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SUNPOC

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SUNPOC

Hardness Tester

GUIZHOU SUNPOC TECH INDUSTRY CO., LTD.

Premier metrology solutions

precision is our vision

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Company profile

Being a professional manufacturer and exporter in the field of of quality test instruments,guizhou sunpoc tech industry co., ltd.(sunpoc) mainly supplys optical profile projectors, video measuring machines, toolmaker microscopes, digital readout, linear scales, hardness tester, digital caliper and measuring software, etc. the products are widely applied for in the industry of mechanic, electronic, mold and hardware for quality control etc.adhere to the "quality first, users first" business purposes and "creating the 1st class domestic supplier, setting up international fomous brands" as the developing target of the enterprise, the sunpoc team has worked and researched with constantly efforts to improve the quality and explore new products to serve the customers better. under the scientific and strict management and always deliver on time and honor the contract, sunpoc has enjoyed a good reputation both home and abroad. currently our product has passed the iso9001:2000, certification of 2000 international quality control system, ce certification and verification of iso1002-1 metering certification system. sunpoc has already established some distributor in mainly district in the world with its service and technical support networks. at the same time, our team will bring professional service for each of our customer.our vission is that we are willing to work with the worldwide lifeful partner for a better tomorrow, to climb up a new height of optical measurements. let us fight together!

Product advantages

Technological innovation is the foundation of development
High quality service is the boat to move forward

Rockwell Hardness Tester

SHR-3000

It can be directly used to measure Rockwell hardness of metal and plastic materials.
It is suitable for carbon steel, alloy steel, cast iron, nonferrous metals, engineering plastics, etc

Leeb Hardness Tester

PHT-350

The pht-350 hardness tester is an innovative improvement about hardness measurement mechanism and circuit performance based on leeb hardness measuring instrument product. Portable, flexible replacement and suitable for the job site, field operations.

Multifunction Hardness Tester

SBRV-100D

It has novel appearance, complete functions, convenient operation, intuitive display and stable performance. It can meet the requirements of brinell, rockwell and vickers tests. the test force is close to grade 7, which can meet the needs of various hardness tests.

Service Idea

- Global 24-hour service
- Quality assurance for 12-month
- Technical assistance for lifetime

Application area

The hardness tester manufactured by sunpoc is of excellent quality, durable long and high accuracy.It is widely used in aerospace filed, railway locomotives field, auto factories, metalsmelting factory, scientific research institutions, measurement laboratories and other departments.

Honor

Product Introduction

Hardness tester

PHT-100 Pen Hardness Tester

Feature:

According to the principle of leeb hardness measurement, hardness tester can detect all kinds of metal materials conveniently and quickly. the hardness measurement value can be displayed immediately and can be freely switched to other scales.

Application:

Applicable materials: steel and cast steel, cold working tool steel, stainless steel: gray iron, ductile iron, cast aluminum alloy, brass (copper zinc alloy), bronze (copper aluminum / tin alloy), pure copper and forged steel. avoid vibration, strong magnetic field, corrosive medium and heavy dust.

Advantages of pen hardness tester

Provide zero distance service for customers

Ensure the efficient use and technical support of customers

Excellent measurement solutions, precision is our vision

Specifications:

Measurement range:	(170-960) HLD, (17-68.5) HRC, (19-651) HB, (80-976) HV, (30-100) HS, (59-85) HRA, (13 -100) HRB
Measurement direction:	Support0∽360°
Hardness standard:	HL , HB , HRB , HRC , HRA , HV , HS
Display:	High definition dot matrix LCD and LED backlight
Data memory:	Up to 500 groups (relative to impact device 32-1)
Working power:	3.6V (lithium battery and charging circuit integration)
working hours:	About 200 hours (without backlight)
Communication interface:	USB1.1port
Working environment:	The operating temperature is - 20 ℃ ~ + 60 ℃; the storage temperature is - 30 ℃ ~ + 60 ℃; the relative humidity is not more than 90%;

Standard accessories:

Specifications	name	number
1	subject	1
2	Cleaning brush	1
3	Small support ring	1
4	Standard block	1
5	Data processing software with cable	1
6	Attached documents (including manual, quality certificate, warranty card and packing list)	1
7	ABS instrument box	1

PHT-180 Portable Hardness Tester

Product information:

Pht-180 hardness tester is equipped with durable metal shell, and its hardness scale can be converted between the following hardness units: hrb, hrc, hv, hb, hs, hl; micro thermal printer that can be connected for quick on-site printing; software data, upper and lower limit setting and sound alarm; large storage capacity.

convenient

Precision measuring instrument
Make our career move forward
Advanced science and technology

Specifications:

Measuring Range	HLD(170 -960)
Impact Derections	up, down, horizontal, slanting up, slanting down
Measuring materials	steel and cast steel, cold work tool steel, stainless steel, grey cast iron, nodular cast iron, cast aluminum alloys, brass(coppers -zinc alloys), Bronze(copper -aluminum alloys/copper -tin alloys),wrought copper alloys
Hardness scales	Leeb, Brinell, Rockwel l A,B,C, Vicker, Shore
Display	128*64 digital matrix LCD
Memory	500 group(32 every group)
Work voltage	3V(2 AA alkaline batteries)
Interface port	RS232
Dimensions	132mm*76mm*33mm
Weight	345g
working period	100 hours (with backlight off)

Standard accessories:

No	Items	Quantity	No	Items	Quantity
1	Main unit	1	1	Other types of cleaning brush	1
2	Dtype impact device	1	2	Other types of impact devices	6
3	Test block with HLD value	1	3	Tool for intall impact ball	1
4	Cleaning brush	1	4	Other types of support ring	1
5	Instruction manual	1	5	Other types of impact bal/body	1
6	Warranty card	1	6	Mini-printer	1
7	Carrying case	1			1
8	Batteries	1			

PHT-320 Portable Hardness Tester

Excellent in quality and attentive service
Focus on user experience and function innovation

Features:

- Small volume with light weight, it is convenient for taking. Its outline dimensions are 212mm×80mm×32mm.
- Large screen(128×64 lcd), showing all functions and parameters.
- Test at any angle, even upside down.
- Seven impact devices are available for special application. automatically identify the type of impact devices.
- User calibration function.; auto power off to save energy.
- USB port with the pc multi-functions data proceeding software.
- Continuous working period of no less than 150 hours.
- Upper and lower iimit can be preset. it will alarm automatically when the result value exceeding the iimit. battery indicates the rest capacity of the battery and the charge status.
- Excellent after-sale service system for high quality products---two years' guarantee and all if maintenance. easy to buy and comfortable to use.
- Large capacity memory could store 500 groups (relative to average times32^1) information including single measured value, mean value, testing data, impact direction, impact times, material and hardness scale etc.
- Wide measuring range. it can measure the hardness of all metallic materials. direct display of hardness scales hrb, hrc, hv, hb, hs, hl and three types of strength values immediately.
- Original imported high speed thermal printer support the immediate printing function. It can save data permanently.
- Ni-mh rechargeable battery as the power source. with rechargeable battery, charging for three hours, it can use for two months. charge circuit integrated inside the instrument.

Product information

Technical specifications:

Measuring range:	(170 -960)HLD
Measuring direction:	360°
Hardness scale:	HL , HB, HRB, HRC, HRA, HV, HS
Display:	Not matrix LCD 128×64 dots
Data memory:	500 groups max
Relative to impact times:	32~1
Printing paper:	Width is 57.5±0.5 mm, diameter is 30mm
Battery rechargerable:	9V/500MA NI -MH
Continuous working period:	About 150 hours with backlight off
Communication interface:	USB
Outline dimensions:	212mm×80mm×32mm

Standard accessories:

	No.	Item	Quarntity	Remarks
Standard Configuration		MainbodyPHT -320	1	
	2	D type impact device	1	With cable
	3	Sandard test block	1	
	4	Cleaning brush0)	1	
	5	Smalsupportring	1	
	6	Bathery Charger	1	9V500mA
	7	Paper for printing	1	
	8	Manual	1	
	9	Instrument padkage case		
Optional Configuration	1	leaningbrushl)	1	For use with G type Impact device
		Other type of impact devices and spport rings		
	3	DataProsoftware	1	
	4	Communicationcable	1	

PHT-340 Leeb Hardness Tester

Main application:

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.

1.The assembled machinery and permanently installed parts
2.Die cavity of molds
3.Heavy work piece
4.Bearings and other parts
5.Cases which require the test result with normalized original recording
6.Material identification of the metal material warehouse
7.Quick tests of large range and multipoint measuring positions for heavy

Features:

1.Lcd display of 128×64 matrix is used.
2.Using the d high precision impact device
3.Converts to all common hardness scales(hv ,hb,hrc,hrb,hra,hs).
4.English displaying and menu operating, the operation is easy and convenient.
5.Hermetically sealed metal shell, solid and durable, has excellent resistance to vibration, shock and electromagnetic interference ability.
6.With usb2.0 interface, multiple communication modes are adopted to meet customized requirements of various users.
7.Equipped with a data processing software, through the usb interface, can exchange data with computer printing and parameter setting
8.Equipped with 7 types of impact devices which need not to be recalibrated when changing them, the system can identify the type of impact device automatically.
9.Max 600 groups (impact times: 32～1) of data can be stored at internal non volatile data storage.
10.Upper and lower limit of hardness can be preset; when the tested value exceeds the limits, alarm will send out automatically to make convenient for the requirements of batch measure-ments.
11.Back light display has been used to make convenient for the use in poor light.
12.Test values software calibration function.
13.Material of "cast steel" is added; hb values can be read out directly when d/dc impact device is used to measure "cast steel" work piece.
14.Printer be separated from main unit and copies of testing results can be printed as required.
15.Power is two of aa battery. continuous working period: approx. 200 h (no back light on).
16.Software of pc can be installed according to the requirements of user, the function will be more powerful to satisfy the more strict demands of quality control and management.
17.Failure analysis of pressure vessel, steam turbo-generator set and other equipment.
18.Narrow testing space where work piece installed.

Standard accessories:

Standard Configuration			Optional Configuration		
No.	Item	Q'ty	No.	Item	Q'ty
1	Main body	1	1	Other types of impact devices	7
2	D type impact device	1	2	Other types of support ring	12
3	Test block with HLD value	1	3	Other types of impact ball/body	2
4	Cleaning brush (I)	1	4	Data processing software	1
5	Instruction manual	1	5	Connecting line	1
6	Warranty card	1			
7	Small supporting ring	1			
8	Screwdriver	1			
9	Certificate of conformity	1			
10	Instrument box	1			
11	5 alkaline battery	2			

PHT-330 /PHT-350
Leeb Hardness Tester(colour screen)

Main application:

It is suitable for steel and cast steel, alloy steel, stainless steel, gray cast iron, nodular cast iron, cast aluminum alloy, copper zinc alloy (brass), copper alloy (bronze), tin pure copper, forging steel etc.use for testing die cavity of molds, bearings and other parts, failure analysis of pressure vessel, steam generator and other equipment, heavy work piece, the installed machinery and permanently assembled parts, testing surface of a small hollow space, material identification in the warehouse of metallic materials, rapid testing in large range and multi-measuring areas for large-scale work piece.

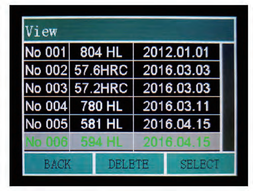
Feature:

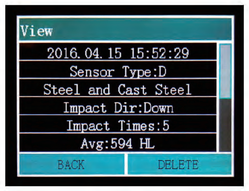
Hardness tester is an innovative improvement about hardness measurement mechanism and circuit performance based on leeb hardness measuring instrument product. portable, flexible replacement and suitable for the job site, field operations

- Color screen, hardness scale dual display and optional.
- Add function - custom material
- Built-in high speed thermal printer, support immediately printing function. it can save data permanently.
- Support probe hot-plugging

Technical specifications:

Measuring range	HLD (170-960), HB (19-683), HV (80-1042), HS (30.6-110), HRA(59.1-88), HRB (13.5-101.7), HRC (17.9-69.5)
Measuring direction	360°
Indication Error	±6HLD (D impact device)
Hardness Scale	HRA , HRB, HRC, HV, HS, HL, HB
Display	320*240mm Color LCD, two hardness scale dual-display. with Bulit-in Printer
Data memory	600 groups max.(relative to impact times 32~1)
Printing paper	Widthis (57.5±0.5)mm, diameter is 30mm
Battery pack	7.4V Li-battery
Continuous working period	about 200hours (With backlight off, no printing)
Communication interface	USB2.0
Dimensions	210 x 85 x 45mm
Weight	about 0.6kg pack weight: 5.2kg





Standard accessories:

No.	Item	Q'ty	No.	Item	Q'ty
1	PHT350 Main body	1 pc	7	Paper for printing	1pc
2	D type impact device	1 pc	8	Manual	1pc
3	Standard test block	1 pc	9	Warranty card	1 pc
4	Cleaning brush	1 pc	10	Data Pro software	1 pc
5	Small supporting ring	1 pc	11	Communication cable	1 pc
6	Battery charger	1 pc	12	Instrument box	1 pc

PHT-550 Portable Leeb Hardness Tester (touch screen)

It is convenient, simple and easy to operate

Application:

PHT-550 is a small, light and portable hardness tester. It is most suitable for testing of heavy, big or outdoor metal parts. It can measure in any direction and also easy to be used and accurate on curved test surfaces. Especially, it can automatically compensate effect of weight which according to the test direction.

Feature:

- Menu operation, easy and convenient, large lcd display
- Key or touch type screen operation
- Automatic hardness conversion
- large capacity rechargeable battery
- Attached printer can be used to print out testing result
- Automatic recognition for the type of impact device
- Automatic detecting the impacting direction
- The setup can be be saved automatically
- Dual-operation both by keys or touch screen
- Automatic storage for 800 groups of testing data
- Uses wireless to communicate with printer, operates with touch screen and test data could be linked into pc.

Standard: astma956 & din 50156 (in preparation)

SUNPOC

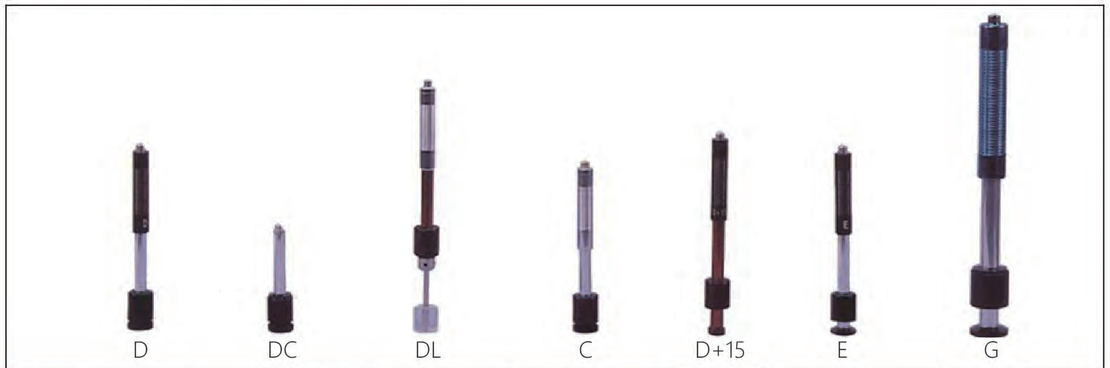
Specification:

MODEL	PHT-550
HL display range	170 ~ 960HLD
Repeatability	4HLD
Testing direction	All direction
Optional Impact Device	D, DC, DL, D+15, C, G (automatic identification)
Display	4.0" 240*320(touch screen), Bright and clear LCD display with back light
Hardness conversion	HRC, HRB, HB, HV, HSD & tensile strength
Multi-language menu	English, Korean, Deutsch, French, Italian, Spanish, Russian, Polish, Chinese Simplified, Chinese
Power	3.7V (rechargeable li-ion battery)
Charging power supply	DC5.5V/1A
Printer	Wireless Mini-printer (Cable no needed)
Operating environment	-20°C ~ +50°C; Humidity:20% ~ 85%
Storage environment Temperature	-30°C ~ +70°C; Humidity:5% ~ 95%
Dimensions	180mm*90mm*30mm
Weight	350g (include D type impact device)
Standard accessories	Display Unit, Impact Device D, Test Block, Mini-printer, Charger, Little Support Ring, Cleaning
Options Impact Device	DC; DL; D+15; C; G

Bluetooth wireless printer:

1.Width of print paper: 57.5± 0.5mm
2.Diameter of paper roll: ≤30mm (heatsensitive print paper)
3.Printing speed: 5cm/sec. (when power is enough)
4.Printing resolution: 203dpi (8dot/mm)
5.Working power supply: 650mah 7.2v rechargerable nimh
6.Recharging power supply: dc 12V/1A
7.Dimensions: 90 x 76 x 36mm
8.Weight: 220g (not including paper roll)

Impact Probe Assembly:



Type of Impact Device	DC(D)/DL	C	D+15	E	G
Applicatio n	DC type used to hole or inside face of cylinder, DL type used to elongated narrow slot or hole,D type for routine measurements.	Suitable for measuring surface of the trench or concave.	Suitable for measuring thin workpiece and harden surface.	Suitable for heavy or rough castings and forgings.	Suitable high hardness material.
Impacting energy	11mJ	2.7mJ	11mJ	11mJ	90mJ
Mass of impact body	5.5g/7.2g	3.0g	7.8g	5.5g	20.0g
Test tip hardness:	1600HV	1600HV	1600HV	5000HV	1600HV
Dia. Test tip:	3mm	3mm	3mm	3mm	5mm
Material of test tip:	Tungsten carbide	Tungsten carbide	Tungsten carbide	synthetic diamond	Tungsten carbide
Impact device diameter:	20mm	20mm	20mm	20mm	30mm
Impact device length:	86(147)/75mm	141mm	162mm	155mm	254mm
Impact device weight:	50g	75g	80g	80g	250g
Max. hardness of sample	940HV	1000HV	940HV	1200HV	650HB
roughness of sample	Ra1.6μm	Ra0.4μm	Ra1.6μm	Ra1.6μm	Ra6.3μm
Min. weight of sample:	>5kg	>1.5kg	>5kg	>5kg	>15kg
Measure directly with stand	2～5kg	0.5～1.5kg	2～5kg	2～5kg	5～15kg
Need coupling tightly	0.05～2kg	0.02～0.5kg	0.05～2kg	0.05～2kg	0.5～5kg
Min. thickness of sample	5mm	1mm	5mm	5mm	10mm
layer thickness hardening:	≥0.8mm	≥0.2mm	≥0.8mm	≥0.8mm	≥1.2mm

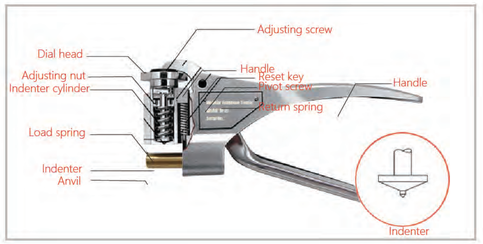
Indentation size:

Type of Impact Device		DC(D)/DL	C	D+15	E	G
Hardness 300HV	Indentation diameter:	0.54mm	0.54mm	0.38mm	1.03mm	0.54mm
	Depth of indentation:	24μm	24μm	12μm	53μm	24μm
Hardness 600HV	Indentation diameter:	0.54mm	0.54mm	0.32mm	0.90mm	0.54mm
	Depth of indentation	17μm	17μm	8μm	41μm	17μm
Hardness 800HV	Indentation diameter:	0.35mm	0.35mm	0.35mm	--	0.35mm
	Depth of indentation	10μm	10μm	7μm	--	10μm

Webster Hardness Tester

Webster hardness testers also known as webster hardness pliers, it is applied to the quick test for the hardness of aluminum alloy profiles, pipes, plates, aluminum parts and other soft metal such copper alloy, copper, stainless steel. it can be used to estimate whether the aluminum profile has aging or whether the aging is qualified, distinguish different aluminum grades and different aging condition. the tester is the first choice instrument for testing the mechanical property of aluminum alloy profiles. webster hardness tester is easy to operate, just clamp the work piece, and then read the hardness value directly. it focus on high efficiency and good reliability which conform to the china non-ferrous ys/t420-2000 and american standard astm b647-84 (2000).

