

LINE-UP AUTO HARDNESS TEST SYSTEM
AMT-Xseries **AVTseries**

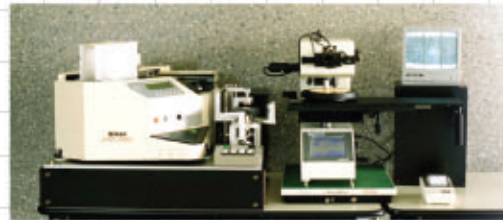
TYPE	NAME	Data handing	Automatic Stage	Automatic reading	Automatic focus
S TYPE	Automatic Stage Type	○	○	-	-
PS TYPE	Automatic Stage-Reading Type	○	○	○	-
FS TYPE	Automatic Stage-Reading-Focus Type	○	○	○	○

EX-TYPE

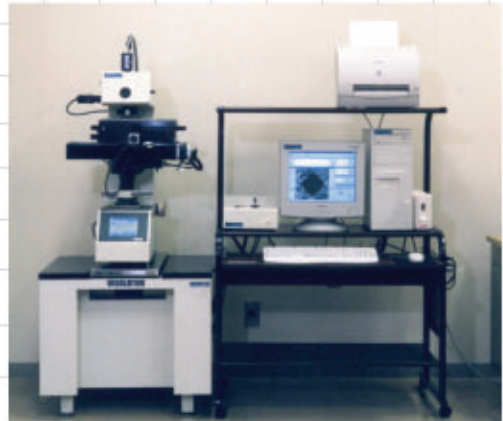
In response to a demand of a customer, we meet needs for the specimen shape recognizer, the device of polishing specimen, the specimen supply device, and completely full automatic system. Please inquire to our company any time.

FULL AUTOMATIC VICKERS HARDNESS TESTSYSTEM **NEW!**

This system perform specimen import, polishing, a hardness testing, specimen ejection on full automatic. and also it perform results judgment, and you can, choose apoin to eject spcimen.



Wafer measurement system

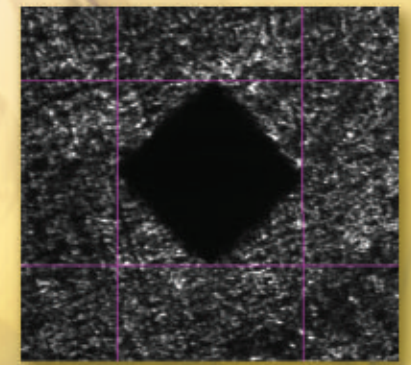
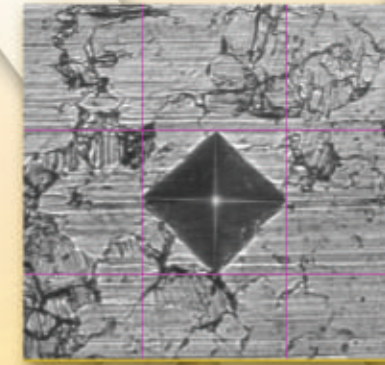
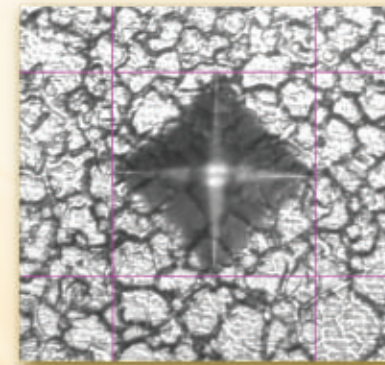


Automatic vickers large stage system



MATSUZAWA **AMT-Xseries** **AVTseries**
AUTO HARDNESS TEST SYSTEM

Xseries is debut **NEW**



- Large improvement of reading performance
- Flexible measurement performance
- Wide test load range
- Flexible correspondence for Special specifications
- introducing High brightness LED(option)

MATSUZAWA CO.,LTD.

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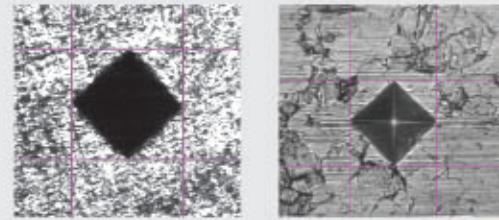
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MATSUZAWA CO.,LTD.

READING PERFORMANCE EVOLUTION

Werealize stable reading without being affected by a wound and etching or a change of brightness by new image processing algorithm.

