# World Premiere of Super High Power Fiber Laser at Opening of

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Bremen, Germany (April 11, 2005)

IPG Laser GmbH announced at the opening of the Test Center for Aluminum Alloy Welding (Centr-Al) at BIAS GmbH in Bremen, Germany on March 17, that IPG Laser installed the world's first 17 kilowatt fiber laser. The Test Center will use the YLR-17000 fiber laser for deep penetration and high speed welding of different materials for pipeline, aircraft, aerospace, transportation, shipbuilding and automotive applications.

The 17 kilowatt fiber laser has a beam parameter product of 11 mm x mrad delivered through a 30 meter fiber with a diameter of 200 µm. In over 200 continuous hours of operation, the fiber and welding head for this new class of fiber laser showed very low losses. As with IPG's other monolithic solid state lasers, all of the other components of the YLR-17000 are proving to be robust in trials. BIAS will support its industrial partners in process development using the higher power levels of the fiber laser.

Prof. Vollertsen, Director of BIAS (left) and Dr. Shcherbakov, Managing Director IPG in front of the 17000 Watt fiber laser.

"Fiber delivery of 17 kilowatt of laser output power out of a transportable laser power source makes many new applications possible in many industries" stated Prof. Frank Vollertsen, Director of BIAS GmbH. He added "the cost of laser ownership will be reduced dramatically because his laser has wall plug-efficiency of approximately 30%, a dramatic improvement over other lasers."

"BIAS has a long list of interested industrial customers for this super high power laser due to its output power, beam quality, compact design and small footprint" stated Dr.-Ing. Matthias Schilf head of the Centr-Al. "BIAS will support them in the technological development with its great knowledge of joining metals."

"With fiber laser technology, power is not a limit" stated Dr. Eugene Shcherbakov who attended the opening of Centr-Al. "IPG can make much more powerful systems and we are actually working with customers on higher power systems."

**About IPG Photonics**

IPG Photonics has been a global leader for over thirteen years in the design and manufacture of high performance fiber lasers, fiber amplifiers, and Raman pump lasers for materials processing, aerospace, test and measurement, and other commercial applications.

IPG's proprietary technology, materials science expertise and vertically integrated manufacturing operations enable IPG to produce the world's largest range of cost-effective high and low power fiber lasers, and amplifiers with superior efficiency, performance, reliability and quality.

IPG Photonics has its world headquarters in Oxford, Massachusetts and manufacturing facilities and sales operations in Massachusetts, Germany, Russia, Italy, Japan, India, Korea and the United Kingdom. For more information, visit http://www.ipgphotonics.com/. IPGP-G

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