

SLM 125

Technical Specifications

Build Envelope (L x W x H)	125 x 125 x 125 mm reduced by substrate plate thickness
Build Volume Reduction	50 x 50 x 50 mm reduced by substrate plate thickness
3D Optics Configuration	Single (1x 400 W) IPG fiber laser
Build Rate	up to 25 cm ³ /h
Variable Layer Thickness	20 µm - 75 µm, 1 µm increments
Min. Feature Size	140 µm
Beam Focus Diameter	70 µm - 100 µm
Max. Scan Speed	10 m/s
Average Inert Gas Consumption in Process	2 l/min (argon)
Average Inert Gas Consumption Purging	70 l/min (argon)
E-Connection / Power Input	400 Volt 3NPE, 32 A, 50/60 Hz, 3 kW
Compressed Air Requirement / Consumption	ISO 8573-1:2010 [1:4:1], 50 l/min @ 6 bar
Dimensions (L x W x H)	1400 mm x 900 mm x 2460 mm
Weight (without / incl. powder)	approx. 700 kg / approx. 750 kg

System configuration for all types of metal powders
Technical changes reserved



SLM Solutions is a leading provider of metal-based 3D additive technology and machinery for prototypes and manufacturing production. SLM Machines support an optimal approach for safe, flexible and cost efficient metal part production across the aerospace, automotive, academia, energy and medical industries. Systems include the SLM 125, SLM 280 and SLM 500. With multi-laser options, bi-directional recoating, open-software controls and closed-loop powder handling, Selective Laser Melting systems achieve best-in-class safety and increased build speeds for complex and completely dense metal parts.

Headquartered in Lübeck, Germany, SLM Solutions Group is a publicly traded company (TecDax AM3D.DE) with its North American offices located in Metro-Detroit. SLM Solutions NA, Inc. offers full support for local customers featuring a development lab, application engineering team, staff metallurgist and service engineers located around the county.

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SLM 125

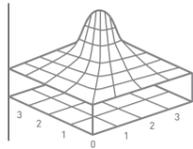
Selective Laser Melting Machine

400W Laser Power and Compact Build Volume



Ideal for Pilot Production and Research

Fast, safe metal 3D printing with low powder volume



The SLM 125 selective laser melting machine offers a compact build envelope designed for cost-efficient process development and small to medium lot production of high-quality, fully dense metal parts. The 400W fiber laser is the highest laser power in its class and replicates production settings with up to 80% less metal powder than other systems.

The highly productive, flexible machine has been designed for fast processing of small, complex components and easy powder changes required in a research environment. Fully open architecture allows operators to use powder and parameters of their choice. The machine utilizes a patented gas filtration process tuned for optimal properties with minimized gas consumption. SLM Solutions' patented bi-directional powder recoating system reduces manufacturing time by significantly minimizing non-productive time during the build process. Over 20 safety innovations keep powder under an inert environment at all times, protecting both operators and materials.

Available with the software needed for reading CAD files and setting parameters for proper operation, the open system architecture allows users to adjust material and build parameters to customize, optimize and develop materials and processes.

Stainless steel, cobalt-chrome, nickel alloys, aluminum, and titanium, to name a few, can all be processed on SLM Solutions selective laser melting systems. Thanks to the machine's compact design with fewer powder-transporting components, materials can be changed quickly and easily. The PSM powder sieving machine is a perfect complement to the SLM 125. During the sieving process oversized particles are separated from the process-ready material into an overflow bottle. The reusable metal powder, defined by grain size, is transported to a storage container for direct use.

With a variety of options and expansion possibilities, the SLM 125 can be adapted to customers' requirements and is ideal for new users to additive manufacturing.

