


*X-Ray Fluorescence Coating
Thickness Tester*

EX-3000



 株式会社 電 測

ELEC FINE INSTRUMENTS CO.,LTD

*X-Ray Fluorescence Coating
Thickness Tester*

EX-3000



MS-WINDOWS

(Superior operability and extremely accurate test results)

■ IBM/PC Compatible

IBM / PC compatible PC system allows direct use of various application soft of MS-Windows.

■ Double-filter System

In addition to numerical filter, a mechanical filter has been introduced which allows testing under the best conditions with extremely accurate results.

■ Built-in five kinds of collimators

Minimum size collimator is 0.1 ϕ mm which allows measurements on microscopic part of the sample.

Standard:

0.1, 0.2, 0.5, 1.0, 2.0

optional:

0.05, 0.1, 0.2, 0.3, 0.5 or

0.05 \times 0.5, 0.1, 0.2, 0.3, 0.5

Quick Shoot of Measuring

Position by mouse pointing

■ Automatic Measuring Stage

Mouse pointing on measuring position makes for quick shoot of the target point. Consecutive automatic measurements can also be performed by simply entering the measuring position. Correction of coordinates and Channel-link system corresponds with various patterns.

Calibration of thickness standard can also be performed by automatic measurement.

Superior Indication Function

■ Visual Monitor Indication of Measuring position

Irradiated part is displayed on the Windows screen. Screen size changes automatically according to the size of using collimator.

■ Multi-channel system

Multi-channel system obtains spectrum analysis with much higher speed

(Processing speed is approx. 2-3 sec.)

Substantial Capacity of DataProcess and Operation

■ Substantial Report Function

MS-WINDOWS application soft makes for the display of the actual area of measurement on the screen and easy completion of various reporting tasks. Multi-task function enables data process operation including reporting tasks while measuring operation is under way.

■ Visual Display of Plating Adhered Distribution

Indication of measurement data in 3d provides visual analysis of plating condition.

Reliable Maintenance System

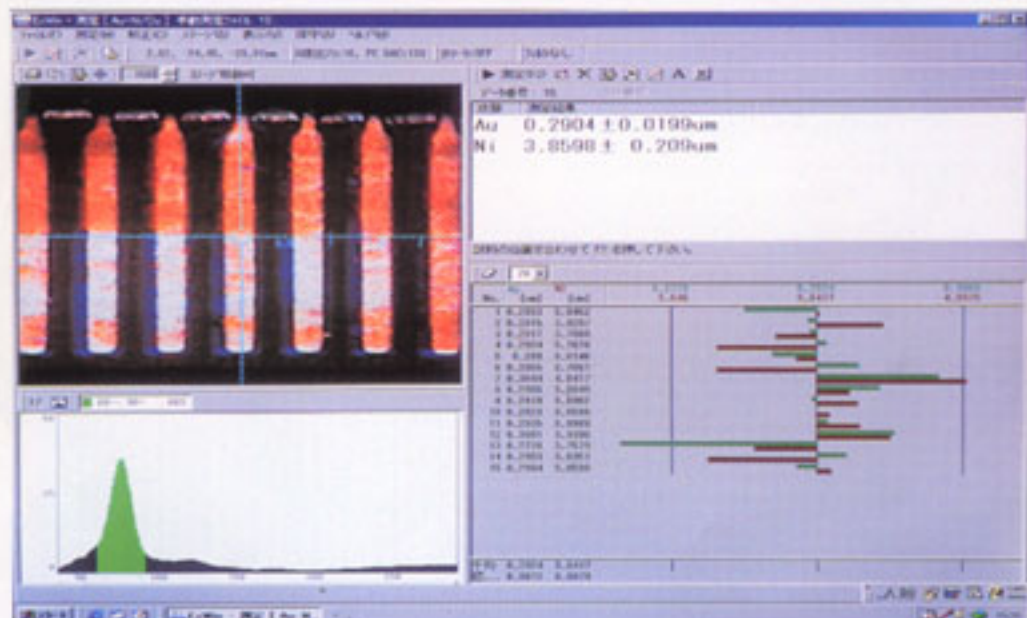
■ Self-check & X-ray tube maintenance function

With the self-check function, troubleshooting is simple, clear and immediate. Used time of X-ray tube can be shown together with its durable term for better maintenance.

