

PRESS RELEASE

Additive manufacturing technologies open up new potential: New service added to supply of C-Parts

Bad Mergentheim/Germany.

Additive manufacturing, which is much better known to most people as 3D printing, has been in use in plastics engineering for many years. However, the www.wuerth-industrie.com method offers potential for many further applications: architecture, design, industrie.com medical engineering, packaging or mechanical engineering. The services offered by Würth Industrie Service GmbH & Co. KG are specifically geared towards machinery and plant engineering. Thanks to these services, initial samples, prototypes, certified serial parts, spare parts and tools come from a single source from batch size one - a quick and cost-efficient supply process, not just for C-Parts.

Be it large or small items, spare parts, small series or full-fledged mass production. Be it a construction drawing or a full 3D model. Würth Industrie Service offers a wide range of the most diverse technologies as well as additive manufacturing processes, building on a powerful network of partners. This gives our customers maximum freedom for the development and implementation of products, which also goes for the materials used for industry components. Ranging from robust, rubbery or transparent plastics to aluminum, stainless steel, tool steel to high-temperature-resistant steel or titanium: The most suitable solution for the respective application or component of a customer in production, materials planning, maintenance, construction and development is chosen together from a great variety of different materials and prepared using various technologies such as laser melting, laser sintering, stereolithography, metal 3D printing or PolyJet printing. Thanks to additive manufacturing, customers cannot only reduce lead times, development cycles and total component costs, but also improve the components' performance, weight and functionality, opening up new perspectives as regards the geometry of developed parts. An innovative building component design allows combining different functions in one part. Additive manufacturing provides a new range of design options, including any desired shape and surface quality, integrated channels for process media and a reduced number of assembly steps. In addition, these manufacturing methods result in shorter delivery times and an elimination of minimum purchasing quantities.

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In order to make full use of the opportunities offered by additive manufacturing, 3D printing specialists from Würth Industrie Service develop the respective components in cooperation with their customers, following a predefined process and relying on state-of-the-art construction methods. Virtual 3D models are prepared using CAD. Thanks to the digital "twin" of the component, all process steps along the way to the finished product can be traced, which allows an optimization of component features and a full documentation. Data models are then translated into machine data and printed. The additive component is created layer by layer.

When it comes to compliance with technical requirements, highest quality standards and a consistent, efficient process are the key to success. In order to guarantee the components' quality, Würth Industrie Service operates a fully equipped test lab currently accredited for 50 test methods according to DIN EN ISO/IEC 17025. Thanks to the available product and testing knowhow, all components created in an additive manufacturing process can be tested for the below parameters to ensure the desired quality: mechanical strain, geometric shape, surface and material features.

ELABO success story: a new way of supplying spare parts

What do you think about Murphy's Law: Don't you sometimes feel the worst case is always going to happen when you need it least? Such situations include spare parts not being available at all or only available at too high prices due to expensive tool molds and dies, urgent demand or large batch sizes. This is exactly what happened to our customer ELABO GmbH, a provider of testing systems, worker guidance and technical workplace solutions. Shortly before starting to shoot film scenes for an innovative project, the cover of the worktable featured in the film had been damaged. In this unpleasant situation, the company turned to Würth Industrie Service for support. It only took a quick, targeted manufacturability analysis, and Würth Industrie Service, the partner for C-parts management, offered a solution for this challenging task. A customized spare part was printed tool-free in low-volume production, and subsequently coated according to customer requirements. Finding a remedy at short notice made the smooth shooting of the film possible. 3D printing opens up new possibilities for



companies and offers more flexibility, efficiency, lower costs and higher speed. In addition to the supply of spare parts, companies along the entire value chain benefit from the new services offered by Würth Industrie Service – be it companies in service, development or production.

Boasting more than 20 years of experience in the market, Würth Industrie Service has become established as the number one partner for C-Parts for industrial applications. By offering additive manufacturing, the company will also expand its portfolio by further product groups, offering A and B parts in addition to C-Parts. Today's C-Parts supply is no longer just the mere provision of the demanded items. Instead, the process is all about a trusting collaboration with the customer, a profound knowledge of the goods and material flow and a deep integration into the existing process landscape. This way, Würth Industrie Service is a project partner that can be involved in any aspect of the development and implementation of building components and that offers state-of-the-art solutions for any demands on a 3D part. According to the motto: all from a single source!

Provided pictures: Please note the information on the next page



Captions:



Picture 1: Spare part Elabo Würth Industrie Service.JPG

Caption 1: A new way of supplying spare parts: work table cover

Source: Archives of Würth Industrie Service



Picture 2: Spare partl Elabo work table.JPG

Caption 2: Project secured: customized spare part printed tool-free in low-volume production, and coated according to customer requirements

Source: Archives of Würth Industrie Service