

Press Release

Remove, Clean and Insulate with Lasers: ROFIN-SINAR Launches a New Series of Solid State Lasers

Q-Switch Solid State Lasers (DQ series) Offer New Applications and Open Up New Markets

Hamburg, April 2007 – ROFIN-SINAR Laser GmbH in Hamburg has extended its product range by establishing a new high power DQ series.

Based on the successful diode pumped Nd:YAG lasers, Rofin has developed the new DQ series that is well suited for diverse applications such as removal, cleaning, and insulation of various materials in different markets. The Q-switched lasers, available as **Standard, Premium** and **Premium⁺**, differ in power, pulse energy and equipment.

"We are proud to add the DQ lasers as a new series to our product range of solid state lasers. Besides our lasers for classical applications like welding, cutting and hardening, we now offer our customers prime products for surface removal and cleaning." says Thorsten Frauenpreiß, the Managing Director of Rofin-Sinar Laser GmbH Hamburg. "The first orders have already been received, and we are happy that ThyssenKrupp Tailored Blanks' decided in favor of our new development."

Jörg Maas, Key Account Manager of ThyssenKrupp Tailored Blanks GmbH in Duisburg, Germany, comments as follows:"We use an aluminum-silicon-coating as protection against scaling and corrosion for our new generation of Tailored Blanks made of the high strength steels. This coating needs to be removed at the joint to create a quality laser welded seam. Ample trials and tests with the DQ-series have shown that we have found our technical and economic optimum. As a result we opted for these Q- Switch lasers of ROFIN."

This new technology offers varied opportunities: the removal of any metallic coating of Tailored Blanks, the insulation of solar cell edges, the machining of flat screens or activating surfaces. To meet the high demands of the industry for each laser assembly there is not only the "**single**" option with one cavity, but also the "**double**" option, with up to two cavities in one housing. This arrangement saves separated utilities, doubles the capacities and facilitates integration into existing equipment. The separate activation of the cavities makes independent operation of two beam sources in the same housing possible.

The designs Premium and Premium+ include an optical attenuator that supports precise and stable parameter adjustment. This ensures best results even for sensitive applications like the selective removal of different thicknesses. The initial pulse rejection is also standard for all products of this series and provides a constant pulse energy. Variable turn on time prevents uncontrolled pulse spikes, thus, reliable production processes can be set up and replicated easily.

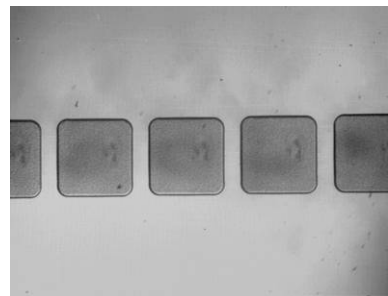
The beam is carried safely and flexibly to the application point by fiber optics of 600 µm (Standard and Premium) and 800 µm (Premium+). A new **square fiber** provides the highest efficiency for surface treatment applications. Compared with a round fiber, a square fiber can handle up to 51 % larger surfaces per pulse. Due to the square geometry large areas are processed more efficient when overlapped.

The new DQ series will be presented for the first time at the LASER fair in Munich from June 18th – 21st 2007. We are looking forward to meeting you at our booth in the exhibition hall B3, stand B3.430.

Please find further information about our company and high resolution pictures at our website www.rofin.com/pictures.php.



Picture 1: Ablation with a round 600 µm fiber = 0,283 mm²



Picture 2: Ablation with a square 600 µm fiber = 0,360 mm²

3,344 characters (with space characters)

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