



NOVOTEST

## Digital Vickers Hardness Tester NOVOTEST TB-V-10



### ◀Description▶

Digital Vickers Hardness Tester NOVOTEST TB-V-10 implements direct Vickers method of hardness testing in accordance with **ISO 6507-2, ASTM E92**.

Digital Vickers Hardness Tester NOVOTEST TB-V-10 is modern and high-tech instrument with small test loads (up to 10 kgf), which is equipped by manual turret and analog microscope with automatic data input. The unit is highly reliable, has many operational functions, and is very easy to operate.

The instrument has high-precision optical measuring system and photoelectric sensor. Using keyboard, the device allows user to select the testing method; choose hardness scales (HV or HK); set the dwell time; set the intensity of the light source; save the results of measuring in the internal device storage; set time, date operator id, etc.

All testing data such as: testing method; testing force value; testing indentation length; hardness value; dwell time of testing load; numbers of measurement can be displayed on its large LCD screen.

PC connection and data (measurement results) transfer available via RS232 interface. Also, all the information can be printed via built-in printer.



## ◀Application▶

The instrument allows to measure hardness value of small and thin samples made from steels, non-ferrous metal, with heat treated layer, carbonized layer, hardened hard layers, superficial coating, small and thin shaped components. Vickers hardness tester is suitable for application in scientific research institutes, metrological institutes, industrial enterprises, etc.

## ◀Advantages▶

- High measurement accuracy
- Testing force application method – automatic loading and unloading
- Accurate measurement system of imprint
- Large LCD display
- Connection with PC through RS232 interface
- Built-in printer

## ◀Specification▶

Indenter	Vickers: four-sided diamond pyramid (136 °)
Scales	HV, HK
Conversion scales	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Testing load	2.94N (0.3 Kgf), 4.9N (0.5Kgf), 9.80N (1Kgf); 29.4N (3Kgf), 49.0N (5Kgf), 98.0N (10Kgf)
Hardness range	8 HV(0.3) ~ 2500 HV(10)
Measuring time	5~60 sec
Testing materials	<ul style="list-style-type: none"> <li>• Carburized layer, ceramic, steel, non-ferrous metals</li> <li>• Sheet, metal foil, plating, fine specimen, surface hardened layers</li> <li>• Coatings, nitride layer, the gradient measurement of carburized layer and hardened layer</li> <li>• Thin and small objects</li> </ul>
Max height of test sample	160 mm
Max depth of test sample	135 mm
Microscope zoom	<ul style="list-style-type: none"> <li>• For the measurement – 200X</li> <li>• For the observation – 100X</li> </ul>
Min. graduation value of the testing drum wheel	0.0625 μm
Data output	<ul style="list-style-type: none"> <li>• LCD</li> <li>• Built-in printer</li> <li>• RS-232 interface</li> </ul>
Recommended operating	<ul style="list-style-type: none"> <li>• Air temperature: 0...+40 °C</li> </ul>



conditions	<ul style="list-style-type: none"><li>• Air pressure: 94 – 106.7 kPa</li><li>• Humidity: up to 65%</li></ul>
Net weight	63 kg
Gross weight	73 kg
Package dimensions	760*380*750 mm (L*W*H)

### ◀Standard set▶

- Vickers Hardness Tester NOVOTEST TB-V-10
- Vickers: four-sided diamond pyramid (136 °)
- Weight (3 pcs)
- 10X micrometer eyepiece
- 10X digital measuring eyepiece
- Large testing table
- Medium testing table
- V-shaped testing table
- Standard Micro Vickers hardness test blocks (2pcs.)
- Leveling instrument
- Bolt adjustor (4 pcs.)
- Power cable
- Fuse (2 pcs.)
- Operating manual
- Calibration certificate
- Transportation box

### ◀Available options▶

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