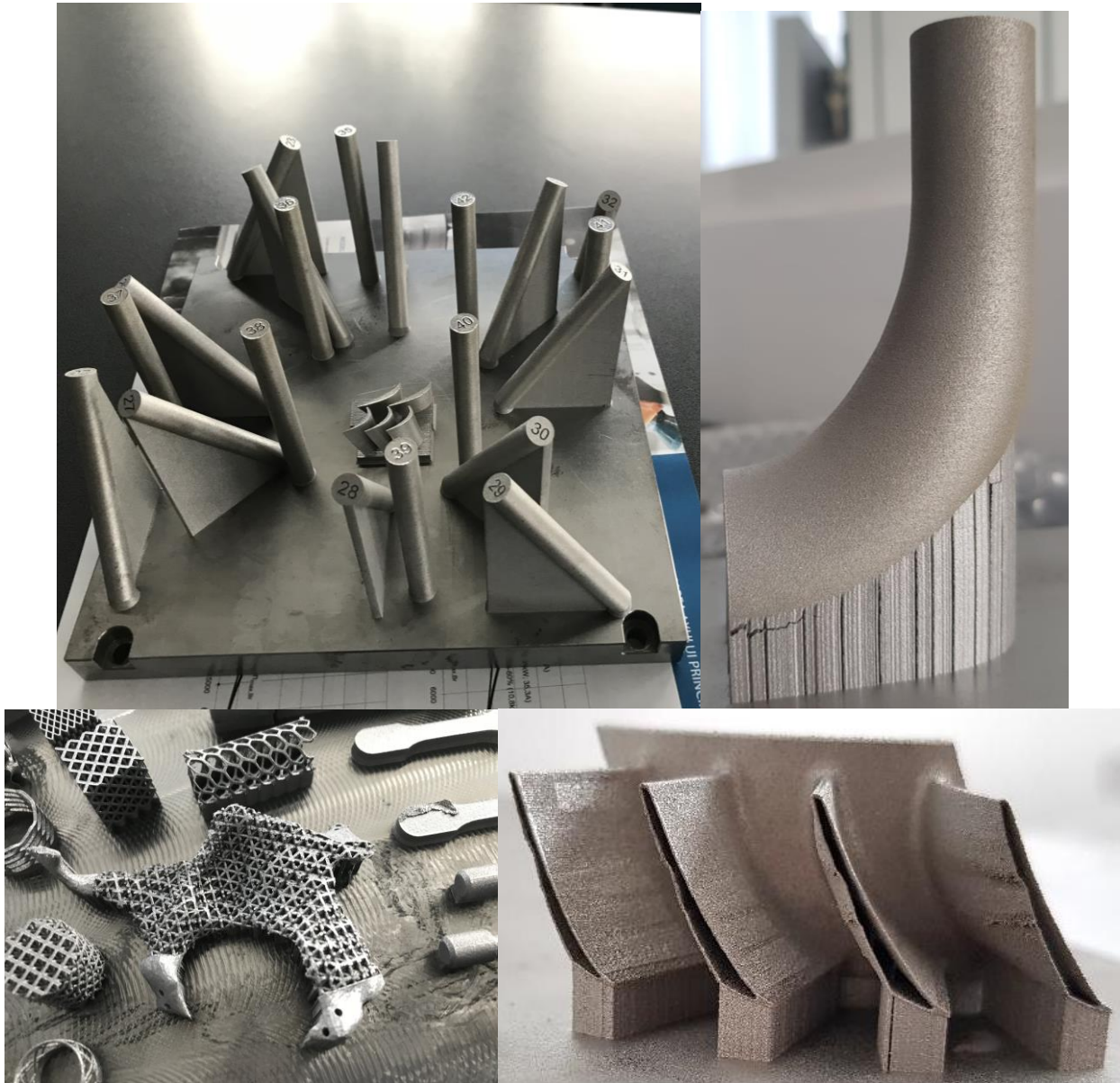


ADDITIVE MANUFACTURING SERVICES BY SELECTIVE LASER SINTERING WITH METAL POWDER



THE AM TECHNOLOGY:

Additive manufacturing is the common name for the "layer by layer" processing technology, using virtual 3D models.

The basic principle of the laser sintering process consists of melting of layers of the raw powders using a laser beam, adding each layer on top of the melted previous layers. During this process, the powder is briefly heated above the melting point by exposure with the laser beam. A solid, 3D part is produced layer by layer from a virtual 3D model.

Selective laser sintering uses a wide range of materials: aluminum alloys, corrosion-resistant steel, titanium and cobalt alloys, plastic polymers, in order to obtain products with high geometric complexity and high physical-mechanical properties for fields such as: medical, aerospace, automotive.

TECHNICAL FEATURES OF EOSINT 270 M Dual Mode:



- Effective building volume (including building platform): 250 mm(X) x 250 mm(Y) x (215 mm Z);
- Building speed (material-dependent): from 2 to 20 mm³/s;
- Layer thickness (material-dependent): from 20 to 100 µm;
- Laser power: 200 W;
- Scanning speed: up to 7 m/s;
- Variable focus diameter: from 100 to 500 µm.
- Power supply: 32 A;
- Power consumption: maximum 5,5 kW;
- Nitrogen generator: standard;
- Compressed air supply: 20 m³/h;
- specialized rapid prototyping software:
 - EOS RP-Tools;
 - EOS PSW offline;
 - Materialize Magics RP v.18;
 - EOSTYLE.

APPLICABILITY:

Processing of complex, personalized and overloaded components for applications in the fields: medical, aerospace and automotive, but also in other fields.

BENEFICIARY:

- Centers and institutions of research, development and innovation in the medical, aerospace and automotive fields,
- Orthopedics and traumatology clinics for hard tissue (bone) surgery,
- Aerospace and automotive production.

FURTHER INFORMATION:

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Infrastructure direct public link: <https://erris.gov.ro/biolab>