**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.
**Mlab cusing R 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)
- 7 m/s

**Max. scanning speed**
- approx. 50 µm
- mechanical

**Focus diameter**
- Power consumption max. 1.5 kW
- Power supply 1/N/PE AC 230 V, 16 A

**Fixation of the building plate**
- 1 gas connection provided / Nitrogen or Argon
- approx. 0.6 – 0.8 l/min *

**Connected loads**
- 705 x 1848 x 1220 mm (W x H x D)
- 729 x 1391 x 628 mm (W x H x D)
- approx. 600 kg
- approx. 100 kg

**Weight handling station**
- approx. 100 kg
- 15 – 35°C

**Inert gas supply**
- Operating conditions

**Inert gas consumption**
- Materials
  - CL 20ES Stainless steel (316L/1.4404)
  - CL 31AL Aluminium (AlSi10Mg)
  - 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)
  - CL 80CU Bronze
  - Yellow gold 18 carat 3N***
  - Rose gold 18 carat 4N***
  - Red gold ** 18 carat 5N***
  - Platinum 950 ‰ Platinum alloy***
  - Silver alloy 930 ‰ Silver alloy***
  - rematitan® CL Titanium alloy (Dentaurum)
  - remanium® star CL Cobalt-chromium alloy (Dentaurum)

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*Inert gas consumption during the building process with N₂.
**The material is currently being prepared.
*** Other materials on request.

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