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 cusing TECHNICAL DATA

Build envelope
- 50 x 50 mm² (x, y)
- 70 x 70 mm² (x, y)
- 90 x 90 mm² (x, y)
- z = 80 mm

Layer thickness
- 15 – 30 μm

Production speed
- 1 – 5 cm³/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 mm³ (W x H x D)

Weight
- approx. 600 kg

Operating conditions
- 15 – 35°C

Materials
- CL 20ES Stainless steel (316L/1.4404)
- 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 ***
- remanium® star CL Cobalt-chromium alloy (Dentaurum)

* Inert gas consumption during the building process with N₂.
** 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.