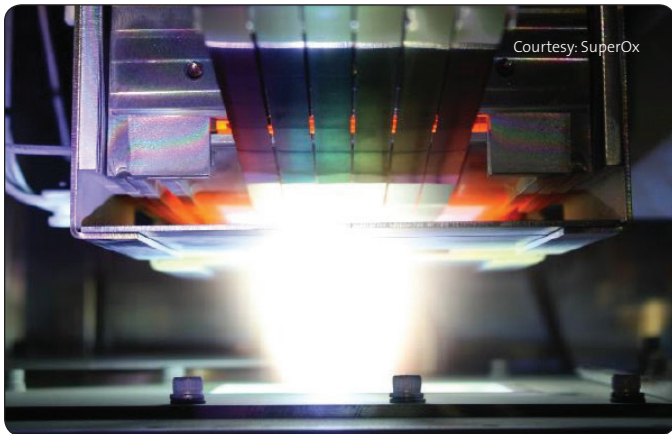


# LEAP Series

High Duty Cycle Excimer Lasers

## High Energy, High Precision Processing

LEAP is a series of high duty-cycle excimer lasers, offered at wavelengths 248 nm and 308 nm, with output powers as high as 150W. The beam quality, high stabilized pulse energy of up to 1 Joule, short pulse length and high peak power of LEAP lasers combine to optimize UV manufacturing applications. These characteristics, plus their reliability and economy, make LEAP lasers suitable for a wide range of demanding, high-precision processing tasks. These include micro drilling and structuring, laser direct patterning (LDP), and surface treatment.



**Superior Reliability & Performance**

## LEAP Features:

- High UV Power
- Up to 1J at 150 Hz
- Lowest costs per Watt UV
- Purged beam path
- Ethernet and USB interfaces (150W version)

## LEAP Options:

- ExiScope laser data analysis
- Unstable Resonator

## LEAP Applications:

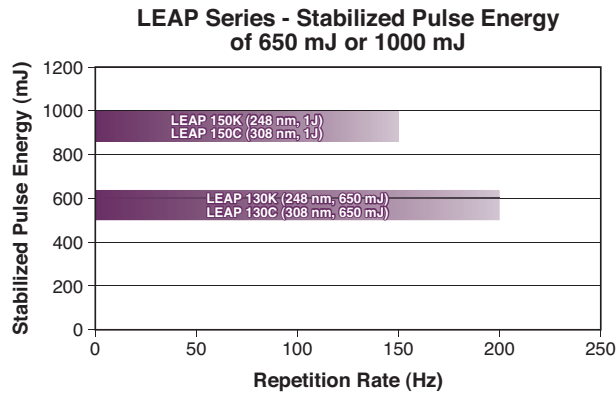
- Pulsed Laser Deposition (PLD)
- Laser Direct Patterning (LDP)
- Micro Structuring
- Laser Lift-Off (LLO)

# LEAP Series

## High Duty Cycle Excimer Lasers

System Specifications	LEAP 130K	LEAP 130C	LEAP 150K	LEAP 150C
Wavelength (nm)	248	308	248	308
Stabilized Energy Range (mJ)	550 to 650	550 to 650	900 to 1000	900 to 1000
Max. Stabilized Average Power (W)	130	130	150	150
Max. Repetition Rate (Hz)	200	200	150	150
Energy Stability (1 sigma)	≤1.2	≤1.5	≤2	≤1.5
Pulse Duration (FWHM, typ.)(ns)	29 ±5	22 ±5	32 ±5	27 ±5
Beam Dimensions (V x H, FWHM, typ.)(mm <sup>2</sup> )	32 ±3.5 x 13 ±4	33 ±3.5 x 13 ±4	32 ±3.5 x 13 ±4	33 ±3.5 x 13 ±4
Divergence (V x H, FWHM, typ.)(mrad <sup>2</sup> )	≤4.5 x ≤1.5	≤4.5 x ≤1.5	≤4.5 x ≤1.5	≤4.5 x ≤1.5
Dynamic Gas Lifetime (at max. stabilized energy)(mio. pulses)	30	30	30	30
Electrical (kVA)	8.6, 3-phase, 200/208 or 400 VAC, 50/60 Hz			
Water Cooling	20 l/min.; T = 19 to 21°C			
Weight	860 kg (1896 lbs.)			
Cabinet Size (L x W x H)	2415 x 800 x 1090 ±10 mm <sup>3</sup> (95.1 x 31.4 x 42.9 ±0.4 in. <sup>3</sup> )			

