



Lux 4500/8500

ND:YAG LASER



The Lux Nd:YAG laser is a high energy, turn-key ND:YAG that generates up to 850 mJ at 10 Hz. Beam quality is close to TEM00 with an M^2 value less than two. The laser is constructed from industrial grade stabilized aluminum and includes a compact power supply unit with integrated water-to-air cooling.

SYSTEM FEATURES

- Flashlamp based with minimal maintenance
- End-user replaceable flashlamp and DI cartridge
- Reusable and cleanable particle filter
- Flashlamp and/or Q-Switch external triggering
- Touch screen remote control
- Computer controlled via USB
- End-user installable
- Temperature controlled, motorized Harmonics (optional)

APPLICATIONS

- Light Detection and Ranging (LIDAR)
- Ti:Sa / OPO / Dye Lasers Pumping
- Laser Induced Breakdown Spectroscopy (LIBS)
- Laser Induced Damage Threshold (LIDT)
- Laser Induced Fluorescence (LIF)
- *Any application requiring high energy, pulsed laser light from a nanosecond Nd:YAG laser*

OPTIONS

- Motorized Variable Attenuator (MVA)
- Second Harmonic Generator (SHG)
- Third Harmonic Generation (THG)
- Fourth Harmonic Generator (FHG)
- Fifth Harmonic Generate (FIHG)

SPECIFICATIONS	Lux 4500	Lux 8500
Fundamental 1064 nm Energy (mJ)	450	850
532 nm	230	430
355 nm	90	210
266 nm	50	100
213 nm	10	20
Repetition Rate (Hz)	10	
Pulse Duration (ns)¹	10	
Pulse to Pulse Stability (%)²	2	
Near Field Beam Diameter (mm)³	6.5	9
Beam Divergence (mrad)⁴	< 0.5	
Polarization	Horizontal	
Jitter (ns)⁵	± 1.0	
Beam Profile⁶	Near-TEM00	
Pointing Stability (μrad)	± 40	

¹ FWHM

² RMS @ 1064 nm, 99% of shots

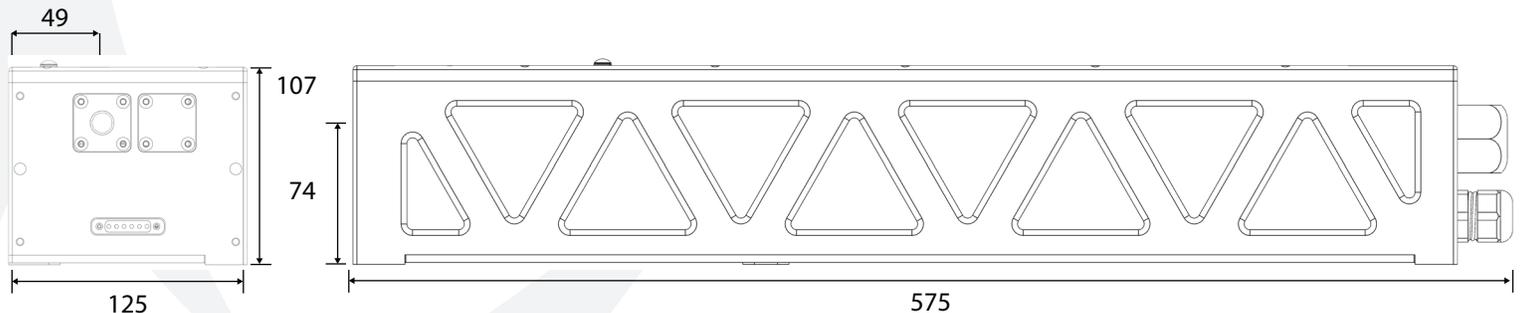
³ At output port

⁴ Full angle for 86% of energy

⁵ With respect to ext. trigger

⁶ Gaussian fit >70% in near field, >90% in far field

LUX 4500/8500 LASERHEAD (11.5 Kg)



POWER SUPPLY (22.0 Kg)

- 459 x 462 x 281 (L x W x H)
- Integrated air-water heat exchanger
- Distilled water coolant
- 64-82°F / 18-28 °C ambient operating environment
- 100-240 VAC, 50/60 Hz, single phase 1300 VA
- Remote control included

OPOTEK LLC is certified to ISO 9001:2015. VERSION 1.00

Specifications represent nominal values.

Dimensions approximate in millimeters.

Due to ongoing product improvements, all specifications are subject to change without notice.

Designed and manufactured in California, USA

