



MATRIX

Advanced Touch Screen Digital Micro-Vickers Hardness Tester

MMT-X5

Product Features

- ❖ Auto Turret
- ❖ Optical Measurement with Digital Encoder
- ❖ Worm UP/DOWN Movement
- ❖ Same Image at the same time is shown on Monitor and Optical System
- ❖ Touch Screen
- ❖ Direct ECD value
- ❖ Digital Computerized
- ❖ 15 years Spare Back up

*More than 300+ successful
installations across the world*



MATRIX ALPHA SERIES

MATRIX TESTING & TECHNOLOGIES PVT. LTD

Group of Matrix Testing Machine Services

Since 2012....

alpesh@matrixtest.in | www.matrixtest.in

MAIN FEATURES:

1. One-time casting aluminum machine body with car painting technology, structure more stable and appearance more decent.



2. Digital 10X eyepiece with inbuilt encoder, click the encoder machine will automatically get indentation diagonal length data D1 & D2, no need manual input data into machine, greatly improved testing accuracy and working efficiency.

3. With large touch screen digital display, directly display hardness value, dwell time, conversion hardness value, etc.

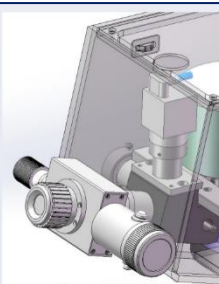
4. Menu structure interface, easy operation.

5. With HV / HK test function (if need HK test function, optional purchase Knoop diamond indenter and standard Knoop hardness blocks).

6. With built-in printer, test result can be printed out directly.

7. With RS232 communication port, machine can upgrade to semi-automatic or fully automatic type easily if needed in future.

8. Double optical path design. Reserved photo camera port, can add camera and work with hardness tester analysis and measuring software system (camera & software system for optional purchase).



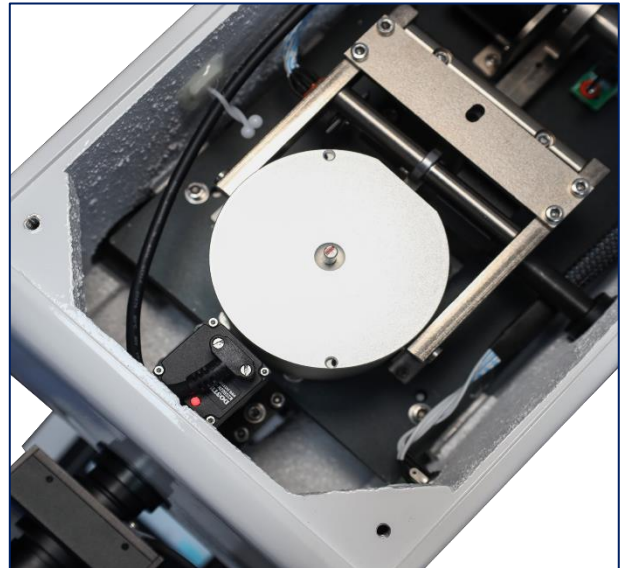
TECHNICAL SPECIFICATION

Model	MMT-X5
Turret	Automatic turret
Test force	10gf (0.098N), 25gf (0.245N), 50gf (0.49N), 100gf (0.98N), 200gf (1.96N), 300gf (2.94N), 500gf (4.9N), 1kgf (9.8N)
Hardness scale	HV0.01, HV0.025, HV0.05, HV0.1, HV0.2, HV0.3, HV0.5, HV1
Conversion Scale	HRA, HRB, HRC, HRD, HRF, HV, HK, HBW, HBS, HR15N, HR30N, HR45N, HR15T, HR30T, HR45T
Hardness range	5-3000HV
Min. measuring unit	0.01um
Data display	5.6" touch screen
Data output	Built-in printer
Sample Height	Maximum sample height: 110mm, Throat depth: 110mm
X-Y Testing table	Dimension: 100x100mm Max movement: 25x25mm
Force loading type	Automatic (Loading, Dwell, Unloading)
Magnification	Eyepiece: 10X electronic eyepiece with encoder; Objective: 10X (observation); 40X (measuring) Total: 100X (observation); 400X (Measuring)
Duration time	1~60s
Power supply	AC220V±5%, 50-60Hz
Machine size	500*250*560mm; Net weight: 40kg
Package size	595*415*810mm; Gross weight: 50kg
Standard	ISO 6507, ASTM E384, JIS Z2244, GB/T 4340.2

