

BestTM Theratronics

A TEAMBEST GLOBAL COMPANY



Raycell[®] Mk2
X-ray Blood Irradiator
2.0 L or 5.0 L Canisters

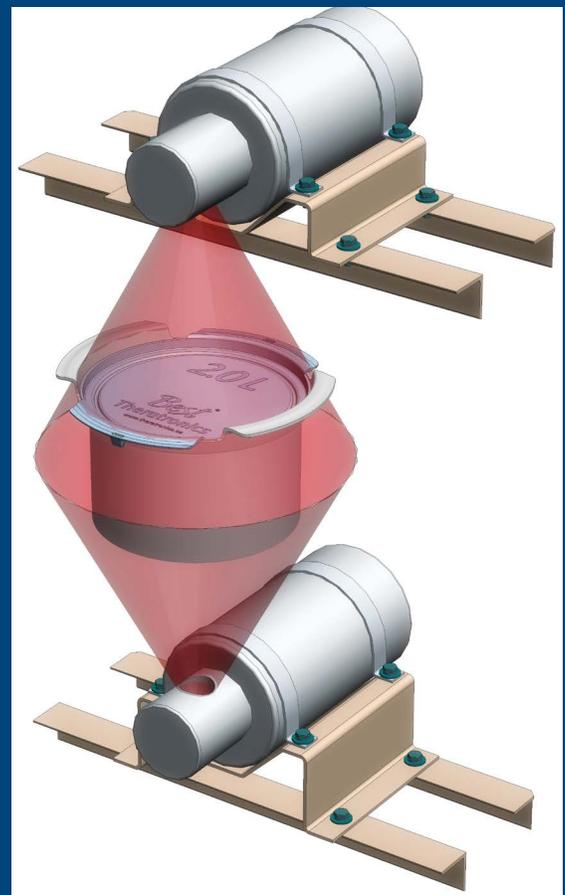


A Convenient Choice for Blood Irradiation

Efficient, convenient and user friendly, the Raycell® Mk2 X-ray Blood Irradiator provides a safe and cost-effective choice for blood irradiation—backed by Best™ Theratronics' trusted expertise and commitment to quality. It delivers the required dose to help prevent TA-GVHD.

Raycell® Mk2 Features

- Larger canister size facilitates irradiating more blood bags—2.0 L and 5.0 L (0.53 and 1.3 US Gallons)
- Two opposing x-ray tubes deliver a uniform dose to the product
- Dose delivery is controlled by setting and monitoring the irradiation time, based on the central dose rate
- Irradiation time is controlled by two independent microprocessors
- Detailed dosimetry of the sample canister volume is obtained and provided at the time of installation
- Installation can take 1–3 days depending on individual installation and training requirements



Technical Specifications

Weight

1,000 kg (2200 lbs)

Floor Point Loading

111 kg/cm² (1580 lbs/in²)

Dimensions

Height 1525 mm (60 in)
 Width 1450 mm (57 in)
 Depth with Shelf 1000 mm (40 in)
 Depth without Shelf 800 mm (32 in)

Electricity Requirements

Single-phase 60 Hz, 60A typically at 240V
 Three-phase 50 Hz, 25A typically at 400V

Photon Energy

160 KV (60-80 keV average)

Water Requirements*

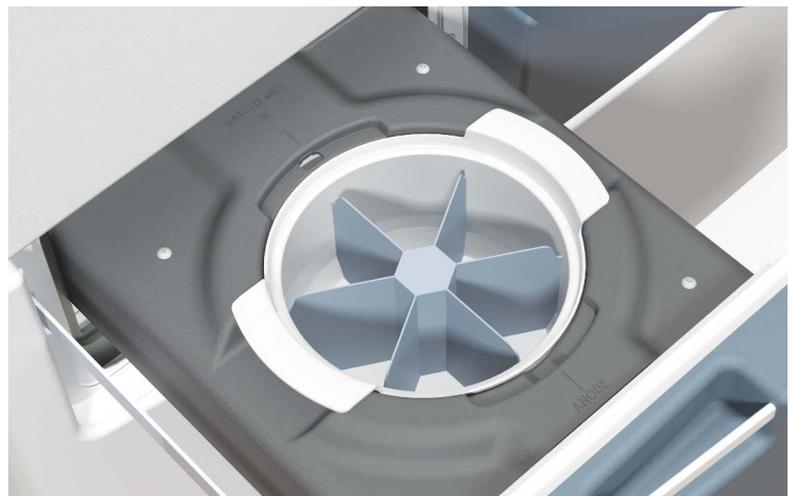
* Not applicable if Self-Contained Cooling System option is selected.

