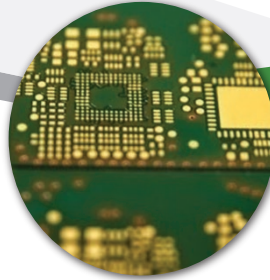


K SERIES XRF

High Precision Coating
Measurement System



What's Distinctive:
305mm x 305mm measurable parts area



Who Benefits

The K Series collimated system is ideal for customers with a wide variety of samples, with a class-leading 12" (305mm) x 12" (305mm) measurable area on parts up to 8.75" (222mm) tall. An automatic multi-collimator allows for selectable spot sizes to accommodate various feature sizes; a variable camera allows measurements at focal distances from .25" to 3.5" (6.35mm to 89mm).

A servo motor-driven programmable stage allows for fast and precise programmable sample positioning. The cantilever door design gives operators easy access for sample placement.

Available table view functionality images the entire measurable area and allows the operator to navigate to any location with a single click. An available built-in joystick lets operators move the XY stage from the system's control panel without software intervention. As with all other Bowman XRF Systems, the K Series is compliant with ASTM B568, ISO 3497 & IPC-4552.

Key Features (Collimated)

- › XYZ Travel: X: 12" (305mm) Y: 12" (305mm) Z: 8.75" (222mm)
- › Optional dual camera with table view
- › Servo motor-driven programmable table for more precise, faster and smoother travel
- › Internal chamber dimensions (WDH): 24" (610mm), 24" (610mm), 9" (229mm)
- › Closed chamber design
- › High Resolution Silicon Drift Detector (SDD)
- › Table Size: 12" (305mm) x 12" (305mm)
- › Windows 11 PC compatibility
- › Optional built-in joystick
- › Built-in E-stop
- › Cantilever door for easy sample access
- › RoHS option available

BOWMAN

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Made
in the USA



BOWMAN K SERIES XRF

Superior technically.
Supported locally.

Configuration

The standard K Series collimated configuration includes a 4-position (4,8,12 & 24 mil / 0.1, 0.2, 0.3 & 0.6 mm) multi-collimator; optional sizes are 2x2mil (0.05 x 0.05 mm) up to 60mil (1.5 mm). Variable focus facilitates measurements in recessed areas. A servo motor-driven programmable stage allows parts measurement with selectable XYZ programs. Programs can use pattern matching and automatic focus to ensure precise measurements.

As with all Bowman XRF systems, the K Series features a standard Silicon Drift Detector (SDD) and long-life micro focus X-Ray tube.

Specifications: Collimated

X-ray Excitation

50 W (50kV and 1mA) micro-focused W anode tube
(Cr, Mo, Rh anodes available)

Detector

Silicon solid state detector with 190eV resolution or better

Focal Depth

Multi fixed focal depths with laser and image autofocus

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

270 Lbs/ 120 Kg

Programmable XY

Table size: 12" (305mm) x 12" (305mm)
XY Travel: 12" (305mm) x 12" (305mm)
Precision: 10.2µm (400u")

Analysis layers and elements

5 layers (4 layers + base) and 10 elements in each layer.
Composition analysis of up to 30 elements simultaneously

Filters/Collimators

4 primary filters / 4 motorized collimators

Digital Pulse Processing

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

PC

Intel CORE i5 9th gen. desktop processor, SSD,
16GB RAM, Microsoft Windows 11 Prof, 64bit equivalent

Camera optics

2x 1/3" CMOS- 2688x1520 Resolution

Power Supply

480W, 100~240 volts; frequency range 47Hz to 63Hz

Dimensions (HxWxD)

Internal: 9" (229mm), 24" (610mm), 24" (610mm)
External: 26.3" (668mm), 28.0" (711mm), 36.3" (922mm)

Element Range

Aluminum 13 to Uranium 92

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.



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