

Fully Automatic Vickers Hardness Tester

ZHV-2.0/3.0

XY axis automatic
Z axis optional automatic



INTRODUCTION

Software can control machine turret, light, dwell time, loading, working table movement etc. PC with software can control our hardness tester, same time, the hardness tester will also return to the execution of command signal, mechanical positioning precision is very high, can fully meet the requirements of the test.

The instrument can measure the indentation of Vickers hardness at a single point, also measure continuous multi-point after automatic loading, same time can show hardness curve and get the hardness according to the curve. All measurement data and calculation results as well as compression hip images can be generated graphical reports, and can be printed or stored.

CHARACTER

Micro vickers measuring system with auto X-Y platform & auto turret, According to the setting coordinate to move to right place to make the indentation.

Can show indentation position diagram and set edge distance to make accurate depth measuring.

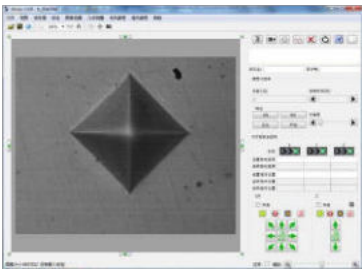
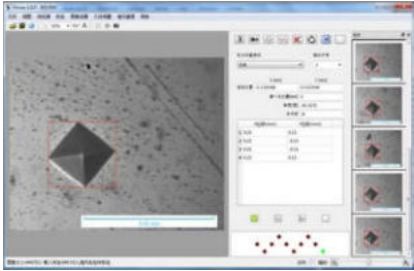
All measurement data, calculation results and indentation images can be formatted and text reports can be generated.

The report format can be set by the user and the report can be saved in Word format.



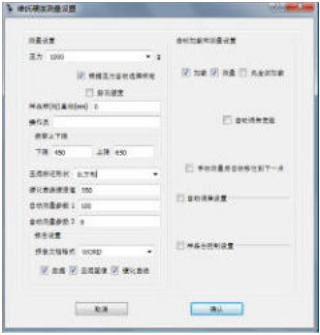
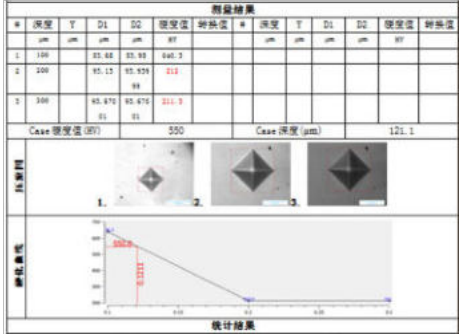
High resolution industrial digital camera, PC showing clear indentation image, easy to later hardness accurate measurement & storage; Can set indentation coordinate to make single point and continuous multi-point measuring,flexible & diverse indentation test routes can be set in advance;

Automatic loading platform control: controlling loading platform around front & back, fast & slow movement, in order to set the appropriate test position on the sample, and Saving the movement track file for future review.



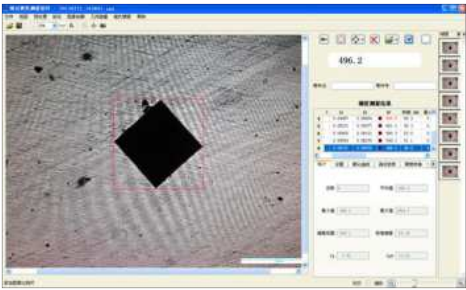
Can test surface treatment layer depth & hardness gradient, such as carburizing layer, quenching layer etc; According to the measurement data, hardness value curve can be automatically drawn and the test report can be generated, and the depth curve of multiple hardening layers can be generated according to the user's definition.

Can realized Rockwell HRC, HRA, HR15N, HR30N, HR45N, vickers HV, Brinell HBW scale conversion.



MAIN PARAMETER

Model/ Parameter	ZHV-2.0/ 3.0
Test Force	Vickers and Micro vickers hardness loading optional
Measuring Scope	1 HV~ 3000 HV
Testing Mode	HV/ HK
Test Force Loading	Automatic(Loading/ Dwell/ Unloading)
Turrent	Automatic
Conversation Scale	HK, HRA, HRBW, HRC, HRD, HREW, HRFW, HRGW, HRKW, HR15N, HR30N, HR45N, HR15TW, HR30TW, HR45TW, HS, HB
Data Output	Printer, can get WORD or EXCEL and hardness measuring
Hardness Reading	PC showing indentation & Automatic measuring
Objective	10× (Observing), 20×/ 40×/ (Measuring)
Eyepiece	10× Digital yepiece
Magnification	100×, 200×/ 400×
Eyepiece Resolution	0.06 μm
Dwell Time	0~ 60 s
Light	Halogen
X-Y Platform	Size: 110* 110 mm; Stroke: 50* 50 mm; Resolution: 0.002 mm
Max Testing Height	90 mm/ 230 mm
Throat	100 mm/ 135 mm
Power	AC 220, 110 v/ 60, 50 Hz
Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

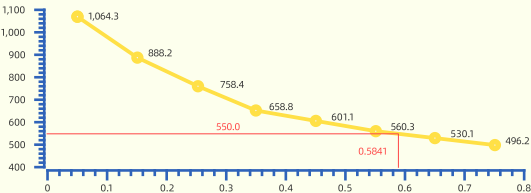


CHARACTER

- This Indentation measuring system can match all models of vickers/ micro vickers hardness tester.
- This Indentation measuring system can control the hardness tester bu PC, it adopt advanced Computer image auto processing technology, can auto indentify & measure indentation length, caculate the hardness value automatically.
- Indentation can magnify 1000 times to reduce the personal error.
- Supply auto measuring & manual two measuring method.
- The software can automatically show indentation measuring curve, depth curve, error statistics, testing group statistics etc, it has Intelligentd data processing function.
- Hardness ladder diagram can show all measuring process curve changing.
- It can do vickers indentation measuring, knoop indentation measuring, data classification, statistics, storage and output.
- It can generate" hardness testing report " automatically which include customer information, testing sample technology specification condition, indentation image, result etc.



