

# IndyStar

## Fast Pulse, High Precision Processing

IndyStar is a rugged high-duty cycle excimer laser designed for fast pulse frequency applications as high as 2000 Hz. Based on proven ALMETA tube technology, the Semi-S2 certified IndyStar operates over many billion pulses at ultra-short 193 nm and 248 nm wavelengths. The IndyStar series is engineered to meet the highest demands in every aspect of an industrial laser.



### FEATURES

- Repetition rate of 1 and 2 kHz for fast processing
- TimeLok and PowerLok functionalities for ultimate pulse control
- ALMETA tube design to ensure most efficient processing
- Semi-S2 compliance and premix gas supply to facilitate production floor integrations

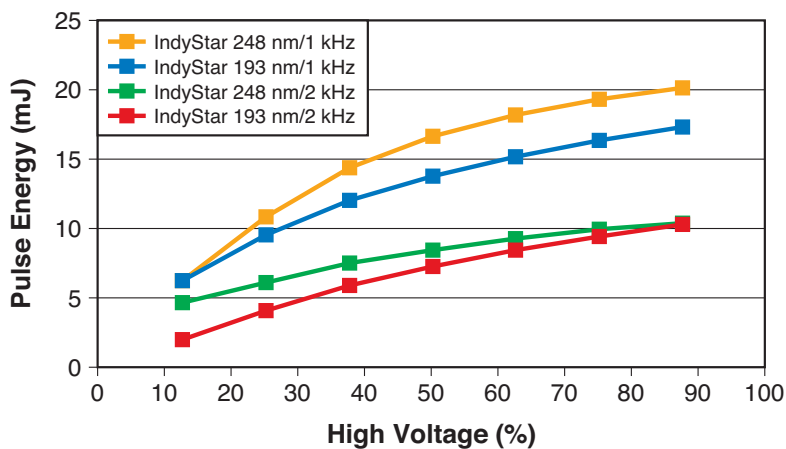
### APPLICATIONS

- Photomask Inspection
- Inkjet Nozzle Drilling
- Optics Testing

Specifications	193 1 kHz	193 2 kHz	248 1 kHz	248 2 kHz
Wavelength (nm)	193	193	248	248
Nominal Pulse Energy (mJ)	8	4	12	6
Nominal Pulse Power (W)	8	8	12	12
Maximum Pulse Energy (mJ)	12	8	16	8
Energy Stability (sigma, %)	<2	<2	<2	<2
Maximum Repetition Rate (Hz)	1000	2000	1000	2000
Beam Dimension (FWHM, mm, V x H)	(5.7 ±0.5) x (2.5 ±0.5)	(5.5 ±0.5) x (2.3 ±0.5)	(5.7 ±0.5) x (2.7 ±0.5)	(5.9 ±0.5) x (2.7 ±0.5)
Beam Divergence (FWHM, mrad, V x H)	(2.25 ±0.5) x (1.0 ±0.5)	(2.75 ±0.5) x (1.0 ±0.5)	(2.4 ±0.5) x (1.6 ±0.5)	(3.4 ±0.7) x (1.7 ±0.5)
Pulse Duration (FWHM, ns)	5 ±2	4 ±1	6 ±2	4 ±1
Cooling	Air/Water	Water	Air/Water	Water
Weight	135 kg (297 lbs.)			
Laser Dimensions	996.5 x 381 x 828 mm (39.2 x 15 x 32.6 in.)			
Electrical	230 V (1-phase) / 208 V (2-phase), 50/60 Hz, 2100 VA			

Typical Performance Data

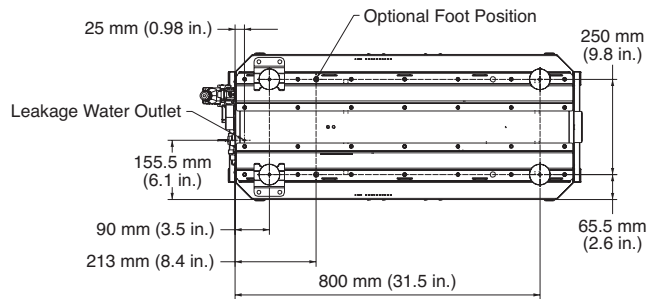
IndyStar Series Energy Performance



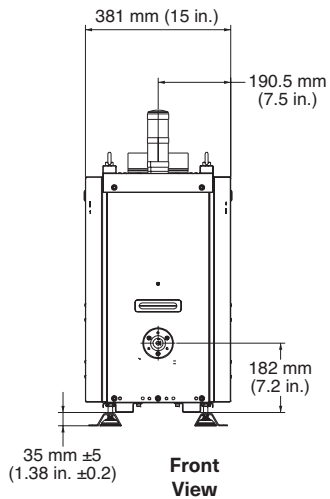
**Mechanical Specifications**

IndyStar

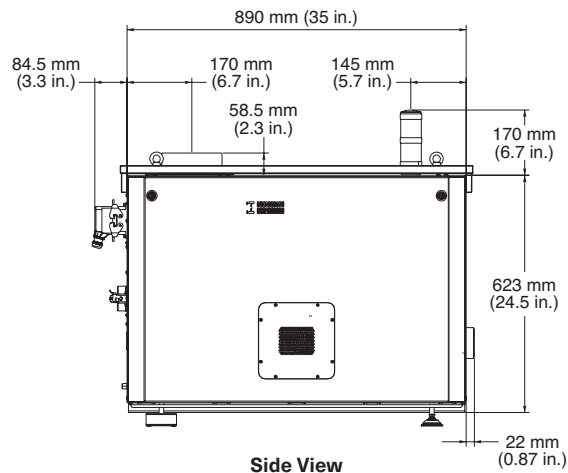
**Top View**



**Front View**



**Side View**



**Rear View**

