

# Series 5000

## Packaged X-Ray tubes



Oxford Instruments' Series 5000 is a highly popular and proven side window X-ray tube. Currently in use for many industrial applications, the 5000 series features an electron gun assembly packaged in a stainless steel lead-lined package with a choice of mounting flange. The package is filled with an Oxford Instruments designed cooling oil that maximizes heat dissipation.

The package can be supplied with a high voltage well connector and a triax connector for the filament supply. The tube is to be operated in a positive anode mode with the cathode grounded. The standard exit window is 0.005 inch Beryllium.



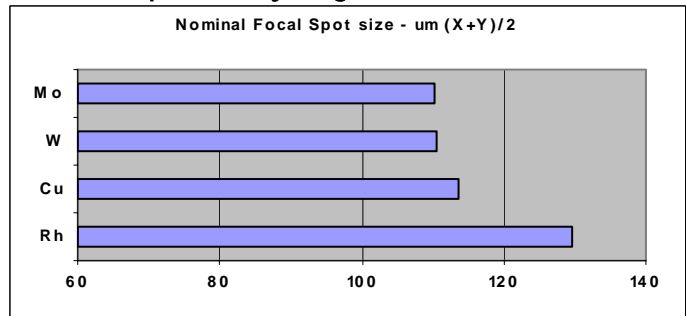
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### Specifications

Feature	Series 5000
Max Anode Current	1.0 mA
Max Anode Voltage	50 kV
Maximum Power	50 W continuous
Nominal Filament Voltage	2.0 V @ 50 kV, 1 mA
Max Filament Current	1.7 A
Stability	0.2% over 4 hours
Focal Spot Size (Nominal*)	110 $\mu$ m
Anode Material	W, Mo, Rh (other materials available)
Be Window Thickness	125 $\mu$ m (75 $\mu$ m, 250 $\mu$ m options available)
Approximate Weight	4 lbs (1816 g)
Cooling Method	Forced air @ 150 CFM
Cone Angle	25°

\*nominal per IEC336, JISZ47045, NEMA

### Minimum Spot Size By Target Material at 50 W



Packaging provides X-ray shielding to .25 mR/hr @ 2 inches.\*

\*Except at high voltage connection. See radiation map for details.

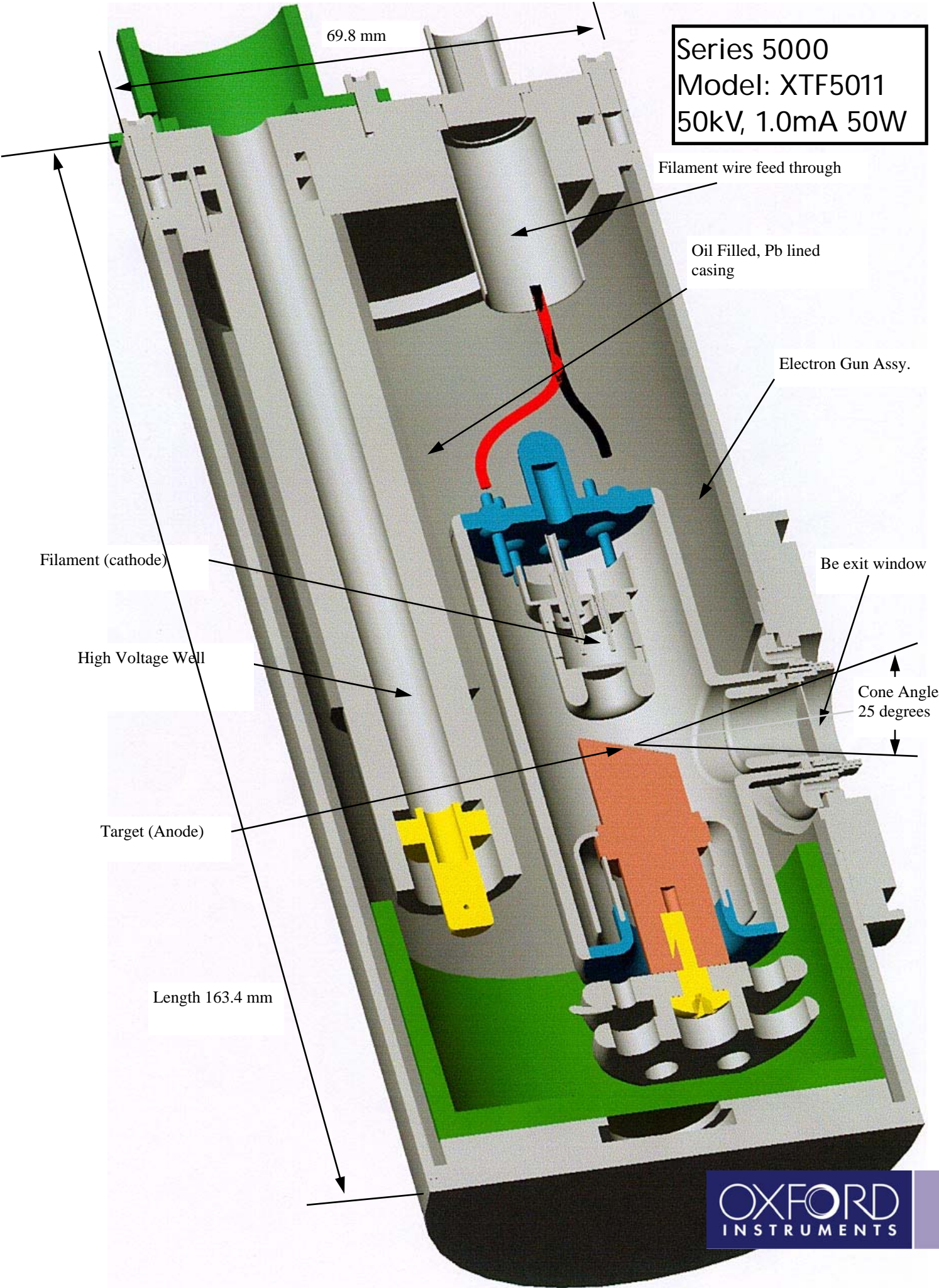
Maximum package temperature not to exceed 55 degrees Celsius.

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Series 5000  
Model: XTF5011  
50kV, 1.0mA 50W



Filament wire feed through

Oil Filled, Pb lined casing

Electron Gun Assy.

Be exit window

Cone Angle  
25 degrees

Filament (cathode)

High Voltage Well

Target (Anode)

Length 163.4 mm

69.8 mm