

METROLOGY®

*Brinell Rockwell Vickers
Hardness Tester (Manual)*



*Brinell Rockwell Vickers
Hardness Tester (Electric)*



Brinell Hardness Tester (Electronic)

Brinell Rockwell Vickers Hardness Tester (Manual)

【BRV-9000M】



Test Structure Design



Precision Cast Iron Body



Assembly & Inspection



**Innovation Design R&D
Patented Technology Award**



Manual universal hardness tester has stable and reliable performance, able to meet Rockwell, small load Brinell and Vickers hardness test requirement, it's convenient for the user to do hardness testing of a variety of materials at the same time, it's a affordable multifunctional machine.

Main functions and features:

1. Leading variable load structure design, can easily switch test force, high test precision, good repeatability.
2. The dial reads the Rockwell hardness value directly, indicator responses sensitively, show the hardness value accurately, It indicates the Brinell and Vickers hardness value by measuring microscope.
3. To compare with Optical type, this machine optimizes the inner physical mechanic structure, high accuracy, stable function, it is convenient to maintain.
4. The shell is one piece casting molding with special foundry process, stable structure and no deformation, can work under relatively harsh environment.
5. Pure white car painting with a classy look, have scratch resistance ability, it's still brightness used for years.

Brinell Rockwell Vickers Hardness Tester (Electric) 【BRV-9000E】



Innovation Design R&D
Patented Technology Award



Test Structure Design



Precision Cast Iron Body



Assembly & Inspection



Electric universal hardness tester has stable and reliable performance, able to meet Rockwell, small load Brinell and Vickers hardness test requirement, it's convenient for the user to do hardness testing of a variety of materials at the same time, can avoid the artificial error of measurement effectively, it's a economical and practical multifunctional equipment.

Main function and features:

1. Leading variable load structure design, can easily switch test force, high test precision, good repeatability.
2. The dial reads the Rockwell hardness value directly, indicator responses sensitively, show the hardness value accurately, It indicates the Brinell and Vickers hardness value by measuring microscope.
3. To compare with Optical type, this machine optimizes the inner physical mechanic structure, high accuracy, stable function, it is convenient to maintain.
4. The shell is one step casting molding with special foundry process, stable structure and no deformation, can work under relatively harsh environment.
5. Pure white car painting with a classy look, have scratch resistance ability, it's still brightness used for years.

Brinell Rockwell Vickers Hardness Tester (Digital)

【BRV-9000D】



Test Structure Design



Precision Cast Iron Body



Assembly & Inspection



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Sophisticated Sensors
Microcomputer Control System



Digital Display Encoder
Data Computing System

Digital universal hardness tester has high degree of automation, stable and reliable performance, equipped with sophisticated sensors, test is more accurate; 5.6 inch industry screen provide comprehensive data for quality control, through hardness transmission software export test data into the computer conveniently, easy to long term preservation.

Main function and features:

1. Able to meet Rockwell and small load Brinell and Vickers hardness test requirements, it's convenient for user to test a variety of materials at the same time.
2. Equipped with sophisticated sensors, test results are more accurate, the leading variable load structure design, can easily switch test force, high test precision, good repeatability.
3. The main components adopt brand such as American 3M, Allegro, Japan Omron and NKK, to ensure the equipment running stably for a long time.
4. Equipped with digital display micrometer eyepiece and data computing systems accurate to 0.01 um, only gently touch, can directly show the Brinell or Vickers hardness value.
5. It is automatic to test when the working platform lifting up to some height, then indicate Rockwell hardness value and various testing data directly.
6. Both Chinese and English operation interface are simple and intuitive, can set the test method quickly, the control system is more stable after upgraded.
7. The industry LCD screen can be visual display hardness value, hardness unit, conversion hardness, testing force, indenter type, the required minimum thickness, load time, measurement times, and the test process is intuitive and clear, built-in printer can print out measured times, hardness value, average, maximum and minimum values, range for the customer to archive.
8. Optional data transfer software, through RS232 interface will transfer host measurement data to the computer to edit and save.
9. The shell is one piece casting molding with special foundry process, stable structure and no deformation, can work under relatively harsh environment.
10. Pure white car painting with a classy look, have scratch resistance ability, it's still brightness used for years.

Brinell Rockwell Vickers Hardness Tester

- Main Uses:**
1. Rockwell : Chilled steel, quenched and tempered steel, annealing steel, bearing steel, strip steel, hardened steel sheet, hard alloy, etc.
 2. Brinell : Cast iron, nonferrous metal, especially for soft metal, such as pure aluminum, lead, tin, etc.
 3. Vickers : Carburizing, nitriding and decarburization layer, the surface hardening layer, electric plating and coating.

Technical parameters:

Model	BRV-9000M	BRV-9000E	BRV-9000D
Loading method	Manual	Full automatic (load, dwell, unload)	Full automatic (load, dwell, unload)
Dwell time	Manual	1~60 S	1~99S
Brinell scale Test force	HBW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW2.5/187.5		
Rockwell scale Test force	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR		
Vickers scale Test force	HV30, HV60, HV100		
Conversion scale	HRA, HRB, HRC, HRD, HRE, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T		
Initial test force	10Kg(98.0N)		
Test force	30Kg(294.2N), 31.25Kg(306.5N), 60Kg(588N), 62.5Kg(612.9N), 100Kg(980N), 150Kg(1471N), 187.5Kg(1839N); Test error $\pm 1.0\%$		
LCD Screen size	none		118x99mm
Resolution ratio	0.5HR		0.1HR
Amplification of microscope	37.5X, 75X		
Hardness value range	20-88HRA, 20-100HRB, 20-70HRC, 8-650HB, 8-3000HV		
Hardness value read	Rockwell: Dial, Brinell and Vickers: look up table		Big digital LCD
Specimen maximum height allowed	Rockwell: 170mm Brinell & Vickers: 140mm (Throat depth:130mm)		
size and weight	Instrument : 460×160×660mm (L×W×H), 85kg Package: 625x430x900mm (LXWXH), 100kg		
Power supply	none	AC220V + 5%, 50~60 Hz	AC110V available
Data output	none		Built-in printer, RS-232 interface (Export data to the computer for long time preservation)
Executive standard	ASTM E18, ISO 6508, JJG112, JJG150, JIS B-7734, GB/T230.2, GB/T231.2, GB/T4340.2		
Standard accessories	Hardness tester ; 15x reading microscope ; 2.5x , 5x object lens ; Rockwell diamond indenter ; Vickers diamond indenter ; $\Phi 1.588\text{mm}$, $\Phi 2.5\text{mm}$, $\Phi 5\text{mm}$, hard alloy ball indenter ; large, medium, “V” shape, and slide test platform ; accessory box ; dust-proof cover ; power cable ; manual instruction ; 5 pieces $\Phi 1.588\text{mm}$ steel ball ; hardness block		
Optional accessories	Data transmission software, hardness measurement software, computer, printer, standard hardness block, standard indenter		