AMD
ENGINEERING

Additive **M**echatronic **D**esign

Who are we

AMDengineering is a young and dynamic company specialized in the **design of mechatronic components and systems**, with a particular focus on additive manufacturing.

Born from the twenty-year experience of its founders in the engineering of customized machines, in each of our projects the natural combination of technological innovation, environmental sustainability, robotics, merge to create a high-tech product.

A diverse team, with specific and transversal skills, transforms ideas into reality.

Our strengths

Problem solving → Team effort

Innovazione tecnologica → Know-how multisettoriale

Alti standard qualitativi → Flessibilità

AMDengineering works to guarantee high quality standards of the services offered.
Our team approaches any idea with seriousness and professionalism, studying the best solution for productivity, savings, quality and environmental impact.
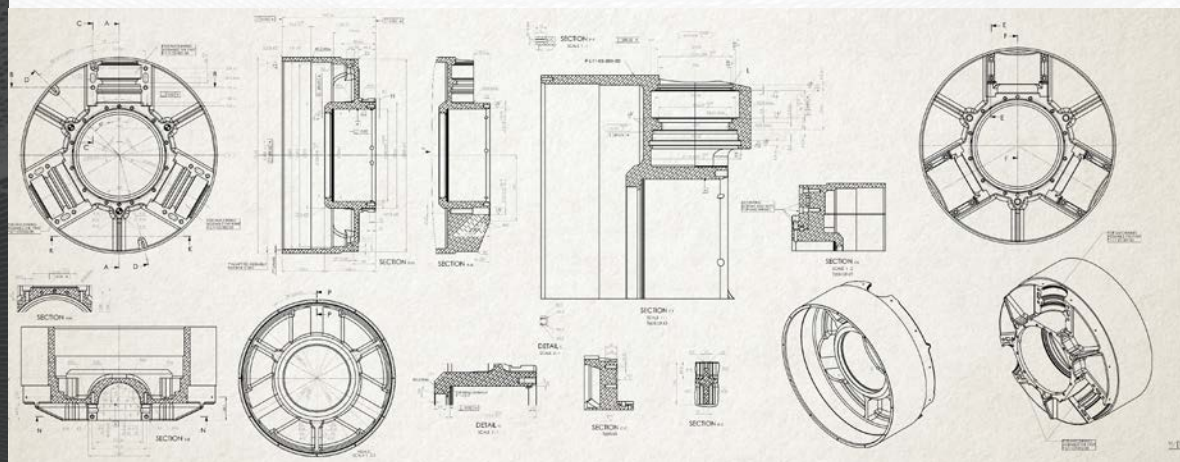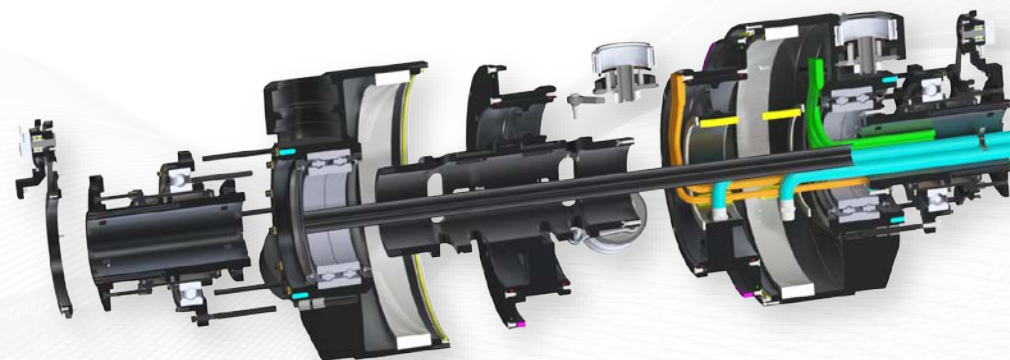
What we offer

Design from a blank sheet

We follow the customer and his idea throughout the entire design process, placing particular focus on additive printing.

We provide 3D model, layout, list of materials and commercials.

Mechanical drawing

A graphic document that describes in detail a structure, a component, or a mechanical device.

What we offer

Analysis FEA & CFD

- Finite Element Analysis: The process of predicting the behavior of an object based on calculations using the Finite Element Method (FEM).

- Computational Fluid Dynamics Analysis: A process for analyzing the fluid dynamics of a part.

