

### Load Cell Micro Vicker cum Vicker Hardness Tester

MLT-1 0.01Kg – 1 Kg (Microvicker Hardness Tester) MLT-2 0.01 Kg – 2 Kg (Microvicker Hardness Tester) **VLT-10** 0.300 Kg – 10 Kg (Vicker Hardness Tester) VLT-20 1.0 Kg – 20 Kg (Vicker Hardness Tester) **VLT-30** 2.0 Kg – 30 Kg (Vicker Hardness Tester) VLT-50 2.0 Kg – 50 Kg (Vicker Hardness Tester) VLT-50B 2.0 Kg – 50 Kg (Vicker Hardness Tester with Brinell Testing) **RLT-150** 60 Kg – 150 Kg (Rockwell Hardness Tester) **RLT-150S** 60 Kg – 150 Kg (Superficial Rockwell Hardness Tester) **RLT-150B** 60 Kg – 150 Kg (Rockwell Hardness Tester with Brinell Testing)



## INNOVATIVE AUTOMATIC HARDNESS TESTERS

#### Wide Range of Hardness Testing 0.01 KG TO 50 KG

All test force control is performed by electric control. The high quality load sensing system can do a widerange hardness test by one load cell.

Test force

(0.010gf)



(150kgf)

VICKERS					
HV0.1	HV0.1 HV0.2		HV0.5	HV1	
HV3	HV5	HV10	HV30	HV50	
KNOOP					
HK0.1	HK0.2	HK0.3	HK0.5	HK1	
BRINELL					
1/1	1/2.5	1/5	1/10	1/30	
2.5/6.25	2.5/15.625	2.5/31.25	5/25	5/30	
2.5/100	2.5/125				
ROCKWELL					
HR15N	HR15W	HR15Y	HRG	HRP	
HR30N	HR30W	HR30Y	HRB	HRM	
HR45N	HR45W	HR45Y	HRF	HRL	
HR15T	HR15X	HRC	HRK	HRV	
HR30T	HR30X	HRD	HRE	HRS	
HR45T	HR45T HR45X		HRH	HRR	

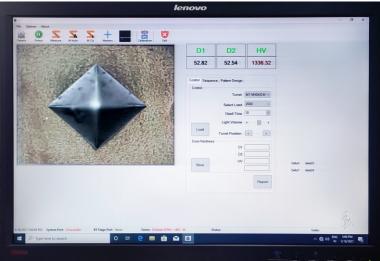


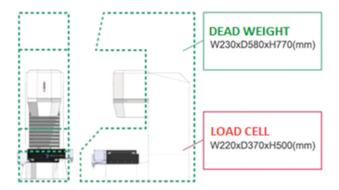
Motorized focus and auto read function

(Standard Equipment)

Motorized focus and automatic reading are equipped standardly. Infinity-corrected objective lens and 5MP HD USB 3.0 camera offers a clear image.

This automatic-system can dissolve a personal error in reading of indentation by the latest image processing software and reduce hardness measurement cost time.





#### **Light Weight and Compact**

The optimal design is light weight, compact. Easy to operate interface in touchscreen and software for both manual and automatic testing.

## The turret which mounted four objective lenses

One Lens and one Indentor is provided as standard. But we can easily increase the no. of lenses and Indentor in turret as per customer's requirement





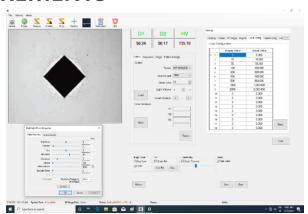
#### Window 10 PC

In addition to operation of a testing machine is on Window10 PC for better user Interface and better reporting features.

