

Innovation, Performance & Best Value

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

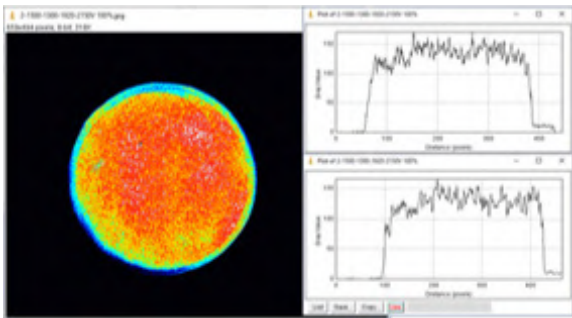
- > Pumping of PW-class laser systems
- > Laser Dynamic Shock Compression
- > LIDT metrology (IR, green)
- > High energy frontier science

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

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