Flow Rate >10 L/min (2.6 US gal/min)
 Potable Quality ≤ 7 grains/US gal hardness
 Pressure 35-60 psi (241-414 kPa)
 Temperature 10-25 °C (50-77 °F)

Canister Features	2.0 L Version (0.53 US gal)	5.0 L Version (1.3 US gal)
Canister Diameter	167 mm (6.6 in)	240.5 mm (9.5 in)
Canister Height	97 mm (3.8 in)	119.5 mm (4.7 in)
Estimated Number of Bags per Cycle	4 Bags (300 ml each) or 2 Bags (600 ml each)	6 Bags (300 ml each)
Central Dose Rate	12.3 Gy/min (± 5%)	5.0 Gy/min (± 5%)
Time for 25 Gy Central Dose	~ 2.0 min	~ 5.5 min
Dose Uniformity	~ 20 to 30 Gy (1.5:1)	~ 21.4 – 35.3 Gy (1.65:1)
Time for 25 Gy Minimum Dose	~ 3.2 min	~ 6 min
Dose Uniformity	~ 25 to 37.5 Gy (1.5:1)	~ 27.3 to 45.5 Gy (1.65:1)

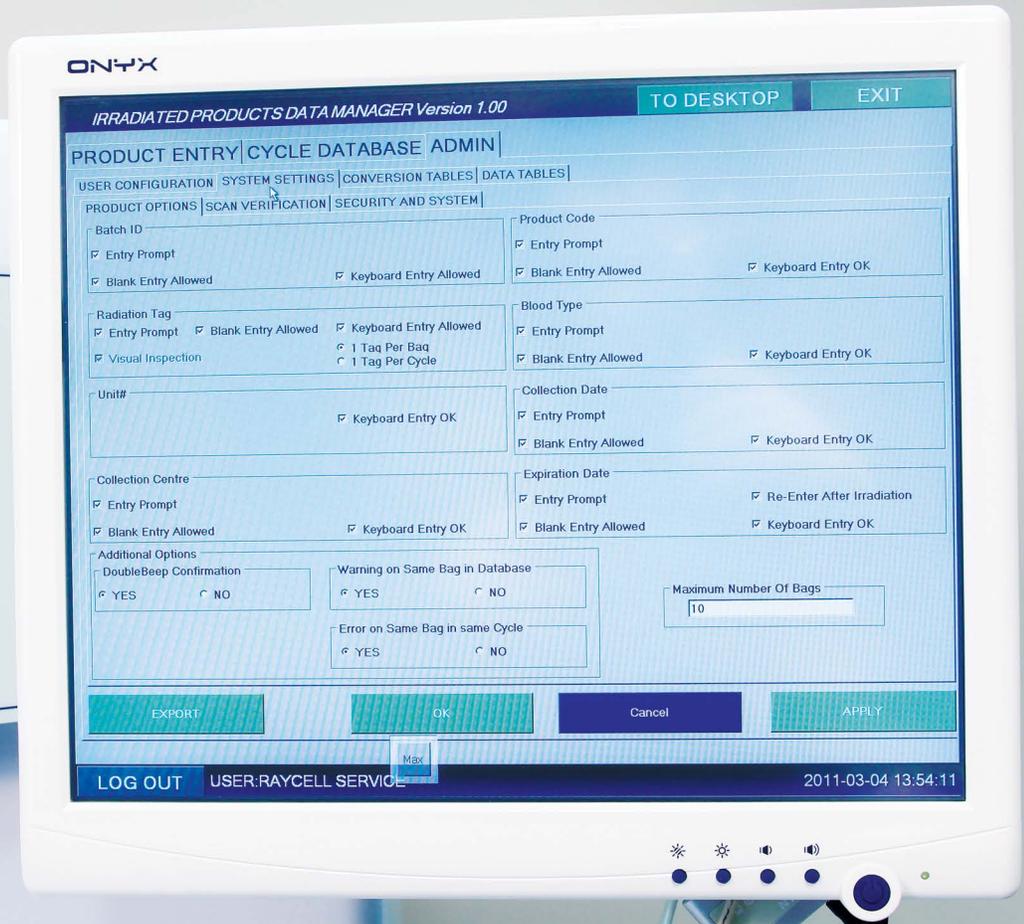
Additional Options

- IPDM System
- Self-Contained Cooling System
- Heat Exchanger
- Syringe Holder
- UPS
- Service Agreements
- Irradiator Verification Indicators
- Additional Canisters
- Chiller



