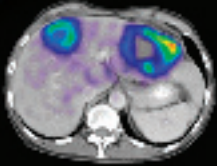


Advancing the Art and Science of Tactile Medical ImagingSM



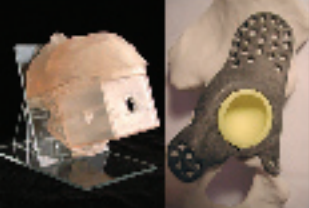
Medical Imaging Guidance

Establishment of the most suitable medical imaging modality and acquisition parameters is the first step in realizing the full potential of tactile medical imaging. Medical Modeling can provide imaging consultation for product development or custom prosthetic design to assure your project starts out right.



Expert Image Processing

Processing medical image data to extract relevant information requires the right technology in combination with skilled technicians. With expertise in biomedical engineering, medical illustration and 3D graphics the Medical Modeling team brings a versatile set of skills and experience to every project.



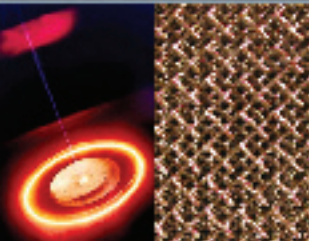
Custom or Standard Device Design Capabilities

The ability to create physical models and custom devices accurate to the original image data unlocks a world of possibilities. Many of these possibilities require robust and creative design to implement effectively. From simple fracture plate design to complex multi-piece total joint design Medical Modeling stands ready to assist your design project.



Digital Rapid Prototyping Technology

Medical Modeling employs a variety of in-house rapid prototyping methods including stereolithography (SLA), two-color stereolithography and full-color 3D Printing (3DP). These methods provide the means to quickly fabricate complex anatomical shapes or device designs. SLA prototypes are output in various resins, including USP Class VI tested materials. In some cases these prototypes can be the end-product in themselves, or can serve as templates for secondary fabrication of devices or prosthetics.

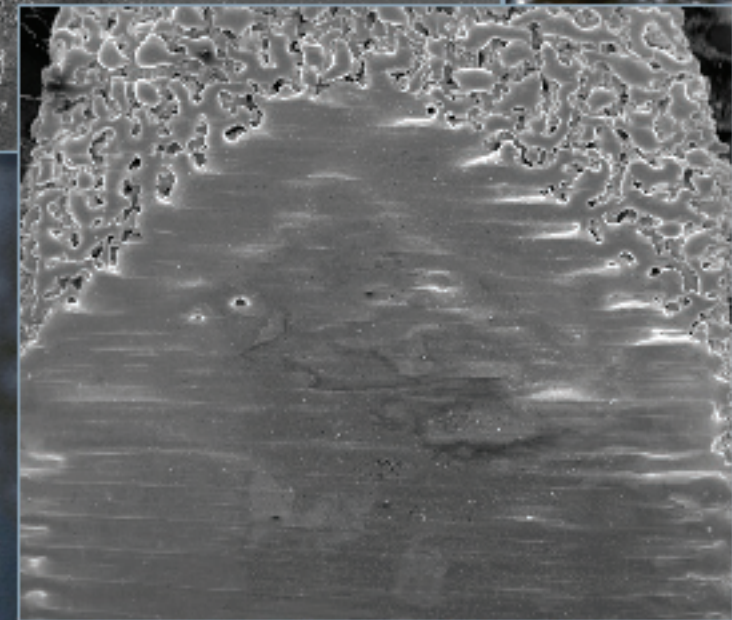
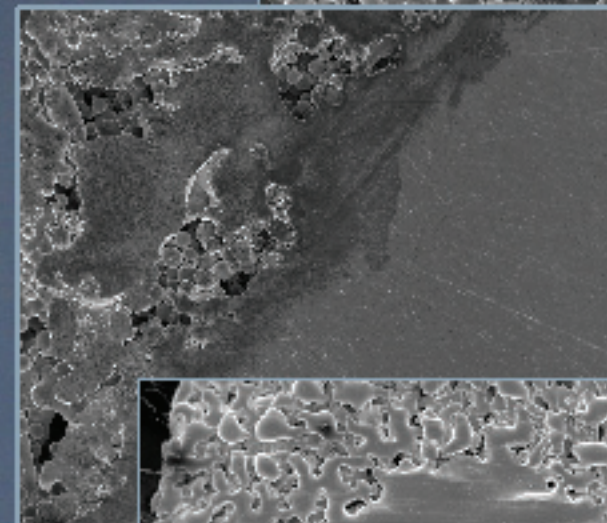
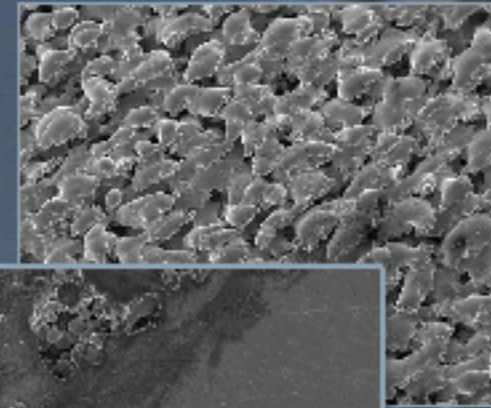


