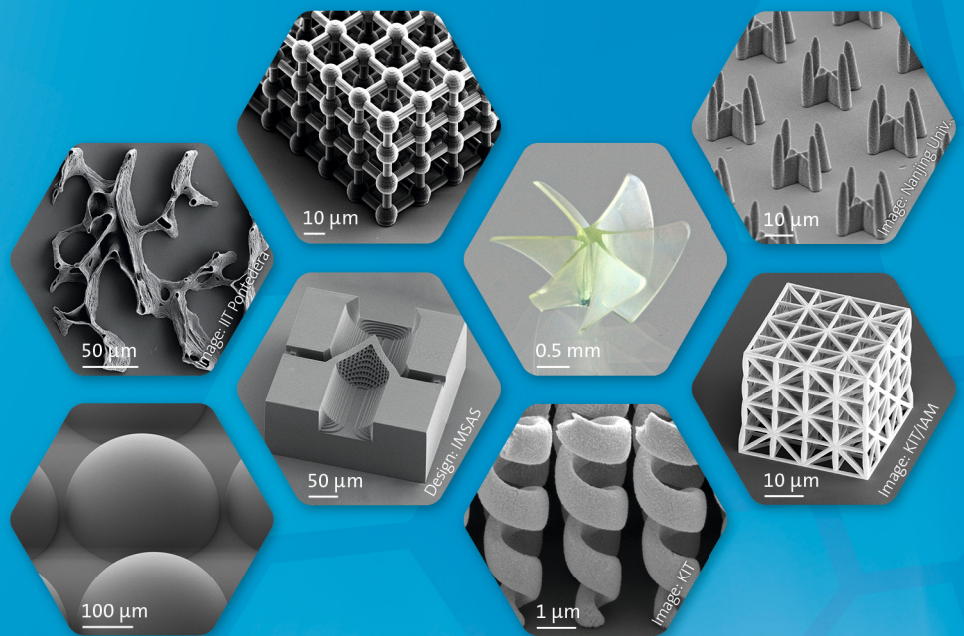


Photonic Professional \equiv GT

The New Standard for Microfabrication

Additive Manufacturing and
Maskless Lithography in One Device



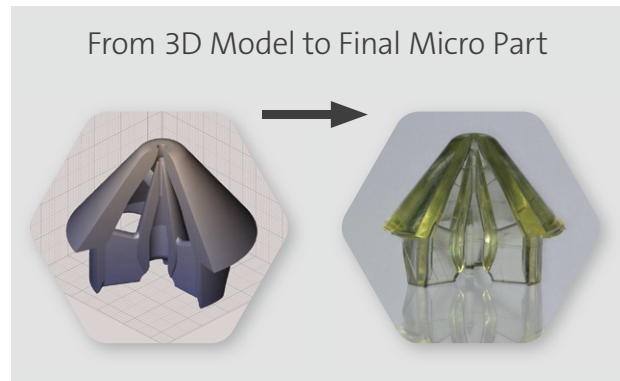
Additive Manufacturing on the Nano-, Micro- and Mesoscale

The Photonic Professional GT is the world's highest resolution 3D printer. Based on two-photon polymerization (2PP), it allows for additive manufacturing and maskless lithography with the same device. Submicrometer resolution printing with feature sizes down to 200 nm and optical quality surface finishes are characteristic key features. Two powerful writing modes move the laser focus with respect to the photoresist: A piezo-mode for arbitrary 3D trajectories and a galvo-mode for ultra-fast structuring in a layer-by-layer process. With these unique features, the versatile system covers the broad demands encountered in nano-, micro- and mesoscale fabrication.

In 3D, the system offers 100x higher resolution than stereolithography whereas in 2.5D it offers a design freedom and structural heights far beyond grey scale lithography and diamond machining. Even for pure 2D fabrication tasks it has proven to be an indispensable tool providing feature sizes and a resolution otherwise only achievable with electron beam lithography and in addition extraordinarily high aspect ratios.

The printer is a turnkey system with an integrated sophisticated, user-friendly software package. It is entirely embedded into a typical 3D printing workflow and offers a high degree of automation for ease-of-use but also great flexibility for expert users thus being an ideal tool also for multi-user facilities.