Structural representation:



How to replace indenter:

Step 1,turn off pivot scrsw

Step 2,take off the dial hezd

Step 3,take off the adjusting nut with wrench,then take out indenter,change new indenter.

Step 4,after change new indenter,calibrate hardness tester with standard block.if the value is not correct,need to adjust the laod spring.

Technical parameters of w-20 w-b92

Model				
	W -20	W -20a	W -20b	W -B92
Material	aluminum alloy			tainless steel, galvanized plate
Specimen size	Thicknee 0.6 -6 Ring ID>10	Thicknee 0.6 -13 Ring ID>10	Thicknee 0.6 -8 Ring ID>6	hicknee 0.6 -6 Ring ID>10
Test range	25 -110HRE 58 -131HV			50 -92HRB
Measure range	0-20HW			
Accuracy	0.5HW(5 -10HW)			
Repeatability error	0.5HW(5 -10HW)			
Weight	0.5KG			

Technical parameters of w-b75

Model				
	W-B75	W-B75b	W-BB75	W-BB75b
Material	copper alloy		copper	
Specimen size	Thicknee 0.6 -6 Ring ID>10	Thicknee 0.6 -8 Ring ID>6	Thicknee 0.6 -6 Ring ID>10	Thicknee 0.6 -8 Ring ID>6
Test range	63-105HRF		18 -100HRF	
Measure range	0-20HW			
Accuracy	0.5HW(5 -10HW)			
Repeatability error	0.5HW(5 -10HW)			
Weight	0.5KG			

Packing of w-20 webster hardness tester

instrument case

Standbad block

Wrench

Spare indenter

Screw Knife

PHB-1 Pin Hammer Impact Brinell Hardness Tester

Test force 1,580 kgf
Indenter: 7.26mm steel ball indenter,
Test range 100~350hbw
4mm carbide ball indenter
Test range 350~650hbw
Indicator error: ≤5% comply with iso, astm
Repeatability error: ≤5% comply with iso, astm
Test range: 100~650hbw
Net weight : 0.8 kg
Application: castings, forgings,
Steel products, heat treatment

The impact hardness tester is designed according to Brinell hardness test method. the test force is controlled by shear pin. after reading the indentation diameter with a reading microscope, the Brinell hardness table can be obtained by consulting. this hammer type brinell hardness tester can be used to test small to very large specimens. It is especially suitable for the components that are not convenient to be brought to the laboratory and are not allowed to be cut. The test can be done in any direction to test the hardness of the upper, lower and side of the specimen.

Feature:

- 1.test method this brinell hardness machine applies brinell hardness test method
- 2.force value consistency good force value consistency, no influence by operator.
- 3.high accuracy good repeatability and high accuracy. The accuracy is the same as desk tester. It could replace leeb hardness tester in iow accuracy and reliability.
- 4.simple operationsimple and flexible operation.only consume 1 piece of cheap shear pin for each test.

Standard accessories:

7.26mmsteel ball Indenter

7.26mmsteel ball Indenter

housing

handle

brinell hardness block (hb10/3000)

pin (250 pieces/box)

pin cleaner

20x reading microscope

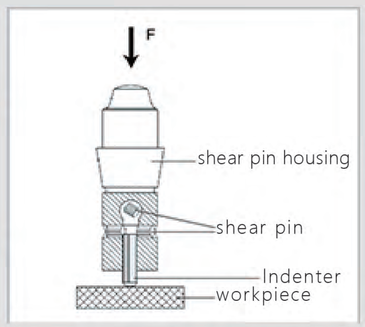
carrying case

PHB-150 Pin Static Brinell hardness tester

The pin static brinell hardness tester is designed following the brinell hardness test method. the test force is controlled by a shear pin. after reading the diameter of the indention with the reading microscope, the brinell hardness value can be obtained from the look up table.this kind of pin brinell hardness tester is especially suitable for assemblies inconvenient to be taken to the lab and not allowed to be cut. the phb-150 pin static brinell hardness tester can be widely used to test the hardness of forgings, castings, steels, nonferrous metal and its alloy products, and to test the hardness of annealed, normalizing and tempered mechanical parts.compared to the rebound type hardness tester, the pin brinell portable hardness tester has many advantages such as higher precision, fewer factors affecting accuracy and lower requirement on the surface roughness. the test result meets the requirements of most drawings without conversion and is more widely accepted in the international business.

Parameter:

Test force 1,580 kgf
Indenter: 7.26mm Steel ball indenter
test range 100~350hbw
4mm carbide ball Indenter,
test range 350~650hbw
Indicator error: ≤2~3% comply with ISO, astm
Repeatability error:≤2~3% comply with ISO,astm
Test range: 100~650hbw
Opening dimension: 150mm(height) x100mm(throat depth)
Net weight : 4.2 kg
Application: castings, forgings, steel products, heat treatment



PHB-3000 Hydraulic Brinell Hardness Tester

PHB-3000 hardness tester adopts hydraulic principle and applies 3000kgf test force by hand operation.the central part of PHB-3000 is a small hydraulic system in which a release valve is used to control the test force. when the test force rises 3000kgf, the release valve will open and pressure will fall down, and it needs to apply the test force repeatedly 3-4 times to make the needle of the pressure gauge point to 3000kgf for 3-4 times. thus it is equivalent to the test condition of brinell hardness testing method to hold 3000kgf test force with 10mm ball for 10-15 seconds, which complies with ASTM E110.the accuracy and performance can reach the level of hydraulic King brinell hardness tester.

Parameter:

Test force: 3000kgf(1000kgf, 750kgf, 500kgf optional)
Test ball: 10mm carbide test ball (5mm optional)
Test range: 32-650hbw
Opening dimension: 350mm(height)*100mm(throat depth)
Indicator error: complies with iso 6506, and astm e10
Repeatability error: complies with iso 6506, and astm e10
Test force error: ≤1% and complies with iso 6506, and astm e10

Standard accessories:

tester

pressure lever

10mm carbide test ball

small size hexagonal wrench

v anvil

20X reading microscope

brinell hardness test block with high value

flat anvil

rechargeable angle grinder

brinell Indentation measurement system

PHR-100/PHR-200

Portable digital magnetic rockwell hardness tester

Portable digital magnetic rockwell hardness tester, the rockwell test head to the surface of iron and steel parts to test the hardness by applying magnetic force. follow rockwell hardness test method completely and the test condition complies with standard of iso 6508 and astme 18.the magnetic rockwell hardness tester is mainly applied in on-site quick test body hardness of steel parts. test hardness of steel plate, pipe, axis, mould, huge forgings and huge and medium-size heat treatment parts if surface available.test hardness of weld joint in boiler, pressure vessels, and pressure pipes.Replace low accurate and reliable Leeb hardness testers.

Technical parameters:

PHR-100: dial plate display
PHR-200: digital display
Initial Test Force for Rockwell: 10kgf
Total Test Force: 60kgf, 100kgf, 150kgf
Test head: 120°diamond indenter, 1.588mm carbide ball indenter
Testing Range: 20~88HRA, 20~100 HRB, 20~70 HRC
Indication Error: Comply with ISO 6508 and ASTM E 18
Indication Error: Comply with ISO 6508 and ASTM E 18
Testing Resolution: 0.5 HR
Weight: 4.7 kg
Surface: Flat : Area ≥ 180 mm x 60 mm Thickness : ≥ 5 mm
Cylinder: Diameter ≥ 60 mm Length ≥ 200 mm, Thickness ≥ 8 mm

Standard accessories:

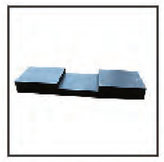
Tester

Diamond Cone Indenter

Carbide Ball Indenter

Standard Hardness Block

Adapter



Seat Iron

SH-6510 Shore Hardness Tester

(SH-6510 A/B/C/D/E/F/0/00/000/D0)

Specification:

Product info: digital durometer for shore hardness testing pocket size model with integrated probe
Test scale: shore hardness
Standards: din53505, astmd2240, iso7619, jisk7215
Parameters displayed: hardness result, average value, max. value
Measurement range: 0-100h
Measurement deviation: < 1%h
Resolution: 0.1
Auto switch off
With rs232c interface
Operating conditions: 0℃ to 40℃
Power supply: 4x1.5v aaa (um-4) battery
Battery indicator: low battery indicator
Dimensions: 162x65x38mm
Weight (not including probe):173g

Model introduction:

SHORE A: soft rubber, elastomers, natural rubber products,neoprene, resin, Polyester, soft PVC, leather, etc.
SHORE B:middle hard rubber materials, typewriter rollers, etc.
SHORE C:plastics and middle hard rubber materials
SHORE D:fibre plastics, hard rubber, hard plastic materials, piexiglas,stiff thermo plastics, Formica, print roller, vinyl-plate, cellulose acetate, etc.
SHORE 0: soft elastic materials, print rollers, middle firm textile fabrics,nylon, Orlon, Perlon, Rayon.
SHORE 00 /000 / 000 SIRHD / DIDC supersoft: sponge- and cellular rubber, foam rubber, silicone,
gel-like materials
SHORE D0: plastics and middle hard up to hard rubber materials

packing box

Standard block

Shore

product

Product Introduction

Micro vickers hardness tester

SUNPOC

SMV-402 Digital Micro Vickers Hardness Tester

Feature:

SMV-402 digital micro vickers hardness tester is a high-tech and new product combining the optics, mechanic and electrics features. with a novel and pleasing appearance, the internal structure is mainly made by stainless steel parts, has better performance. it can directly shows the test mode, test force, indentation length, dwell time, test numbers, conversion scale, date and time on the large screen. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. with the up and down limit alarm function, test results can be saved for checking or be printed out by the built-in printer, and with rs 232 interface for connecting to the computer. it can use optional knoop indenter to measure knoop hardness. and it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Standard: ISO 6507，ASTM E384，JIS Z2244，GB/T 4340.2

Application:

Suitable for ferrous metal, non-ferrous metals, ic thin sections, coatings, ply-metals; glass, ceramics, agate, precious stones, thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbonized layers and quench hardened layers.

Technical specification:

Model		SMV-402
test force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96 N, 2.94N, 4.90N, 9.80N
test range		1HV~2967HV
hardness resolution		0.1HV
test mode		HV/HK
loading method		automatic (loading/dwell/unloading)　　turret : automatic shifting
conversion scale		HV, HK, HRA , HRB , HRC, HRD, HRE, HRF, HRG , HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
data output		buil t-in printer , RS232 interface
hardness reading		LCD display, data can be saved
eyepiece		10 × digital measuring eyepiece
objective		10× (observe) , 40× (measure)
total magnification		100 × , 400×
effective field of view		200μm
min. measuring unit		0.02μm
dwell t ime		0~95s
light source		halogen lamp
x-y test table		Size: 100×100mm ; Travel: 25×25mm ; Resolution : 0.01m m
max. sample height		90mm
throat depth		100 mm
power supply		AC220V , 50Hz
dimension		495×305×550mm , packing dimension: 600×360×800mm
weight		net weight: 3 5kg , gross weight: 44kg

SMV-404 Digital Micro Vickers & Knoop Hardness Tester

Feature:

- Automatic test cycle (loading, dwell, unloading)
- Six-position automatic turret including two indenters & four objectives
- Direct display of test mode, test force, indentation length, dwell time, test times, conversion scale and date & time
- Hardness scale conversion available
- Measuring confirmation button fixed on digital measuring eyepiece
- Limit setting & warning
- Test results storage in real time
- Built-in stylus printer for test results printout
- Rs232 interface for pc connectivity
- Optional lcd video measuring device
- Optional hv1.0/2.0/3.0 vickers measuring software

Standard Compliance: ISO 6507; ASTM E384; JIS Z2244; GB/T 4340.2

Application:

Ferrous metal; non-ferrous metals; ic thin sections; coatings; ply-metals; glass; ceramics; agate; precious stones; thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbon-ized layers and quench hardened layers.

Technical specification:

Model	SMV-404
Test Load (gf/N)	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf
	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 Turret with Six Positions (two indenters & four objectives)
Hardness Scales Conversion	Knoop, Brinell, Shore, Rockwell: A, B, C, D, E, F, G, K, 15N, 30N, 45N, 15T, 30T, 45T
Data Output	Built-in Stylus Printer; RS232 Interface
Hardness Reading	LCD Display
Objectives	20X(observation), 20X(measure), 40X(observation),40X(measure)
Eyepiece	10X Digital Measuring Eyepiece
Total Magnification	100X, 200X, 400X
Resolution	0.03μm, 0.015μm
Dwell Time	0-95 seconds
Illumination	Halogen Lamp
X-Y Stage	Size: 100×100mm; Travel: 25×25mm; Resolution: 0.01mm
Max. Height Capacity	90mm
Throat	120mm
Power Supply	AC220V, 50Hz
Overall Dimension (L*W*H, mm)	Machine: 495 x 305 x 550; Packing Dimensions: 600 x 360 x 800
Weight	Net Weight: 35kg; Gross Weight: 44kg

Standard accessories:

No.	Name	Qty.
1.	Machine	1 Set
2.	Micro Vickers Indenter (Diamond)	1 PC
3.	Knoop Indente r (Diamond)	1 PC
4.	Weights	7
5.	X-Y Stage	1 PC
6.	Filament Stage	1 PC
7.	Thin Specimen Stage	1 PC
8.	Plain Clamping	1 PC
9.	Hardness Block 400~500 HV0.2	1 PC
10.	Hardness Block 700~800 HV1	1 PC
11.	Hardness Block 700~800 HK1	1 PC
12.	10X Digital Measuring Eyepiece	1 PC

No.	Name	Qty.
13.	Objectives: 20X; 20X; 40X ; 40X	4
14.	Level Adjust able Feet	4
15.	Spirit Level / Level Gauge	1 PC
16.	Color Filter	1 PC
17.	Plastic Sucker	1 PC
18.	Intern al Hexagonal Wrench	1 Suit
19.	Screw Driver	1 PC
20.	Halogen Lamp:12V, 15~20W	1 PC
21.	Fuse 1A	2
22.	Anti -dust Cover	1 PC
23.	Power Cable	1 PC
24.	User Manual	1 PC

SMV-100/100Z Micro Vickers Hardness Teste

Feature:

SMV-100/100Z micro vickers hardness tester adopts unique precision design in mechanics, electronics and optics, which makes indentation imaging clearer and measurement more accurate. the test method, test force, holding time, measurement times and scale conversion can be displayed on the screen. the hardness value can be automatically calculated and displayed on the screen as long as the diagonal length of indentation is input from the keyboard. knoop indenter can be used for knoop hardness measurement, and ccd image automatic measurement system can also be selected.

Standard: ISO 6507，ASTM E384，JIS Z2244，GB/T 4340.2

Application:

Suitable for ferrous metal, non-ferrous metals, ic thin sections, coatings, ply-metals; glass, ceramics, agate, precious stones, thin plastic sections etc.; hardness testing such as that on the depth and the trapezium of the carbonized layers and quench hardened layers.

