



易必普机电设备（浙江）有限公司

EBPu Electromechanical Equipment (Zhejiang) Co., Ltd.

www.hardnesstesting-machine.com

www.hardnesstester.en.made-in-china.com

Produce & supply Hardness Tester, Sample Preparation Machine, Metallographic Microscope, Non-destructive Testing Instruments and Universal Testing Machine



EBP --- Provide solutions for materials preparation, testing and analysis!

One of the leading suppliers in China

About Us:

EBPu Electromechanical Equipment (Zhejiang) Co., Ltd. is one of the professional companies in market, we are committed to becoming the most satisfied supplier to our partners & clients! Our products



range: Sample preparation machine, Hardness tester, Metallographic Microscope, Non-destructive Testing Instruments (NDT), Universal testing machine, Impact testing machine and related consumable materials.



EBP's mission is to be recognized as the global professional leader & best partner in the materials preparation and analysis industry, providing our users with innovative & robust full lab-solutions, reliable service, support & access to the knowledge that

comes from our team serving the industry for 10+ years.

We have 8 senior engineers who working in hardness tester and material testing industries over 10 years. We are skilled in provide complete solutions to our customers.

And our professional sales &

after-sales team can help our partners develop market more easier!



Products Range



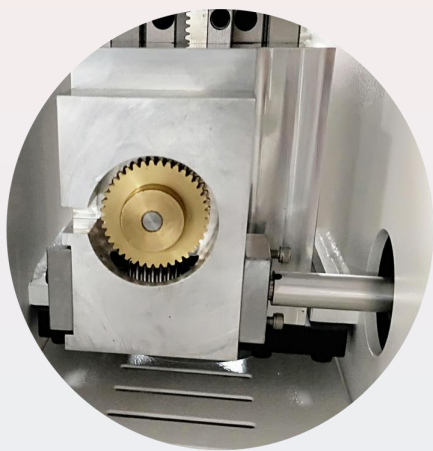
Hardness tester, sample preparation machine, Universal testing machine, Microscope, NDT Instruments

Certified by CE, ISO9001, SGS

Advanced Digital Micro Vickers Hardness Tester with Touch Screen Control

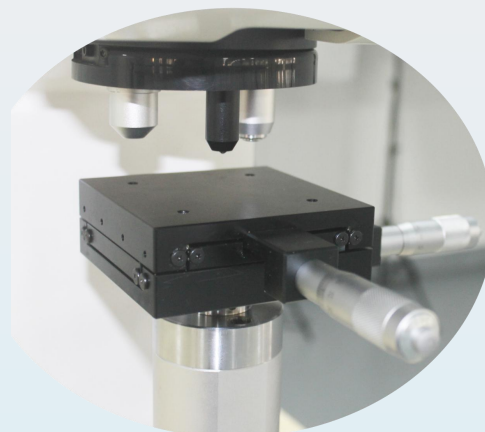
DV-1AT-8P / DV-1MT-8P / DV-1AT-8 / DV-1MT-8

- Sturdy structure, modular design and stable working performance
- Load from 10 to 1000g, can extend to 2kgf
- Automatic calculate eyepiece equipped with inbuilt encoder
- 8" touch screen panel, menu structure, easy operate
- Dual optical paths: camera path & eyepiece path
- Inbuilt printer and RS232 port, easy data output
- With hardness conversion and easy calibration function
- Hardness value automatic judgement function
- Can work with hardness measurement software system



- Most advanced worm gear rod lifting system
- Guided by **optical cross rails** to ensure high guiding accuracy
- **Fast and smooth** force transmission can be achieved by using the secondary transmission force of the **rack and pinion**

- Advanced optical system, over 10 years continuous improved, indentation display more clear;
- AT model with motorized turret;
- MT model with manual turret;
- X-Y precise work table with manual micrometer head, digital micrometer head for optional purchase



EBP --- Provide solutions for materials preparation, testing and analysis!

One of the leading suppliers in China



1 - Inbuilt printer

2 - RS232 port, software control machine by this port (on PC control machine turret, lightness, etc.)

3 - Inbuilt camera data line out port

4 - Power switch key

5 - Power port

Mark: DV-1AT-8P / DV-1MT-8P with all above items; DV-1AT-8 / DV-1MT-8 without item 1 & 2

Specification:

Model	DV-1MT-8	DV-1AT-8	DV-1MT-8P	DV-1AT-8P
Turret	Manual Turret	Automatic Turret	Manual Turret	Automatic Turret
Objective	10X (Observe); 40X (measure)		10X (measure); 40X (measure)	
Eyepiece	10X digital eyepiece with built-in encoder			
Total Magnification	100X (observe); 400X (measure)		100X (measure); 400X (measure)	
Testing force	10g (0.098N), 25g (0.245N), 50g (0.49N), 100g (0.98N), 200g (1.96N), 300g (2.94N), 500g (4.9N), 1000g (9.8N)			
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1			
Conversion scale	HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HK, HBW			
Indenter	Standard Rectangular pyramid diamond indenter			
Min. measuring unit	0.01μm			
Hardness value rang	8HV-2900HV			
Optical paths	Dual optical path (eyepiece + camera tube path), both paths can work at same time			
Data display	8 inches LCD touch screen			
Loading method	Automatically (Load, dwell and unload the testing force)			
Duration time	1-99s (each step is 1 second)			
X-Y Testing Table	Dim.:100×100 mm, Max. Travel Range: 25×25mm, Moving Resolution Ratio: 0.01mm			
Test space	Maximum height: 100mm (vertical); Throat depth: 130mm (horizontal)			
Light Source	LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours)			
Machine size and N/W	540*260*650mm 50kg			
Packing size and G/W	710*420*627mm 68kg			
Executed Standard	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734			

Motorized 6 Positions Turret Digital Micro Vickers Knoop Hardness Tester**DVK-1A-6**

- Sturdy structure, modular design and stable working performance
- Automatic turret, 6 positions (HV diamond indenter, HK diamond indenter, 10X (Observe), 20X (Measure), 40X (HV Measure), 40X (HK Measure))
- Load from 10 to 1000g, can extend to 2kgf
- Automatic calculate eyepiece equipped with inbuilt encoder
- Large LCD screen, menu structure, easy operate
- Dual optical paths: eyepiece path & camera path (camera path for optional purchase)
- Inbuilt printer and RS232 port, easy data output

**Specification:**

Model		DVK-1A-6
Turret		Automatic
Test Force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N
Test Range		1HV-2967HV
Test Mode		HV/HK
Loading Method		Automatic (Loading/Dwell/Unloading)
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
Data Output		Built-in Printer, RS232 Interface
Hardness Reading		LCD Display, Data can be saved
Objective		10X (Observe), 20X (Measure), 40X (HV Measure), 40X (HK Measure)
Eyepiece		10X digital eyepiece with built-in encoder
Total Magnification		100X , 200X , 400X , 400X
Resolution		0.03μm , 0.015μm
Dwell Time		0-95s
Light Source		Halogen Lamp
X-Y Test Table		Size: 100×100mm; Travel: 25×25mm; Resolution: 0.01mm
Test space		90x120mm (HxD)
Execute Standard		ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Traditional Manual Turret Micro Vickers Hardness Tester**V-1M**

- Sturdy structure, modular design and stable working performance
- Load from 10 to 1000g, can extend to 2kgf
- Precise manual eyepiece 10X
- With hardness conversion function
- LED Cold light source (can be continuous use for 24 hours, no heat generates ensure stable working, servicing life can reach 100,000 hours); Lightness can be adjusted, avoid visual fatigue of operator.
- Can work with hardness measurement software system (optional purchase)

Specification:

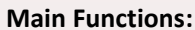
Model	V-1M
Turret	Manual Turret
Testing force	10g (0.098N), 25g (0.245N), 50g (0.49N), 100g (0.98N), 200g (1.96N), 300g (2.94N), 500g (4.9N), 1000g (9.8N) Test force error: $\pm 1.0\%$
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Indenter	Standard Rectangular pyramid diamond indenter ($136^{\circ} \pm 0.5^{\circ}$)
Min. measuring unit	0.5 μ m
Hardness value rang	8HV-2900HV
Data display	Digital LCD Screen
Total magnification	100X (For Observation) , 400X (For Measurement)
Loading method	Automatically (Load, dwell and unload the testing force)
Duration time	1-60s (each step is 1 second)
Test space	Maximum height: 85mm (vertical); Throat depth: 95mm (horizontal)
X-Y Testing Table	Dim.:100×100 mm, Max. Travel Range: 25×25mm, Moving Resolution Ratio: 0.01mm
Executed Standard	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734

Traditional Automatic Turret Micro Vickers Hardness Tester**V-1A**

- Automatic turret: indenter - objective motorized switch
- Load from 10 to 1000g, can extend to 2kgf
- Precise manual eyepiece 10X
- With hardness conversion function
- LED Cold light source (can be continuous use for 24 hours, no heat generates ensure stable working, servicing life can reach 100,000 hours); Lightness can be adjusted, avoid visual fatigue of operator.
- Can work with hardness measurement software system (optional purchase)

