



Computerised

MICROVICKERS HARDNESS TESTER



MODELS - MV-1 PC



'FIE' Computerised Microvickers Hardness Tester is a simple and accurate means to produce and automatically measure the diamond indentation to give micro hardness numbers directly. 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 conform to IS:1754 :2002 and ISO 6507-2:1997.

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 applied on a diamond indenter by means of dead weights. After a lapse of 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 measured by the PC and the Micro Hardness number is displayed directly on monitor.

Features :

- Fully computerised (PC based) Micro Hardness Tester.
- Direct and accurate measurement of micro hardness number using "State of the 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.
- Motorised loading and unloading cycle.
- Small loads allow testing of thin sheet metals.
- **Advanced Window 98 based software :**
 - Latest GUI features with user friendly software.
 - On line indentation setting and 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 and reports generation for case depth analysis etc.
 - **Statistical Evaluation :** Software for calculating standard deviation, mean, medium, frequency distribution graph, variation graph etc.
 - Calibration mode facility.

Scope of Supply :

- Basic machine with CCD Camera, optics with illumination system and connecting cable.
- PCI video capture card with driver software.
- PC and Windows operating system is procured by customer. Minimum Pentium II with 64mb RAM & Window 98/98SE operating system required.



IMPACT TESTING MACHINE

MODEL : IT-30 & IT-30 (D)



MODEL : IT-30 (ASTM)

The Impact Tester offered with 300 J energy exclusively for Charpy test confirming to ASTM E-23. This machine is geometrically checked in the works to the more stringent requirements of the American standard. The accuracy of the machine is then verified by PROOF TEST by testing standard test specimens supplied by the NIST, USA. Two sets (Low & high energy-1 Set (4 Nos.) each.) must agree with the normal values within certain tolerance specified.

MODEL	IT-30	IT-30 (D)	IT-30 (ASTM) Charpy Test	IT-1.5	IT-0.5
Maximum Capacity	300 J/168 J	300 J/170 J	300 J	15 J	5 J
Maximum Scale Graduation	2 J	0.5 J	2 J	0.1 J	0.05 J
Overall Size (Approx.)	1.1m x 0.45m x 1.65 m (H)	1.32m x 0.45m x 1.05 m (H)	1.4m x 0.5m x 1.9 m (H)	0.5m x 0.3m x 0.52 m (H)	0.5m x 0.3m x 0.52 m (H)
Net Weight (Approx.)	375 kg.	375 kg.	450 kg.	70 kg.	70 kg.

FIE reserves the right to change the specifications without notice due to constant improvement in design.

OPTIONAL ACCESSORIES FOR IT-30 / IT 30 D

- Caliper gauge checking V notch for Izod & Charpy.
- Templates for checking 10x10mm. cross section of Izod/Charpy test specimen.
- Depth notch gauge including V & U notch gauges for checking depth below V/U notch, angle and radius.
- Izod support for 0.450" dia Izod round specimen.
- Self centering tong for quick and accurate setting of Charpy test specimen.
- 'V' notch milling cutter.
- 'U' notch milling cutter.

Manufactured by :



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