



Over 50 years of consistent excellence

Computerized Touch Screen Vickers Hardness Tester

Computerized Touch Screen Vickers Hardness Tester Model - VM 50-TS

Features :

- Fully Computerized Touch Screen Vickers Hardness Testing Machine.
- 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.
- Motorised loading and unloading cycle.
- Small loads allow testing of thin sheet metals.
- Advanced windows based software
- PLC based system
- Inbuilt branded touch screen laptop.
- Front panel touch screen display.

Latest GUI features :

- User Friendly software with windows features.
- Online indentation setting & focussing on front touch screen display.
- 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.
- USB Printer/Wi-fi printer port for printer interface with result & graph print-out.
- Facility to test in Manual, Semi-automatic & Automatic Mode.
- Facility to export result/data in PDF format.

Application :

'FIE' touch screen Vickers hardness tester is a simple and accurate means to produce and automatically measure the indentation 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 confirms to IS 1501-2:2013

Construction :

The robust machine frame is designed to accommodate the high precision loading equipped with front touch screen laptop.

Specimen is placed on a testing table. The test cycle is semi automatic.

The accurate load is applied on a diamond indenter by means of lever and weights. After a specific lapse of time the load is released automatically.

The image is digitalized using USB camera fitted in the machine & is captured by the front touch screen laptop.

The diagonals of the indentation are automatically measured by software to give the Vickers hardness number.

The machine is equipped with latest touch screen branded laptop so there is no need to arrange for computer.

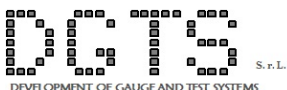


Technical Specifications :

| | |
|-------------------------------|----------------------------|
| Test Loads | 5, 10, 20, 30, 50 kgf. |
| Maximum Test Height (mm) | 200 |
| Scale least count (mm) | 0.001 |
| Diagonal measuring range (mm) | 0.05 to 0.3 |
| Throat Depth (mm) | 135 |
| Machine Dimensions | L600 x W440 x H920 Approx. |
| Weight | 100 Kg. Approx. |
| Power Supply | 220VAC, 50Hz, 1-Ph. |

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 |
| Software CD | 1 No. |
| Instruction Manual | 1 Book |



Azienda Certificata
ISO 9001 dal 2002

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Touch Screen Software Package includes :

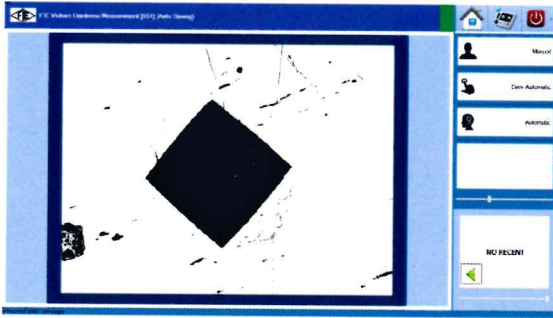


Image View



Result Window

Fuel Instruments and Engineers Pvt. Ltd.
Plot No. 88 - 89, Parvati Co-op Industrial Estate, YADRAV - 416145

VICKERS HARDNESS TEST CERTIFICATE
Certificate No. : 551 Date : 01 Sep 2015

Supplier Name : bal
mumbai

Sample Description
Coil No. : 499
Steel Grade :

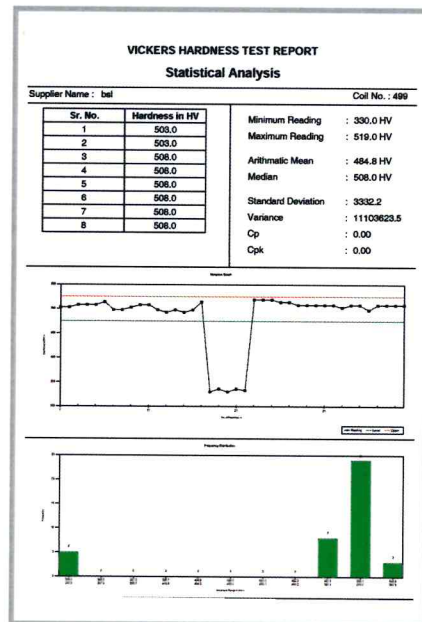
Test Parameter
Load : 10 kgf
Limit (High) : 525 HV
Limit (Low) : 475 HV

| Sr.No. | Hardness in HV | Remark |
|--------|----------------|--------|
| 1 | 503.0 | OK |
| 2 | 503.0 | OK |
| 3 | 508.0 | OK |
| 4 | 508.0 | OK |
| 5 | 508.0 | OK |
| 6 | 508.0 | OK |
| 7 | 508.0 | OK |
| 8 | 508.0 | OK |

