

**KUBTEC**<sup>®</sup>  
S C I E N T I F I C

Reliable Irradiation in  
a Wide Range of Doses to  
Meet a Wide Range of Needs

**XCELL**<sup>®</sup>

Free-Standing Irradiator Systems



**Safe**  
**Cost effective**  
**Accurate**  
**Powerful**  
**User-friendly**

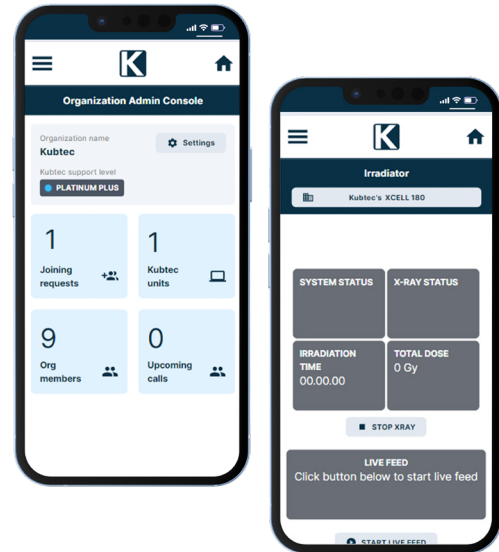


# KUBTEC® XCELL® Line of Irradiator Systems

Provides researchers with accurate, reliable, and repeatable treatments, saving time and improving efficiency. Our systems cover a wide spectrum of applications, like small animal studies, tissue culture, and food safety research.

X-ray irradiators are seen as the direct replacement for gamma irradiators such as Cesium or Cobalt which contain harmful isotopes and require licensure from nuclear regulatory agencies. The KUBTEC line of irradiators are self-contained fully shielded cabinets, easy to operate, require no additional training or licenses, and provide an affordable solution to fulfill almost any radiation requirement.

Each system is provided with a high resolution optical camera for peace of mind during operation. Units are tailored for each customer's requirements and may be supplied with integrated X-ray imaging and KUBTEC's password protected mobile application. The phone app can be used to remotely monitor KUBTEC products, has a cabinet livefeed, and the ability to shut off the device within the app. The unit's administrators can easily download user logs and control user access.



## SYSTEM SPECIFICATIONS

	XCELL 160 (1.8 kW)	XCELL 160 (3.0 kW)	XCELL 225 (3.0 kW)
Tube Potential	30 - 160 kV	30 - 160 kV	30 - 225 kV
Tube Current	0.1 - 30 mA	0.1 - 30 mA	0.1 - 30 mA
Tube Maximum Power	1.8 kW	3.0 kW	3.0 kW
Tube Focal Spot	7.5 mm	7.5 mm	7.5 mm
Inherent Filtration	0.8 mm Be	0.8 mm Be	0.8 mm Be
Beam Coverage	14" Diameter (35.5 cm)	14" Diameter (35.5 cm)	14" Diameter (35.5 cm)
Dose Output (Open Beam)	>3.10 Gy/min @ 160 kV, 11.25 mA, 30 cm SSD	>4.86 Gy/min @ 160 kV, 18.75 mA, 30 cm SSD	>6.15 Gy/min @ 225 kV, 13.30 mA, 30 cm SSD
Dose Output (Filtered)	>2.00 Gy/min @ 160 kV, 11.25 mA, 30 cm SSD 2.0 mm Al	>3.23 Gy/min @160 kV, 18.75 mA, 30 cm SSD 2.0 mm Al	>4.47 Gy/min @ 225 kV, 13.30 mA, 30 cm SSD 2.0 mm Al
Source to Sample Distance	13.75" - 37.25" (35 - 95 cm) SID	13.75" - 37.25" (35 - 95 cm) SID	13.75" - 37.25" (35 - 95 cm) SID
No. of Shelves	2	2	2
High-Res Optical Camera	Yes	Yes	Yes
Optional X-ray Imaging	Yes	Yes	Yes
Optional Mobile App	Yes	Yes	Yes
Exterior Dimensions (W x D x H)	38" x 47" x 83" (97 x 120 x 211 cm)	38" x 47" x 83" (97 x 120 x 211 cm)	47" x 51" x 83" (120 x 130 x 211 cm)
Chamber Dimensions (W x D x H)	24" x 24" x 42" 61 x 62 x 107 cm	24" x 24" x 42" 61 x 62 x 107 cm	24" x 24" x 42" 61 x 62 x 107 cm
Weight	1650 lbs (748 kg)	1650 lbs (748 kg)	2150 lbs (975 kg)

