



GENESS ENGINEERS

FIE Dealer | Accredited By NABL Call: 9970 600 965 / 61
Visit: www.genessengineers.com Email: genessengineers@gmail.com

Computerised Fully Automatic BRINELL HARDNESS TESTER

MODEL : B 3000-PC-FA



► Computer, Ups and Computer table is not part of the Machine.

'FIE' Computerised Brinell Hardness Tester, Model B3000-PC-FA is fabricated from steel plates and is designed for precise loading system. It is fully automatic machine for production testing. Once the job is placed on testing table and press "Cycle Start" button. The job is raised and brought in contact with clamping device. Then indenter is swivelled and brought in vertical loading position. The loading operation starts. After preset dwelling timer, unloading operation starts. As soon as load is fully removed, the indenter is swivelled and the image is digitalized using a CCD camera fitted on machine and captured by the PC.

The diameter of indentation is measured by PC and the Brinell Hardness is displayed on monitor with the help of "State of Art" technology software. The job is lowered down and here the auto cycle is over.

Operationally the machine can be operated after a lapse of interval without operation of push button, so that operator has only to do loading and unloading of job on machine.

This tester is designed for measuring hardness of metallic parts with wide testing range from soft to hard and its accurate results are widely acclaimed.

This tester conforms to IS:2281, BS:10003-2 and ASTM E-10

Features :

- Fully automatic machine for production testing.
- Fully computerised (PC based) Brinell Hardness Tester.
- Direct and accurate measurement of Brinell hardness number using "State of Art" image processing technology.
- Wide testing range : From soft metal such as lead up to hardest, like tempered steel.
- High accuracy and repeatability of measurement at all loads.
- Advanced Window XP 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.
 - Statistical Evaluation : Software for calculating standard deviation, mean, medium, frequency distribution graph, variation graph etc.
 - Calibration mode facility.
 - Extendibility for future advanced image processing analysis, requirements.
 - "Auto measurement start" from machine.

Scope of Supply

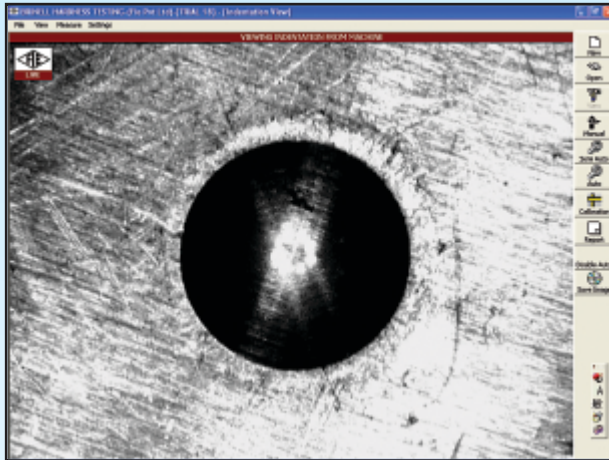
- Basic machine with CCD camera, optics with illumination system and connecting cable.
- PCI video capture card with driver software.
- PC and Windows operating system is to be procured by customer.



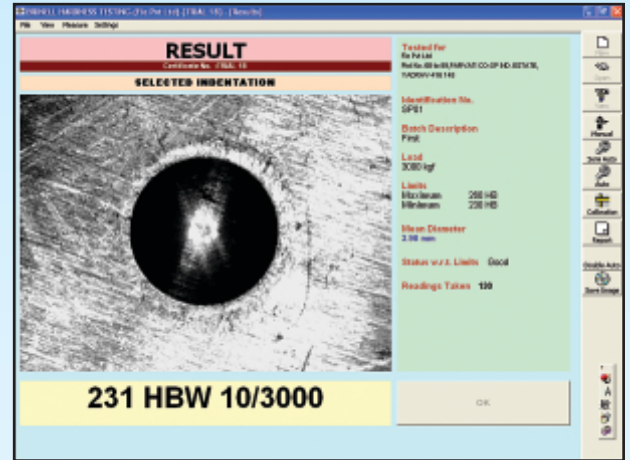
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Indentation View



Result View

TECHNICAL DATA :

Load Range	:	250 to 3000 kgf in steps of 250 kgf.
Max test height	:	380 mm
Depth of throat	:	200 mm
Machine height (approx)	:	1185 mm
Net weight (approx)	:	450 kgs
Drive power	:	0.66 HP
Mains supply	:	415 V, 50 Hz, 3 Phase
Measuring accuracy with CCD camera and built in optics	:	0.01 mm
Dwell timer	:	1 to 99 sec.
Raising/lowering	:	240 mm/min

STANDARD ACCESSORIES :

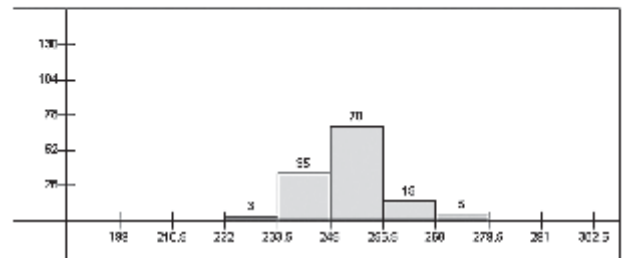
Testing table 200 mm Ø	:	1 No.
Testing table 70 mm Ø	:	1 No.
Ball holder 5 mm	:	1 No.
Ball holder 10 mm	:	1 No.
Test block HB 5/750	:	1 No.
Test block HB 10/3000	:	1 No.
Allen spanner	:	4 Nos.
Telescopic cover for elevating screw protection	:	1 Set
Instruction Manual	:	1 No.

Brinell Hardness Test Report

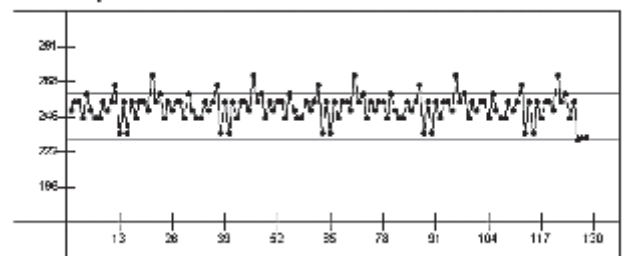
STATISTICAL ANALYSIS

Organisation : FIE Pvt Ltd		Batch : First	
Readings :		Statistical Values :	
Sl. No.	HB	Minimum Reading : 229.9	
1	249	Maximum Reading : 272.1	
2	266	Arithmetic Mean : 250.9	
3	266	Median : 244.0	
4	244	Standard Deviation : 9.1	
5	260		
6	249		
7	244		
8	244		
9	255		
10	249		

Frequency Distribution Graph :



Variation Graph :



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



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