

Maximum Precision in 3D Printing

New complete solution makes additive manufacturing standard for microfabrication

PI 2015/23
2015-02-25

Media Contact
Anke Werner

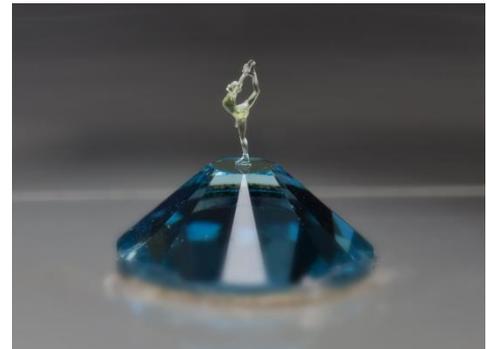
Phone +49 721 60 82 88 49

Fax +49 721 60 82 88 48

E-mail werner@nanoscribe.de

Eggenstein-Leopoldshafen With a new extension set for its 3D printer the technological leader Nanoscribe is the first manufacturer to provide a complete solution for microfabrication. This adds the highest 3D printing technology to the spectrum of additive manufacturing technologies thereby bridging the gap between 3D laser lithography and 3D printing. For the first time all the advantages of 3D printing are now also available for microfabrication.

Hardware, software and polymer printing material components carefully adapted to each other comprise a complete solution thanks to which 3D printing of highly precise microstructures has become very easy. Close adherence to tried-and-tested standards from the macroscopic sphere permit fast realization of virtual structural data as physical objects. Consequently, the world market leader in 3D printing on the micrometre scale now facilitates the manufacture of the most complex structural designs on a scale that was previously inaccessible and which will become established as the standard in additive manufacturing. This is because for the first time all the advantages of 3D printing are now also available for microfabrication.



The new 3D printing set for the millimeter scale endows the tiny 3 mm figure skater with a grace that literally permits her to dance on the crystal.
www.youtube.com/nanoscribe

"The set supplements the Photonic Professional *GT* 3D printer with high precision optics and the newly developed photoresist IP-S that has been optimized for it. This permits fast, ultra-precise exposure of the liquid printing material combined with maximum mechanical strength, accuracy and surface smoothness on all kinds of substrates. These properties are reflected in the brilliance of the filigree figure skater on the crystal," CEO Martin Hermatschweiler pointed out. The proprietary software package NanoWrite and DeScribe underwent extensive overhauls to meet the high demands on data processing and finishing of high resolution 3D models. Intelligent writing strategies were implemented that have enormous speed advantages.

The extremely high resolution of the Nanoscribe procedure is based on over ten years of experience in system engineering, material development and process development in the field of two-photon polymerization. This non-linear lithography technology opens up new and expanded applications for digital production. Unlike many other 3D printing procedures, the single application of a sufficient quantity of photosensitive material is already sufficient. As a result, the Photonic Professional *GT* printer makes the free definition of layer distances and manufacture of structural details in the sub-micrometre range effortlessly possible and in this respect differs fundamentally from stereolithography for example. It is this that makes it possible to print surfaces even in optical quality.

The new set will be available from Nanoscribe from April 2015.

You can find this press release and the picture of the figure skater for free download at: <http://www.nanoscribe.de/en/media-press/press-releases/>.

Caption: The new 3D printing set for the millimetre scale endows the tiny 3 mm figure skater with a grace that literally permits her to dance on the crystal. © Nanoscribe

The animated "dance on the crystal" is also available on: www.youtube.com/nanoscribe

In case of questions, please do not hesitate to contact Anke Werner: werner@nanoscribe.de

Company profile

Nanoscribe GmbH is the world technology and market leader in 3D printing on the nano-, micro- and mesoscale. Its high performance 3D printers are based on two-photon polymerization and are used in research and industry. The portfolio is complemented by tailor-made photoresists and process solutions. The efficiency of the trailblazing Photonic Professional *GT* system was highlighted in February 2014 by the bestowal of the Prism Award in San Francisco in the category "Advanced Manufacturing." In 2007, Nanoscribe was the first spin-off to emerge from the Karlsruhe Institute of Technology (KIT).

CONTACT

Nanoscribe GmbH
Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen
Germany

E-mail info@nanoscribe.de
Web www.nanoscribe.de
 www.facebook.com/nanoscribe

Phone +49 721 60 82 88 40
Fax +49 721 60 82 88 48