



X-RAD 320

Introducing X-RAD 320. The world's most widely used 320 kV Biological X-Ray Irradiator.



The X-RAD 320 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 an Adjustable Specimen Shelf, Sample Viewing Window 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.

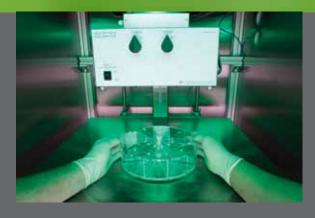
Passwords, programmed exposure settings, and database management are controlled by a super-user.

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

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

- 320 kVp Orthovoltage Energy X-ray Unit
- Fast Dose Delivery
- Fully Shielded Cabinet is safe and easy to operate
- Optimized for cellular and small animal research

Accuracy, Reliability, Repeatability.



Prestigious research facilities worldwide turn to Precision X-ray to provide the most advanced and reliable systems to assist with their research efforts – find out why.

# **Technical Specifications**

## **Cabinet Features:**

Fully shielded cabinet provides a large area to place multiple samples being irradiated

Stainless steel interior allows for easy cleaning and reduced potential for cross contamination.

Large shielded glass window makes it easy to continuously observe specimens contained within.

Side Entry Port Baffle allows introduction of cables and hoses for additional equipment to be placed inside the chamber.

Complies with domestic and international regulations for safety of X-ray Cabinets

### **Cabinet Size and Weight:**

Overall Dimensions: 78"(195 cm) H x 38" (95 cm)

W x 42" (105 cm) D

Irradiation Chamber: 41" (102 cm) H x 30" (75 cm)

W x 34.5" (86 cm) D Weight: 4800 lbs. (2050 kg)

#### **Power Requirement:**

1N PE 230 VAC  $\pm$  5%, 50/60 Hz, 12.5 KVA or 3N PE 400/230  $\pm$  10%, 50/60 Hz, 10 KVA

#### **High Voltage Generator:**

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

#### X-ray Tube:

Maximum Potential: 320kV Maximum Power: 4200 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)

# **TouchRAD Operators Control:**

Large Touchscreen Graphical User Interface

kV Setting & Display Accuracy:  $5-320~\rm kV$  in 0.1 kV increments.

mA Setting & Display Accuracy: 0.5 – 45 mA in 0.01 mA increments

Exposure settings in time (0-9999 sec.), continuous, or optional dose controlled

Password Protected User Accounts (>9,999 users)

Fully programmable with access assigned to individual exposure programs.

Exposure history database via USB flash drive for use with Excel®

#### **Additional X-ray Unit Features:**

Automatic warm-up with intelligent tube conditioning Exceptional long term reliability and output consistency

# **Options and Accessories:**

Dose Measurement Exposure Control

Motorized Specimen Shelves

Fixed and Adjustable Collimation Fixtures

Specimen fixtures, shields, and pie cages

Consult PXI for a complete list of available

options for this unit.

