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X-Strata960

XRF for measurement of coating thickness and material composition



click onto www.oxford-instruments.com for more information

worldwide service and support

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Certificate No FM29142



35 Years of XRF experience

Oxford Instruments expands its range of coating thickness measurement tools by capitalizing on a wealth of experience

- 35 years expertise in general XRF
- 25 years developing coating thickness gauges
- 15 years measuring coating thickness by XRF

1968 – The first portable mineral analyzer (PMA) was introduced, offering stationary and transportable analysis

1980 – Introduction of **CMI** range of hand-held gauges, using the techniques of micro-resistance, magnetic induction, eddy current and beta-back scatter

1990 – Introduction of **CMI900** series using X-ray Fluorescence for coating thickness measurement

2001-2003 Oxford Instruments invests significant resource in developing and refining a brand new XRF coating thickness measurement system

2004 – **X-Strata960**, the first in a new generation of XRF systems

Advancing the Art of Coating Thickness Measurement

X-Strata

The **X-Strata960** builds upon the solid foundations established by the **CMI900** series, but now offering:

- Expanded version of the **SmartLink** software platform improving ease of use
- Lower maintenance requirement
- Greater functionality

Totally redesigned to include:

- Higher powered X-ray tube
- Smaller X-ray spot size
- Distance Independent Measuring (DIM)
- Automated Laser focusing
- Improved sample staging
- Integrated PC and user interface

X-Strata offers all the benefits vital for accurate thickness measurement

- Improved precision
- Increased accuracy
- Expanded application capability

X-Strata960 is better for business

- **Improve Quality** – ensure customers' specifications are met
- **Maintain Balance** – fine tune the production process to achieve maximum efficiency
- **Reduce costs** – minimize production errors and material rework
- **Maximize profit** – improve the margin on every order

Measure larger and smaller samples



New Giant Sample Chamber

- Large open chamber – 580x510x230mm (23x20x9")
- Slotted for oversize samples
- Easy to load and view from any direction

3 Table Options

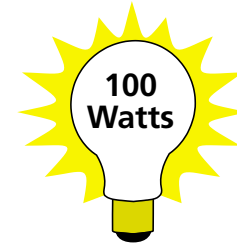
- XY programmable (200x200mm or 12x8" travel)
- XY manual (250x250mm or 10x10")
- Fixed position plus ... motorized Z axis as standard with 230mm (9") travel

Multi-layer Thickness and Material Composition including Analysis of Small Features

single	Thickness double	triple	single	Thickness and Composition (%) double	triple
Zn	Au	Cr	NiP	SnPb	SnPb
Fe	Ni	Ni	Fe	Ni	Ni
	Cu	Cu		CuSn	Ag
		Fe			BaTi

100 Watt X-ray Tube. The most powerful tube available

- 30% increase in precision - at the same measurement time
- 50% decrease in measurement time - at the same precision

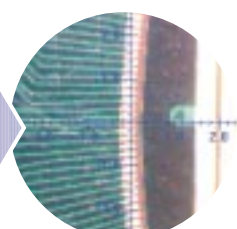


FASTER...MORE PRECISE!

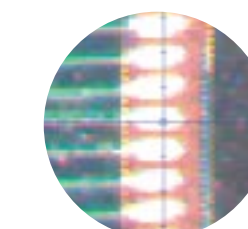
Smaller X-ray Spot Size

- Measure even smaller features in electronic components with the ...
- New 15 µm collimator made possible by the increased power of the ...
- 100 watt X-ray tube with better image resolution of ...
- Improved CCD camera and zoom stage
- High precision Y stage

20X



80X/15µm collimator

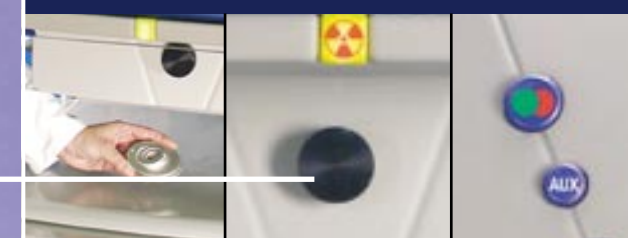


SMALLER IS THE FUTURE

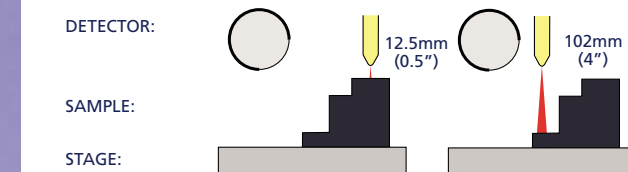


Distance Independent Measurement (DIM)

