

X-RAD 320Dx Biological Irradiator

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

This advanced version of the **X-RAD 320** allows researches to perform irradiation procedures by rotating the X-ray source vertically downward or horizontally for additional capability.

The larger shielded cabinet includes an Adjustable Specimen Shelf, Horizontal Specimen Slide, Viewing Windows and Beam Hardening Filter Holder.

The TouchRAD Control Panel is 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.

Options available include: Holding Fixtures, Dose Measurement & Control, Motorized Specimen Shelf, Turntable, Fixed Beam Collimators, Adjustable Collimator, and Specimen Holding Fixtures



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Technical Data

Cabinet Features

Adjustable Sample Shelf: 20cm to 90cm SSD
Changeable Beam Conditioning Filter Slides, (2) supplied
Dual Viewing Windows for specimen viewing in both vertical and horizontal configurations.
Complies with Domestic and International Regulations for safety of cabinet X-ray systems

Cabinet Size and Weight

Overall Dimensions: 86" (218cm)h x 72" (183cm)w x 40" (102cm)d
Irradiation Chamber: 42" (107cm)h x 39" (100cm)w x 28" (71cm)d
Weight: 5500 lbs (2500 kg)

Power Requirement

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

High Voltage Generator

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

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

Operators 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

Additional X-Ray Unit Features

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