IPDM System

Raycell®



Irradiated Products Database Management (IPDM) System Features *(optional)*

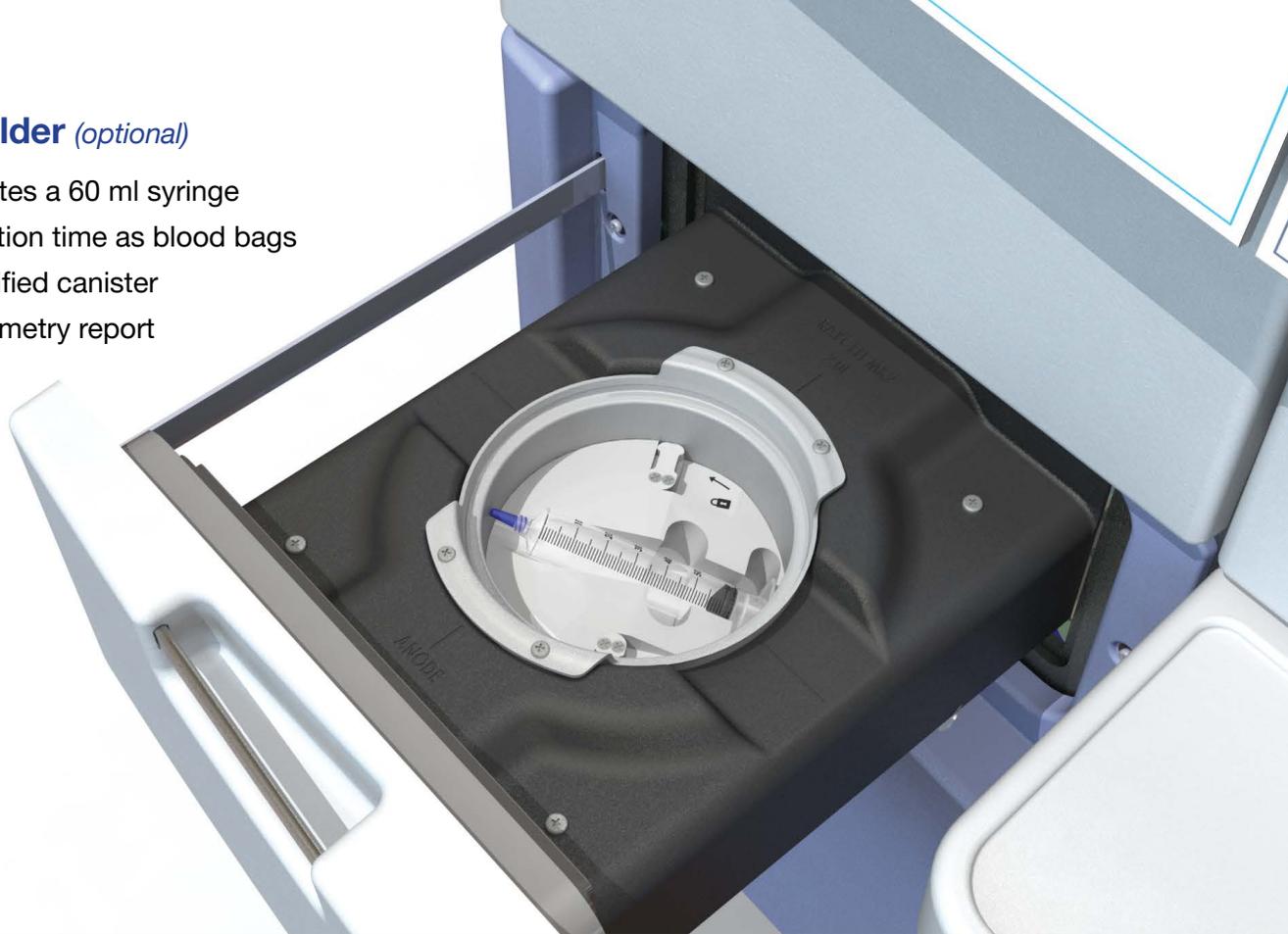
- Scans and stores bar-coded information about the irradiated product (unit number, product code, blood type, etc.), irradiation cycle number, operator details, date/time stamp, and irradiation indicator verification
- Scans barcodes using ISBT 1281 and ABC Codabar2 decoders, or as is without decoding
- Includes three modes of operation: product entry, cycle database review, and administration
- Performs additional verification of the irradiation time
- Stores up to 50,000 product entries of data in main database and archives the rest
- Exports data conveniently onto a USB memory stick (1 stick provided, 2 USB ports)
- Ensures efficient, error-free operation
- LIMS connection

1. "ISBT 128 Standard, Technical Specification," version 3.1.0 – June 2007

2. ABC Codabar: Based on the US FDA "Guideline for the Uniform Labelling of Blood and Blood Components" – August 1985

Syringe Holder *(optional)*

- Accommodates a 60 ml syringe
- Same irradiation time as blood bags
- Special modified canister
- Custom dosimetry report



Self-Contained Cooling System *(optional)*

- 35 L tank for distilled water
- No connection to external water needed
- System has its own power requirements (100–240 V single phase)

Healthcare For Everyone

Best™ Theratronics' products and services are used throughout the world to prevent, diagnose and treat disease. Our applied research and innovation play an integral part in improving global healthcare.

“Our TeamBest® companies are committed to making quality healthcare affordable and accessible globally.”
—*Krishnan Suthanthiran, President, Best Medical International*

Best™ Theratronics Ltd. is a member of TeamBest® —a family of Best™ Medical companies

From brachytherapy seeds and equipment, dosimetry kits, phantoms, treatment planning systems, an array of medical/health physics equipment, and product remanufacturing/ servicing, to radioactive sources, gamma teletherapy machines, cyclotron systems, and particle therapy treatment, TeamBest® has it all!

Check out each company's site at www.teambest.com

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