Technical specification:

Model		SMV-100	SMV-10 0Z
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	
Hardness Resolution		0.1 HV	
Loading Method		Automatic (Loading/Dwell/Unloading)	
Turret		Manual Shifting	Automatic Shifting
Conversion Scale		HK, HRA, HRB, HRC, HRD, HRG, HRK, HR15N , HR30N, HR45N, HR15T , HR30T, HR45T, HBW	
Eyepiece		10× Measuring Eyepiece	
Objective		10× (Observe) ， 40× (Measure)	
Total Magnification		100× ， 400×	
Effective Field Of View		200MM	
Min. Measuring Unit		0.06MM	
Dwell Time		0~60s	
Light Source		Halogen Lamp	
X-Y Test Table		Size: 100×100mm; Travel: 25×25mm; Reso lution: 0.01mm	
Max. Sample Height		90mm	
Throat Depth		100mm	
Power Supply		AC220V， 50Hz	
Dimension		480×325×545mm ， Packing Dimension: 600×360×800mm	
Weight		Net Weight: 31kg ， Gross Weight: 44kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10 × measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10 ×、40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1A	2	17	halogen lamp 12V 、15~20W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti-dust cover	1	20	manual	1

Digital Micro Vickers Hardness Tester

SMV-1000/1000Z

SMV-1000M /2000M

SMV-1000S / 1000SZ

SUNPOC

SMV-1000/1000Z

Feature:

The digital micro vickers hardness tester adopts unique precision design on optics, mechanic and electrics features, make the indentation image clearer, and get more precise measurements. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test mode, test force, indentation length, dwell time, test numbers and conversion scale. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and show on the screen. It can use optional knoop indenter to measure knoop hardness. and it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Technical specification:

Model		SMV-1000	SMV-1000Z
test force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf	
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96 N, 2.94N, 4.90N, 9.80N	
test range		1HV~2967HV	
hardness resolution		0.1 HV	
loading method		automatic (loading/dwell/unloading)	
turret		manual shifting	automatic shifting
conversion scale		HK, HRA, HRB, HRC, HRD, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HBW	
eyepiece		10× digital me asuring eyepiece	
objective		10× (observe) , 40× (measure)	
total magnification		100 × , 400×	
effective field of view		200μm	
min. measuring unit		0.06μm	
dwell time		0~60s	
light source		halogen lamp	
x-y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm	
max. sample height		90mm	
throat depth		100 mm	
power supply		AC220V, 50Hz	
dimension		480×325×545mm, packing dimension: 600×360×800mm	
weight		net weight: 31kg , gross weight: 44kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10 ×digital measuring eyepiece	1
2	diamon d micro vickers indenter	1	12	10 ×、40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1A	2	17	halogen lamp 12V 、15~20W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti -dust cover	1	20	manual	1

SMV-1000M/2000M

Feature:

The smv-1000m digital micro vickers hardness tester adopts unique precision design of optics, mechanic and electrics features, make the indentation image clearer, and get more precise measurements. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test mode, test force, indentation length, dwell time, test numbers, conversion scale, date and time. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and show on the large screen. test results can be saved for checking or be printed out by the built-in printer, and with rs232 interface for connecting to the computer. It can use optional knoop indenter to measure knoop hardness and be equipped with 2kg test force. also it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Technical specification:

Model		SMV-1000M	SMV-2000M
test force	gf	10gf, 25gf, 50gf, 100gf, 200gf, 300gf, 500gf, 1000gf	
	N	0.098N, 0.246N, 0.49N, 0.98N, 1.96 N, 2.94N, 4.90N, 9.80N	
test range		1HV~2967HV	
hardness resolution		0.1 HV	
loading method		automatic (loading/dwell/unloading)	
turret		manual shifting	automatic shifting
conversion scale		HK, HRA, HRB, HRC, HRD, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HBW	
eyepiece		10× digital me asuring eyepiece	
objective		10× (observe) , 40× (measure)	
total magnification		100 ×, 400×	
effective field of view		200μm	
min. measuring unit		0.06μm	
dwell time		0~60s	
light source		halogen lamp	
x-y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm	
max. sample height		90mm	
throat dept h		100 mm	
power supply		AC220V , 50Hz	
dimension		480×325×545mm , packing dimension: 600×360×800mm	
weight		net weight: 31kg , gross weight: 44kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10× digital measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10× , 40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1A	2	17	halogen lamp 12V, 15~20W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 H V1	1
10	anti-dust cover	1	20	manual	1

SMV-1000S / 1000SZ

Feature:

The digital micro vickers hardness tester adopts unique precision design of optics, mechanic and electrics features, make the indentation image clearer, and get more precise measurements. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test mode, test force, indentation length, dwell time, test numbers and conversion scale. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and show on the screen. test results can be printed out by the built-in printer, and with rs232 interface for connecting to the computer. it can use optional knoop indenter to measure knoop hardness. and it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Technical specification:

Model		SMV-1000 S	SMV-1000 SZ
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 range		1HV~2967HV	
hardness resolution		0.1 HV	
test mode		HV/HK	
loading method		automatic (loading/dwell/unloading)	
shifting between objective and indenter		manual	automatic
conversion scale		HK, HRA, HRB, HRC, HRD, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HBW	
data output		built-in printer , RS232 interface	
objective		10× (observe) , 40× (measure)	
eyepiece		10× digital measuring eyepiece	
total magnification		100× , 400×	
resolution		0.0625μm	
dwell time		0~60s	
light source		halogen lam p	
X-Y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm	
max. height of specimen		90mm	
throat		98mm	
power supply		AC220V , 50Hz	
dimension (lwh)mm		machine size 480×325×545mm , packing size: 600×360×800mm	
weight		net weight: 31kg , gross weight: 44kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10×digital measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10× , 40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V,15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti-dust cover	1	20	usage instruction manual	1

Intelligent Micro Vickers Hardness Tester

SMV-1000XT

Feature:

- It adopts the integrated design of hardness tester and panel computer, with windows 7 operating system, it has all functions of computer and can be connected to the output devices such as external screen and printer;
- Automatic recognition and shifting objective and indenter;
- With ccd image acquisition system, it shows the image clearly and gets the hardness value automatically;
- Save data, hardness-depth curve and save as word or excel;
- With digital x-y test table, it makes measurement more precise;

Technical specification:

Model		SMV-1000XT
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
hardness resolution		0.1HV
test mode		HV/HK
loading method		automatic (loading/dwell/unloading)
turret		automatic shifting
micro computer		CPU Intel I5, Memory: 4G,SSD: 128G
CCD		1.30 M. pixel
conversion scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
hardness reading		indentation display and automatic measuring on touch screen
data output		word or excel report with curve chart
objective		10×, 40×
effective field of view		10×: 680μm, 40×: 170μm
min. measuring unit		10×: 0.1μm, 40×: 0.025μm
dwell time		0~60s
light source		halogen lamp
digital x-y test table		Size:120×120mm;Travel:25×25mm; Resolution: 0.001mm
max. sample height		170mm
throat depth		130mm
power supply		AC220V, 50Hz
dimension		560×335×675mm; packing dimension: 650×380×960mm
weight		net weight: 48kg gross weight: 62kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10×digital measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10×、40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V, 15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti-dust cover	1	20	manual	1

Intelligent Micro Vickers Hardness Tester

SMV-1000XTZ

Feature:

- All the testing parameters can be selected on the panel computer. with touching screen, it operates quickly and conveniently and displays clearly and intuitively.
- With ccd image acquisition system, it shows the image clearly and gets the hardness value just by touching the screen.
- Automatic recognition and shifting between the objective and the indenter.
- With the function of hardness scale conversion.
- The system has two languages: english and chinese.
- With usb, vga and lan interfaces, the hardness measurement can be print out by usb interface.
- It can automatically save the measuring data, generate the hardness-depth curve and save as word or excel document.
- With motorized x-y test table, automatic focusing and automatic measuring, it realizes the fully automation of Micro vickers hardness testing.

Technical specification:

Model		SMV-1000XTZ
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 mode		HV/HK
test range		1HV~2967HV
hardness resolution		0.1 HV
loading method		automatic (loading/dwell/unloading)
turret		automatic shifting
micro computer		CPU: Intel I 5， Memory: 8 G， SSD: 128 G
CCD		1.30 M. pixel
conversion scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW
hardness reading		indentation display and automatic measuring on touch screen
data output		word o r excel report with curve chart
objective		10 ×， 40×
effective field of view		10 ×： 680μm， 40×：170μm
min. measuring unit		10 ×： 0.1μm ， 40×：0.025μm
dwell time		0~60s
light source		halogen lamp
motorized x -y test table		size: 110×110mm; travel: 50×50mm; resolution: 0.002mm
max. sample height		170mm
throat depth		130mm
power supply		AC220V， 50Hz
dimension		560×335×675mm ， packing dimension: 650×380×960mm
weight		net weight: 52kg ， gross weight: 67kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10×digital measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10× , 20×,40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V, 15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti-dust cover	1	20	manual	1

SMV-1011X Micro Vickers Hardness Tester

SMV-1011X

Feature:

The smv-1011x digital display automatic turret micro-vickers hardness tester is a new generation of multi-functional touch screen micro-vickers hardness tester developed by our company. the hardness tester is beautiful in shape, has good reliability, operability and repeatability, and is an ideal product for testing micro-hardness. In addition to meeting the basic requirements of vickers hardness test, the upgraded digital micro eyepiece can directly read the measured length, so as to obtain the measured value more quickly and accurately. the upgraded control operating system adopts 7-inch lcd touch display screen, can provide more measurement data, control is more comprehensive and accurate.

Technical specification:

Model		SMV -1011AX	SMV -1011BX	SMV -1011CX	SMV -1011X
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~2967HV			
hardness resolution		0.1HV			
test mode		HV/HK			
		automatic (loading/dwell/unloading)			
shifting turret		manual	automatic	manual	automatic
conversion scale		HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15 T, HR30T, HR45T, HS, HB			
data output		built -in printer, USB port to disk			
value reading		7 inch touch screen display, data can be saved			
objective		10× (observe), 40× (measure)			
eyepiece		10×measuring eyepiece / 15x measuring eyepiece		10×digital measuring eyep iece / 15x digital measuring eyepiece	
total magnification		100×, 400×			
resolution		0.01μm			
dwell time		5~60s			
light source		halogen lamp			
x-y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm			
max. height of specimen		110mm			
throat		85mm			
power supply		AC220V , 50Hz			
dimension(lwh)mm		machine size 540×200×530mm , packing size: 600×36 0×800mm			
weight		net weight: 35kg , gross weight: 44kg			

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10× measuring eyepiece	1
2	diamond micro vickers indenter	1	12	10× 、40× objective	2
3	weights	6	13	weight axis	1
4	cross te st table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V, 15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti -dust cover	1	20	manual	1

Micro Vickers Hardness Tester

SMV-1011XT

Feature:

- Industrial tablet computer integration, usb expansion
- Optional digital display cross platform, accurate positioning and measurement
- Visual display of indentation and automatic measurement of hardness
- Automatically generate word report to meet the needs of test personnel

Integrated intelligent visual micro vickers hardness tester, only need to operate a touch tablet computer, easy to complete the measurement! moreover, all parameters can be selected, modified and analyzed directly touch screen. It can realize automatic multi-functional tower position, automatic identification of objective lens and indenter, automatic loading, automatic load keeping, automatic unloading and light brightness. by linking the built-in ccd measurement and acquisition system, the clear indentation image dynamic can be displayed on the pc in real time, and the indentation can be locked directly, the hardness value can be measured automatically, the test data can be saved automatically, and the report can be generated. the operation is very simple and fast, eliminating the artificial measurement error.

Technical specification:

Model		SMV -1011 XT
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~2967HV
hardness resolution		0.1HV
test mode		HV/HK
		automatic (loading/dwell/unloading)
shifting turret		automati c
conversion scale		HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB
hardness scale		HV0.01,HV0.025,HV0.05,HV0.1,HV0.2,HV0.3,HV0.5,HV1
data output		built -in printer, USB port to disk
value reading		PC auto measu re, t ouch screen display, data can be saved , USB port
objective		10× (observe), 40× (measure)
eyepiece		10×digital measuring eyepiece (optional)
total magnification		100×, 400×
resolution		0.0625μm
dwell time		5~60s
light source		halogen lamp
x-y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm
max. height of specimen		150mm
throat		120 mm
power supply		AC220V , 50Hz
dimension(lwh)mm		machine size 620×230×630mm , packing size: 700×460×900mm
weight		net weight: 45kg , gross weight: 55kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	CCD measuring system with touch screen	1
2	diamond micro vickers indenter	1	12	10× 、40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V, 15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness bloc k 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti -dust cover	1	20	manual	1

Digital Micro Vickers Hardness Tester

SMV-1011Z

Feature:

The digital micro vickers hardness tester adopts unique precision design of optics, mechanic and electrics features, make the indentation image clearer, and get more precise measurements. It adopts colored touch screen, which displays intuitively and operates easily. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test mode, test force, indentation length, dwell time, test numbers, conversion scale, date and time. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and show on the large screen. Test results can be saved for checking or be printed out by the built-in printer, and with rs232 interface for connecting to the computer. It can use optional knoop indenter to measure knoop hardness. and it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Technical specification:

Model		SMV -1011	SMV -1011Z
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~2967HV	
hardness resolution		0.1HV	
test mode		HV/HK	
loading method		automatic (loading/dwell/unloading)	
shifting between objective and indenter		manual	automatic
conversion scale		SMV -1011Z : HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB	
data output		With built -in printer port, USB port to disk , optional	
value reading		LED screen display	big LED screen display
objective		10× (observe), 40× (measu re)	
eyepiece		10×measuring eyepiece	10×digital measuring eyepiece
total magnification		100×, 400×	
resolution		0.01μm	
dwell time		5~60s	
light source		halogen lamp	
x-y test table		size: 100×100mm; travel: 25×25mm; resolution: 0.01mm	
max. height of specimen		110mm	
throat		85mm	
power supply		AC220V , 50Hz	
dimension(lwh)mm		machine size 540×200×530mm , packing size: 600×360×800mm	
weight		net weight: 35kg , gross weight: 44kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	10×digital mea suring eyepiece	1
2	diamond micro vickers indenter	1	12	10×、40× objective	2
3	weights	6	13	weight axis	1
4	cross test table	1	14	flat clamping test table	1
5	thin specimen test table	1	15	filament clamping test table	1
6	horizontal regulating screw	4	16	level	1
7	fuse 1 A	2	17	halogen lamp 12 V, 15~20 W	1
8	power cable	1	18	screw driver	2
9	hardness block 400~500 HV0.2	1	19	hardness block 700~800 HV1	1
10	anti -dust cover	1	20	manual	1

Product Introduction

Vickers hardness tester

SHVS-5000 Digital Vickers Hardness Tester

Feature:

Digital vickers hardness tester is a high-tech and new product combining the optics, mechanic and electrics features. it adopts load cell control system, improves the precision of the test force and the repeatability and stability of the indicating value. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test force, indentation length, dwell time, test numbers, conversion scale, date and time. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. p type: built-in printer, z type: automatic shifting of turret + built-in printer. it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Standard: ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Technical specification:

Model	SHVS -500 SHVS -500P SHVS -500Z	SHVS -1000 SHVS -1000P SHVS -1000Z	SHVS -3000 SHVS -3000P SHVS -3000Z	SHVS -5000 SHVS -5000P SHVS -5000Z
testing force	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg)	2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3k g) 49.03N (5kg) 98.07N (10kg)	4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg)	9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg) 490.3N (50kg)
objective	20x, 40x	10x, 40x	10x, 20x	10x, 20x
magnifying	200×/400×	100×/400×	100×/200×	100×/200×
resolution	0.125 μm, 0.0625μm	0.25μm , 0.0625μm	0.25μm , 0.125 μm	0.25μm , 0.125 μm
test table	100×100 cross table: rang e 25×25/ 0.01 mm		big plane test table an d V table	
max. height	170mm			
instrument throat	130mm			
eyepiece	10x digital eyepiece			
testing range	1hv ~2967HV			
objective/indenter switch	SHVS SHVS -P manual switch of objective and indenter SHVS -Z is automatic (auto -turret)			
printer	SHVS -P SHVS -Z with printer , RS232			
loading control	automatic (loading / dwell / unloading)			
dwell time	5 ~ 60s			
power supply	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size 530×280×630mm, packing 620x450x740mm			
weight	net weight: 35kg , gross weight: 47kg			

Standard accessories:

No.	Name	Qty	No.	Name		Qty
1	instrument main body	1	13	objective		2
2	diamond vickers indenter	1	14	cross test table for SHVS -500, SHVS -1000		1
3	10× digital measuring eyepiece	1	15	big plane test table		1
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table		1
5	fuse 1A	2	17	SHVS-500	hardness block 700~800 HV1	1
6	inner hexagon spa nner 2.5mm	1	18		hardness block 400~500 HV5	1
7	horizontal regulating screw	4	19	SHVS-1000	hardness block 700~800 HV1	1
8	screw driver	1	20		hardness block 700~800 HV10	1
9	anti-dust cover	1	21	SHVS-3000	hardness block 700~800 HV30	1
10	power cable	1	22		hardness block 400~500 HV5	1
11	level	1	23	SHVS-5000	hardness block 700~800 HV30	1
12	manual	1	24		hardness block 400~500 HV5	1

SHVS-5011 Digital Vickers Hardness Tester

Feature:

1.The optical system designed by senior optical engineer not only has clear image, but also can be used as a simple microscope. the brightness is adjustable, the vision is comfortable, and it is not easy to be tired after long-time operation;
2.7-inch touch screen display test method, test force, indentation length, hardness value, time, and test results.
3.The system has its own calibration function, can be adjusted error calibration;
4.Optical system brightness adjustable range: 0-100;
5.Store 100 groups data, and display the average value and test times;
6.The unit of test force can be manually selected and converted into (kgf, n)
7.Both objective lenses can be used to measure hardness directly,
8.The measuring scale can be converted into hk knoop hardness;
9.Test data can be directly exported through usb.

Standard: ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Application:

Suitable for measuring steel, nonferrous metals, metal foil, cemented carbide, metal sheet, microstructure, carbonization; carburizing, nitriding and decarburizing layer, surface hardening layer, electrodeposited layer, coating, heat treatment; glass, wafer, ceramic material

Technical specification:

Model	SHVS-5005	SHVS-5011	SHVS-5030	SHVS-5050
testing force / hardness scale	2.942N (0.3kg) /HV0.3 4.903N (0.5kg) /HV0.5 9.807N (1kg) /HV1.0 19.61N (2kg) /HV2.0 29.42N (3kg) /HV3. 49.03N (5kg) /HV5.0	2.942N (0.3kg) /HV0.3 4.903N (0.5kg) /HV0.5 9.807N (1kg) /HV1.0 29.42N (3kg) /HV3.0 49.03N (5kg) /HV5.0 98.07N (10kg) /HV10.0	9.807N (1kg) /HV1.0 29.42N (3kg) /HV3.0 49.03N (5kg) /HV5.0 98.07N (10kg) /HV10.0 196.1N (20kg) /HV20.0 294.2N (30kg) /HV30.0	9.807N (1kg) /HV1.0 49.03N (5kg) /HV5.0 98.07N (10kg) /HV10.0 196.1N (20kg) /HV20.0 294.2N (30kg) /HV30.0 490.3N (50kg) /HV50.0
objective	10x , 20x(option 40x)	10x, 20x(option 40x)	10x, 20x	10x, 20x
magnifying	100×/200×/400x	100×/ 200×/400x	100×/200×	100×/200×
resolution	0.125 μm, 0.0625μm	0.125μm , 0.0625μm	0.25μm , 0.125 μm	0.25μm , 0.125 μm
test table	100×100 cross table: range 25×25/ 0.01mm		big plane test table and V table	
conversion scale	HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB			
max. height	165mm			
instrument throat	130mm			
eyepiec e	10x digital eyepiece			
testing range	5hv-2967HV			
objective/indenter switch	automatic (auto -turret) switch of objective and indenter			
printer	built in printer , RS232			
loading control	automatic (loading / dwell / unloading)			
dwell time	5 ~ 60s			
power supp ly	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size 585×200×630mm, packing 620x450x740mm			
weight	net weight: 42kg , gross weight: 50kg			

Standard accessories:

No.	Name	Qty	No.	Name		Qty
1	instrument main body	1	13	objective		2
2	diamond vickers indenter	1	14	cross test table		1
3	10× digital measuring eyepiece	1	15	big plane test table		1
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table		1
5	fuse 1A	2	17	SHVS-5005	hardness block 700~800 HV1	1
6	inner hexagon spanner 2.5mm	1	18		hardness block 400~500 HV5	1
7	horizontal regulating screw	4	19	SHVS-5011	hardness block 700~800 HV1	1
8	screw driver	1	20		hardness block 700~800 HV10	1
9	anti-dust cover	1	21	SHVS-5030	hardness block 700~800 HV30	1
10	power cable	1	22		hardness block 400~500 HV5	1
11	level	1	23	SHVS-5050	hardness block 700~800 HV30	1
12	manual	1	24		hardness block 400~500 HV5	1

