

# ADVANCED DIGITAL MANUFACTURING IN **AEROSPACE**



## ADM™ Design

Precision ADM Design services help customers design specifically to take advantage of Advanced Digital Manufacturing technologies.

We can help you explore new design freedoms available through additive manufacturing.



## ADM™ Engineering

Using Optimization, simulation, and testing software our engineers can design parts that meet all your specifications.

Our team of engineers are specially trained to help you develop manufacturing solutions that will improve business efficiencies and ROI for your business.



## ADM™ Manufacturing

Advanced Digital Manufacturing allows companies to manufacture parts with a non-traditional blend of technologies allowing them to make parts lighter, stronger, and more efficient more quickly, at a lower cost.

Because less waste is generated, our manufacturing process is better for the environment.



## ADM™ Consulting

We have the right people with the right tools to help you unlock what Advanced Digital Manufacturing has to offer.

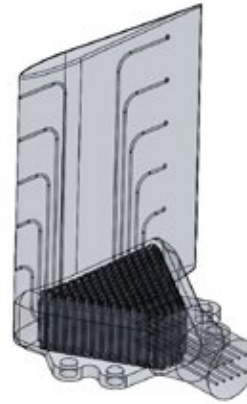
Let our industry leading team of engineers be on your side for your next R&D project.

Solving today's complex manufacturing issues using innovative engineering and Advanced Digital Manufacturing™ (ADM) solutions.

## WHY ADVANCED DIGITAL MANUFACTURING?

Many complex parts are used in the engines and bodies of aircraft. Reducing overall operational costs is essential to be competitive in the aerospace industry. Our Advanced Digital Manufacturing process can help you do just that. It starts with analyzing the client's requirements and functional specifications and using Design for Additive Manufacturing (DFAM) methods to reduce the weight of components, while consolidating former complicated assemblies into fewer components. This reduces mass production costs through materials savings and simplified assembly, and it ultimately saves the end customer money from fuel savings. The resulting design can then be manufactured using our metal additive manufacturing (AM) / 3D printing DMLS technology and post-processed with our heat treating and CNC machining capabilities.

AM is now being explored for unlocking its potential benefits in the aerospace industry, from civil to defense and space systems manufacturing. Applications range from new production to maintenance repair and overhaul (MRO). In the space industry, weight savings resulting from Advanced Digital Manufacturing can reduce launch costs of payload such as satellites.



Used for aerodynamic testing



Small internal passages not possible by machining



Turbine nozzle



**Advanced Digital Manufacturing™  
can be used in many ways to  
benefit defence**

## NOT SURE WHERE TO START? WE OFFER ADM CONSULTING SERVICES

Consulting for Additive Manufacturing projects can start right at the design phase, where the client's specifications are used as inputs for optimizing designs to realize the full benefits of AM. Consulting can also include researching & developing new products and creating quality systems.

We have invested in the listed software to allow us to consult on projects on a more advanced level. We have the simulation and optimization software needed to do research and development projects. Not only have we invested in the equipment and software, Precision ADM has also invested in the people to make all of these consulting services come together. Our engineers are thought of as industry leaders in the ADM. From design and engineering, all the way through manufacturing, get our engineers working for you!

- Altair HyperWorks Desktop
- Altair HyperWorks Solvers – Optistruct & RADIOSS
- Altair SIMLAB
- solidThinking Inspire and Evolve
- SolidWorks with Simulation Premium
- Siemens NX
- Materialise 3-maticSTL
- Moldex3D
- AcuSolve CFD Solutions