Contract Manufacturing in Titanium Alloy with the EBM Process

Medical Modeling has installed North America's first Arcam EBM (Electron Beam Melting) machine dedicated to servicing the medical device industry. Producing solid, porous or hybrid geometries in Ti6Al4V ELI material allows for unprecedented design agility. Contact us today to discuss the manufacturing possibilities achievable with the revolutionary EBM process.

Direct Titanium Fabrication for the Medical Industry

Electron Beam Melting in Industry Standard Ti6Al4V ELI



MEDICAL[®]
MODELING

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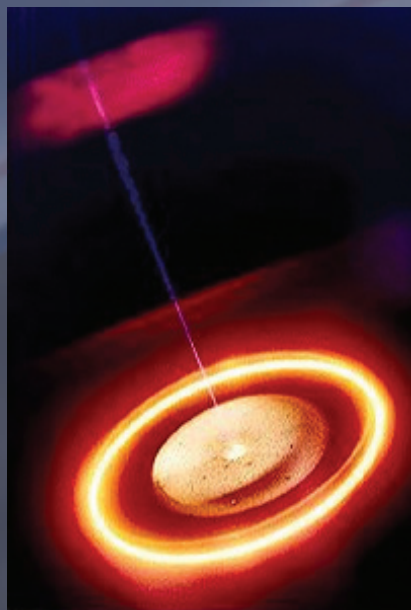
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MEDICAL[®]
MODELING
EBM

The Tactile Imaging Solutions CompanySM

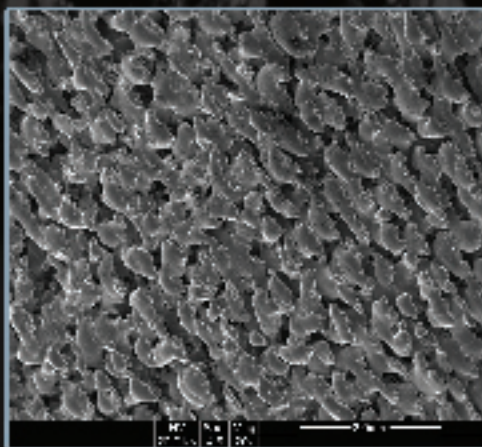
Unconstrained Design Possibilities with EBM Melted Ti6Al4V ELI



The Electron Beam Melting (EBM) process is an additive manufacturing technique utilizing an electron beam to melt metal powder into to a fully solid part in layer by layer fashion. EBM is able to create components with very complex, freeform geometries directly from a digital CAD model. Unlike other metal rapid manufacturing methods which rely on high temperature sintering, the EBM process is fully melting the material in each layer. As such the process can produce fully dense, fully porous or structures combining both porous and solid geometries. This powerful advance in manufacturing technology has a dramatic impact on freedom of design for orthopedic devices.

Completely Porous or Hybrid Structures

When a design calls for reduction in the volume of titanium to be used or for purposes of tissue ingrowth, a roughened or porous surface structure can be produced. Applications for this technology stretch beyond standard components and may be an ideal, low weight, high strength scaffold structure for graft materials.



Integrated Coating Technology™

The EBM technology offers a unique approach to porous coating by allowing for singularly formed components with an integrated ingrowth surface area. Application of traditional coatings can be detrimental to the material properties of the titanium alloy. With this new approach the coating and solid part are a singular unit, produced at one time without a secondary coating application process.

