

### TRUMPF DEBUTS GREEN LASER AM FOR COPPER AND PRECIOUS METALS

Machine tool leader, TRUMPF demonstrated its full range of AM systems including its TruPrint 5000 and green laser technology.

TRUMPF's latest 3D printer, the TruPrint 5000, can be preheated to 500 degrees Celsius to print high-carbon steel or titanium alloy components without cracking or warping, allowing tool and mould makers to print forming tools, punches and dies which would have previously been impossible. Preheating the substrate also reduces stresses, improves processing quality and, in many cases, eliminates the need for support structures, which could be beneficial for prostheses and implants. It can also reduce the need for downstream heat treatment, while making the titanium more resilient and implants more durable.

TRUMPF also showcased a new green laser with pulse function to demonstrate printing of pure copper and other precious metals by connecting the new TruDisk 1020 disk laser with its TruPrint 1000 3D printer. The green laser could open up new possibilities in the electronics and automotive industries and also holds potential for printing gold in the jewellery industry.

### BIGREP LAUNCHES TWO 3D PRINTERS WITH METERING EXTRUDER TECHNOLOGY

BigRep launched two new fused filament fabrication systems powered by its Metering Extruder Technology (MXT).

The BigRep Pro and BigRep Edge have been designed for the production of functional prototypes, composite tooling, and small series production. Both are equipped with Bosch Rexroth motion control systems, which enable speed, precision, and IoT connectivity. BigRep Pro features a build envelope of one cubic metre and boasts a large, temperature-controlled spool chamber which enables continuous printing of large-scale industrial parts in ASA, ABS, and nylon. The BigRep Edge is designed for printing high-performance materials in a large-scale format within a controlled temperature environment.

Both machines have two MXT modular extrusion heads which gain better control over the amount and speed of material that is extruded by separating filament feeding and melting and molten extrusion. Stephan Beyer, BigRep CEO said the new printers are five times faster than current extrusion speeds, with greater precision and quality.

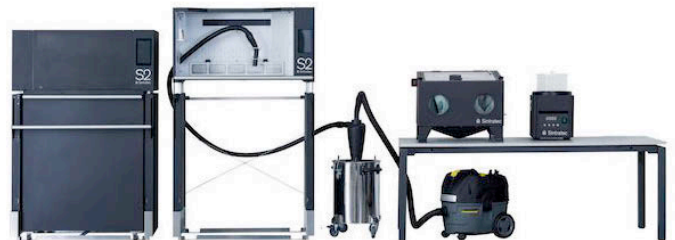


### SINTRATEC INTRODUCES NEW SELECTIVE LASER SINTERING PLATFORM

Swiss company, Sintratec introduced the Sintratec S2, a follow up selective laser sintering platform to its Sintratec Kit and S1 machines.

The new end-to-end solution is comprised of the Laser Sintering Station, the Material Core Unit and the Material Handling Station, and can be supported by additional modules like the Sintratec Blasting Station, the Sintratec Polishing Station, and the Sintratec Vortex Unit.

Through a cylindrical printing area, the Laser Sintering Station is heated and ventilated with a 'new concept', while the precision of the scanning system not only promises speed, but repeatability too. The Material Core Unit is equipped with an integrated powder mixing function and an additional Material Core Unit can be added to process different materials. The Handling Station, meanwhile, collects used and excess material and sieves it for reprocessing. The Blasting Station can be utilised to improve surface quality and aesthetics, while the Polishing Station can seal surface impurities and gives components a smooth, stainless steel-like finish.



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