**Specification:**

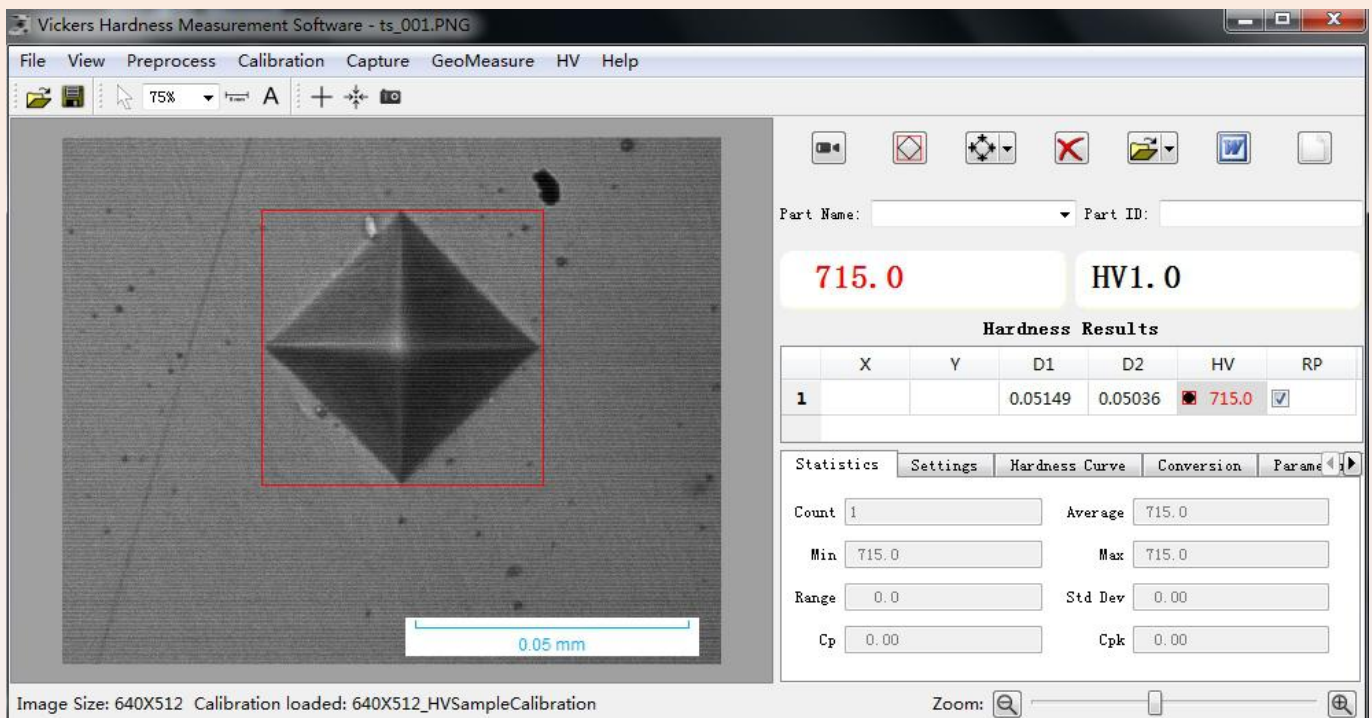
Model	V-1A
Turret	Automatic Turret
Testing force	10g (0.098N), 25g (0.245N), 50g (0.49N), 100g (0.98N), 200g (1.96N), 300g (2.94N), 500g (4.9N), 1000g (9.8N); Can optional purchase 2kgf
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Indenter	Standard Rectangular pyramid diamond indenter ($136^{\circ} \pm 0.5^{\circ}$)
Min. measuring unit	0.5 μ m
Hardness value rang	5HV-3000HV
Data display	Digital LCD Screen
Total magnification	100X (For Observation) , 400X (For Measurement)
Loading method	Automatically (Load, dwell and unload the testing force)
Duration time	5-99s (each step is 1 second)
Test space	Maximum height: 85mm (vertical); Throat depth: 120mm (horizontal)
X-Y Testing Table	Dim.:100×100 mm, Max. Travel Range: 25×25mm, Moving Resolution Ratio: 0.01mm
Executed Standard	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734

THVS-A

1. Auto hardness measurement: With a click of a button, the software automatically measures the diagonals of the indentation, calculates the hardness value and the statistics (also support manual measurement);
2. Hardness curve: With the depths of test points by user input, the software automatically plots the hardness curve(s); User may save and load the depths in a depth template file for later testing for convenience;
3. Hardness Conversion: Converts HV to other hardness scales (HRA, HRB, HRC, HBW, HK, etc);
4. Data remember / Store function: All data in the process of measurement will be saved in the right bottom sheet. And all measurement data can be 'edit, delete, statistic, report'
5. Statistics: Automatically updates the statistical values such as average, min and max, standard deviation;
6. Test report: Automatically generates WORD report with customizable template;
7. Data archiving: Measurement data and images can be saved in one file for later retrieval;
8. Knoop Scale: Can be configured for Knoop Scale measurement;
9. Other Functions: Includes the basic functions of imaging system such as image capture, camera calibration, image processing, etc.

Micro / Vickers Hardness Measurement Software

HVS-A



Main Functions:

1. Auto hardness measurement: With a click of a button, the software automatically measures the diagonals of the indentation, calculates the hardness value and the statistics;
2. Hardness curve: With the depths of test points by user input, the software automatically plots the hardness curve(s); User may save and load the depths in a depth template file for later testing for convenience;
3. Conversion, compensation, and validation: Converts HV to other hardness scales; Validates the test results with sample dimensions; Compensates the test results with respect to sample cylindrical/spherical diameters;
4. Statistics: Automatically updates the statistical values such as average, min and max, standard deviation, Cp and Cpk;
5. Auto-alarm: Automatically marks the out of spec measurements;
6. Test report: Automatically generates WORD or EXCEL report with customizable template;
7. Data archiving: Measurement data and images can be saved in one file for later retrieval;
8. Knoop Scale: Can be configured for Knoop Scale measurement;
9. Other Functions: Includes the basic functions of imaging system such as image capture, camera calibration, image processing, geometric measurement, document labeling, album management, and printing with specified magnifications.

Micro Vickers Hardness Testing System



DVS-1AT-8P / DVS-1MT-8P
DVS-1AT-8 / DVS-1MT-8



VS-1M



Camera, connector and adapter



DVKS-1A-6

Intelligent Digital Micro Vickers Hardness Tester**DVS-1AT**

- Sturdy structure, modular design and stable working performance
- Integrated computer, software and machine in one unit
- Load from 10 to 1000g, can extend to 2kgf
- XY work table with high precision digital meter head
- Inbuilt camera design, avoid camera dirty and more safe
- Touch screen panel, menu structure, easy operate
- Generate test report in word / Excel automatically
- With hardness conversion function
- Hardness value automatic judgement function

Specification:

Model		DVS-1AT
Test Force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N
Test Range		1HV~2967HV
Test Mode		HV/HK
Loading Method		Automatic (Loading/Dwell/Unloading)
Turret		Automatic Shifting
Computer		CPU: Intel I5, Memory: 2G, SSD: 64G
CCD Pixel		1.30 Million
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
Hardness Reading		Indentation Displaying and Automatic Measuring on Touch Screen
Data Output		WORD or EXCEL Report with Curve Chart
Objective		10X(Observe) 40X(Measure)
Min. Measuring Unit		0.025μm
Dwell Time		0-60s
Light Source		Halogen Lamp
Digital X-Y Test Table		Size: 120×120mm; Travel: 25×25mm; Resolution: 0.003mm
Test space		185 x 130mm (Height x throat depth)
Execute Standard		ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Semi-Automatic Advanced Touch Screen Micro Vickers Hardness Tester**DVS-1XY**

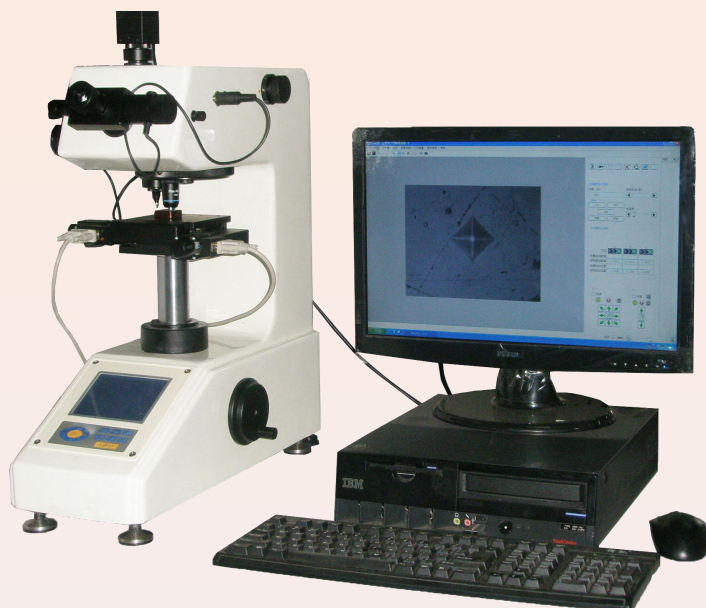
- Sturdy structure, modular design and stable working performance
- PC control machine XY table, turret
- Load from 10 to 1000gf, can extend to 2kgf
- Motorized XY table
- Inbuilt camera design, avoid camera dirty and more safe
- Touch screen panel, menu structure, easy operate

Specification:

Model		DVS-1XY
Test Force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N
Test Range		1HV-2967HV
Test Mode		HV/HK
Loading Method		Automatic (Loading/Dwell/Unloading)
Turret		Automatic Shifting
XY table		Size: 110 x 110mm, Movement in X-Y axis with flexible speed change through software (move distance 50 x 50mm in X-Y directions), Stepper Motor drive
Software system		Multifunctional software, support automatic and manual measurement
CCD Pixel		1.30 Million
Conversion Scale		HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T HV, HK, HBW
Data Output		WORD Report with indentation image and Curve Chart
Objective		10X 40X
Min. Measuring Unit		0.01μm
Dwell Time		0-99s, each step 1 second
Light Source		LED Cold light source
Test space		90 x 130mm (Height x throat depth)
Execute Standard		ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Semi-Automatic Advanced Digital Keypad Micro Vickers Hardness Tester

HVS-1XY



- Sturdy structure, modular design and stable working performance
- PC control machine XY table, turret
- Load from 10 to 1000g, can extend to 2kgf
- Motorized XY table
- 1.3 million or 2 million pixel camera
- Large LCD keypad screen, menu structure, easy operate

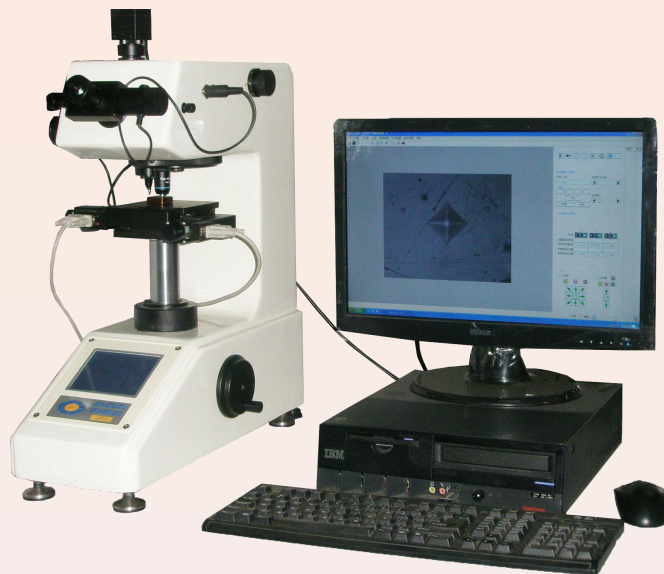
Specification:

Model	HVS-1XY	
Test Force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N
Test Range	5HV-3000HV	
Test Mode	HV/HK	
Loading Method	Automatic (Loading/Dwell/Unloading)	
Turret	Automatic Shifting	
XY table	Auto move; 110X110mm; Max. Move range: 25x25mm (X-Y axis direction); Min. Move range: 2um; Move speed: 1-10mm/sec (adjustable); Displacement repeatability $\leq 2\mu\text{m}$; Move direction: Support 8 directions move	
Software system	Multifunctional software, support automatic and manual measurement	
CCD Pixel	1.30 Million or 2 Million	
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T HV, HK, HBW	
Data Output	WORD or EXCEL Report with indentation image and Curve Chart	
Objective	10X 40X	
Min. Measuring Unit	0.0625 μm	
Dwell Time	1-99s, each step 1 second	
Light Source	LED Cold light source	
Test space	85 x 120mm (Height x throat depth)	
Execute Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2	

Fully Automatic Digital Micro Vickers Hardness Tester

DVS-1XYZ

- Sturdy structure, modular design and stable working performance
- Auto focus, auto XY movement stage
- Load from 10 to 1000g, can extend to 2kgf
- Motorized XY table
- Eyepiece with inbuilt encoder, auto calculate



Specification:

Model		DVS-1XYZ
Test Force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96N, 2.94N, 4.90N, 9.80N
Test Range		5HV - 3000HV
Test Mode		HV/HK
Loading Method		Automatic (Loading/Dwell/Unloading)
Turret		Automatic Shifting
Conversion Scale		HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB
Data Output		Built-in Printer; WORD or EXCEL Report with Curve Chart
Hardness Reading		Indentation Displaying and Automatic Measuring on PC
Objective		10X(Observe), 40X (Measure)
Eyepiece		10X
Total Magnification		100X, 400X
Resolution		0.0625μm
Dwell Time		1 - 99s, each step 1 second
Light Source		LED Cold light source
Motorized X-Y Table		Size: 110 × 110mm; Travel: 50 × 50mm; Resolution: 0.002mm
Test space		Height: 100mm; Depth: 98mm
Execute Standard		ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Weights Type Touch Screen Digital Macro Vickers Hardness Tester

DV-5/10/30/50AT-8P

DV-5/10/30/50MT-8P

DV-5/10/30/50AT-8

DV-5/10/30/50MT-8

- Sturdy structure, modular design and stable working performance
- 8" touch screen with hardness conversion function
- Dual optical paths: eyepiece path & camera path
- Automatic calculate eyepiece equipped with inbuilt encoder
- Easy hardness value & force calibration function
- AT - Automatic turret; MT - Manual turret
- P - Inbuilt printer; Without P - Without inbuilt printer
- Support camera built-in or external



Specification:

Hardness scale	5AT / 5MT	HV0.3, HV0.5, HV1, HV2, HV3, HV5
	10AT / 10MT	HV0.3, HV0.5, HV1, HV3, HV5, HV10
	30AT / 30MT	HV1, HV3, HV5, HV10, HV20, HV30
	50AT / 50MT	HV1, HV5, HV10, HV20, HV30, HV50
Test Force	5AT / 5MT	0.3Kgf, 0.5Kgf, 1.0Kgf, 2.0Kgf, 3.0Kgf, 5Kgf 2.94N, 4.9N, 9.8N, 19.6N, 29.4N, 49.0N
	10AT / 10MT	0.3kgf, 0.5kgf, 1kgf, 3kgf, 5kgf, 10kgf 2.94N, 4.90N, 9.80N, 29.4N, 49N, 98N
	30AT / 30MT	1.0Kgf, 3.0Kgf, 5.0Kgf, 10Kgf, 20Kgf, 30Kgf 9.8N, 29.4N, 49.0N, 98.0N, 196N, 294N
	50AT / 50MT	1.0Kgf, 5.0Kgf, 10Kgf, 20Kgf, 30Kgf, 50Kgf 9.8N, 49.0N, 98.0N, 196N, 294N, 490N
Hardness conversion		HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Hardness range		8-2900HV
Force loading		Automatic loading - dwell - unloading
Magnification		Standard: 100X, 200X
Dwell time		0-99S
Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

Close Loop Load Cell type Touch Screen Digital Macro Vickers Hardness Tester**DV-10ALT / 30ALT / 50ALT / 100ALT**

- Sturdy structure, modular design and stable working performance
- Close loop, high accuracy load cell structure, installation & operation much more easier
- 8" touch screen with hardness conversion function
- Dual optical paths: eyepiece path & camera path
- Automatic calculate eyepiece equipped with inbuilt encoder
- Easy hardness value & force calibration function
- Both 10X & 20X lens can do measure work
- Support camera built-in or external

Specification:

Test Force	DV-10ALT	0.3Kgf (2.94N), 0.5Kgf (4.90N), 1.0 Kgf (9.8N), 2.0Kgf(19.6N), 3.0Kgf(29.4N), 5.0Kgf(49.0N), 10.0Kgf(98.0N)
	DV -30ALT	0.5Kgf (4.90N), 1.0 Kgf (9.8N), 2.0Kgf(19.6N), 3.0Kgf(29.4N), 5.0Kgf(49.0N), 10.0Kgf(98.0N), 20.0Kgf(196N), 30.0Kgf(294N)
	DV-50ALT	1.0 (9.8N), 2.0Kgf(19.6N), 3.0Kgf(29.4N), 5.0Kgf(49.0N), 10.0Kgf(98.0N), 20.0Kgf(196N), 30.0Kgf(294N), 50.0Kgf(490N)
	DV-100ALT	5.0Kgf(49.0N), 10.0Kgf(98.0N), 20.0Kgf(196N), 30.0Kgf(294N), 50.0Kgf(490N), 100.0Kgf(980N)
Hardness conversion		HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Min measuring unit		0.01μm
Hardness range		8-2900HV
Force loading		Automatic loading - dwell - unloading
Turret		Automatic
Magnification		Standard: 100X (measurement), 200X (measurement)
Dwell time		0-99S (1 second per step)
Data output		Test data display on LCD screen, can save to U-flash in Excel format
Test space		180*160MM (H*D)
Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

Vickers Hardness Testing System

DVS-5AT-8P / DVS-10AT-8P / DVS-30AT-8P / DVS-50AT-8P
DVS-5MT-8P / DVS-10MT-8P / DVS-30MT-8P / DVS-5MT-8P
DVS-5AT-8 / DVS-10AT-8 / DVS-30AT-8 / DVS-50AT-8
DVS-5MT-8 / DVS-10MT-8 / DVS-30MT-8 / DVS-5MT-8
DVS-10ALT / DVS-30ALT / DVS-50ALT

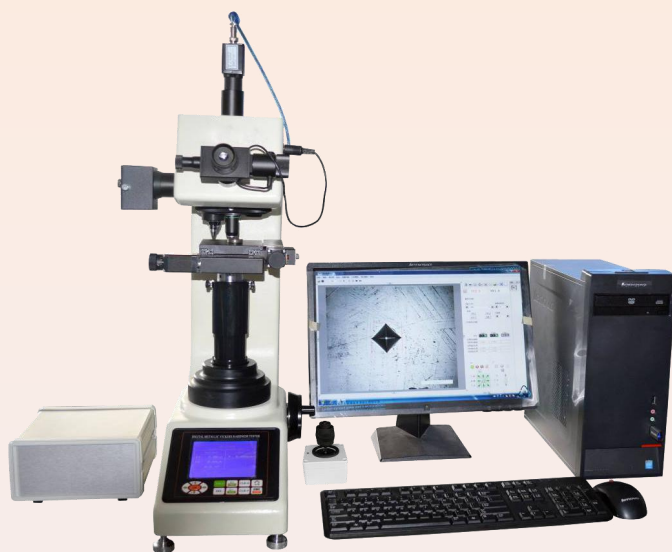


Intelligent Digital Vickers Hardness Tester**DVS-5AT / 10AT / 30AT / 50AT**

- Sturdy structure, modular design and stable working performance
- Integrated computer, software and machine in one unit
- XY work table with high precision digital meter head
- Inbuilt camera design, avoid camera dirty and more safe
- Touch screen panel, menu structure, easy operate
- Generate test report in word / Excel automatically
- With hardness conversion function
- Hardness value automatic judgement function

**Specification:**

Test Force	DVS-5AT	0.2kgf, 0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf 1.96N, 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N
	DVS-10AT	0.2kgf, 0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf 1.96N, 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N
	DVS-30AT	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N
	DVS-50AT	0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N, 490N
Test Range		1HV - 2967HV
Loading Method		Automatic (Loading/Dwell/Unloading)
Turret		Automatic Shifting
Computer		CPU: Intel I5, Memory: 2G, SSD: 64G
CCD Pixel		1.30 Million
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
Hardness Reading		Indentation Displaying and Automatic Measuring on Touch Screen
Data Output		WORD or EXCEL Report with Curve Chart
Objective		10X, 20X, 40X
Min. Measuring Unit		0.1μm, 0.05μm, 0.025μm
Dwell Time		0 - 60s
Light Source		Halogen Lamp
Digital X-Y Test Table		Size: 120×120mm; Travel: 25×25mm; Resolution: 0.003mm
Test space		185x130mm (Max. Height x Throat Depth)
Execute Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

Advanced Automatic Digital Vickers Hardness Tester**DVS-5/10/30/50XY DVS-5/10/30/50XYZ**

- XY model: Manual focus; XYZ model motorized (automatic) focus
- Motorized XY table
- Multifunctional software system can do all kinds of HV - HK hardness testing
- Generate test report in word / Excel format including indentation image and hardness curve

Specification:

