

# X-RAY Sources

## 40kV MAGNUM<sup>®</sup> X-ray Tubes



### Applications

#### Portable XRF

- RoHS/WEEE
- Alloy sorting
- Soil analysis
- Environmental
- Lead in paint
- Plastics analysis
- Material ID
- Security

#### Handheld Imaging

- Medical/Dental
- Material ID
- Security

#### Bench top EDXRF

#### Instrument Calibration

#### Micro-Fluorescence

#### Micro-Diffraction

The MAGNUM<sup>®</sup> 40kV x-ray tube is a low power, miniature x-ray tube used for a variety of applications including handheld and benchtop instrumentation. MAGNUM x-ray tubes are small, lightweight, and can be packaged into custom enclosures.

### Features

Small, compact design  
Lightweight  
Close coupling of collimator and target  
Stable output  
Low power consumption  
Low spectral contamination  
High x-ray output  
Customizable configurations

### Benefits

Close coupling of source to detector  
Portable, versatile, comfortable  
Higher x-ray output with lower power tube  
Low detection limit  
Long battery life  
Clean spectrum  
Short sampling time  
Flexible form factor

### Standard Package Includes:

- Transmission Target (End Window)
- MAGNUM tube potted in a brass shield
- High voltage power supply
- High voltage wire length is 11.5 inches

### Customizable Options:

- Target materials and thickness
- Tube shield design
- Power supply packaging
- High voltage wiring length (minimum 4.0 inches; maximum 11.5 inches)
- Integrated tube and power supply
- DB9 Cable (Manufacturer: 3M Part Number: 3473)



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**MOXTEK<sup>®</sup>** [www.moxtek.com](http://www.moxtek.com)

## 40 kV MAGNUM

### Mechanical Specifications

Tube Type:	Metal-ceramic
Cathode Type:	Tungsten filament
Ambient Temperature:	-10° to +50° C
Storage Temperature:	-40° to +60° C
Cooling:	Conduction
HV Insulation:	Silicone potting
Weight:	≈1 lb. (450g)
Available Targets:	Ag, W, Pd, Rh

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### X-ray Tube Characteristics

HV Polarity:	Grounded anode
High Voltage Potential:	4 to 40 kV
Beam Current:	0 to 0.10 mA
Maximum Power:	4.0 watts
Focal Spot Size:	Typical ~ 400 μm
Stability:	< 1.0% RSD
Windows:	Beryllium, 0.25 mm thick
Input Power:	7W (7-10 VDC)
Standard Warranty	One year

## 40kV Ordering Information

Part Number	Anode Target Material
TUB00045-1	Ag
TUB00045-2	W
TUB00045-4	Pd
TUB00045-7	Rh

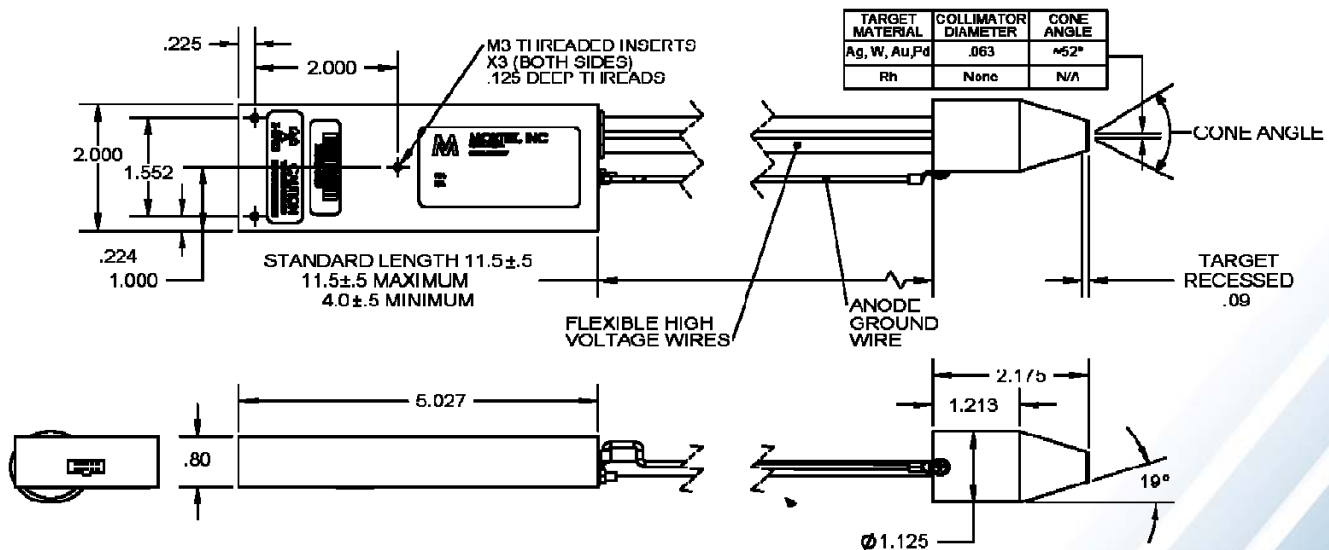
### Tube Control Options

- TUB00051 FTC-200 Controller
- ASM00362 DB9 Cable

*Please contact MOXTEK for price and delivery information.*

*See Moxtek for Target thicknesses*

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