



BANBROS ENGINEERING PVT. LTD.

The Precision Measurement People

DIGITAL VICKERS HARDNESS TESTER

- *VALUE*
- *VERSATILITY*
- *PERFORMANCE*



BVH-DA/DM SERIES



- Automatic loading - dwell - unloading
- Precise electronic eyepiece with encoder 10X
- Reserved CCD camera path, can work with camera and hardness software system
- High resolution optical system, indentation image very clear
- One time casting shell with car painting
- Traditional keypad operation panel, long and stable working service time
- LED light source, service time more longer

APPLICATION:

- Steel, nonferrous metals, tinsel, cemented carbide, sheet metal, metallographic structure.
- Carburization, nitriding and decarburization layer, surface hardening layer, galvanized coating, coating.
- Glass, chip and ceramic material.



FEATURES:

- The optical system designed by our senior optical engineer not only meet the definition of hardness testing requirements, but also can observe the micro structure of the material, image is very clear.
- According to different visual habits of the operators, the strength of the light source can be adjusted. To avoid the visual fatigue for long time operation.
- With Vickers hardness and Knoop hardness testing capabilities. By measuring the indentation diagonal length, the hardness value will show on the screen directly, no need to check hardness table.
- Industrial digital screen can direct display hardness value, conversion hardness, testing method, testing force, dwell time, testing times and testing process;
- Reserved CCD camera optical path, support machine work with computer and hardness measuring software system.

**TECHNICAL SPECIFICATIONS:**

Model No.		BVH-5/10/30/50DA	BVH-5/10/30/50DM
Turret		Automatic	Manual
Hardness Scale & Test Force	BVH-5DA	HV0.5, HV1, HV2, HV3, HV5	
	BVH-5DM	0.5kg(4.9N), 1kg(9.8N), 2kg(19.6N), 3kg(29.4N), 5kg (49N)	
	BVH-10DA	HV0.5, HV1, HV3, HV5, HV10	
	BVH-10DM	0.5kg (4.9N), 1kg (9.8N), 3kg (29.4N), 5kg (49N), 10kg (98N)	
	BVH-30DA	HV1, HV3, HV5, HV10, HV20, HV30	
	BVH-30DM	1kg(9.8N),3kg(29.4N),5kg(49N),10kg(98N),20kg(196N), 30kg(294N)	
	BVH-50DA	HV1, HV5, HV10, HV20, HV30, HV50	
	BVH-50DM	1kg(9.8N), 5kg(49N), 10kg(98N), 20kg(196N), 30kg(294N), 50kg(490N)	
Hardness conversion scale		HRA, HRB, HRC, HRD, HK, HBS, H15N, H30N, H45N, H15T, H30T, H45T	
Loading speed		≤50µm/sec	
Min. Measuring Unit		0.02µm	
Indenter		Standard Rectangular pyramid diamond indenter (136°±0.5°)	
Hardness Value Range		5-3000HV, 8-4500HK	
Hardness Value of Reading		Digital LCD Screen	
Total Magnification		100X (For Observation), 200X (For Measurement)	
Loading Method		Automatically (Load, dwell and unload)	
Dwell Time		1-99s (each step is 1 second)	
Maximum Height		175mm	
Throat depth		135mm	
Light Source		LED Cold light source	
Power Supply		220V + 5%, 50/60 Hz (110V is available)	
X-Y Testing Table (optional purchase)		Dim.: 100×100 mm, Max. Travel Range: 25×25mm, Moving Resolution Ratio: 0.01mm	
Instrument size and Net weight		600*220*700mm; 55kg	
Executed Standard		GB/T4340, ASTM E384 & E92, EN-ISO 6507-2, JIS B-7734	

STANDARD ACCESSORIES:

Item Name	Q'ty	Item Name	Q'ty
10X electronic eyepiece	1 Pc	Hardness Conversion Tables	1 Pc
10X and 20X objective lens	1 Pc	Standard block of hardness	2 Pcs
Vickers indenter	1 Pc	Horizontal adjusting screw	4 Pcs
Level bubble	1 Pc	Manual Book	
Large / Medium / V-shape Testing Table	1 Pc	Quality certificate	
Power line	1 Pc	Warranty Card	
Dust proof cover	1 Pc	Accessory case	

OPTIONAL ACCESSORIES:

- Image analysis software
- Metallographic equipment
- Knoop Indenter
- Hardness block
- 15X micrometer eyepiece



LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours); Lightness can be adjusted, avoid visual fatigue of operator.



X-Y precise work table manual micrometer head, also can change to digital micrometer head (**optional purchase**)

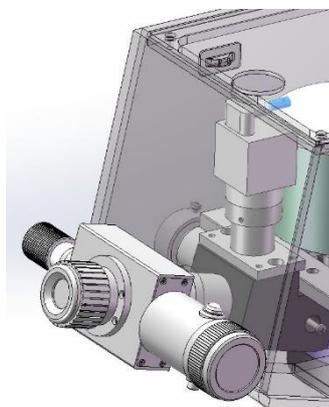
Precision digital eyepiece (10X) with inbuilt encoder, automatic calculate