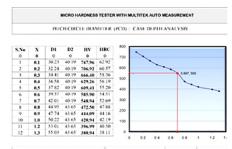
## MULTITEK TECHNOLOGIES HRSM SOFTWARE FOR ACCURATE MEASUREMENTS

#### **User Friendly Interface**

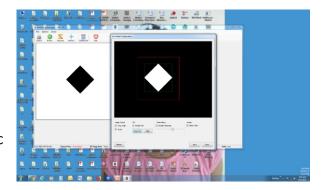
Hardness Tester comes with a Multitek
Technologies HRSM software which helps us to
take results accurately and fast with its user
friendly Interface and various features.HRSM has a
Multiple Calibration Process for Loads, Lenses and
Image Diagonal which makes reading more
accurate and easy to read by its Auto Read system.

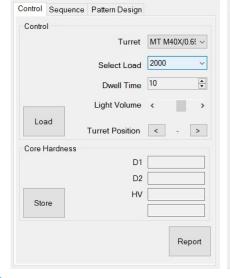


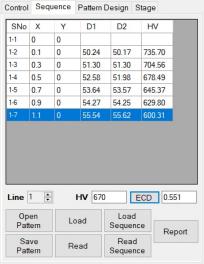
- We can save multiple Traverse Format for various sample which helps in saving time for long traverse Sample Testing.
- We can also align traverse movement angle in Multitek Technologies HRSM which helps in tasking precise angular traverse in testing of sample.
- HRSM has a various template reporting system which makes easy to take report for different customers in one software.
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- Fully automatic camera. This will automatically update its aperture according to ambient light conditions Indent Sharpness is algorithm based and this too works on live Image in both automatic and manual mode

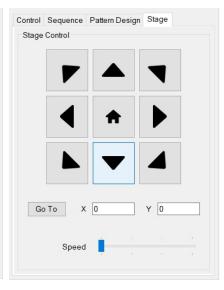












## MULTITEK TECHNOLOGIES HRSM SOFTWARE FOR ACCURATE MEASUREMENTS

#### **User Friendly Interface**

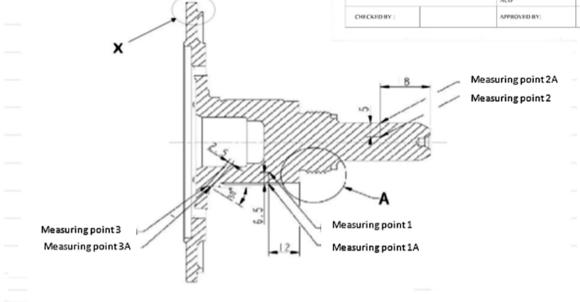
- A highly impressive and fully user settable reports are created after every measurement. Other items can be added and deleted as per individual customer requirement.
- Reports are saved automatically at predefined location.
- Several Formats can be used at the same time for different samples and different user or customer requirements.

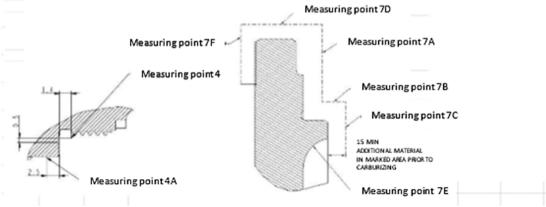


No	X	Traversel	Traverse2	Traverse3
0	0	0	0	0
1	0.1	680.21	747.96	428.28
2	0.2	690.28	706.92	418.36
3	0.3	675.19	666.40	400.36
4	0.4	648.29	629.26	390.85
5	0.5	624.48	609.41	385.28
6	0.6	600.78	585.90	382.48
7	0.7	580.69	548.94	387.14
8	0.8	500.98	472.50	389.14
9	0.9	480.36	444.09	375.14
10	1.0	428.27	420:94	370.08
11	1.2	375.28	396.99	372.19
12	1.3	354.27	380.94	375.04

Measurement Magnification	500x	PARAMETER	SPECIFIED	ACTUAL
Indentation load (g)	500	Surface Hardness (HRC)		38.11
Dwell Time (Seconds)	10	Core Hardness (IIV)		357,52
OTHERS		Cut Off Value (HV)		550
		EFFECTIVE C. D. (mm)		0.697
	M	ICROSTRUCTURE		
CASE				
CORE				







