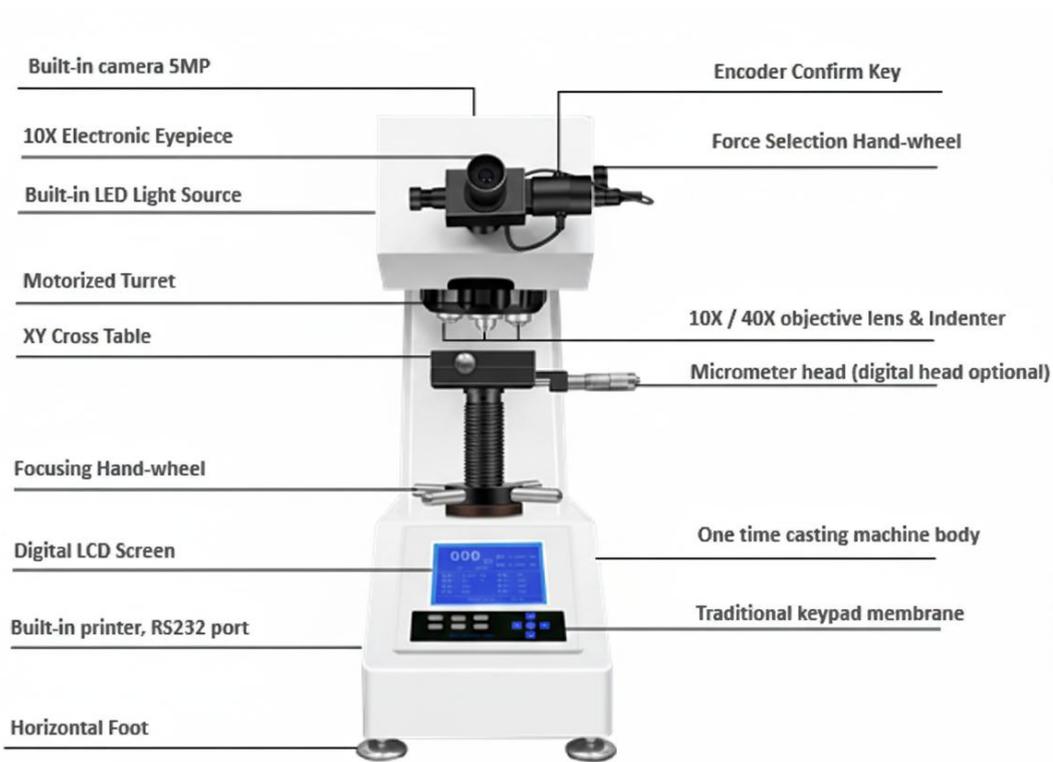




VERTEX

AUTOMATIC TURRET DIGITAL MICRO VICKERS HARDNESS TESTER (MHVD-1000-AT)



MAIN FEATURES:

1. One-time casting iron machine body with car painting technology, beautiful appearance.
2. Digital 10X eyepiece with inbuilt encoder, click the encoder machine will automatic get indentation diagonal length data D1 & D2, no need manual input data into machine, greatly improved testing accuracy and working efficiency.
3. With large LCD screen digital display, directly display hardness value, dwell time, conversion hardness value, etc.
4. Menu structure interface, easy operation.
5. With HV / HK test function (if need HK test function, optional purchase Knoop diamond indenter and standard Knoop hardness blocks).
6. With built-in printer, test result can be printed out directly.
7. With RS232 communication port, machine can upgrade to semi-automatic or fully automatic type easily if needed in future.
8. Most advanced built in light source design, indentation more clearly display and avoid lots of problems caused by accidentally touching an external light source.



9. Double optical path design. Built-in Camera design (also support external camera)



10. Software system can do automatic measurement and manual measurement (fully automatic, semi-automatic, manual), can show Vickers hardness value, convert hardness value, indentation depth, hardness curve, indentation image, etc. Also can do fracture toughness test, save data to internet, etc. Automatic generate test report in word / Excel format.

