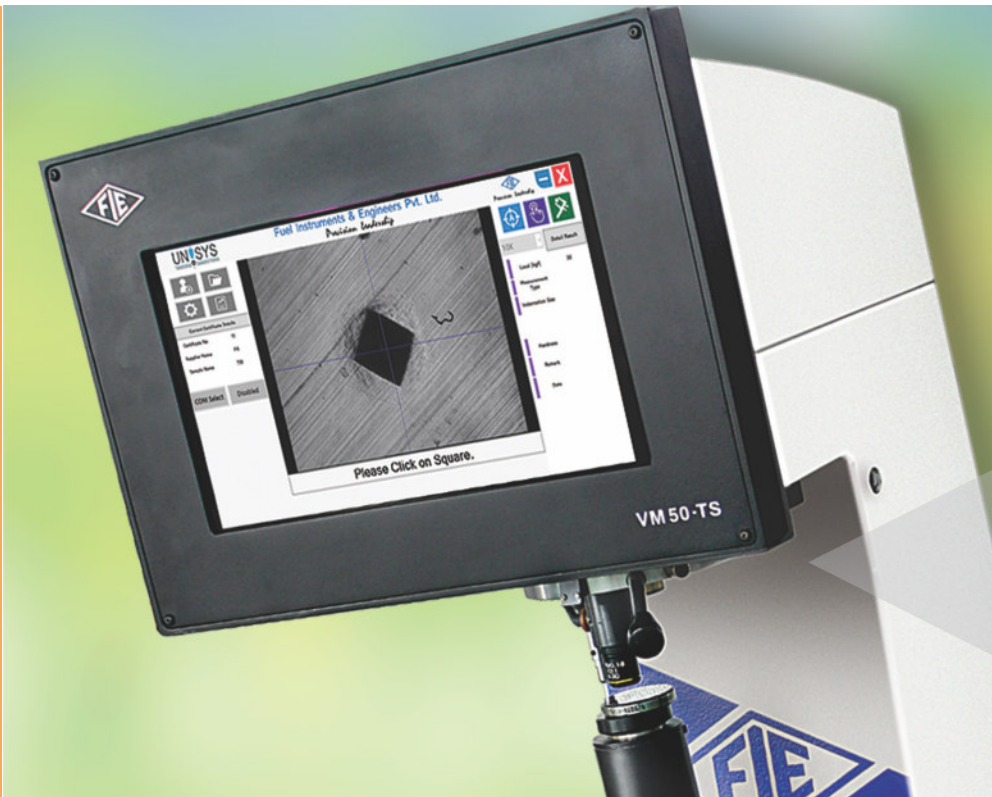


# VM 50-TS



Over **60** years of  
consistent excellence



## Computerized Touch Screen Vickers Hardness Testing Machine



Wide Testing Range from  
Soft metal to medium hardness Steel



High accuracy & repeatability  
of measurement at all loads



Front Panel Touch Screen Display



USB Connectivity



## 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.



**Optional -**  
Auto Turret Mechanism for indexing indenter & objective from loading station to measurement station.

**For Auto Turret Machine after clicking on cycle start button indexing mechanism will operate automatically & loading mechanism starts, once loading finishes again indexing mechanism will positioned at measuring station.**

## Technical Specifications :

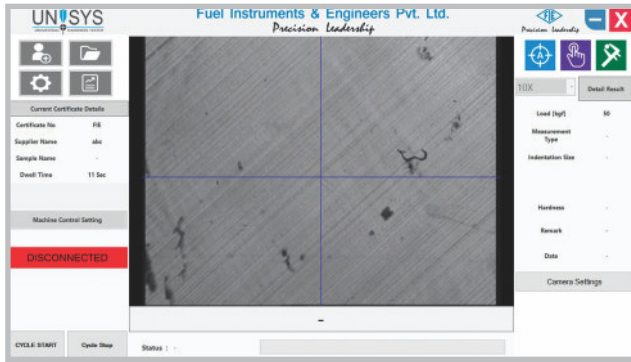
Test Loads	5, 10, 20, 30, 50 kgf.
Maximum Test Height (mm)	200
Scale least count (mm)	0.001
Diagonal measuring range (mm)	0.05 to 0.3
Throat Depth (mm)	135
Machine Dimensions	L600 x W440 x H920 Approx.
Weight	100 Kg. Approx.
Power Supply	220VAC, 50Hz, 1-Ph.