Test Force	DVS-5XY	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf
	DVS-5XYZ-S	2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N
	DVS-10XY	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf
	DVS-10XYZ-S	2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N
	DVS-30XY	0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf
	DVS-30XYZ-S	4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N
	DVS-50XY	1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf
	DVS-50XYZ-S	9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N, 490N
Eyepiece		10X digital eyepiece with built-in encoder
Test Range		1HV - 2967HV
Loading Method		Automatic (Loading/Dwell/Unloading)
Force & test load control		Close loop, load cell
Turret		Automatic Shifting
Conversion Scale		HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB
Data Output		Built-in Printer; WORD or EXCEL Report with Curve Chart
Hardness Reading		Indentation Displaying and Automatic Measuring on PC
Light Source		Halogen Lamp
Motorized X-Y Test Table		Size: 110×110mm; Travel: 50×50mm; Resolution: 0.002mm
Test space		Height: 170mm; Depth: 130mm
Execute Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

Intelligent Fully Automatic Digital Vickers Hardness Tester*DVS-5XYZ / DVS-10XYZ / DVS-30XYZ / DVS-50XYZ*

- Sturdy structure, modular design and stable working performance
- Auto turret, Auto focus, auto XY movement stage
- Integrated tablet computer, software system and machine in one
- Motorized XY table, Resolution: 0.002mm
- Inbuilt camera design, avoid camera dirty and more safe
- Generate test report in word / Excel format including indentation image and hardness curve

Specification:

Test Force	DVS-5XYZ	0.2kgf, 0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf 1.96N, 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N
	DVS-10XYZ	0.2kgf, 0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf 1.96N, 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N
	DVS-30XYZ	0.3kgf, 0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf 2.94N, 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N
	DVS-50XYZ	0.5kgf, 1kgf, 2kgf, 2.5kgf, 3kgf, 5kgf, 10kgf, 20kgf, 30kgf, 50kgf 4.90N, 9.80N, 19.6N, 24.5N, 29.4N, 49N, 98N, 196N, 294N, 490N
Test Range		1HV-2967HV
Loading Method		Automatic (Loading/Dwell/Unloading)
Turret		Automatic Shifting
Computer		CPU: Intel I5, Memory: 2G, SSD: 64G
CCD Pixel		1.30 Million
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
Hardness Reading		Indentation Displaying and Automatic Measuring on Touch Screen
Data Output		WORD or EXCEL Report with Curve Chart
Objective		10X 20X 40X
Min. Measuring Unit		0.1μm, 0.05μm, 0.025μm
Dwell Time		0-60s
Light Source		Halogen Lamp
Motorized X-Y Test Table		Size: 110×110mm; Travel: 50×50mm; Resolution: 0.002mm
Test space		Height: 185mm; Depth: 130mm
Execute Standard		ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

R-150M

-
- A white mechanical testing machine, likely a Rockwell hardness tester, featuring a large circular gauge at the top and a central vertical column with a rotating platform.

Model	R-150M
Rockwell scale	HRA,HRB,HRC,HRD,HRE,HRF,HRG,HRH, HRK,HRL,HRM,HRR
Conversion scale	Check Conversion table
Preliminary test force	10Kg(98N)
Total test force	60Kg (588N), 100Kg (980N), 150Kg (1471N)
Resolution	0.5HR
Hardness value range	HRA:20 - 88 HRB:20 - 100 HRC:20 - 70
Hardness data read	Dial
Loading method	Manual
Dwell time	Manual
Test space	Maximum height :170mm; Maximum throat depth:135mm
Size / weight	Instrument size: 466*238*630mm（L×W×H）/Net Weight: 65kg
Executive standard	GB/T230.2 , BSEN 6508, ASTM E18 , ISO 6508 , JJG112

Digital Rockwell Hardness Tester

R-150S

- Scale: HRA - HRB - HRC; Load: 60 - 100 - 150kgf
- Digital independent LCD screen
- Auto load - dwell - unload
- LCD dial with data output interface



Specification:

Model	R-150S
Rockwell scale	HRA,HRB,HRC,HRD,HRE,HRE,HRE,HRE,HRH, HRK
Preliminary test force	10Kg(98N)
Total test force	60Kg (588N), 100Kg (980N), 150Kg (1471N)
Indication Resolution	0.1HR
Hardness value range	HRA: 20 - 88; HRB: 20 - 100; HRC: 20 - 70
Hardness data read	LCD screen
Loading method	Automatic (Load, Dwell, Unload)
Dwell time	1-99S
Test space	Maximum height :195mm; Maximum throat depth:140mm
Executive standard	GB/T230.2 , BSEN 6508, ASTM E18 , ISO 6508 , JIG112

Digital Rockwell Hardness Tester**R-150D**

0.000 HRC

CONVERSION NULL HRB

DWELL 7 (s) INDENTER DIAMOND

THICK mm T.FORCE 1471 N

TEMP 32.4 °C No.

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HARDNESS CONVERSION

HRA	HRB	HRC	HRD
HRF	HV	HK	HBW
H15N	H30N	H45N	H15T
H30T	H45T		

Specification:

Model	R-150D
Rockwell scale	HRA,HRB,HRC,HRD,HRE,HRF,HRG,HRH, HRK, HRL, HRM, HRR
Conversion scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, H15N, H30N, H45N, H15T,
Preliminary test force	10Kg(98N)
Total test force	60Kg (588N), 100Kg (980N), 150Kg (1471N)
Indication Resolution	0.01HR
Hardness value range	HRA:20-88 HRB:20-100 HRC:20-70
Hardness data read	LCD screen
Loading method	Automatic (Load, Dwell ,Unload)
Dwell time	1-99S, each step 1 second
Test space	Maximum height :195mm; Maximum throat depth:140mm
Machine Size / N.W	463*175*660mm (L×W×H); 74kg
Package Size / G.W	600*365*730mm; 92kg
Executive standard	GB/T230.2 , BSEN 6508, ASTM E18 , ISO 6508 , JIG112

Touch Screen Digital Rockwell Hardness Tester**R-150T**

- Sturdy structure, modular design and stable working performance
- 8" touch screen control, menu structure, easy operate
- Quality judgement function, over range automatic alarm / tips
- With hardness convert function and easy calibration function
- Automatic loading - Dwell - Unloading
- Equipped with inbuilt printer, test data can print out directly
- Optional purchase Rockwell hardness measurement software

Specification:

Model	R-150T
Initial load	10kgf (98.07N)
Total load	60kgf (588N), 100kgf(980N), 150kgf(1471N)
Rockwell Scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HBW
Loading	Automatic loading - dwell - unloading
Dwell time	0-99s
Resolution	0.1HR
Load value error	<0.5%
Screen	8 inches high quality industrial use touch screen
Test space	Height: 200mm, Depth: 160mm
Carried Standard	BSEN 6508, ISO 6508, ASTM E18, GB/T230

Advanced Touch Screen Digital Rockwell Hardness Tester

R-150DT

- Close loop, high accuracy load cell control, easy installation & operate
- 8" touch screen control, menu structure, easy operate
- Quality judgement function, over range automatic alarm / tips
- With hardness convert function and easy calibration function
- Indenter with protect device, avoid indenter damage by samples
- Automatic loading - Dwell - Unloading
- Equipped with USB port, test data auto save to U-flash in Excel format



Specification:

Model	R-150DT
Initial Test force	10kgf (98N)
Main Test force	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
Indenter	Diamond Rockwell Indenter, $\phi 1.588$ mm Ball Indenter
Hardness scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV
Conversion scale	HRA, HRB, HRC, HRD, HRE, HRF, HV, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Dwell time	0-99s
Load value error	$<0.5\%$
Resolution	0.1HR
Test space	220*200mm (H*D)
Hardness reading	LCD display
Data output	USB flash disk in Excel format
Executive standard	BSEN 6508, ISO 6508, ASTM E18, GB/T230

Fully Automatic Rockwell Hardness Tester**R-150Z / R-150AT**

- Fully automatic test process, press one key machine auto testing work
- R-150Z: Weights structure, LCD keypad type; R-150AT: load cell, touch screen type
- Modular design, easy operate

Specification:

Model	R-150Z		R-150AT
Initial Test force	10kgf (98N)		
Main Test force	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)		
Dwell time	1-99s		
Resolution	0.1HR		
Hardness reading	LCD display		
Indenter	Diamond Rockwell Indenter, $\phi 1.588\text{mm}$ Ball Indenter		
Data output	RS232 + Data transfer software		USB interface
Test space	195x140mm (HxD)		250x200mm (HxD)
Power supply	AC220 \pm 5%, 50-60Hz		
Standards	BSEN 6508, ISO 6508, ASTM E18, GB/T230, JIG112		

400mm Test Space Rockwell Hardness Tester*R-150MH / R-150EH / R-150TH***Specification:**

Model	R-150MH	R-150EH	R-150TH
Initial Test force	10kgf (98N)		
Main Test force	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)		
Indenter	Diamond Rockwell Indenter, ϕ1.588mmBall Indenter		
Hardness scale	HRA, HRB, HRC		HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV
Loading	Manual	Automatic (Loading/Dwell/Unloading)	
Dwell time	Manual	1-99S	
Resolution	0.5HR		0.1HR
Test space	400x140mm (height x throat depth)		400x160mm (HxD)
Hardness reading	Analog dial		Digital LCD screen
Power supply	No	220V/50-60HZ	
Standards	BSEN 6508, ISO 6508, ASTM E18, GB/T230		

Plastic Rockwell Hardness Tester**R-150TP / R-150EP**

- Sturdy structure, modular design and stable working performance
- R-150TP: Digital touch screen Plastic Rockwell hardness tester; R-150EP: Electric Plastic Rockwell hardness tester (dial type)

Specification:

Model	R-150TP	R-150EP
Initial Test force	10kgf (98N)	
Main Test force	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)	
Hardness scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRR, HRP, HRS, HRV	HRE, HRL, HRM, HRR
Conversion scale	HRA, HRB, HRC, HRD, HRE, HRF, HV, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T	No
Dwell time	1-99s	2-60 seconds
Resolution	0.1HR	0.5HR
Test space	220*200mm (H*D)	195*140mm (H*D)
Hardness reading	LCD touch screen display	Analog Dial
Data output	Built-in printer	No
Test force change	By change weights	
Executive standard	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2	

