Glass X-ray Tube 1550 Series

Technical Datasheet

The 1550 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, high intensity X-ray tube technology coupled with grid-controlled variable focus enables our 1550 Series X-ray tube to produce very small focal spots; this makes the 1550 Series ideal for most industrial inspection and non-destructive testing applications that require high resolution, including PCB assembly, battery, plastic, metal and mechanical parts inspection. Flexible and reliable, this unit is also highly suited for use with X-ray optics.



The 1550 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; this configuration is our popular Apogee 5500 Series packaged tube, which includes high voltage and filament connectors making it ideal for plug and play operation.

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

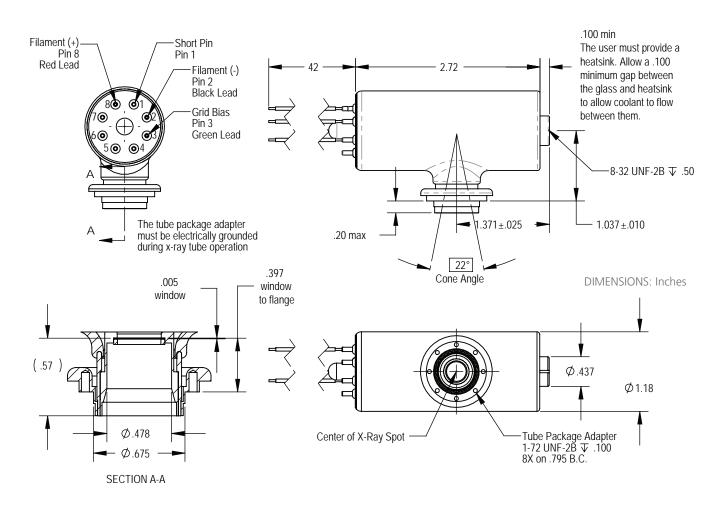
- Medical imaging
- Inspection of printed circuit boards and electronic devices
- Nondestructive testing of plastic, metal and mechanical parts
- Thickness gauging
- Analytical XRF

Specifications	
Operating Voltage Range:	10-50kV
Maximum Power:	50W
Maximum Beam Current:	1.0mA
Grid Voltage:	0-100V
Maximum Filament Current:	1.70A
Filament Voltage:	2.0V (Nominal)
Target Material:	Cu, W, Mo, Rh
Spot Size:	<50µm (X and Y)
Cone of Illumination:	22°
Spot to Window Spacing (FOD):	30.8 mm ± 1mm (1.213")
Window Material and Thickness:	Be @ 127µm
Flux & Current Stability:	\leq 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



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1550 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)**
	90200	8242	Cu	10 - 50	1.0	50	1.7	50 Max.
- [90201	8242	W	10 - 50	1.0	50	1.7	50 Max.
	90202	8242	Mo	10 - 50	1.0	50	1.7	50 Max.
- [90204	8242	Rh	10 - 50	1.0	50	1.7	50 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 or xray-sales@oxinst.com for more information.

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