SHVS-5011M Digital Vickers Hardness Tester

Feature:

Digital vickers hardness tester is a high-tech and new product combining the optics, mechanic and electrics features. it adopts load cell control system, improves the precision of the test force and the repeatability and stability of the indicating value. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test force, indentation length, dwell time, test numbers, conversion scale, date and time. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. p type: built-in printer, z type: automatic shifting of turret + built-in printer. it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Standard: ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Technical specification:

Model	SHVS-5005M	SHVS-5011M	SHVS-5030M	SHVS-5050M
	SHVS-5005Z	SHVS-5011Z	SHVS-5030Z	SHVS-5050Z
testing force	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5k g) 29.42N (3kg) 49.03N (5kg)	2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg)	4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg)	9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg) 490.3N (50kg)
objective	20x, 40x	10x, 40x	10x, 20x	10x, 20x
magnifying	200×/400×	100×/400×	100×/200×	100×/200×
resolution	0.125 μm, 0.0625μm	0.25μm , 0.0625μm	0.25μm , 0.125 μm	0.25μm , 0.125 μm
test table	100×100 cross table: range 25×25/ 0.01mm		big plane test table and V table	
max. height	170mm			
instrument throat	130mm			
eyepiece	10x digital eyepiece			
testing range	1hv -2967HV			
objective/indenter switch	SHVS SHVS -P manual switch of objective and indenter SHVS-Z is automatic (auto -turret)			
printer	SHVS-P SHVS-Z with printer , RS232			
loading control	automatic (loading / dwell / unloading)			
dwell time	5 ~ 60s			
power suppl y	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size 530×280×630mm, packing 620x450x740mm			
weight	net weight: 35kg , gross weight: 47kg			

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	13	objective	2
2	diamond vickers indenter	1	14	cross test table for SHVS -500, SHVS -1000	1
3	10× digital measuring eyepiece	1	15	big plane test table	1
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table	1
5	fuse 1A	2	17	SHVS -500 M hardness block 700~800 HV1	1
6	inner hexagon spanner 2.5mm	1	18	SHVS -500 M hardness block 400~500 HV5	1
7	horizontal regulating screw	4	19	SHVS - 5011M hardness block 700~800 HV1	1
8	screw driver	1	20	SHVS - 5011M hardness block 700~800 HV10	1
9	anti -dust cover	1	21	SHVS - 5030M hardness block 700~800 HV30	1
10	power cable	1	22	SHVS - 5030M hardness block 400~500 HV5	1
11	level	1	23	SHVS - 5050M hardness block 700~800 HV30	1
12	manual	1	24	SHVS - 5050M hardness block 400~500 HV5	1

SHV-5000M Digital Vickers Hardness Tester

Feature:

Digital vickers hardness tester is a high-tech and new product combining the optics, mechanic and electrics features. It adopts load cell control system, improves the precision of the test force and the repeatability and stability of the indicating value. with digital measuring eyepiece, no need for checking the table or inputting the diagonal of the indentation, it can directly shows the test force, indentation length, dwell time, test numbers, conversion scale, date and time. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. p type: built-in printer， z type: automatic shifting of turret + built-in printer. it can be equipped with lcd video measuring device and ccd image automatic measuring system.

Standard: ISO 6507， ASTM E384， JIS Z2244， GB/T 4340.2

Technical specification:

Model	SHV-500M SHV-500MZ	SHV-1000 M SHV-1000 MZ	SHV-3000M SHV-3000MZ	SHS-5000M SHV-5000MZ
testing force	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5 kg) 29.42N (3kg) 49.03N (5kg)	2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg)	4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg)	9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg) 490.3N (50kg)
objective	20x, 40x	10x, 40x	10x, 20x	10x, 20x
magnifying	200×/400×	100×/400×	100×/200×	100×/200×
resolution	0.125 μm, 0.0625μm	0.25μm , 0.0625μm	0.25μm , 0.125 μm	0.25μm , 0.125 μm
test table	100×100 cross table: range 25×25/ 0.01mm		big plane test table and V table	
conversion scale	HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB			
max. height	170mm			
instrument throat	130mm			
eyepiece	10x digital eyepiece			
testing range	1hv -2967HV			
objective/indenter switch	SHV-M manual switch of objective and indenter SHV-MZ is automatic (auto -turret)			
printer	Built in printer , RS232			
loading control	automatic (loading / dwell / unloading)			
dwell time	5 ~ 60s			
power supply	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size 530×280×630mm, packing 620x450x740mm			
weight	net weight: 35kg , gross weight: 47kg			

Standard accessories:

No.	Name	Qty	No.	Name		Qty
1	instrument main body	1	13	objective		2
2	diamond vickers indenter	1	14	cross test table for SHV -500M/MZ , SHV-1000 M/MZ		1
3	10× digital measuring eyepiece	1	15	big plane test table		1
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table		1
5	fuse 1A	2	17	SHV-500M/MZ	hardness block 700~800 HV1	1
6	inner he xagon spanner 2.5mm	1	18		hardness block 400~500 HV5	1
7	horizontal regulating screw	4	19	SHV-1000 M/MZ	hardness block 700~800 HV1	1
8	screw driver	1	20		hardness block 700~800 HV10	1
9	anti-dust cover	1	21	SHV-3000M/MZ	hardness block 700~800 HV30	1
10	power cable	1	22		hardness block 400~500 HV5	1
11	level	1	23	SHV-5000M/MZ	hardness block 700~800 HV30	1
12	manual	1	24		hardness block 400~500 HV5	1

SHVT-500 Intelligent Vickers Hardness Tester

Feature:

This instrument is a new generation of vickers hardness tester. It adopts the integrated design of hardness tester and panel computer, all the testing parameters can be selected on the panel computer. with ccd image acquisition system, it can show dynamic indentation image, lock the image and automatically get the vickers hardness value with high precision and stability, and avoid the human errors. the hardness tester with complete functions reaches the advanced level.

- It adopts the integrated design of hardness tester and panel computer, with win7 operating system, it has all functions of computer and can be connected to the output devices such as external screen and printer;
- With three objectives automatic shifting between objective and indenter;
- With ccd image acquisition system, it shows the image clearly and gets the hardness value automatically;
- With the function of hardness scale conversion;
- It can automatically save the measuring data, generate the hardness-depth curve and save as word or excel document;

Standard: ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

Technical specification:

Model	SHVT-500	SHVT-1000	SHVT-3000	SHVT-5000
testing force	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg)	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg)	2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg)	4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg) 490.3N (50kg)
optical system	objective10x20x, 40x; builtin 1.30 M pixel CCD;magnifying 100×/200×/400x;			
value reading	Indentation Displaying and Automatic Measuring on Touch Screen			
panel omputer	CPU: Intel I3,Memory:2G, SSD:32G			
resolution	0.125 μm, 0.0625μm	0.25μm , 0.0625μm	0.25μm , 0.125 μm	0.25μm , 0.125 μm
test table	100×100 cross table: range 25×25/0.01mm			
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW			
max. height	185mm			
instrument throat	130mm			
testing range	1hv-2967HV			
objective/indenter	Automatic (auto-turret)			
data out	word or excel report with curve chart			
loading control	automatic (loading / dwell / unloading)			
dwell time	5 ~ 60s			
power supply	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size560×335×675mm,Packing:650×380×960mm			
weight	net weight:52kg,gross weight:67kg			

Standard accessories:

No.	Name	Qty	No.	Name		Qty
1	instrument main body	1	13	objective		3
2	diamond vickers indenter	1	14	cross test table for SHV T-500Z, SHVT-1000 Z		1
3	CCD	1	15	big plan e test table		1
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table		1
5	fuse 1A	2	17	SHVT-500	hardness block 700~800 HV1	1
6	inner hexagon spanner 2.5mm	1	18		hardness block 400~500 HV5	1
7	horizontal regulating screw	4	19	SHVT-1000	hardness block 700~8 00 HV1	1
8	screw driver	1	20		hardness block 700~800 HV10	1
9	anti -dust cover	1	21	SHVT-3000	hardness block 700~800 HV30	1
10	power cable	1	22		hardness block 400~500 HV5	1
11	level	1	23	SHVT-5000	hardness block 700~800 HV30	1
12	manual	1	24		hardness block 400~500 HV5	1

SHVT-500Z Intelligent Vickers Hardness Tester

Feature:

It adopts the integrated design of hardness tester and panel computer; with windows 7 operating system, it has all functions of computer. It takes over the old method of measuring the diagonal length by eyepiece, avoids the stimulation and visual fatigue of the light source of the eyepiece, and protects the eyesight of the operator. It is a major innovation of micro vickers hardness tester.

- Parameters can be selected on the panel computer. With touching screen, it operates quickly and conveniently and displays clearly and intuitively.
- With ccd image acquisition system, it shows the image clearly and gets the hardness value just by touching the screen.
- With two indenters and three objectives, automatic recognition and shifting objective and indenter, automatically get the vickers or knoop hardness value.
- With several usb and rs232 interfaces, the hardness measurement can be print out by USB interface.
- Save data, hardness-depth curve and save as word or excel.
- With motorized x-y test table, automatic focusing, fully automation of micro-vickers hardness tester.

Standard: ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

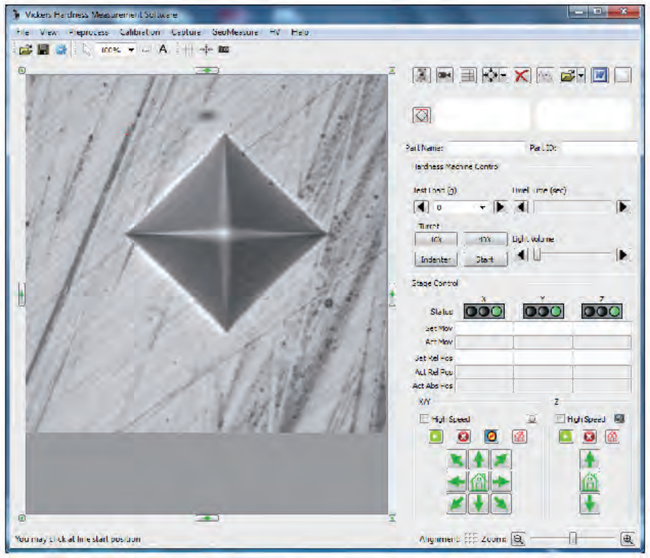
Technical specification:

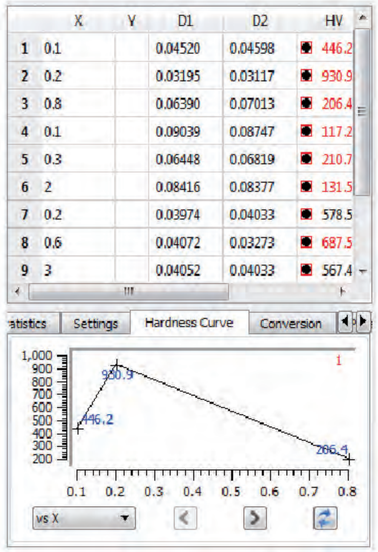
Model	SHVT-500Z	SHVT-1000Z	SHVT-3000Z	SHVT-5000Z
testing force	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg)	1.961N (0.2kg) 2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg)	2.942N (0.3kg) 4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg)	4.903N (0.5kg) 9.807N (1kg) 19.61N (2kg) 24.52N (2.5kg) 29.42N (3kg) 49.03N (5kg) 98.07N (10kg) 196.1N (20kg) 294.2N (30kg) 490.3N (50kg)
optical system	objective 10x 20x, 40x; built in 1.30 M pixel CCD ;magnifying 100×/200×/400x;			
resolution	0.06μm, 0.03μm, 0.015μm			
test table	Size: 110×110mm; Travel: 50×50mm; Resolution: 0.002mm,XYZ move by motored			
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW			
value reading	Indentation Displaying and Automatic Measuring on Touch Screen			
panel computer	CPU: Intel I3, Memory: 2G, SSD: 32G			
max. height	185mm			
instrument throat	130mm			
testing range	1hv -2967HV			
objective/indenter	automatic (auto-turret)			
data out	word or excel report with curve chart			
loading control	automatic (loading / dwell / unloading)			
dwell time	0 ~ 60s			
power supply	AC220V/50HZ; AC110V/60HZ			
dimension(LWH)	machine size560×335×675mm, Packing: 650×380×960mm			
weight	net weight: 52kg, gross weight: 67kg			

Standard accessories:

No.	Name	Qty	No.	Name	
1	instrument main body	1	13	objective	
2	diamond vickers indenter	1	14	cross test table for SHV T-500Z, SHVT-1000 Z	
3	ccd	1	15	big plane test table	
4	halogen lamp 12V, 15~20W	1	16	V-shaped test table	
5	fuse 1A	2	17	SHVT-500Z	hardness block 700~800 HV1
6	inner hexagon spanner 2.5mm	1	18		hardness block 400~500 HV5
7	horizontal regulating screw	4	19	SHVT-1000 Z	hardness block 700~800 HV1
8	screw driver	1	20		hardness block 700~800 HV10
9	anti -dust cover	1	21	SHVT-3000Z	hardness block 700~800 HV30
10	power cable	1	22		hardness block 400~500 HV5
11	level	1	23	SHVT-5000Z	hardness block 700~800 HV30
12	manual	1	24		hardness block 400~500 HV5

Vickers Hardness Measure Software



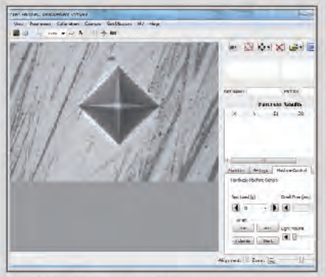


manage hardness curve

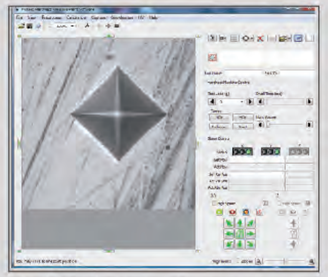
Main function:

- System linkage: through the communication interface it realizes the linkage between the system and the hardness tester.
- Pressure linkage: when converting test force, the system percepts the test force change and displays in real time.
- Turret linkage: the software controls the shifting between the objective and the indenter without manual control.
- loading linkage: the software controls the loading without manual control.
- Measuring linkage: the software controls the turret, loading and directly reading the vickers hardness value.
- light source linkage: manual focus.
- Lmage acquisition: real time display of hardness image, store and print image.
- Automatic measurement: automatically find the four vertices of indentation with fast speed and accurate data, there are many professional algorithms to be suitable for different indentation. it continuously and immediately measures at specified coordinates once loading.
- Automatic point search: the system automatically finds the best vertices near the four vertices of the indentation, greatly reduce the human error.
- Diagonal measurement: click the top left and lower right corner of the indentation, you can read the hardness value.
- Four point measurement: click the four point of the indentation and you can read the hardness value.
- Hardness conversion: according to the national standard, automatically convert the hardness value between brinell, rockwell, vickers, knoop, real-time display.
- Graphic report: automatic record of measurement data, automatic generation of hardness-depth curves, saving or printing the hardness-depth curves and all indentation measurements, save or print the indentation image and the current indentation hardness value. all the reports are saved in word file.
- Results statistics: output the multiple measured results of indentations by excel and automatically count the measurement number, maximum value, minimum value, average value, variance, etc. of hardness.
- Linkage control: through the communication interface the system percepts the test force changes, controls the turret, loads and directly reads.

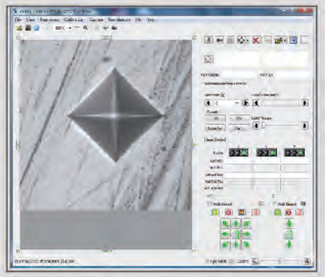
- Automatic displacement: equipped with high precision x-y automatic test table.
- Automatic identification: leading indentation automatic identification technology, read d1 / d2 and hv value in 0.3 seconds.
- Stable performance: the indentation of non mirror polishing, uneven light, not in the center can be read automatically.
- Powerful functions: such as manual reading, automatic reading, hardness conversion, depth-hardness curve, indentation image, picture and text report.
- Easy to use; through the hardness block calibration, in line with the users' habits. it can be normal used with half day training.
- Automatic reading: original algorithm of automatic reading to automatic read a variety of indentation with fast speed and high accuracy.
- good repeatability: it is automatic reading with high repeatability and can satisfy the requirement of professional users.
- automatic scanning: can automatically scan the sample edge and shape.