Superficial Rockwell Hardness Tester**R-45M / R-45E / R-45T****Specification:**

Model	R-45M	R-45E	R-45T
Initial Test Force	3kgf (29.42N)		
Total Test Force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)		
Hardness scale	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T		
Indenter	Diamond Rockwell Indenter, ϕ1.588mmBall Indenter		
Loading Method	Manual	Automatic (Loading/Dwell/Unloading)	
Hardness Reading	Analog Dial		LCD screen
Resolution	0.5HR		0.1HR
Dwell Time	Manual control	2-60S	1-99S
Max. Height of Specimen	195mm		200
Throat	140mm		160
Power Supply	NO	AC220V, 50Hz	
Execute Standard	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2		

Twin Rockwell Hardness Tester (Rockwell & Superficial Rockwell)

RSR-45/150M ; RSR-45/150E ; RSR-45/150DT



Specification:

Model	RSR-45/150M	RSR-45/150E	RSR-45/150DT
Initial Test Force	3kgf (29.42N), 10kgf (98.07N)		
Total Test Force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N), 60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)		
Indenter	Diamond Rockwell Indenter, ϕ1.588mmBall Indenter		
Loading Method	Manual	Automatic (Loading/Dwell/Unloading)	
Hardness Reading	Analog Dial		LCD screen
Resolution	0.5HR		0.1HR
Dwell Time	Manual control	2-60S	1-99S
Max. Height of Specimen	175mm		220
Throat	165mm		200
Power Supply	NO	AC220V, 50Hz	
Execute Standard	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2		

Portable Rockwell Hardness Tester

R-150P / PR-150M / PR-150D



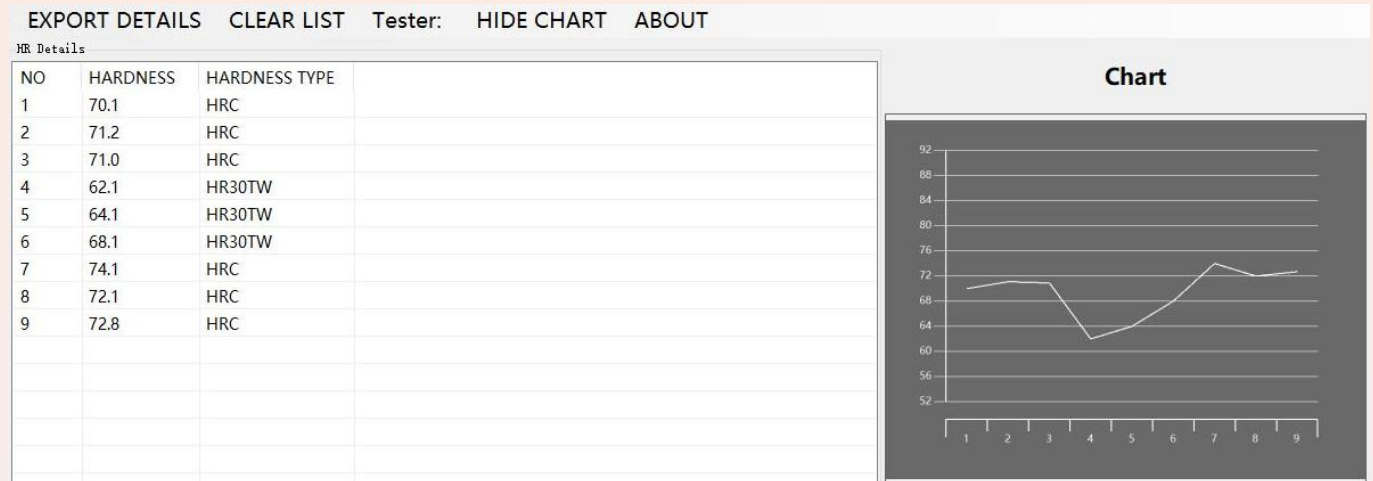
Specification:

Model	R-150P	PR-150M	PR-150D
Data Display	Analog Dial		Digital LCD screen
Initial test force	10kgf		
Main test force	60kgf, 100kgf, 150kgf		
Indenter	120° diamond Rockwell indenter, $\phi 1.588\text{mm}$ hard alloy ball indenter		
Indication error	Complying with ISO6508 and ASTM E18		
Repeatability error	Complying with ISO6508 and ASTM E18		

Rockwell Hardness Tester Data Transfer Software

DataPro

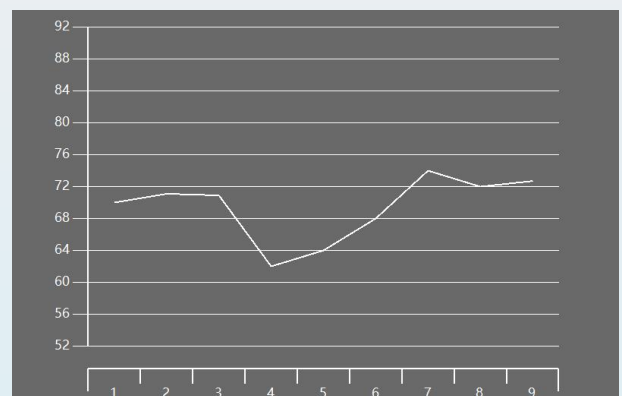
This software can transfer test data to PC in word format (test report), including hardness value, hardness scale, hardness chart, time, etc. Easy for long time keep test data.



Hardness Test Report

Tester		Date	2019/09/05
Part Name		Part #	
Part Size		Test Standard	
Quality UL		Quality LL	
Test Result			
#	Hardness	Hardness Type	
1	70.1	HRC	
2	71.2	HRC	
3	71.0	HRC	
4	62.1	HR30TW	
5	64.1	HR30TW	
6	68.1	HR30TW	
7	74.1	HRC	
8	72.1	HRC	
9	72.8	HRC	

- Generate test report in word format, easy edit. Company name, contact information, operator, test date, sample name, etc all can display on the report



Brinell Hardness Tester

B-3000E / B-3000D / B-3000MT / M-3000AT



B-3000E: after measure indentation diameter length, then check hardness table to get Brinell value

B-3000D: input the indentation diameter length to screen, machine will auto calculate and display Brinell value on screen

B-3000MT & B-3000AT: digital eyepiece with inbuilt encoder, automatic calculate indentation diameter length and display Brinell value directly

Specification:

Model	B-3000E	B-3000D	B-3000MT	B-3000AT
Turret	No		Manual	Automatic
Data read	Check hardness table	LCD screen	LCD screen	LCD screen
Dwell time	5-99S	1-60S	5-60S	5-60S
Test space	240x130mm	230x155mm	200x135mm	
Microscope	20X Brinell Indentation manual measuring microscope		20X digital eyepiece with inbuilt encoder, auto calculate	
Test Range	8-650HBW			
Test force (kgf / N)	62.5 (612.9), 100 (980.7), 125 (1226), 187.5 (1839), 250 (2452), 500 (4903), 750 (7355), 1000 (8907), 1500 (14710), 3000 (29420)			
Power supply	AC220 ±5%, 50-60Hz			
Standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231			

Automatic Brinell Hardness Tester**B-3000Z / B-3000TZ / B-3000AT-5****Press one key machine will automatic rise work table - loading - dwell - unloading****Specification:**

Model	B-3000Z	B-3000TZ	B-3000AT-5
Test range	8-650HBW	3.18-653HBW	3.18-653HBW
Hardness Reading	Digital LCD screen	LCD touch screen	Indentation Displaying and Automatic Measuring on Touch Screen
Turret	Auto (single indenter)	Auto (single indenter)	Auto (5 position turret)
Test space	225x130mm (HxD)	350x250mm	260x150mm
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		
Total Test Force	62.5 / 100 / 125 / 187.5 / 250 / 500 / 750 / 1000 / 1500 / 3000kgf 612.9 / 980.7 / 1226 / 1839 / 2452 / 4903 / 7355 / 9807 / 14710 / 29420N		
Conversion Scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW		
Loading Method	Automatic (Loading/Dwell/Unloading)		
Standards	ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2		

Low Load Brinell Hardness Tester**B-62.5M / B-62.5A / B-62.5AT****Digital eyepiece with inbuilt encoder, automatic calculate, high accuracy & easy operate.****Specification:**

Model	B-62.5M	B-62.5A	B-62.5AT
Turret	Manual	Automatic	Automatic
Test range	4-650HBW	4-650HBW	3.18-653HBW
Ball Diameter	5mm, 2.5mm, 1mm		
Loading Method	Automatic (Loading/Dwell/Unloading)		
Resolution	0.1HBW		
Eyepiece	10X (with automatic digital encoder)		
Objective lens	5X (observe); 10X (measure)		5X & 10X (both can do observe & measure)
Data read	Small digital LCD screen		8" LCD touch screen
Test space	220x160mm (HxD)		180x160mm (HxD)
Machine size / N.W	560x190x700mm, 38kg		590x200x680mm, 50kg
Power	AC220V+5%, 50-60Hz		
Standard	ISO 6506-2, ASTM E10, GB/T231.2		

Hydraulic Brinell Hardness Tester**B-3000P**

Standard parts come with 20X reading
Microscope; With LED light, indentation
image more clear and easier to measure
Greatly improved working efficiency and
test accuracy

**APPLICATION:**

1. On-site test of steel products, nonferrous metal, castings, forgings, and semi-finished heat treatment parts.
2. Applied to too large parts for desk testers to test. Replace Leeb testers which are in low accuracy and reliability.
3. Indentation could be read by Brinell indentation measurement system and hardness values displayed directly.

