



Press Release

TRUMPF presents the future of laser technology in Munich

Innovative beam guidance concepts revolutionize micromachining with ultrashort pulse lasers – New diode laser technology drastically cuts power consumption – High-energy laser amplifiers make electron movements at microscopic level visible

Ditzingen, May 16, 2017 – The high technology company TRUMPF will be presenting tomorrow's laser technology at the LASER – World of Photonics trade fair in Munich from June 26 to 29, 2017. Klaus Löffler, Managing Director and Head of Sales at TRUMPF Laser- und Systemtechnik GmbH, is extremely happy to announce that “for us, this will be a trade fair of superlatives. We can hardly wait for the show to begin. We want to show visitors to Munich our vision for the future of laser technology, including which technologies are becoming increasingly important, and the advantages for industrial and scientific applications.”

Revolution in ultrashort pulse lasers

A new beam guidance concept for ultrashort pulse lasers is taking center stage. In Munich, TRUMPF will present a technology study that has the potential to revolutionize laser material processing with ultrashort pulse lasers. At the moment, it is technologically impossible to simply send ultrashort laser pulses down a flexible glass fiber to the workpiece – the laser pulse is so intense that it destroys the glass fiber. However, TRUMPF has a new concept that gets around this problem and enables new ways to flexibly integrate lasers into machines and facilities. The company will explain and demonstrate how the concept works in more detail at LASER in Munich. “This is a real game-changer,” Löffler says. “Some 30 years ago, the first laser light cable suitable for industrial use proved the breakthrough for solid-state lasers; our new beam guidance concept promises to do the same for ultrashort pulse lasers today.” The first laser light cable suitable for industrial user was introduced by HAAS-LASER (now TRUMPF Laser) in Schramberg.



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For industry and science

New diode laser technology is another innovative highlight. With it, TRUMPF is laying the foundations for “green production” in industrial manufacturing. In Munich, the laser pioneer will present a diode laser that is not only suitable for conventional applications such as soldering, hardening and laser deposition welding, but can also handle industrial applications that require significantly higher beam quality. A clear advantage of diode laser technology is its high efficiency, which makes diode lasers extremely energy efficient.

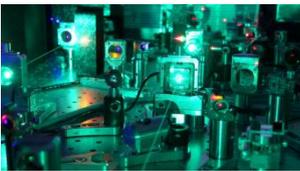
The TRUMPF Dira product range, specially designed for applications in the research sector, will also be on display in Munich. These laser amplifiers deliver high-energy picosecond pulses combined with high repetition rates; for instance, to pump optical parametric amplifiers. Amplifiers like these open up the possibility of generating femtosecond pulses with just a few oscillations of the electric field, generally referred to as “few-cycle pulses.” These can then be used by scientists to produce attosecond pulses with which to investigate the highly dynamic movements of electrons at the molecular level. This gives scientists working on basic research new knowledge that they can apply in medicine, biology and chemistry.

From the future to the present

In addition to these pioneering technologies, TRUMPF will present visitors to the trade fair in Munich on his 600 square meters booth numerous world premieres and innovations that are either already in use in production facilities or about to be launched on the market. The second TruDisk model from the new disk laser generation that was introduced only a few weeks ago will have its world premiere, as will a completely new range of marker laser products. Once again TruConnect, the TRUMPF technology for connected manufacturing and Industry 4.0, will also be very much in evidence. The focus here will be on condition-based services for future condition and trend analyses in connected laser networks.

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Future technologies

TRUMPF will be presenting its innovative technologies for tomorrow's laser processing in Munich.



Dira 200-1

The Dira 200-1 is a laser amplifier for basic research. It can be used as a pump laser for optical parametric amplifiers, which in turn are used to generate pulses in the attosecond range.



Disk laser

The second TruDisk model from the new disk laser generation that was introduced only a few weeks ago will have its world premiere.



About TRUMPF

The high-technology company TRUMPF offers production solutions in the machine tool, laser and electronics sectors. We are driving digital connectivity in manufacturing industry through consulting, platform and software offers. TRUMPF is the world technological and market leader for machine tools used in flexible sheet metal processing, and also for industrial lasers.

In 2015/16 the company – which has more than 11,000 employees – achieved sales of 2.81 billion euros. With over 70 subsidiaries, the TRUMPF Group is represented in nearly all the countries of Europe, North and South America, and Asia. It has production facilities in Germany, France, Great Britain, Italy, Austria, Switzerland, Poland, the Czech Republic, the USA, Mexico, China and Japan.

For more information about TRUMPF go to www.trumpf.com



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