## TOUCHSCREEN CONTROL SYSTEM WITH MULTI PATTERN TEST AND CUSTOMIZED REPORT INTERFACE WITHOUT PC

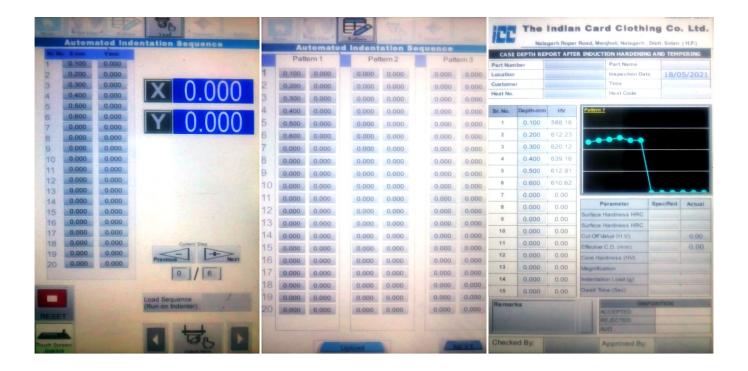
Hardness Tester comes with a touch Screen Control Panel with which we can easily Make Multiple traverse pattern and take their results with their Graphs and Effective Case Depth very accurately and less time on Customized Report Format without PC.

Touch Screen Control Panel also have a USB port which supports USB Storage device. Which helps us to take data from machine and save, print, email report from any other PC



Easy to use motorized stage setup with joystick, touchscreen and software. For easy, accurate and fast testing can be done in any testing process either in manual or auto mode.







# SMART CONTROL PANEL WITH JOYSTICK MULTIPLE SHORTCUT KEYS

- Hardness Tester comes with a control Panel which have multiple shortcut apparatus on it.
- It has a 3 axis Joystick system for easy, precise and quick movement at any location on sample.
- It also have a Z axis fine focusing wheel in the panel which makes it very easy to precisely focus on sample.
- ❖ We also provide some shortcut keys on this control panel e.g. loading key, emergency stop and two other keys for speed control of all axis of movement machine.

#### **SPECIFICATIONS**

Test Force	Vickers	0.981, 1.961, 2.942, 4.903, 9.807, 29.42, 49.03, 98.07, 294.2, 490.3(N		
		1, 3, 5, 10, 20, 30, 50(Kgf)		
	Knoop	0.981, 1.961, 2.942, 4.903, 9,807(N)		
		0.1, 0.2, 0.3, 0.5, 1(Kgf)		
	Brinell	1/9.807, 1/24.52, 1/49.03, 1/98.07, 1/294.2, 2.5/61.29, 2.5/153.2, 2.5/306.5, 5/245.2(N)		
		1/1, 1/2.5, 1/5, 1/10, 1/30, 2.5/6.25, 2.5/15.625, 2.5/31.25, 5/25, 5/30, 2.5/100, 2.5/125(Kgf)		
	Rockwell	60, 100, 150 (Kgf)		
Test Force Dwell Time	5~99sec			
Indenter	Standard Vickers(HV), Option: Knoop (HK), Brinell (HBWØ1, Ø2.5, Ø 5mm), Diamond Indentor(Rockwell), Ball Indentor (Rockwell)			
Objective Lens	Infinity-co	rrected objective lens standard: 10x, 20x, option: 5x, 40x, 50x, 100x		
Min Measuring Unit	0.1µm			
Measurement view	5x:1000μm, 10x:500, 20x:250μm, 40x:80μm, 50x:100μm, 100x:50μm.			
Indenter Measurement	Automatic / manual on Live Camera Image on Windows10PC			
Camera	5MP HD USB3.0 Camera			
Controller	3-axis controller			
Operation Panel	Table Pc (Windows-10) (Optional) and Touch Screen control panel for manual testings			
Max. Specimen Height	140mm			
Accuracy	ISO 6507-2, JIS B7725 JISB7734, ASTME-384			
Power supply	200 to 240v-1 Single –Phase 50/60hz			

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