

# ADVANCED DIGITAL VICKERS HARDNESS TESTER WITH TOUCHSCREEN CONTROL



**HVH-5/10/30/50 AT & MT**

## DESCRIPTION

- 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 paint
- Touch screen with menu structure, easy operate © 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 microstructure of the material, image is very clear.
- According to the 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.
- Large size touch 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.		HVH-5/10/30/50AT	HVH-5/10/30/50MT
Turret		Automatic	Manual
Hardness Scale & Test Force	HVH-5AT HVH-5MT	HV0.3, HV0.5, HV1, HV2, HV3, HV5 0.3kg(2.94N), 0.5kg(4.9N), 1kg(9.8N), 2kg(19.6N), 3kg(29.4N), 5kg(49N)	
	HVH-10AT HVH-10MT	HV0.3, HV0.5, HV1, HV3, HV5, HV10 0.3kg(2.94N), 0.5kg(4.9N), 1kg(9.8N), 3kg(29.4N), 5kg(49N), 10kg(98N)	
	HVH-30AT HVH-30MT	HV1, HV3, HV5, HV10, HV20, HV30 1kg(9.8N), 3kg(29.4N), 5kg(49N), 10kg(98N), 20kg(196N), 30kg(294N)	
	HVH-50AT HVH-50MT	HV1, HV5, HV10, HV20, HV30, HV50 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	0.01μm		
Indenter	Standard Rectangular pyramid diamond indenter (136°±0.5°)		
Hardness Value Range	5-3000HV, 8-4500HK		
Data Display	Touch 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	<ol style="list-style-type: none"> <li>1. piece: 10X electronic eyepiece ; 10X and 20X objective lens; Vickers indenter; Level bubble; Large / Medium / V-shape Testing Table; Power line; Dust proof cover; Manual Book; Hardness Conversion Tables; Quality certificate; Warranty Card; Accessory case</li> <li>2. pieces: Standard block of hardness</li> <li>3. 4 pieces: horizontal adjusting screw</li> </ol>		
Optional Accessories	Image analysis software; Metallographic equipment; Knoop Indenter; hardness block; 15X micrometer eyepiece		

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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.

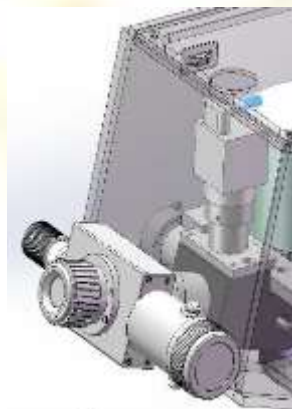


X-Y precise work table manual micrometer head, also can change to digital micrometer head (**optional purchase**)

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



**Main Interface**

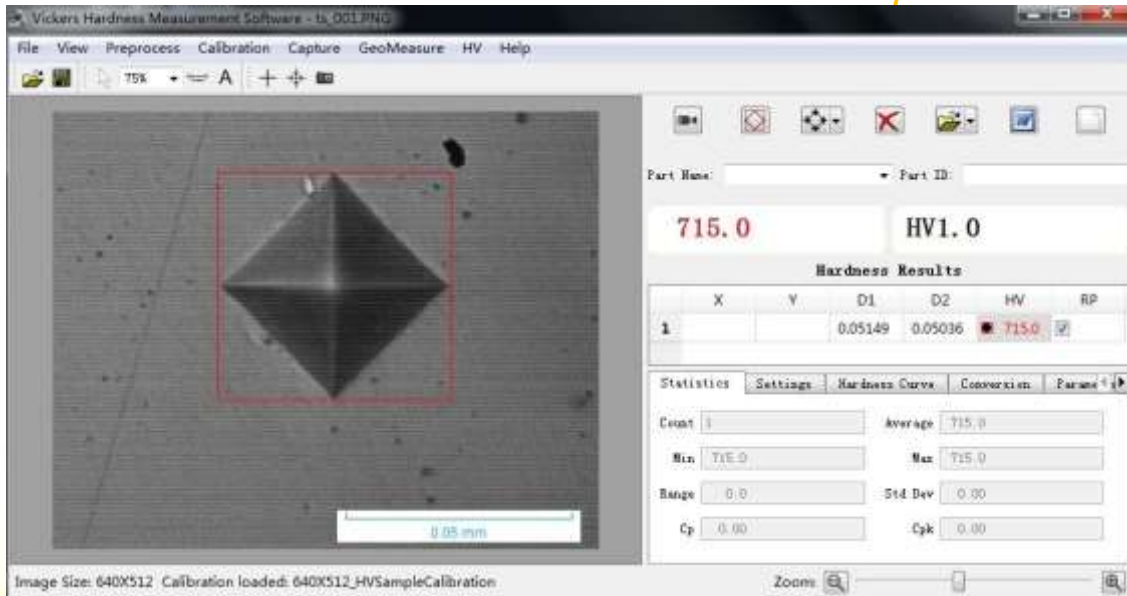


**Dual Optical path design**



**Printer & RS232 Port**

**HVS-A Micro / Vickers Hardness Measurement Software (Optional Purchase)**



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.