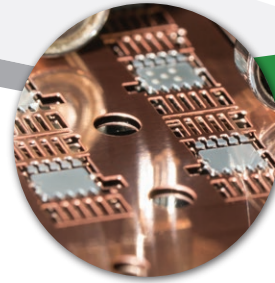# BOWMAN
Coating Measurement Instruments

L SERIES XRF

High Precision Coating Measurement System

What's Distinctive:
Chamber volume 600% larger than other units

Who Benefits

The L Series desktop XRF instrument was engineered for the diverse needs of the metal finishing industry, specifically manufacturers and contract shops who work with large fasteners, hardware, plumbing fixtures and other out-sized items.

Common Applications

- › ZnFe/Fe and ZnNi/Fe for automotive components
- › Cr/Ni/Cu/ABS for plumbing industry components
- › TiCN/WCo, TiAlN/WC for cutting tools and similar applications

Like other Bowman XRF systems, the L Series precisely and quickly determines the thickness of coatings, and the elements present in the sample. The instrument measures up to five coating layers simultaneously, any or all of which can be alloys.

Key Features

L Series XRF instruments use Bowman's proprietary micro spot focus x-ray tube as the energy source, a high resolution SDD detector and a wide bandwidth, multi-channel amplifier to sort and count the radiated photons. Bowman software employs advanced software algorithms to identify and quantify the thickness of the materials from the detected photons.

A micro focus video camera, aligned with the x-ray optics axis, identifies the area on the sample to be measured. An elevator, controlled by a focus laser, accommodates measurement samples of varying heights.

Made in the USA

BOWMAN
1105 Remington Rd.
Schaumburg, IL 60173

› **847.781.3523**
› www.bowmanxrf.com
› sales@bowmanxrf.com

XRF Equipment • Local Tech Support, Worldwide • Standards • ISO/IEC 17025 Accredited Lab

BOWMAN L SERIES XRF

Superior technically.
Supported locally.

Specifications

X-ray Excitation
50 W (50kV and 1mA) micro-focused W anode tube

Detector
Solid state PIN detector with 190eV resolution or better

Focal Depth
Multi fixed focal depths with laser

Video Magnification
30x Micro: Standard
55x Micro: Optional
7x Digital Zoom: Standard

Working Environment:
50°F (10°C) to 104°F (40°C) and up to 98% RH, non-condensing

Weight
110kg

Programmable XY:
Table size: 10" x 10"
Travel: 10" x 10"

Element Range
Aluminum 13 to Uranium 92

Analysis layers and elements
5 layers (4 layers + base) and 10 elements in each layer.
Composition analysis of up to 25 elements simultaneously

Filters/Collimators
4 primary filters / 4 motorized collimators

Digital Pulse Processing
4096 CH digital multi-channel analyser with flexible shaping time. Automatic signal processing including dead time correction and escape peak correction

Processor:
Intel, CORE i5 3470 (3.2GHz), 8GB DDR3 Memory, Microsoft Windows 10 Prof, 64bit equivalent

Camera optics:
1/4" CMOS-1280×720 VGA resolution

Power Supply:
150W, 100~240 volts; frequency range 47Hz to 63Hz

Dimensions (HxWxD):
Internal: 280mm (11"), 550mm (22"), 600mm (24")
External: 750mm (30"), 700mm (28"), 750mm (30")

The Bowman Partner Network

Bowman's Partner Service Network was established to facilitate large multi-national projects in the PCB industry. Today, it has become the model for XRF technical service worldwide, serving board shops, electronics manufacturers, automotive and aerospace OEMs, jewelry manufacturers, and contract metal finishers in all sectors.

The Bowman Partner Network enables XRF technical service experts worldwide to provide same-day response to every service, repair and upgrade requirement.

Bowman global partners are certified annually, and maintain the highest standards of excellence and best practices.

CE ANAB
Certificate #L2213

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