



Press Release

Formnext: TRUMPF prints dentures in series production

The new TruPrint 1000 is particularly easy to operate // The entry-level system is designed for additive series production // Improved gas flow leads to particularly high productivity and quality

Ditzingen/Frankfurt, 14 November 2022 – TRUMPF has equipped the new TruPrint 1000 for additive series production. "Thanks to smart automation, the new machine is two times faster than its predecessor and is ideally suited for series production, for example in the dental industry or medical technology," says Mirko De Boni, Product Manager at TRUMPF. The high-tech company will showcase the TruPrint 1000 at Formnext, the leading trade show for additive manufacturing in Frankfurt.

Multiplate improves series production

With the Multiplate function, users can make even better use of the TruPrint 1000 for series production. Users can stack up to four build plates on top of each other in the build cylinder, and the system prints components on them one after the other. "The TruPrint 1000 can produce all night without a worker having to be present. Users save a lot of time and therefore costs," says De Boni. At just about 80 centimeters wide, the machine takes up very little space and can pass through a standard door. Even in small production halls, users can have several machines producing side by side in parallel and speed up their series production even further.

For example, the dental industry can use the TruPrint to produce 1000 dental prostheses, i.e. crowns, bridges and also cast models, from the alloys cobalt chrome or titanium. The system is also suitable for medical technology manufacturers or prototype construction in many other industries.

Exchange cylinder principle speeds up production



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With an exchange kit, the user can quickly and easily change the build, powder and overflow cylinders of the TruPrint 1000. The filters are easily accessible on the side of the machine. The user can change them quickly. "This means a material change, such as from cobalt chrome to titanium, can be completed in just 15 to 20 minutes," says De Boni. Brushes and gloves are integrated into the machine. Without opening the door, the user can clean the additively manufactured components and unpack the build job. "This is a big advantage. If powder swirls up, machine operators can't contaminate themselves with the material," says the product manager.

Improved gas flow makes system fast and reliable

TRUMPF has improved the flow of the shielding gas during the production process. "Thanks to the primary and secondary flow, the work area remains clean even after several build jobs and the protective glass does not become contaminated. This is also true when processing tool steel, which is actually prone to heavy fuming," says De Boni. If the protective glass does get dirty, the machine operator can remove and clean it in a few easy steps. The sophisticated gas flow also ensures a consistent production process, as predefined laser power always reaches the powder. Thanks to the clean working environment, users can apply higher layer thicknesses. This increases the productivity of the system and improves the quality of the additively manufactured components.

TruPrint 1000 also prints with two lasers

The TruPrint 1000 works particularly quickly and reliably. In the Multilaser variant, the system has two lasers. The special feature: Both lasers can process the entire build plate. "With two lasers we can improve the productivity of this machine even further," says De Boni. The TruPrint 1000 also uses the so-called beamexpander to automatically adjust the spot diameter of the laser to the particular build job. The spot diameter is 55 or 80 micrometers, depending on the application. The wider spot allows for higher productivity, while the 55 micrometer spot can be used when special powders need higher energy density.



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TruPrint 1000 ready for series production

The system is particularly easy for the user to operate. This shortens production time. (Photo: TRUMPF)



Compact design

At just about 80 centimeters wide, the machine takes up little space and fits through a standard door. (Photo: TRUMPF)



Suitable for many applications

With the TruPrint 1000, users can additively manufacture dental prostheses or medical technology, for example. Many other applications are possible. (Photo: TRUMPF)



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

In 2021/22, the company employed some 16,500 people and generated sales of about 4.2 billion euros. 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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