3D PRINTING MATERIALS, APPLICATIONS GUIDELINES FOR **METALS**

DMLS

Direct Metal Laser Sintering

Technology Application

DMLS is part of the powder bed fusion technology branch within industrial 3D printing. DMLS offers a high dimensional accuracy, producing advanced and durable metal parts. The technology is primarily used for niche serial production and prototypes

Material Selection

Aluminium ALSi10Mg
Titanium Ti6AL4V

Manufacturing Details

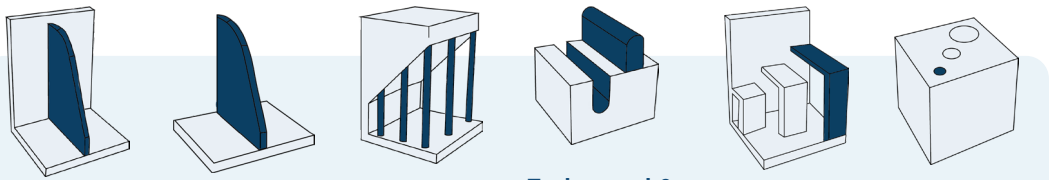
Manufacturing via ultraviolet laser from metal powder

Maximum Build Sizes

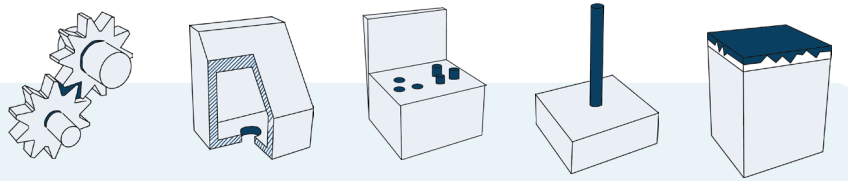
500 x 280 x 365 mm

Post-processing Offerings

EDM wiring & support removal, dry & wet blasting, heat treatment, CNC machining, vibration smoothing, anodizing, polishing & painting.



Supported Walls	Unsupported Walls	Support & Overhangs	Embossed & Engraved Details	Horizontal Bridges	Holes
0.8 mm	1 mm	Support ≤ 45°	0.5 mm width & height	2 mm	> Ø0.8 mm



Connecting & Moving Parts	Escape Holes	Minimum Features	Pin Diameter	Tolerance
N/A	> 3 mm multiple holes are preferred	1 mm	1 mm	Minimum ± 0.25 mm & ± 0.3% of dimension

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