

350W, 75kV  
Vacuum Compatible

## Applications

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

## Features

- 350W Continuous Operation
- Anode Grounded
- Compact, Air-cooled Design
- Customizable Cooling
- Small focal spot for Imaging or XRF
- Various target materials are available for XRF

## Benefits

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

Moxtek HPC 350W 75kV X-ray tubes are designed to be used in XRF applications 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 was designed to make vacuum seal at its base. The HPC tube is properly radiation shielded.

## Mechanical Specifications

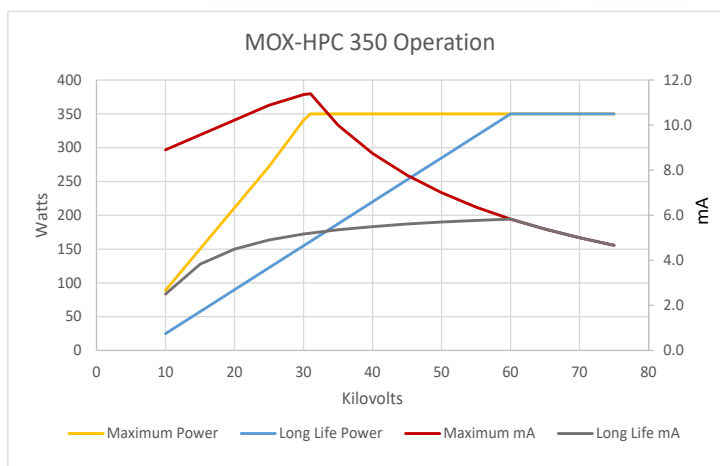
- Tube type:* Metal-ceramic
- Operating Temperature:* 0° to +50° C
- Storage Temperature:* -20° to +60° C
- Cooling:* Filtered Air 1550 Lpm (STP)
- Weight:* 2.5kg (w/o cable)
- Available Targets:* W, Mo

## X-ray Tube Characteristics

- Anode Type:* Stationary
- Cone Angle:* 45°
- HV Polarity:* Grounded anode
- Tube Voltage Operating Range:* 10 to 75kV
- Maximum Beam Current:* 6mA
- Maximum Continuous Power:* 350 watts
- Focal Spot:* <1.0 x 1.0mm
- Window:* Beryllium
- Window Thickness:* 500µm (Be)
- Fan Operating Voltage:* 12V or 24V\*
- High Voltage Power Supply:* Spellman DXM, VJ X-ray
- Connector Type:* CA-11 typical (75kV max)
- RoHS Compliant:* RoHS3
- Standard Warranty:* 1 year or 2000 operating hours