SPECIFICATION:

Model	MHVD-1000AT
Turret	Automatic turret
Test force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf(4.9N), 1kgf (9.8N)
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HBS, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Hardness range	5-3000HV
Min. measuring unit	0.025 μ m (maximum resolution 0.01um)
Data display	Large LCD screen
Light source	Completely built-in LED light source
Data output	built-in printer, computer display by software
Test space	110mm x 110mm (maximum sample height x throat depth)
X-Y Testing table	Dimension: 100x100mm Max movement: 25x25mm
Force loading type	Automatic (Loading, Dwell, Unloading)
Magnification	Eyepiece: 10X electronic eyepiece with encoder; Objective: 10X (observation); 40X (measuring) Total: 100X (observation); 400X (Measuring)
Dwell time	1~60s
Camera	5MP built-in camera
Software	Professional HVS-A software system which design by USA senior engineer, support automatic measure and manual measure, automatic generate test report
Power supply	AC220V \pm 5%, 50-60Hz
Machine size	41*29*48cm; Net weight: 55kg
Package size	Packing size: 61x43x82cm Gross weight: 77kg
Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

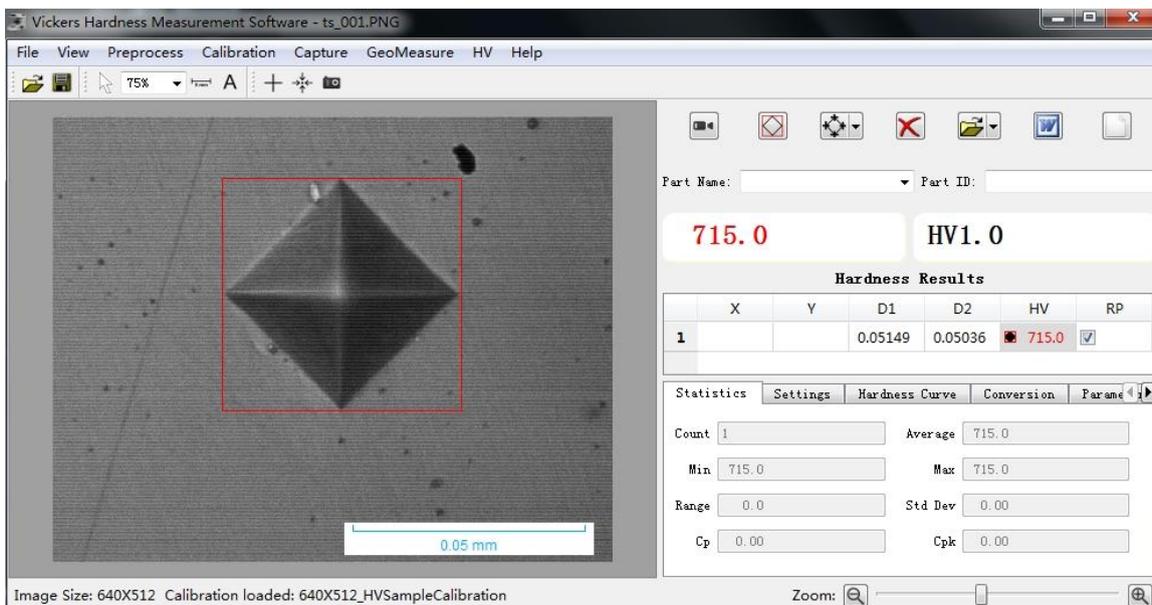
SAMPLE FIXTURE:



STANDARD PACKING LIST:

Item	Qty	Item	Qty
Weight shaft	1	Weights	6
X-Y Cross clamping testing table	1	Electronic eyepiece 10X	1
Flat clamping testing table	1	Thin Specimen Testing Table	1
Printer paper	1	Level adjustment screw	4
Micro Vickers hardness block	2	Objective 10X, 40X	1+1
Dust-proof cover	1	Screw driver	2
Camera	1	Software key and drive	1
Power cable	1	Fuse (2A)	2
Manual	1	Product Certificate	1

Micro / Vickers Hardness Measurement Software (Optional Purchase)



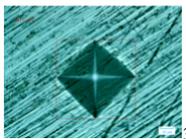
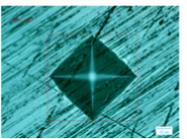
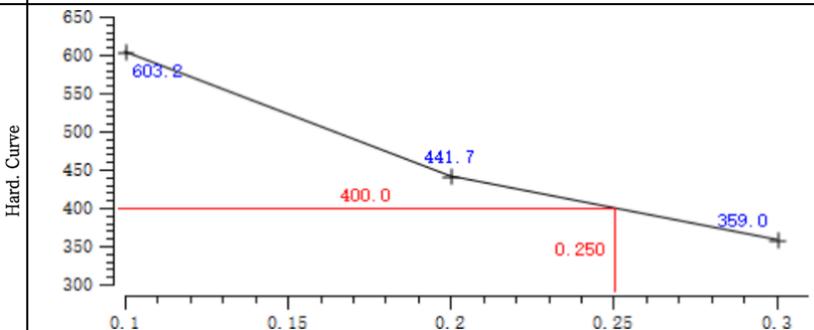
MAIN FUNCTIONS:

