RadiaBeam Application Linacs

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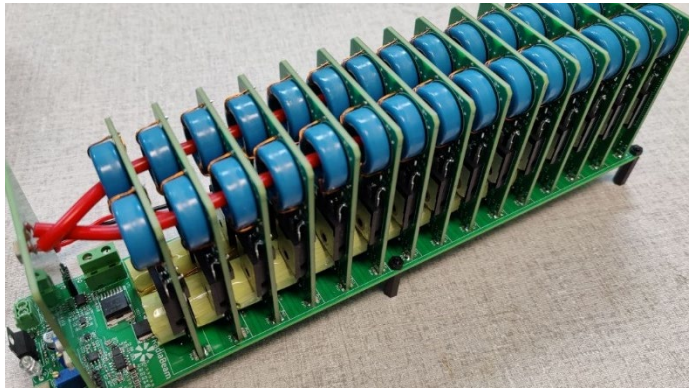
Applied Linac Technology

OEM medical and sterilization accelerating structures

Turnkey irradiators for food, sterilization, and inspection

SIT and research cabinet irradiators

Hand-deployable irradiators

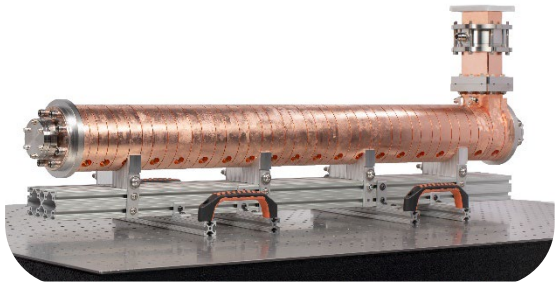


Making a linac

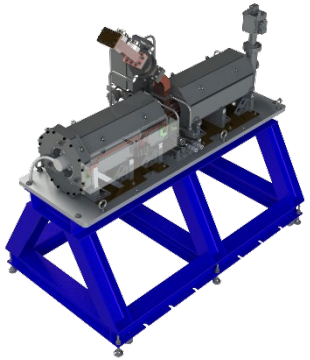
- **Sales:** experienced sales personnel continuously interacts with the industrial accelerator users, colleagues from national laboratories, and funding agencies
- **Physicists**: conceptual design, 3D RF models, risk analysis
- **Engineers:** production plan, 3D engineering models, and iterative optimization
- **Fabrication**: in-house precision machine shop, inspection and QC, specialized processes, and trusted vendor base
- **Commissioning:** RF tuning, vacuum testing, high power conditioning, packaging

Full-service linac supplier

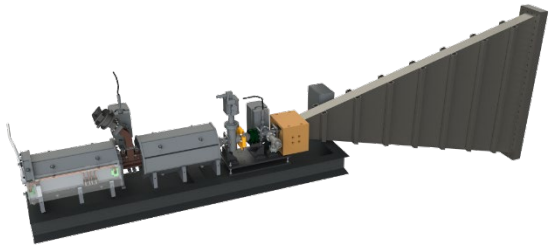
RadiaBeam



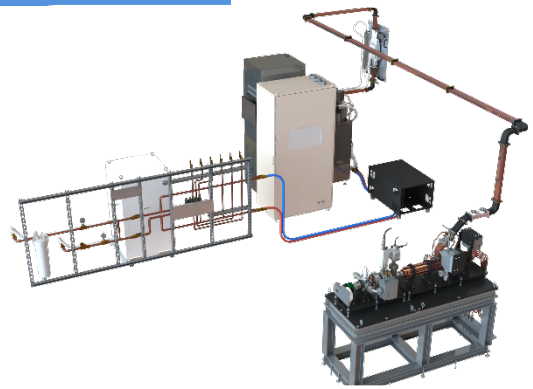
Structure Only



Irradiator Source



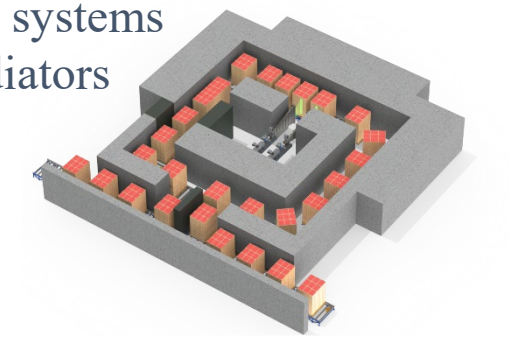
Full Beamline



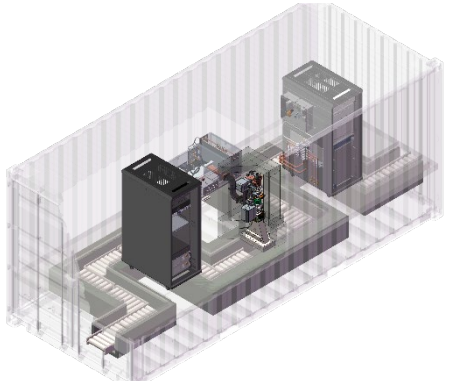
Turnkey Irradiator

2025 deliveries:

