

# ADVANCED DIGITAL MANUFACTURING IN **MEDICAL**



## ADM™ Solutions

Precision ADM offers services to help customers take advantage of the specific Advanced Digital Manufacturing technologies that would benefit them the most.

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



## ADM™ Engineering

Using Optimization, simulation, and testing software our engineers can support your design process to create 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

Using Additive Digital Manufacturing allows companies to manufacture parts with a non-traditional blend of technologies allowing them to make parts efficiently that are personalized to the patient and 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?

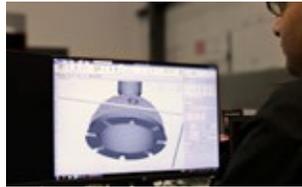
In the medical industry, implants and devices need to be customized to every patient for improved, personalized medicine. Our Advanced Digital Manufacturing process can help you take any concept to a fully realized product that is personalized to the patient. It all starts by working with our clients to assess product requirements and functional specifications using Design for Additive Manufacturing (DFAM) methods. Using these methods, multiple parts can be integrated into single part conforming to unique geometry and features such as trabecular structures can be included for enhanced osseointegration.

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 medical industry, personalizing medical parts for every patient. Applications range from devices such as hearing aids, dental and orthodontic devices, and surgical implants such as knee and hip joints. Ultimately, Advanced Digital Manufacturing can reduce costs through the best technologies and methods available.



1 YOUR DESIGN



2 MANUFACTURING OPTIMIZATION



3 ADDITIVE MANUFACTURING



4 POST-PROCESSING



5 HELPING PATIENTS



Customized Cranial Implant with Trabecular Structure



Dental Implant with Optimized Surfaces



*Advanced Digital Manufacturing™ can be used in many ways to benefit the medical field*

Hip Prosthesis with Trabecular Structure

## NOT SURE WHERE TO START?

### WE'RE HERE TO HELP

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 modeling 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



*Let's build the future together*



Unit A - 1595 Buffalo Place  
Winnipeg, MB  
Canada R3T 1M1

1.855.500.PADM (7236)  
info@precisionadm.com  
www.precisionadm.com