Easy as 1,2,3



- Simplified system set up and maintenance - requires only one calibration regardless of focal distance
- More flexibility to measure oddly shaped samples - sample surface can be measured anywhere within the DIM range 12.5 – 102mm (0.5 – 4")

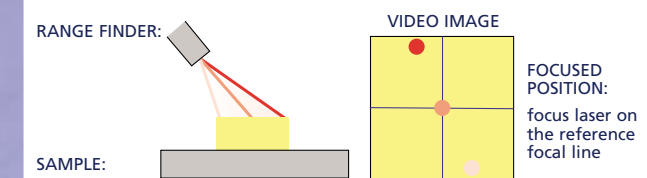


- Quick, precise sample alignment by manually adjusting the DIM knob - or by using the Auto Laser Focus

EASIER - FASTER - ACCURATE

Auto Laser Focus

Unique Automated Sample Alignment System



- Single click starts the laser scan
- Automatically finds the correct focal distance - improves the focusing process for DIM - improves system reproducibility
- Standard laser focus still available

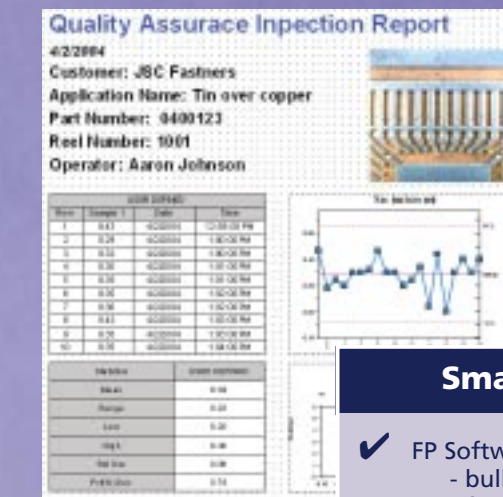
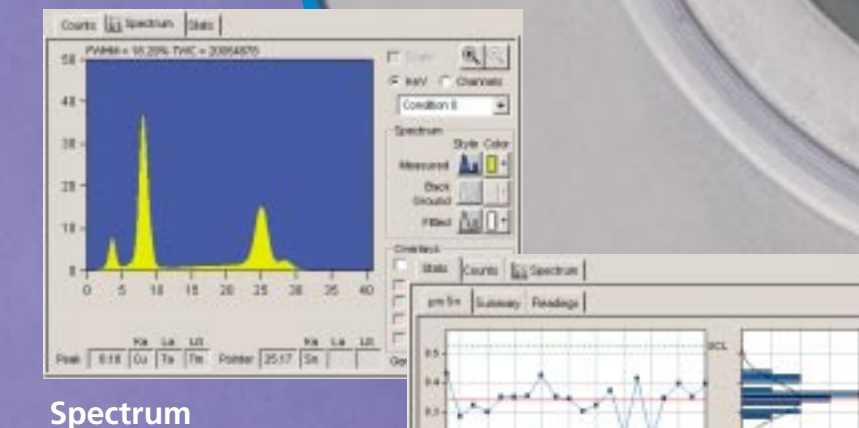
USER INDEPENDENT OPERATION

Software designed to raise quality standards

Integrated PC Interface

- Work Station design - improved ergonomics - user friendly
- Simple installation - mains power only - no extra cabling
- Reduces overall footprint

PLUG & PLAY



Statistics

Report

SmartLink Software

- FP Software - bulk analysis - film analysis
- Plating bath analysis
- 3D mapping option
- Material sorting option
- Single click data transfer
- Statistics and report generator
- 8 languages
- Remote diagnostics
- Automated XYZ programs: random, linear, grid, scan and report

X-Strata - built to deliver a clear business advantage