

# CONCEPTLASER

a GE Additive company

## Mlab cusing Metal laser melting system

The ideal machine for manufacturing metal components with elaborate structures.

Ideally suited to fine detail, high quality surface finish, and precision component structures.



## Mlab using TECHNICAL DATA

Build envelope	50 x 50 mm <sup>2</sup> (x, y) 70 x 70 mm <sup>2</sup> (x, y) 90 x 90 mm <sup>2</sup> (x, y) z = 80 mm	
Layer thickness	15 – 30 µm	
Production speed	1 – 5 cm <sup>3</sup> /h (depending on material)	
Laser system	Fibre laser 100 W (cw)	
Max. scanning speed	7 m/s	
Focus diameter	approx. 50 µm	
Fixation of the building plate	mechanical	
Connected loads	Power consumption 1.5 kW Power supply 1/N/PE AC 230 V, 16 A	
Inert gas supply	1 gas connection provided / Nitrogen or Argon	
Inert gas consumption	approx. 0.6 – 0.8 l/min*	
Dimensions	705 x 1848 x 1220 mm <sup>3</sup> (W x H x D)	
Weight	approx. 600 kg	
Operating conditions	15 – 35°C	
Materials	CL 20ES CL 80CU CL 92PH Yellow gold Rose gold Red gold ** Platinum Silver alloy remanium® star CL	Stainless steel (316L/1.4404) Bronze Precipitation hardening stainless steel (17-4 PH) 18 carat 3N *** 18 carat 4N *** 18 carat 5N *** 950 ‰ Platinum alloy *** 930 ‰ Silver alloy *** Cobalt-chromium alloy (Dentaurum)

07/2018 | Subject to technical changes.  
Machine layout: meyer-design.net  
Photos: uwe-muehlhaeuser.de  
Artwork: brandnew-design.de

\* Inert gas consumption during the building process with N<sub>2</sub>.

\*\* The material is currently being prepared.

Other materials on request.

\*\*\* Parameter from Concept Laser GmbH, material procured directly from precious metal supplier, contact details available on request.

