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# BRINELL OPTICAL SCANNING & MEASUREMENT SYSTEM BRINSCAN-310



## STANDARDS

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ASTM E 10

ISO 6506

Experience precision, efficiency and affordability with our Brinell Optical Scanning & Measurement System BrinScan-310. Utilizing advanced technology, including an LED light source, a high-definition optical system, and a CMOS digital camera, this system ensures HD images for accurate measurements. Benefit from auto-identification features, one-key measuring functionality, and easy calibration using a glass scale and Brinell standard hardness block. The software provides seamless compatibility with any Brinell Hardness Tester, supporting the latest Windows. Generate automatic reports with Brinell indentation details, making Brinell hardness testing hassle-free.

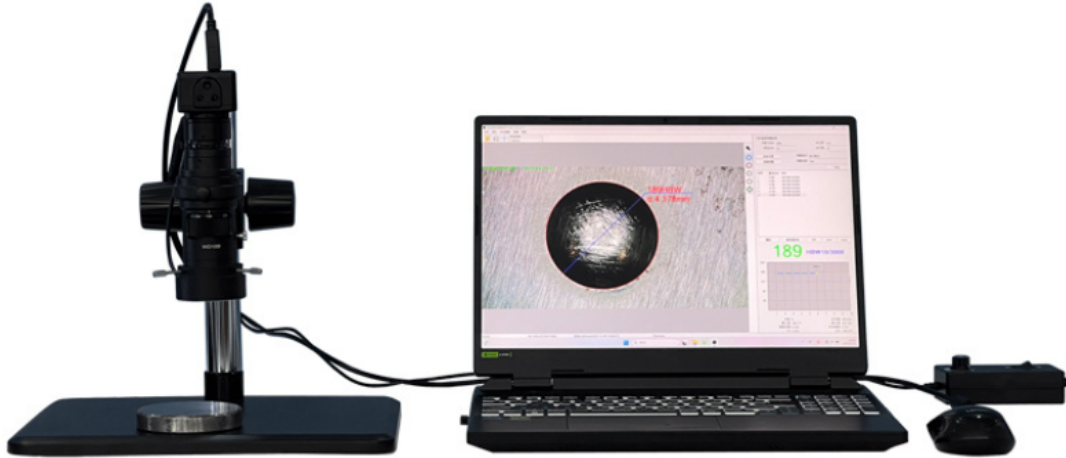
Elevate your Brinell hardness testing experience with the BrinScan-310 Brinell Optical Scanning & Measurement System.

**The standard kit includes** a Camera, Bench Stand, BrinScan Software, and Hardness Block. Laptop/PC not included.

## APPLICATIONS

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### **Brinell Optical Scanning & Measurement System BrinScan-310**



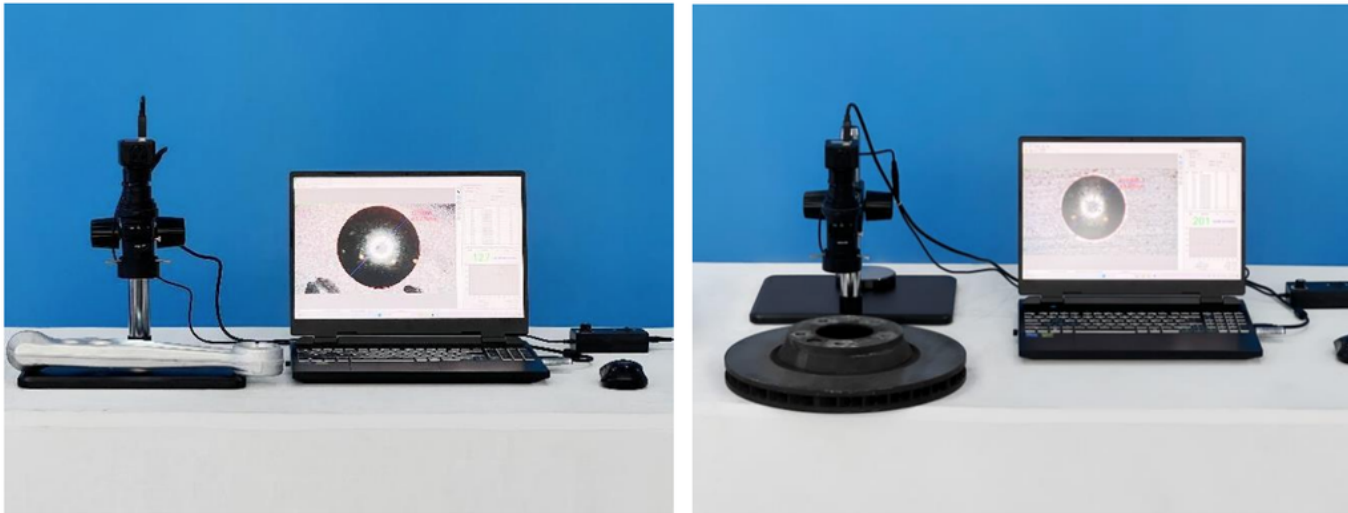
The desktop Brinell hardness indentation measurement microscope is an automated optical system designed for Windows-based operating systems. It seamlessly integrates with any commercially available Brinell hardness tester, replacing the traditional mechanical reading microscope. This automated system streamlines the measurement process by capturing and analyzing the Brinell hardness indentation, providing accurate results without the need for manual intervention.