Tested by Seal Authorised Signatory

TESTED ON VICKERS HARDNESS TESTER Model : VM - 50 TS Serial No. : 122014 - 1525

Test Certificate



Statistics

| Sr. No. | Hard (HV) | Time | Q | Sr. No. | Hard (HV) | Time | Q | Sr. No. | Hard (HV) | Time | Q |
|---------|-----------|---------|----|---------|-----------|---------|----|---------|-----------|------|---|
| 1 | 503.0 | 11:24 A | OK | 29 | 508.0 | 2:45 P | OK | | | | |
| 2 | 503.0 | 11:25 A | OK | 30 | 508.0 | 4:47 P | OK | | | | |
| 3 | 508.0 | 11:27 A | OK | 31 | 508.0 | 11:40 A | OK | | | | |
| 4 | 508.0 | 11:42 A | OK | 32 | 508.0 | 9:22 A | OK | | | | |
| 5 | 508.0 | 11:42 A | OK | 33 | 503.0 | 9:44 A | OK | | | | |
| 6 | 514.0 | 11:43 A | OK | 34 | 508.0 | 10:19 A | OK | | | | |
| 7 | 498.0 | 3:21 P | OK | 35 | 508.0 | 10:28 A | OK | | | | |
| 8 | 498.0 | 3:22 P | OK | 36 | 498.0 | 11:47 A | OK | | | | |
| 9 | 503.0 | 3:24 P | OK | 37 | 508.0 | 12:09 P | OK | | | | |
| 10 | 508.0 | 3:55 P | OK | 38 | 508.0 | 1:17 P | OK | | | | |
| 11 | 508.0 | 4:50 P | OK | 39 | 508.0 | 3:46 P | OK | | | | |
| 12 | 498.0 | 4:50 P | OK | 40 | 508.0 | 4:23 P | OK | | | | |
| 13 | 493.0 | 4:41 P | OK | | | | | | | | |
| 14 | 498.0 | 4:43 P | OK | | | | | | | | |
| 15 | 493.0 | 4:44 P | OK | | | | | | | | |
| 16 | 498.0 | 4:44 P | OK | | | | | | | | |
| 17 | 514.0 | 5:16 P | OK | | | | | | | | |
| 18 | 330.0 | 4:38 P | Lo | | | | | | | | |
| 19 | 336.0 | 4:39 P | Lo | | | | | | | | |
| 20 | 330.0 | 4:39 P | Lo | | | | | | | | |
| 21 | 336.0 | 4:40 P | Lo | | | | | | | | |
| 22 | 333.0 | 4:42 P | Lo | | | | | | | | |
| 23 | 519.0 | 10:42 A | OK | | | | | | | | |
| 24 | 519.0 | 10:44 A | OK | | | | | | | | |
| 25 | 519.0 | 10:46 A | OK | | | | | | | | |
| 26 | 514.0 | 10:46 A | OK | | | | | | | | |
| 27 | 514.0 | 10:46 A | OK | | | | | | | | |
| 28 | 508.0 | 2:44 P | OK | | | | | | | | |

Checked by: Accepted By: Authorised Signature: Remark: 1/1

Batch Analysis

| | | |
|--|---|--|
| | Load : 10 kgf Dimension : 0.192 mm Hardness : 503 HV 10 | Date and Time : 11/18/2015 11:24:04 AM Type : Auto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.192 mm Hardness : 503 HV 10 | Date and Time : 11/18/2015 11:25:05 AM Type : Auto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.191 mm Hardness : 508 HV 10 | Date and Time : 11/29/2015 11:37:17 AM Type : Auto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.191 mm Hardness : 508 HV 10 | Date and Time : 11/29/2015 11:42:40 AM Type : Auto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.191 mm Hardness : 508 HV 10 | Date and Time : 11/29/2015 11:42:45 AM Type : SemiAuto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.190 mm Hardness : 514 HV 10 | Date and Time : 11/29/2015 11:43:30 AM Type : Manual Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.193 mm Hardness : 498 HV 10 | Date and Time : 12/13/2015 9:21:11 PM Type : Auto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.193 mm Hardness : 498 HV 10 | Date and Time : 12/13/2015 9:22:42 PM Type : SemiAuto Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.192 mm Hardness : 503 HV 10 | Date and Time : 12/13/2015 9:24:19 PM Type : Manual Remark: OK Job No.: |
| | Load : 10 kgf Dimension : 0.191 mm Hardness : 508 HV 10 | Date and Time : 12/13/2015 9:25:13 PM Type : Manual Remark: OK Job No.: |

Readings Window