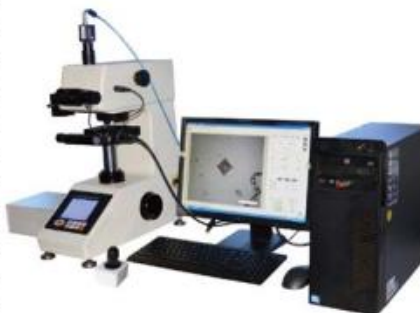


TIME® 6610AT

FULLY AUTOMATIC MICRO
VICKERS HARDNESS TESTER

Features

TIME6610AT Fully Automatic Micro Vickers Hardness Tester is integrated with several new technologies such as optical imaging, mechanical displacement, electronic control, digital imaging, image analysis, computer processing and so on. It controls the Micro Vickers hardness tester and automatic test table by the computer, and displays the indentation image on the computer screen. By means of automatic reading and manual reading, it accurately measures the HV hardness, hardening depth, film thickness, distance between two points of metals and some non-metallic materials and various films. It also can shoot metal surface morphology and taking fixed rate printing etc. This system breaks through the traditional test method, realize the hardness test of fully automatic, high precision, high repeatability, and it is the important equipment for materials analysis.



Technical Specification

Model	TIME6610AT
Test Force	0.098N(10gf), 0.246N(25gf), 0.49N(50gf), 0.98N(100gf), 1.96N(200gf), 2.94N(300gf), 4.90N(500gf), 9.80N(1000gf),
Test Range	1HV~2967HV
Test Mode	HV/HK
Loading Method	Automatic (Loading/Dwell/Unloading)
Shifting between Objective and Indenter	Automatic Shifting
Conversion Scale	HK, HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HS, HB
Data Output	Built-in Printer WORD or EXCEL Report with Curve Chart
Hardness Reading	Indentation Displaying and Automatic Measuring on PC
Total Magnification	100×, 400×
Resolution	0.0625μm
Dwell Time	0~60s
Light Source	Halogen Lamp
X-Y Test Table	Size: 110×110mm; Travel: 50×50mm; Resolution: 0.002mm
Max. Height of Specimen	100mm
Throat	98mm
Power Supply	AC220V, 50Hz
Execute Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2
Dimension	480×325×545mm Packing Dimension: 600×360×800mm
Weight (kg)	Net Weight: 31 Gross Weight: 44

Software Functions

- System linkage: Through the communication interface it realizes the linkage between the system and the hardness tester.
 - Pressure linkage: When converting test force, the system perceives the test force change and displays in real time.
 - Turret linkage: The software controls the shifting between the objective and the indenter without manual control.
 - Loading linkage: The software controls the loading without manual control.
 - Measuring linkage: The software controls the turret, loading and directly reading the Vickers hardness value.
 - Light source linkage: Automatic focus.
 - Image acquisition: Real time display of hardness image, store and print image.
 - Automatic measurement: Automatically find the four vertices of indentation with fast speed and accurate data, there are many professional algorithms to be suitable for different indentation. It continuously and immediately measures at specified coordinates once loading.
 - Automatic point search: The system automatically finds the best vertices near the four vertices of the indentation, greatly reduce the human error.
 - Diagonal measurement: Click the top left and lower right corner of the indentation, you can read the hardness value.
 - Four point measurement: Click the four point of the indentation and you can read the hardness value.
 - Hardness conversion: According to the national standard, automatically convert the hardness value between Brinell, Rockwell, Vickers, Knoop, real-time display.
 - Graphic report: Automatic record of measurement data, automatic generation of hardness-depth curves, saving or printing the hardness-depth curves and all indentation measurements. Save or print the indentation image and the current indentation hardness value. All the reports are saved in WORD file.
 - Results statistics: Output the multiple measured results of indentations by EXCEL and automatically count the measurement number, maximum value, minimum value, average value, variance, etc. of hardness.
 - Linkage control: Through the communication interface the system perceives the test force changes, controls the turret, loads and directly reads.
 - Automatic displacement: Equipped with high precision X-Y automatic test table.
 - Automatic identification: Leading indentation automatic identification technology, read D1 / D2 and HV value in 0.3 seconds.
 - Stable performance: The indentation of non mirror polishing, uneven light, not in the center can be read automatically.
 - Powerful functions: Such as manual reading, automatic reading, hardness conversion, depth-hardness curve, indentation image, picture and text report.
 - Easy to use: Through the hardness block calibration, in line with the users' habits. It can be normal used with half day training.
 - Automatic reading: Original algorithm of automatic reading to automatic read a variety of indentation with fast speed and high accuracy.
 - Good repeatability: It is automatic reading with high repeatability and can satisfy the requirement of professional users.
- Automatic scanning: Can automatically scan the sample edge and shape.

Standard Delivery

•Main unit	1	•10×Digital Measuring Eyepiece	1	•Computer (Hard disk: 500G, Memory: 2G, 19 inch LCD screen)	1
•Diamond Micro Vickers Indenter	1	•10×, 40× Objective	each 1	•CCD Camera	1
•Weights	6	•Weight Axis	1	•USB Softdog	1
•Motorized Test Table	1	•Flat Clamping Test Table	1	•RS232 Cable	1
•Thin Specimen Test Table	1	•Filament Clamping Test Table	1	•Ink Jet Printer	1
•Horizontal Regulating Screw	4	•Level	1	•1.5× Adapter	1
•Fuse 1A	2	•Halogen Lamp 12V, 15~20W	1	•Control Cables	1
•Power Cable	1	•Screw Driver	2	•Motorized Test Table Control	1
•Hardness Block 400~500 HV0.2	1	•Hardness Block 700~800 HV1	1	•Measuring Software	1
•Anti-dust Cover	1	•Usage Instruction Manual	1	•Joystick	1