



MAGPRO 70kV 12W

The Moxtek® MAGPRO 70kV 12W X-ray sources are engineered for utilization in both portable and benchtop XRF instruments, with an optimally configured focal spot size tailored for X-ray imaging applications. Moreover, it delivers precisely matched power levels, making it suitable for material analysis across a diverse range of applications.

Feature	Benefits
Small, compact design	Close coupling of detector/ source
Lightweight	Portable, easy to integrate
Stable output	High Precision of measurements, low detection limits
Multiple communication protocols	Improved heavy element analysis
High x-ray output	Short sampling time
Small spot size	Possible coupling with optics, good image resolution
70kV 12W	Improved light element analysis
Wide cone angle	Energy and flux appropriate for backscatter imaging (70kV only) Large flat field for imaging (70kV only)

Applications

XRF

- Elemental composition

XRD

- Powder diffraction
- Residual stress

Imaging

- Medical R&D, small animal imaging
- Security
- Radiographic inspection

Notes

- Operating Temperature: Moxtek recommends a warm up period @ 30kV 400µA of 10 minutes before running below 0°C

Mechanical

Specifications

70kV XRF

Tube Type: Metal-ceramic

Operating Temperature: -10 to +50° C

Storage Temperature: -20 to +85° C

Cooling: Forced air

Weight: 900g (typical)

Available Targets: W, Mo

X-ray Tube Characteristics

HV Polarity: Grounded anode

High Voltage: -6 to -70kV

Beam Current: 50 to 1000µA

Total Power: 12 watts

Focal Spot: Typical ~500µm FWHM

Window: Beryllium 125µm or 250µm
(depending on target)

Radiation Leakage: 10mR/h at 50mm

Input Power: 24 VDC, 1.1A

Standard Warranty: 1 year or 2000 operating hours

⚠ WARNING

X-rays are emitted from the sides and ends of this product when energized. Moxtek takes actions to reduce the exposure rate from X-rays emitted from the sides through the use of various shielding agents inherent to this product design. It is the buyer's responsibility to ensure adequate protection is provided in the testing and manufacturing of the final product and that users are adequately shielded from incidental exposure.

This product contains a beryllium window. The inhalation of fumes or dust from beryllium metal (or its compounds) are hazardous. Corrosion may occur on the beryllium window during use, these should not be scraped off, machined, or removed. Disposal of the tube unit should conform to federal, state, and local regulations governing beryllium.



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