For more information on XCELL system specifications please reach out to us at [Scientific@kubtec.com](mailto:Scientific@kubtec.com)

# KUBTEC® DIGISOURCE® Software

DIGISOURCE® software comes with all KUBTEC® XCELL® X-ray irradiator systems. The software allows you to control the energy level, irradiation time, and includes the ability to set and monitor both kV and mA levels throughout the treatment. When supplied with a dosimeter, users can manage the administered dose for each sample.

KUBTEC DIGISOURCE is utilized by researchers to deliver radiation to biological and agricultural samples as well as material components. The systems are also valuable for studying the effects of radiation on the immune system, various cancer cells, and small animals in scientific research.

Applications include:

- Cell irradiation
- Small animal irradiation
- Food safety research
- Seed and grain irradiation
- Sterilization of medical devices, instruments, and electronics

	<b>XCELL 225 (4.0 kW)</b>	<b>XCELL 320 (4.0 kW)</b>
Tube Potential	30 - 225 kV	30 - 320 kV
Tube Current	0.1 - 30 mA	0.1 - 30 mA
Tube Maximum Power	4.5 kW	4.0 kW
Tube Focal Spot	5.5 mm	8.0 mm
Inherent Filtration	2.0 mm Be	3.0 mm Be
Beam Coverage	14" Diameter (35.5 cm)	14" Diameter (35.5 cm)
Dose Output (Open Beam)	>7.72 Gy/min @ 225 kV, 17.70 mA, 30 cm SSD	>8.82 Gy/min @ 320 kV, 12.30 mA, 30 cm SSD
Dose Output (Filtered)	>5.58 Gy/min @ 225 kV, 17.70 mA, 30 cm SSD 2.0 mm Al	>6.86 Gy/min @ 320 kV, 12.30 mA, 30 cm SSD 2.0 mm Al
Source to Sample Distance	13.75" - 37.25" (35 - 95 cm) SID	11.00" - 36.75" (28 - 94 cm) SID
No. of Shelves	2	2
High-Res Optical Camera	Yes	Yes
Optional X-ray Imaging	Yes	Yes
Optional Mobile App	Yes	Yes
Exterior Dimensions (W x D x H)	47" x 51" x 83" (120 x 130 x 211 cm)	53" x 48" x 86" (135 x 122 x 219 cm)
Chamber Dimensions (W x D x H)	24" x 24" x 42" 61 x 62 x 107 cm	32" x 32" x 42" (82 x 82 x 107 cm)
Weight	2150 lbs (975 kg)	5000 lbs (2,268 kg)

## Also Available

XCELL 320  
3.2 kW and 4.2 kW  
Versions.

## XCELL® Irradiator Features:

- Fully shielded and secured X-ray irradiator
- Minimal training required
- Self-contained cabinet
- Large irradiation chamber for a range of samples
- Automatic warm-up with intelligent tube conditioning
- Adjustable sample shelf
- Turntable for uniform irradiation of samples
- Dosimeter to monitor the exposure
- Optional integrated digital X-ray imaging capability using proprietary DIGICOM® software, available in all free-standing systems
- Optional entry port to introduce anesthesia and monitoring lines

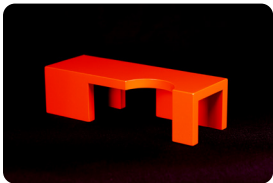
## Mouse Irradiation Kit:



Pie Cage



Partial Body  
Irradiation  
Restrainer



Partial Body  
Irradiation  
Shield



Gas Anesthetizing Box

Also available:

## KUBTEC XCELL 180 Benchtop X-ray Irradiator Systems

