

X-RAD[®] 320_{ix} Biological Irradiator



The X-RAD 320_{ix} is a self-contained X-ray system for delivering a precise radiation dosage to specimens in a biological or small animal research laboratory.

The shielded cabinet includes a TouchRad Control, Key Operated Motorized Adjustable Specimen Shelf, Sample Viewing Window, Interior Light and Beam Hardening Filter Holder.

The X-RAD 320_{ix} features the TouchRAD Control Panel a multi-user, password protected touch screen interface with a transportable database that can track individual system usage.

Passwords, programmed exposure settings, and database management are controlled by a super-user.

The X-ray tube is used specifically for radiation therapy having a highly homogenous beam.

Options available include: Animal Holding and Shielding Fixtures, Motorized Turntable, and Adjustable Collimator



X-RAD® 320_{ix} Biological Irradiator

Technical Data

Cabinet Features

Adjustable Sample Shelf: 20cm to 90cm SSD
Changeable Beam Conditioning Filter Slides, (2) supplied
User Entry Port to introduce small tubing and cables into chamber area
Complies with Domestic and International Regulations for safety of cabinet X-ray systems

TouchRad Control

KV Setting & Display Accuracy: 5KV – 320 KV in 0.1 KV increments
mA Setting & Display Accuracy: 0.5mA to 45 mA in 0.01 mA increments
Settings Accuracy: < 1%
Exposure Timer: 1-9999 seconds
Programmable Settings: >1,000 locations to recall exposure parameters
Password Protected User Accounts (> 1000 users)
Ability to assign users access to only specific programs.
Excel® Database transportable via USB Flash memory

X-ray Tube

Maximum Potential: 320 KV
Maximum Power: 4000 W
Type: Metal Ceramic, Fixed Anode, Oil Cooled
Focal Spot: 8 mm² (per EN12543)

Dose Output

3 Gy/min at 320KV, 12.5mA, 50cm SSD, (HVL≈1mm Cu)
1 Gy/min at 320KV, 12.5mA, 50cm SSD, (HVL≈4mm Cu)
>15 Gy/min at 320KV, 12.5mA, 50cm SSD, (No Beam Hardening))

High Voltage Generator

Maximum Output Voltage: 450 kV (tube limited to 320 kV)
Maximum mA: 45

Additional X-Ray Unit Features

Automatic warm-up with Intelligent Tube Conditioning
Proven long term reliability of system components

Cabinet Size and Weight

Overall Dimensions: 80" (200cm) h x 59" (148cm) w x 34" (85cm) d
Irradiation Chamber: 40" (100cm) h x 30" (75cm) w x 30" (75cm) d
Weight: 4200 lbs (1910 kg)

Power Requirement

1N PE 230 VAC ±5%, or 3N 230 VAC ±10%, 50/60 Hz, 12.5 KVA

