

TruPrint 2000

Economical
3D printing with
premium quality

04

Inert, closed powder cycle

For simple, practical part and powder handling
in shielding gas

01

**Fullfield multilaser
with 55 µm beam diameter**

For high productivity with premium part quality

02

Low part costs

Due to a perfectly tailored machine concept

03

**Melt Pool Monitoring and
comprehensive process monitoring**

To ensure top quality standards



Benefit from economical 3D printing with premium quality

Due to a perfectly tailored, inert machine concept, the TruPrint 2000 with powder preparation station produces high-quality printing results economically. Metal serial parts are printed with high productivity using multilasers and then unpacked inside the machine. The TruPrint 2000 production process is designed for a closed powder cycle in shielding gas, which enables simple, practical handling and the highest powder quality.

01

Fullfield multilaser with 55 µm spot size

With the small 55 µm beam diameter of the laser, high-quality 3D printed parts with best surface quality and detail accuracy are created. The fullfield multilaser option ensures high productivity with two 300-watt fiber lasers from TRUMPF operating anywhere in the entire build area producing parts without seams and reducing production time per part. For highest precision a fully automatic calibration of the multilaser scan fields to each other is performed.

02

Low part costs

Take advantage from a perfectly tailored machine concept. High productivity with the multilaser combined with an integrated, fast unpacking in the machine and convenient powder handling lower costs per part with high part quality. The metal 3D printer is optimized for serial production parts to be arranged on a substrate plate with Ø 200 mm and a maximum height of 200 mm. Peripherals are kept to a minimum: Industrial powder management with the powder preparation station.

03

Melt Pool Monitoring and comprehensive process monitoring

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 and the Melt Pool Monitoring option enables comprehensive quality assurance in the laser melting process. Process deviations can be detected early by sensors, and critical areas on the part can be visualized. You receive documentation layer by layer, even with the fullfield multilaser option.



Simply unpack parts in the TruPrint 2000 in an inert atmosphere

04

Inert, closed powder cycle

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.

TruPrint 2000

Build volume (cylinder)	mm x mm	Ø 200 x H 200
Processable materials ^[1]		Weldable metals in powder form, such as: Stainless steels, tool steels, aluminum, nickel-based, cobalt-chrome or titanium alloys, amorphous metals
Layer thickness ^[2]	µm	20 - 100
Max. laser power at the workpiece (TRUMPF fiber laser)	W	300 Optional multilaser: 2 x 300
Beam diameter	µm	55
O ₂ concentration	ppm	Down to 100 (0.01%)
Scan speed (powder bed)	m/s	Max. 3
Preheating	°C	Up to 200
Unpacking in the machine		Integrated powder conveyor
Shielding gas		Nitrogen, argon
Power supply	V / A / Hz	400/460 – 32 – 50/60
Dimensions	mm	2180 x 2030 x 1400
Weight	kg	3200

^[1] Current material and parameter availability upon request

^[2] Individually adjustable

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

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