

# eMELT<sup>®</sup>-iM



For optimized serial production



# Setting the industry standard for serial production

Collaboration – Innovation – Transformation

- Industrial E-PBF machine for serial production with open architecture and seamless factory integration.
- Interchangeable, actively cooled build modules deliver high throughput and short cycle times, with an optimized machine footprint on the factory floor.
- Off-machine turnaround, for part recovery and powder handling at a dedicated station, boosts uptime, safety, and workflow efficiency.
- e-MELT® -iM is designed to maximize overall equipment effectiveness (OEE) and optimize total cost of ownership (TCO), delivering a competitive cost per part.



## Technical data e-MELT® -iM

Per melt station and build module

Beam power	Variable 0–6 kW
Beam acceleration voltage	60 kV
Build envelope	Ø 100 x H 325 mm
Process vacuum level	1x10 <sup>-5</sup> hPa (mbar)
Build sensorics	Backscattered electron detector, Pyrometer, NIR camera

Build module docking to beam on	20 minutes
Non gravity powder feed	Push piston
Spot size (min, FWHP)	200 µm
Operating system	Linux
Build file format	Open Build File (OBF)
Process variables	Real time

## Features

- Open source system**  
OEM agnostic interfaces for production process integration
- Superior electron gun**  
High power with maintained beam quality  
Improved productivity in high volume manufacturing
- Outstanding heat management**  
ProHeat® Preheating  
Pixelmelt® Spotmelting  
Build tank cooling
- Fleet management**  
Realizing digital manufacturing
- Maintenance**  
Asset condition monitoring  
Asset maintenance
- Read more about Freemelt's services**



# Freemelt is your partner through the full AM journey!

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## About Freemelt

A Swedish company founded 2017 with extensive knowledge, experience, and patents within Electron Beam Powder Bed Fusion (E-PBF).

Freemelt offers a complete product and service offering, supporting customers from early material process development through application and product development followed by a seamless transition to industrial serial production. We serve customers in the defense, energy, and MedTech sectors across Europe, U.S., and Asia, helping them drive innovation and enhance production efficiency.

Book a demo or request more information:

