

# X-BEAM

## X-RAY BLOOD IRRADIATION

### X-BEAM

**optimal solution for X-ray irradiation for blood components in transfusion medicine and research.**

**High performance: X-BEAM is safe, easy to use, fast and effective.**

**X-BEAM** is an X-Ray irradiator specifically designed to prevent Transfusion-Associated Graft-versus-Host Disease (TA-GVHD), a rare but often fatal reaction caused by the donors' Lymphocytes-T when grafted into a recipient with a transfused blood product using a high intensity X-Ray flow.

**X-BEAM** is also useful for research applications including the irradiation of cells and tissues, bone marrow ablation on lab animals and other research lab purposes.

The standard configuration includes a rotating system for blood bags with one canister for blood bags. The canister has three compartments for up to six blood bags. The required X-Ray dose can easily be programmed by adjusting the working parameters. The estimated dose will appear on screen and, once irradiation starts, a progress bar will show the elapsed time.

#### Advantages

- Rotating canister for high dose uniformity
- Up to 2200 ml volume or up to six bags
- Continuous operation for 24 h
- Barcode scanner and label printer
- Full traceability with internal and exportable database
- Documentation software for generating of irradiation reports



#### Product information

##### **Intended use**

- Blood components
- Other generic applications for research purposes

##### **Scope of delivery**

- Dose mapping (factory calibration)
- Five initialized operator smartcards
- One canister for blood products
- One probe holder for periodical dosimetry (Farmer type)

##### **User interface**

- Wide colour touch screen display
- Lockable settings panel
- X-Ray chamber with triple safety lock sliding door
- Optional label printer and barcode scanner
- User management (password or smart card login)

##### **Data input and transfer**

- Data input with optional barcode scanner
- Label print with optional printer
- SQL database for internal data storage
- Data transfer via USB pen or optional documentation software RadGilRep (csv file)

Sold by:  
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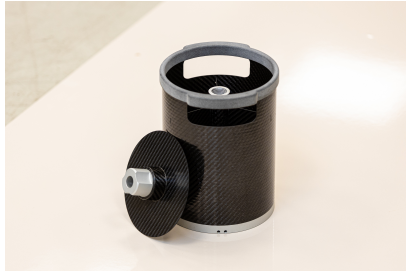


**Eckert & Ziegler**

Gamma Service Medical

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## X-RAY BLOOD IRRADIATION



Canister for blood bags

### Fields of application

#### **Blood components (bags)**

- Up to 2200 ml volume or up to six bags
- Rotating canister for best homogenous dose distribution
- A dose of 25 Gray (adjustable) in about 5 minutes

#### **Other Applications**

- Rotating canister can be removed for other applications
- Maximum irradiation size 29cm Ø
- Maximum height 29cm
- Optional aluminium and copper X-Ray filters

#### **X-Ray power range**

- Voltage: Adjustable in steps of 20 from 80 to 200KV
- Current: Adjustable in step of 5 from 5 to 20mA
- Time: Adjustable in min and sec up to 99:59

### Technical requirements

#### **Power**

- 400 VAC 50/60Hz three phases, 6KW

#### **Water cooling**

- Tap water 2.5 – 4.0 Bar,  $\geq 5$  l/min, max water hardness 27 French degree, or by optional chiller
- External water chiller optional available

### Safety features

- Internal detector for X-Ray energy controlling
- Self-diagnostic test is performed at start-up and every 8 hours
- Monitoring and controlling of irradiation parameters

### Dosimetry measurement

- Factory performed dose mapping
- Mapping and measuring instructions available from manufacturer
- Dose mapping can be updated by a qualified expert and stored internally in the **X-BEAM** database (X-ray emission alignment)

### Consumables

- 3 compartment canister for blood bags
- Cover for canisters
- Smartcard

### Options

- Label printer assembly (factory installed kit)
- Barcode scanner (factory installed kit)
- Filter kit (for creating different dose/area of X-ray)
- External water chiller 2.9 kW
- High performance external water chiller 4.9 kW
- RadGilRep documentation computer

### Dimensions



- Dimensions in mm
- Weight: 1400 kg

Manufactured by GILARDONI S.p.A. exclusively for EZAG