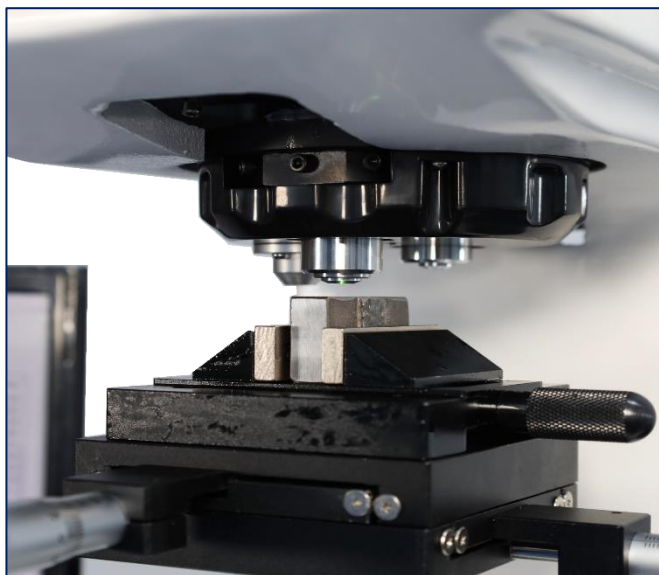
Communication Port



High Precision Weights



Automatic Turret Mechanism



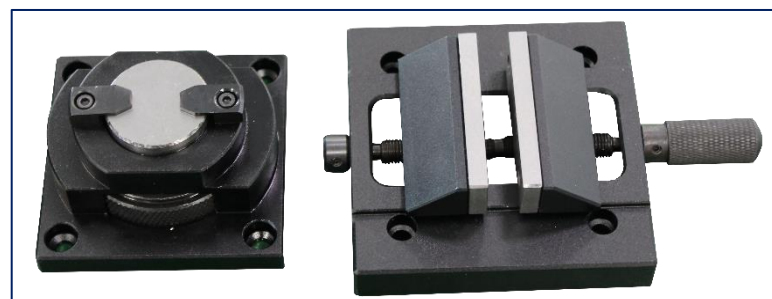
Digital Touch Screen Display



Digital Optical Encoder



Sample Clamping vice (Optional Purchase)



V24.01.01

2024-03-22 11:04:08

Ready

HV 1.1.0

1234.0

Upper: 2000

Lower: 0

↺

NG

HRC

D1

D2

D1: 0.0000 mm

D2: 0.0000 mm

↺

↻

Historical data

NO. 0/16

Ave. 0.0

Min. 0.0

Max. 0.0

Test data

⌚

−

5s

+

💡

−

70%

+

Save

Print

10X | Indenter | 40X

▶

Start

Standard Packing List:

Item	Q'ty	Item	Q'ty
Weight shaft	1	Weights	6
X-Y Cross clamping testing table	1	Electronic eyepiece with encoder 10X	1
Flat clamping testing table	1	Thin Specimen Testing Table	1
Printer paper	1	Level adjustment screw	4
Micro Vickers hardness block	2	Objective 10X, 40X	1+1
Dust-proof cover	1	Screw driver	2
Power cable	1	Fuse (2A)	2
Manual	1	Product Certificate	1

Micro / Vickers Hardness Measurement Software

Support Automatic and manual measurement, and generate test report in word or Excel format including indentation image, hardness curve, hardness value, etc.



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Report

Sample Name	blades	Sample Sn	matrix-001
Min Value	600	Max Value	1200
Inspection Company	matrix	Inspection Date	2024-01-19
Tester	sadiq	Reviewer	lambe sir
Force	1kgf	Load Time (s)	7

Statistical data							
NO	MAX	MIN	AVE	VAR	STD	Cp	Cpk
5	787.90	778.10	783.88	19.59	4.43	22.60	13.85

Detailed data								
#	D1(um)	D2(um)	Davg(um)	Hardness type	Hardness value	Convett type	Convett value	Qualified
1	48.53	49.12	48.82	HV1	778.1	HRC	63.2	YES
2	48.33	48.70	48.52	HV1	787.9	HRC	63.6	YES
3	47.96	49.08	48.52	HV1	787.9	HRC	63.6	YES
4	48.59	48.52	48.55	HV1	786.6	HRC	63.5	YES
5	48.89	48.70	48.80	HV1	778.9	HRC	63.2	YES

#	Pictures	#	Pictures
1		2	



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Redefining Qualities...