- Thermal Analysis: is a technique used to analyze the time and temperature at which physical changes occur when a substance is heated or cooled.
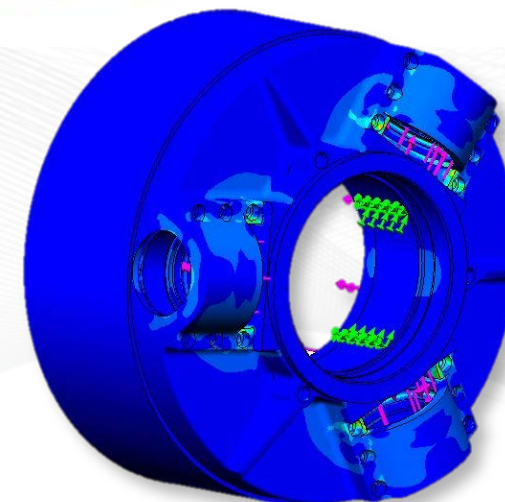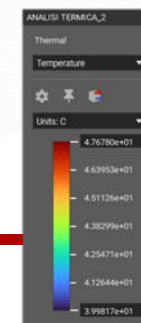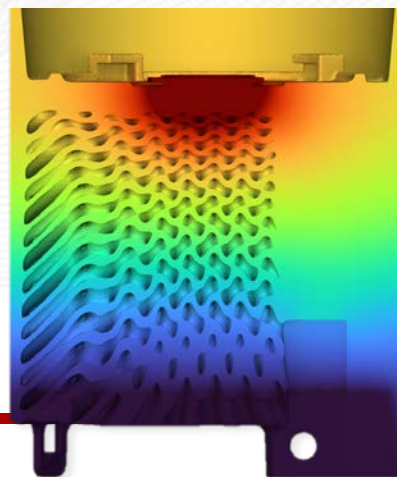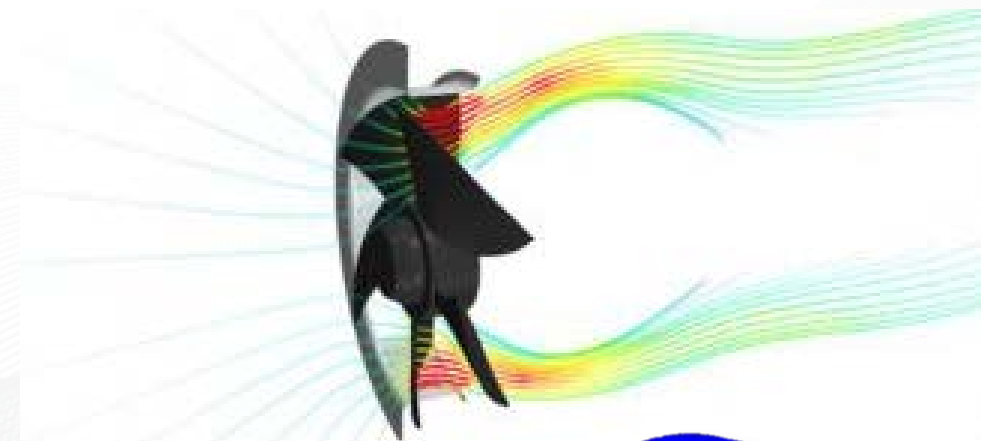
What we offer

DFAM (Design For Additive Manufacturing)

Lattice structures

With the help of nTop we create graphic, TPMS and customized lattice structures.

Topology Optimization

With the Topology Optimization we are able to obtain preliminary geometries of the components knowing the boundary conditions. This allows us to create more performing and lightweight components without compromising the mechanical properties.

This process reduces printing costs.

