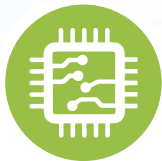


GROUP

Over **60** years of  
consistent excellence

# Computerized Micro-Vickers Hardness Testing Machine

Model : MV1-PC



Fully Computerized PC based  
Micro Hardness Tester



High accuracy & repeatability of  
measurement at all loads



Wide Testing Range from  
Soft metal up to hardest





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# Computerized Micro-Vickers Hardness Testing Machine Model : MV1-PC.

## Features :

- Fully computerized (PC based) Micro hardness tester.
- Direct and accurate measurement of micro hardness number using 'state of art' image processing technology.
- Wide testing range from soft metal such as lead up to hardest, like hardened steel.
- High accuracy and repeatability of measurement at all loads.
- Small size of indentation makes it a non destructive testing on finished components.
- Load selection by external knob.
- Motorized loading and unloading cycle.
- Small loads allow testing of thin sheet metals.
- Advanced windows based software includes :
  - Latest GUI features with user friendly software.
  - Online indentation setting & focusing on PC monitor.
  - Advanced image processing algorithms implemented for precise calculations of hardness numbers with various options to cover all ranges of specimen.
  - Batch file processing : Option for data/storage & reports generation for case depth analysis etc.
  - Statistical evaluation : Software for calculating standard deviation, mean, median, frequency distribution graph, variation graph etc.
  - Calibration mode facility.

## Construction :

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

Specimen is clamped by vice or supported by proper fixtures. The test cycle is fully automatic.

The accurate load is allied on a diamond indenter by means of dead weights.

After lapse of time, the load is removed automatically.

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

The diagonals of the indentation are measured by the PC and the Micro hardness number is displayed directly on monitor.

## Application :

'FIE' Computerized Micro-vickers hardness tester is a simple and accurate means to produce and automatically measured the diamond indentation to give micro hardness number directly as well as case depth.

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 are strictly confirms to IS :1501(Part 2) 2013.



## Technical Specifications :

Test Loads	10,20,50,100,200,300,500 gf.
Maximum test height	30mm with clamping vice 50mm without clamping vice
Scale least count	0.0001 mm
Sample Stage (XY stage) with micrometer heads of 0.01 mm Least Count.	10mm movement in each axis.
Clamping vice capacity	40mm Max.
Measuring Range	0.01 to 0.2 mm.

## Standard Accessories :

Standard Test Block	1 No.
Diamond indenter	1 No.
Spanners	1 Set
Electric Cord & PC interface cord.	1 No. each
USB Device for Video	1 No.
Micro-Vicksys software CD	1 No.
Instruction Manual	1 Book

\* **Optional Test Load : 1000 gf.**

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

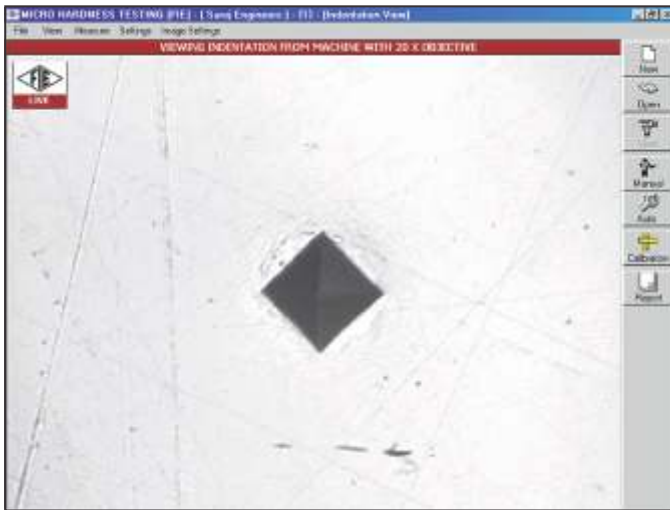
*Due to constant Research & Development, Specifications and Features are subject to change without notice.*



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# Computerized Micro-Vickers Hardness Testing Machine