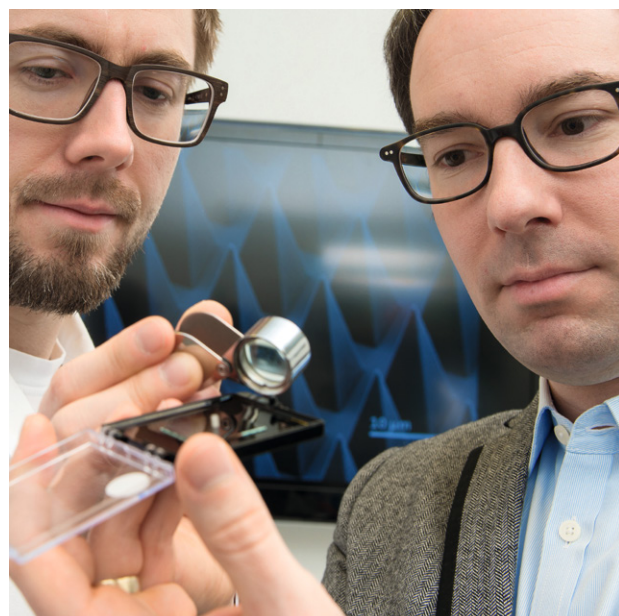
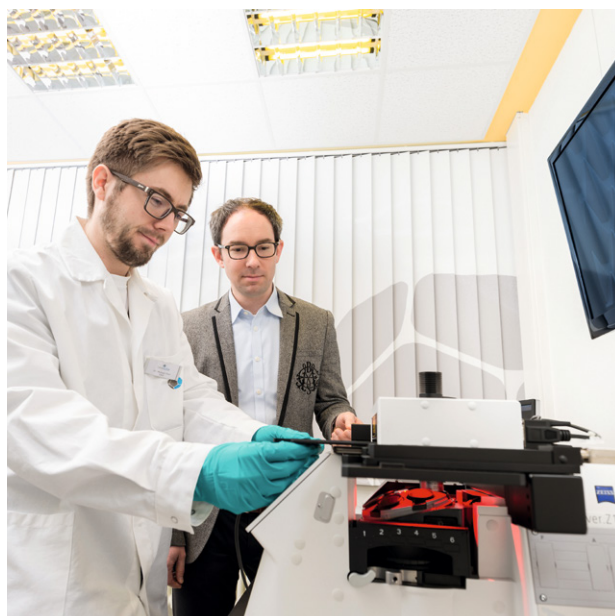
The robust and versatile platform can process a diversity of printable materials with designer electrical, mechanical, biological or optical characteristics. Nanoscribe develops complete solutions including materials and processes tailored to specific applications of scientific and industrial customers.



Key Features

- Additive manufacturing and maskless lithography in one device
- Submicrometer feature sizes and resolution with optical quality surfaces
- 100 x higher resolution and smaller feature sizes compared to stereolithography (3D)
- Design freedom and structural heights far beyond grey scale lithography and diamond machining (2.5D)
- Resolution between electron beam and UV lithography (2D)
- Two powerful writing modes ensuring fast and accurate 3D printing
- Diversity of UV-curable print materials with designer characteristics
- Smart and user-friendly integrated software package
- Robust, accurate and easy-to-use system

