

SIEMENS ADVANTA

Development of an Additive Manufacturing factory for global scale-up

Aerospace industry: Morf3D

Define a future-proof, integrated Additive Manufacturing (AM) production facility to scale globally



CLIENT

Morf3D, Inc.



CLIENT CHALLENGES

Definition of a new AM factory layout with complex requirements due to a high mix of materials, different geometries and technologies



OUR SOLUTION

Scenario-based factory planning using plant simulation and our AM planning toolbox



CLIENT BENEFITS

A trendsetting factory as a platform for developing an AM production system that can be rolled out globally

**90,000 sq. ft. trendsetting
factory planned
in 2 months!**



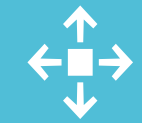
Aerospace & Defense



Annual revenue not disclosed



Long Beach, USA



Established in 2015; since 2021 subsidiary of Nikon Corp.



Market position:
Trusted leader in metal Additive Manufacturing



The **Siemens Advanta team** was always **looking towards tomorrow** and **what challenges we could face**. We had numerous what-if scenarios – scenarios that **did not exist today** but could potentially happen and **for which we had to plan**. Because once you fix something from a factory standpoint, **technically you can't change it easily**.

Leveraging Siemens Advanta's experience was of the utmost importance to us. We wanted to **make sure that our factory was flexible** and that we **had a team able to understand the challenges** that we might face, **not just today, but in the future too**.

Ivan Madera, Chief Executive Officer



THE CHALLENGE

Define a **future-proof, flexible AM factory** for multiple high-tech applications in the aerospace industry

1

- Scaling of AM operation barely exists in this industry
- Over 60 3D printers as well as more than 220 machines plus equipment including a CT scanner need to be integrated

2

- Complex requirements have to be considered due to a high mix of materials (e.g., aluminum, titanium) and different geometries, for example for antennas, nozzles, heat exchangers
- Different technologies are required – printing, post processing and quality assurance

3

Establish production systems within a flexible factory design that can be rolled out globally for different applications



OUR APPROACH

Combine proven factory planning methods, Siemens' simulation software and a highly experienced AM team

1

Determine the layout requirements for production & logistics processes and employ scenario-based evaluation

2

Simulate production processes incl. material flow utilizing Siemens' software

3

Define the production concept considering lean and logistics aspects



THE IMPACT

A trendsetting factory to serve as a platform for AM production system development and global scaling

1

Highly automated factory from powder receiving to shipping, providing a basis to produce multiple product lines

2

Platform to enable production system creation and future global scaling as an enormous competitive advantage

3

Future-oriented concept with the flexibility to fulfill growth targets for Morf3D in several industries

90,000 sq. ft.
trendsetting
factory planned
in 2 months

Why is Siemens Advanta the best partner for this sort of project?

Benefit from our deep **Industry Knowledge**

Long-term experience in supporting clients on their Additive Manufacturing industrialization journey.

Leverage a strong **Technology Stack**

State-of-the-art inhouse software solution, automation know-how and a proven Additive Manufacturing planning toolbox.

Profit from our powerful **Ecosystem**

Access our partner network including OEMs, powder providers and automation solution experts.

