



CASTER TO CASTERS

3D PRINT ADVANTAGES

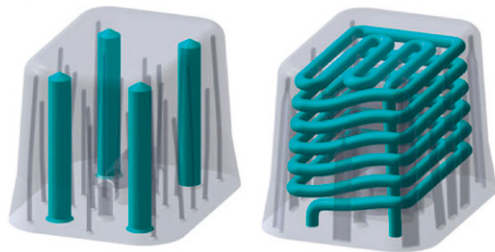
- Reduced lead time
- Manufacturing from 3D data w/o
- Optimized to the application/user
- Manufacturing of complex features/shapes, which is not possible via other technology
- Weight saving, topology optimized shapes,
- Efficient use of material, minimization of waste
- Price at small series
- Instant adaptation to the shape of the part

3D PRINTING PROCESS SIMULATION

We have own simulation software with advanced features

PROS

- Stable printing process
- Reduce supports and material
- Effective cost of printing
- Elimination of thermal deformations and printing failures



3D METAL PRINTING OF DIE-CASTING TOOLS WITH CONFORM COOLING

We print Die-Casting tools using DMLS technology that brings the possibility to integrate conform cooling structure.

PROS

- Longer Die-Casting tool life
- Reduced cycle-time
- Hybrid printing - we print only the conform cooling part of the core

CONS

- Higher tooling costs

METAL MATERIALS 3D PRINT



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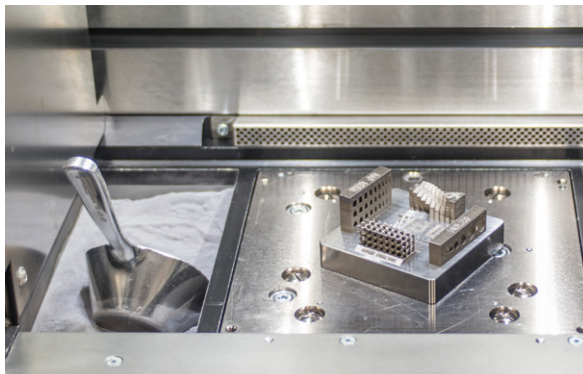
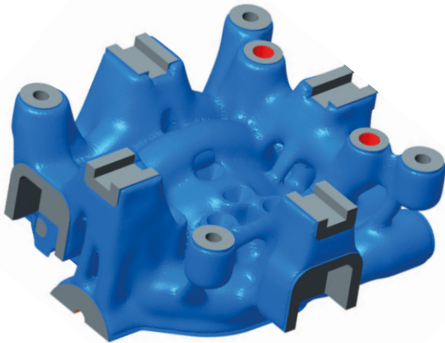
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TECHNOLOGY IS OUR LIVING

DMLS TECHNOLOGY 3D PRINTER EOS M290



WE WILL ACCELERATE YOUR PRODUCT DEVELOPMENT PHASE

We will optimize your product to your real needs - your product will be from topology as well as mechanical values points of view optimal. You will save on the weight, volume. We only use premium materials.

3D METAL PRINTING PRINCIPLE

A thin layer of metal powder is spread over the build platform. A high-powered laser scans the cross section of the component, fusing metal particles together. Once the laser sintering in the layer is done, the build platform descent of the layer thickness, new layer applies and laser sintering continues.

MATERIALS

- MS-1 tool steel 1.2709
- 7 P4P stainless steel 17-4 PH
- ALSi10Mg aluminium alloy
- Ti6Al4V titanium alloy
- Inconel 718 super nickel-chromium alloy
- CuNi2 copper alloy
- Co-Cr cobalt-chromium alloy

PARAMETERS

- Laser 1 x 400W Yb-fiber Laser
- Building chamber 250 x 250 x 325mm
- Laser spot size <math><100\mu\text{m}</math>
- Scanning speed up to 7m/sec
- Building platform pre-heated
- Inert atmosphere N/Ar
- Dual layer printing for best cost and quality

SERVICES

- Engineering
- Optimization
- Preprocessing
- Simulation
- Printing
- Postprocessing
- Prototyping/Serial production