

JPSA announces distribution agreement for NCLR 'Super Laser' Sirius 1000

J P Sercel Associates (JPSA) announces a distribution agreement with the Nederlands Centrum voor Laser Research (NCLR) to distribute and service a radically new type of UV excimer laser (XeCl) that has recently become available.

The Sirius 1000 "Super Laser" was developed by the NCLR, and is a powerful laser well suited to drilling clean, precise holes in metals and other hard and difficult materials. Operating at 1000 Watts average power, which is one Joule per pulse at 1 KHz (1000 pulses per second), the laser offers high beam quality, focusability and sustainable, high UV power.

In making the announcement, Jeffrey P. Sercel, President of JPSA, said "This is the highest average power UV excimer laser available for production use. Due to its stable discharge and long 200ns pulse, it has diffraction limited beam divergence it is very high brightness and is highly focusable. This means that extremely small and precisely defined features can be micromachined in a wide range of materials of greater thickness, and with better aspect ratios and at higher speeds than previously possible."

This laser is a 1kW XeCl gas discharge laser that features a 1kHz repetition rate, and operates via x-ray pre-ionization and pre-pulse-main pulse excitation with fast magnetic switching, among other advanced features. NCLR is working with Pratt & Whitney to develop aeroengine applications for their Sirius 1000 laser as part of the Joint Strike Fighter development program.

"It is now possible to drill holes, such as straight hole drilled into 5mm thick Kevlar® or carbon fiber, with no heating, melting, or cracking" Sercel says. "High average power yields higher throughput; using UV energy means higher coupling efficiency, a smaller spot size, and thus less material removal, resulting in higher process efficiency."

For more information, visit www.jpsalaser.com, or contact the company at 220 Hackett Hill Road, Manchester, NH 03102 USA, Tel. 603.595.7048, fax 603.598.3835.