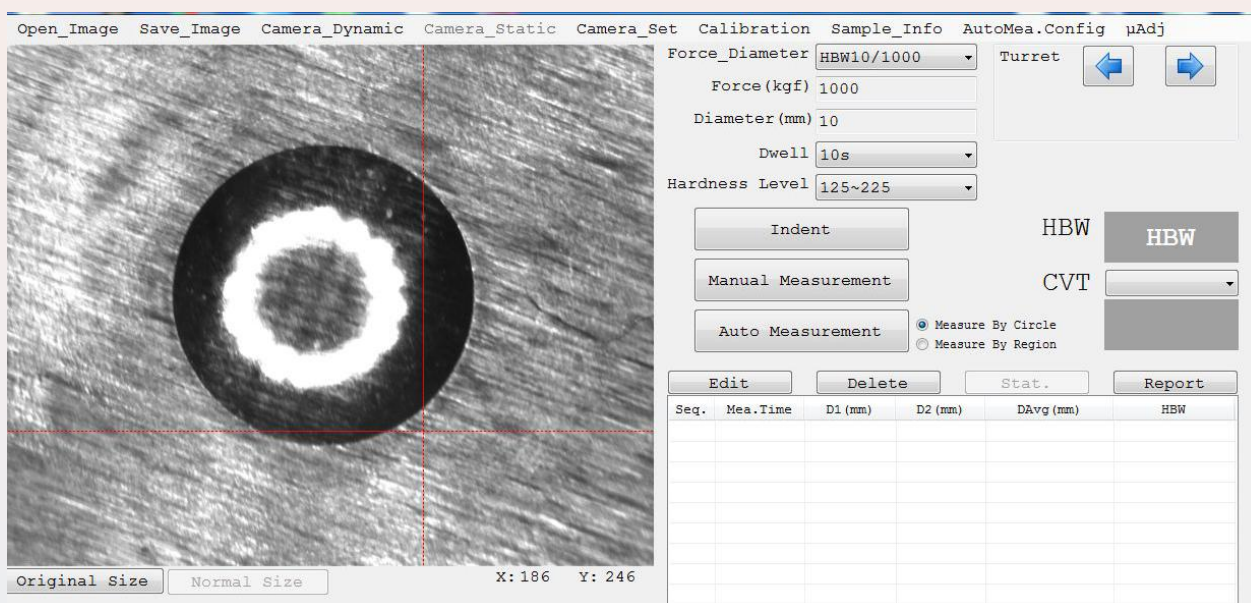
Specification:

Test Force	3000 kgf (1000 kgf, 750 kgf, 500 kgf optional)
Test Ball	10mm Carbide alloy ball (5mm optional)
Test Range	32~650 HBW
Opening Dimension	350 mm (Height) x 100 mm (Throat depth)
Indicator Error	complies with ISO 6506, and ASTM E10
Repeatability Error	complies with ISO 6506, and ASTM E10
Test Force Error	complies with ISO 6506, and ASTM E10
Weight	13.8 kg

Brinell Indentation Measuring & Analysis Software System

THBS-A

- Support Auto measurement & Manual measurement mode
- Can control machine turret and lightness
- With hardness conversion function
- Generate test report in word format with indentation image and hardness curve

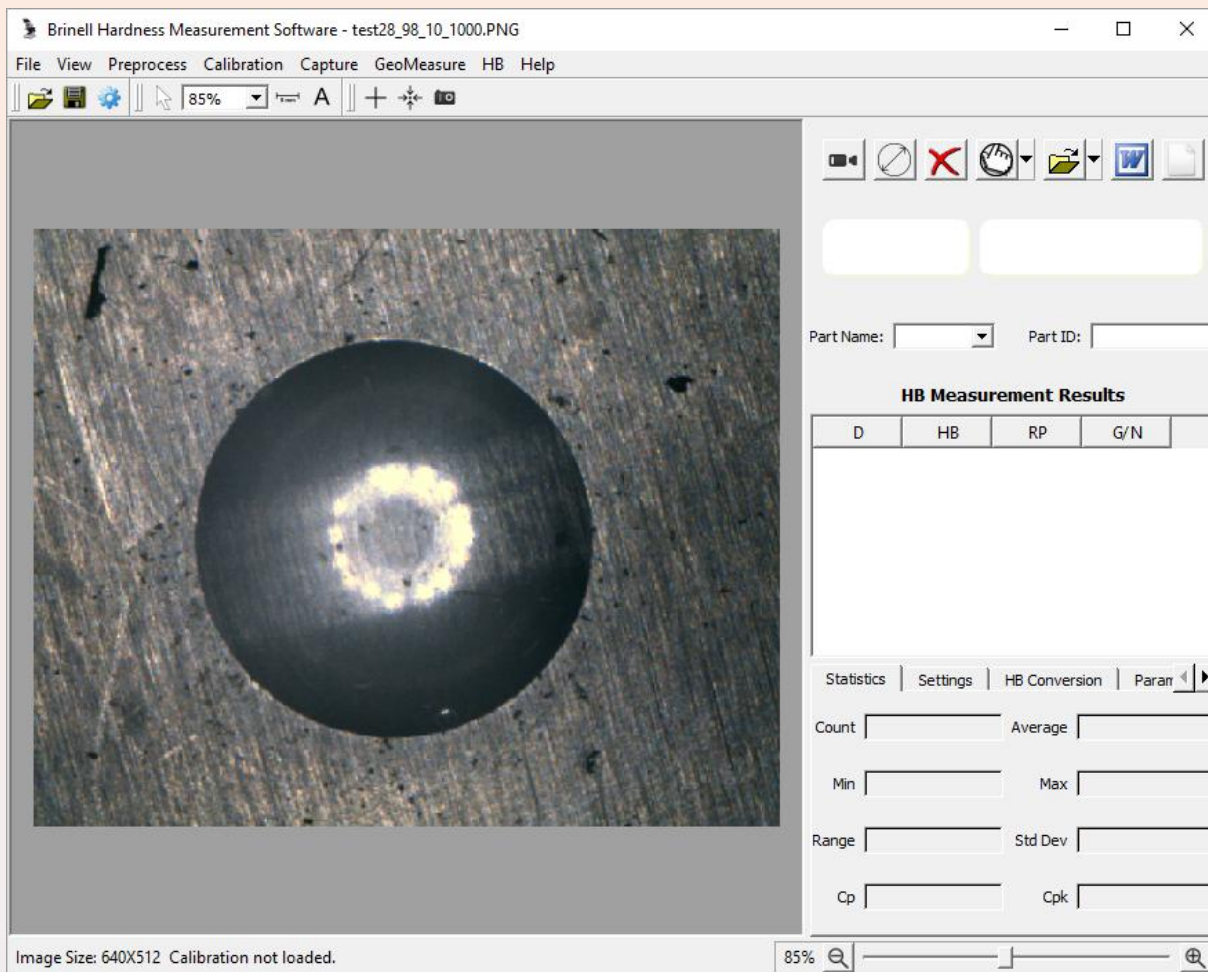


Technical specification:

Model	THBS-A
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
Carried standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231
Measurement range	15.9-650HBW (ASTM E10Recommended effective hardness value)
Resolution	0.0001mm
Hardness resolution	0.1HBW
Digital imaging	1300000 industrial digital camera
Measurement mode	Manual measure / automatic measure
Calibrate method	Standard test block / Optical length scale
Language	English / Chinese
Power	USB

Brinell Indentation Measuring & Analysis Software System

HBS-A



Main Functions:

- 1) Basic Functions: Includes the basic functions of imaging system, such as image capture, camera calibration, image processing, geometric measurement, document labeling, album management, and printing with specified magnifications;
- 2) Automatic measurement: Automatically or manually measures the indentation diameter and calculates the hardness HB value;
- 3) HB2 (DIN 1605 standard) automatic measurement: Automatically or manually measures the indentation diameters on the calibration sample and the test sample, and automatically interpolates the HB value of the test sample;
- 4) Conversion and validation: Converts HB to other hardness scales; Validates the test results with sample dimensions;
- 5) Statistics: Automatically updates the statistical values such as average, min and max, standard deviation, Cp and Cpk;
- 6) Auto-alarm: Automatically marks the out of spec measurements;
- 7) Test report: Automatically generates customizable WORD or EXCEL report.

Portable Brinell Hardness Indentation Auto-measurement System**THBS-P / HBS-P****Main Functions:**

- 1) Basic Functions: Includes the basic functions of imaging system, such as image capture, camera calibration, image processing, geometric measurement, document labeling, album management, and printing with specified magnifications;
- 2) Automatic measurement: Automatically or manually measures the indentation diameter and calculates the hardness HB value;
- 3) HB2 (DIN 1605 standard) automatic measurement: Automatically or manually measures the indentation diameters on the calibration sample and the test sample, and automatically interpolates the HB value of the test sample;
- 4) Conversion and validation: Converts HB to other hardness scales; Validates the test results with sample dimensions;
- 5) Statistics: Automatically updates the statistical values such as average, min and max, standard deviation, Cp and Cpk;
- 6) Auto-alarm: Automatically marks the out of spec measurements;
- 7) Test report: Automatically generates customizable WORD or EXCEL report.

Technical specification:

Model	THBS-A	HBS-A
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	
Carried standard	BSEN 6506, ISO 6506, ASTM E10, GB/T231	
Measurement range	15.9-650HBW	8-650HBW
Resolution	0.0001mm	
Hardness resolution	0.1HBW	
Digital imaging	1300000 industrial digital camera	
Measurement mode	Manual measure / automatic measure	
Calibrate method	Standard test block / Optical length scale	
Language	English / Chinese	
Power	USB	

Universal Hardness Tester (Brinell & Rockwell & Vickers)**BRV-187.5M / BRV-187.5E / BRV-187.5T / BRV-250T****Specification:**

Model	BRV-187.5M	BRV-187.5E	BRV-187.5T	BRV-250T
Dwell time	Manual	1-99S		
Test force	30 - 187.5kgf		5 - 187.5kgf	5-250kgf
Hardness scale	HRA, HRB, HRC, HBW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW10/100, HBW2.5/187.5, HV30, HV60, HV100		BRV-187.5T: HBW1/5, HBW2.5/6.25, HBW1/10, HBW2.5/15.625, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW10/100, HBW5/125, HBW2.5/187.5, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV120 BRV-250T: HBW1/: 5, 10, 30kgf HBW2.5/: 6.25, 15.625, 31.25, 62.5, 187.5kgf HBW5/: 25, 62.5, 125, 250kgf; HBW10/: 100, 250kgf	
Data read	Analog Dial		Digital LCD screen	
Data Output	No		USB interface	
Magnification	Eyepiece: 15X; Objective lens: 2.5X (for Brinell), 5X (for Vickers) Total magnification: 37.5X, 75X			
Indenter	Diamond Rockwell indenter: 120° Rockwell ball indenter: 1/16", Diamond Vickers indenter: 136° Brinell ball indenter: 2.5mm, 5mm			Diamond Rockwell indenter: 120° Rockwell ball indenter: 1/16", Diamond Vickers indenter: 136° Brinell ball indenter: 1mm,
Power supply	AC220V, 50-60Hz			

