Arcam A2. Ready for manufacturing.

Introducing the future
in Additive Manufacturing.

The Arcam A2 is the ultimate solution for Additive Manufacturing in the digital age, and is designed for Additive Manufacturing of complex metals parts from metal powder.

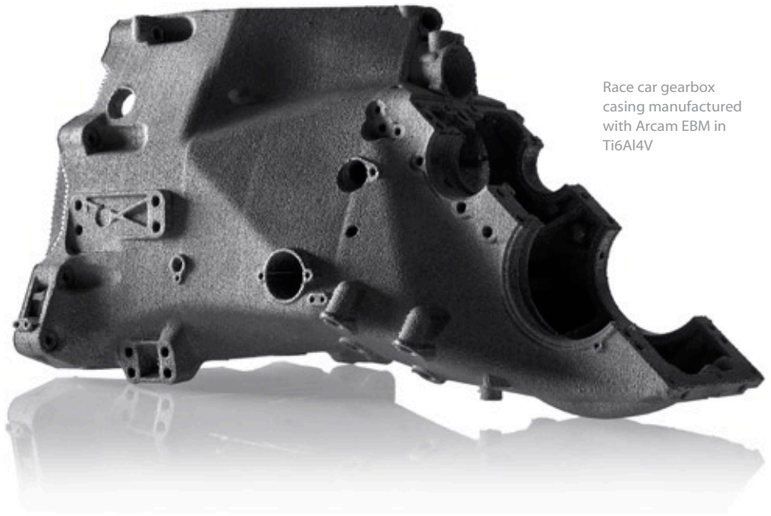
New features include:

- Increased build volume for manufacturing of larger components.
- Two alternative build tanks delivered with each machine. Choose between wide or tall depending on the build at hand.
- New High Voltage Power system enabling improved beam control and more advanced heat model to increase build speed, precision and part accuracy.
- Improved user interface and new software architecture.

The EBM technology

The Arcam A2 is designed for production. Metal parts are built up layer-by-layer from metal powder melted by a powerful Electron Beam to exactly the geometry desired for each layer. The Electron Beam Melting technology allows for high energy to be used in the gun which leads to high melting capacity and a high productivity. Parts are built in a vacuum at high temperature and the resulting material characteristics are better than cast and comparable to wrought material. The EBM technology provides fully dense material.

The electron beam gun is capable of delivering an energy beam up to 3000 W while maintaining a scan speed that allows melting of several points nearly simultaneously. The vacuum system is designed to maintain a vacuum level of 5×10^{-4} or better throughout the entire build cycle.



Race car gearbox casing manufactured with Arcam EBM in Ti6Al4V

Powder Recovery System

The Arcam A2 is delivered with a Powder Recovery System enabling 95% recovery of unmelted powder in a build. The Arcam A2 features a soft support function enabling even supports to be recovered in the Powder Recovery System.

The Arcam Powder Recovery System in action.

Ergonomically designed, the Powder Recovery System features minimal dust generation for safe operation, closed loop material recovery and elimination of magnetic materials and fine particles.

After the recovery process the recycled powder is ready for re-use in the EBM process.

Materials

The materials supplied by Arcam are extensively tested before release to customers and the configuration of the powder is optimised for safe and reliable operation of the EBM process.

Support, Maintenance and Training

Arcam offers maintenance to ensure performance of the Arcam A2 throughout its lifetime. Maintenance agreements can be contracted at different levels and include spare parts, updates, phone support, emergency hotline and regular visits for preventive maintenance and advanced training. Training packages are available to ensure a smooth and efficient start-up of the Arcam A2.

