

.NEW

TruPrint 3000

Flexible solution
for industrial
3D printing – now
squared

05

Inert, closed powder cycle

Simple part and powder handling in
shielding gas for consistent powder and
build part quality

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High process reliability

Consistent part quality with a newly
developed gas flux

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Fullfield Multilaser 2 x 700 W

Simultaneous scanning of the
entire build area for improvement
in performance

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Flexible production setup

With different machine and peripheral
configurations for part and powder
management

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Comprehensive monitoring solutions

Ensuring high quality standards
during the build with Automatic
Multilaser Alignment (AMA) and
Melt Pool Monitoring

The new square TruPrint 3000 with flexible multilaser option – for your industrial additive manufacturing.

In addition to performance increase with fullfield Multilaser option, the focus of the TruPrint 3000 is on improving process robustness and various operating scenarios. Depending on part size and complexity, your workflow preference and production volumes, the metal 3D printer can be tailored to your needs. Further options such as Automatic Multilaser Alignment (AMA), Melt Pool Monitoring and the closed inert powder circuit round off the range.

01

High process reliability

Consistent part quality with a newly developed gas flux

Achieve even better part quality with our shielding gas concept. This guarantees a highly robust melting process in which both the process chamber and the optical protection glass remain clean. The build plate is equipped with an active heating and cooling system (available with 700W laser option) that prevents potential overheating for stable process conditions especially with specific alloys. Particularly in industrial series production, this ensures a constant, high part quality.

02

Fullfield Multilaser 2 x 700 W

Simultaneous scanning of the entire build area for improvement in performance

With the fullfield capabilities, all lasers can scan the entire build area. The result: increased productivity, shorter production times per part and reduced part costs. To achieve higher precision, the laser scan fields are automatically calibrated to each other. This enables you to achieve very high surface quality with no seams. The fullfield multilaser option is available with two powerful lasers that have a beam diameter of 80 µm and defocus option up to 200 µm.

03

Flexible production setup

With different machine and peripheral configurations for part and powder management

The TruPrint 3000 offers flexible production setups tailored to your requirements. The integrated powder conveyor permits a fast and simple unpacking in shielding gas, while the removable cylinder concept allow the preventive preparation of additional supply cylinders for fast restart. The Powder Handling Stations can suck the used powder from the machine. Then the powder can be sieved directly into the supply cylinder. Configure your setup based on workflow, and production volume. Industrial part and powder management across multiple printers helps reduce part costs.

04

Comprehensive monitoring solutions

Ensuring high quality standards during the build with Automatic Multilaser Alignment (AMA) and Melt Pool Monitoring

AMA is an online monitoring system that ensures stable laser offset throughout the entire build process. The laser alignment is checked outside of the build area with an accuracy of the half beam diameter of 40 µm. **Melt Pool Monitoring** detects deviations in the laser melting process creating a full report available even offline and **Powder Bed Monitoring** analyzes the powder layers to ensure the highest quality standards. Further options are available for the verification of certified processes: Laser power calibration, focus position measurement and scan field calibration enable you to measure, recalibrate if necessary and document your measurement results.

05

Inert, closed powder cycle

Simple part and powder handling in shielding gas for consistent powder and build part quality

A closed powder cycle ensures a clean, safe, and high-quality production environment. The TruPrint 3000's integrated powder conveyor enables inert powder removal via the glovebox, maintaining consistent powder properties and preventing oxygen or moisture absorption. Together with the sieving station and powder silo the inert cycle supports complete powder handling in shielding gas.

TruPrint 3000		
Build volume (cylinder)	mm x mm	300 x 300 x H 400
Processable materials ^[1]		Weldable metals in powder form, such as: Stainless steels, tool steels, aluminum, nickel-based, copper or titanium alloys
Layer thickness ^[2]	µm	20 - 150
Max. laser power at the workpiece (TRUMPF fiber laser)	W	500 W Optional Multilaser: 2 x 500 or 700
Beam diameter	µm	80 – 200 µm with defocus
Scan speed (powder bed) ^[3]	m/s	Max. 3
Preheating	°C	Up to 200
Shielding gas		Nitrogen, argon
Power supply	V / A / Hz	400/460 – 32 – 50/60
Dimensions	mm	3385 x 1750 x 2070
Weight (incl. Filter, powder)	kg	4300

^[1] Current material and parameter availability upon request

^[2] Individually adjustable

^[3] 3 m/s is the max. exposure speed in the powder bed which can be set by the customer. Up to this value the scanhead parameters are optimized.

Subject to modifications. Only specifications in our offer and order confirmation are binding.