400mm Test Space Universal Hardness Tester (Brinell & Rockwell & Vickers)**BRV-187.5EH / BRV-187.5DH**

- With Rockwell - Brinell - Vickers test function
- Allowed maximum height of sample is **400mm**
- BRV-187.5EH is analog display type;
BRV-187.5DH is Large LCD screen display

**Specification:**

Model	BRV-187.5EH	BRV-187.5DH
Dwell time	1-99S	1-60S
Data display	Analog dial	LCD screen
Test Scale	HRA, HRB, HRC, HBW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW10/100, HBW2.5/187.5, HV30, HV60, HV100	HRA, HRB, HRC, HRD, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW2.5/187.5, HBW5/62.5, HBW10/100, HV30, HV100
Throat depth	140mm	165mm
Test force	30 - 187.5kgf	
Magnification	Brinell: 37.5X, Vickers: 75X	
Power Supply	AC220V, 50Hz	
Execute Standard	ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2 ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2 ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2	

Universal Hardness Testing System**BRV-187.5S / BRV-250S**

- With Rockwell - Brinell - Vickers test function
- Closed loop load cell structure, no need install dead weights, easy installation & operate
- Software system support auto measurement & manual measurement, and can generate test report in word format with indentation image and hardness curve
- Machine with USB interface, test data can save to USB flash directly in Excel format

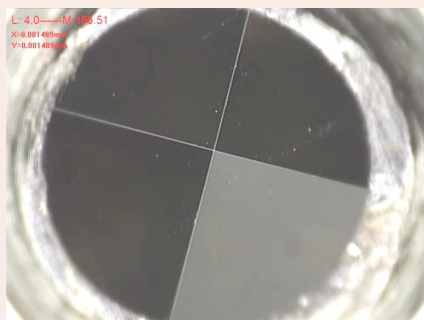
**Specification:**

Model	BRV-187.5S	BRV-250S
Test force	5-187.5kgf	5-250kgf
Hardness scale	HBW1/5, HBW2.5/6.25, HBW1/10, HBW2.5/15.625, HBW1/30, HBW2.5/31.25, HBW2.5/62.5, HBW10/100, HBW5/125, HBW2.5/187.5, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV, HV5, HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV120	HBW1/: 5, 10, 30kgf HBW2.5/: 6.25, 15.625, 31.25, 62.5, 187.5kgf HBW5/: 25, 62.5, 125, 250kgf; HBW10/: 100, 250kgf HR: A, B, C, D, E, F, G, H, K, L, M, P, R, S, V HV5, HV10, HV20, HV30, HV50, HV100, HV120
Dwell time	1-99S	
Minimum measuring unit	0.1um	
Magnification	Eyepiece: 15X; Objective lens: 2.5X (for Brinell), 5X (for Vickers) Total magnification: 37.5X, 75X	
Hardness read	Touchable LCD display, USB Flash Disk	
Power supply	AC220V, 50-60Hz	

Portable Ultrasonic Hardness Tester

SU-100 / Code: UCI-1

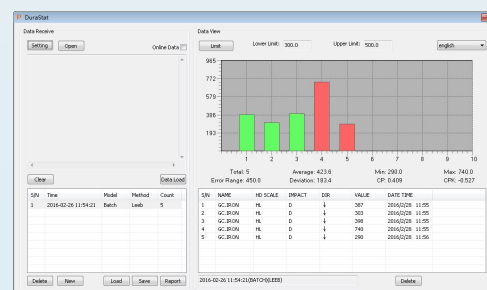
- Standard 136° Vickers Diamond Indenter
- Manual prob: 10N, 20N, 49N, 98N
- Motorized prob: 3N, 5N, 8N, 10N



Specification:

Model	SU-100
Loading Force	20N Manual Probe (or 10N / 49N / 98N)
Indenter	136°Vickers Diamond Indenter
Measuring Range	HB: 85-650; HV 80-1599; HRC 20-70; HRB: 41-100; HRA: 61-85.6 HS: 34.2-97.3; MPa: 255-2180N/mm
Measuring Accuracy	HV:±3%HV; HRC:±1.5HRC; HB:±3%HB; HLD:±5HLD;
Measuring Direction	Support 360°
Data Storage	To save 1000-groups of measuring data and 20-groups of calibration data
Hardness Scale	HV, HB, HRC, HLD
Data Display	Loading force, Testing-times, Testing result, Average, Maximum, Minimum, Deviation and Conversion scale
Hardness Indication	LCD display
Operating Environment	Temperature:-10℃~50℃; Humidity: 30%~80%R.H
Operating Voltage	DC 6V
Instrument Dimensions	160x80x31mm
Net Weight	Approximate 500g (Without probe)

- Please optional purchase our Data Statistics Software if want to save by PC or generate test report



Portable Leeb Hardness Tester

L-1

- Hardness scales (HV, HB, HRC, HRB, HRA, HS)
- Material of “cast steel” is added HB values can be read out directly when D/DC impact device is used to measure “cast steel” workpiece.
- Can work with D, DC, D+15, G, C, DL prob



Specification:

Hardness scale	HL, HB, HRB, HRC, HRA, HV, HS
Memory	Data memory: 48~600 groups (impact times: 32~1)
Measuring range	HLD (170~960) HLD
Standard Impact Device	D
Optional Impact Devices	DC, D+15, G, C, DL
Power	2*1.5V
Continuous Working time	Approx. 100 h (without back light on)
Display LCD	128×64 matrix LCD
Operating temperature	-10℃~40℃
Humidity	≤90%
Dimensions	152×76×33mm (main unit)
Weight approx.	0.6kg (main unit)

Portable Leeb Hardness Tester

L-1S / L-2S

- L-1S: Plastic shell body
- L-2S: Metal shell body



Technical Specifications:

Model	L-1S	L-2S
Measuring range	(170-960)HLD, (17-68.5)HRC, (19-651)HB, (80-976)HV, (30-100)HS, (59-85)HRA, (13-100)HRB	
Measuring direction	360° (↓ ↙ ↘ ↗ ↖ ↕)	
Accuracy	±6HLD	
Hardness Scale	HL, HB, HRB, HRC, HRA, HV, HS	
Display	segment LCD	
Data memory	max. 100 groups (relative to impact times 32-1)	
Working voltage	3V (2 AA size alkaline battery)	
Continuous working period	about 100 hours (With backlight off)	
Communication interface	USB	
Software	Transfer test data to PC	

Portable Leeb Hardness Tester

L-3 / L-5

- L-3: Single scale display
- L-5: Dual scale display
- Both models with inbuilt printer



Specifications:

Model	L-3	L-5
Display	dot matrix LCD, 128x64 dots	240*320 TFT display (Color screen)
Memory	500 groups	600 groups
Full charge work time	200 hours	150 hours
Measuring Range	HLD (170-960), HRC (17.9-69.5), HB (19-683), HV (80-1042), HS (30.6-102.6), HRA(59.1-88), HRB (13.5-101.7)	
Impact device	D prob (optional: DC, D+15, G, C, DL)	
Impact Directions	Up, down, horizontal, slanting up, slanting down	
Measuring Materials	Steel and cast steel, alloy tool steel, stainless steel, gray cast iron, nodular cast iron, cast aluminum alloy, copper zinc alloys (brass), an alloy of copper and tin, copper (bronze), forged steel	
Standards	ASTM A956, DIN50156-1, GB/T17394-1998	
Hardness Scales	HL, HB, HRB, HRC, HRA, HV, HS.	
Tensile Strength	374 to 2652 N/m ²	
Work Voltage	9V/500mA.	
Interface Port	USB2.0	
Software	Transfer test data to PC	
Dimensions	210 x 85 x 45mm (host).	
Weight	0.6kg (host).	

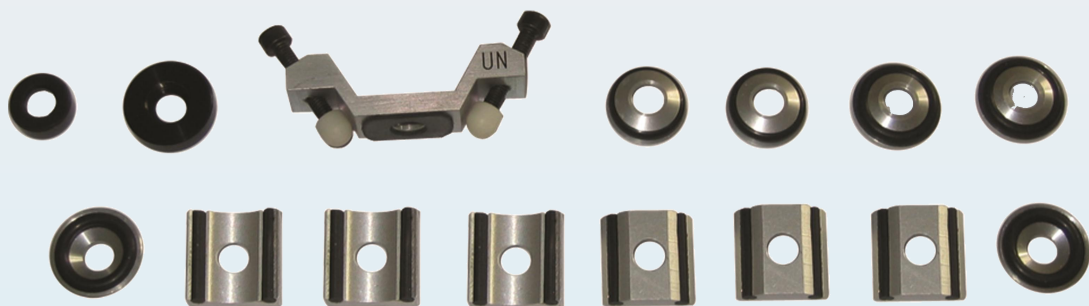
Pen Type Leeb Hardness Tester

L-5S / L-5Pro / L-5Plus



Model	Keys Menu	Data Store	Probe	Testing Block	Hardness Scale	Applicable materials	Impact Direction
L-5S	X	270	D	Optional	HL, HRC	Steel and cast steel	Up, Down, Horizontal
L-5 Pro	√	270	D	Optional	HL, HV, HRA, HRC, HRB, HB, HV, HS	Steel and cast steel, alloy tool steel, stainless steel, gray cast iron, nodular cast iron, cast aluminum alloy	360°
L-5 Plus	√	270	DL	Optional	HL, HV, HRA, HRC, HRB, HB, HV, HS	Steel and cast steel, alloy tool steel, stainless steel, gray cast iron, nodular cast iron, cast aluminum alloy	360°

Support rings for Shaped Materials: Optional Purchase



Portable Shore Durometer

SH-A / SH-C / SH-D



Specification:

Model	SH-A	SH-C	SH-D
Measuring range	0-100HA	0-100HC	0-100HD
Recommend measuring range	10-90HA	10-90HC	20-90HD
End pressure of Pressure head	Φ0.79mm	SR2.5mm	SR0.1mm
Net weight	0.13kg	0.15kg	0.16kg
Pressure needle range	2.5mm		



IRHD Hardness Testers - International Rubber Hardness Degrees**IRHD-T**

International Rubber Hardness Degrees (IRHD) test method provides a highly repeatable measurement on rubber parts of various shapes and sizes. It is especially important in determining the hardness of rubber O-rings. The IRHD method employs an initial test load that is applied to the specimen via an indenter. The test is zeroed at this indentation position, then the test force is applied. The distance between the two applied forces is measured and covered to an IRHD hardness value. Preload force is 0.3N for regular scales. Total test force is 5.7N for regular scales.

