

# CONCEPTLASER

a GE Additive company

## Mlab cusing 200R 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.

Equipped with a 200 watt laser.



## Mlab using 200R TECHNICAL DATA

Build envelope	50 X 50 X 80 mm (X,Y,Z) 70 X 70 X 80 mm (X,Y,Z) 90 X 90 X 80 mm (X,Y,Z) 100 X 100 X 100 mm (X,Y,Z)																				
Layer thickness	15 – 30 µm																				
Production speed	1 – 9 cm <sup>3</sup> /h (depending on material)																				
Laser system	Fibre laser 200 W (cw)																				
Max. scanning speed	7 m/s																				
Focus diameter	approx. 75 µm																				
Fixation of the building plate	pneumatic non-twisting clamping system																				
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*																				
Filter system	integrated																				
Dimension machine	820 x 1839 x 1410 mm (W x H x D)																				
Dimension handling station	729 x 1392 x 628 mm (W x H x D)																				
Weight machine	approx. 700 kg																				
Weight handling station	approx. 100 kg																				
Operating conditions	15 – 30°C																				
Materials	<table border="0"> <tr> <td>CL 20ES</td> <td>Stainless steel (316L/1.4404)</td> </tr> <tr> <td>CL 31AL</td> <td>Aluminium (AlSi10Mg)</td> </tr> <tr> <td>CL 41Ti ELI</td> <td>Titanium alloy (TiAl6V4 ELI)</td> </tr> <tr> <td>CL 42Ti</td> <td>Commercially Pure Titanium Grade 2</td> </tr> <tr> <td>CL 50WS</td> <td>Maraging steel (MS300/1.2709)</td> </tr> <tr> <td>CL 80CU</td> <td>Bronze</td> </tr> <tr> <td>CL 92PH</td> <td>Precipitation hardening stainless steel (17-4 PH)</td> </tr> <tr> <td>CL 100NB**</td> <td>Nickel based alloy (Alloy 718)</td> </tr> <tr> <td>remanium® star CL</td> <td>Cobalt-chromium alloy (Dentaurum)</td> </tr> <tr> <td>rematitan® CL</td> <td>Titanium alloy (Dentaurum)</td> </tr> </table>	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 50WS	Maraging steel (MS300/1.2709)	CL 80CU	Bronze	CL 92PH	Precipitation hardening stainless steel (17-4 PH)	CL 100NB**	Nickel based alloy (Alloy 718)	remanium® star CL	Cobalt-chromium alloy (Dentaurum)	rematitan® CL	Titanium alloy (Dentaurum)
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\* Inert gas consumption during the building process with N<sub>2</sub>

\*\*The material is currently being prepared.

Other materials on request.