## Standard Accessories :

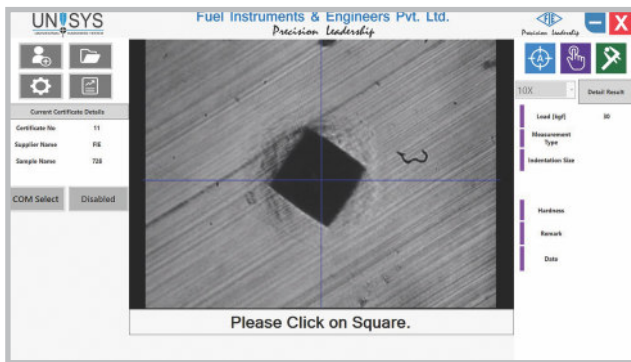
Standard Test Block	1 No.
Diamond Indenter	1 No.
Weights	1 Set
Flat Anvil	1 No.
Vee – type anvil (Small & Big)	1 No. Each
Spanners	1 Set
Software CD	1 No.
Telescopic Cover	1 Set
Instruction Manual	1 Book

**Note : UPS - 600VA is must & not in our standard scope of supply.**

Touch Screen Software Package includes :



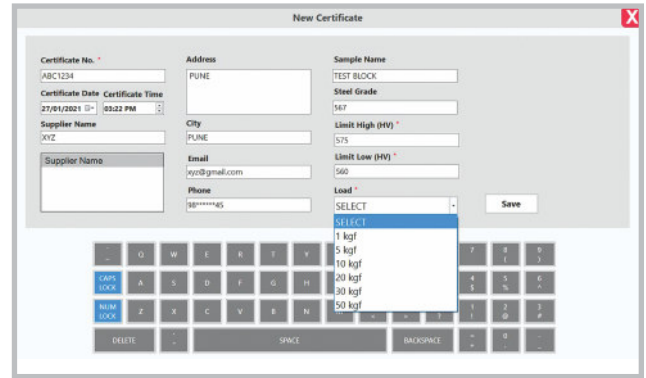
Home Page



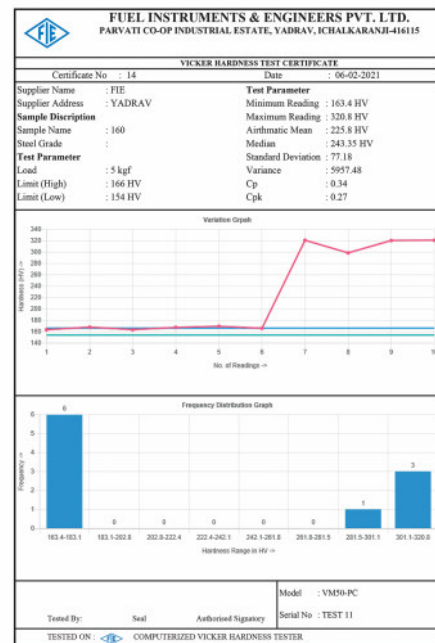
Impression Measurement

FUEL INSTRUMENTS & ENGINEERS PVT. LTD. PLOT NO. 68 TO 89, PARVATI CO-OP. INDUSTRIAL ESTATE LTD., YADRAV - 416445, DIST. KOLHAPUR, MAHARASHTRA, INDIA.		
VICKER HARDNESS TEST CERTIFICATE		
Certificate No. : BTST30	Certificate Date : 01-01-2022	
Supplier Name : Address :	<b>Test Parameter</b>	
	Load(kgf) : 30 kgf	
	Limit (High) : 735 HV	
	Limit (Low) : 705 HV	
Sample Name : Steel Grade :	High Quantity : 1	
	Low Quantity : 1	
	OK Quantity : 7	
<b>Test Parameter</b>		
Sr.No	Hardness	Remark
1	707.4 HV 30	OK
2	707.4 HV 30	OK
3	731.7 HV 30	OK
4	731.7 HV 30	OK
5	730.2 HV 30	OK
6	715 HV 30	OK
7	715 HV 30	OK
8	699.8 HV 30	High
9	654.8 HV 30	Low
Tested By: Seal Authorized Signatory		Model : VM50-TS Serial No : 12/2021-2161
TESTED ON: COMPUTERIZED VICKER HARDNESS TESTER		