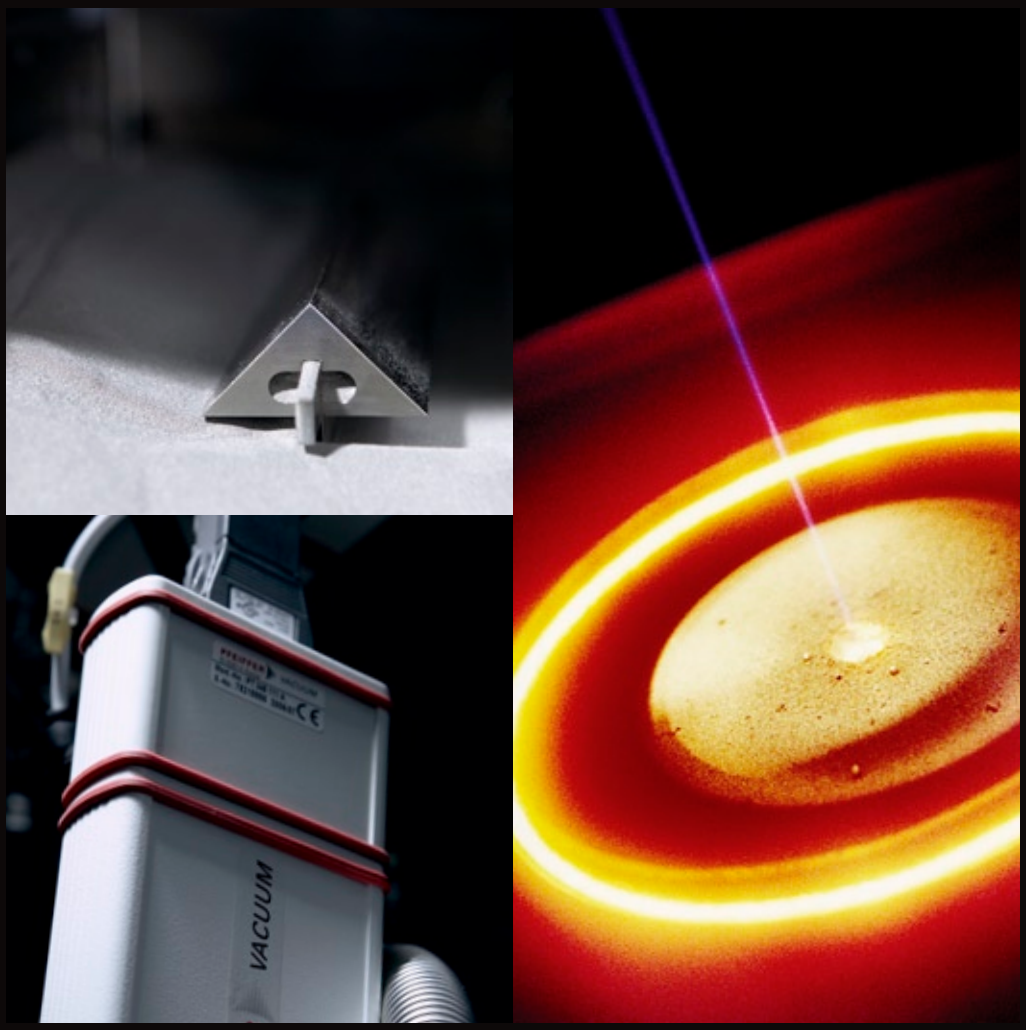
Shrouded impeller for rocket engine development. Manufactured with Arcam EBM in Ti6Al4V ELI.

Hip stem implant manufactured with Arcam EBM in Ti6Al4V.

ARCAM A2 TECHNICAL DATA

Build tank volume	250x250x400 mm and 350x350x250 mm
Maximum build size	200x200x330 mm and Ø300x200 mm
Layer thickness	0.05–0.2 mm
EB scan speed	> 1000 m/s
EB positioning accuracy	+/– 0.025 mm
Part Accuracy	+/– 0.3 mm
Cooling	Automatic start
Power supply	3 x 400 V, 32 A, 7 kW
Size and weight	1850 x 900 x 2200 mm (W x D x H)
	1420 kg
Process computer	PC, XP Professional
CAD interface	Standard: STL
Network	Ethernet 10/100
Certification	CE

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE



CAD TO METAL

Arcam AB®

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Arcam provides **Free Form Fabrication** machines for **Additive Manufacturing** of metal parts. The technology offers ultimate geometric freedom combined with first class material properties. Arcam is guided by our vision to revolutionize the art of manufacturing. Use Arcam to manufacture your future.