

## Elite

*The new standard in high energy nanosecond lasers*

Elite is the ideal solution for demanding applications such as PW-class amplifier pumping and Shock experiments.

*Reliability & ease of use with best-in-class performance: Each & every shot*

- > Highest spatial & temporal beam quality for best conversion efficiency and long lasting performance.
- > Unique pre-shot control for reliable and repeatable pulses – avoid downstream damage, increase uptime & focus on your experiment.
- > Low energy operation mode integrated for fast & easy alignment of your experimental set-up.
- > Latest generation computer control with embedded diagnostics offers you accurate & remote shot-to-shot operation.
- > Compact, flexible and easy to integrate with low cost of ownership.

*Elite is your modern & ergonomic laser delivering state-of-the-art performance in the smallest footprint per Joule.*



### Applications

- > Pumping of PW-class laser systems
- > Laser Dynamic Shock Compression
- > LIDT metrology (IR, green)
- > High energy frontier science

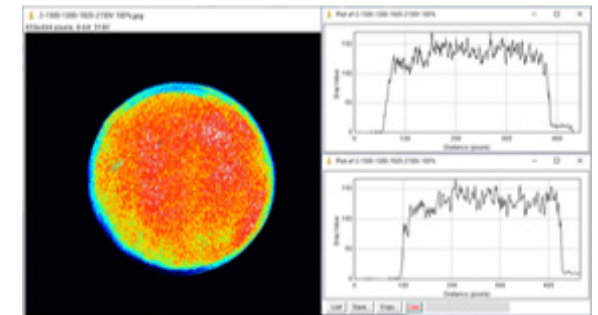
### Key Features

- > Up to 100J at 1053 nm & 75J at 527 nm
- > Superior Top-Hat beam quality
- > Single or multiple beams for pumping applications
- > Online & real time diagnostics, embedded attenuator
- > Pre-shot flashlamps readiness control
- > Extensive & accurate pulse shaping – optional.

# Specifications

	Elite	Elite HE
Repetition Rate	Up to 0.1 Hz	Up to 0.017 Hz
Wavelength	1053 nm / 527 nm	
Pulse Energy	44J @ 1053 nm (2 pulses) 35 J @ 527 nm (2 pulses)	100 J @ 1053 nm (in 1 pulse) 75 J @ 527 nm (in 1 pulse)
Energy Stability	≤1.2 % RMS @ 1053 nm / ≤1.5 % RMS @ 527 nm	
Energy Drift	≤ 3 % over 8 hours	
Beam Profile	Round, Top-Hat	
Number of Beams	1 or 2 on demand	1
Beam(s) Diameter	~ 22 mm	~ 45 mm
Divergence	≤ 2 mrad	≤ 1 mrad
Pulsewidth	2 pulses of ~ 12 ns FWHM	~ 15 ns FWHM
Timing Jitter	≤ 0.6 ns RMS	
Polarization	Linear	
Pointing Stability	≤ 20 μrad RMS	
Laser Head L x W	2500 x 950 mm	
Cabinet #1 H x L x W	192 x 56 x 80 cm	214 x 56 x 80 cm
Cabinet* #2 H x L x W	90 x 56 x 80 cm	172 x 56 x 80 cm
Electrical Power	4 kW max	
Electrical Plugs	single phase - 50 / 60Hz	
Voltage	190 V-250 V	
Water Flow	≤15 l / min	
Water Pressure	3 - 5 bars max	
Water Temperature	10 - 20 °C	

\* Cooling unit included



Typical beam profile of Elite HE at 527 nm



Intermediate and final amplifiers

