

uVicky-1 Micro Vickers Hardness Tester



Video



Contact us

Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.

Web: www.mikrosize.com

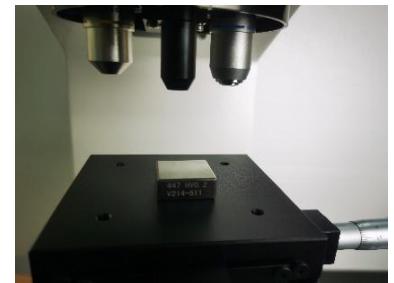
Email: mikrosize@mikrosize.com



Features and Applications

Product Features

- 8" Touch screen ,menu structure, and digital eyepiece with built-in encoder, by clicking encoder button, the diagonal length of indentation D1, D2 and hardness value automatically calculated.
- Optical cross guide rail guidance ensures guidance accuracy.
- High precision worm gear rod with high transmission ratio ensure more precise force transmission and achieve stable continuous lifting.
- Rack and pinion force transmission realizes fast and stable force transmission.
- Equipped with dual optical path, one optical path for eyepiece system, another path for CCD camera, both path can working in same time.
- LED illumination for long service life and no need to replace the bulb. brightness of the light source can be adjusted infinitely.
- Test setting parameters is protected by password, it can be calibrated according to the standard hardness block or length scale to make hardness value more accurately.
- Eyepiece structure with digital encoder, and the touch screen directly displays the hardness value and D1 and D2 values.
- Advanced machine with lens 5x/10x/20x/40x can used for measurement, suitable to test widely hardness range of materials from most soft to very hard.
- With hardness conversion function, from HV can convert to HRA, HRB, HRC, HBW, etc.
- With HV & HK Vickers and Knoop hardness testing capabilities.
- It can be equipped with a built-in camera (optional) to make the image clearer.
- RS-232 interface connected to computer for data output, testing result can be saved in USB (optional) in EXCEL format. bulut-in mini-printer to print testing data.
- With micro vickers indenter smart cover to protect indenter collision by test sample or other parts.
- OK/NG judgement function.
- 1 micro vickers indenter,4 objective lens totally 5 position hardness testing machine is realized.
- English language operation as standard, other languages can be customized.
- Auto load selection by touch screen instead of manual loading selection which makes force change more smoothly.(optional)