Batch Analysis



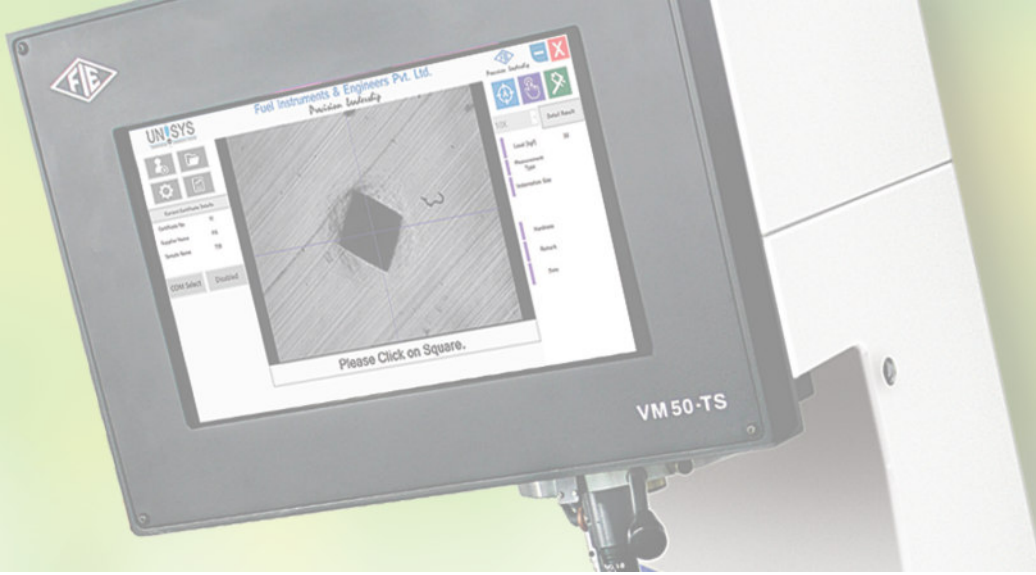
Data Entry



Statistics

FUEL INSTRUMENTS & ENGINEERS PVT. LTD. PLOT NO. 68 TO 89, PARVATI CO-OP. INDUSTRIAL ESTATE LTD., YADRAV - 416445, DIST. KOLHAPUR, MAHARASHTRA, INDIA.		
VICKER HARDNESS TEST CERTIFICATE		
Certificate No. : BTST30	Certificate Date : 31-12-2021	
Supplier Name : Address :	<b>Test Parameter</b>	
	Load(kgf) : 30 kgf	
	Limit (High) : 735 HV	
	Limit (Low) : 705 HV	
Sample Name : Steel Grade :	High Quantity : 1	
	Low Quantity : 1	
	OK Quantity : 7	
	Load(kgf) : 30 kgf Dimension : 0.2804 mm Hardness : 707.4 HV 30	Date and Time : 31-12-2021 14:53:11 Type : Automatic Remark : OK
	Load(kgf) : 30 kgf Dimension : 0.2804 mm Hardness : 707.4 HV 30	Date and Time : 31-12-2021 14:53:19 Type : Automatic Remark : OK
	Load(kgf) : 30 kgf Dimension : 0.2757 mm Hardness : 731.7 HV 30	Date and Time : 31-12-2021 14:53:44 Type : Automatic Remark : OK
	Load(kgf) : 30 kgf Dimension : 0.2757 mm Hardness : 731.7 HV 30	Date and Time : 31-12-2021 14:53:46 Type : Automatic Remark : OK
	Load(kgf) : 30 kgf Dimension : 0.276 mm Hardness : 730.2 HV 30	Date and Time : 31-12-2021 14:53:52 Type : Semi Remark : OK
	Load(kgf) : 30 kgf Dimension : 0.2789 mm Hardness : 715 HV 30	Date and Time : 31-12-2021 14:54:15 Type : Automatic Remark : OK
Tested By: Seal Authorized Signatory		Model : VM50-TS Serial No : 12/2021-2161
TESTED ON: COMPUTERIZED VICKER HARDNESS TESTER		

Readings with impression



## Computerized Touch Screen Vickers Hardness Testing Machine

# VM 50-TS



Over **60** years of  
*consistent excellence*

Manufactured By :

**Fuel Instruments & Engineers Pvt. Ltd.**

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Tal : Shirol, Dist : Kolhapur, Maharashtra State, INDIA.

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