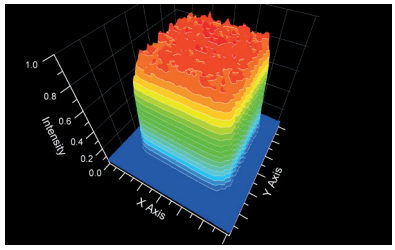
ROFIN DQ SERIES

DIODE-PUMPED SOLID-STATE LASERS
HIGHEST POWER BY Q-SWITCHING

ROFIN DQ SERIES

THE PRODUCT

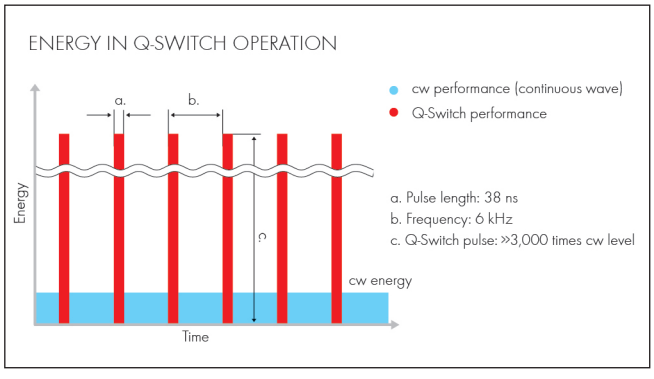
Ablation, cleaning, isolation – the Q-switched lasers from ROFIN are the ideal tools for these and other surface applications. The DQ series – based on the tried and tested diode-pumped Nd:YAG lasers – is available in models ranging from 500 W to 1 kW for various industrial requirements. The special principle of Q-switching allows peak pulse power of up to 4 MW when using 1 kW output power.

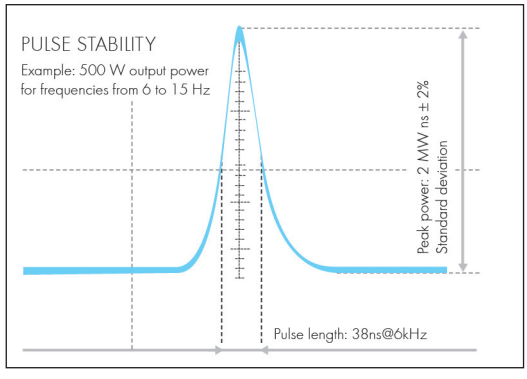


Square beam profile is used for highest ablation rates required

THE PRINCIPLE

The diode-pumped solid-state lasers of the DQ Series are pulsed by Q-switching – the so-called Q-switch operation. Here, the laser resonator is optically detuned with the aid of an active element (Q-switching), thus preventing oscillation of the laser. The pump energy continuously generated by the laser diode is stored in the laser-active crystal. If the optical detuning is disabled, thereby enabling a high quality of the resonator, the stored energy is emitted at a very short pulse (approx. 38 ns at 6 kHz).





THE BENEFIT

- Ideal for removing metallic coatings, edge isolating solar cells, editing flat panel displays, activating and cleaning surface through to the removal of paint and dyes
- Optical attenuator supports particularly fine parameter settings and optimizes, for example, the selective removal of layers
- Square fiber ensures maximum efficiency and provides equal treatment through constant overlap
- The combination of short pulses with simultaneously high energy results in low thermal stress and therefore optimal working results
- Stable production processes by first pulse suppression, high pulse-to-pulse stability and calibration

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