

# X-RAY Sources

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



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.

### 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

### 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**

[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

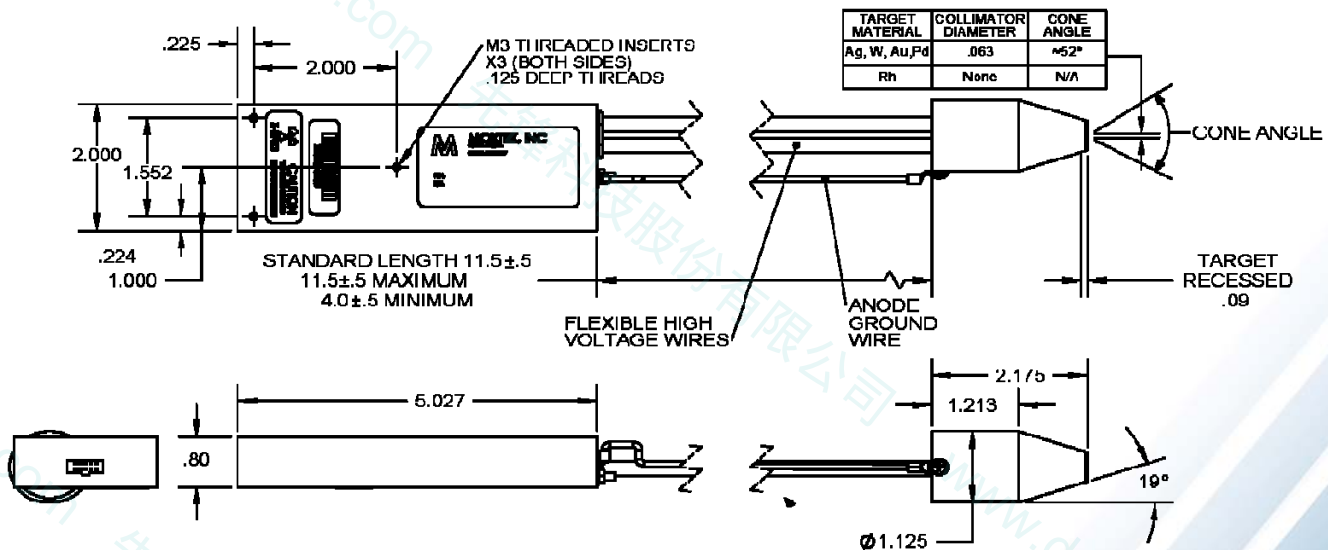
**Tube Control Options**

- TUB00051 FTC-200 Controller
- ASM00362 DB9 Cable

*Please contact MOXTEK for price and delivery information.*

*See Moxtek for Target thicknesses*

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