The Brinell Optical Measurement System uses cutting-edge machine vision technology. Utilizing a digital microscope, it captures images of the specimen's indentation after the Brinell hardness tester applies the test force. This system can measure the Brinell hardness value for specimens tested with indenters of 10mm, 5mm, 2.5mm, and 1mm.

Throughout the measurement process, there is no requirement for human determination of indentation edges, recording indentation length data, or consulting hardness comparison tables. The system offers fully automated measurement, recording, saving, and generation of hardness test charts. It allows users to set upper and lower limits for automatic pass/fail determination.

Traditional methods, involving manual measurement with a mechanical reading microscope, typically take about 2 minutes per test and are prone to multiple transmission errors, resulting in low measurement efficiency. In contrast, the Brinell Optical Measurement System enables quick and accurate indentation measurements in less than 1 second. This user-friendly system is accessible to individuals at all levels, from company executives to entry-level staff.

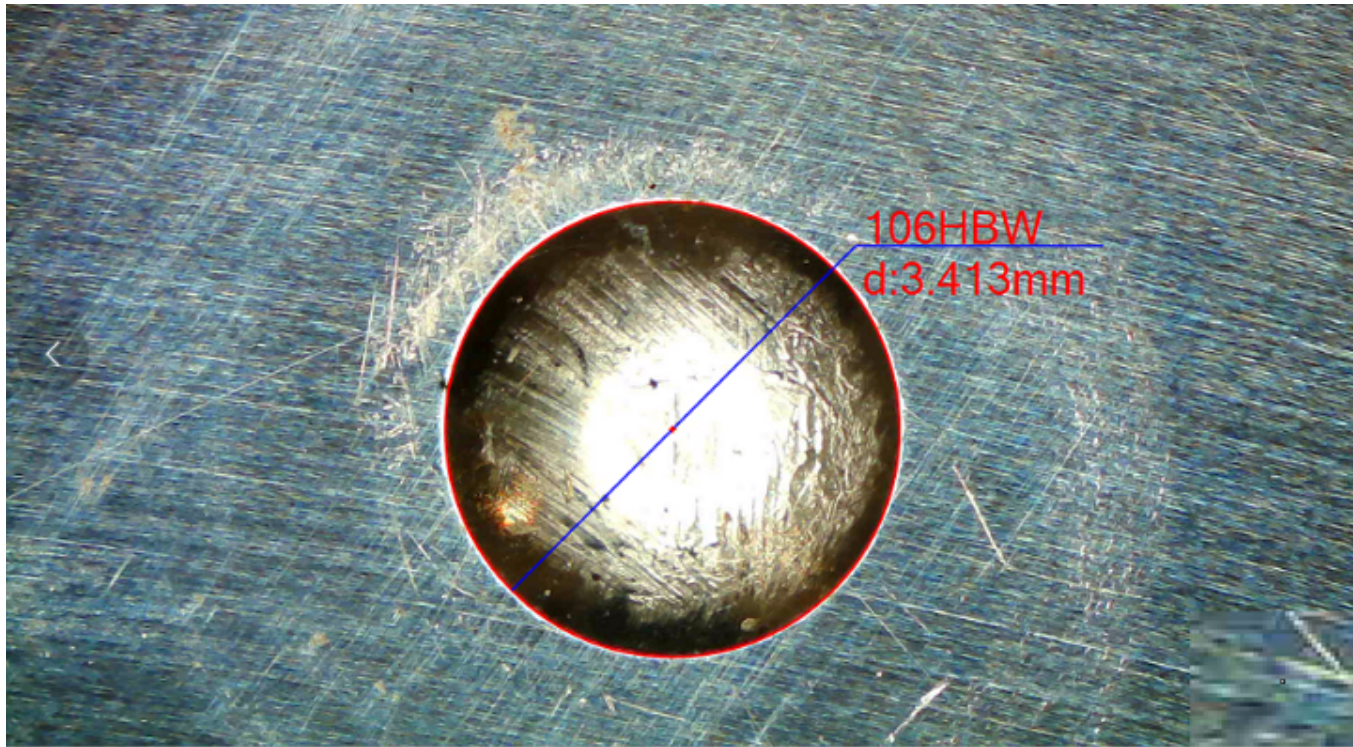
The incorporation of a continuous zoom lens enhances magnification switching, making it more efficient and effortless. Experience the future of Brinell hardness testing with our advanced and automated Brinell Optical Scanning & Measurement System.



