



Press Release

Formnext 3D printing fair: TRUMPF set to present new TruPrint 3000 medium-format machine

New TruPrint 3000 3D printer employs multiple lasers to double productivity // Better part quality thanks to improved inert gas delivery and melt pool monitoring

Ditzingen, October 12, 2021 – High-technology company TRUMPF will unveil the latest generation of its TruPrint 3000 medium-format machine at the Formnext additive manufacturing trade fair in Frankfurt. Using powder-bed-based laser melting, the 3D printer can fabricate parts up to 400 millimeters tall and up to 300 millimeters in diameter. Designed to meet the quality and production-line requirements of various industries, the new TruPrint 3000 can process all weldable materials, including steel, titanium and aluminum. One of the most exciting developments is the ability to equip the new TruPrint 3000 with a second laser, which almost doubles its productivity while significantly reducing part costs. Two 500-watt lasers work in parallel across the machine's entire build chamber. This makes production much faster and more efficient, regardless of the geometry and number of fabricated parts. Where required, each complete contour of even the largest parts can be scanned by a single laser. This eliminates seams and guarantees optimum part quality. The Automatic Multilaser Alignment option automatically monitors the lasers during the build stage to ensure they are perfectly aligned with each other at all times.

Improved inert gas delivery and integrated powder conveyor

TRUMPF experts have also improved the movement of inert gas through the TruPrint 3000, allowing it to flow from back to front in a steadier and more uniform manner. As well as boosting the quality of printed parts, this also allows the operator to remove excess powder from the part while it is still inside the machine using an integrated powder conveyor. The excess powder is deposited in a powder container and can be reused for the next print job. The design of the new machine and peripheral components allows the powder to be prepared in a shielded environment using an inert gas where required. This protects the powder from external influences as it moves through the processing cycle,



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resulting in consistent powder quality. This is a major advantage for industries such as medical device manufacturing.

Automatic monitoring of the printing process

The new generation of the TruPrint 3000 also comes with a built-in quality assurance feature in the form of melt pool monitoring. Special high-speed sensors in the machine optics automatically monitor the melt pool during printing and record the optical fingerprint of each process. The system includes intelligent analysis software which can be trained with a reference build job; this software will then present a graphical display of any deviations, such as a melt pool that is too cold or too hot. This gives operators the information they need to detect, rectify and analyze errors.

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TruPrint 3000

The new medium-format machine uses powder-bed-based laser melting to produce parts up to 400 millimeters tall and up to 300 millimeters in diameter.



Multilaser

The new TruPrint 3000 can be equipped with a second laser that almost doubles its productivity.



About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. The Company drives digital connectivity in the manufacturing through consulting, platform products and software. TRUMPF is a technology and market



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leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2020/21, the company employed some 14,800 people and generated sales of about 3.5 billion euros (preliminary figures). With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

Find out more about TRUMPF at www.trumpf.com

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