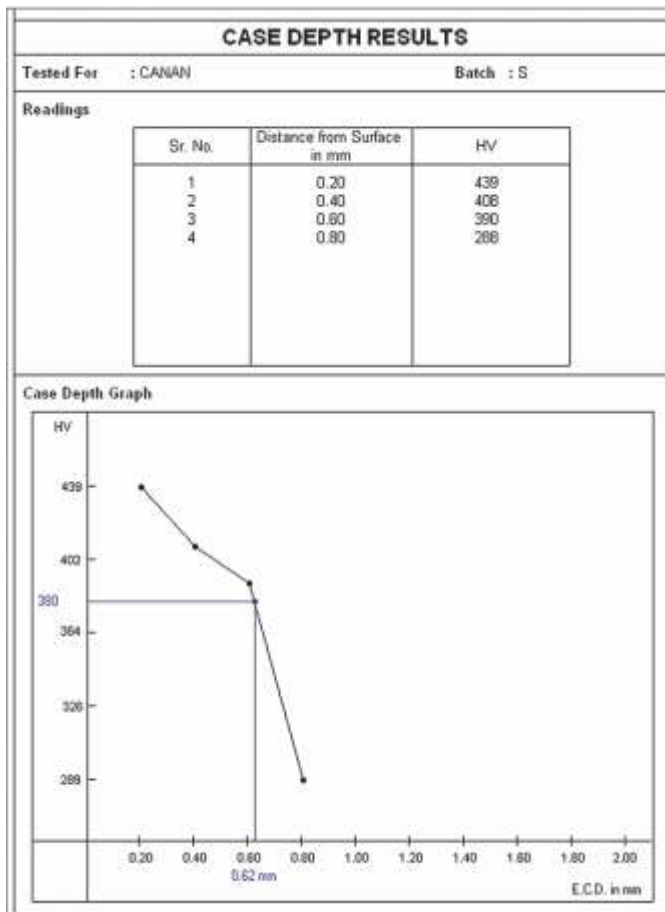
Model : MV1-PC.



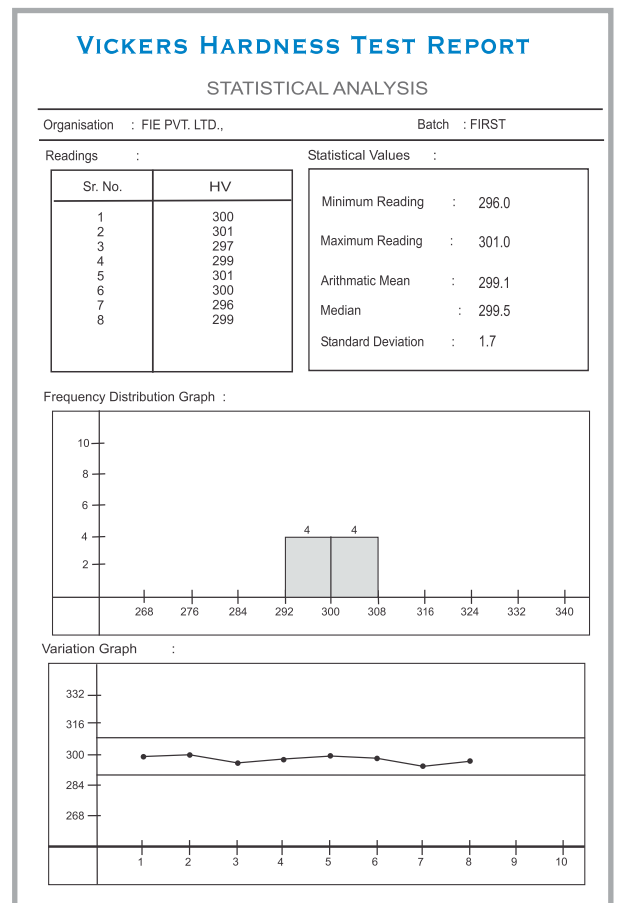
Indentation View



Result View



Case depth results



Test Report

TESTING [FIE] - ( Saroj Engineers ) - (1) - [Results]  
Settings Image Settings

**RESULT**  
Certificate No. :1

**SELECTED INDENTATION**

Tested for  
Saroj Engineers  
Jaysingpur

Identification No.  
ID 001

Batch Description  
FIRST

Load  
0.5 kgf

Limits  
Maximum  
Minimum

310 HV  
290 HV

Mean Diagonal  
0.0560 mm

Status w.r.t. Limits Good  
Objective Used 20 X

# Computerized Micro-Vickers Hardness Testing Machine

Series : MV1-PC



Over **60** years of  
consistent excellence

Manufactured By :

**Fuel Instruments & Engineers Pvt. Ltd.**

Plot No. 68 & 89, Parvati Co-op Industrial Estate, YADRAV-416 145 (Ichalkaranji),  
Tal : Shirol, Dist : Kolhapur, Maharashtra State, INDIA.

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