

Micro Zone Test System MZT-500

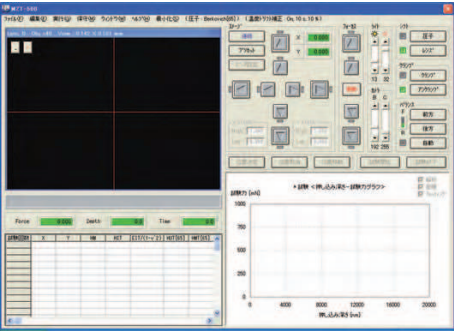
Series 810

- When it comes to evaluating mechanical properties of ultra-small regions of ultra-fine specimens, the MZT-500 Series are exceptionally powerful tools in the fields of research, development and quality control. The MZT-500 can evaluate mechanical properties that conventional hardness testing machines cannot measure, such as hardness of ultra-fine cross-sections, mechanical bonding properties and wear properties of carbon fibres, glass fibres, etc., on specimens such as CVD- and PVD-deposited or generated films, including ion-plated films.
- The indentation factor can be obtained, which is related to the hardness value (partially) shown in Martens hardness test (ISO14577) and Young's modulus. Deformation characteristics in the load, dwell, and unload phases are also obtainable for use in determining properties of the specimen material.



810-813D

Model	MZT-500L	MZT-500P
No.	810-813D*	810-814D*
No. UK only	810-813E	810-814E
Basic system	●	●
Data analysis / control device	●	●
Manual type XY stage	●	-
Automatic XY stage	-	●



Specifications

Test force generation	Electrical
Test force range	0.1-1000 mN
Hardness test	(HV) Vickers and (HK) Knoop
Control resolution	0.916 µN
Loading speed	0.01-100 mN/s
Indentation depth measurement	Range : 0-20 µm Resolution : 0,1 nm
Indenter type	Bercovici triangular pyramid indenter
Sample surface observation method	- Camera 1/3 inch B&W (410,000 pixels) - Objective (monitor magnification) 100X (2500X) - Optional 10X (250X) ; 40X (1000X)
XY stage travel range	Manual Type : 25 x 25 mm Automatic : 50 x 50 mm
Max. specimen height	90 mm
Max. specimen depth	90 mm (from the centre of the indenter shaft)
Test type	- Indentation test (with and without preload force) - Indentation depth setting test - Continuous indentation test - Repeated indentation test
Vibration isolation	The balance-lever vibration isolation mechanism reduces the effect of external vibrations on measurements.
Protection	Field-compatible form with cover for protection against dust and wind.