

## 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

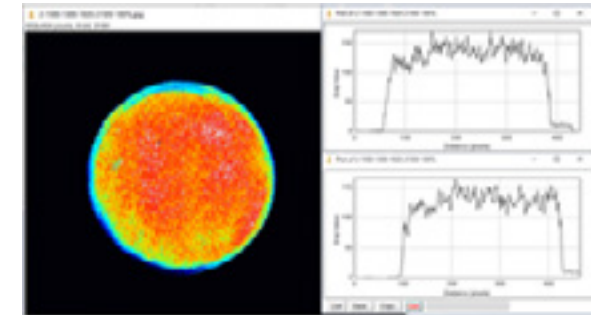
### Key Features

- > Up to 140J at 1053 nm & 100J 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.

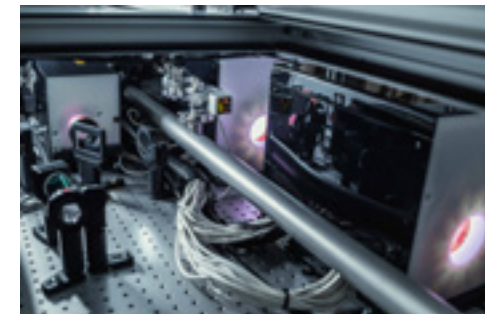
# Specifications

## Elite

	Single	Twin	HE	HE+
Repetition Rate	Up to 0.1Hz		Up to 0.017Hz	
Wavelength	1053nm / 527nm			
Pulse Energy	22J @ 1053nm 17.5J @ 527nm	44J @ 1053nm 35J @ 527nm	100J @ 1053nm 75J @ 527nm	140J @ 1053nm 100J @ 527nm
Energy Stability	≤1.2% RMS @ 1053nm / ≤1.5% RMS @ 527nm			
Energy Drift	≤ 3 % over 8 hours			
Beam Profile	Round, Top-Hat			
Beam(s) Diameter	~ 22 mm		~ 45 mm	
Divergence	≤ 2mrad		≤ 1mrad	
Pulsewidth	~ 12 ns FWHM	2 pulses of ~ 12 ns FWHM	~ 15 ns FWHM	~ 25 ns FWHM
Timing Jitter	≤ 0.6ns 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			



Typical beam profile of Elite HE at 527 nm



Intermediate and final amplifiers

