

The HPC150 150W, 60kV

Applications

- High power XRF - Light Elements
- Scrap metal sorting XRF
- Thickness gaging
- Portable medical imaging
- Food inspection
- NDT

Features

- 150W continuous operation
- Anode grounded
- Compact air-cooled design
- Customizable cooling
- Small focal spot for imaging or XRF
- Various target materials available for XRF

Benefits

- Close coupling to detector
- Small for portable applications
- Integrated radiation shielding
- Small focal spot for imaging applications
- Vacuum seal surface for easy integration

Moxtek HPC 150W 60kV X-ray tubes are designed to be used in XRF and imaging applications. The tube is designed to be air-cooled and the cooling can be adapted to meet specific needs. The push/pull fan configuration makes it easy to direct the warm air outward. For XRF applications the cone is designed for a vacuum seal at its base. The HPC tube incorporates radiation shielding.

Mechanical Specifications

Tube type: Metal-ceramic

Operating Temperature: +10° to +50° C*

Storage Temperature: -20° to +60° C

Cooling: Filtered Air 1400 Lpm (STP)

Weight: 2.5kg* (w/o cable)

Available Targets: W, Mo

X-ray Tube Characteristics

Anode Type: Stationary Reflection

Cone Angle: 45°

HV Polarity: Grounded anode

Tube Voltage Operating Range: 10 to 60kV

Maximum Beam Current: 5mA (long life performance)

Maximum Continuous Power: 150 watts

Focal Spot: <1.0 x 1.0mm

Window: Beryllium

Window Thickness: 500µm Beryllium

Fan Operating Voltage: 12V or 24V*

High Voltage Power Supply: VJ X-ray HVG060

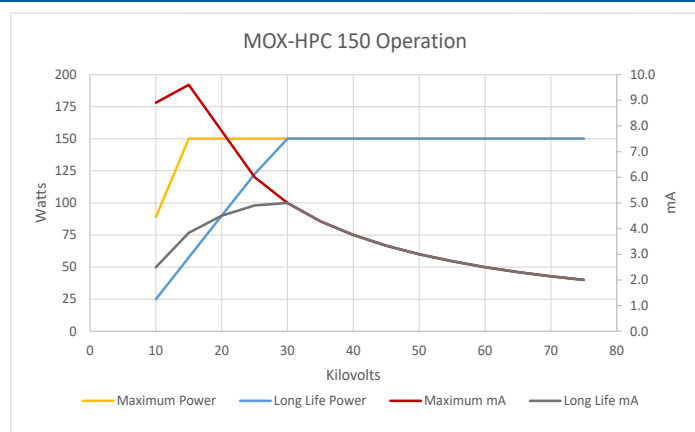
Connector Type: CA-11 typical (75kV max)

RoHS Compliant: RoHS3

Standard Warranty: 1 year of typical use

*Fin and fan configurations can be optimized for the system and application

Tube Current and Power Operational Range



X-ray Characteristics

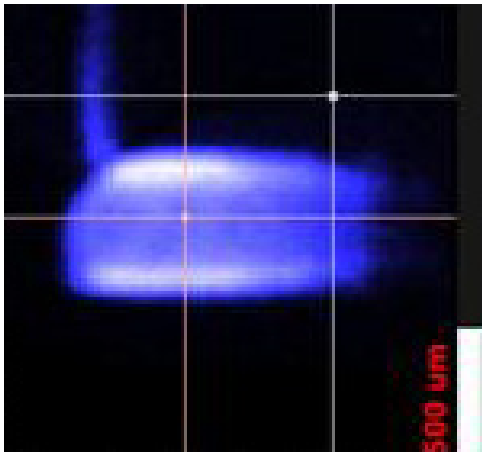
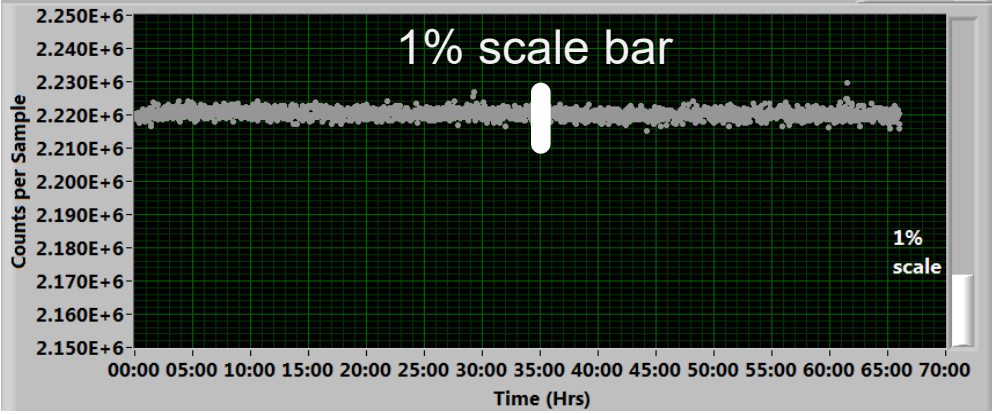