Specification:

Model	IRHD-T
IRHD Type	N
Initial load	0.30±0.02N (31 ± 2g)
Main load	5.40±0.01N (551 ± 1gf)
Total Load	5.70±0.03N (581 ± 3g)
Indenter device load	8.3±0.15N (847 ± 153gf)
Indenter	round indenter Ø 2.5 mm
Test range	28 – 100 IRHD
Minimum thickness of specimen	4mm (recommend test material thickness≥6mm, allow 2 pcs of 2mm thickness specimen overlay)
Standards	DIN ISO 48, ISO 48, ASTM D 1415, GB6031, HG/2117
Power	220V 50Hz
Machine size	155x190x440mm
Package size & G/W	200x250x500mm, 20kg

Portable Barcol Hardness Tester (Impressor)

BP-100



The typical Barcol hardness values of common aluminum alloy materials:

Aluminum Alloy	1100-0	3003-0	3003-H14	2024-0	5052-0	5062-H14	6061-T6	2024-T3
Barcol Hardness value	35	42	56	60	62	75	80	85

Specification:

Model	BP-100
Test Range	0-100HBa
Effective Range	35-90 HBa (equivalent to 25-150 HBW)
Resolution	0.5 HBa
Indication Error	2-52 HBa ± 2 HBa 84-88 HBa ± 1 HBa
Repeatability Error	2-52 HBa ± 2 HBa 84-88 HBa ± 1 HBa
Sample thickness Requirements	>0.8 mm
Weight	0.5 kg

Webster Hardness Tester**W-20A / W-20B**

Webster hardness testers also known as Webster hardness pliers; they can be used to test the hardness value of aluminum alloy quickly at the scene of the production. They are the preferred instruments for testing the force of aluminum alloy.

Specification:

Model	W-20A	W-20B
Range	0-20 HW (the equivalent of 20-110 HRE)	0-20 HW (the equivalent of 53-92 HRB, the equivalent of 87-109 HRF)
Indicator Error	0.5 HW (5 -17 HW)	
Repeatability Error	0.5 HW (5 -17 HW)	
Weight	0.5 kg	

Standard Packing:

Name	Q'ty
Tester	1 set
Standard test block	1 pc
Indenter	1 pc
Calibration wrench	1 pc
Screwdriver	1 pc
Anvil cap	1 pc
Carrying case	1 pc



Micro Vickers Hardness Block	
Hardness Range	Size
200-750 HV0.01	25*5mm
200-750 HV0.015	25*5mm
200-750 HV0.02	25*5mm
200-750 HV0.025	25*5mm
200-750 HV0.05	25*5mm
200-750 HV0.1	25*5mm
200-750 HV0.2	25*5mm
200-750 HV0.3	25*5mm
200-750 HV0.5	25*5mm
200-750 HV1	25*5mm

Macro Vickers Hardness Block	
Hardness Range	Size
175-750 HV2	Ø60mm
175-750 HV3	Ø60mm
175-750 HV5	Ø60mm
175-750 HV10	Ø60mm
175-750 HV20	Ø60mm
175-750 HV30	Ø60mm
175-750 HV50	Ø60mm
175-750 HV100	Ø60mm

Knoop Hardness Block	
Hardness Range	Size
200-750 HK0.01	25*5mm
200-750 HK0.02	25*5mm
200-750 HK0.025	25*5mm
200-750 HK0.05	25*5mm
200-750 HK0.1	25*5mm
200-750 HK0.2	25*5mm
200-750 HK0.3	25*5mm
200-750 HK0.5	25*5mm
200-750 HK1	25*5mm
200-750 HK2	25*5mm

Brinell Hardness Block	
Hardness Range	Size
180-650 HBW10/3000	Φ90
180-650 HBW10/1500	Φ90
90-450 HBW10/1000	Φ90
90-450 HBW10/500	Φ90
90-125 HBW10/250	Φ60
90-125 HBW10/100	Φ60
180-650 HBW5/750	Φ60
90-450 HBW5/250	Φ60
90-450 HBW5/125	Φ60
90-450 HBW5/62.5	Φ60
50-450 HBW5/25	Φ60
180-650 HBW2.5/187.5	Φ60
90-450 HBW2.5/62.5	Φ60
25-125 HBW2.5/31.25	Φ60
25-35 HBW2.5/15.625	Φ60
75-125 HBW2.5/6.25	Φ60
150-250 HBW1/30	Φ40
25-125 HBW1/10	Φ40
15-70 HBW1/5	Φ40
10-35 HBW1/2.5	Φ40

Rockwell Hardness Block	
Hardness Range	Size
20-40 HRA	Φ60
45-75 HRA	Φ60
80-84 HRA	Φ60
20-30 HRC	Φ60
35-55 HRC	Φ60
60-70 HRC	Φ60
20-50 HRB	60x40
60-70 HRB	Φ60
88-100 HRB	Φ60
40-47 HRD	Φ60
55-63 HRD	Φ60
70-75 HRD	Φ60
58-69 HRE	60x40
70-95 HRE	60x40
95-100 HRE	Φ60
107-114 HRE	Φ60
60-86 HRF	60x40
86-98 HRF	Φ60
105-114 HRF	Φ60
1-32 HRG	Φ60
57-82 HRG	Φ60
80-94 HRG	Φ60
80-94 HRH	60x40
96-100 HRH	60x40
40-60 HRK	60x40
60-76 HRK	Φ60
91-100 HRK	Φ60
110-115 HRL	60x40
110-115 HRM	60x40
110-115 HRR	60x40

Superficial Rockwell Hardness Block	
Hardness Range	Size
70-77 HR15N	Φ60
78-88 HR15N	Φ60
89-91 HR15N	Φ60
42-54 HR30N	Φ60
55-73 HR30N	Φ60
74-80 HR30N	Φ60
20-31 HR45N	Φ60
32-61 HR45N	Φ60
63-70 HR45N	Φ60
77-80 HR15T	Φ60
80-83 HR15T	Φ60
88-93 HR15T	Φ60
49-56 HR30T	Φ60
57-63 HR30T	Φ60
73-82 HR30T	Φ60
23-33 HR45T	Φ60
34-43 HR45T	Φ60
58-72 HR45T	Φ60

Webster Hardness Block	
Hardness Range	Size
10HW	10*100*1.6mm
16HW	10*100*1.6mm

Barcol Hardness Block	
Hardness Range	Size
36-41 Ba	30*1.6mm
82-84 Ba	30*1.6mm

Hammer Brinell Hardness Block	
Hardness Range	Size
177-250 HBW5/750	12*12*150mm
250-650 HBW5/750	12*12*150mm



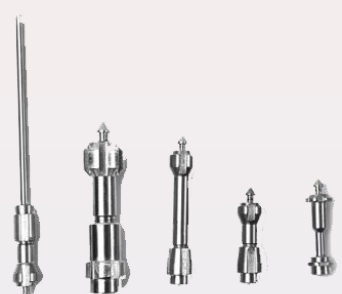


Portable Brinell Hardness Block	
Hardness Range	Size
150-6500 HBW10/3000	75*75*20mm
150-650 HBW5/750	75*75*20mm

Shore Hardness Block	
Hardness Range	Size
30HSD (for metal)	64*16mm
60HSD (for metal)	64*16mm
90HSD (for metal)	64*16mm
Shore A (7 pieces) (for rubber)	50*50*8mm
Shore D (3 pieces) (for rubber)	50*50*8mm
Shore A with certificate (6 pieces) (for rubber)	60*6mm

Leeb Hardness Block	
Hardness Range	Size
300-400 HLD	89*55mm
490-570 HLD	89*55mm
590-670 HLD	89*55mm
750-830 HLD	89*55mm
840-880 HLD	89*55mm
300-430 HLG	120*70mm
460-540 HLG	120*70mm
550-630 HLG	120*70mm
687-925 HLDL	89*55mm
481-850 HLD+15	89*55mm
525-905 HLC	89*55mm
450-813 HLE	89*55mm
490-830 HLDC	89*55mm



Hardness Indenter	
Type	Size
Rockwell hardness tester use	Ø1.588 ball indenter (B, F, G, J scale)
	Ø3.175mm ball indenter (E, H, K scale)
	Ø12.75mm ball indenter (R scale)
	120° Diamond indenter (A,C,D,N scale)
Brinell hardness tester use	Ø1mm ball indenter
	Ø2.5mm ball indenter
	Ø5mm ball indenter
	Ø10mm ball indenter
Vickers hardness tester use	136° Diamond indenter (Micro Vickers)
	136° Diamond indenter (Macro Vickers)
Knoop hardness tester use	172° 30' & 130° Diamond indenter
Steel Ball	Ø1mm
	Ø1.588mm
	Ø2.5mm
	Ø5mm
	Ø10mm
	Ø12.75mm

Parts of Leeb hardness tester		
Item Name	Type	Photo
Impact Device	D / DC	 D DC DL C D+15 E G
	C	
	D+15	
	G	
	DL	
	DR (5-20mm)	
	SDC (Short type)	
	400°C	
	Loading-Unloading one time process type	
Impact Body	D / DC	
	C	
	G	
	DL	
Ball head	3MM (for D;DC;C;DL;D+15)	
	5MM (for G)	
Impact device line	LHM	
Support ring	SR (12 pieces)	

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EBPu Electromechanical Equipment (Zhejiang) Co., Ltd.

Add.: 56-57 Multiple-use Building, Danshan Industrial Zone, Wenling City, China

www.hardnesstesting-machine.com <http://hardnesstester.en.made-in-china.com>

Mobile / Whatsapp: +86-13524552810

E-mail: sales@hiebp.com, info@hiebp.com

Office time: 8:00a.m - 17:00p.m Monday - Friday

