



Universal Hardness Tester

HBRV-187.5

Manual Universal Hardness Tester



1.Application:

Used for testing metal materials brinell, rockwell, vickers hardness, applied to ferrous metal (steel, cast iron pieces, mild steel, etc) and non - metal (aluminum alloy, copper alloy etc) of the hardness testing, also can test of hard alloy, carburized layers and chemical treating layers of hardness.

2.Technical Specifications:

Model	HBRV-187.5
Initial Testing Force	98N
Rockwell Total Test Force	588N,980N,1471N
Rockwell Hardness Value	HRC=20-67, HRB=30-100, HRA=20-85
Rockwell Test Indicating Error	$\leq \pm 1HR$, Value Repeatability $\leq 0.8HR$
Brinell Total Test Force	306N,613N,1839N
Brinell Hardness Value	HB=8-650



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Brinell Indicating Error	$\leq \pm 2.5\%$, Value Repeatability ≤ 3.0
Vickers Total Test Force	294N, 980N
Vickers Hardness Value	HV14-1000
Vickers Indicating Error	$\leq \pm 2\%$, Value Repeatability ≤ 2.5

Amplification Of Microscope	37.5X, 75X
Max Testing Height	170mm
The Distance Between Pressure Head Center And The Wall	140mm
Standards	GB/T231, ISO6506, ASTM E10, GB/T230, ISO6508, BSEN10109, ASTM E-18, GB/T4340, EN-SO6507.
Size	463×241×660mm
Power Supply	220V±10%, 50Hz
Weight	98 KG



Universal Hardness Tester

HBRVD -187.5 Motorized Universal Hardness Tester



1.Features:

HBR VD-187.5 Motorized Brinell Vickers Universal Hardness Tester with Brinell, Rockwell and Vickers, 3 kinds of measuring method, and well as 7 steps testing force is able to meet the needs of many kinds of hardness test requirements for users. Testing force can be loaded, kept and unloaded automatically. Therefore the tester is easy to use and widely welcomed by many users.

2.Usage Range:

Hardened and surface hardened steel, hard alloy steel, casting parts, non-ferrous metals, various kinds of hardening and tempering steel and tempered steel, carburized steel sheet, soft metals, surface heat treating and chemical treating materials, etc.

3.Technical Specifications:

Model	HBRVD-187.5
Rockwell Scales Testing Force	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK 60Kg (588N), 100Kg (980.7N), 150Kg(1471N)
Brinell Scales Testing Force	HBW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW2.5/18 31.25Kg (306.5N), 612.9N(62.5Kg), 1839N(187.5Kg)
Vickers Scales Testing Force	HV30, HV100 30Kg(294.2N), 100Kg (980.7N)
Indication Of Hardness Value	Rockwell: Dial Brinell and Vickers: Measuring Microscope)
Amplification Of Microscope	37.5X,,75X



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Universal Hardness Tester

HBRVD -187.5 Motorized

Universal Hardness Tester

Duration Time	2 ~ 60S
Max. Height Of Specimen	Rockwell: 170mm Brinell and Vickers: 140mm
Overall Dimension	520*240*700mm (L*W*H)
Net Weight	80 KG
Power Supply	AC220V+5%, 50Hz
Carried Standard	GB/T230.2(Rockwell), GB/T231.2(Brinell), GB/T4340.2(Vickers), JJG112 (Rockwell), JJG150(Brinell).
Standard Accessories	Rockwell Indenter; Vickers Indenter; Diameter 1.5875mm,2.5mm,5mm Hard Alloy Steel Ball Indenter; Measuring Microscope, Objective, Sets Of Inside Light And Sets Of Outside Lights, Large, Medium And V-shaped Testing Table, Slipped Table, Hardness Blocks For Various Scales, Power Cable.



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Universal Hardness Tester

HBRVD -187.5 Digital Display Universal Hardness Tester



1.Function And Application:

HBRVS-187.5 Brinell Rockwell Vickers Universal Hardness Tester is used to determine the brinell, Rockwell and Vickers hardness of metals, non - ferrous metals and hard alloys. it is widely used in the precision measurement of parallel flat surface as well as curved surfaces.

2.Features:

- (2.1) Compact structure, good stiffness, high precision, reliability, durability and working efficiency
- (2.2) 40 times microscope measurement system ensures high precision.
- (2.3) Optical direct display the test data.
- (2.4) Built-in printer, it can print out the test result.
- (2.5) It can connect to the computer, analyze, print the report by software.
- (2.6) Precision conforms to GB/T230.32, GB/T231.2, ISO06508-2, ISO6507-2, ISO6506-2, and ASTM E18, ASTM E10, ASTM E92.