Features and Applications

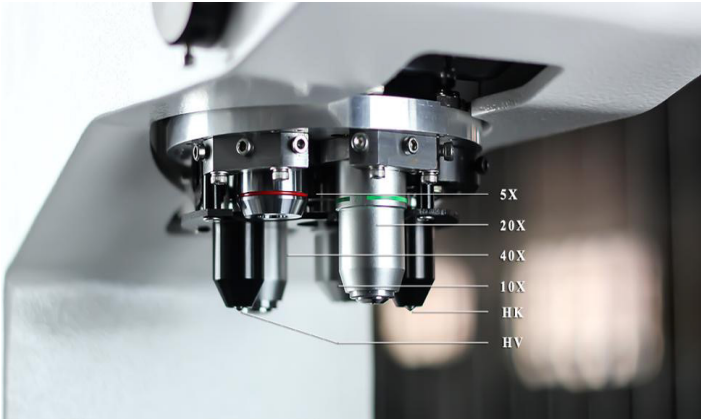
Product Applications

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

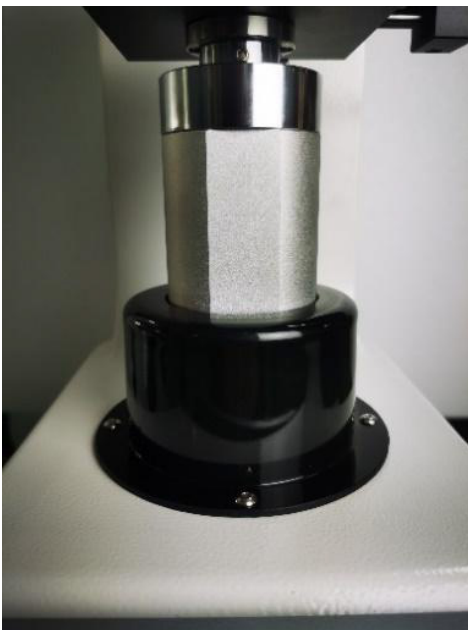


Product Details

User Friendly



- uVicky-1A-4 auto turret micro vickers hardness tester is with 5x/10x/20x/40x objective lens for leasuring, plus micro vickers indenter , totally 5 positions , knoop indenter can be added to realize it as 6 positions micro vickers/knoop hardness tester, advanced design hardness testing machine.



Worm Gear Rod



Handwheel for Worm Gear Rod



Micro Vickers Indenter Smart Cover

- High precision worm gear rod with high transmission ratio ensure more precise force transmission and achieve stable continuous lifting.
- With micro vickers indenter smart cover to protect indenter collision by test sample or other parts.

Product Details

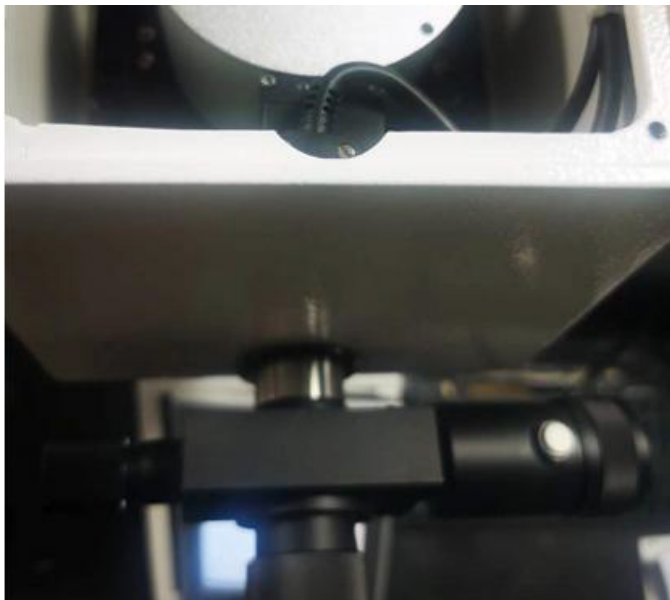
User Friendly



Digital Eyepiece



Manual Loading Selection (Auto Type Optional)



Dual Optical Path

- Digital eyepiece with built-in encoder, Auto loading selection is optional in stead of manual type, equipped with dual optical path, one optical path for eyepiece system, another path for CCD camera, both path can working in same time.

Product Details

Data Output



Built-in Camera (Optional)