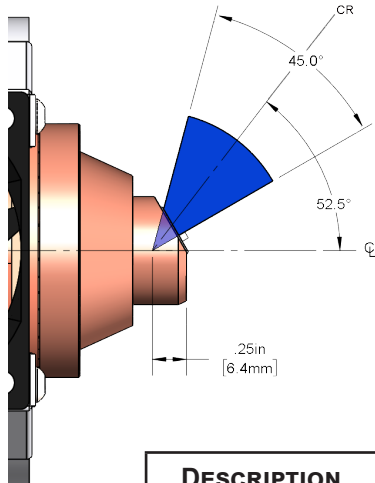
Image of FWHM
770x530 μm spot
@ 50kV

D2 Count Stability Graph



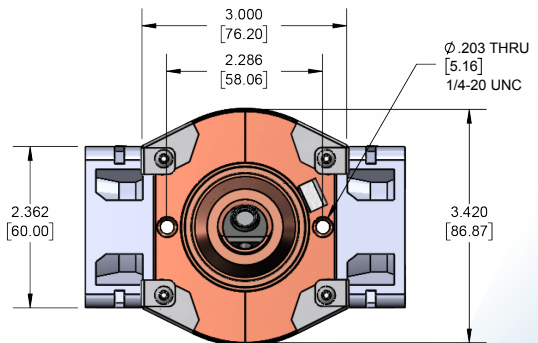
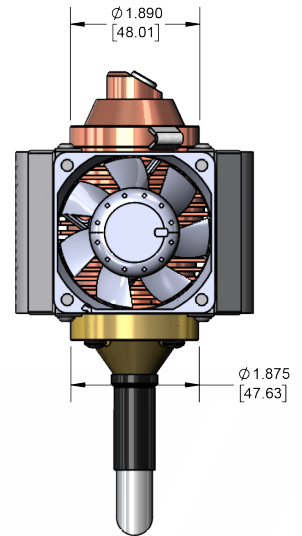
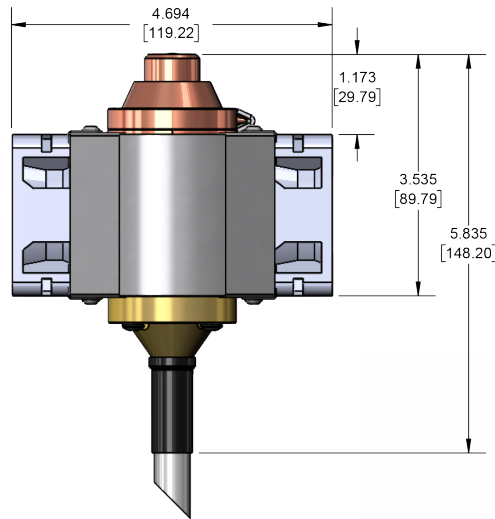
X-ray flux stability at 50kV and 150 Watts over 66 hrs RSD of 0.07%

X-ray Beam Metrics



DESCRIPTION	ANGLE
Cone Angle	45°
Center Line to Central Ray Angle	52.5°

Tube Dimensions



The Moxtek HPC150 with the VJ X-ray HVG060
(shown above)

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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