Universal Hardness Tester

HBRVD -187.5 Digital Display

Universal Hardness Tester

3. Technical Specifications:

Model	HBRVS-187.5
Rockwell Scale Test Force	HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK 60Kg (588N), 100Kg (980.7N), 150Kg(1471N)
Brinell Scale Test Force	HBW2.5/31.25, HBW2.5/62.5, HBW5/62.5, HBW2.5/187.5 31.25Kg(306.5N), 62.5Kg (612.9N), 187.5Kg (1839N)
Vickers Scale Test Force	HV30, HV100 30Kg(294.2N), 100Kg (980.7N)
Hardness Value Read	Big Digital LCD
Amplification Times	37.5X, 75X
Specimen Maximum Height Allowed	Rockwell: 170mm Brinell, Vickers: 140mm
Dwell Time	1~60S
Power Supply	AC 220V + 5%, 50Hz
Instrument Size	465*180*655mm (L*W*H)
Instrument Weight	85 KG
Hardness Value Range	Rockwell, HRA:70~85 HRB:30~100 HRC:20~67 Brinell, HB4-450 Vickers, HV14-1000
Executive Standard	GB/T230.2(Rockwell), GB/T231.2(Brinell), GB/T4340.2 (Vickers), JJG112 (Rockwell), JJG150(Brinell).
Standard Accessories	Rockwell Diamond Indenter 1 PC, Vickers Diamond Indenter 1 PC, Φ1.588mm,Φ2.5mm,Φ5mm Hard Alloy Ball Indenter 1 PC, Measuring Microscope 1 SET (Install In The Machine), Large, Medium, "V" Shape, And Slide Test Platform Each 1 PC, Hardness Block 5 PCS, Accessory Box 1 SET, Dust-proof Cover 1 SET, Power Cable 1 PC, Manual Instruction, Certificate Of Quality, Warranty.



Universal Hardness Tester

THUS-187.5 Computer Display Automatic Brinell Rockwell Vickers Universal Hardness Tester



1.Introduction:

- 1.1 THUS-187.5 Computer Display Automatic Brinell Rockwell Vickers Universal Hardness Tester can measure the hardness of Brinell, Rockwell, Surface Rockwell, Vickers etc.
- 1.2 The computer control the measurement way of hardness tester, handing and calibrate the value of hardness.
- 1.3 Automatic load and unload.
- 1.4 Measuring the Rockwell hardness, automatically preload. Save the result for checking the data.
- 1.5 Automatically make inspection report.

2.Technical Parameter:

Model	THUS-187.5
Load Application	Load cell, force feedback, closed loop system
Hardness Scales	Rockwell/Superficial Rockwell, Brinell, Vickers, HVT, HBT and H Ball indentation.
Load Range	2.5kgf/24.5N to 187.5kgf/1.84kN



Universal Hardness Tester

THUS-187.5 Computer Display Automatic Brinell Rockwell Vickers Universal Hardness Tester

Test Loads	2.5kgf/24.5N, 3kgf/29.4N, 4kgf/39.2N, 5kgf/49N, 6.25kgf/61.29N, 10kgf/98N, 15kgf/147N, 15.625kgf/153.2N, 20kgf/196.13N, 25kgf/245.16N, 30kgf/294.19N, 31.25kgf/306.45N, 45kgf/411.29N, 50kgf/490N, 60kgf/588.4N, 62.5kgf/612N, 100kgf/980.7N, 120kgf/1176.79N, 125kgf/1225N, 150kgf/1471N, 187.5kgf/1838N depending on model
Vickers Test Range	HV: 3kgf/29.4N, 4kgf/39.2N, 5kgf/49N, 10kgf/98N, 20kgf/196.13N, 30kgf/294.19N, 50kgf/490N, 100kgf/980.7N, 120kgf/1176.79N. HVT: 50kgf/490N, 100kgf/980.7N(Optional)
Brinell Test Range	HB1: 2.5kgf/24.5N, 5kgf/49N, 10kgf/98N, 31.25kgf/306.45N HB2.5: 6.25kgf/61.29N, 15.625kgf/153.2N, 31.25kgf/306.45N, 62.5kgf/612N, 187.5kgf/1838N HB5: 25kgf/245.16N, 62.5kgf/612N, 125kgf/1225N, 250kgf/2.45kN. HB10: 100kgf/980.7N HBT2.5: 62.5kgf/612N, 187.5kgf/1838N(Optional)
Rockwell Test Scales	A, B, C, D, E, F, G, H, K, L, M, P, R, S, V. 15N, 30N, 45N, 15T, 30T, 45T, 15W, 30W, 45W, 15X, 30X, 45X, 15Y, 30Y, 45Y
Plastic Ball Indentation	Complies to ISO 2039/1
Optical System RSB	External Brinell microscope with LED ring light
Optical System AS	Interchangeable 2.5x, 5x and 10x magnification
Camera	1280*1080 pixels, 1/2-inch
Scale Resolution (depth)	0.1 micron
Display	Computer Display
Standards	Complies to, or exceeds, EN/ISO, ASTM and JIS standards
Test Cycles	Fully automatic, Load, Dwell, Unload
Indentors (Optional)	Rockwell Diamond Cone: 120° Rockwell balls: 1/16", 1/8", 1/4", 1/2" Vickers Diamond: 136° Brinell/Balls: 1mm, 2.5mm, 5mm, 10mm. Some are optional
Dwell Time	1 - 99 seconds
Specimen Accommodation	Vertical capacity: 175mm Horizontal capacity: 160mm (from center-line)
Machine Dimensions	290mm x 520mm x 720mm (WxDxH)
Machine Weight	76 KG
Power Supply	100V AC To 240V AC, 50Hz, Single Phase



Universal Hardness Tester

THUS-187.5 Computer Display Automatic Brinell Rockwell Vickers Universal Hardness Tester

3.Packing List:

Name	Quantity	Name	Quantity
Host	1 pcs	Computer	1 set
Rockwell and Vickers Indenter	1 pcs	Brinell Indenter: Diameter 1.5875,2.5,5mm	1 pcs for each
Camera	1 pcs	Lamp	1 set
Hardness Block	5 pcs	Large, Medium and V test platform	1 pcs for each
Power Wire	1 pcs	Sliding Test Table	1 pcs
Objective2.5x, 5x ,10x	1 pcs for each	Instruction Book	1 pcs