

Computerized Automatic Turret Micro Hardness Testing Machine with Vickers Software**Model: HV-1000Zpc****Brief Introduction:**

The iqualitrol automatic turret type micro hardness tester HV-1000Zpc is novel in design, has good reliability, operability and repeatability, and is an ideal product for testing microhardness.

The machine uses C language programming, high-magnification optical measurement system and optical dual-channel structure, photoelectric, photocoupler and other new technologies. Through the key operation, the length of the measurement indentation can be entered on the key, the hardness value can be displayed on the LCD screen, the conversion scale, the test force, the test force holding time and the number of measurements.

This machine equips with a micro-hardness tester system: It is possible to carry out successive experiments with each load and each read indentation. Using a digital camera with a convenient camera, video cable, or USB interface, the measurement indentation can be directly observed on the monitor, and the accuracy can be measured with the mouse.

For setting test conditions, displaying results, etc. can be operated and displayed clearly and quickly. Through the measurement software, it can be easily operated by a computer. A single point measurement can be used to randomly measure multiple points and statistical measurement data, and the distance between two or more measurement points can be arbitrarily set as a depth measurement of the penetration layer.

Measurements can be made along X or Y directions. , Statistical measurement data, according to the user input automatically determine the depth of hardened layer calculations. Statistics calculations, conversion, display curves, to determine whether the qualified. Can measure the length of the part of graphics preservation and printing.

The main scope of application:

1. Iron and steel, non-ferrous metals, metal foils, hard alloys, metal sheets, microstructures
2. Carburizing, Nitriding and Decarburization Layers, Surface Hardening Layers, Plating, Coatings
3. Glass, wafers, ceramic materials

Technical Parameters:

Micro hardness scale	HV0.01,HV0.025,HV0.05,HV0.1,HV0.2,HV0.3,HV0.5,HV1
Display	dwelt time (seconds), hardness value
Test force (gf)	10, 25, 50, 100, 200, 300, 500, 1000
Loading control	Automatic (load/dwell/uninstall)
Test force retention time (s)	5 to 60
Test force selection	External selector knob, test force is automatically displayed on the LCD screen
Objective magnification	10×, 40×
Optical channel	Dual light channels (eyepieces and CCD camera channels)
Optical system	1. Automatic digital encoder; 2. The total magnification (μm): 100× (observation), 400× (measurement); 3. Measuring range (μm): 200; 4. Resolution (μm): 0.01
Hardness measurement range	(5-3000) HV
XY test platform	Size (mm): 100×100 Travel range (mm): 25×25 Minimum reading (mm): 0.01
Maximum height of specimen	90mm
Maximum width of specimen	120mm (distance from the center line of the indenter to the wall)
Voltage	AC220V/50HZ
Weight (kg)	35
Dimensions	(540×200×530)mm

Standard configuration:

Host (Micro Vickers indenter x1, 10x objective x1, 40x objective x1)	2. Test platform, weight, microscope accessory box;
3. Weights x6	4. Weight bar x1
5. Cross table x1	6. Sheet clamping table x1
7. Flat mouth clamping table x1	8. Filament holding table x1
9. Level meter x1	10. Screwdriver x2
11. Horizontal adjustment screws x4	12. External power cord x1
13.10× Digital Micrometer Eyepieces x1	14. Micro Vickers hardness block x2 (HV1, HV0.2 x1 for each)
15. Fuses (1 A) x2	16. Product certification x1
17. Product Instruction Manual x1	18. Dust cover x1

Note:

The optional side-sway lifting system makes the lifting system more stable and accurate.

Software features:

- 1, Universal USB controls, can be used with a USB camera, support more than 90% USB camera on the market, including chat camera, no capture card, notebook can also be used to save costs (also have a capture card version, the price is not the same , faster response, more stable, more powerful);
- 2, Carburized layer depth analysis, detailed report;
- 3, 10, 20, 40, 3 kinds of magnifications can be switched freely, and can be separated without affecting each other;
- 4, Replacement force without recalibration;
- 5, 14 kinds of ASTM E140 standard hardness scales conversion;
- 6, Can achieve automatic measurement;
- 7, magnifier function, measurement easier;
- 8, The force value can be freely set, there is no limit of magnification, override software calibration, theoretically can measure all Vickers including small load;
- 9, Exclusive features: a hardness block to complete the calibration, eliminating the need for high-price multiplier, more convenient, easier and more accurate.

Main functions and features:

1. The optical system designed by senior optical engineers not only has clear images, but also can be used as a simple microscope. The brightness is adjustable, and it is visually comfortable. Long-time operation is not easy to fatigue.
2. The industrial display screen can directly display the hardness value, the conversion hardness, the test method, the test force, the retention time, the number of measurements, and the test process is intuitive and clear;
3. Cast aluminum shell molding, structural stability is not deformed, pure white car paint high grade, anti-scratch ability, use for many years is still bright as new;
4. Our company has its own R&D, production and processing capabilities. Our machines provide parts replacement and maintenance upgrade services for life.
5. HV-1000Zpc model can be achieved: observation - test - measurement of the position switch by the automatic turret