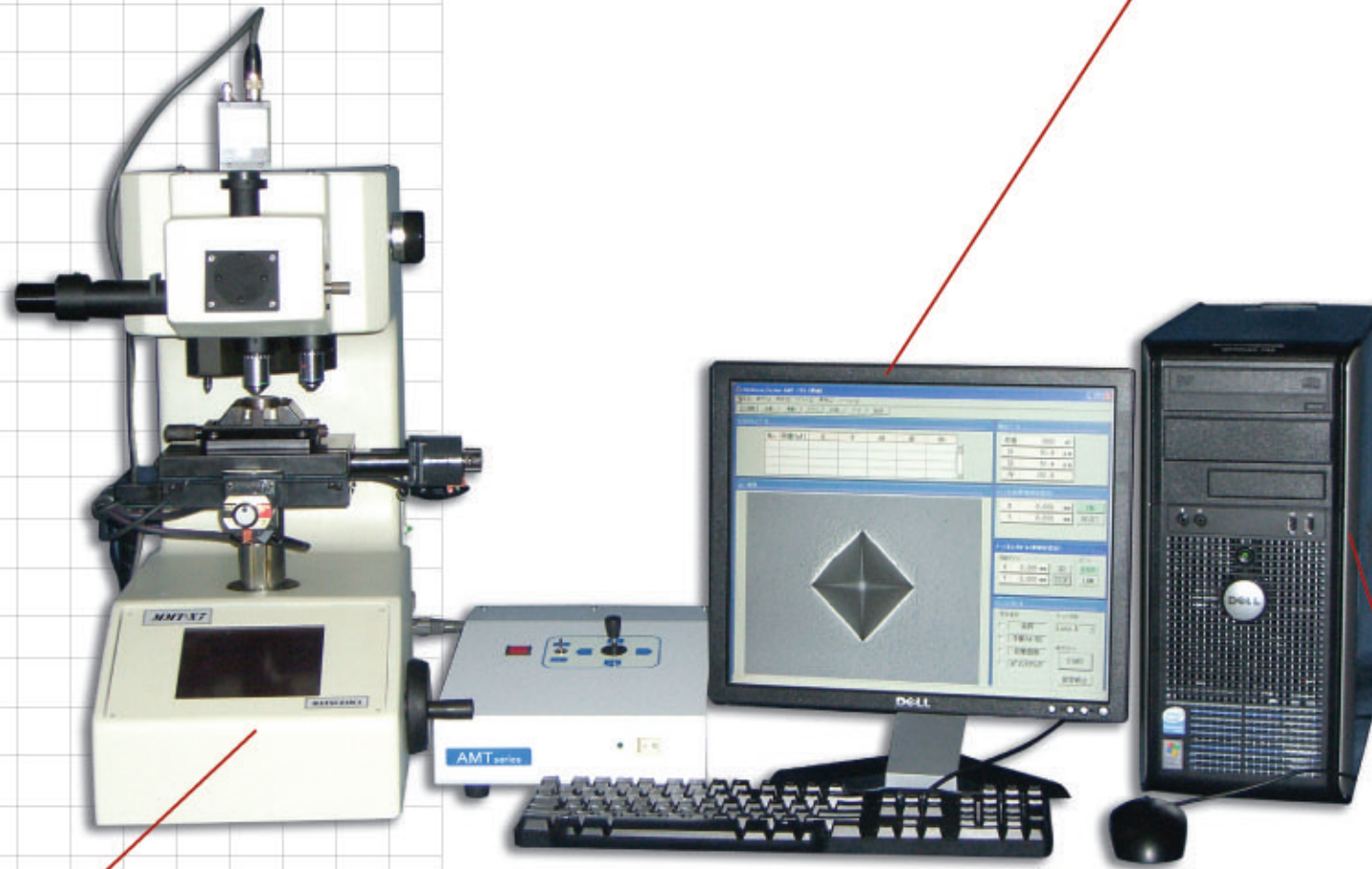


The highly precise luminosity detection

Reading that followed a change of brightness by detecting Precisely reflectance of the test prece surface.

Advancement of work efficiency

the personal error of the measurement value is dissolved with opening a worker form fatigue of the eye by the auto-focus function and the automatic reading function.



MMT-X

Improving with hardness tester performance by the new model of micro hardness tester (MMT-X)

Form small test piece to large test piece

the specimen until depth of 160mm and height of 100mm can be set on the sutomatic X-Y stage by newly-designed frame structure.

