 × 330 mm
Worktable Moving Distance	100 mm (Optional)
Dimensions	Main unit: 750 × 450 × 1100 mm
Voltage	220V, 50/60Hz (110V Also Available)
Weight	300 Kg (661 lbs)

STANDARD CONFIGURATIONS	
Double Column Tester	1 Set
Indenters	Φ2.5, Φ5mm, Φ10mm (1 Each)
Brinell Standard Blocks	2 pcs Brinell Hardness Standard Blocks



USA | CANADA | UAE | GCC | EU | INDIA | APAC | AFRICA | LATIN AMERICA

Connect with us

Contact our **QualiTeam** today to find out how we can help your organization **select the most suitable testing solution** for your application, requirements, and budget.

Qualitest USA (Corporate Sales Office)

Toll-Free: 1.877.884.TEST (8378) | Fax: 954.697.8211
E-mail: info@qualitest-inc.com
Corporate Address: 8201 Peters Rd., #1000,
Plantation, FL 33324, USA.

Qualitest Canada & International

Tel: +1.905.944.9825 | Fax: +1.905.944.0304
E-mail: sales@qualitest-inc.com
Address: 70 East Beaver Creek Rd., #9, Richmond Hill,
Ontario L4B 3B2, Canada.

Qualitest Latin America (Mexico and LATAM Region)

E-mail: ventas@qualitest-inc.com

Qualitest FZE (Regional GCC/ME Office)

Tel: +971 4 8819252 | Fax: +971 4 8819262
Email: gcc@qualitest-inc.com
Address: Jafza One, BB 1610, Jebel Ali Free Zone,
PO Box 261440, Dubai, UAE.

Qualitest Singapore (ASIA PACIFIC Regional Office)

Tel: +65 6393 5480 | E-mail: singapore@qualitest-inc.com
Address: 50 Raffles Place, Singapore Land Tower,
Level 46, Singapore, 048623.

Qualitest Indonesia (Representative Office)

Tel: +62 21 2985 9522 | Fax: +62 21 2985 9889
E-mail: indonesia@qualitest-inc.com
Address: One Pacific Place Level 11, Jl. Jend. Sudirman,
Kav. 52-53, SCBD Area, Jakarta 12190, Indonesia.

Qualitest India

E-mail: india@qualitest-inc.com
15th Floor, Dev Corpora, Pokhran Road No.1,
Eastern Express Highway, Thane, Maharashtra,
Mumbai, 400601, India

