

The 1500 Series X-ray tube is a 50kV, 50W X-ray tube designed for applications where high flux density and continuous operation are important.

Utilizing our highly stable and high intensity X-ray tube technology, the 1500 Series X-ray tube is ideal for medical imaging, XRF applications and most industrial inspection and non-destructive testing applications that require high resolution, including PCB assembly, battery, plastic, metal and mechanical parts inspection.



The 1500 Series X-ray tube can also be supplied in a stainless steel, lead-lined package that is filled with dielectric oil that enables the unit to provide maximum X-ray shielding and heat dissipation, effectively replicating our popular Jupiter 5000 Series packaged tube, which includes high voltage and filament connectors making it ideal for plug and play operation.

The 1500 Series X-ray tube is available in a wide range of spot sizes, targets and price points to meet your needs.

### Benefits

- Wide operating range enables optimal image contrast
- Stable X-ray output delivers high precision measurements
- Low attenuation beryllium window ensures high transmission of low energy X-rays

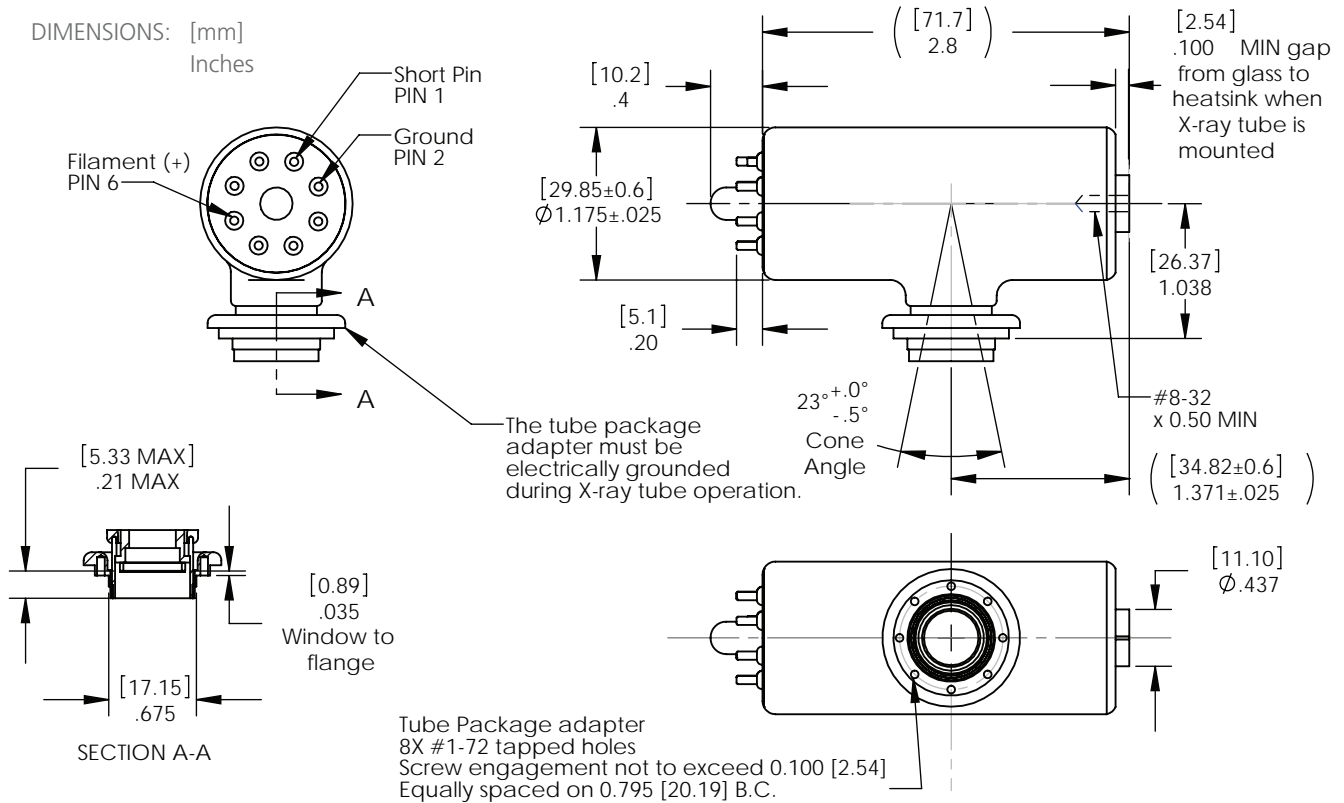
### Applications

- Medical imaging
- Inspection of printed circuit boards and electronic devices
- Nondestructive testing of plastic, metal and mechanical parts
- Thickness gauging
- Analytical XRF

Specifications	
Operating Voltage Range:	50kV max. Lower kV cutoff varies by product. See product ordering table.
Maximum Power:	50W (except 90046, 90098)
Maximum Beam Current:	1.0mA (except 90046, 90098)
Maximum Filament Current:	1.70A (except 90046, 90098)
Filament Voltage:	2.0V (Nominal) (except 90046, 90098)
Target Material:	All
Spot Size:	See product ordering table.
Spot to Window Spacing (FOD):	30.8 mm ± 1mm (1.2") (except 90046, 90098)
Window Material and Thickness:	Be @ 127µm
Flux & Current Stability:	≤ 0.2% over 4-hour period
Duty Cycle:	Continuous
Ambient Temperature Conditions:	Operating: 0°C to 40°C Storage: -10°C to 50°C
Humidity:	0-95% RH up to 5,000ft
Method of Cooling:	Must not exceed 80°C oil temperature. Customer provides enclosure and cooling.
X-ray Shielding:	Customer must provide enclosure with adequate shielding. Tube emits X-rays in all directions.
Dimensions:	81mm L X 47mm W (3.2" L X 1.8" W)
Weight:	119g



# 1500 Series Glass X-ray Tube



## Product Ordering Table

Part Number	Outline Drawing	Target	Operating Range (kV)	Max Anode Current (mA)	Max Anode Power (W)	Max Filament Current (A)	Spot Size (µm)**
90011	8194	Rh	10 - 50	1.0	50	1.7	150 Max.
90030	8260	Mo	10 - 50	1.0	50	1.7	150 Max.
90034	8188	Cr	10 - 50	1.0	50	1.7	200 Typ.
90046	8162	W	4 - 50	5.0	250	2.4	500 Typ.
90068	8188	Mo	10 - 50	1.0	50	1.7	150 Typ.
90069	8188	Cu	10 - 50	1.0	50	1.7	150 Typ.
90077	8188	Rh	10 - 50	1.0	50	1.7	150 Typ.
90083	8188	W	10 - 50	1.0	50	1.7	150 Typ.
90098	8162	Fe	4 - 50	5.0	200	2.4	500 Typ.
90099	8189	W	10 - 50	1.0	50	1.7	70 Max.

Note: Part number specific copies of outline drawings and product specification sheets are available.

\*\*Max. = Maximum, Typ. = Typical, Nom. = Nominal (per IEC60336, NEMA XR5-1999)

Visit [xray.oxinst.com](http://xray.oxinst.com) or [xray-sales@oxinst.com](mailto:xray-sales@oxinst.com) for more information.

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