Main Interface



Dual Optical path design

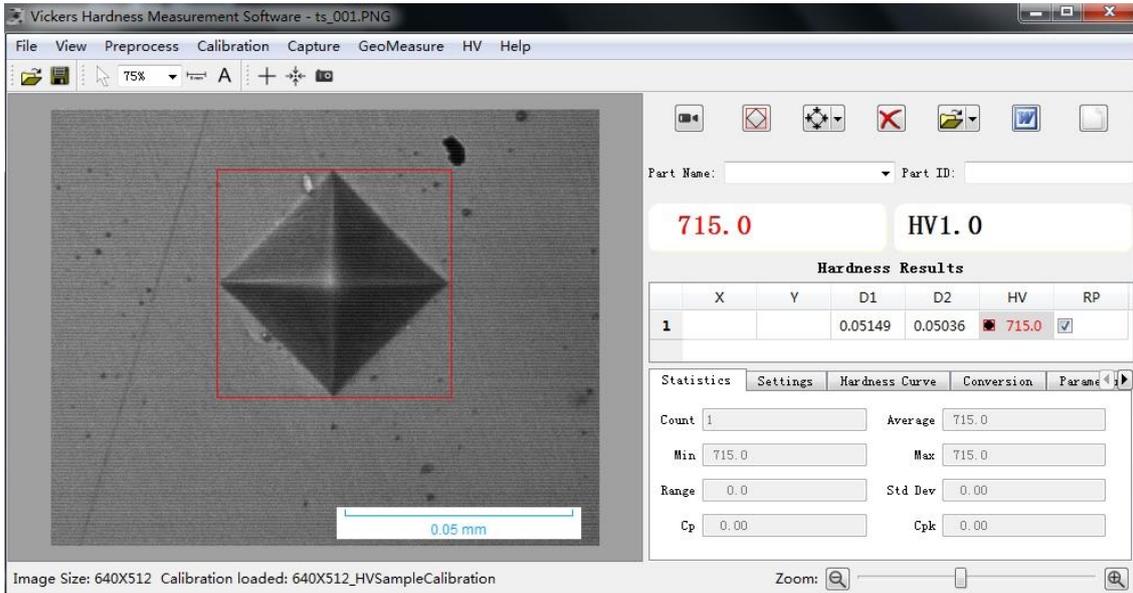


Printer & RS232 port



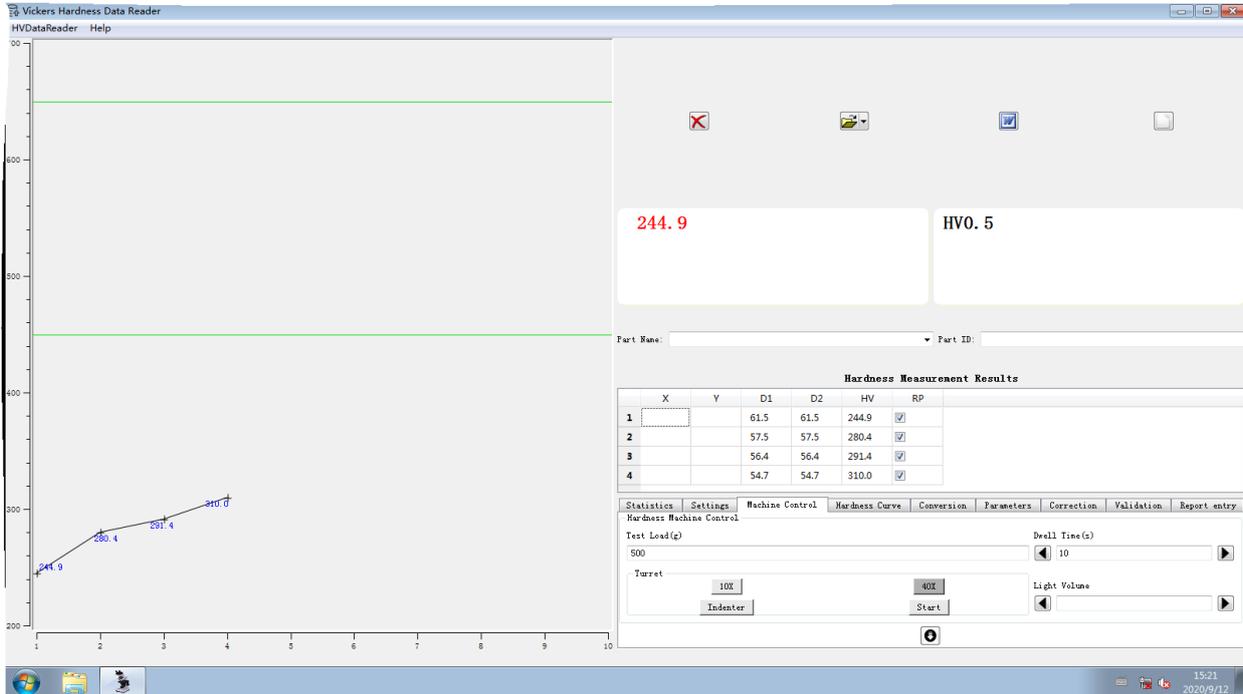


BVS-A Micro / Vickers Hardness Measurement Software (Optional Purchase 1)



Software support automatic measurement & manual measurement, can generate test report automatically in word / Excel format, including hardness value, test force, indentation image and hardness curve, etc.

Data Transfer Software (Optional Purchase 2)



Software can control the machine turret and generate test report including hardness value curve (Via RS232 port). Software install on the computer, connect with hardness tester through RS232 port. All the testing result can save to computer and generate test report in word format.