RS-232 Interface



RS-232 Interface & USB

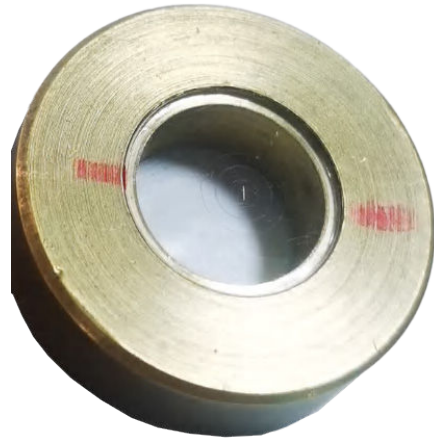


RS-232 Interface & Mini-Printer

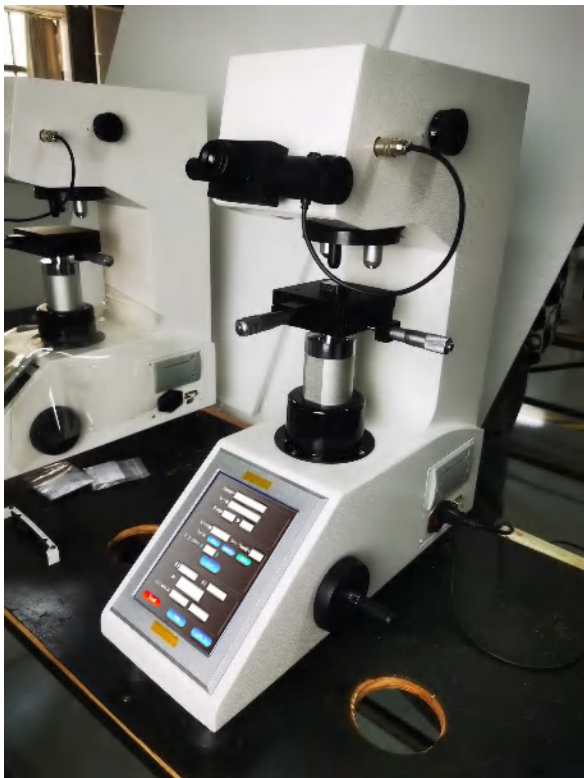
- It can be equipped with a built-in camera (optional) to make the image clearer or for capturing micro vickers indentation to software. RS-232 interface connected to computer for data output, testing result can be saved in USB (optional) in EXCEL format or built-in mini-printer to print testing data.

Product Details

Calibration Method



- It can be calibrated according to the standard hardness block or length scale to make hardness value more accurately.
- RS-232 interface connected to computer for data output, testing result can be saved in USB (optional) in EXCEL format. built-in mini-printer to print testing data.



Ordering Information



uVicky-1M-2E Economic Manual Turret Micro Vickers Hardness Tester
(Only 40X Objective Lens for Measuring)

uVicky-1A-2E Economic Auto Turret Micro Vickers Hardness Tester
(Only 40x Objective Lens for Measuring)



uVicky-1M-2 Manual Turret Micro Vickers Hardness Tester
(10x/40x Objective Lens for Measuring)

uVicky-1A-2 Auto Turret Micro Vickers Hardness Tester
(10x/40x Objective Lens for Measuring)

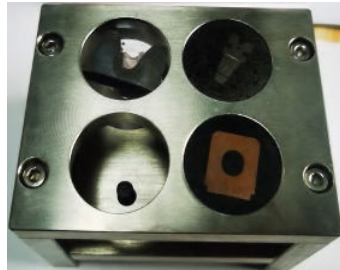
uVicky-1A-3 Auto Turret Auto Turret Micro Vickers Hardness Tester
(10x/20x/40x Objective Lens for Measuring)

uVicky-1A-4 Auto Turret Auto Turret Micro Vickers Hardness Tester
(5x/10x/20x/40x Objective Lens for Measuring)

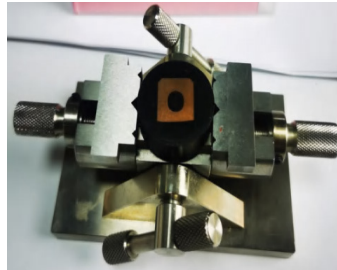
Variable Test Sample Clamping Vice Optional



Single Inlay Sample Clamping



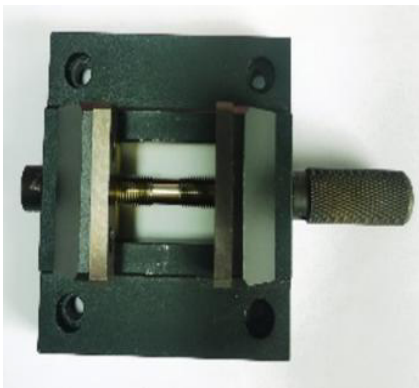
4 Pcs Inlay Samples Clamping



Universal Tilt Clamping



Pencil Clamping (For Pencil Hardness Tester)