## **Brinell Optical Scanning & Measurement System Software Introduction:**

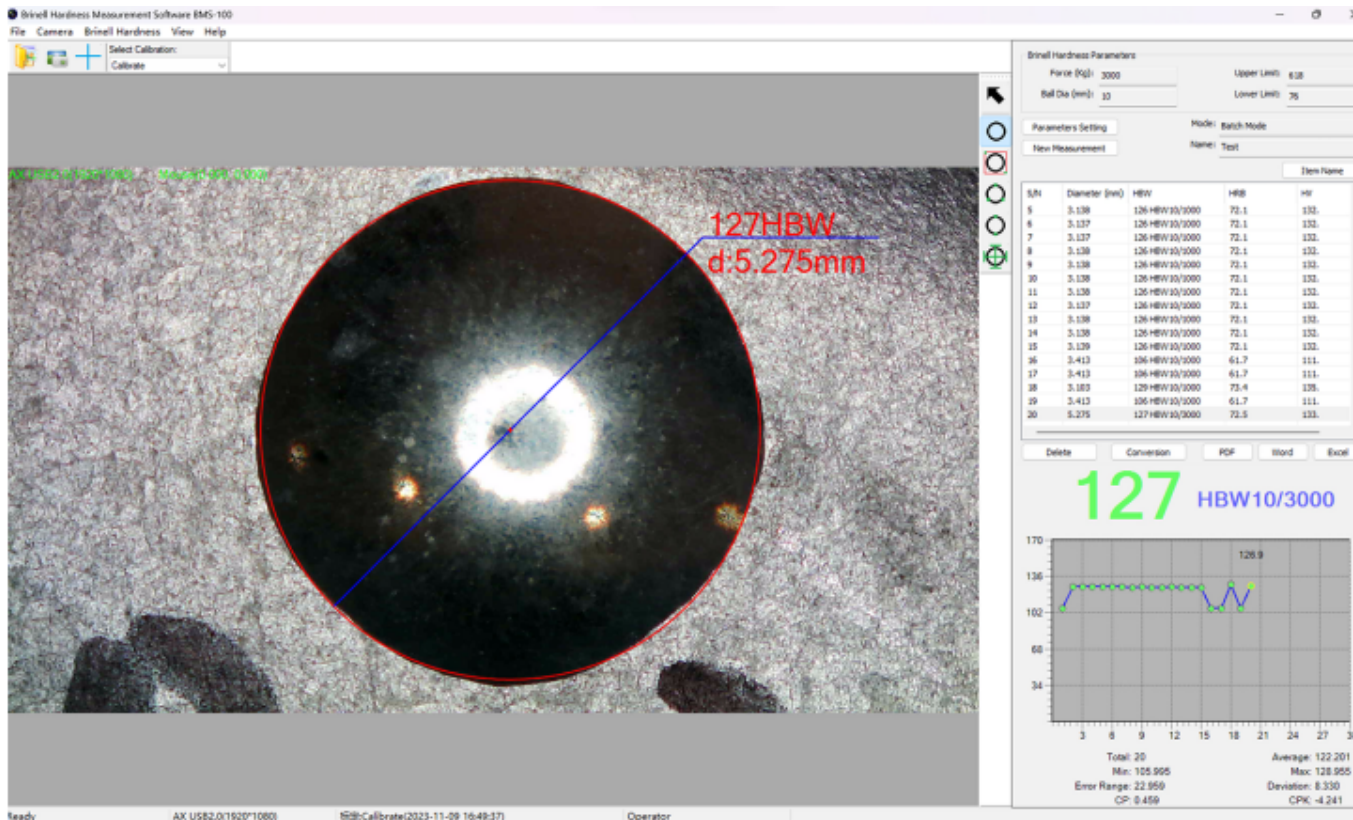
### **HD Image:**

The microscope utilizes a cold LED light source, a high-definition optical system, and a CMOS digital camera to provide clear and detailed images of the indentation.



### **Auto-Identification:**

BrinScan features automatic identification of indentation edges and measurement of indentation circles (above 200 points for one circle). It calculates the diameter and determines the Brinell hardness automatically. Even for large indentations where the entire impression may not be visible, measuring is possible if more than 1/2 of the indentation appears on the interface.



## One-key Measuring:

BrinScan features a simple and user-friendly interface, eliminating the need for professional training. With just one key operation, the indentation diameter and hardness value are obtained. BrinScan also offers basic selection functions like Two-point, Three-point, and whole selection. Manual measuring benefits from image magnification, enhancing precision.