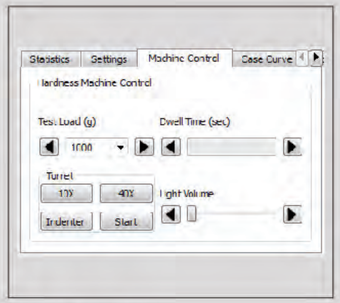
HV1.0 vickers software
turret control

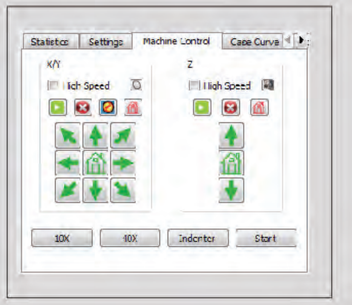


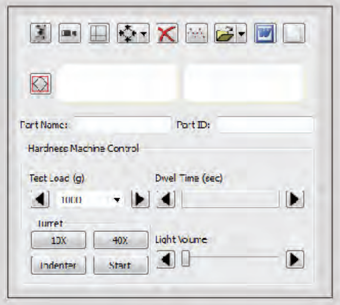
HV2.0 vickers software
xy table control



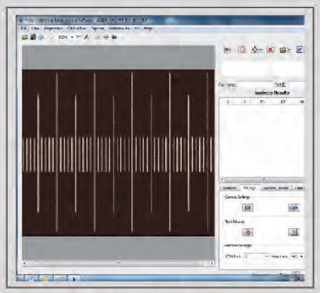
HV3.0 vickers software
xyz table control



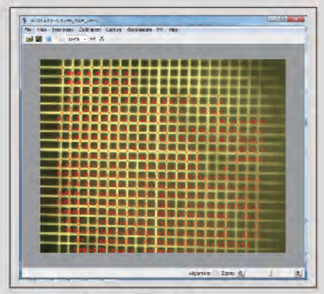




turret control

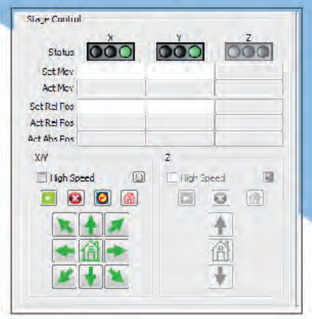


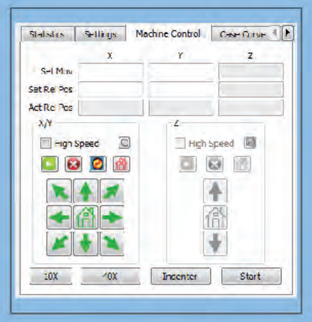
manual calibration

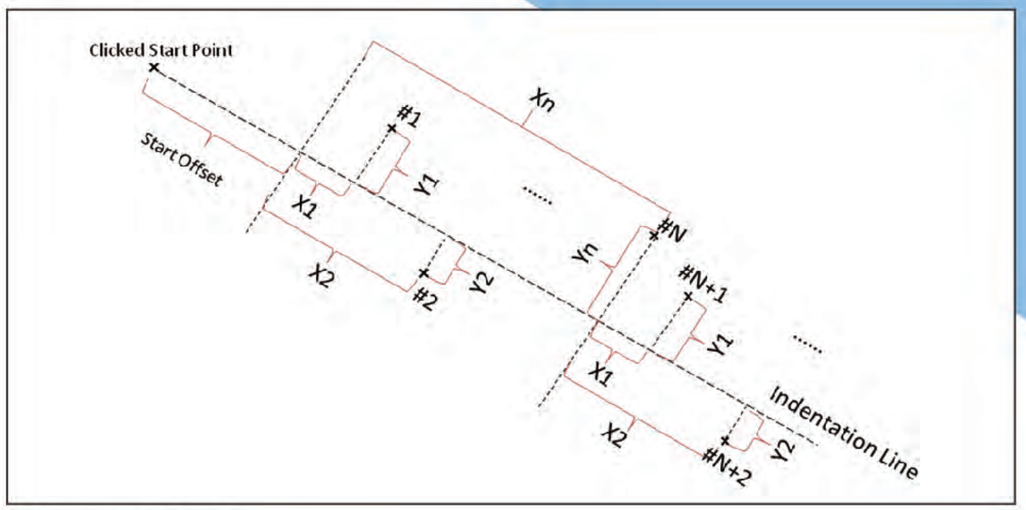


automatic calibration

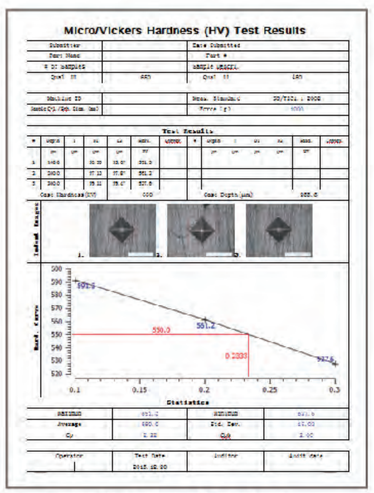
Dample stage move control



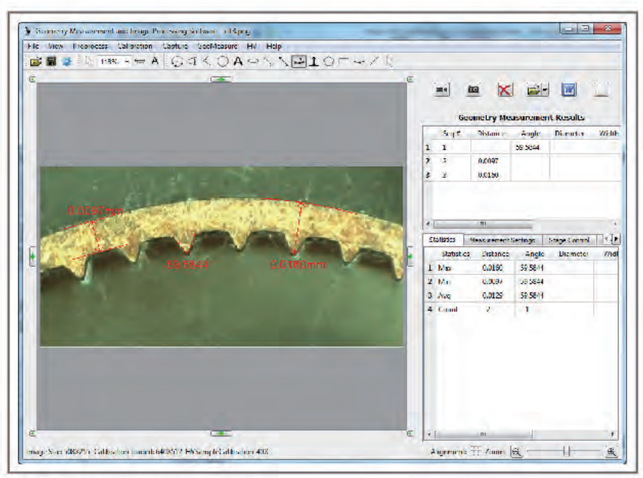




Set pattern and path



Data Saving and Retrieval



Geometry measurement

HV1.0 Vickers Hardness tester	
adopt unit:	SMV-1000 series, SHVS series, SHV series
Computer	1 set
Ink Jet Printer	1 set
1.30 Million Pixel CCD Camera	1 set
1.5 × Adapter	1 pc
USB Softdog	1 pc
Measuring Software	1 pc

HV2.0 Vickers Hardness tester	
adopt unit:	SMV-M series, SMV-X series, SHV-M series with auto stage
Computer	1 set
Ink Jet Printer	1 set
1.30 Million Pixel CCD Cam era	1 set
1.5 × Adapter	1 pc
USB Softdog	1 pc
Measuring Software	1 pc

HV3.0 Vickers Hardness tester	
adopt unit:	SMV-M series, SMV-X series, SHV-M series with auto stage
Computer	1 set
Ink Jet Printer	1 set
1.3 0 Million Pixel CCD Camera	1 set
1.5 × Adapter	1 pc
USB Softdog	1 pc
Measuring Software	1 pc

Product Introduction

Rockwell hardness tester

SHR-1500D

SHR-1500E

SHR-1500M

SUNPOC

Manual Electrnic and Digital Rockwell Hardness Tester

Feature:

The hardness tester adopts high resolution color touch screen and high brightness display. It has the characteristics of good reliability, easy operation and easy operation. It is a high-tech product of mechatronics. It can display and set the current scale, test force, test head, residence time and hardness conversion;

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2

Technical specification:

Model	SHR-1500D	SHR-1500E	SHR-1500M
initial test force	10kgf (98.07N)		
total test force	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)		
indenter	diamond rockwell indenter,ϕ1.588mmball indenter		
loading method	automatic (loading/dwell/unloading)	electric(loading/dwell/unloading)	manual
hardness reading	LCD touch screen display	dial	dial
test scale	HRA, HRB, HRC, HRF, HRD, HRG, HRH, HRE, HRK, HRL,HRM, HRP, HRR, HRS, HRV	HRA, HRB, HRC	HRA, HRB, HRC
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF,HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS,	/	/
data output	builtin-printer,RS232 interface	/	/
resolution	0.1HR	0.5HR	0.5HR
dwell time	0~60s	2~60s	/
max.height of specimen	175mm/customize 400mm(SHR-1500DH)		
throat	165mm		
power supply	AC220V 50Hz		
dimension(LWH)	machine:520×215×700mm,packing: 650×370×950mm		
weight	net weight: 78kg, gross weight: 100kg		

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	diamond rockwell indenter	1
2	ϕ1.588mmball indenter	1	12	middle plane test table	1
3	large plane test table	1	13	V-shaped test table	1
4	hardness block 60~70 HRC	1	14	hardness block 20~30 HRC	1
5	hardness block 80~100 HRB	1	15	weight A,B,C	3
6	power cable	1	16	fuse 2 A	2
7	level	1	17	horizontal regulating s crew	4
8	screw driver	1	18	spanner	1
9	anti -dust cover	1	19	manual	1

SHR-1500DH Digital Rockwell Hardness Tester

(HEIGHTEN)

Feature:

SHR-1500dh (heighten) digital rockwell hardness tester is equipped with a newly-designed large displaying screen with good reliability, excellent operation and easy watching, thus it is a high-tech product combining the mechanic and electric features. It can show and set the present scale, test force, test indenter, dwell time and hardness conversion; the main function is as follows: selection of all the rockwell scales; conversion scales of different kinds of hardness; test results can be saved and printed out, automatic calculation of maximum, minimum and average value; with rs232 interface for connecting to the computer.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2

Technical specification:

Model	SHR-1500DH(heighten)
initial test force	10kgf (98.07N)
total test force	60kgf (558.4N), 100 kgf (980.7N), 150 kgf (1471N)
indenter	diamond rockwell indenter, ϕ1.588mmball indenter
loading method	automatic (loading/dwell/unloading)
hardness reading	LCD screen display
test scale	HRA, HRD, HRC, HRF, HRB, HRG, HRH, HRE, HRK, HRL, HRM, HRP, HRR, HRS, HRV
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
resolution	0.1HR
dwell time	0~60s
max. height of specimen	400mm
throat	165mm
power supply	AC220V，50Hz
dimension (LWH)	machine:520×215× 880mm，packing: 650×370× 1140 mm
weight	net weight: 78kg , gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	diamond rockwell indenter	1
2	ϕ1.588mmball indenter	1	12	middle plane test table	1
3	large plane test table	1	13	V-shaped test table	1
4	hardness block 60~70 HRC	1	14	hardness block 20~30 HRC	1
5	hardness block 80~100 HRB	1	15	weight A,B,C	3
6	power cable	1	16	fuse 2 A	2
7	level	1	17	horizontal regulating screw	4
8	screw driver	1	18	spanner	1
9	anti-dust cover	1	19	manual	1

SHR-1500X/1500DX
Digital Plastics Rockwell Hardness Tester

1500DX

1500X

Feature:

Digital plastics rockwell hardness tester is equipped with a newly-designed large displaying screen with good reliability, excellent operation and easy watching, thus it is a high-tech product combining the mechanic and electric features. it can show and set the present scale, test force, test indenter, dwell time and hardness conversion; the main function is as follows: selection of all the plastics rockwell scales; conversion scales of different kinds of hardness; test results can be saved and printed out, automatic calculation of maximum, minimum and average value; with rs232 interface for connecting to the computer.

Application:

Suitable for hard plastics, hard rubbers, aluminum, tin, copper, soft steel, synthetic resins and fricative materials etc.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2

Technical specification:

Model	SHR-1500DX	SHR-1500X
initial test force	10kgf (98.07N)	
total test force	60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)	
indenter	Φ3.175mmBall Indenter, Φ6.35mmBall Indenter, Φ12.7mmBall Indenter	
loading method	automatic (loading/dwell/unloading)	electric (loading/dwell/unloading)
hardness reading	LCD screen display	dial
test scale	HRA, HRD, HRC, HRF, HRB, HRG, HRH, HRE, HRK, HRL,HRM, HRP, HRR, HRS, HRV	/
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK,HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBW	/
hardness reading	Built-in Printer, RS232 Interface	/
resolution	0.1HR	0.5HR
dwell time	0~60s	2~60s
max. height of specimen	175mm	
throat	165mm	
power supply	AC220V, 50Hz	
dimension(LWH)	machine:520×215×700mmpacking: 650×370×950mm	
weight	net weight: 78kg gross weight: 100kg	

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	hardness block 110~120 HRL	1
2	Φ3.175mmBall Indenter		12	hardness block 85~95 HRE	1
3	Φ6.35mmBall Indenter	1	13	hardness block 115~125 HRR	1
4	Φ12.7mmBall Indenter	1	14	hardness block 90~100 HRM	1
5	large plane test table	1	15	weight A,B,C	3
6	middle plane test table	1	16	fuse 2 A	2
7	V-shaped test table	1	17	horizontal regulating screw	4
8	power cable	1	18	spanner	1
9	level	1	19	screw driver	1
10	anti-dust cover	1	20	manual	1

SHRS-450D/450E/450M
Digital Superficial Rockwell Hardness Tester

SHRS-450D

SHRS-450E

SHRS-450E

Feature:

SHRS-450d digital superficial rockwell hardness tester is equipped with a newly-designed large displaying screen with good reliability, excellent operation and easy watching, thus it is a high-tech product combining the mechanic and electric features. It can show and set the present scale, test force, test indenter, dwell time and hardness conversion; the main function is as follows: selection of all the superficial rockwell scales; conversion scales of different kinds of hardness; test results can be saved and printed out, automatic calculation of maximum, minimum and average value; with rs232 interface for connecting to the computer.

Application:

Suitable for surface quenched steel, surface heat treating and chemical treating materials, copper alloy, aluminum alloy, sheet, zinc layers, chrome layers, tin layers, bearing steel and cold and hard casting etc.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2

Technical specification:

Model	SHRS-450D	SHRS-450E	SHRS-450M
initial test force	3kgf (29.42N)		
total test force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N)		
indenter	diamond rockwell indenter, ϕ1.588mmball indenter		
loading method	automatic (loading/dwell/unloading)	electric (loading/dwell/unloading)	manual
hardness reading	LCD screen display	dial	dial
test scale	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y	/	/
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		
resolution	0.1HR	0.5HR	0.5HR
dwell time	0~60s	2~60s	/
max. height of specimen	175mm /customize 400mm		
throat	165mm		
power supply	AC220V，50Hz		
dimension(LWH)	machine:520×215×700mm，packing: 650×370×950mm		
weight	net weight: 78kg，gross weight: 100kg		

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	diamond rockwell indenter	1
2	ϕ1.588mmball indenter	1	12	middle plane test table	1
3	large plane test table	1	13	V-shaped test table	1
4	hardness block 70~85 HR30T	1	14	hardness block 80~90 HR15N	1
5	hardness block 65~80 HR30N	1	15	weight A,B,C	3
6	power cable	1	16	fuse 2 A	2
7	level	1	17	horizontal regulating screw	4
8	screw driver	1	18	spanner	1
9	anti-dust cover	1	19	manual	1

SHR-560 Digital Double Rockwell Hardness Tester

Feature:

SHR-560 digital double rockwell hardness tester is equipped with a newly-designed large displaying screen with good reliability, excellent operation and easy watching, thus it is a high-tech product combining the mechanic and electric features. It can show and set the present scale, test force, test indenter, dwell time and hardness conversion; the main function is as follows: selection of all the rockwell and superficial rockwell scales; conversion scales of different kinds of hardness; test results can be saved and printed out, automatic calculation of maximum, minimum and average value; with rs232 interface for connecting to the computer.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc. also suitable for surface quenched steel, surface heat treating and chemical treating materials, sheet, zinc layers, chrome layers, tin layers etc.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

Technical specification:

Model	SHR-560
initial test force	3kgf (29.42N), 10kgf (98.07N)
total test force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N), 60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
indenter	diamond rockwell indenter, ϕ1.588mmball indenter
loading method	automatic (loading/dwell/unloading)
hardness reading	lcd screen display
test scale	HRA, HRD, HRC, HRF, HRB, HRG, HRH, HRE, HRK, HRL, HRM, HRP, HRR, HRS, HRV HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
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
resolution	0.1HR
dwell time	0~60s
height of specimen	175mm
throat	165mm
power supply	AC220V, 50Hz
dimension(LWH)	machine :520×215×740mm, packing: 650×370×980mm
weight	net weight: 80kg gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	11	large plane test table	1
2	ϕ1.588mmball indenter	1	12	middle plane test table	1
3	diamond rockwell indenter	1	13	V-shaped test table	1
4	hardness block 60~70 HRC	1	14	horizontal regulating screw	4
5	hardness block 80~100 HRB	1	15	screw driver	1
6	hardness block 20~30 HRC	1	16	spanner	1
7	hardness block 65~80 HR30N	1	17	power cable	1
8	hardness block75~85 HR30T	1	18	fuse 2A	2
9	level	1	19	weight 1, 2, 3, 4, 5	5
10	anti-dust cover	1	20	manual	1

SHR-560Z Automatic Double Rockwell Hardness Tester

SHR-560Z automatic double rockwell hardness tester with a good aesthetic aspect, complete functions, easy operation, intuitive display and good reliability, is a high-tech product combining the mechanic and electric features, which is suitable for the rockwell and superficial Rockwell hardness test.

Feature:

- Support for all the rockwell and superficial rockwell scales;
- Support for conversion scales of different kinds of hardness;
- Touch screen display and operation, dynamically display the working state of the lifting screw and the indenter;
- Press operation for the test table, fast rising or dropping;
- One key to complete the rising of the specimen, loading dwell and unloading of the indenter, displaying of the hardness value, homing of the test table;
- With data storage function, automatic calculation of the maximum, minimum, average of the hardness value, the test results can be printed for output, and with a RS232 interface users can connect it to the computer for output.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc. Also suitable for surface quenched steel, surface heat treating and chemical treating materials, sheet, zinc layers, chrome layers, tin layers etc.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

Technical specification:

Model	SHR-560Z
initial test force	3kgf (29.42N), 10kgf (98.07N)
total test force	15kgf (147.1N), 30kgf (294.2N), 45kgf (441.3N), 60kgf (558.4N), 100kgf (980.7N), 150kgf (1471N)
indenter	diamond rockwell indenter, ϕ1.588mmball indenter
loading method	automatic (loading/dwell/unloading)
automatic test table	automatic rising and homing, one key to complete
hardness reading	touch screen
test scale	HRA, HRD, HRC, HRF, HRB, HRG, HR H, HRE, HRK, HRL, HRM, HRP, HRR, HRS, HRV (HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y)
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45 T, HBW
data output	RS232 interface
resolution	0.1HR
dwell time	0~99s
max. height of specimen	320mm
throat	150mm
power supply	AC220V, 50Hz
dimension (LWH)	machine: 535×330×890mm , packing : 820×460×1170mm
weight	net weight: 80kg , gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	9	large plane test table	1
2	ϕ1.588mmball indenter	1	10	middle pl ane test table	1
3	diamond rockwell indenter	1	11	V-shaped test table	1
4	hardness block 60~70 HRC	1	12	anti -dust cover	1
5	hardness block 80~100 HRB	1	13	power cable	1
6	hardness block 20~30 HRC	1	14	fuse 2 A	2
7	hardness block 65~80 HR30N	1	15	manual	1
8	hardness block75~85 HR30T	1	16	/	/

SHR-3000 Digital Rockwell Hardness Tester

Feature:

- Horizontal protrudent Indenter design, suitable also for internal and external testing.
- Testing on surfaces difficult to reach. testing internal surface of rings and tubes with diameters over 33mm. (min dia.15mm using a goose neck)
- Can be used directly to measure rockwell hardness for metal and plastic material.
- Provided with many features such as high measuring precision, wide measuring range with 15 rockwell scales.
- The tester is suitable for testing of carbon steel, alloy steel, cast iron, non ferrous metal, and engineering plastic etc.
- Automatic load cycle. the loading, dwell, unloading process of the main test force are controlled exactly to meet standard.
- Measuring results digitally displaying and can be printed, or transmitted to external computer automatically by usb or rs-232 data output port.
- Test value can be transformed to the value of hb, hv, hld, hk and value.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: GB/T230.2, ISO 6508-2, ASTM E18 and BS EN ISO6508-2.

