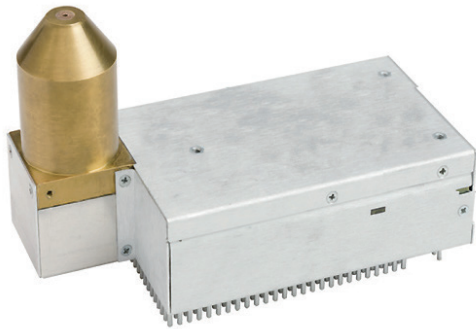


MAGPRO™ x-ray source



Moxtek® MAGPRO X-ray sources are designed for portable and benchtop XRF instruments. Additionally, the focal spot size is ideal for x-ray imaging applications.

Applications

X-ray imaging

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

Materials characterization and identification (XRF)

- Elemental composition

XRD

- Powder diffraction
- Residual stress

Features	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
70 kV 12 W	Improved light element analysis
Wide cone angle	Energy and flux appropriate for backscatter imaging (70 kV only)
	Large flat field for imaging (70 kV only)

Specifications			
	60kV	70kV	
	XRF	Imaging	XRF
Tube type	Metal-ceramic		
Operating temperature*	-10 to +50 °C	-10 to +50°C	-10 to +50°C
Storage temperature	-20 to +85 °C		
Standard cooling	Forced air		
Weight	≤825 g	≤900 g	≤900 g
Available targets	W, Rh, Ag, Cr, Cu, Mo	W	W, Mo
HV polarity	Grounded anode		
High voltage potential	5 to 60 kV	50 to 70 kV	40 to 70 kV
Max beam current	10 to 1000 µA @ 5 kV	10 to 240 µA @ 50 kV	10 to 300 µA @ 40 kV
Maximum power	12 watts		
Focal spot size	Typical ~400 µm	Typical ~500 µm	Typical ~500 µm
Window	Beryllium 125 µm or 250 µm (depending on target)		
X-ray beam cone angle	~48°	~86°	~48°
Radiation leakage**	as low as 2 mR/h**	2 mR/h at 50 mm	<10 mR/h at 50 mm
Input power	24 VDC, 1.1A		
Standard warranty	One year		

* Operating temperature: Moxtek recommends a warm up period of 10 minutes before running below 0 °C

** Radiation leakage: Moxtek takes every precaution with radiation leakage but it is up to the end user to make sure there is adequate protection for your needs. Consult with an application engineer for your specific application.

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	Application	Part number	Angle	Control type	Target
			XX		XXX
60 kV	XRF (no collar)	TUB00140-XXX	Straight	Analog (A) I ² C (I) SPI (S)	AG2 (Lt. Silver) RH3 (Rhodium) CR6 (Chromium) CU6 (Copper) WO6 (Tungsten) MO6 (Molybdenum) WO6 (Tungsten)
		TUB00141-XXX			
		TUB00142-XXX			
		TUB00143-XXX	60 degrees		
		TUB00144-XXX			
		TUB00145-XXX			
		TUB00146-XXX	90 degrees		
		TUB00147-XXX			
TUB00148-XXX					
70 kV	Imaging (collar)	TUB00153-XX-XXX	Straight (S)	Analog (A)	WO6 (Tungsten)
Not released	XRF (no collar)	TUB00154-XX-XXX	60 degrees (6) 90 degrees (9)	I ² C (I) SPI (S)	WO6 (Tungsten) MO6 (Molybdenum)

