

HST-HVS1000TPC Integrated intelligent visual hardness tester

This machine is equipped with Vickers automatic measurement and control system: it can carry out successive experiments of each loading and each reading of indentation. The ccd camera with convenient observation is adopted, and the indentation can be directly observed on the display. The measurement accuracy is high, and the manual measurement error is avoided. The set test conditions and display results can be operated and displayed clearly and quickly. Through the measurement control software, it is easy to operate on the built-in computer, and the single point measurement can randomly measure multiple points and make statistics of the measurement data. The distance between two points or multiple points can be arbitrarily set for the depth measurement of the infiltration layer. The measurement data can be measured and made statistics along the X or Y directions, and the hardened layer depth can be automatically calculated according to the judgment value entered by the user. Statistical calculation, conversion Display curve to judge whether it is qualified, etc. Save and print the graph of measurable part length, etc



Software features:

1. Hardness tester control: the system provides serial communication to control the operation of the hardness tester, such as rotating objective lens, loading, setting load holding time, adjusting light brightness, and adjusting feedback of test force;
2. Automatic measurement: the system automatically measures the indentation, automatically draws the hardening curve, and updates the statistical results;
3. Manual measurement: the system provides manual measurement, including four point measurement and diagonal measurement;
4. Hardness value conversion, correction and effective verification: the system can simultaneously

convert the measured micro Vickers hardness value to other multiple hardness scales such as HB, HR, etc; The measured value of the spherical cylinder sample can be corrected; The measured value of the sample can be effectively verified;

5. Data statistics: automatically calculate the average value, variance, Cp, Cpk and other statistical values of measured hardness, and automatically save them;

6. Data storage: single measurement data and images can be saved in a file for later retrieval, and can be automatically saved;

7. Test report: automatically generate WORD or EXCEL document reports; The user can customize the report format; The standard format includes each single hardness measurement value, statistical value, indentation image, and hardening curve;

8. Knoop hardness: Knoop hardness measurement can be set;

9. Fracture toughness: it can be set to measure indentation fracture toughness;

10. Other functions: all functions of the microscopic image processing and measurement system, including image capture, calibration, image processing, geometric measurement, document annotation, album management, and fixed power printing;

Main functions and features of the machine:

1. The optical system designed by the senior optical engineer not only has clear images, but also can be used as a simple microscope. The brightness is adjustable, the vision is comfortable, and it is not easy to fatigue after a long time of operation;

2. The built-in PC displays the real-time indentation, which can visually display the hardness value, conversion hardness, test method, test force, brightness, load holding time, measurement times, statistical data, upper and lower limit measurement range, test time and other test processes;

3. Optical system brightness adjustable range: 0-100;

4. Unlimited storage of test report data;

5. The test force units can be manually selected for mutual conversion, and the conversion unit is: (gf, N)

6. It can simultaneously display: maximum value, minimum value, average value, maximum error, etc

7. The scale can be switched: national standards, American standards and international standards. A total of 18 measuring scales can be switched: HRA, HRB, HRC, HRD, HRE, HRF, HRG, HRH, HRK, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T, HV, HK, HBW;

8. Double objective lens can directly measure the hardness,

9. The upper and lower limits of measurement range can be set and displayed on the main measurement interface;

10. The measuring scale can be converted to HK Knoop hardness;

11. The operating system can be converted into Chinese and English;

12. The built-in measuring system can automatically measure the hardness value;

13. The once formed structure of the cast aluminum shell is stable and does not deform. The pure white car paint is of high grade and has strong scratch resistance. It is still as bright as new after years of use;

14. Our company has the ability of self-development, design, production and processing. Our machines provide life-long service of parts replacement, maintenance and upgrading;

General specifications:

scale of hardness	HV0.01,HV0.025,HV0.05,HV0.1,HV0.2,HV0.3,HV0.5,HV1
Force (gf)	10,25,50,100,200,300,500,1000
Range of hardness measurements	(5-3000)HV
Unit conversion:	Brinell, Rockwell, Nussell (and switchable: ASTM、ISO、JJG standard)
hardness value	PC automatic hardness measurement
Eligibility criteria	Can set up qualified range, machine automatically remind whether qualified
Language switching	Chinese and English systems switching at any time
error correction	Calibration of hardness at all times
Scale conversion	HK(Nouri)
Hardness value conversion	Brinell, Rockwell, Vickers
Test report	Auto generate
Load control	Automatic loading, automatic holding, automatic unloading
Objective lens and indenter	Automatic switching
Auto Z-axis	Auto focus
optical system	Support for dual channels
Force retention time (s)	5~60
Test Force Selection	External force selector knob, test force automatically displayed on computer
magnification factor	10×, 40×
Optical system	Total magnification (μm):100×(observation),400×(measurement); range (μm):200;
Optical system resolution(μm)	0.0625
XY test	Size (mm):100×100 travel range (mm):25×25 minimum reading (mm):0.01
Maximum height of specimen(mm)	150
Maximum width of specimen(mm)	120
supply voltage	AC220V/50HZ
Weight(kg)	60
Exterior dimensions	620mmX230mmX630mm

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