- 18 meters of L-band linac
- 4 self-shielded systems
- 3 turnkey irradiators
- 3 beamlines



Full Facility



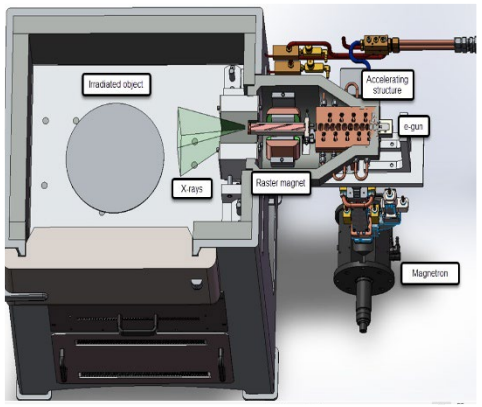
Self-Shielded System

Hand-Portable Radiography

Electronic X-ray and Isotope Replacements

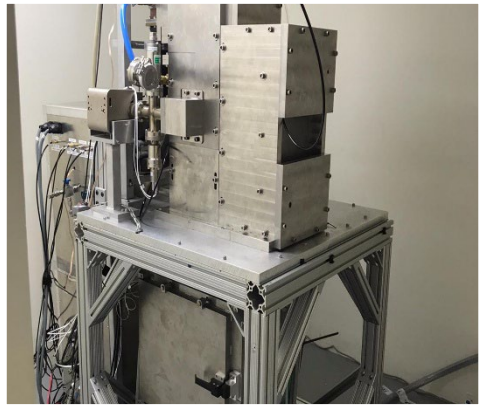
Hand-Portable Field Radiography

0.3 – 2 MeV X-rays
20 kg weight



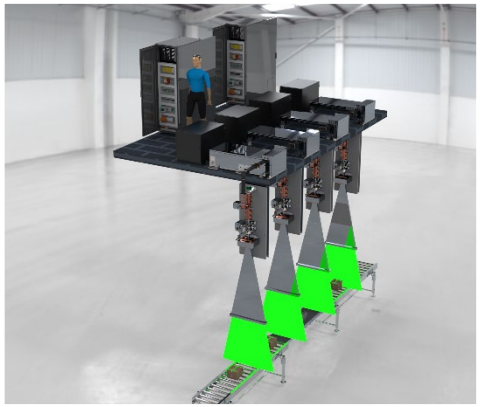
X-ray Cabinet

3 MeV X-rays
30 L Canister



General Purpose Cabinet

2 MeV electrons
40 x 40 cm^2 irradiation



Low-cost parallel irradiation

10 MeV electrons
7.5 MeV X-rays

In-Line Electron Irradiators

RadiaBeam

Versatile Throughputs

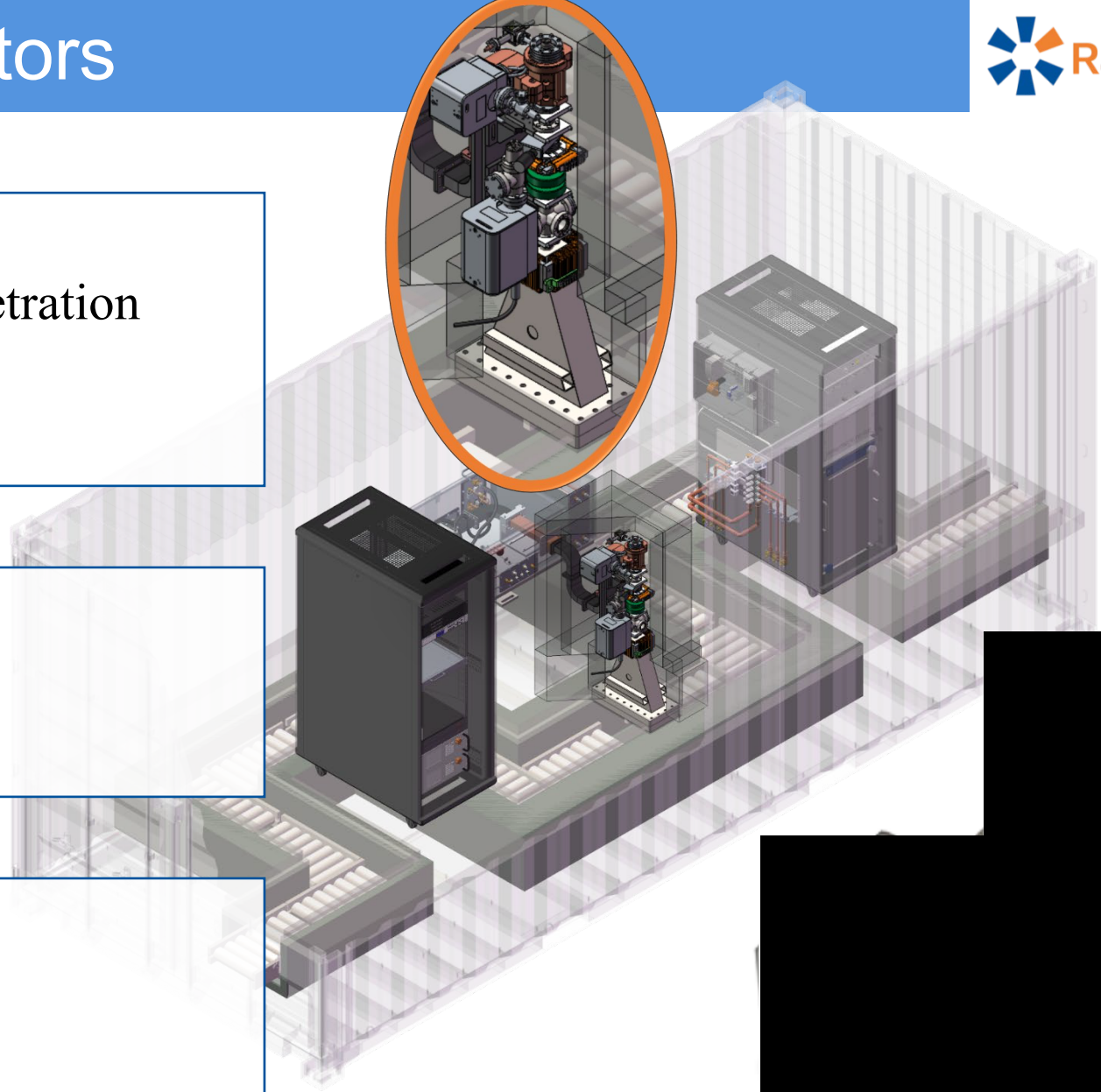
- 1 – 3 MeV energy, 2 – 10 mm penetration
