

# CONCEPTLASER

a GE Additive company

## Mlab cusing R Metal laser melting system

The ideal machine for manufacturing metal components with elaborate structures, and parts made from reactive materials like titanium.

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



Standard design available in grey, optional in white.



## Mlab cusing R TECHNICAL DATA

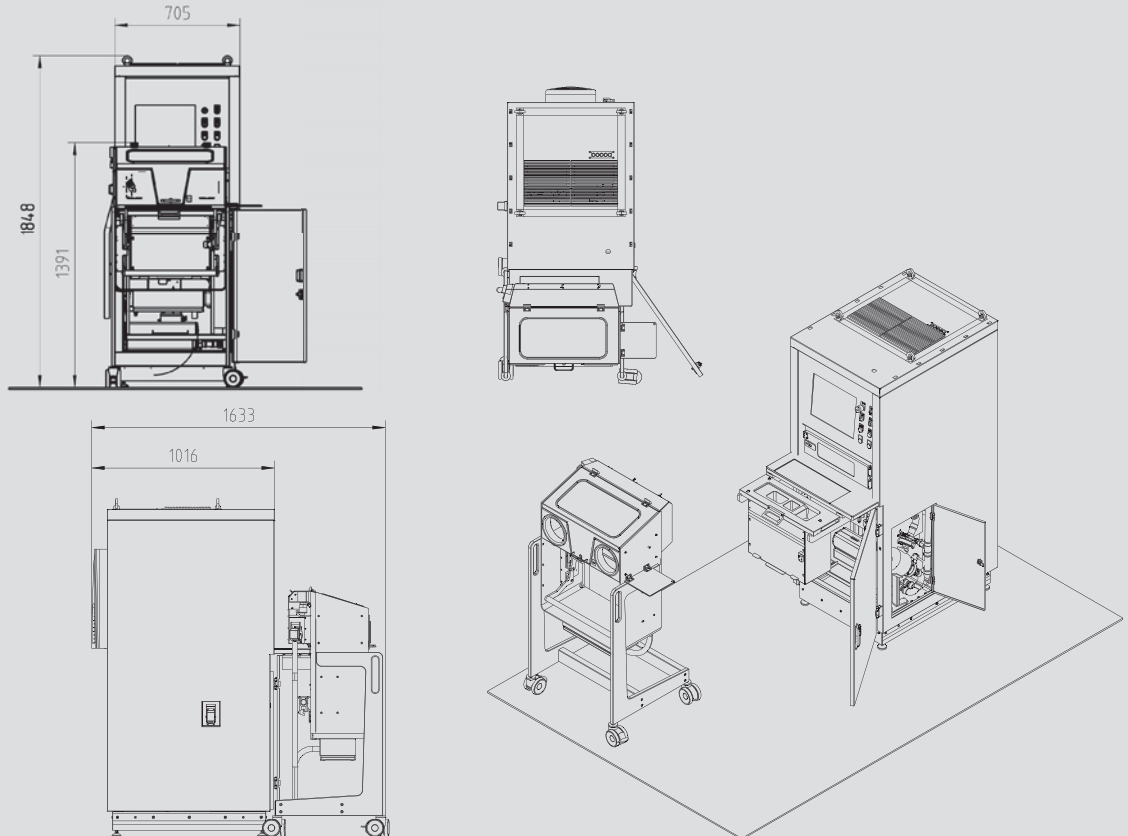
Build envelope LaserCUSING®	50 x 50 mm <sup>2</sup> (x, y) 70 x 70 mm <sup>2</sup> (x, y) 90 x 90 mm <sup>2</sup> (x, y) z = 80 mm
Layer thickness LaserCUSING®	15 – 50 µm
Production speed LaserCUSING®	1 – 5 cm <sup>3</sup> /h (depending on material)
Laser system	Fibre laser 100 W (cw)
Max. scanning speed	7 m/s
Focus diameter	approx. 50 µm
Fixation of the building plate	mechanical (clamping system being prepared)
Connected loads	Power consumption max. 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 *
Dimension machine	705 x 1848 x 1220 mm (W x H x D)
Dimension handling station	729 x 1391 x 628 mm (W x H x D)
Weight machine	approx. 600 kg
Weight handling station	approx. 100 kg
Operating conditions	15 – 35°C
LaserCUSING® materials	CL 20ES Stainless steel (1.4404) CL 31AL Aluminium (AlSi10Mg) remanium® star CL Cobalt-chromium alloy (Dentaurum) rematitan® CL Titanium alloy (Dentaurum) CL 41TI ELI Titanium alloy (TiAl6V4 ELI) CL 42TI Commercially Pure Titanium Grade 2 CL 80CU Bronze CL 92PH Precipitation hardening stainless steel (17-4 PH) Yellow gold 18 carat 3N *** Rose gold ** 18 carat 4N *** Red gold ** 18 carat 5N *** Platinum 950 ‰ Platinum alloy *** Silver alloy 930 ‰ Silver alloy ***

\* 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.



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