- Auto hardness measurement:** With a click of a button, the software automatically measures the diagonals of the indentation, calculates the hardness value and the statistics;
- Hardness curve:** With the depths of test points by user input, the software automatically plots the hardness curve(s); User may save and load the depths in a depth template file for later testing for convenience;

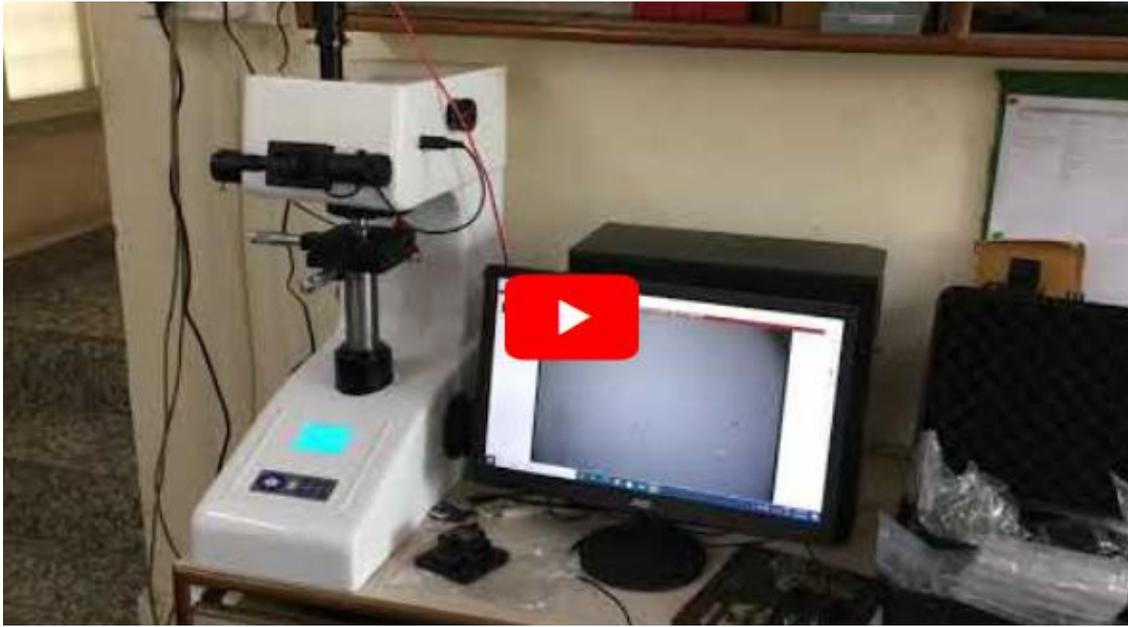
3. **Conversion, compensation, and validation:** Converts HV to other hardness scale; Validates the test results with sample dimensions; Compensates the test results with respect to sample cylindrical/spherical diameters;
4. **Statistics:** Automatically updates the statistical values such as average, min and max, standard deviation, Cp and Cpk;
5. **Auto-alarm:** Automatically marks the out of spec measurements;
6. **Test report:** Automatically generates WORD or EXCEL report with customizable template;
7. **Data archiving:** Measurement data and images can be saved in one file for later retrieval;
8. **Knoop Scale:** Can be configured for Knoop Scale measurement;
9. **Other Functions:** Includes the basic functions of imaging system such as image capture, camera calibration, image processing, geometric measurement, document labeling, album management, and printing with specified magnifications.

Hardness report format as below:

Micro/Vickers Hardness (HV) Test Results

Submitter				Date Submitted									
Part Name				Part #									
# of Samples				Sample Descri.									
Qual. UL		400.0		Qual. LL		450.0							
Sample Cyl/Sph. Diam.		0.00 mm		Test Load		1000g							
Test Results													
#	X	Y	D1	D2	Hard.	Conver.	#	X	Y	D1	D2	Hard.	Conver.
	mm	mm	μm	μm	HV			mm	mm	μm	μm	HV	
1	0.100		55.901	54.994	603.2								
2	0.200		64.976	64.613	441.7								
3	0.300		72.780	70.965	359.0								
Case Hardness(HV)					400			Case Depth(mm)			0.250		
Incident Images	1. 			2. 			3. 						
													
	Statistics												
Maximum		603.2		Minimum		359.0							
Average		468.0		Std. Dev.		124.2							
Cp		0.27		Cpk		0.05							
Operator		Test Date		Auditor		Audit date							
		09-06-2022											

DEMO VIDEO: Please Click on it to open



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Actual product may differ in color and appearance due to constant development.