X LINE 2000R  Metal laser melting system

DMLM machine with XXL build envelope!
High-performance production machine with 2 x 1,000 watt lasers for safe processing of reactive materials.
Maximum productivity due to two build modules and rotating mechanism for reciprocal use.
With a build volume of 160 liters, the X LINE 2000R is the world's largest metal laser melting machine for the toolless manufacture of large functional parts and technical prototypes with repeatable material properties. The X LINE 2000R is used for producing large-scale components in the aerospace and automotive industries. The special thing about the machine is the separation of the process and handling station, which ensures both safe operation of the machine and easier handling.

In addition, the X LINE 2000R also has a rotating mechanism which allows two build modules to be used reciprocally, thus guaranteeing constant production with minimal downtimes.

**MACHINE**
- Build envelope 800 x 400 x 500 mm³
- Build volume 2 x 160 l
- Dual laser, 2 x 1,000 watt
- High build rate: up to 120 cm³/h
- Maximum safety due to separation of the process and handling station
- Two build modules for maximum productivity – simultaneous unpacking and setting up alongside ongoing build job
- Additive manufacturing of parts under inert conditions

**POWDER HANDLING**
- Automatic powder handling under inert conditions
- Protection of the powder from oxidation
- Machine, sieving station, silo and powder transport hoses are fully inertized
- Safe contactless powder handling (no need for operation)
- Maximum operator safety
X LINE 2000R TECHNICAL DATA

Build envelope: 800 x 400 x 500 mm³ (x, y, z)
Layer thickness: 30 – 150 µm
Production speed: up to 120 cm³/h (depending on material, parameter, geometry)
Laser system: 2 fiber lasers, each 1,000 W (cw)
Max. scanning speed: 7 m/s
Focus diameter: approx. 100 – 500 µm
Heating: 9 kW, maximum temperature 200°C
Connected loads: Average power consumption 13 kW
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Inert gas supply: 1 gas connection available
Inert gas consumption: approx. 17 – 34 l/min *
Dimensions: 5235 x 3655 x 3604 mm³ (B x H x T)
Weight: approx. 9500 kg (tare weight)
Operation conditions: 15 – 25°C
Necessary peripheral equipment: Sieving station, power silo
Materials: CL 32AL Aluminium (AlSi10Mg)
CL 41TI ELI Titanium alloy (TiAl6V4 ELI)
CL 100NB Nickel-based alloy (Alloy 718)

*Inert gas consumption during the building process with N2