

# BOWMAN

Coating Measurement Instruments

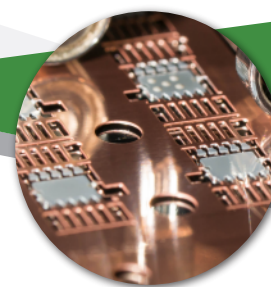
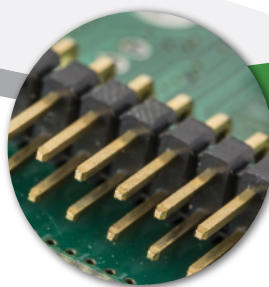
## P SERIES XRF

High Precision Coating  
Measurement System



Measures the widest variety of shapes, sizes, quantities

**What's Distinctive:**



### Who Benefits

The P Series desktop XRF is best suited to customers who have:

- › Small parts/features such as fasteners, connectors, or PCBs
- › Requirements to test multiple samples or locations per new lot of material
- › The desire to automate measurement on multiple samples
- › Variety of sample sizes and applications
- › The need to meet the requirements of IPC-4552A

### Key Features

The P Series offers the flexibility of measuring a wide variety of sample sizes, shapes, and quantities. It is equipped with a precision programmable X-Y stage that offers several advantages over a fixed stage. Mouse /software interface allows the operator to modify measurement locations easily. System accommodates custom programs to automatically measure multiple sample locations. Larger part volumes can be tested in auto mode, without operator intervention, thanks to Bowman's precise staging technology.

### Configuration

The standard configuration includes a 4-position multiple collimator assembly, and a variable focus camera for measurement in recessed areas. Collimators and focal distances can be customized to the application. A long-life micro-focus x-ray tube and solid-state PIN detector are standard; an SDD detector is optional.

### BOWMAN

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Made  
in the USA



# BOWMAN P SERIES XRF

Superior technically.  
Supported locally.

## Specifications

### X-ray Excitation

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

### Detector

Silicon solid state detector with 190eV resolution or better

### Focal Depth

Multi fixed focal depths with laser

### Video Magnification

30x: Standard

45x: Optional

### Working Environment:

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

### Weight

32-50kg

### Programmable XY:

Table size: 15" x 13" Travel: 6" x 5"

### Extended Programmable XY:

Table size: 25" x 25" 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-1280x720 VGA resolution

### Power Supply:

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

### Dimensions (HxWxD):

Internal: 140mm (5.5"), 310mm (12"), 340mm (13")

External: 450mm (18"), 450mm (18"), 600mm (24")

## 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.



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