What we offer

Reverse Engineering

We are equipped with the Creaform Black Elite 3D scanner thanks to which we scan the component, with an accuracy of 0.025mm, and then reverse-engineer it with CAD software.
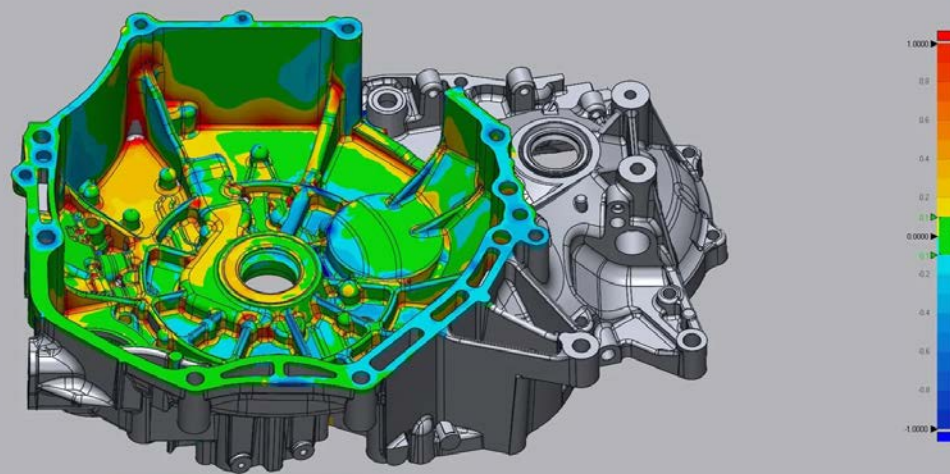
Deviation Analysis

As a quality control: after performing the 3D scan of the component we perform the deviation analysis compared to the supplied CAD model.

Following the Reverse Engineering of the component, we perform the above analysis to evaluate the deviations from the 3D scan.
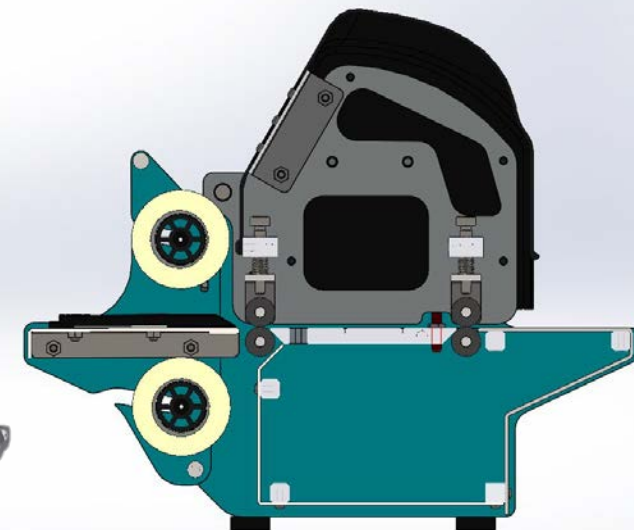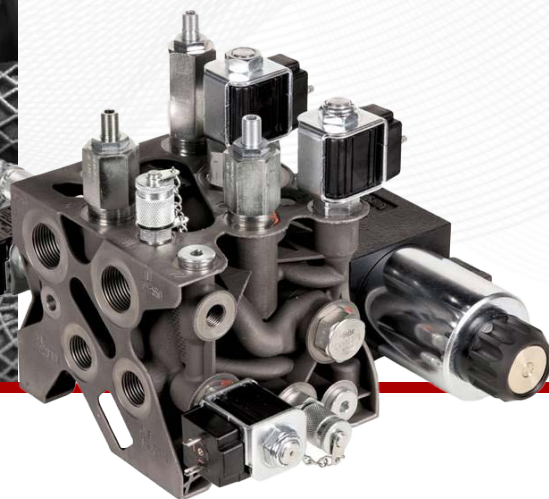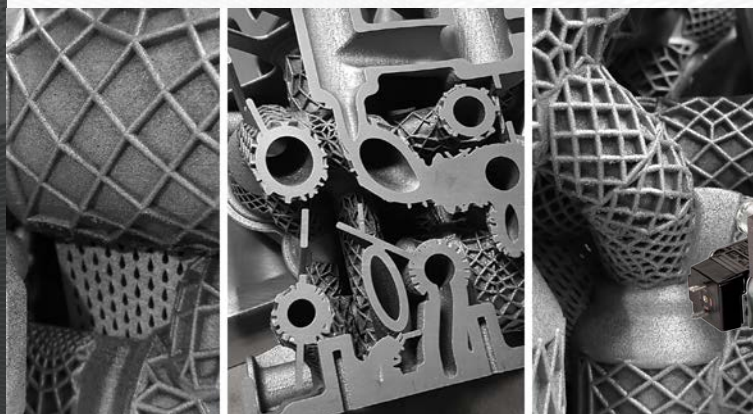
What we offer

Turnkey prototype

We create prototypes following the entire supply chain: design, 3D printing and any machining (CNC, finishing, etc.).

3D printing technologies availability:

- Polymers: SLS, MJF, SLM, DLP, vacuum casting;
- Metal: SLM, DED.

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Software list

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Low profile, high performance

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