Technical specification:

Model	SHR-3000
preload	10kg f (98.1N)
total test force	60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
scales	HRA , HRB , HRC , HRD , HRE , HRF, HRG , HRH , HRK , HRL , HRM , HRP, HRR , HRS , HRV
load dwell duration	2s ~ 50s, can be set and stored
resolution	0.1HR
display	High definition ba cklight LC D
operation	Menu selectable, Membrane keypad
upper/lower limits	setting & alarming
data statistics	Avg., Max., Min., S, R available
loading method	automatically
memory	Max 500 items of test results stored automatically
data output	USB por t to exter nal PC, RS -232 to micro λprinter
testing space	260mm in vertical, 150mm in horizontal
dimensions	710mm×210mm×830mm
power supply	AC, 220V/110V, 50 ~ 60Hz, 4A
net weight	90kg

Standard accessories:

No.	Name	Q'ty	No.	Name	Q'ty
1	Host machine	1	7	Mount ing screws for indenter	1
2	Standard hardness block for A scale	1	8	Flat anvil	1
3	Standard hardness block for B scale	1	9	"V "shape anvil	1
4	Standard hardness block for C scale	1	10	Power supply wire	1
5	ball indenter (Φ1.5875mm)	1	11	Screw driver for indenter mounting	1
6	120°cone diamond indenter	1	12	Dust cover	1

SHR-3100 Digital Superficial Rockwell Hardness Tester

Feature:

- Horizontal protrudent Indenter design, suitable also for internal and external testing.
- Testing on surfaces difficult to reach. testing internal surface of rings and tubes with diameters over 33mm. (mn dia.15mm using a goose neck)
- Can be used directly to measure rockwell superficial hardness for metal and plastic material.
- Provided with many features such as high measuring precision, wide measuring range with 15 rockwell superficial scales.
- The tester is suitable for testing of carbon steel, alloy steel, cast iron, non ferrous metal, and engineering plastic etc., especially small and thin parts.
- Automatic load cycle. the loading, dwell, unloading process of the main test force are controlled exactly to meet standard.
- Measuring results digitally displaying and can be printed, or transmitted to external computer automatically by USB or rs-232 data output port.
- Test value can be transformed to the value of hb, hv, hld, hk and value.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: GB/T230.2, ISO 6508-2, ASTM E18 and BS EN ISO6508-2.

Technical specification:

Model	SHR -3100
preload	3kgf (29.4N)
total test force	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N)
scales	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W,HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
load dwell dura tion	2s ~ 50s, can be set and stored
resolution	0.1HR
display	High definition backlight LCD
operation	Menu selectable, Membrane keypad
upper/lower limits	setting & alarming
data statistics	Avg., Max., Min., S, R available
loading method	automatically
memory	Max 500 items of test results stored automatically
data output	USB port to external PC, RS -232 to micro λprinter
testing space	260mm in vertical, 150mm in horizontal
dimensions	710mm×210mm×830mm
power supply	AC, 220V/110V, 50 ~ 60Hz, 4A
net weight	90kg

Standard accessories:

No.	Name	Q'ty	No.	Name	Q'ty
1	Host machine	1	7	Mounting screws for indenter	1
2	Standard hardness block for 30N scale	1	8	Flat anvil	1
3	Standard hardness block for 30T scale	1	9	"V "shape anvil	1
4	ball indenter (Φ 1.5875mm)	1	10	Power supply wire	1
5	120°cone diamond indenter	1	11	Screwdriver for indenter mounting	1
6	Manual	1	12	Dust cover	1

SHR-3200A Auto Double Rockwell Hardness Tester

(Rockwell & superficial rockwell hardness)

Feature:

1. The test force are applied via a closed-loop control unit with a load cell, a dc motor and an electronic measurement and control unit replace traditional dead weights. the result is highly accurate measurements at all test loads up to 0.5%.
2. Automated z-axis. just press start key once, entire test process will be finished automatically. regardless of the size of the sample, the position of the sample, the distance between the indenter and sample surface. the sample will be auto-lifted to approach the indenter and finishing testing automatically.
3. Simple plug - and - play tech allows for much more quick and easy installation than traditional weights type machine.
4. Higher precision than handle wheel lifting/dead weights type machines which can be affected by user interaction.
5. Integrated casting body with more wide basement leads to permanent stability.
6. Built in micro-printer and USB port to pc.
7. Horizontal dolphin nose Indenter is suitable also for internal and external testing.
8. Testing on surfaces difficult to reach. testing internal surface of rings and tubes.
9. Wide measuring range with 30 rockwell scales.
10. Suitable for testing of carbon steel, alloy steel, cast iron, non ferrous metal.
11. Automatic lifting of part, pre-loading, loading, dwell, unloading, results will be finished automatically.
12. Test HR value can be converted to the value of HB, HV, HK value.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: GB/T230.2, ISO 6508-2, ASTM E18 and BS EN ISO6508-2.

Technical specification:

Model	SHR-3200A
preload	3kgf (29.4N) 10kgf (98.1N)
total test force	15kgf (147.1N), 30kgf (294.3N), 45kgf (441.3N), 60kgf (588.4N), 100kgf (980.7N), 150kgf (1471N)
scales	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HRL, HRM, HRP, HRR, HRS, HRV HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HR15W, HR30W, HR45W, HR15X, HR30X, HR45X, HR15Y, HR30Y, HR45Y
load dwell duration	2s ~ 50s, can be set and stored
resolution	0.1HR
display	High definition backlight LCD
operation	Full auto
upper/lower limits	setting & alar ming
data statistics	Avg., Max., Min., S, R available
loading method	automatically
memory	Max 400 items of test results stored automatically
data output	USB port to external PC, RS -232 to micro λprinter
throat depth in horizontal	220mm
vertical test height	300mm (customization 430mm)
dimensions	710mm×2 80mm×8 80mm
power supply	AC, 220V/110V, 50 ~60Hz, 4A
net weight	90kgs
gross weight	120kgs

Standard accessories:

No.	Name	Q'ty	No.	Name	Q'ty
1	Host machine	1	7	Standard hardness block for B scale	1
2	Standard hardness block for 30N scale	1	8	Standard hardness block for C sca le	1
3	Standard hardness block for 30T scale	1	9	Mounting screws for indenter	1
4	ball indenter (Φ1.5875mm)	1	10	Flat anvil	1
5	120°cone diamond indenter	1	11	"V "shape anvil	1
6	Standard hardness block for A scale	1	12	Power supply wire	1

PrimeR-560AZ Automatic Rockwell Hardness Tester

Feature:

PrimeR-560AZ: full automatic rockwell hardness tester
PrimeR-560BZ: full automatic surface rockwell hardness tester
PrimeR-560CZ: full automatic double rockwell hardness tester

The primer-560 full automatic rockwell hardness tester series is a new generation of high-tech intelligent products. the shell is cast in one piece and the surface is painted by automobile. It has a novel shape, good reliability, operability and repeatability. It has complete functions, one key operation, automatic measurement and clear and intuitive display. with automatic loading and unloading test force, it can be used to test the hardness of all series of rockwell scales. the hardness tester can be equipped with xy automatic table, automatic programming and automatic marking, which is suitable for end quenching test; it can also be equipped with pc, which can control and measure the hardness tester through multiple computer terminals, and can conduct statistical analysis of data and issue test reports. you can also customize the test report according to the user's requirements.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

Technical specification:

Model	PrimeR -560AZ	PrimeR -560BZ	PrimeR -560CZ
initial test force	10kgf (98.07N)	3kgf	3kgf,10kgf
total test force	60kgf, 100kgf, 150kgf	15kgf,30kgf,45kgf	15kgf,30kgf,45kgf, 60kgf,100kgf,150kgf
indenter	diamond indenter, ϕ1.588mm ball indenter		
hardness scale (PrimeR -560AZ)	HRA, HRB, HRC, HRD, HRE, HRF , HRG, HRH, HRK, HRL, HRM, HRR,HRS, HRV		
hardness scale (PrimeR -560BZ)	HR15N,HR30N,HR45N,HR15T,HR30T,HR45T,HR15W,HR30W,HR45W,HR15X,HR30X,HR45X, HR15Y,HR30Y,HE45Y		
hardness scale (PrimeR -560CZ)	HRA,HRB,HRC,HRD,HRE,HRF,HRG,HRH,HRK,HRL,HRM,HRP,HRR,HRS,HRV,HR1 5N,HR30N,HR45N,HR15T,HR30T,HR45T,HR15W,HR30W,HR45W,HR15X,HR30X,HR45X,HR15Y,HR30Y,HE45Y		
scale convert	HBW, HV, HK, HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T,		
loading method	automatic (loading/dwell/unloading)		
table lift(Z up and down)	automatic		
table move(X Y move)	automatic (optional)		
hardness reading	8 inch touch digital LED screen		
Data output	Built -in printer, RS232 to PC.		
resolution	0.1HR		
dwell time	0~60s		
max. height of specimen	300mm		
throat	170mm		
power supply	AC220V , 50Hz		
dimension(LWH)	machine:520×240×820mm , packing: 650×370×950mm		
weight	net weight: 100kg , gross weight: 135kg		

PrimeR-450D Digital Suuface Rockwell Hardness Tester

Feature:

With novel appearance and menu interface, the measuring device adopts grating sensor and computer control, and the hardness indication value is directly displayed on the LCD screen. It is a mechatronics hardness testing instrument. the machine can automatically convert various hardness parameters, identify the minimum thickness of the specimen and determine the environmental temperature of the test. Built in printer to read relevant test.

Application:

Surface hardened steel, copper, aluminum alloy sheet, strip steel, cemented carbide steel. zinc plating, chromium plating, tin plating, material surface heat treatment and chemical surface treatment of various metal materials. casting and forging parts sample testing and acceptance inspection. fat and cylindrical workpieces, steel and nonferrous metals. automotive and aviation industries · cemented carbide, ceramics, stainless steel. laboratory and workshop.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2, JJG112.

Technical specification:

Model	Prime R-450D
initial t est force	3kgf (29.42 N)
total test force	15kgf(147.1N) 30kgf(294.2N) 45kgf(441.3N)
indenter	diamond indenter, ϕ1.588mm ball indenter
hardness scale	HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
scale convert	HBW, HV, HK, HRA , HRB , HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T,
measure range	HR15N:70 -94 HR30N:42 -86 HR45N:20 -77 HR15T:67 -93 HR -30T:29 -82 HR45T:10 -72
loading method	automatic (loading/dwell/unloading)
hardness reading	Digital LED screen
Data output	Built -in printe r, RS232 to PC.
resolution	0.1 HR
dwell time	0~60s
max. height of specimen	190mm
throat	165mm
power supply	AC220V , 50Hz
dimension (LWH)	machine: 520×2 40×720mm , packing: 650×370×950mm
weight	net weight: 70kg , gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	7	large plane test table	1
2	ϕ1.588mmball indenter	1	8	middle plane test table	1
3	diamond rockwell indenter	1	9	V-shaped test table	1
4	hardness block HR 30T	1	10	weight A,B,C	3
5	hardness block HR 15N 30N	2	11	anti-dust cover	1
6	cable	1	12	manual	1

PrimeR-1500D Digital Rockwell Hardness Tester

Feature:

With novel appearance and menu interface, the measuring device adopts grating sensor and computer control, and the hardness indication value is directly displayed on the LCD screen. It is a mechatronics hardness testing instrument. the machine can automatically convert various hardness parameters, identify the minimum thickness of the specimen and determine the environmental temperature of the test. Built in printer to read relevant test.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2

Technical specification:

Model	Prime R-150 0D
initial test force	10kgf (98.07N)
total test force	60kgf (558.4N), 100 kgf (980.7N), 150 kgf (1471N)
indenter	diamond indenter, ϕ1.588mm ball indenter
hardness scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH , HRK, HRL, HRM, HRR,
scale convert	HBW, HV, HK, HRA, HRB, HRC, HRD, HRF, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T,
measure range	HRA:20 -88 HRB:20 -100 HRC:20 -70 HRD:40 -77 HRE:70 -94 HRF:60 -100 HRG:30 -94 HRH:80 -100 HRK:40 -100 HRL:100 -120 HRM:85 -110 HRR:114 -125
loading method	automatic (loading/dwell/unloading)
hardness r eading	Digital LED screen
Data output	Built-in printer, RS232 to PC.
resolution	0.1HR
dwell time	0~60s
max. height of specimen	190mm
throat	165mm
power supply	AC220V, 50Hz
dimension (LWH)	machine: 520×240×720mm, packing: 650×370×950mm
weight	net weight: 70kg, gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	7	large plane test table	1
2	ϕ1.588mmball indenter	1	8	middle plane test table	1
3	diamond rockwell indenter	1	9	V-shaped test table	1
4	hardness block 20~70 HRC	2	10	weight A,B,C	3
5	hardness block 80~100 HRB	1	11	anti-dust cover	1
6	cable	1	12	manual	1

PrimeR-1500M Manual Rockwell Hardness Tester

Feature:

PrimeR-1500m manual rockwell hardness tester is a popularly-used hardness testing instrument to measure the rockwell hardness of the materials. no need for power supply, the speed of the test force loading is regulated by the buffer and the test force is regulated by the load-change hand wheel. It has easy operation and stable performance, therefore it is widely used.lcd screen can show time.data can output to computer and printer.

Application:

Suitable for quenched steel, tempered steel, annealed steel, cold and hard casting, malleable cast iron, hard alloy steel, aluminum alloy, copper alloy, bearing steel etc.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2

Technical specification:

Model	Prime R-1500M
initial test force	10kg f (98.07N)
total test force	60kgf (558.4N), 100 kgf (980.7N), 150 kgf (1471N)
indenter	diamond indenter, ϕ1.588mm ball indenter
hardness scale	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK
scale convert	HV, HB
measure range	HRA:20 -88 HRB:20 -100 HR C:20-70 HRD:40 -77 HRF:60 -100 HRG:30 -94 HRH:80 -100 HRK:40 -100
loading method	manual
hardness reading	Digital LED screen
resolution	0.1 HR
dwell time	/
max. height of specimen	17 0mm
throat	135 mm
power supply	AC220V , 50Hz
dimension (LWH)	machine: 520× 215×700mm , packing: 650×370×950mm
weight	net weight: 70kg , gross weight: 100kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	7	large plane test table	1
2	ϕ1.588mmball indenter	1	8	middle plane test table	1
3	diamond rockwell indenter	1	9	V-shaped test table	1
4	hardness block 20~70 HRC	3	10	Weight a,b,c	3
5	hardness block 80~100 HRB	1	11	anti -dust cover	1
6	hardness block HRA	1	12	manual	1

Product Introduction

Digital brinell hardness tester

SHB-3000D

SHB-3000M

SHB-3000X

SHB-3000D Digital Brinell Hardness Tester

Feature:

SHB-3000D electronic brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. the instrument adopts the motorized test force application without weights, and uses 0.5‰ accuracy compression sensor to feedback and the cpu control system to automatically compensate the test force lost during the test.the test force and dwell time can be directly set on the touch keyboard with reliable repeatability, precise reading and easy operation. It can be equipped with V1.0 Brinell image automatic measuring system.

Application:

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. Also suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Standard: ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2

Technical specification:

Model		SHB-3000D
Test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 122 6N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test range		3.18 ~ 653HBW
Hardness reading		check hardness table
Microscope		20× reading microscope
Reading resolutiion		5μm
Dwell time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power supply		AC220V，50Hz
Dimension		Machine size 545×235×755mm ，packing size: 650×435× 1025mm
Weight		Net Weight: 130kg ，Gross Weight: 160kg

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	instrument main body	1	8	20× reading microscope	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3	9	200 large plane test table	1
3	60mm small plane test tabl e	1	10	80 v-shaped test table	1
4	hardness block 150~250 HBW 10/3000	1	11	hardness block 150~250 HBW 5/750	1
5	fuse 2A	2	12	power cable	1
6	anti-dust cover	1	13	brinell hardness table	1
7	manual	1			

SHB-3000M Digital Brinell Hardness Tester

Feature:

SHB-3000M digital brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. the instrument adopts the motorized test force application without weights, and uses 0.5‰ accuracy compression sensor to feedback and the cpu control system to automatically compensate the test force lost during the test. with external digital measuring microscope, no need for checking the table or inputting the diagonal of the indentation, it can directly show the hardness value, test force, dwell time and indentation length. As long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen, with precise reading and easy operation.

Application:

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. Also suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Standard: ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2

Technical specification:

Model		SHB-3000M
Test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test rang e		3.18 ~ 653HBW
Hardness reading		LCD Display
Hardness resolution		0.01HBW
Microscope		20× digital measuring microscope
Effective Field of View		6mm
Resolution		1μm
Dwell time		0~60s
Max. Height of specimen		205mm
Throat		13 0mm
Power supply		AC220V , 50Hz
Dimensio n		545×235×755mm , packing size: 650×435×1025mm
Weight		Net Weight: 1 30kg , Gross Weight: 160kg

Standard accessories:

NO.	Name	Qty	NO.	Name	Qty
1	instrument main body	1	7	20× digital measuring microscope	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3	8	large plan e test table	1
3	small plane test table	1	9	v-shaped test table	1
4	hardness block 150~250 HBW 10/3000	1	10	Hardness Block 150~250 HBW 5/750	1
5	fuse 2A	2	11	Power Cable	1
6	anti -dust cover	1	12	usage instruction manual	1

SHB-3000X Digital Brinell Hardness Tester

Feature:

SHB-3000X digital brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. the instrument adopts the motorized test force application without weights, and uses 0.5‰ accuracy compression sensor to feedback and the cpu control system to automatically compensate the test force lost during the test. the indentation can be directly measured through the digital measuring eyepiece, and it can intuitively show the test force, indentation length, dwell time, test number, date and time on the large screen. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. test results can be saved for checking or be printed out by the built-in printer, and with RS232 interface for connecting to the computer. according to the client's requirement, it can be equipped with video measuring device and ccd image automatic measuring system.

Application:

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc.also suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Standard: ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2

Technical specification:

Model		SHB-3000X
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18 ~ 653HBW
Hardness Reading		LCD display
Hardness Resolution		0.01HBW
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS HR15T, HR30T, HR45T, HS
Data Output		built -in printer, RS232 interface
Microscope		20× digital measuring eyepiece
Effective Field of View		6mm
Resolution		1μm
Dwell Time		0~60s
Max. Height of Specimen		21 5mm
Throat		135mm
Dimension (LWH)		machine size:545×235×790mm , packing size: 650×435×1060mm
Weight		Net Weight: 130kg , Gross Weight: 160kg
Power Supply		AC220V , 50Hz

Standard accessories:

NO.	Name	Qty	NO.	Name	Qty
1	Instrument Main Body	1	7	20× Digital Measuring Eyepiece	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3	8	Large Plane Test Table	1
3	Small Plane Test Table	1	9	V-shaped Test Table	1
4	Hardness Block 150~250 HBW 10/3000	1	10	Hardness Block 150~250 HBW 5/ 750	1
5	Fuse 2A	2	11	Power Cable	1
6	Anti -dust Cover	1	12	Usage Instruction Manual	1

SHB-3000X-LCD Video Digital Brinell Hardness Tester

Feature:

SHB-3000X+LCD video digital brinell hardness tester is a unified product combining the precise mechanical structure and the load cell control system. the instrument adopts the motorized test force application without weights, and uses 0.5‰ accuracy compression sensor to feedback and the cpu control system to automatically compensate the test force lost during the test. the indentation can be directly measured through the digital measuring eyepiece, and it can intuitively show the test force, indentation length, dwell time, test number, date and time on the large screen. as long as press the eyepiece button after measuring the indentation length, it can automatically get the hardness value and shows on the screen. Test results can be saved for checking or be printed out by the built-in printer, and with rs232 interface for connecting to the computer. according to the client's requirement, it can be equipped with video measuring device and ccd image automatic measuring system.