Measurement Program for Microsoft Windows 98

Automatic Measurement System obtains extremely accurate thickness results on extremely small parts.

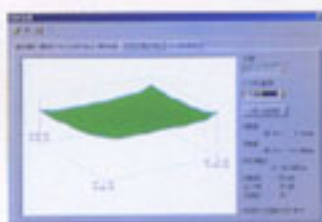
Display screen



● Screen during the measurement



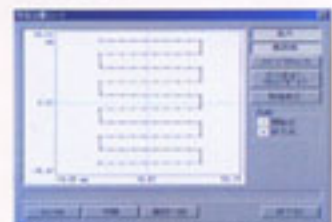
● Statistics



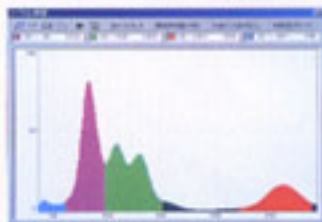
● Three dimensional graph



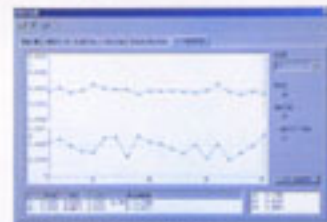
● Histogram



● Confirmation of automatic measurement position



● Spectrum analysis



● Indication of \bar{x} -R

Specifications for each table type

Measurement table		Manual table	Automatic table	
Headpart	Size (mm)	170 X 110	240 X 220	
	Movement length	X (mm)	70	200
		Y (mm)	70	200
		Z (mm)	50	50
	Test item's height (Max.)	50 (option 150)	50	
	Aparatus size (mm)	602 (W) X 463 (D) X 732 (H)		
	Weight (kg)	55	61	
Sample loading (kg)	3	1		
Operation	Apparatus size (mm)	Main unit 182 (W) X 383 (D) X 372 (H) / Monitor 412 (W) X 424 (D) X 420 (H)		
	Weight (kg)	Main unit 9 / Monitor 21		
Printer	Weight (kg)	5.2		
Power supply		AC100V±10V		

Specifications common to all table types

X-ray source	Immersed in oil, compact size Infinitesimal x-ray tube Target : Tungsten Tube voltage 50KV Tube current variable	Measurement range	Atomic No.22~240.2~Approx.25um	Automatic table function	Specify the measuring position (X - Y - Z) Repeat the same pattern Correcting original point Confirm the measurement position Automatic calibration
			Atomic No.25~400.1~Approx.30um		
Irradiation	Irradiates vertically from above	Calibration curve	Indicates calibration curve automatically Multi-point calibration	Data process function	Indication of statistics values : mean, standard deviation, max. & min. value, range, Cp, Cpk Histogram Indication of measurement data profile Indication of measurement data in 3D Indication of X-R
Detector	Proportional counter tube		Correction function		
Collimator	Five sizes (automatic change system) 0.1, 0.2, 0.5, 1.0, 2.0 φ mm (option 0.05 X 0.5, 0.05 φ)	Application	Single layer plating thickness test Two-layer plating thickness test Three-layer plating thickness test Alloy coating thickness and composition simultaneously Electroless Ni plating thickness test	Safety features	Power supply key switch for X-ray Failsafe function
Test sample	CCD color camera		Measurement function		
Computer	PC / AT compatible 17-inch color monitor				
Printer	Inkjet printer				
Measurable object	Atomic number 22(Ti)~82(Pb) Also for atomic number less than 21, measurable by absorption method				
Filter	Automatically changes numeric and mechanical filters (Ni and Co) filter				

As models change, manufacturer reserves the right to change specifications without notice.

Note: It is mandatory that this instrument be reported to the Labor Standards Inspection Office.