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

## Tube Current and Power Operational Range



## X-ray Characteristics

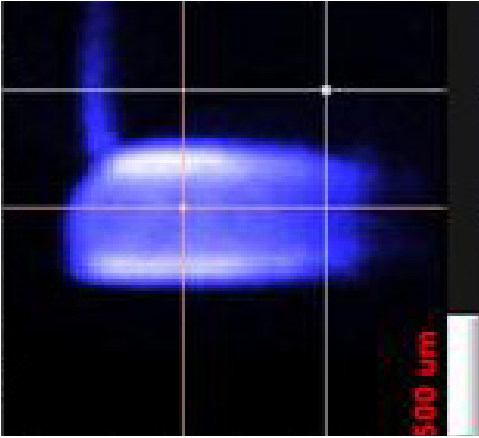
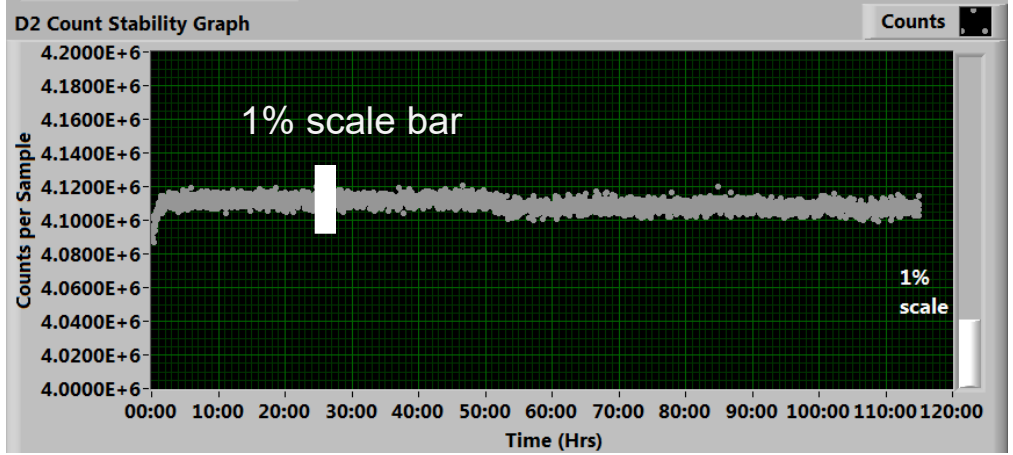
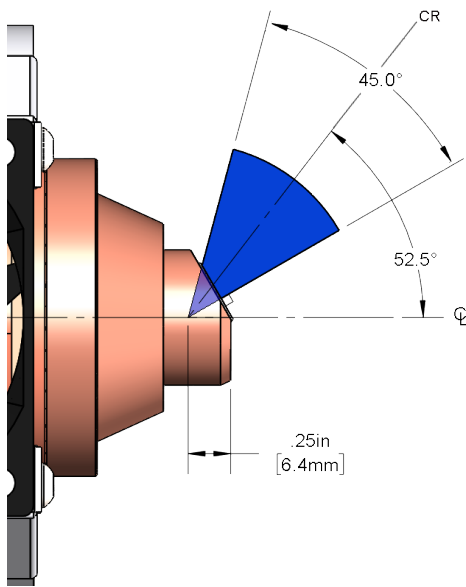


Image of FWHM  
770x530 μm spot  
@ 50kV & 250W



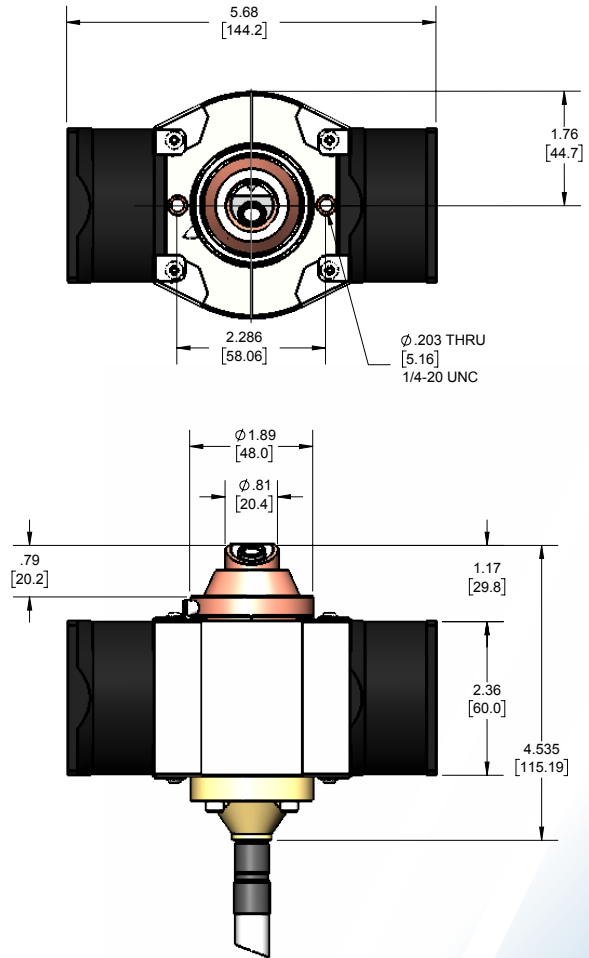
X-ray Flux stability at 75 kV @ 350 Watts over 115 hrs RSD of 0.09%

## X-ray Beam Metrics



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

## Tube Dimensions



### ⚠ 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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