Flat Clamp



Filament Clamp



Thin Specimen Clamp



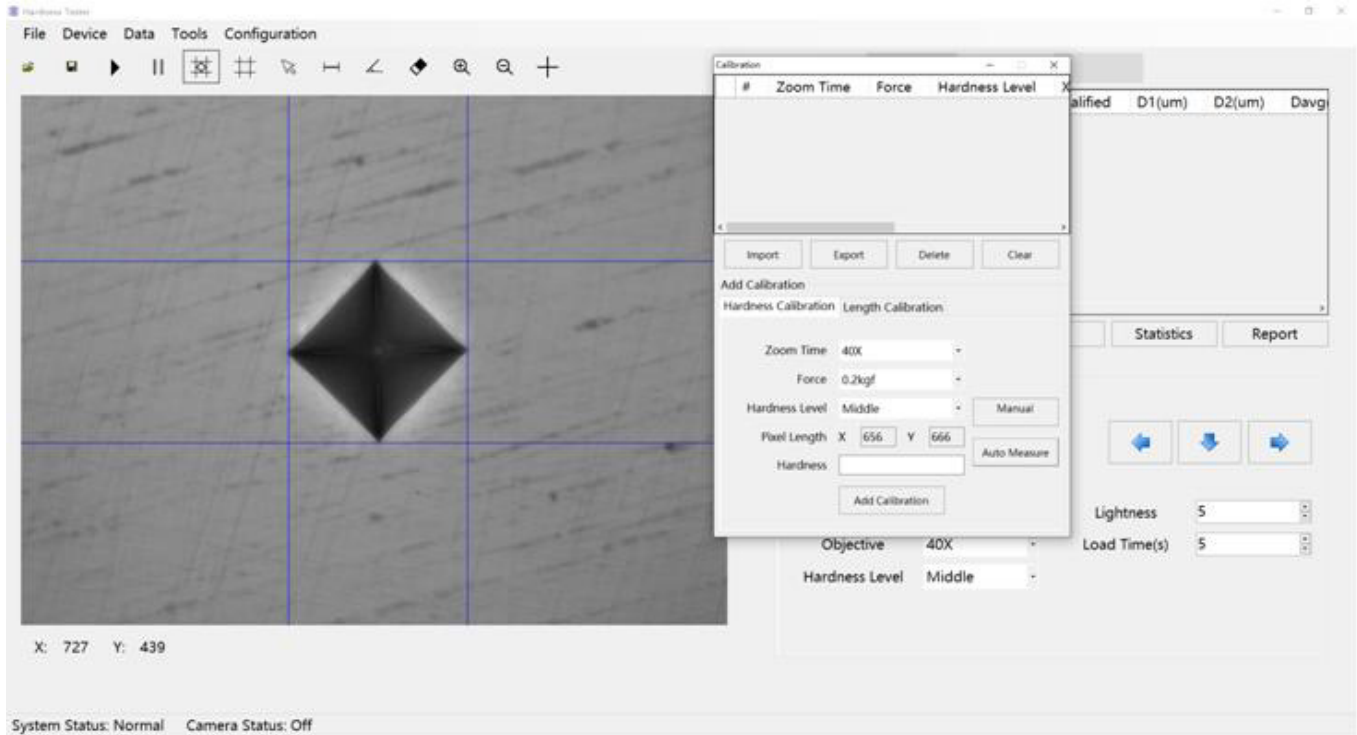
Balance Support (For Long Test Sample)

Micro Vickers Measuring Software(Optional)



- The measuring system can be matched with a variety of Vickers hardness tester, upgrade the hardness tester to the computer measuring system.
- The measuring system is integrated with the hardness tester; Computer controlled hardness tester, such as turret, brightness adjustment (can only be used with our company's automatic turret (micro) Vickers hardness tester).
- Suitable for micro and Vickers hardness tester, its maximum test force can be: 1, 5, 10, 30, 50 kg.
- Image clear, indentation measurement automatic/manual measurement.
- Calibration using micrometer or hardness block calibration, automatic calibration.
- Hardness according to national standard and ASTM conversion to other hardness. Hardness value statistics and hardness beyond the alarm.
- The test report can be customized by users, and all the test data will be saved forever for easy historical query.

