

# 3D PRINTING TECHNOLOGY

## SELECTIVE LASER MELTING - 3D PRINTING METAL

SLM technology enables the direct production of high-quality and complex products with the same characteristics as products manufactured using traditional methods (mechanical characteristics, chemical composition and microstructure). The advantages of this technology are in the faster production, optimal manufacturing costs and production of highly complex geometries.

### Materials

Aluminium AlSi10Mg	good thermal properties and low weight
	good strength and hardness
Maraging Steel 1.2709	excellent strength combined with high toughness (for tooling)
	hardenable up to 54 HRC
Stainless Steel 1.4542	high toughness
	high ductility
Stainless Steel 316L / 1.4404	high ductility
	biocompatibility (ASTM F138)
Titanium Ti64	light specific weight with excellent mechanical properties
	biocompatibility and very good bioadhesion (ASTM F1472)

### Manufacturing features and abilities

Maximum build size:	500 x 280 x 325 mm
Layer Height:	20–60 $\mu$ m
Minimum wall thickness:	0.4 mm
Minimum details:	0.2 mm
Minimum space between moving parts:	0.2 mm
Dimensional tolerance:	$\pm 0.2$ % (with a lower limit of 0.1 mm)