- 1.5 – 3 kW power
- Process 100–300 parts per minute

Self-Shielded

- 15 µSv/hr leakage rate
- 0.4 µSv/hr optional leakage rate

Self-Contained

- Irradiator, conveyor, & Controls
- Clean-room compatible
- Deployable option



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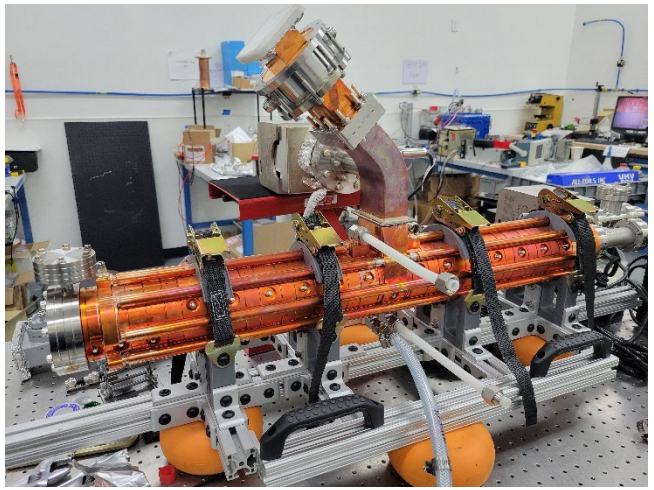
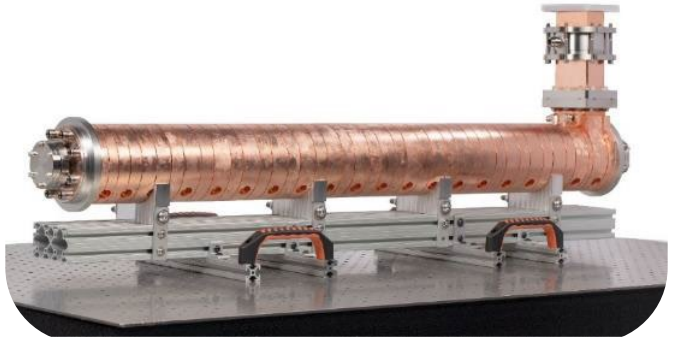
Two units in commissioning

High Energy, High-Power Irradiators

Model	S10/18	S10/25	S10/35	S7.5/40
Beam Energy	10/11 MeV	10/11 MeV	10/11 MeV	7.5 MeV
Beam Power	18 kW	25 kW	35 kW	40 kW
Average current	1.8 mA	2.5 mA	3.5 mA	5.3 mA





- All models share a common design
  - Lowers cost and delivery time
  - Shared COTS
- *All 10 MeV eBeam linacs can be operated at 11 MeV*