Application:

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. aso suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Standard: ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2

Technical specification:

Model		SHB-3000X
Test Force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
Test Range		3.18 ~ 653HBW
Hardness Reading		LCD display
Hardness Resolution		0.01HBW
Conversion Scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS HR15T, HR30T, HR45T, HS
Data Output		built-in printer, RS232 interface
Microscope		20× digital measuring eyepiece
Effective Field of View		6mm
Resolution		1μm
Dwell Time		0~60s
Max. Height of Specimen		215mm
Throat		135mm
Dimension (LWH)		machine size:545×235×790mm ，packing size: 650×435×1060mm
Weight		Net Weight: 130kg ，Gross Weight: 160kg
Power Supply		AC220V，50Hz

Standard accessories:

NO.	Name	Qty	NO.	Name	Qty
1	Instrument Main Body	1	7	20× Digital Measuring Eyepiece	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3	8	Large Plane Test Table	1
3	Small Plane Test Table	1	9	V-shaped Test Table	1
4	Hardness Block 150~250 HBW 10/3000	1	10	Hardness Block 150~250 HBW 5/ 750	1
5	Fuse 2A	2	11	Power Cable	1
6	Anti-dust Cover	1	12	Usage Instruction Manual	1

SHB-3000XZ Digital Brinell Hardness Tester

- ◆Install 3 indenters
- ◆Built in 2 lens
- ◆Automatic switching between the objective and the indenter

Feature:

SHB-3000XZ three indenters digital brinell hardness tester adopts precise structure design and the load of test force is controlled by the sensor, which makes the whole structure compact and loading of test force stable and exact. the test process is controlled by cpu, using automatic switching between the objective and the indenter. the location of switching adopts mechanical and electronic double matching, makes the location precision more high. the instrument has 10 steps test force and 13 kinds of Brinell testing scale for arbitrary selection; with three indenters and two objectives, all can be used for measurement, automatic recognition and shifting between the objectives and the indenter; pre-set the dwell time of test force and regulate the luminosity of light source; automatically display the testing indentation length, hardness value and testing numbers; conversion scales of different kinds of hardness; Test results can be saved for checking or be printed out by the built-in printer, and with RS232 interface for connecting to the computer. according to the client's requirement, it can be equipped with video measuring device and ccd image automatic measuring system.

Standard: ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2

Technical specification:

model	SHB-3000XZ
KGF	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
test range	3.18 ~653HBW
loading method	automatic (loading/dwell/unloading)
hardness reading	LCD display
hardness resolution	0.01HBW
conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS
data output	built-in printer, RS232 interface
shifting between objective and indenter	automatic recognition and shifting (three indenters, two objectives)
total magnific ation	20× ， 40× (eyepiece 20X, objective 1X and 2X)
effective field of view	20X: 6mm，40×: 3mm
resolution	1.25μm ， 0.625μm
dwell time	0~60s
max. height of specimen	230mm
throat	150mm
power supply	AC220V，50Hz
dimension	535×260×890mm，packing dimension: 820×460×1170mm
weight	net weight: 150kg ，gross weight: 180kg

Standard accessories:

Name	Qty	Name	Qty
instrument main body	1 set	20× digital measuring eyepiece	1 pc
1×, 2× objective	2 pcs	ϕ2.5mm, ϕ5mm, ϕ10mm ball indenter	3 pcs
60mm small plane test table	1 pc	200mm large plane test table	1 pc
80mm v-shaped test table	1 pc	power cable	1 pc
hardness block 150~250 HBW 10/3000	1 pc	hardness block 150~250 HBW 5/750	1 pc
fuse 2 A	2 pcs	anti -dust cover	1 pc
manual	1 copy		

SHB-3000XZM Digital Brinell Hardness Tester

- Install 3 indenters
- Built in 2 lens
- Automatic switching between the objective and the indenter
- Touch screen

Feature:

SHB-3000XZM three indenters digital brinell hardness tester adopts precise structure design and the load of test force is controlled by the sensor, which makes the whole structure compact and loading of test force stable and exact. all the parameters can be showed and set on the touch screen with easy operation. the test process is controlled by cpu, using automatic switching between the objective and the indenter. the location of switching adopts mechanical and electronic double matching, makes the location precision more high. the instrument has 10 steps test force and 13 kinds of brinell testing scale for arbitrary selection; wth three indenters and two objectives, all can be used for measurement, automatic recognition and shifting between the objectives and the indenter; pre-set the dwell time of test force and regulate the luminosity of light source; automatically display the testing indentation length, hardness value and testing numbers; conversion scales of different kinds of hardness; test results can be saved for checking or be printed out by the built-in printer, and with RS232 interface for connecting to the computer. according to the client's requirement, it can be equipped with video measuring device and ccd image automatic measuring system.

Standard: ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2

Technical specification:

model		SHB-3000XZM
kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf	
N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N	
test range		3.18 ~ 653HBW
loading method		automatic (loading/dwel l/unloading)
hardness reading		touch screen display
conversion scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS
data output		built-in printer, RS232 interface
shifting between objective and indenter		autom atic recognition and shifting (three indenters, two objectives)
total magnification		20× , 40×
resolution		1.25μm , 0.625μm
dwell time		0~60s
max. height of specimen		260mm
throat		150mm
power supply		AC220V, 50Hz
dimension		535×260×890mm , packing dimension: 820×460×1170mm
weight		net weight: 150kg , gross weight: 180kg

Standard accessories:

Name	Qty	Name	Qty
instrument main body	1 set	20× digital measuring eyepiece	1 pc
1×, 2× objective	2 pcs	ϕ2.5mm, ϕ5mm, ϕ10mm ball indenter	3 pcs
small plane test table	1 pc	large plane test table	1 pc
v-shaped test table	1 pc	power cable	1 pc
hardness bloc k 150~250 HBW 10/3000	1 pc	hardness block 150~250 HBW 5/750	1 pc
fuse 2 A	2 pcs	anti-dust cover	1 pc
manual	1 copy		

SHB-3000XZT Intelligent Brinell Hardness Tester

- ◆Fully automatic with 3 indenters
- ◆Built in 2 lens
- ◆Automatic switching between the objective and the indenter
- ◆Touch screen computer with measuring software, win7 system

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Feature:

SHB-3000XZT, test process is controlled by cpu, using automatic switching between the objective and the indenter. the location of switching adopts mechanical and electronic double matching, makes the location precision more high. with built-in panel computer, it makes the parameter setting and results show directly with easy operation, it also avoids the stimulation and visual fatigue of the light source of the eyepiece, and reduces the measuring error. after select the scale, the instrument will automatically select the indenter and objective, the test table rises automatically and then back to the focusing position after loading the test force, it shows the clear image of the indentation and automatically measures, which realizes the fully automation of the brinell test.

- ◆This instrument has 10 level of test force, 13 brinell hardness test scales, suitable for different kinds of metal materials;
- ◆With three indenters and two objectives, no need to change the indenters when testing different samples; with rigorous optical structure and high magnification, it makes the indentation observed clearly;
- ◆According to the selected scale, with automatic shifting the instrument will automatically select the corresponding indenter and objective for measurement;
- ◆He automatic lifting test table adopts precise structure with high stability, it automatically rises when start measuring, and then back to the focusing position for measuring after loading the test force, which realizes the one key automation;
- ◆It adopts the integrated design of hardness tester and panel computer; with windows 7 operating system, it has all functions of computer;
- ◆With ccd image measuring system, touch screen operating and displaying, it can preset the test force dwell time, adjust intensity of light source, show the indentation length, hardness value, test range and test number etc.;
- ◆The software has the function of calibration, manual fine tuning and set up and down limit etc., which ensures the accuracy of measurement;
- ◆Conversion scales of different kinds of hardness;
- ◆Test result can be saved as word or excel report and can be printed out;
- ◆With usb port, vga interface and network interface, it can connect to the internet and other devices for more optional functions.

Standard: ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2

Technical specification:

model		SHB-3000XZT
test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N, 9807N, 14710N, 29420N
test range		3.18 ~ 653HBW
loading method		automatic (loading/dwell/unloading)
hardness reading		indentation displaying and automatic measuring on 12" touch screen
computer		CPU: Intel I 5, Memory: 8G, SSD: 128 G, 3USB,1VGA,1LAN
CCD		3.0M pixel
conversion scale		HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HBS, HBW
shifting between objective and indenter		automatic recognition and shifting (three indenters, two objectives)
total magnification		20× , 40× (eyepiece 20X, objective 1X and 2X)
effe ctive field of view		1× : 6mm, 2× : 3mm
resolution		4.6μm , 2.3μm
dwell time		0~95s
max. height of specimen		260mm
throat		150mm
power supply		AC220V, 50Hz
dimension		690*360*1000 mm, packing dimension: 830*490*1300 mm
weight		net weight: 200kg, gross weight: 230kg

SHB-601M Small Load Brinell Hardness Tester

Feature:

SHB-601M digital brinell hardness tester is a high-tech and new product combining the optics, mechanic and electrics features, with a novel and pleasing appearance, direct-viewing display, stable performance and good reliability, hence, it is an ideal instrument for the testing of low load brinell hardness. the instrument has 8 steps test force and 9 kinds of brinell testing scale for arbitrary selection; with 2 sets of objectives 5x and 10x both can be used for measurement; automatic shifting between the objectives and the indenter; pre-set the dwell time of test force and regulate the luminosity of light source; automatically display the testing indentation length, hardness value and testing numbers; the test result can be printed out by the built-in printer and with rs232 interface for connecting to the computer; according to the client's requirement, it can be equipped with video measuring device and ccdimage automatic measuring system.

Application:

Suitable for cast iron, steel products, nonferrous metals and soft alloys etc. also suitable for some nonmetal materials such as rigid plastics and bakelite etc.

Standard: ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2

Technical specification:

Model		SHB-601M
test force	kgf	1kgf, 5kgf, 6.25kgf, 10kgf, 15.625kgf, 30kgf, 31.25kgf, 62.5kgf
	N	9.807N, 49.03N, 61.29N, 98.07N, 153.2N, 294.2N, 306.5N, 612.9N
test range		3.18 ~ 653HBW
test range		3.18 ~ 653HBW
data output		built-in printer ， rs232 interface
loading method		automatic (loading/dwell/unloading)
switch objective and indenter		automatic shifting
objective		5× ,10×
eyepiece		10× digital microscope eyepiece
total magnification		50× ,100× (effective field of view 50×: 1.6mm ， 100 ×: 0.8mm)
resolution		0.5μm ,0.25μm
dwell time		0~60s
light source		cold light source
max. height of specimen		185mm
throat		130mm
power supply		AC220V， 50Hz
dimension(LWH)mm		530×280×630 ， packing size: 620×450×740
weight		net weight: 35kg ， gross weight: 47kg

Standard accessories:

No.	Name	Q'ty	No.	Name	Q'ty
1	Instrument main body	1	9	10 X eyepiece	1
2	5×、10 × Objective	2	10	Φ1mm, Φ2.5mm, Φ5mm ball indenter	3
3	Φ180mm Large plane test table	1	11	Φ40mm V-shaped test table	1
4	Screw driver	1	12	Level	1
5	Horizontal regulating screw	4	13	Hardness block 90~120 HBW 2.5/62.5	1
6	Hardness Block180~220 HBW 1/30	1	14	Fuse 1A	2
7	Power Cable	1	15	Inner hexagon spanner 2.5mm	1
8	Anti-dust cover	1	16	Usage instruction manual	1

Electronic Brinell Hardness Tester

SHB-3011D

SHB-3011X

SHB-3011S

SHB-3011D Electronic Brinell Hardness Tester

Feature:

The SHB-3011D electronic brinell hardness tester adopts advanced electronic sensor loading technology. through the closed-loop control system, the cpu controls the sensor to collect signals. the stepping motor automatically loads and unloads the test force, and can automatically compensate the test force to ensure the force value accurately, the indication is more stable. after the indentation is measured through the eyepiece, the length of the indentation is directly input to obtain the hardness value, which improves the working efficiency. at the same time, it is equipped with an emergency stop device, which complies with the eu ce safety standard, has more reliable operation and safety, and has high cost performance. It is widely used in factory workshops, universities, research institutes, laboratories, etc.

Application:

It is suitable for measure cast iron, steel, nonferrous metals, alloys, especially for soft metals such as pure aluminum, lead, tin, etc. also can be used to measure the hardness of some non-metallic materials such as hard plastics, bakelite and so on.

Standard: ISO 6506, ISO 6507, ASTM E10-12, ASTM E-384, JIS Z2243, JJG150, GB/T 231.2

Technical specification:

Model		SHB-3011D
Test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 24 52N, 4903N, 7355N,9807N, 14710N, 29420N
Hardness 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
Test range		8 ~ 650HBW
Load control		Auto load/hold/unload
Hardness reading		Microscope measure size and calculate by LED monitor.
Data out		Printer: test time, average, max, min, max error.
Microscope		20× reading microscope
Reading resolutiion		5μm
Dwell time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power supply		AC220V , 50Hz
Dimension Machine size		520×210×755mm , packing size: 650×435×1025mm
Weight Net Weight:		120kg , Gross Weight: 160kg

Standard accessories:

No.	Name	Qty
1	instru ment main body	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3
3	20× reading microscope	1
4	hardness block 150~250 HBW 10/3000	1
5	hardness block 150~25 0 HBW 5/750	1
6	manual 1	1

No.	Name	Qty
7	60mm small plane test table	1
8	200 large plane test table	1
9	80 v-shaped test table	1
10	fuse 2A	2
11	anti -dust cover	1
12	power cable	1

SHB-3011X Electronic Brinell Hardness Tester

Feature:

Touch screen brinell hardness tester adopts intelligent programming and photoelectric sensing technology. through independent selection of test conditions, the test method, upper and lower limits, indentation length, hardness value, conversion value, test force, holding time and measurement times can be displayed on the 5.6 inch touch type multi-function display screen, and the year, month, day and test results can be input, and the measurement data printer can be built-in or connected with the computer through the data interface. the optical system adopts high-speed led optical measurement, with high image clarity and adjustable brightness. the hardware system adopts advanced electronic sensor loading technology. Through the closed-loop control system, the cpucontrols the sensor to collect the signal, the stepper motor automatically loads and unloads the test force, and can automatically compensate the test force, so as to ensure that the force value is more accurate and the indication value is more stable. at the same time, it is equipped with emergency stop device, which meets the ce safety standard of eu. It has humanized operability, more reliable stability and safety.

Standard: ISO 6506, ISO 6507, ASTM E10-12, ASTM E-384,JIS Z2243, JJG150, GB/T 231.2

Technical specification:

Model		SHB-3011 X
Test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2452N, 4903N, 7355N ,9807N, 14710N, 29420N
Hardness 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
Test range		8 ~ 650HBW
Load control		Auto load/hold/unload
Hardness reading		Auto calculate and measure result display on touch screen
Data out		Built-in- printer, or connect PC with RS232
Magnification		20× lens
Reading resolutiion		5μm
Dwell time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power supply		AC220V, 50Hz
Dimension Machine size		520×210×755mm , packing size: 650×435×1025mm
Weight Net Weight:		120kg , Gross Weight: 160kg

Standard accessories:

No.	Name	Qty
1	instrument main body	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3
3	20X digital microscope	1
4	hardness block 150~250 HBW 10/3000	1
5	hardness block 150~250 HBW 5/750	1
6	manual 1	1

No.	Name	Qty
7	60mm small plane test table	1
8	200 large plane test table	1
9	80 v-shaped test table	1
10	fuse 2A	2
11	anti-dust cover	1
12	power cable	1

SHB-3011S Electronic Brinell Hardness Tester

Feature:

The electronic brinell hardness tester adopts advanced electronic sensor loading technology. through the closed-loop control system, the cpu controls the sensor to collect signals. the stepping motor automatically loads and unloads the test force, and can automatically compensate the test force to ensure the force value accurately, and the indication is more stable. equipped with moveable measurement table and computer software measurement system, it has high measure speed and more measurement functions, which improves the working efficiency. at the same time, it is equipped with an emergency stop device, which complies with the eu ce safety standard, has more reliable operation and safety, and has high cost performance. It is widely used in factory workshops, universities, research institutes, laboratories, etc.

Standard: ISO 6506, ISO 6507, ASTM E10-12, ASTM E-384,JIS Z2243, JJG150, GB/T 231.2

Technical specification:

Model		SHB-3011 S
Test force	kgf	62.5kgf, 100kgf, 125kgf, 187.5kgf, 250kgf, 500kgf, 750kgf, 1000kgf, 1500kgf, 3000kgf
	N	612.9N, 980.7N, 1226N, 1839N, 2 452N, 4903N, 7355N,9807N, 14710N, 29420N
Hardness 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
Test range		8 ~ 650HBW
Load control		Auto load/hold/unload
Hardness reading		With computer, software, CCD.
Data out		Software, and printer
Magnification		20× lens
Reading resolutiion		5μm
Dwell time		0~60s
Max. Height of Specimen		220mm
Throat		135mm
Power supply		AC220V, 50Hz
Dimension Machine size		520×210×755mm , packing size: 650×435×1025mm
Weight Net Weight:		120kg , Gross Weight: 160kg

Standard accessories:

No.	Name	Qty
1	instrument main body	1
2	Φ2.5mm, Φ5mm, Φ10mm Ball Indenter	3
3	Software, CCD,	1
4	hardness block 150~250 HBW 10/3000	1
5	hardness block 150~250 HBW 5/750	1
6	manual 1	1

No.	Name	Qty
7	60mm small plane test table	1
8	200 large plane test table	1
9	80 v-shaped test table	1
10	fuse 2A	2
11	anti-dust cover	1
12	power c able	1

SBRV-100E Multifunction Hardness Tester

Brinell vickers rockwel hardness

Feature:

SBRV-100E brinell rockwell & vickers hardness tester is a multi-functional hardness tester with brinell, rockwell &vickers three test modes and 7 level of test forces, which can test several kinds of hardness. test force loading, dwell, unload adopts automatic system, widely used and easy to operate, therefore it is the popular machine for industrial enterprises and scientific research institutes.the universal version enables the execution of rockwell standard (60,100,150kgf), brinell (31.25-62.5-187.5kgf) and vickers tests (30,100kgf). the microscope together with the instrument allows fast and reliable measurements of brinell and vickers indentations both in the analogue and digital version. the digital version permits to determine the hardness value in the fast and easy way.