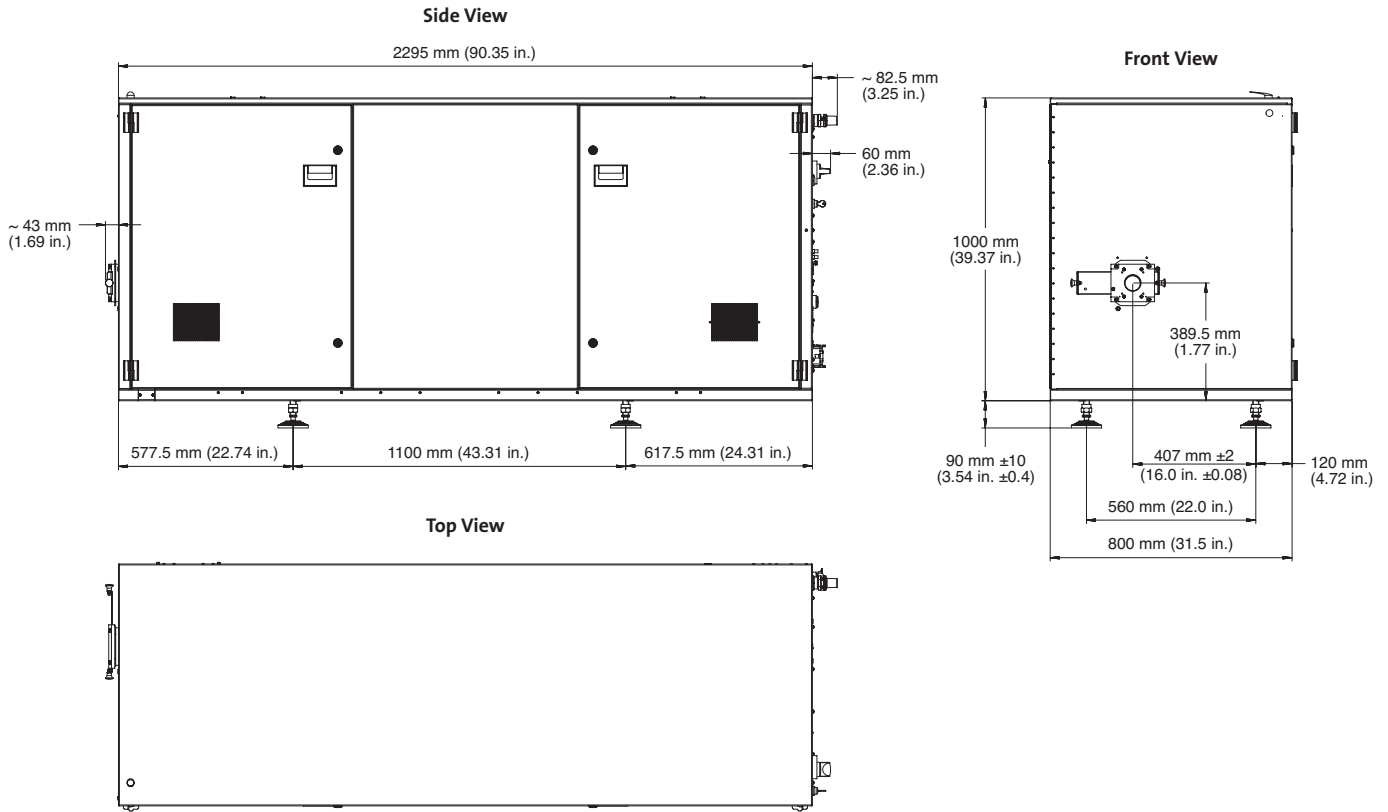
### LEAP Excimer Laser Operation Range



# LEAP Series

## High Duty Cycle Excimer Lasers

### Mechanical Specifications



**COHERENT®**

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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all LEAP Series lasers. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative.