Photonic Professional GT



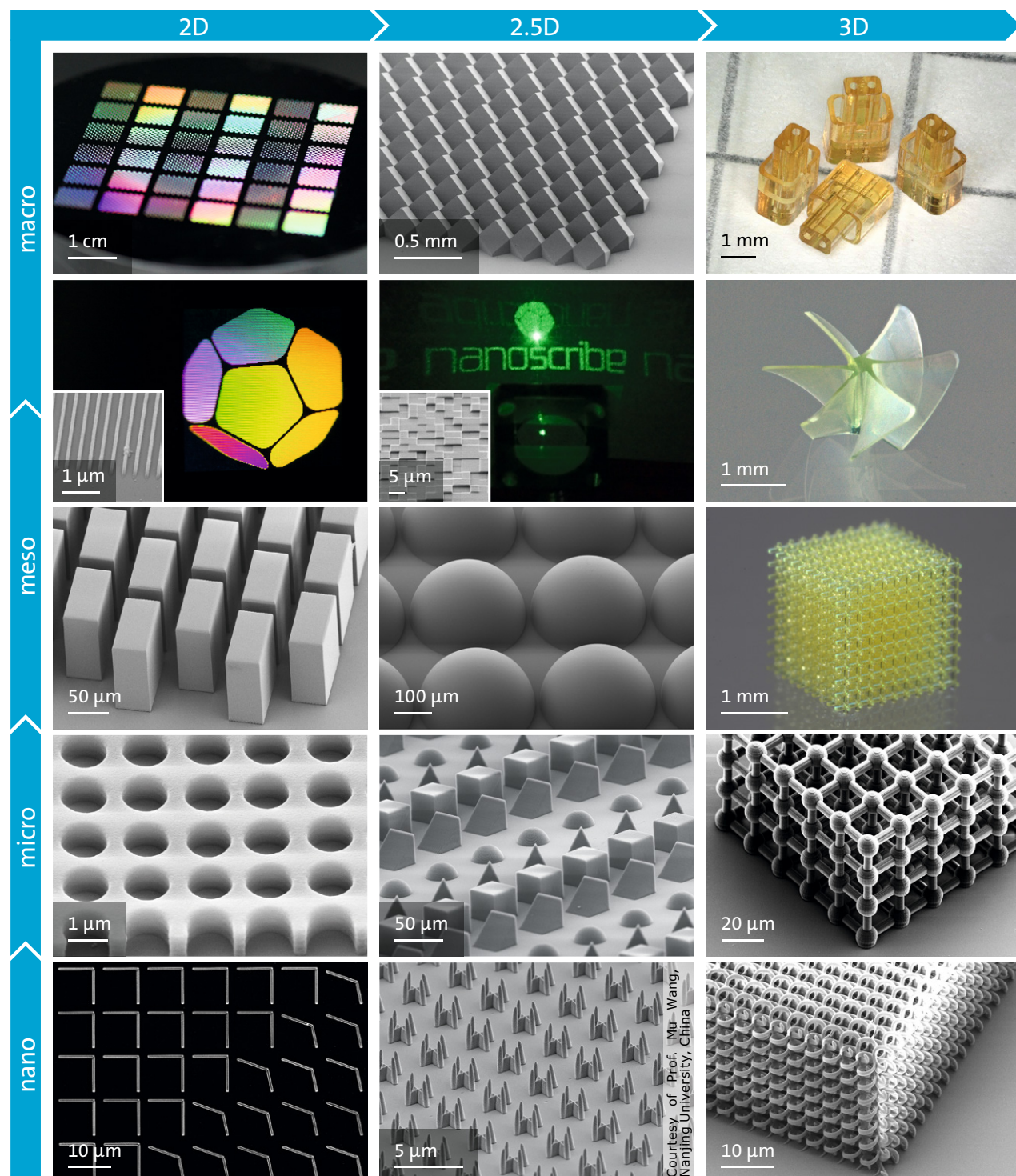
Wide Spectrum of Applications

Photonic Professional *GT* systems are being used successfully for a broad range of applications on the nano-, micro- and mesoscale.

- Micro-Optics, Diffractive Optics
- Wafer-Level Optics
- Optical Security Labels
- Plasmonics
- Sensors
- Photonic Crystals & Metamaterials
- Microfluidics

The printers are drivers of innovation for numerous key technologies and provide unprecedented solutions for scientific and industrial challenges.

- Life Sciences
- Biomedical Devices
- Biomimetics
- Micromanipulation
- Designer Mechanics
- Microrobotics
- Rapid Prototyping & Small Series Production





nanoscribe

High Precision 3D Printing Solutions

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Founded in 2007 as a spin-off from the Karlsruhe Institute of Technology, Germany, and as a pioneer in the field of two-photon polymerization, Nanoscribe has established itself globally as market and technology leader in 3D printing on the nano-, micro- and mesoscale. Today it is ranked among the most successful young medium-sized companies in Germany.

Top institutions in academia as well as pioneers in industry in more than 30 countries worldwide already successfully use this new, award-winning standard for microfabrication.

On our website, you can find a multitude of examples for the broad range of applications as well as a long list of scientific papers published by our users. The close contact to our customers is supported by a worldwide sales and service network. Rapid and first-class customer service is a matter of course for us.