## Easy Calibration:

BrinScan's initial calibration can be accomplished using a glass scale and Brinell standard hardness block. Once a scale (K value) is calibrated, there's no need for recalibration when changing the measuring scale; measurements can be directly taken in the new scale.

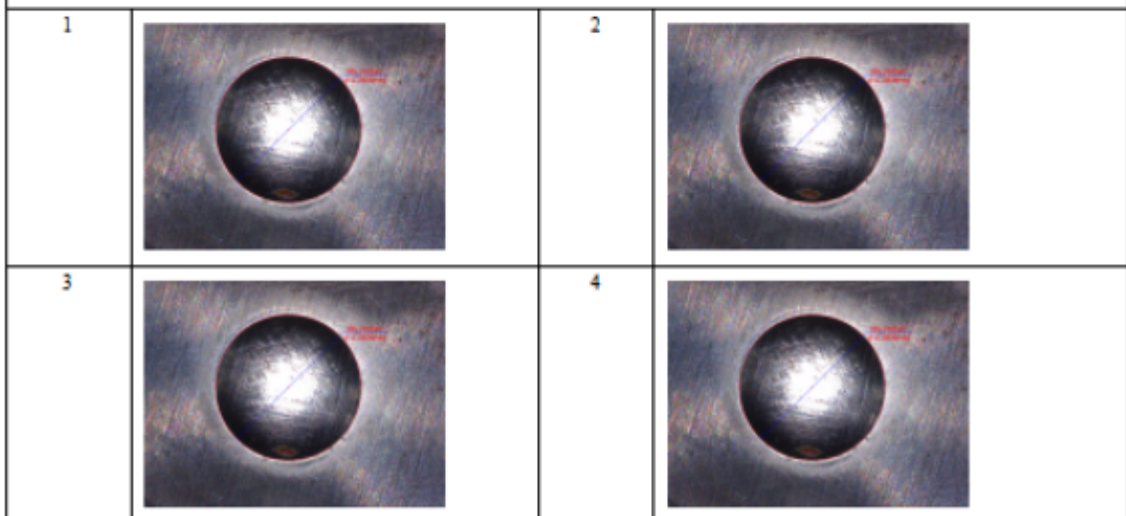
### **Report Output:**

BrinScan displays indentation diameter, measuring value, Max, Min, and conversion values (HRA, HRB, HRC, HV, HS, tensile strength, etc.). It automatically saves indentation images, allowing for user-defined department and operator details. Word and Excel reports are generated automatically, eliminating the need for manual recording.

**Brinell Hardness Report**

Department:				Date:	2023-11-10	Operator:	Operator
Specimen:	Test			Quantity:	8	Sampling Rate:	0%
Parameters:	Force (Kgf)	Ball Dia (mm)	Lower Limit	Upper Limit	Dwell Time	K=0.102F/D2	Standard
	3000.000	10	20	640	0.5s		DIN18265

S/N	Diameter (mm)	HBW	HRB	HV	--	--	MPa	NG/Pass
1	4.3809	189.0 HBW10/3000	91.2	198				
2	4.3808	189.0 HBW10/3000	91.2	198				
3	4.3809	189.0 HBW10/3000	91.2	198				
4	4.3806	189.0 HBW10/3000	91.2	198				
5	4.3930	187.9 HBW10/3000	91.0	197				
6	5.3358	123.8 HBW10/3000	71.0	129				
7	5.3362	123.8 HBW10/3000	71.0	129				
8	5.3361	123.8 HBW10/3000	71.0	129				



## Full Compatibility:

BrinScan is compatible with any Brinell Hardness Tester and supports WIN10 and Win11 operating systems. It ensures seamless integration and efficient operation across various testing environments.

## TECHNICAL SPECIFICATIONS

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### Brinell Optical Scanning & Measurement System Technical Specifications:

Product	Brinell Optical Scanning & Measurement System BrinScan-310
Model	BrinScan-310
Code #	838-310
Measuring Range	1□ 750HBW
Brinell Diameter Size Resolution	0.0001mm/0.1um
Hardness Resolution	0.1HB
Accuracy of Measurement	±1%(HBW10/3000)
Microscope Zoom Range	0.7~5X
Camera	1/2.7"; USB2.0 2MPixel; Pixel Size:3um*3um; 30FPS
Compatible Indenter	10mm; 5mm; 2.5mm and 1mm Brinell ball Indenter

Z Axis Travel	100mm
Z Axis Guiding	Manual driven
Illumination	Adjustable LED surface light illumination
Software	Brinscan
Operation OS	Windows Operation System 10
Working Environment	Temperature 20°C±1°C □ Humidity 30~80%
Voltage	220V/50HZ (110V is also available. Please specify when ordering)
Weight	20Kg 44.09lbs
Dimension	440x410x700mm 17.32x16.14x27.56 inches.



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