

# Computerized Vickers Hardness Testing Machine

Model : VM 50-PC



MatrixTestingMachineServices

Sold and Serviced by :

**MATRIX TESTING MACHINE SERVICES**

Kalewadi, Pimpri, Pune 411017

Email : [matrixtestingmachineservices@gmail.com](mailto:matrixtestingmachineservices@gmail.com)

Website : [www.matrixtestingmachineservices.com](http://www.matrixtestingmachineservices.com)

#### Features :

- Computerized (PC based) Vickers Hardness Machine.
- Direct & accurate measurement of Vickers hardness number using "State of the art" image processing technology.
- Wide testing range : from soft metal up to hardest.
- High accuracy & repeatability of measurement at all loads.
- Faster measurement yielding to higher productivity.
- Small size of indentation makes it a non destructive testing on finished components.
- Motorized loading and unloading cycle.
- Small loads allow testing on thin sheet metals.

#### Advanced Window based software : With latest GUI features :

- User friendly software with windows features.
- Online indentation setting & focusing on PC monitor.
- Advance image processing : Algorithms implemented for precise calculation of hardness numbers with various options to cover all ranges of specimen.
- Batch file processing : Option for Data, storage & reports generation.
- Statistical Evaluation : Software for calculating standard deviation, mean, median, histogram etc.
- Wide options in calibration mode.
- Calibration/Verification on PC monitor makes easier to operate.

#### Application :

'FIE' Computerized Hardness Tester is a simple and accurate means to produce and automatically measure the diamond impression to give Vickers hardness number.

These testers are suitable for measuring the hardness of precision metallic parts with wide testing range - from soft to hard and their accurate results are widely acclaimed.

These testers strictly confirm to IS 1501-2:2013.

#### Technical Specifications :

Test Loads	5, 10, 20, 30, 50 kgf.
Optional Test Load	1 kgf.
Maximum test height (mm)	200
Scale least count (mm)	0.001
Diagonal measuring range (mm)	0.05 to 0.4
Throat Depth (mm)	135
Machine dimension (mm)	L 585 x W 290 x H 860
Weight (approx)	70 kg.
Power supply	220 VAC, 50 Hz, 1-Ph.

\* PC & Printer is not in our standard scope of supply.



#### Construction :

The robust machine frame is designed to accommodate the high precision loading.

Specimen is placed on a testing table. The test cycle is fully automatic. The accurate load is applied on a diamond indenter by means of a lever and weights. After a specific lapse of a time the load is removed automatically.

The image is digitized using a CCD camera fitted on the machine and is captured by the PC.

The diagonals of the indentation are automatically measured by PC to give the Vickers Hardness Number.

#### Standard Accessories :

Standard Test Block	1 No.
Diamond indenter	1 No.
Weights	1 Set
Flat Anvil	1 No.
Vee-type anvil (Small & Big)	1 No. each
Spanners	1 Set
Electric Cord & PC interface cord.	1 No. each
USB device for Video	1 No.
Vicksys software CD	1 No.
Instruction Manual	1 Book

Due to constant Research & Development, Specifications and Features are subject to change without notice.



MatrixTestingMachineServices

Sold and Serviced by :

**MATRIX TESTING MACHINE SERVICES**

Kalewadi, Pimpri, Pune 411017

Email : [matrixtestingmachineservices@gmail.com](mailto:matrixtestingmachineservices@gmail.com)

Website : [www.matrixtestingmachineservices.com](http://www.matrixtestingmachineservices.com)