Product Data

X-Rad225XL

High and low dosage for biological or small animal research

The X-Rad225 XL provides mid range energy for high and low dose rate irradiation studies in the largest available irradiation chamber, while maintaining a very small laboratory footprint.

Easily installed with wheeled transport through all standard 32" (81cm) doorways, the complete system includes high precision X-ray generators and tubes in a state-of-the-art, fully shielded FDA-compliant cabinet.

The largest 225kV chamber accommodates the widest range of system options including environmental and mouse anesthesia chambers, large motorized turntable, X/Y targeting table, and the OptiMax Multimodal Imaging Module.

Featuring our TouchRad control panel - a multi-user, password protected touchscreen interface - the X-Rad225 XL includes a transportable database that can track individual system usage for billing or review purposes.

Key Features

High precision 225kV X-ray tube and generator

TouchRad touchscreen control panel

Full screen real-time specimen viewing and image capture

Highest capacity external cooling system for unmatched continuous duty cycle operation and longest X-ray tube life

Filter recognition and programmable specimen shelf

Automated dose calculations and dose QA

Largest internal 225kV chamber for increased throughput and multiple options

PRECISION
X-RAY IRRADIATION

X-Rad225XL

Cabinet Features

- No additional shielding required
- Adjustable sample shelf, 15 - 90cm SSD
- Changeable beam conditioning filter slides
- Automatic warm-up with Intelligent Tube Conditioning
- Interior light and camera for sample viewing
- Cabinet port to introduce small tubing and cables to the chamber area
- Complies with US and International regulations for Cabinet X-ray systems

Interface Features

- On-unit, graphical user touch-screen interface
- Individual user passwords required for system operation
- Up to 9999 individual accounts can be created
- Excel database of exposure and user history can be downloaded to a USB drive
- Programmed exposure settings, database management and user passwords controlled by an administrative Super User
- External internet-based diagnostics and software updates

Cabinet Specification

- Overall dimensions:
  W 56"(142cm) x D 31"(78cm) x H 76"(193cm)
- Irradiation Chamber:
  W 25"(64cm) x D 27"(69cm) x H 42"(106cm)
- Weight: 3300lbs (1497kg)
- Power: 230VAC 1Ø, 50A, 50/60Hz

High Voltage Generator

- Maximum Output Voltage: 225KV
- Maximum Current: 30mA

X-ray Tube

- Standard Max. Output: 225KV / 13.3mA
- High Powered Max. Output: 225KV / 17.8mA
- Max. Power: 4000 W
- Type: Metal Ceramic, Fixed Anode, Water Cooled
- Single Focal Spot: 7.5mm (per EN12543)
- Dual Focal Spot with OptiMax: 1mm, 5.5mm (per EN12543)
- Inherent Filtration: 0.8mm Be
- Cooling Pump: Water-Air or Water-Water models available

Dose Output

- Raw Beam: >12 Gy/min at 225kV, 13.3mA, 30cm SSD
- Filtered Beam: ~>6.04 Gy/min at 225kV, 13.3mA, 30cm SSD (Filter = 2mm Al)
- High Powered: ~9.0 Gy/min at 225kV, 17.8mA, 30cm SSD (Filter = 2mm Al)

Operators Control

- kV Setting + Display Accuracy:
  5kV – 225kV in 0.1kV increments
- mA Setting + Display Accuracy:
  0.5mA - 30mA in 0.01mA increments
- Settings Accuracy: < 1%
- Exposure Timer: 1 - 99999 seconds
- Programmable Settings:
  1000's of locations to recall exposure parameters

Options

- **Programmable Motorized Rotating Shelf**
- **Environmental Chamber**
  with O^2, CO^2 and heating control
- **Planetary Turntable**
  for even dose distribution for up to 6 multiwell plates at a time
- **OptiMax Multimodal Imaging Module**

PRECISION X-RAY IRRADIATION

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