

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 their 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

Touch Screen Software Package includes :

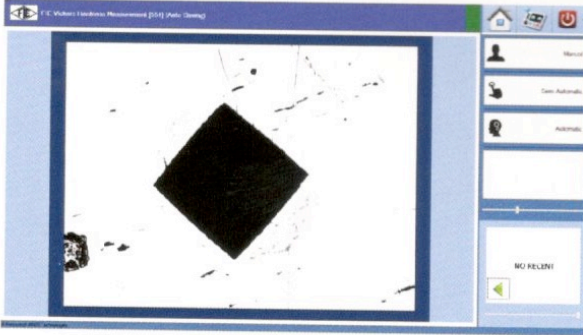
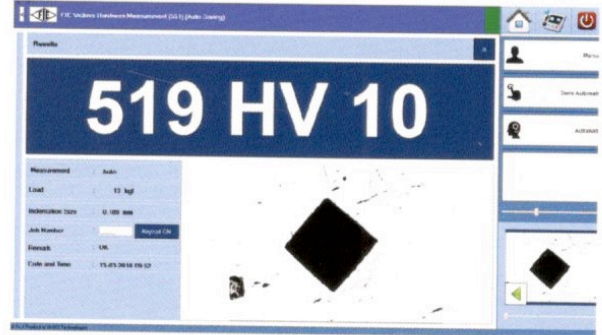


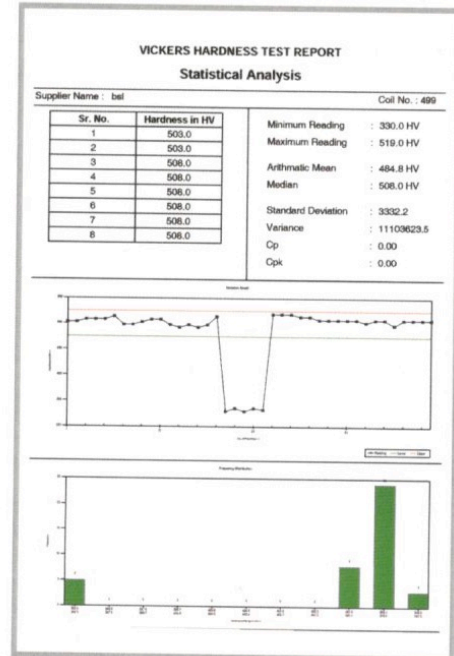
Image View



Result Window

Fuel Instruments and Engineers Pvt. Ltd.																												
Plot No. 66 - 86, Parvati Co-op Industrial Estate, YADRAV - 416145																												
VICKERS HARDNESS TEST CERTIFICATE																												
Certificate No. : 551	Date : 01 Sep 2015																											
Supplier Name : bel mumbai																												
Sample Description Coil No. : 499 Steel Grade																												
Test Parameter Load : 10 kgf Limit (High) : 525 HV Limit (Low) : 475 HV																												
Test Parameters	<table border="1"> <thead> <tr> <th>Sr.No.</th> <th>Hardness in HV</th> <th>Remark</th> </tr> </thead> <tbody> <tr><td>1</td><td>503.0</td><td>OK</td></tr> <tr><td>2</td><td>503.0</td><td>OK</td></tr> <tr><td>3</td><td>506.0</td><td>OK</td></tr> <tr><td>4</td><td>506.0</td><td>OK</td></tr> <tr><td>5</td><td>506.0</td><td>OK</td></tr> <tr><td>6</td><td>506.0</td><td>OK</td></tr> <tr><td>7</td><td>506.0</td><td>OK</td></tr> <tr><td>8</td><td>506.0</td><td>OK</td></tr> </tbody> </table>	Sr.No.	Hardness in HV	Remark	1	503.0	OK	2	503.0	OK	3	506.0	OK	4	506.0	OK	5	506.0	OK	6	506.0	OK	7	506.0	OK	8	506.0	OK
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Tested by : Seal	Authorised Signatory																											
TESTED ON VICKERS HARDNESS TESTER Model : VM - 50 TS Serial No. : 12/2014 - 1525																												

Test Certificate



Statistics

VICKERS HARDNESS TEST		Cert No.	551	Date	01 Sep 2015						
Machine	VM - 50 TS	Coil No.	499	Load	10kgf						
Serial No.	12/2014 - 1525	Steel Grade		Max / Min	525 HV / 475 HV						
High City	0	Low City	5	Ok City	35/40						
Sr No	Job No.	Hard (HV)	Time Q	Sr No	Job No.	Hard (HV)	Time Q	Sr No	Job No.	Hard (HV)	Time Q
1	503.0	11:24 A	OK	29	506.0	2:45 P	OK				
2	503.0	11:25 A	OK	30	506.0	4:47 P	OK				
3	506.0	11:27 A	OK	31	506.0	11:40 A	OK				
4	506.0	11:42 A	OK	32	506.0	9:22 A	OK				
5	506.0	11:42 A	OK	33	503.0	9:44 A	OK				
6	514.0	11:43 A	OK	34	506.0	10:19 A	OK				
7	496.0	3:21 P	OK	35	506.0	10:28 A	OK				
8	496.0	3:23 P	OK	36	496.0	11:47 A	OK				
9	503.0	3:24 P	OK	37	506.0	12:09 P	OK				
10	506.0	3:55 P	OK	38	506.0	1:17 P	OK				
11	506.0	4:56 P	OK	39	506.0	3:46 P	OK				
12	486.0	4:59 P	OK	40	506.0	4:23 P	OK				
13	483.0	4:41 P	OK								
14	496.0	4:43 P	OK								
15	483.0	4:44 P	OK								
16	496.0	4:44 P	OK								
17	514.0	5:18 P	OK								
18	330.0	4:36 P	Li								
19	336.0	4:36 P	Li								
20	330.0	4:36 P	Li								
21	336.0	4:44 P	Li								
22	333.0	4:45 P	Li								
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	506.0	2:44 P	OK								

Checked by : Accepted By : Authorised Signature : Remark :

Batch Analysis

	Load : 10 kgf Dimension : 0.192 mm Hardness : 503 HV 10	Date and Time : 11/16/2015 11:24:04 AM Type : Auto Remark: OK
	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
	Load : 10 kgf Dimension : 0.191 mm Hardness : 506 HV 10	Date and Time : 11/29/2015 11:37:17 AM Type : Auto Remark: OK
	Load : 10 kgf Dimension : 0.191 mm Hardness : 506 HV 10	Date and Time : 11/29/2015 11:42:40 AM Type : Auto Remark: OK
	Load : 10 kgf Dimension : 0.191 mm Hardness : 506 HV 10	Date and Time : 11/29/2015 11:42:45 AM Type : SemiAuto Remark: OK
	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
	Load : 10 kgf Dimension : 0.193 mm Hardness : 496 HV 10	Date and Time : 12/13/2015 3:21:11 PM Type : Auto Remark: OK
	Load : 10 kgf Dimension : 0.193 mm Hardness : 496 HV 10	Date and Time : 12/13/2015 3:22:42 PM Type : SemiAuto Remark: OK
	Load : 10 kgf Dimension : 0.192 mm Hardness : 503 HV 10	Date and Time : 12/13/2015 3:24:10 PM Type : Manual Remark: OK
	Load : 10 kgf Dimension : 0.191 mm Hardness : 506 HV 10	Date and Time : 12/13/2015 3:55:13 PM Type : Manual Remark: OK

Reading Window