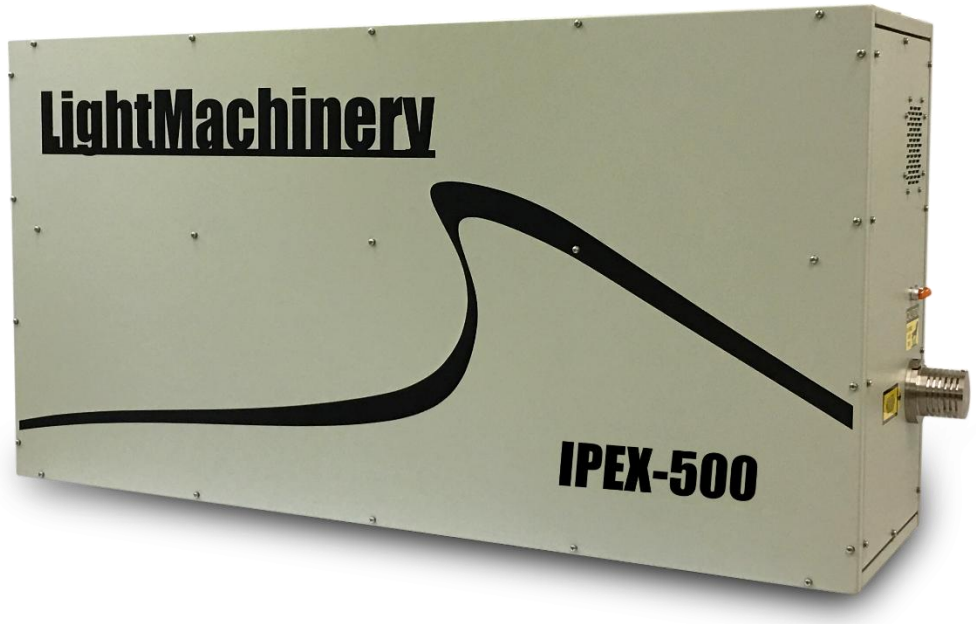
LightMachinery
Enabling Science and Industry



IPEX-500

- Medium-power excimer lasers designed primarily for R&D and Scientific applications (including Pulsed Laser Deposition), based on LightMachinery's well-proven IPEX-700 Series industrial excimer lasers
- With exciPure™ technology for extended gas lifetimes and lowest cost of operation
- Simple, direct control from a PC-based user interface
- User-convenient features with air-cooled models to 25 Hz, single-phase electrical power, small footprint, single-sided service access, EasyClean-2 optics seals to retain gas fill and reduce downtime during optics maintenance
- Excellent beam uniformity, pulse-to-pulse energy stability
- High-stability optics mounts for ultimate beam pointing accuracy & optional high- brightness optics for applications requiring low beam divergence and extended coherence

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IPEX™-540 / 560 Series Excimer Lasers for Scientific and R&D Applications

IPEX-500 Series lasers are designed for medium-power applications primarily in the scientific research community. They deliver dependable performance at budget-friendly cost.

exciPure™ technology combines improved materials, a new dual-stage filter that removes both particulate and gaseous contaminants, and an improved stabilization algorithm.

EasyClean-2 valves fitted to the optics ports allow the laser chamber to be sealed and the gas fill to be retained while resonator optics are removed for cleaning and maintenance. This feature significantly reduces operating costs by preventing de-passivation of the laser chamber and avoids any safety hazard of residual halogen gas being vented to the workplace.

Simple to use

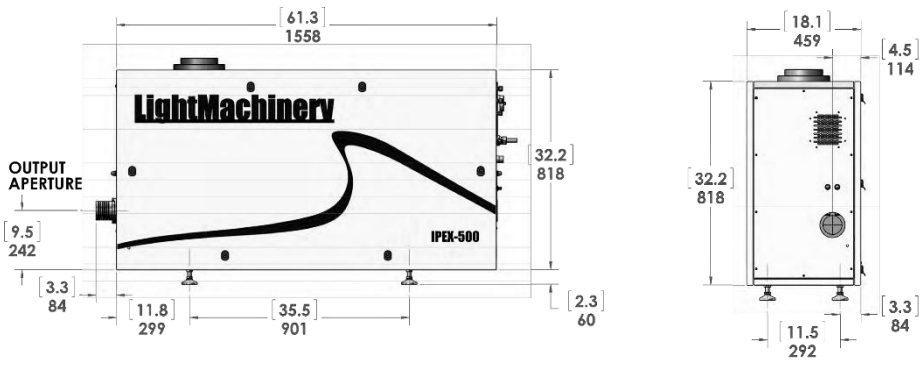
- PC based operator interface
- Optional air-cooled models for operation to 25 Hz
- Premix or individual gas cylinders
- Single phase electrical power
- Integral oil-free vacuum pump
- Single-sided service access and economical to operate

IPEX-500 lasers pair uncompromising performance and industry-leading uptime with the lowest total cost of ownership. An investment that lets you stretch your science – not your budget.

Facilities

Electrical Power Single-phase, 200 – 240 V 50 / 60 Hz **Laser Gas** Premix or individual gas cylinders Consult LightMachinery for details	**Cooling** Water cooling is the default option, with air-cooled models available for up to 25 Hz repetition rates **Weight (net)** 295 kg / 650 lbs.

Dimensions



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	Series	ArF	KrF	XeCl	XeF
Wavelength (nm)		193	248	308	351
Maximum Pulse Energy (mJ) at low repetition rates	IPEX-540	230	475	300	275
	IPEX-560	250	700	600	350
Stabilised Pulse Energy (mJ) at maximum repetition rates	IPEX-540	150	400	250	225
	IPEX-560	200	600	500	300
Stabilised Average Power (W)	IPEX-546	15	40	25	22
	IPEX-544	7.5	20	12	11
	IPEX-542	3.7	10	6.0	5.5
	IPEX-566	10	30	25	15
	IPEX-564	6.0	18	10	9.0
	IPEX-562	3.0	9.0	5.0	4.5
Maximum Repetition Rate (pps)	IPEX-546	100	100	100	100
	IPEX-544	50	50	50	50
	IPEX-542	25	25	25	25
	IPEX-566	50	50	50	50
	IPEX-564	30	30	20	30
	IPEX-562	15	15	10	15
Pulse duration (ns) FWHM				12-20	
Energy Stability, 1 sigma (%) (KrF)				1	
Beam Dimensions (mm) (V x H) (nominal)	IPEX-540			12x26	
	IPEX-560			12x28	
Beam Divergence (mrad) (V x H) (nominal)*	IPEX-540			1 x 3	
	IPEX-560			1 x 3	

*With standard resonator optics. Can be reduced to ~250 µrad with High Brightness Unstable Resonator Optics
Specifications are subject to change. Please consult LightMachinery for latest information

For further technical and sales information, please visit our website or contact:

LightMachinery Inc.
80 Colonnade Road
Ottawa, Ontario, Canada, K2E 7L2

lasers@lightmachinery.com
(613) 749-4895

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