Digital Micro Vickers Hardness Tester
NOVOTEST TB-MCV-1M

◄Description►

Digital Micro Vickers Hardness Tester NOVOTEST TB-MCV-1M implements direct Vickers method of hardness testing in accordance with **ISO 6507-2**, **ASTM E384**.

NOVOTEST TC-MCV-1M is the model with **manual data input** and manual turret.

Hardness tester has a large LCD display with easy operating menu.

The device is equipped with built-in printer.

NOVOTEST TC-MCV-1M has optical microscope for measuring the obtained diagonals of the imprints. Hardness values are calculated fully automatically, no manual tables are used. Operator see ready hardness value on LCD screen.

Hardness tester have the following function such as automatic hardness calculation, storage, display, print and conversion hardness results to other scales.

This machine can be used as metallographic microscope tissue, when it can match with computer, install the CCD camera and PC software. The hardness tester can become micro hardness meter using image processing. Its function is very powerful, which is the ideal test instrument nowadays.

◄Application►

Micro Vickers Hardness Tester NOVOTEST TC-MCV-1M is designed to measure hardness value according to the micro Vickers and other scales.

Micro Vickers hardness tester is used for high precision testing of:

- carburized layer, ceramic, steel, non-ferrous metals;
- sheet, metal foil, plating, fine specimen, surface hardened layers;
- coatings, nitride layer;
- carburized layer and hardened layer;
- parallel surfaces;
- thin and small objects, when use of other hardness testers is impossible.

◄Advantages►

- High measurement accuracy
- The device is handy and easy to set up and operate
- Built-in printer
- Large LCD display
- Integrated microscope for measuring the obtained diagonals of the imprints
- Hardness values are calculated fully automatically
- Allows user to recalculate the obtained value into other hardness scales automatically

◄Specification►

Indenter	Vickers: four-sided diamond pyramid (136 °) Knoop: four-sided diamond pyramid (172,5 °)
Scales	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Conversion scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Testing load	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 range	5-3000 HV
Measuring time	5~99 sec
Testing materials	• Carburized layer, ceramic, steel, non-ferrous metals; • Sheet, metal foil, plating, fine specimen, surface hardened layers; • Coatings, nitride layer, the gradient measurement of carburized layer and hardened layer

	• Hardness measurement of thin and small objects
Max height of test sample	90 mm
Max depth of test sample	120 mm
Optical measuring system	• Objective lense: 10X, 40X • Eyepiece: 10X • Total magnification: 100X, 400X • Measuring range: 0-200μm • Index value: 0.25 μm
Data output	• LCD • Built-in printer • RS-232 interface
Body color	• Blue • White
Recommended operating conditions	• Air temperature: 0…+40 °C • Air pressure: 94 – 106.7 kPa • Humidity: up to 65%
Net weight	55 kg
Gross weight	65 kg
Package dimensions	455*390*680 mm (L*W*H)

◄Standard set►

- Micro Vickers Hardness Tester NOVOTEST TB-MCV-1A
- Vickers indenter: four-sided diamond pyramid (136 °)
- Knoop indenter: four-sided diamond pyramid (172,5 °)
- Weights roller
- Weight (6 pcs.)
- 40X objective lens
- 10X micrometer eyepiece
- Crossing shape testing platform
- Fine flat forcipate testing platform
- Sheet testing table
- Standard Micro Vickers hardness test blocks (2pcs.)
- Horizontal scroll bar
- Bolt adjustor (4 pcs.)
- Fuse (2 pcs.)
- Operating manual
- Calibration certificate
- Transportation box

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◄Available options►

- CCD measuring system and data processing PC software
- Indenters
- XY test table
- Standard hardness test blocks
- Weight
- 40X objective lens
- 10X micrometer eyepiece
- Large testing table
- Medium testing table
- V-shaped testing table
- Bolt adjustor
- Other kinds of power supply
- Power cable
- Fuse