

Machine tools/Power tools Laser technology/Electronics

## TRUMPF

## **TruPrint 2000: Productivity squared**

Are you looking for an economical machine concept with outstanding print results? The TruPrint 2000 meets exactly these requirements. With the option full-field multilaser, consisting of 2 300-W lasers (optionally  $2 \times 500$  W) with a beam diameter of 80 µm and a short coating time, it delivers excellent results. In the square build cylinder of L 202 × W 202 × H 200 mm, components can be easily positioned.

01

## High-productive printing in premium quality

Thanks to 500 W laser power and 80 µm beam diameter

Thanks to the laser's 80 µm beam diameter, you achieve highquality 3D-printed components that impress with their surface quality and attention to detail. At the same time, the full-field multilaser option ensures high productivity: 2 300-W fiber lasers (optionally 500 W) from TRUMPF expose entire build cylinder without seams, thus reducing production time per part. For highest precision, the calibration of the multilaser scan fields is fully automatic.





## 02

### Low part costs

Thanks to a perfectly coordinated machine concept

Benefit from a perfectly coordinated machine concept: High productivity through multilaser combined with integrated, fast unpacking in the machine and suitable powder handling lead to low part costs – with high part quality. The metal 3D printer is optimized for series production and parts can be arranged in an build cyclinder of  $202 \times 202 \times 200$  mm, enabling high quality even in the corners. Peripherals are kept to a minimum: industrial powder management with the powder preparation station (PPS).

03

## Simple nesting

Easy arrangement of parts on square build plate

Components can be easily arranged thanks to its square base and the build plate fastened on the underside. The optimized optical design enables high quality, even in the corners of the build plate, without any disturbing screws. The TruPrint 2000 opens up new possibilities, especially in the dental field. Compared to round plates, it offers 36% more space for RPDs. But it's not just in the dental sector that you benefit from the additional surface area and laser power of this machine, but also in tool and mold making.





#### 04

## Melt Pool Monitoring and Powder Bed Monitoring

To ensure highest quality standards

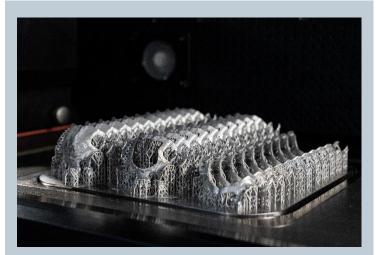
Our industrial monitoring ensures the highest quality standards. The condition of the machine and build process are monitored and analyzed. The Powder Bed Monitoring enables you to monitor the powder bed while the Melt Pool Monitoring option enables comprehensive quality assurance in the LMF process. You maintain an overview of the component condition and can analyze the quality parameters layer by layer. If there is not enough powder, the coating is repeated automatically.



#### Inert, closed powder cycle

For easy, practical part and powder handling in shielding gas

The inert overall concept of the TruPrint 2000 with powder preparation station enables very simple part and powder handling in shielding gas. After the build process, the printed part is inertly unpacked directly in the machine using the integrated powder conveyor. The unused powder is collected in the overflow bin, which is then brought into the powder preparation station. Then, the powder is sieved into a supply cylinder in shielding gas. This closes the powder cycle, and the operator does not come into contact with powder, even when new powder is introduced into the cycle.



## **Best solution for dental applications**

The production of implant-supported dentures is the fastest growing segment in the dental industry worldwide. The TruPrint 2000 is particularly well-suited for model casting prosthetics in the dental sector due to its larger square build plate (L 202 × W 202 × H 200 mm). Up to 36% more removable partial dentures (RPDs) can be placed on a square build plate compared to a round one. Printing times of 8 min per RPD can be achieved with the new TruPrint 2000.



**Experience the TruPrint 2000 in** the AM Showroom - live or online! www.trumpf.info/am-showroom

Technical data		
Construction volume (cylinder)	L×W×H mm	202 × 202 × 200
Processable materials <sup>[1]</sup>		Weldable metals in powder form, such as: Stainless steel, tool steel, aluminum, nickel-based, cobalt- chromium or titanium alloys, amorphous metals.
Layer thickness <sup>[2]</sup>	μm	20–100
Max. laser power at the workpiece (TRUMPF fiber laser)	W	300 / 500 Optional multilaser: 2 × 300 / 2 × 500
Beam diameter	μm	80 Optional: 55
Exposure speed (powder bed)	m/s	Max. 3
Preheating	°C	Up to 200
Unpacking in the machine		Inert, integrated powder conveyor
Shielding gas		Nitrogen, argon
Power supply	V   A   Hz	400/460   32   50/60
Dimensions	mm	2180 × 2030 × 1400
Weight	kg	2500

 $\ensuremath{^{[1]}}\xspace$  Current material and parameter availability on request.

Individually adjustable.
Subject to change without notice. Only specifications in our offer and order confirmation are binding.



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