3D printing meets high-tech industries: toolcraft uses TRUMPF's overall solutions for additive manufacturing

toolcraft is a trailblazer in new manufacturing technologies such as 3D printing in metal and the construction of customized turnkey robot solutions. Customers are from the aerospace, semi-conductor, medical technology as well as automotive and energy sectors. Close collaborative cooperation with development departments of customers, research facilities, colleges and universities is a core part of the company's philosophy. toolcraft always strives to be directly involved in the development of new trend technologies and to be able to offer the best complete solution on the market together with their partners. From the idea to production to the qualified part – the company covers the entire process chain in-house.

toolcraft AG

www.toolcraft.de

toolcraft is a trailblazer in pioneering technologies such as 3D printing in metal and the construction of individual turnkey robot solutions. Here, the company provides the entire process chain in-house – from the idea and production, right up to the qualified part in the areas of CNC machining, 3D printing in metal, as well as injection molding, electrical discharge machining, and mold making. Customers include market leaders from the fields of semi-conductor technology, aviation and aerospace, medical technology, the optics industry, specialist mechanical engineering, as well as motorsport and automotive technology. The medium-sized family company based in Georgensgmünd and Spalt, Germany, was founded in 1989 by Bernd Krebs.

NUMBER OF EMPLOYEES	INDUSTRY	SALES
380	Manufacture of precision components along with automation solutions	€51.0 million

APPLICATIONS

- 3D printing in metal (Laser Metal Fusion, Laser Metal Deposition)
- laser marking

TRUMPF PRODUCTS

- TruPrint 1000 Green Edition
- TruPrint 3000
- TruPrint 5000
- TruLaser Cell 3000
- Technology package DepositionLine
- TruMark Station 7000

Challenges

Around seven years ago, toolcraft's managing directors made a groundbreaking decision: 3D printing would be the next innovative manufacturing technology into which the company would invest all its energy. In order to introduce a complete solution, the high-tech company needed a partner that spoke the same language with whom they could collaborate to achieve outstanding results together. The company tested systems from different additive production system manufacturers on the market.



"TRUMPF has a clear advantage in that they develop the laser themselves, and know how to handle the medium. In conjunction with the highest standards for their own machines, the company is the perfect partner for us in the field of metallic 3D printing."

CHRISTOPH HAUCK
CHIEF TECHNOLOGY AND SALES OFFICER, TOOLCRAFT

Solution

As a customer in the field of laser marking systems, toolcraft was already familiar with and had held TRUMPF in high regard for many years as an expert and pioneer in the field of laser processing. As they were a satisfied customer, the company also included TRUMPF as a manufacturer of 3D printers for industrial manufacturing in the selection process. Above all, toolcraft was impressed with TRUMPF's overall concept, comprising of sophisticated machines, external industrial part and powder management, intelligent monitoring solutions, as well as comprehensive services and digitalization solutions – and they made the decision to invest in several TRUMPF machines. toolcraft was also delighted by the high machine utilization rate. This is due to the fact that the build and supply cylinders can be changed quickly and safely for work parallel to production, meaning that downtimes are reduced to a minimum.

Implementation

toolcraft invested in the construction of a new additive manufacturing facility. When fitting it out with machines, toolcraft decided on several TruPrint 3000 systems, as these are "fully integrated solutions"

and have optimal peripheral solutions before and after the LMF process. The specialists were particularly impressed by the fact that, compared to other systems, the industrial part and powder management process is much better and can be integrated easier. In addition, the intelligent monitoring solutions ensure optimal transparency over the LMF process. Another advantage was that the system and the laser come from the same company, and are perfectly coordinated with each other.

Outlook

toolcraft has since invested in their fifth TruPrint 3000 system. Together with TRUMPF, the company would like to continue shaping the additive manufacturing process in an even more cost-effective manner, and to further improve performance and component quality in regards to the parameters. Both toolcraft and TRUMPF are convinced that both companies can continue to benefit from the cooperative exchange in the future, and they can advance additive manufacturing technology with combined efforts.







Find out more about TRUMPF products



TruPrint 3000

The TruPrint 3000 is a universal medium-format machine with industrial part and powder management, designed for flexible series production of complex, metal components using 3D printing.

Zum Produkt



TruPrint Monitoring

Fertigen Sie mit den intelligenten Monitoringlösungen von TRUMPF effizienter und überwachen und analysieren Sie Ihren Bauprozess in den TruPrint Maschinen einfach und sicher.

Zum Produkt



TruLaser Cell 3000

With the compact, high-precision 5-axis TruLaser Cell 3000 laser machine, you can process small to medium-sized components using laser metal deposition (LMD). Whether for coating, generating or repairing – the TruLaser Cell 3000 can be used in a variety of applications in the LMD field.

Zum Produkt



TruMark Station 7000

With its large interior dimensions, the TruMark Station 7000 marking system offers a great amount of space for almost any application. It makes no difference whether you want to mark individual large or heavy components with laser precision or particularly large numbers of small parts arranged next to each other.

Zum Produkt