



## Press Release

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# Jenoptik's Lasers & Material Processing division at LASER 2009: new developments in diode lasers, laser systems and laser material processing machines

At the LASER World of Photonics from June 15 – 18 in Munich, Jenoptik's Lasers & Material Processing division will present worthwhile new developments as well as the entire added value chain in laser material processing - beginning with semiconductor material over to laser beam sources and laser systems up to system and automation technology for complex laser machines - in Hall C2 at Stand 311.

## Highly brilliant single-emitter fiber coupling

The new fiber-coupled diode laser with single emitters will be the highlight of the trade show for the Diode Laser business unit.

The module achieves an optical output power of 50 watts in continuous mode from a 105  $\mu\text{m}$  fiber with a numeric aperture of 0.15. The diode laser is conductively (passively) cooled, thus making the handling for the user extremely easy.

Due to the high beam quality, single-emitter fiber coupling serves especially as pumping source for fiber lasers. Further features of the newly developed product are the two meters long, cleaved fiberglass and the integrated filter against reflection. This diode laser module not only shines through its high brilliancy, but also through its high efficiency and small design.



## Image

Newly developed product JOLD-50-FC-11 from Jenoptik

## Expansion of the product range of the new JenLas<sup>®</sup> *fiber* OEM series

With the new JenLas<sup>®</sup> *fiber* OEM series, Jenoptik has taken another significant step towards becoming an attractive full-range supplier of laser equipment for the industry and extends the range of robust high power models for laser material processing applications.

The new JenLas<sup>®</sup> *fiber* OEM series offers ns- or cw-fiber lasers for a wide range of applications of laser material processing.

## Air-cooled nanosecond fiber lasers JenLas<sup>®</sup> *fiber ns 10-30 Watt* in basic & advanced version

The JenLas<sup>®</sup> *fiber ns 10-30 Watt* are air-cooled fiber lasers with an adjustable pulse length of 9 to 200 ns. Besides marking and labelling, they are excellently suited to perform a variety of cutting, drilling and structuring jobs. Depending on the product model, peak pulse power of up to 15 kW can be achieved.

The JenLas<sup>®</sup> *fiber ns 10-30 Watt* are available in basic versions and advanced versions, each version representing a particular performance class. The basic systems with 10 or 20 Watt power provide a modulation range from 1 to 100 kHz and fixed pulse lengths. The basic systems are hardware controlled.

The advanced systems with 12, 20 and 30 Watt power offer extended control capabilities and an enhanced range of performance. In addition, they facilitate cw-operation and pulse repetition rates of up to 500 kHz with flexible pulse lengths adjustment.

Each ns-laser type includes a beam delivery fiber with optical isolator. Jenoptik also offers a comprehensive set of accessories such as air cooling heat sink, laser controller or beam expander.



Image

JenLas® *fiber ns* 10-30 Watt from Jenoptik

## Expansion of the activities of the photovoltaic industry through the new JENOPTIK-VOTAN™ Solas 1800 laser material processing system

With the development of the JENOPTIK-VOTAN™ Solas 1800 Jenoptik is expanding its activities in the photovoltaic market, combining laser technology know-how in all aspects of the JenLas® *disk IR50* disk laser with complex system technology. Based on its expertise along the entire added value chain—from laser process through to finished production facility for a wide range of laser material processing tasks—the Jenoptik Lasers & Material Processing division developed a laser processing machine for drilling minute through holes in wafers for solar cells. The JENOPTIK-VOTAN™ Solas1800 will be offered in two versions, a stand-alone system for the development of new products and processes and a technology module for integration into the existing in-line production system.

These as well as other new developments will be presented at the LASER World of Photonics in Munich from June 15 - 18 at the Jenoptik booth 311 in Hall C2.



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## Jenoptik's Lasers & Material Processing division

Jenoptik's Lasers & Material Processing division makes it one of the leading providers of laser technology – from component through to complete system. The increased productivity from which our customers benefit is the key factor in the use of Jenoptik laser technology.

In the area of laser technology, the division has specialized in high-quality semiconductor materials and reliable diode lasers as well as innovative solid-state lasers such as for example disk and fiber lasers. In the area of high-power diode lasers Jenoptik is acknowledged worldwide as a leader in quality.

Lasers are developed as components and system for our customers' applications and integrated into material processing systems through the development in close collaboration with the customer as well as optimization and automation of the processes. These systems enable our customers to work with plastics, metals, glass, ceramics, semiconductor materials and solar cells, both in thin film as well as wafer technology, with maximum efficiency, precision and safety. As such, Jenoptik has control over the entire added value chain for laser material processing in the form of development, manufacture and sales and is a reliable global partner for the customer.

The division comprises the two diode laser companies JENOPTIK Diode Lab GmbH and JENOPTIK Laserdiode GmbH, the Laser Systems business unit of JENOPTIK Laser, Optik, Systeme GmbH as well as JENOPTIK Innovavent GmbH and JENOPTIK Automatisierungstechnik GmbH.

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