

Computerized Touch Screen Vickers Hardness Testing Machine

Model : VM 50-TS



MatrixTestingMachineServices

Sold and Serviced by :

MATRIX TESTING MACHINE SERVICES

Kalewadi, Pimpri, Pune 411017

Email : matrixtestingmachineservices@gmail.com

Website : www.matrixtestingmachineservices.com



Over **60** years of consistent excellence

Computerized Touch Screen Vickers Hardness Testing Machine 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



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Touch Screen Software Package includes :

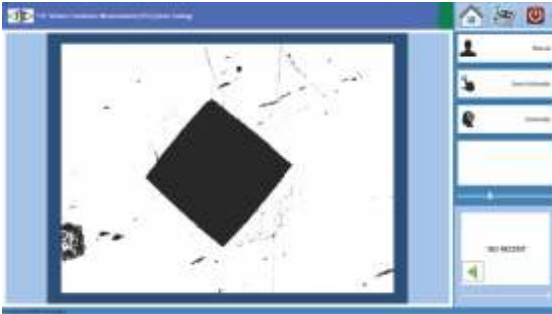


Image View



Result Window

Fuel Instruments and Engineers Pvt. Ltd.
Plot No. 88 - 89, Powall Group Industrial Estate, VADRAV - 412145

VICKERS HARDNESS TEST CERTIFICATE

Certificate No. : 1515 Date : 01 Sep 2015

Supplier Name : Ind
Material : Invar

Sample Description
Cyl No. : 480
Steel Grade :

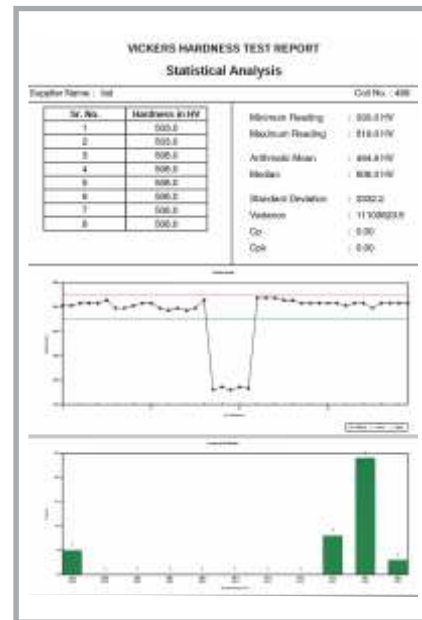
Test Parameter
Load : 10 kgf
Limit (High) : 625 HV
Limit (Low) : 475 HV

Sr.No.	Hardness in HV	Remark
1	500.0	OK
2	500.0	OK
3	500.0	OK
4	500.0	OK
5	500.0	OK
6	500.0	OK
7	500.0	OK
8	500.0	OK

Tested by : Ind Authorized Signatory

Model : VM - 50 TS
Serial No. : 120014 - 1525

Test Certificate



Statistics

VICKERS HARDNESS TEST Cert No. : 1515 Date : 01 Sep 2015

Machine : VM - 50 TS Cyl No. : 480 Load : 10 kgf

Steel No. : 152014 - 1525 Steel Grade : Invar Max. (Hv) : 625 HV / 475 HV

High. City : Ind Low. City : Ind OK City : Ind

Sr No.	Job No.	Hard (HV)	Time (s)	Q	Sr No.	Job No.	Hard (HV)	Time (s)	Q
1	1	500.0	11.04.39	14	308.0	3.46.17	14		
2	1	500.0	11.26.33	20	500.0	4.47.17	14		
3	1	500.0	11.31.43	19	499.0	11.40.43	14		
4	1	500.0	11.42.32	20	500.0	8.01.43	14		
5	1	500.0	11.42.39	18	500.0	8.04.43	14		
6	1	500.0	11.27.52	14	500.0	10.10.43	14		
7	1	499.0	12.21.17	14	500.0	10.28.43	14		
8	1	490.0	12.02.17	14	490.0	11.14.43	14		
9	1	500.0	12.24.17	14	500.0	10.29.17	14		
10	1	500.0	12.03.17	14	500.0	11.17.17	14		
11	1	500.0	4.48.17	14	500.0	3.46.17	14		
12	1	490.0	4.59.17	14	500.0	4.20.17	14		
13	1	490.0	4.31.17	14					
14	1	490.0	4.43.17	14					
15	1	490.0	4.44.17	14					
16	1	490.0	4.44.17	14					
17	1	504.0	4.48.17	20					
18	1	500.0	4.38.17	14					
19	1	500.0	4.49.17	14					
20	1	500.0	4.39.17	14					
21	1	500.0	4.49.17	14					
22	1	500.0	4.49.17	14					
23	1	500.0	10.04.43	14					
24	1	500.0	10.04.43	14					
25	1	500.0	10.04.43	14					
26	1	500.0	10.04.43	14					
27	1	500.0	10.04.43	14					
28	1	500.0	10.04.43	14					
29	1	500.0	10.04.43	14					
30	1	500.0	10.04.43	14					

Discard by : _____ Accepted by : _____ Authorized Signatory : _____

Remark : 1515

Batch Analysis

	Load : 10 kgf Dimension : 2.150 mm Hardness : 500 HV 10	Date and Time : 11/09/2015 11:04:04 AM Type : Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.180 mm Hardness : 500 HV 10	Date and Time : 11/09/2015 11:28:08 AM Type : Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.181 mm Hardness : 500 HV 10	Date and Time : 11/09/2015 11:37:17 AM Type : Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.181 mm Hardness : 500 HV 10	Date and Time : 11/09/2015 11:42:40 AM Type : Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.181 mm Hardness : 500 HV 10	Date and Time : 11/09/2015 11:42:40 AM Type : Semi-Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.180 mm Hardness : 519 HV 10	Date and Time : 11/09/2015 11:49:30 AM Type : Manual Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.183 mm Hardness : 499 HV 10	Date and Time : 12/09/2015 3:21:11 PM Type : Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.180 mm Hardness : 499 HV 10	Date and Time : 12/09/2015 3:24:43 PM Type : Semi-Auto Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.150 mm Hardness : 500 HV 10	Date and Time : 12/09/2015 3:24:43 PM Type : Manual Remark : OK Job No. :
	Load : 10 kgf Dimension : 2.181 mm Hardness : 500 HV 10	Date and Time : 12/09/2015 3:25:13 PM Type : Manual Remark : OK Job No. :

Readings Window



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