



# Fine Focus X-RAY TUBES

## Specifications

### 60 mm

Ceramic / metal body tube construction  
Easy Clean Water Filter (Patented)  
Power Rating: 2200 Watts Max (Depends on target)  
Maximum kV: 55  
Maximum mA: 40  
Polarity: Negative (Grounded Anode)  
Duty Cycle: Continuous  
Cooling: Water 3.5 L/min  
Maximum Operating Temperature: 60 °C  
X-ray Exit Window: Beryllium 0.25 mm thick  
Fine Focus, Long Fine Focus, Normal Focus and Broad Focus  
Target Angle: 0° (6° takeoff angle)  
Overall Tube Dimensions: 60 mm diameter, 193 mm length, short anode  
Available Anodes: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Mo, W, Ag

### 30 mm

Ceramic / metal body tube construction  
Power Rating: 210 Watts Max (Depends on target)  
Maximum kV: 30  
Maximum mA: 7  
Polarity: Negative (Grounded Anode)  
Duty Cycle: Continuous  
Cooling: Water 1.0 L/min  
Water hose connectors: Quick Disconnect  
Water Hose length (0.5 meters or as per customer request)  
Maximum Operating Temperature: 60 °C  
High Voltage Cable Length: 8 meters.  
X-ray Exit Window: Beryllium 0.125 mm thick  
Overall Tube Dimensions: 30 mm diameter, 125.5 mm length  
Available Anodes: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Mo, W

### 16 mm

Ceramic / metal body tube construction  
Power Rating: 40 Watts Max  
Maximum kV: 20  
Maximum mA: 2  
Polarity: Negative (Grounded Anode)  
Duty Cycle: Continuous  
Cooling: Water 1.0 L/min  
Water hose connectors: Quick Disconnect  
Water Hose length (0.5 meters or as per customer request)  
Maximum Operating Temperature: 60 °C  
High Voltage Cable Length: 8 meters.  
X-ray Exit Window: Beryllium 0.125 mm thick  
Overall Tube Dimensions: 16 mm diameter, 125.5 mm length  
Available Anodes: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Mo, W

### Custom

Need a custom x-ray tube or power supply? At Proto Manufacturing we can design and build your x-ray tube to your specifications. Water cooled, air-cooled, custom power ratings, custom focal spot size, custom targets, custom tube housings, custom windows, custom power supply and cables. We can manufacture single tubes, low volume and high volume runs.



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