Trade Press Release

SPIE Photonics West 2017: Staying Healthy with Medical Technology Solutions from Jenoptik

The Healthcare & Industry unit of the Jena-based technology group will be showcasing its new medical technology solutions at booth 1323 at SPIE Photonics West this year from January 31 to February 2, 2017. Furthermore, Jenoptik will again support young entrepreneurs in the SPIE Startup Challenge.

New methods, technologies, and solutions that improve the prevention, diagnosis, and treatment of illnesses, but also ensure quality standards and processes, form the focus of efforts when developing medical technology. For this fast-growing market, Jenoptik will be unveiling powerful technologies and OEM systems for the development and production of the next generation of medical technology solutions at SPIE Photonics West. These include specifically for diagnostics and the analysis **light sources and optics** for beam shaping, **camera-based image processing systems**, and **sensors**, as well as **medical polymer components** such as disposables. As a partner to the medical technology industry, Jenoptik implements these solutions both in individual customer projects as well as in series production.

In addition to its own products and solutions, Jenoptik will again focus on young entrepreneurs' innovations in San Francisco. The Group continues the tradition of supporting the SPIE Startup Challenge, a competition of the international society for optics and photonics (SPIE), with expertise and cash prizes. At this event, young entrepreneurs from the field of optical technologies will present their business ideas and products to an expert jury including Jenoptik employee Marc Himel. The final round of the competition will take place in the Moscone Center on February 1st.

Jenoptik will be showcasing its medical technology and industrial solutions in the South Hall of the Moscone Center, booth 1323, at SPIE Photonics West in San Francisco, USA, from January 31 to February 2, 2017.

Powerful technology platform for the field of ophthalmology

Jenoptik has great technological expertise along the entire value-added chain in the field of ophthalmology and offers a variety of technology components for imaging during examinations as well as for corrective treatment in the field of laser-supported ophthalmology. Depending on the customer's requirements, these are brought together to form individual solutions or integrated into existing systems.

Examples include efficient laser beam sources such as the JenLas® *D2.mini*, scanner optics, medical disposables, optical and microoptical components, and highly sensitive camera technologies and modules with outstanding software capability.

Efficient beam sources for non-harmful aesthetic applications

In the fields of aesthetics and dermatology, Jenoptik will also be showcasing new solutions such as high-performance CW laser bars, which are used in medical devices but also used by consumers and professionals in epilation and to treat wrinkles, acne, and pain, as well as to remove pigmentation. This laser-based treatment is gentle and has been further improved with the new laser bars, which have an impressive beam quality and an extremely high electro-optical efficiency. This means that the solution is more efficient, but also ensures high performance and brilliance, as well as a long lifetime.

Medical technology applications aside, these beam sources are also used in laser material processing e.g. in the welding of plastics, or to provide additional wavelength when power scaling in direct diode systems.

For an overview and more information about these new semiconductor lasers, watch our presentation "Development of highly-efficient laser diodes emitting around 1060 nm", which we will be giving from 4:20 p. m. on January 30, 2017, during the SPIE LASE conference, as part of the SPIE Photonics West forum "High-Power Diode Laser Technology XV, Session 4: New Wavelength Devices", room 301, South Esplanade, at the Moscone Center in San Francisco, USA.

Permanent, High-Contrast Marking for Medical Technology

In medical technology, the unique identification and traceability of medical products form the basis of quality assurance. Accurate, permanent product marking is especially important in clinical operations and ensures traceability in line with Unique Device Identification Standards (UDI). Powerful ultra-short pulse lasers such as the JenLas® *pico 16* have proven themselves to be effective tools for these kinds of marking processes. Using "Black Marking" technology, permanent and

high-contrast marking such as serial numbers and bar codes are applied with great precision and reliability, on surgical instruments and implants, for example. This marking is highly resistant to corrosion, extremely hard-wearing and remains legible permanently, even after repeated sterilization processes.

Jenoptik will also be showcasing a modular plug-and-play concept for optical paths, supplementing these laser solutions, using a "Black Marking" module as the example. A galvo scanner for beam deflection aside, this also includes all the necessary optical components required to make the solution compatible with customer-specific applications. This solution incorporates an overall design with precision adjustment that ensures insulation against environmental influences such as dust, splash, and aerosols. In other words, Jenoptik is providing customers with a complete package of optical services that simplifies installation and service thanks to its plug-and-play principle.

More information is provided on the website www.jenoptik.com/photonics-west.
High-resolution pictures are available for download from the Jenoptik image database, Current Events/SPIE Photonics West.

Jena, January 17, 2017

About Jenoptik | Healthcare & Industry

As an integrated photonics company, Jenoptik is active in the three segments Optics & Life Science, Mobility and Defense & Civil Systems.

In the Healthcare & Industry unit Jenoptik develops specific system and application solutions for customers worldwide in the healthcare sector and industry. The focus is on medical technology and life science as well as laser, automotive and lighting applications. The product portfolio includes semiconductor chips, optoelectronics, laser technology, polymer optics, electronics and software. Jenoptik combines them to OEM system solutions and products for the life science industry, such as analysis and treatment systems for research, clinical applications, and patient self-diagnosis.

For industrial applications, Jenoptik offers high-performance optoelectronic components and modules as well as integrated solutions. They include complex components for head-up displays, innovative lenses for driver assistance systems and polymer optics for machine vision or augmented reality applications, the division also produces powerful, energy-efficient industrial LED lighting. In the area of industrial lasers for laser material processing, Jenoptik is active in the entire laser value creation chain.

Contact

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