

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.

Product

Data

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







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 O², CO² and heating control

Planetary Turntable for even dose distribution for up to 6 multiwell plates at a time

OptiMax Multimodal Imaging Module





