MetalFAB1

Industrial Additive Manufacturing System

Additive Industries

Industrialising 3D printing for functional parts

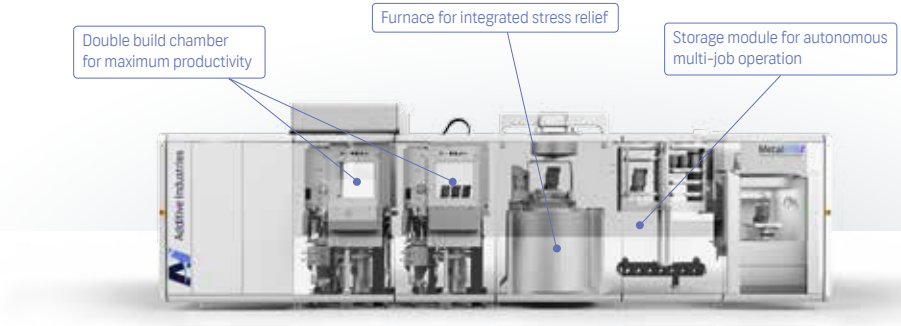
Adding new dimensions

MetalFAB1

Industrial Additive Manufacturing System

MetalFAB1 is the first integrated metal additive manufacturing system designed for high end industrial applications in demanding markets like aerospace, medical, high tech equipment, tooling and automotive.

Introducing a new dimension in industrial 3D printing



Example: 6 module configuration for optimised productivity

**Optional modules*

MetalFAB1 was developed by a team of experienced high tech equipment engineers. Open innovation has led to a new and distinctive system architecture based on well-proven concepts and efficient application of matured functional building blocks from robotics, lithography and other opto-mechatronicalsystems.

For industrial-quality production with additive manufacturing technology, the reproducibility of the core 3D printing process is assured by a solid machine design in combination with a smart calibration capability and feedback control algorithms. Predictability is achieved by combining simulation and in-process quality monitoring with the core additive manufacturing process. When equipped with two or more additive manufacturing (AM) core modules, productivity is up to ten times better than typical midrange systems. The use of multiple materials in one machine is also possible without having to clean the powder system and running the risk of cross-contamination.

Multiple process steps are combined in one machine using automated handling to reduce manual labour, improve product consistency and quality as well as increasing operator safety. The modular MetalFAB1 architecture allows the user to define its own system configuration from 3 to 11 modules and add additional lasers and optics after installation.

MetalFAB1 Specifications *(may change after Beta Test)*

- Process type: Laser based Powder Bed Fusion
- Net build envelope: 420 x 420 x 400 [mm]
- Lasers: 1-4 (full field) Yb fibre lasers
- Process chamber O_2 level: < 100 [ppm]
- Accuracy: < +/-0.050 + 0.0002 x Part Length [mm]
- Part reproducibility: < +/-0.050 [mm] (3σ)
- Layer thickness: 20-100 [µm]
- Powder feed and handling: automated per build chamber
- Minimum autonomous multi-job operation: 112 [hrs]
- Storage positions: 8
- Heat treatment maximum temperature: 1100 [°C]
- Job preparation: off line
- Remote access & monitoring: through Additive World Platform

MetalFAB1

Industrial Additive Manufacturing System

Do you share our ambition to take metal additive manufacturing from lab to fab? Please contact us and let's find out how we can team up!

Additive Industries b.v.
Leidingstraat 27, 5617 AJ Eindhoven, The Netherlands
P.O. Box 30160, 5600 GA Eindhoven, The Netherlands
team@additiveindustries.com | +31 (0)40 2180660
www.additiveindustries.com

Additive Industries

Industrialising 3D printing for functional parts

Adding new dimensions