Wide test load range

A type test load : 9 phases(5~1000gf)
 B type test load : 12 phases(1~2000gf)

Option of a light source

High brightness Halogen light source and high brightness LED can be chosen with an option. Halogen light source is suitable for the measurement at high magnification, and a specimen of low contrast. high brightness LED is long-lived and stable.

ITEM	AMT-X7FS (Micro Hardness Tester)	AVT-7(7s)FS (Vickers Hardness Tester)
Test Load	A Type(mN) 49.03, 98.07, 245.2, 490.3, 980.7, 1961, 2942, 4903, 9807 (gf) 5, 10, 25, 50, 100, 200, 300, 500, 1000	7 Type (N) 9.807, 49.03, 98.07, 196.1, 294.2, 490.3 (Kgf) 1, 5, 10, 20, 30, 50
	B Type(mN) 9.807, 29.42, 49.03, 98.07, 245.5, 490.3, 980.7, 1961, 2942, 4903, 9807, 19610 (gf) 1, 3, 5, 10, 25, 50, 100, 200, 300, 500, 1000, 2000	7S Type(N) 2.942, 4.903, 9.807, 49.03, 98.07, 196.1 (Kgf) 0.3, 0.5, 1, 5, 10, 20
Loading mechanism	Automatic loading and releasing method	
Load change device	Manual load change (Option:Automatic load change)	
Light source	12V18W (Option1:100w halogen light source, Option2:High brightness white LED)	
Max. specimen hight-depth	100mm(Height), 160mm(depth)	
Auto X-Y stage	Max.movement:X and Y axis 50mm(Standerd),Loading area:110×110mm Min.movement:1μm (50mmprecision vice attached))	
Stage control	Opetion with JJOG controller	
Objective lens	×40、×10 (Option:2 addition, Max:4)	×20、×10
Measuring view	about 70μm(×40), about 140μm(×20), about 280μm(×10)	
Reading speed	shortest 0.5 sec/ 1 indentation (different by a spedimen surface condition)	
Auto focus speed	shortest 3 sec/ 1 indentation (different by a spedimen surface condition)	
Reading reappearance	±0.5% (in case of test load:9807mN, 700HV, ×40),Min measurement:0.1μm)	
Reading method	Select automatic or manual(Operation with a mouse)	
Reading with eyes	digital measurement microscope(Option)	
Personal comuter	PC/AT interchangeable, WindowsXP Pro correspondence	
Printer	Black and white laser printer or ink-jet printer	
Control soft	Measuring mode:automatic,single,edit	
	Set-up pattern:straight line,circular arc,circle,teaching,trace,coordinate rotation	
	Measurement data display:test load,diagonal length,operation hardness value,conversion hardness value	
	Graph display:set-up parameter,hardening layer depth,the maximum*the minimum,X or Y axis Independent distance	
Power supply	Print out format:3 formats(graph,only mode,data only mode,graph and data mode),Exclusive format support(option)	
	Other features:real-time graphic display of masurement position,judgment function of the digonal length safety device:clash prevention function by a stage evasion function	
Power supply	AC100~240V 50/60Hz	

There is notice because of the performance improvement, and appearance specifications and so on may be changed.

Flexible measurement function

Flexible measurement function can perform the measurement corresponding to various conditions.

Measuring mode

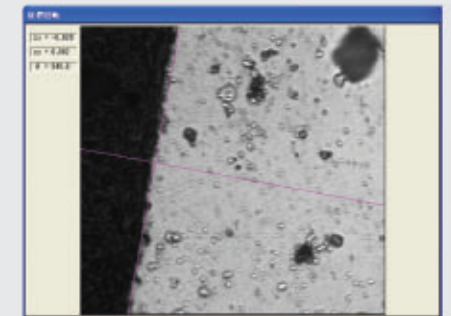
Using 3 kinds of measurement modes(automatic/single/edit mode) properly can easily perform work

Making pattern

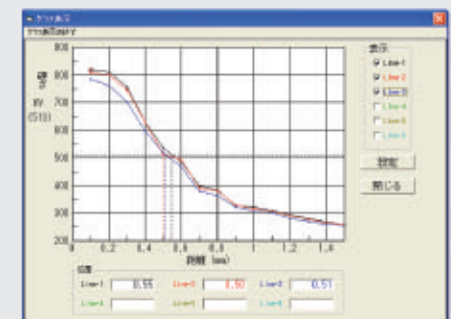
Many kinds of pattern functions. The measurement pattern that adjusted to inclination of a specimen end face by coordinate rotation function can make.

Data handing

Displaying and printing out measurement data or graph. exporting measurement data to Excel files can perform too.



set-up coordinate rotation



set-up graph