



We are FMI

Presented by: Sjors van Tartwijk



High precision matters.



Part of Dutch Technology Alliance

FMI Additive

At FMI Additive we use titanium 3D printing to manufacture products such as a whole new generation of surgical implants with matching tooling and parts for the semiconductor industry.

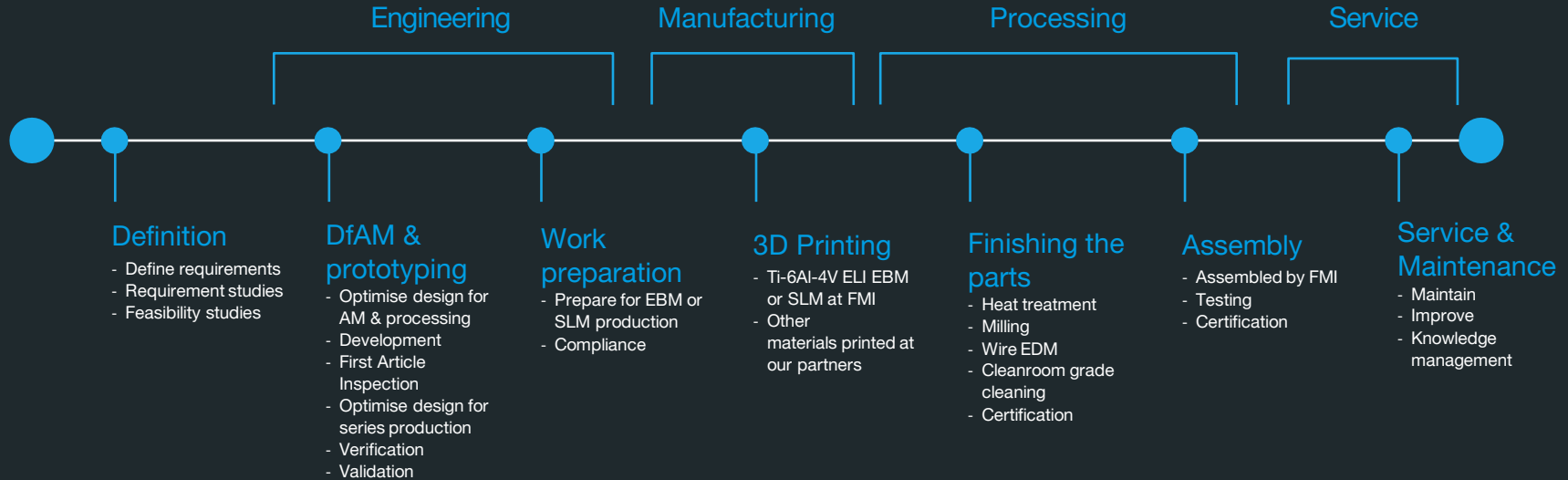


We don't just do additive manufacturing

- FMI functions as a one-stop-shop for all your product demands. We engineer, manufacture and assemble for you and your machines
- 9 FMI companies



Process Flow FMI Additive



NPI to Series Production



Design for Additive Manufacturing

- Explore different manufacturing routes
- Reduce required processing steps
- Minimize risk of production failures
- Maximize production efficiency
- Validate the product for series production

From powder to product

- 9 years of expertise in AM series production
- Optimized design is made into the product by electron or laser melting
- Quality ensured by statistical process control
- Straight to customer or extra part processing



Processing

- We do not see Additive Manufacturing as a standalone process
- Conventional manufacturing methods are integrated in our internal processes
- Done at one of our FMI locations



Product examples

Hydraulic manifold

Challenge

Producing this manifold is not possible by traditional production processes.

Solution

By 3D printing these complex geometric parts can be produced.

Extra benefits

- Reduced lead time
- Significant weight saving



Integrated spine implant

Specifications

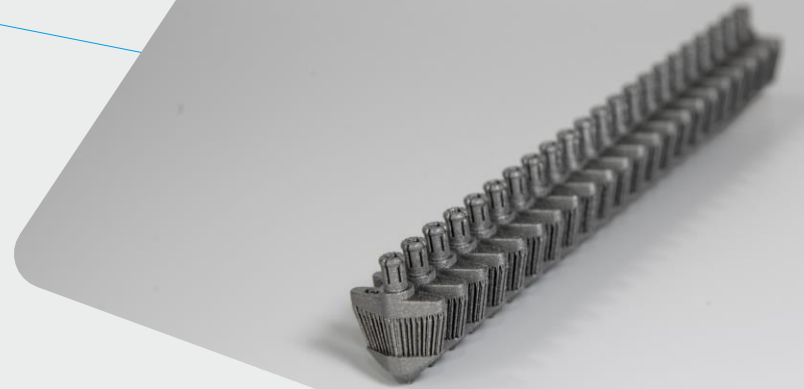
- 300+ produced in a single print cycle
 - Custom lattice structure for optimal bone ingrowth
 - Minimized supporting surface
- As-printed 0,05 mm dimensional accuracy (x-y plane)



Integrated spine implant tooling

Specifications

- Optimized for fast part processing
- 1100 parts in a single print cycle
- Custom solution for optimal results
- As printed +/- 0,03 mm dimensional
- accuracy (x-y plane)



Orthopaedic implant

Specifications

- Additive manufacturing, both SLM and EBM
- Ti-6Al-4V
- Open structures for bone ingrowth
- Rough structures for bone adhesion
- Post processing
 - CNC milling, including robot handling
 - Laser-engraving
 - Cleaning
 - Packaging



POWER TOOL

m2
cutting



We are ready
when you are!



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