

# CONCEPTLASER

a GE Additive company

## M2 cusing Metal laser melting system

Machine technology for safe processing  
of aluminum and titanium alloys.

## PREDIX

Now enabled with Data Analytics, powered by Predix. Securely connect  
machines, data, and analytics to improve operational efficiency.



## M2 cusing TECHNICAL DATA

Build envelope	250 x 250 x 350 mm <sup>3</sup> (x, y, z)																										
Layer thickness	20 - 80 µm																										
Production speed	2 - 20 cm <sup>3</sup> /h (depending on material / laser power)																										
Laser system	Fibre laser 200 W (cw), optional 400 W (cw)																										
Scanning speed	7 m/s, 4.5 m/s for variable focus move																										
Focus diameter	50 µm, optional variable focus move (50 µm - 500 µm)																										
Reference clamping system (optional)	EROWA, others on request																										
Connected loads	Max. power consumption 10 kW Power supply 3/N/PE AC 400V, 32A connector, compressed air 6-10bar																										
Inert gas supply	2 gas connections provided N <sub>2</sub> generator external (optional)																										
Inert gas consumption	< 1.5 m <sup>3</sup> /h																										
Filtering system	integrated, with a 20 m <sup>2</sup> filter surface																										
Dimensions	2695 x 1818 x 2185 mm <sup>3</sup> (W x D x H)																										
Weight	approx. 2,500 kg																										
Operating conditions	18 - 25°C																										
Materials	<table border="0"> <tr> <td>CL 20ES</td> <td>Stainless steel (1.4404)</td> </tr> <tr> <td>CL 31AL*</td> <td>Aluminium alloy (AlSi10Mg)</td> </tr> <tr> <td>CL 35AL*</td> <td>Aluminium alloy (F357)</td> </tr> <tr> <td>CL 41TI ELI</td> <td>Titanium alloy (TiAl64V ELI)</td> </tr> <tr> <td>CL 42TI*</td> <td>Pure titanium Grade 2</td> </tr> <tr> <td>CL 50WS*</td> <td>Hot-work steel (1.2709)</td> </tr> <tr> <td>CL 91RW*</td> <td>Stainless hot-work steel</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>CL 101NB*</td> <td>Nickel-based alloy (Alloy 625)</td> </tr> <tr> <td>CL 110CoCr</td> <td>Cobalt-chromium alloy (F75)</td> </tr> <tr> <td>remanium star CL*</td> <td>Cobalt-chromium alloy (by Dentaureum)</td> </tr> <tr> <td>rematitan CL*</td> <td>Titanium alloy (by Dentaureum)</td> </tr> </table>	CL 20ES	Stainless steel (1.4404)	CL 31AL*	Aluminium alloy (AlSi10Mg)	CL 35AL*	Aluminium alloy (F357)	CL 41TI ELI	Titanium alloy (TiAl64V ELI)	CL 42TI*	Pure titanium Grade 2	CL 50WS*	Hot-work steel (1.2709)	CL 91RW*	Stainless hot-work steel	CL 92PH*	Precipitation hardening stainless steel (17-4 PH)	CL 100NB	Nickel-based alloy (Alloy 718)	CL 101NB*	Nickel-based alloy (Alloy 625)	CL 110CoCr	Cobalt-chromium alloy (F75)	remanium star CL*	Cobalt-chromium alloy (by Dentaureum)	rematitan CL*	Titanium alloy (by Dentaureum)
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\*The material is currently being prepared. Other materials on request.