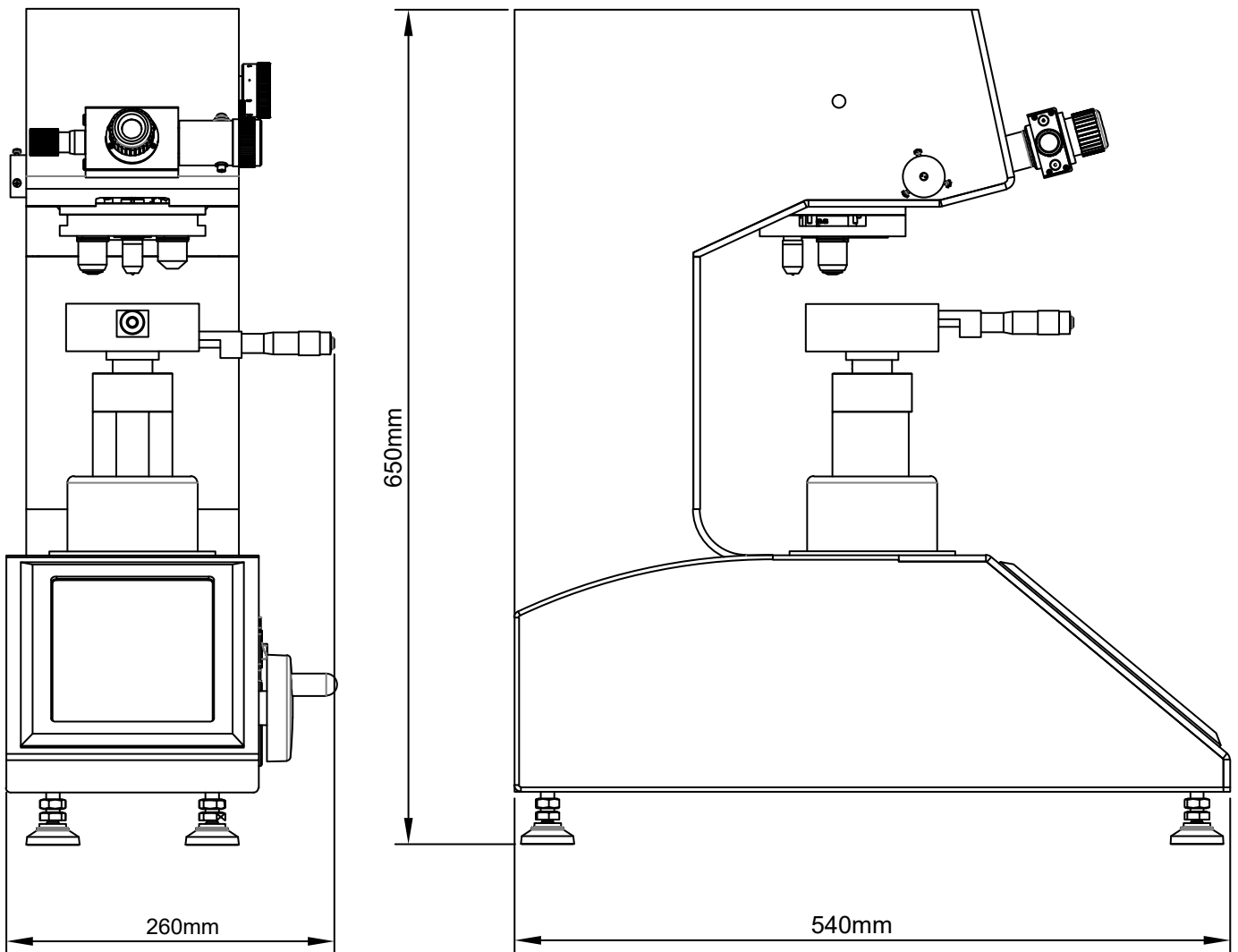
Micro Vickers Measuring Software(Optional)



