



News Review

3-D Printing Technology on the Way in the Factory

Additive production methods acquire significance in the production. These revolutionize the spare parts supply and make new type complex designs for important construction parts possible in the smart factory the 3-D compression will in future play a central role.

Still the 3-D printing technology stands in the factory hall, by the side of conventional machine tools. However that will soon get changed. Gerd Witt of the University of Duisburg/ Essen is sure about that. The machines for the additive production already use the digital chain of construction upto the structural part – says the researchers. 3-D compression is an example for that as the physical product with dataflow is tied together and renders a production possible at which at the end plurality of individual components originate. Machines must not be costly outfitted, the technical changes are at data clause and not made at implements. That way the additive methods become so interesting for the factory of future. There the programme decides for the production planning as the structural parts are completed. With complicated structural parts in future direct the additive producing machines are headed for – says Witt.

Additive production methods are before all interesting where complex moulded parts, quick flexible and in no smaller fractional pieces are questioned in the automobile industry and space travel or in medicine technique. Experts are of opinion that the 3-D printing indeed before all will revolutionize the spare parts supply. Today the spare parts are stored and with demand

individual sent off. In future a network of small 3-d printing works could finish off printing spare parts corresponding to a digital plan, exactly there where these are used near by the customer.

Uptil however metallic construction parts could be produced somewhat for the applications in motor vehicle or in tools and implements construction economically. It continues still for some time. The process stops more rapidly the surface of the construction parts must be better and the quality must be remarkable. In order to achieve that a good understanding of the entire process is necessary, started from material before and after production preparation till the manufacturing process and a quality deficiency of construction parts. The manufacturing of additive production methods such as ESO, SLM, Concept Laser, Trumpf, 3-D systems or lenishaw have recognised the challenges and work intensively at the automation. Beyond that they gather together first experience with the combination of different process. With that the 3-D compression functions are combined with conventional production method and directly integrated with machine tools. The supply line of the materials succeeds automatically and it gives the first handling systems which take out the construction parts and these bring forth the post-preparation.

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Re: VDI nachrichten, 8 April 2016, Nr. 14,
Exklusiv Produktion Der Zukunft, Seite 7
