INTRODUCING RADBOX™

Sterilization at the Speed of Light

Replaces the autoclave — a faster, cheaper and more sustainable method of medical instrument reprocessing, built for the EtO phase-out.

LUMAEGIS
DURABILITY · EFFICACY · SAFETY

6 min	4×	$25,000	2027
VS. 85+ MIN AUTOCLAVE	INSTRUMENT LIFETIME	SAVINGS / UNIT / YR	ANTICIPATED AVAILABILITY

BENEFITS TO PRACTITIONERS

Fast and efficient

- ✓ 6 minutes vs. 85+ minutes for steam autoclave
- ✓ Productivity up >3× — faster room and tool turnover means more patient visits, more revenue and less instrument inventory
- ✓ Space efficient = ¼ the size of a Midmark M11

Lower maintenance, repair and operating costs

- ✓ Zero water usage; no effluent cooling
- ✓ Total cost of ownership 50% of current technology
- ✓ $25,000 saving / unit / yr vs. Midmark M11

Safer for staff, patients and instruments

- ✓ No chemicals, no fire risk and no tray ejection
- ✓ 4× instrument lifetime; fewer implant failures
- ✓ Reusable sterile packaging — no damage to medical and surgical instruments

Sustainable, can be designed mobile and battery operated

- ✓ Saves 6,000+ gallons of water and 9 MWh per year[1]
- ✓ >90% less power consumption than steam
- ✓ Modular design for easy expansion; mobile for field use

WHAT EXPERTS ARE SAYING

"Innovation in infection prevention starts with rethinking what's possible. RadBox™ could help transform instrument reprocessing, improve workflow efficiency and reduce healthcare's environmental footprint."

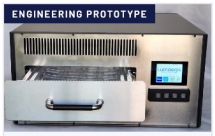
— Dr. Rodney Rohde, Microbiologist & public health advocate

"I truly believe this cutting-edge technology will revolutionize the sterilization industry and make things much easier for practitioners and hospitals. The amount of water currently used for sterilization is excessive."

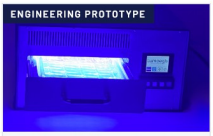
— Dr. JJ Salehieh, Dentist



RadBox concept — sterilizing cycle DUAL MODALITY



Pull-out tray with reusable sterile packaging



Light-based kill zone in action



AUTOCLAVE STERILIZERS

- Old technology, ~150 years
- Slow, 85+ minutes; requires facility installation
- 1M gallons water / unit / yr
- Energy intensive, ~22 MWh / unit / yr
- Wastewater disposal and instrument wear

WHY NOW

EPA restrictions on carcinogenic ethylene oxide are cutting more than 50% of US sterilization capacity across a $23B market. RadBox is a light-based replacement that truly sterilizes.

CLINICAL VERIFICATION

- **B. pumilus:** 5-log kill (>99.9992%) at 180s; no colonies detected at 270s
- **C. difficile:** 6-log kill (>99.9995%) at 60s
- **B. atrophaeus** and **G. stearothermophilus** spore strips: no microbial growth in go/no-go studies, 2026
- **Surgical instruments:** B. atrophaeus inactivation confirmed at multiple challenge locations

Third-party labs: Industrial Genetics, Microchem, Mesa Labs, and Inphasol at DayBreak Labs (Feb & Jun 2026).

REGULATORY & IP UPDATE

- FDA De Novo designation granted — **July 2024**
- Approval pathway defined: hierarchy testing, lethality tests, full GLP validation — **Sep 2025**
- Anticipated De Novo approval and marketing clearance — **Q2 2027**
- RadBox system patents filed US & EU (4/2025); EPO found both patents novel and inventive

FOR MORE INFORMATION, PLEASE CONTACT

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[1]Mid-size office with four Midmark M11 units. RadBox is a prototype only, not commercially available in the U.S.

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