Micro vickers/ Vickers hardness testing report

Company				XXXX Co.,ltd				Data				2014-9-26			
Part name				Gear				Part No.				T9878			
Qty				1				Specification							
Qualified upper limit				650				Qualified lower limit				450			
Model				HVT-1000A				Standard				GB/T4340.2			
Smample Dia(mm)				0				Pressure(g)				1000			
TESTING RESULT															
#	Depth	Y	D1	D2	Value	Conversion	#	Depth	Y	D1	D2	Value	Conversion		
	μm	μm	μm	μm	HV	HRC		μm	μm	μm	μm	HV	HRC		
1	50.0	0.0	37.64	45.84	1,064.3		5	450.0	0.0	52.31	58.77	601.1	55.3		
2	150.0	0.0	41.87	50.57	868.2	66.1	6	550.0	0.0	54.05	61.01	560.3	53		
3	250.0	0.0	45.10	53.80	758.4	62.5	7	650.0	0.0	55.54	62.75	530.1	51.1		
4	350.0	0.0	49.57	56.54	658.8	58.3	8	750.0	0.0	61.51	60.76	496.2	48.9		
Case value(HV)				550				Case Depth(μm)				584.1			
Indentation															
Curve															
STATISTICS															
Max value				1064.3				Min value				496.2			
Average value				692.2				Standard deviation				64.39			
Cp				0.52				Cpk				-0.22			
Testing person		Data				Audit				Date					
Li Ming		Sep 26, 2022													

Micro Vickers Hardness Tester



HV-1000/ Z



HVS-1000/ Z



HV-1000B/ A



MHVP-1000B/ A

MAIN PARAMETER

Model/ Parameter	HV-1000/ Z	HVS-1000/ Z	HV-1000B/ A	MHVP-1000B/ A
Test Force	0.098 N(10 g), 0.246 N(25 g), 0.49 N(50 g), 0.98 N(100 g), 1.96 N(200 g), 4.90 N(500 g), 9.80 N(1000 g)			
Measuring Scope	1 HV~ 3000 HV			
Max Testing Height	110 mm	110 mm	98 mm (optional 230 mm)	98 mm (optional 230 mm)
Throat	85 mm	85 mm	100 mm	100 mm
Eyepiece	10×	10× Digital	10× Digital	10× Digital
Objective	10×, 40×			
Total magnification	100×, 400×			
Dwell Time	0-60 S			
Hardness Reading	Fill in indentation lenth to get hardness value.	Digital eyepiece gather indentation to get hardness value.		
X-Y Platform	Size: 100* 100 mm; Stroke: 25* 25 mm; Resolution: 0.01 mm.			
Power	AC 220, 110 v/ 50, 60 Hz			

Vickers Hardness Tester



HV-10/ 50Z



HV-10/ 50B/ A



MHV-10/ 50B/ A

MAIN PARAMETER

Model/ Parameter	HV-10/ 50Z	HV-10/ 50B/ A	MHV-10/ 50B/ A
Test Force	0.3 kgf(2.94 N), 0.5 kgf(4.90 N), 1 kgf(9.8 N), 5 kgf(490 N), 10 kgf(98 N) for HV-10/z Additional 20 kgf(196 N), 30 kgf(294 N), 50 kgf(490 N) for HV-50Z	0.5 kgf(4.90 N), 1 kgf(9.80 N), 2 kgf(19.6 N), 2.5 kgf(24.5 N), 3 kgf(29.4 N), 5 kgf(49 N), 10 kgf (98 N) for HV-10B/A and MHV-10B/A Additional 20 kgf(196 N), 30 kgf(294 N), 50 kgf(490 N) for HV-50B/A & MHV-50B/A	
Loading Type	Weight loading	Automatic(Loading/ Dwell/ Unloading)	
Measuring Scope	1 HV~ 3000 HV		
Max Testing Height	165 mm (MHV series: 230 mm Optional)		
Throat	130 mm (MHV series: 135 mm Optional)		
Turrent	Z/A are Auto turrent, B is Manual turrent		
Eyepiece	10 x(10 × Digital eyepiece optional)		10 × Digital eyepiece
Objective	10 ×, 20 x(optional 40 ×)		
Total magnification	100 × , 200 ×		
Dwell Time	0-60 S		
Hardness Reading	Fill in indentation lenth to get hardness value.		Digital eyepiece gather indentation to get hardness value.
X-Y Platform	Size: 100* 100 mm; stroke: 25* 25 mm; Resolution: 0.01 mm		
Power	AC 220 V/ 50 Hz		