Standard: ISO 6508，ASTM E-18，JIS Z2245，GB/T 230.2ISO 6506，ASTM E10-12，JIS Z2243，GB/T 231.2, ISO 6507，ASTM E92，JIS Z2244，GB/T 4340.2

Technical specification:

Type	Rockwel l	Brinell	Vickers
Preliminary test force(N)	98	98	98
Testing forces (kgf)	60, 100, 150kgf	30, 31.25, 62 .5, 100, 187.5kgf	30, 100kgf
Hardness test (N)	588.2, 980.7, 1471N	294.2, 306.5, 612.9, 980.7, 1839N	294.2, 980.7N
Resolution	0.5HR	4μm	2μm
Indente r	diamond indenterϕ1.588mm	2.5mm, ϕ5mm ball indenter	diamond indenter
Value reading	dial	check hardness table	check hardness table
Dwell time	2~60s	2~60s	2~60s
Magnification of microscope	/	37.5X	75X
Max height of specimens(mm)	175mm	100mm	115mm
Throa t	165mm		
Power supply	AC220V 50/60Hz		
Net weight(kg)	90		
Dimensions(mm)	520×240×700mm ， packing dimension: 650×370×950mm		
Weight	Net Weight: 80kg ， Gross Weight: 105kg		

Standard accessories:

No.	Name	Qty	No.	Name	Qty
1	Instrument Main Body	1	14	Diamond Rockwe ll Indenter	1
2	Diamond Vickers Indenter	1	15	ϕ1.588mm, ϕ2.5mm, ϕ5mmBall Indenter	3
3	Slipped Test Tabl e	1	16	Middle Plane Test Table	1
4	Large Plane Test Table	1	17	V-shaped Test Table	1
5	15 × Digital Measuring Eyepiece	1	18	2.5×, 5× Objective	2
6	Microscope System (include the inside light and outside light)	1	19	Hardness Block 150~250 HBW 2.5/187.5	1
7	Hardness Block 60~70 HRC	1	20	Hardness Block 20~30 HRC	1
8	Hardness Block 80~100 HRB	1	21	Hardness Block 700~800 HV30	1
9	Weights 0, 1, 2, 3, 4	5	22	Power Cable	1
10	Fuse 2A	2	23	Horizontal Regulating Screw	4
11	Level	1	24	Spanner	1

SBRV-100D Digital Multifunction Hardness Tester

Brinell vickers rockwel hardness

Feature:

Digital micro brinell, rockwell and vickers hardness tester is a testing machine which integrate the technology of optics, mechanics and computer. it features new appearance, complete functions, easy operation, visual display and stable performance. it can fulfill brinell, rockwell and vickers testing requirements. with nearly 7 grade testing force, it can meet many kinds of needs of hardness testing. automatic convert for the loading, dwell and unloading of testing force. the operation is very convenient and quick. the main functions as follows:

1.Available for brinell, rockwell and Vickers testing
2.Conversion between each hardness scale.
3.Setting for hardness dwell time
4.Changeable for year, month and date
5.RS232 serial communication, offers extend functions for users.
this machine offers data save function. users can browse the testing page and print out the testing result.

Standard: ISO 6508, ASTM E-18, JIS Z2245, GB/T 230.2ISO 6506, ASTM E10-12, JIS Z2243, GB/T 231.2, ISO 6507, ASTM E92, JIS Z2244, GB/T 4340.2

Technical specification:

Type	Rockwell	Brinell	Vickers
Preliminary test force(N)	98	98	98
Testing Forces (kgf)	60, 100, 150kgf	30,31.25, 62.5,100,187.5kgf	30, 100kgf
Hardness test (N)	588.4, 980.7, 1471N	294.2,306.5,612.9,980.7,1839N	294.2, 980.7N
Press head	diamond indenter,	φ2.5mm, φ5mm ball indenter	diamond indenter
Scale	HRA, HRB, HRC, HRD	HBW1/30 , HBW2.5/31.25,	HV30, HV100
Conversion scale	HV, HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T,		
Accuracy	±2.0%(98N) ±1.0%	±1.0%	±1.0%
Resolution	0.1HR	0.5μm	0.25μm
Magnification	/	37.5X	75X
Max height of specimens	175 / 400mm(optional)	10 0 /330mm (optional)	115 / 345mm (optional)
Throat	165mm		
Loading method	automatic (loading/dwell/unloading)		
Hardness reading	LCD screen display		
Data output	built -in printer , RS232 interface		
Load dwell duration :	0 ~ 60s can be set.		
Dimensions	(L×W×H) 520×240×740mm , packing dimension: 650×370×980mm		
Weight :	Net Weight: 80kg , Gross Weight: 105kg		
Power supply	AC220V±5% , 50 ~ 60Hz		

Standard accessories:

NO.	Name	Qty	NO.	Name	Qty
1	instr ument main body	1	14	diamond rockwell indenter	1
2	diamond vickers indenter	1	15	Φ1.588mm, φ2.5mm, φ5mm ball indenter	3
3	slipped test table	1	16	middle plane test table	1
4	large plane test table	1	17	V-shaped test table	1
5	15× digital measuring evep iece	1	18	2.5×, 5× Objective	2
6	microscope system (include the inside	1	19	hardness block 150~250 HBW 2.5/187.5	1
7	hardness block 60~70 HRC	1	20	hardness block 20~30 HRC	1
8	hardness block 80~100 HRB	1	21	hardness block 700~80 0 HV30	1
9	weights 0, 1, 2, 3, 4	5	22	power cable	1
10	fuse 2A	2	23	horizontal regulating screw	4
11	level	1	24	spanner	1
12	screw driver	1	25	anti -dust cover	1
13	usage instruction manual	1			

SBRV-200D Digital Multifunction Hardness Tester

Brinell vickers rockwel hardness

Digital micro brinell,rockwell and vickers hardness tester is a testing machine which integrate the technology of optics, mechanics and computer. It features new appearance, complete functions, easy operation, visual display and stable performance. It can fulfill brinell, rockwell and vickers testing requirements. it can meet many kinds of needs of hardness testing.

SUNPOC

Feature:

1. Equipped brinell, rockwell, vickers test methods.
2. Touch-screen interface, easy to operate, in any language version.
3. Boot with no need to install weights and no installation.
4. Electric load closed-loop control, automatic load is applied.
5. Test force automatic correction, each file is automatically compensated force, improve the accuracy of the force a number of levels.
6. According to kinds of standard hardness automatic conversion.
7. Rockwell automatically correct curvature radius.
8. Set a password to protect setup parameters, more samples and testing information.
9. Measuring u disk to save data to excel format for easy editing and processing.
10. Modular design for easy maintenance.

Standard: ISO 6508，ASTM E10-12，ASTM E-18，JIS Z2245, JIS Z2243，JJG112 ASTM E92，JIS Z2244，GB/T 4340.2, GB/T 230.2ISO 6506，GB/T 231.2, ISO 6507

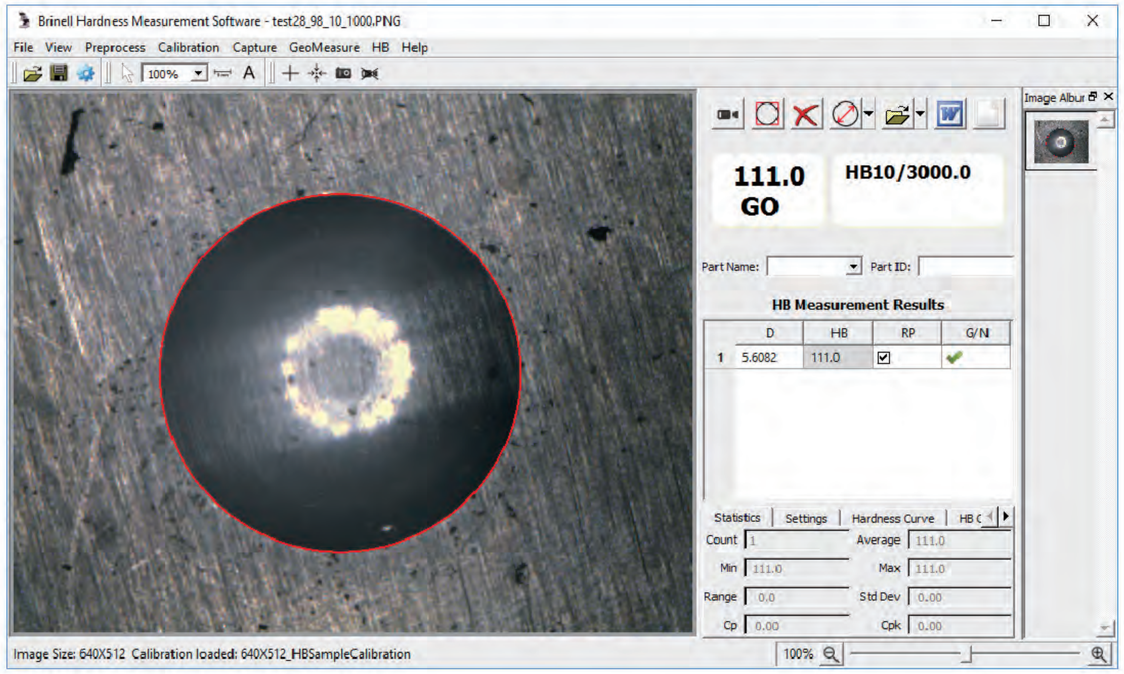
Technical specification:

Test Force		5 ~ 187.5kgf
Force error		< 0.5%
Brinell	Scale	HBW1/5,HBW2.5/62.5, HBW1/10, HBW2.5/15.625, HBW1/30 HBW2.5/31.25, HBW2.5/62.5, HBW10/1000, HBW5/125 HBW2.5/187.5
	Test force	5kgf, 10 kgf, 15.625 kgf, 30 kgf, 31.25 kgf, 62.5 kgf, 125 kgf, 187.5 kgf
	Indication accuracy	8-650HB (δ/%):±2.5
	Repeatability	8-650HB (Hcf/%):≤3.0
Rockwell	Scales	HRA , HRB, HRC, HRD , HRE, HRF, HRG, HRH, HRK HRL, HRM , HRP, HRR , HRS, HRV
	Test force	60 kgf, 100 kgf, 150kgf
	Indication accuracy	±0.1HR
	Repeatability	0.5HR
Vickers	Scales	HV5 ,HV10, HV20, HV30, HV40, HV50, HV60, HV80, HV100, HV120
	Test force	5 kgf , 10 kgf , 20 kgf , 30 kgf , 40 kgf , 50 kgf , 60 kgf , 80 kgf , 100 kgf , 120 kgf
	Indication accuracy	±2
	Repeatabili ty	≤2.5
The smallest measurement unit		0.625μm
Holding Time		0 ~ 60s
Maximum specimen height		220mm for Rockwell testing , 170mm for Brinell and Vickers hardness testing
Head - wall distance		200mm
Hardness test range		Brinell : 8 ~ 650 Rockwell : 20 ~ 100 Vickers : 8 ~ 2900
Objective lens		2.5X，5X (Optional for 10X , 20X)
Hardness read		Touchable LCD display , USB Flash Disk
Power supply		AC220V，50 ~ 60Hz
Dimensions		500mm×260mm×750mm
Weight		70kg

Standard accessories:

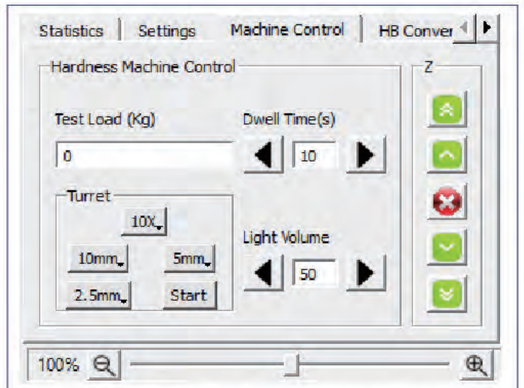
No.	Name	Q'ty	No.		Q'ty
1	Host	1	7	Brinell ϕ2.5mm, ϕ5mm, ball indenter	1 each
2	Vickers indenter	1	8	Rockwell 1.588 carbide ball indenter	1
3	Rockwell diamond indenter	1	9	Lens 2.5 X, 5X	1 each
4	Hardness block	5 pcs	10	Exterior lighting	1
5	Power line	1	11	Large, medium, V -test sets	1 each
6	Sliding t est sets	1	12	Operation manual	1

IVsion-HB Brinell Hardness Measurement Softwar



Function and characteristics:

1. measuring and control system of the tester adopts high-resolving power image device to display indentation clearly on the screen of computer.
2. automatic measurement: automatically capture the indentation and measure the diameter and calculate the corresponding value of brinell hardness;
3. manual measurement: manually measure the indentation, the system calculates the corresponding value of brinell hardness;
4. include all functions of image processing and measurement system, such as image capture, calibration, image processing, geometric measurement, annotation, photo album management and fixed times print etc;
5. support win xp, win7 system ect.
6. hardness value can be automatically exchanged with many methods. convert hb to other hardness value such as hv, hr etc;
7. it can adjust contrast and brightness etc. of indentation image.
8. it can dispose image file and data file to open, memory, print ect.
9. test report: automatically generate the report of word or excel format, the report templates can be modified by the user.
10. it can look into the data file and image file at any time, data file is printed to adopt table format and curvilinear format.
11. besides standard accessories of original base instrument,
12. automatic calibration: the system has provided a calibration function, convenient for the indentation size measurement and may calibrate at any time. with a calibration grid, the system can automatically implement full calibration for calibration grid intersection points to eliminate measurement error caused by lens distortion.



Machine control: If the software comes with machine control version, the Machine Control table will show at the lower right interface, as shown below

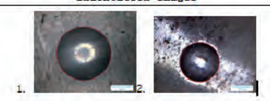
Brinell Hardness (HB) Test Results

Submitter		Date Submitted	
Part Name		Part ID	
# of Samples		Sample Description	
Qual. UL	280	Qual. LL	120
Machine ID		Meas. Standard	
Indenter Diam. (mm)	10	Force (Kg)	3000.0

Test Results

#	D	HB	Converted HRC	#	D	HB	Converted HRC
1	5.6082	111.0					
2	4.0992	217.8					

Indentation Images



Statistics

Maximum	217.8	Minimum	111.0
Average	164.4	Std. Dev.	37.76
Cp	0.71	Cpk	0.39

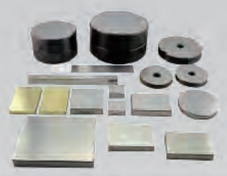
Operator	Test Date	Auditor	Audit date
	2016.4.4		

SVBS-V1.0

Measurement software

Standard hardness block of hardness tester

◆The hardness block is mainly used to correct the accuracy of the hardness tester;
◆Conform to astm & iso and jb/ t;
◆The certificate of verification issued by the chinese academy of computing sciences may be issued;

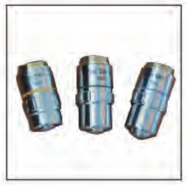


Product name	Hardness value	Uniformity	Roughness	Size (mm)	Executive Standards
Rockwell hardness block HRA	28-88HRA	± 0.5HRA	Ra=0.02um	p60x10	ASTM &ISO &JB/T
Rockwell hardness block HRB	88-100HRB	± 0.5HRB	Ra=0.02um	64x10	ASTM &ISO&JB/T
Rockwell hardness block HRC	25-65HRC	±0.5HRC	Ra=0.02um	D60x10	ASTM&ISO &JB/T
Surface Rockwell hardness block	(79-91) HR15N	±0.5HR	Ra=0.02um	60x10	ASTM &ISO &JB/T
	(42-80)HR30N				
	(20-70)HR45N				
	(88-93) HR15T	0.5HR	Ra=0.02um	64x10	ASTM&ISO & JB/T
	(70-82)HR30T				
	(55-72) HE45T				
Brinell hardness block	(150 - 600)HBW10/3000	±2%HB	Ra=0.28um	$100x15	ASTM & 1SO &JB/T
	(150 -600)HBW 5/750				
	(150 - 600)HBW2.5/187.5	±2%HB	Ra=0.28um	90x15	ASTM&ISO &JB/T
	(75-125)HBW10/1000				
	(75-125)HBW 5/250	± 3%HB	Ra=0.28um	64x12	ASTM&1SO&JB/T
	(75-125)HBW2.5/62.5				
Vickers hardness block	(150 -750)HV1	± 3%HV	Ra=0.02um	60x10	ASTM &1SO&JB/T
	(150 -750)HV5				
	(150 -750)HV10	± 2%HV	Ra=0.02um	64x10	ASTM &1SO &JB/T
	(150 -750)HV30				
Micro Vickers hardness block	(200-30O)HV0.05	±3%HV	Ra=0.02um	25x5	ASTM &ISO &JB/T
	(200-300)HV0.1				
	(400-50O)HV0.1				
	(400-500)HV0.2				
	(700-800)HV0.2				
	(700-800)HV0.5				
	(700-80O)HV1				
Leeb hardness block	(490-830)HLD	±5HLD	Ra=0.03um	90x55	ASTM &ISO &JB/T
	(460-630)HLG				
Ultrasonic hardness block	28-63HRC				
	(300-80O)HV1	±5HLG	Ra=0.03um	p120x70	ASTM &1SO &JB/T
	(180 -500)HV5				
	(300-800)HV5				
Portable Brinell hardness block	(150 -500)HBW5/750	±2%	Ra=0.02um	12x12x150	ASTM &1SO &JB/T
	(150 -5O0)HBW5/3000	±2%	Ra=0.02um	14x14x150	ASTM& ISO &JB/T
Shore hardness block	Shore A	± 1H	Ra=0.02um	/	ASTM &ISO &JB/T
	Shore D	± 1H	Ra=0.02um	/	ASTM &ISO &JB/T

*The company can also provide imported hardness block.

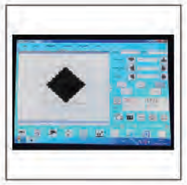
Hardness tester accessories:

measuring eyepiece


10x, 20x, 40x objective

digital micrometer head

lcd vision


software

adapter

ccd camera

workbench

brinell reading microscope

large test table
φ200mm(Brinell)
φ150mm(Rockwel)

small test table
φ108mm((Vickers)
φ60mm(Rockwell)

small test table
φ10mm(surface Rockwell)

"V" test table
φ40mm φ80mm

"V" test table
customization

"V" test table
customization

ball specimen table

ball specimen table

thin specimen test table

flat clamp test table

filament clamp test table

adjustment table for
inlay specimen

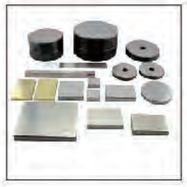
Inlay work table

multidirectional table

digital cross table

cross table

indenter


standard block

automatic worktable