Standard Configuration

Item	Specification	Qty
Camera	5 million pixels	1 pc
Adapter	Connect the machine and camera	1 pc
USB Flash Disc	Includes software and instruction manual	1 pc
Encryption dog	/	1 pc

Instrument Dimension



Technical Specification

Name	uVicky-1 Micro Vickers Hardness Tester					
Model	Vicky-1M-2E	uVicky-1A-2E	uVicky-1M-2	uVicky-1A-2	uVicky-1A-3	uVicky-1A-4
Turret	Manual	Auto	Manual	Auto	Auto	Auto
Built-in Mini Printer	No	No	Yes	Yes	Yes	Yes
Data Statistic Function	No	No	Yes	Yes	Yes	Yes
Objective	10X (Observe) 40X (Measure)	10X (Observe) 40X (Measure)	10X(Observe&Measure) 40X(Observe&Measure)	10X(Observe&Measure) 40X(Observe&Measure)	10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)	5X(Observe&Measure) 10X(Observe&Measure) 20X(Observe&Measure) 40X(Observe&Measure)
Eyepiece	10X digital eyepiece with built-in encoder					




Technical Specification

Total Magnification	100X (Observe) 400X (Measure)	100X (Observe) 400X (Measure)	100X(Observe&Measure) 400X(Observe&Measure)	100X(Observe&Measure) 400X(Observe&Measure)	100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)	50X(Observe&Measure) 100X(Observe&Measure) 200X(Observe&Measure) 400X(Observe&Measure)
Test Force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf(4.9N), 1000gf (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, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HK, HBW					
Loading Speed	≤50μm/sec					
Indenter	Standard Rectangular Pyramid Diamond Indenter (136°±0.5°)					
Objective Lens Center And Indenter Center	Coincidence accuracy error< 1μm (objective lens center position can be adjusted)					
Measurement Resolution	0.01μm					


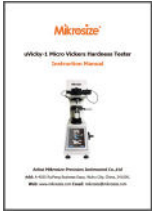
Technical Specification

Data Display /Output	8 "Touch Screen Display, Can Store 20 Test Results, USB drive, Built-in Printer and RS-232 Interface
Hardness Test Range	8~2900HV
Loading Method	Automatic (loading、dwell、unloading)
Dwell Time	1-99s(each step is 1 second)
Test Space	Test height: 100mm(Vertical);Test Throat: 130mm(Horizontal)
X-Y Test Anvil	Dimension: 100*100mm, Movement:25*25mm,Moving Resolution Ratio:0.01mm
Illumination	LED Cold light source (can be continuous use for 24 hours, no heat generate ensure stable working, servicing life can reach 100,000 hours)
Machine Size&N/W	540*260*650mm; 50kg
Package Size&G/W	710*420*627mm; 68kg
Power Supply	AC220V+5%, 50-60Hz(110V is available)
Executive Standards	GB/T4340, ASTM E384 & E92, EN-ISO 6507, JIS B-7734




Standard Delivery

Name	Qty	Photo
Weight Shaft	1 pc	
Eyepiece	1 pc	
X-Y Test Anvil	1 pc	
Gradienter	1 pc	
Power Cord	1 pc	
Product Certificate, Warranty Card	each 1 copy	
Printing Paper	1 pc	
Screwdriver	2 pcs	

Standard Delivery

Name	Qty	Photo
Weight	6 pcs	
Micro Hardness block	each 1	
Spare Fuse (2A)	2 pcs	
Dust Cover	1 pc	
Instruction Manual	1 pc	
Touch Pen	1 pc	
Level Adjustment Screw	4 pcs	

Optional Delivery

Name	Photo
Flattening Device(Used With Universal Tilt Clamping Fixture)	
Built-in Camera	
Micro Vickers Measuring Software	
USB Interface	